

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

3a. Address

3b. Phone No. (include area code)

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

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

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

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Batch Well Data

PONY EXPRESS FED COM 602H, US Well Number: 3002549050, Case Number: NMNM108976, Lease Number: NMNM108976,
Operator:MATADOR PRODUCTION COMPANY

PONY EXPRESS FED COM 503H, US Well Number: 3002549048, Case Number: NMNM108976, Lease Number: NMNM108976,
Operator:MATADOR PRODUCTION COMPANY

PONY EXPRESS FED COM 603H, US Well Number: 3002549051, Case Number: NMNM13280, Lease Number: NMNM13280,
Operator:MATADOR PRODUCTION COMPANY

PONY EXPRESS FED COM 504H, US Well Number: 3002549049, Case Number: NMNM13280, Lease Number: NMNM13280,
Operator:MATADOR PRODUCTION COMPANY

PONY EXPRESS FED COM 505H, US Well Number: 3002548940, Case Number: NMNM13280, Lease Number: NMNM13280,
Operator:MATADOR PRODUCTION COMPANY

PONY EXPRESS FED COM 604H, US Well Number: 3002548942, Case Number: NMNM13280, Lease Number: NMNM13280,
Operator:MATADOR PRODUCTION COMPANY

CONFIDENTIAL

Well Name	Well Number	US Well Number	Lease Number	Case Number	Operator
PONY EXPRESS	503H	3002549048	NMNM108976	NMNM108976	MATADOR
PONY EXPRESS	505H	3002548940	NMNM13280	NMNM13280	MATADOR
PONY EXPRESS	504H	3002549049	NMNM13280	NMNM13280	MATADOR
PONY EXPRESS	603H	3002549051	NMNM13280	NMNM13280	MATADOR
PONY EXPRESS	604H		NMNM13280	NMNM13280	MATADOR
PONY EXPRESS	602H	3002549050	NMNM108976	NMNM108976	MATADOR

Notice of Intent

Sundry ID: 2690510

Type of Submission: Notice of Intent

Date Sundry Submitted: 09/01/2022

Date proposed operation will begin: 09/09/2022

Type of Action: APD Change

Time Sundry Submitted: 04:05

Procedure Description: BLM Bond No.: NMB001079 Surety Bond No.: RLB0015172 Matador would like to request the slimming of our proposed casing design to have 16" surface, 10.75" intermediate I, 8.625", intermediate II and 5.5" production casing. We would also like to change the hole sizes to 20" surface, 13.5" intermediate I, 9.875" intermediate II and 7.875" production hole. Wells in the batch with the deepest TVD: 604H = 11,277', 603H = 11,266' and 602H = 11,247'

NOI Attachments

Procedure Description

- 8.625in_32ppf_P110EC_SPRINT_FJ_04.22.2021__2__20220622154334_20220901160450.pdf
- Pony_Express_Federal_Com_604H_Directional_Well_Plan_v1_20220901160346.pdf
- Pony_Express_Fed_Com__604H_Drill_Plan_20220901160346.pdf
- Pony_Express_Federal_Com_603H_Directional_Well_Plan_v1_20220901160323.pdf
- Pony_Express_Fed_Com__603H_Drill_Plan_20220901160323.pdf
- Pony_Express_Federal_Com_602H_Directional_Well_Plan_v1_20220901160303.pdf
- Pony_Express_Fed_Com__602H_Drill_Plan_20220901160303.pdf
- Pony_Express_Federal_Com_505H_Directional_Well_Plan_v1_20220901160232.pdf
- Pony_Express_Fed_Com__505H_Drill_Plan_20220901160231.pdf
- Pony_Express_Federal_Com_504H_Directional_Well_Plan_v1_20220901160205.pdf

Pony_Express_Fed_Com__504H_Drill_Plan_20220901160204.pdf

Pony_Express_Federal_Com_503H_Directional_Well_Plan_v1_20220901160139.pdf

Pony_Express_Fed_Com__503H_Drill_Plan_20220901160138.pdf

5.500_20.00_P110ICY_TLW_with_5.875_Special_Clearance_OD_20220825080946_20220901160137.pdf

Conditions of Approval

Additional

PONY_EXPRESS_FED_COM_BATCH_COA_20220907090957.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: DARIN KNICELY

Name: MATADOR PRODUCTION COMPANY

Title: Landman

Street Address: 5400 LBJ FREEWAY SUITE 1500

City: DALLAS **State:** TX

Phone: (972) 371-5473

Email address: DARIN.KNICELY@MATADORRESOURCES.COM

Signed on: SEP 01, 2022 03:59 PM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KEITH P IMMATTY

BLM POC Phone: 5759884722

Disposition: Approved

Signature: Keith Immatty

BLM POC Title: ENGINEER

BLM POC Email Address: KIMMATTY@BLM.GOV

Disposition Date: 09/07/2022

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

All previous COAs still apply.

OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY PONY EXPRESS FED COM 503H 155'/N & 1517'/W 50'/S & 2178'/W Section 16 T.20 S., R.33 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY PONY EXPRESS FED COM 504H 155'/N & 2175'/E 50'/S & 2178'/E Section 16 T.20 S., R.33 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY PONY EXPRESS FED COM 505H 155'/N & 1569'/E 50'/S & 1254'/E Section 9 T.20 S., R.33 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY PONY EXPRESS FED COM 602H 155'/N & 1467'/W 50'/S & 1650'/W Section 16 T.20 S., R.33 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY PONY EXPRESS FED COM 603H 155'/N & 2200'/E 50'/S & 2310'/E Section 16 T.20 S., R.33 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY PONY EXPRESS FED COM 604H 155'/N & 1544'/E 50'/S & 990'/E Section 9 T.20 S., R.33 E., NMP Lea County, New Mexico

COA

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

A. CASING

***Note: Depths listed for the deepest well in the batch. Set depths OK in drill plans submitted in sundry 2690510 for individual wells.**

Alternate Casing Design:

1. The **16 inch** surface casing shall be set at approximately **1,302** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **10-3/4 inch** intermediate casing shall be set at approximately **2,876** feet. The minimum required fill of cement behind the **10-3/4 inch** intermediate casing is:

Option 1 (Single Stage):

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

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

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- ❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing string must come to surface.
3. The **8-5/8 inch** intermediate casing shall be set at approximately **5,381** feet. The minimum required fill of cement behind the **8-5/8 inch** intermediate casing is:

Option 1 (Single Stage):

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

Option 2:

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

- c. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- d. Second stage above DV tool:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

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

Operator has proposed to pump down 16" X 10-3/4" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 10-3/4" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

4. The 5-1/2 inch production casing shall be set at approximately 21,164 feet. **CEMENT VOLUME SUBMITTED NOT ENOUGH FOR PRODUCTION INTERVAL. PLEASE INCREASE TO ACCOMPLISH TIE-BACK.** The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

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

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's

requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in 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.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead 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, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

- 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.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

KPI -09/07/2022

Drill Plan**Pony Express Fed Com #503H**

- Matador respectfully requests the option to amend the well design of the Pony Express Fed Com #503H to make the following changes to the current APD.

Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	20	0 - 1257	0 - 1257	16	84	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	13.5	0 - 2877	0 - 2877	10.75	45.5	L-80	BUTT	1.125	1.125	1.8
Intermediate 2	9.875	0 - 5312	0 - 5312	8.625	32	P-110	VAM-Sprint FJ	1.125	1.125	1.8
Production	7.875	0 - 20358	0 - 10347	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement (ft)	Class	Blend
Surface	Lead	920	1.78	1639	13.5	100%	0	C	5% NaCl + LCM
	Tail	1560	1.35	2110	14.8	100%	957	C	5% NaCl + LCM
Intermediate 1	Lead	950	1.78	1699	13.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.35	336	14.8	50%	2302	C	5% NaCl + LCM
Intermediate 2	Lead	480	1.78	851	13.5	50%	0	C	Bentonite + 1% CaCL ₂ + 8% NaCl + LCM
	Tail	160	1.35	217	14.8	50%	4312	C	5% NaCl + LCM
Production	Lead	320	3.66	1188	10.3	25%	3227	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	1670	1.35	2255	13.2	15%	9091	A/C	Fluid Loss + Dispersant + Retarder + LCM

-Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 10-3/4" or 8-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

-Matador would also like to request a variance to perform a bradenhead squeeze on Intermediate 2 if needed.

- Matador would like to request variance for use of diverter and 2000 psi annular to be installed after running 16" casing which will be tested to 1000 psi. 5M BOP's will be installed and tested to 5000 psi after running 10.75" casing.

Mud Program

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	20	Spud Mud	0 - 1257	8.4 - 8.8	28-30	NC
Intermediate 1	13.5	Brine Water	1257 - 2877	9.5 - 10.2	28-32	NC
Intermediate 2	9.875	Fresh Water	2877 - 5312	8.4 - 8.6	28-30	NC
Production	7.875	OBM/Cut Brine	5312 - 20358	8.6 - 9.4	28-30	NC

- Kick off point / landing point: 9,810.1' MD 9,783.4' TVD / 10,710.1' MD 10,356.4' TVD

Matador Production Company

**Ranger/Arrowhead
Pony Express Fed Com
Pony Express Fed Com #503H**

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

25 August, 2022

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #503H
Company:	Matador Production Company	TVD Reference:	KB @ 3562.0usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3562.0usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Ranger/Arrowhead		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site	Pony Express Fed Com				
Site Position:		Northing:	575,308.89 usft	Latitude:	32° 34' 47.590 N
From:	Lat/Long	Easting:	703,951.60 usft	Longitude:	103° 40' 16.388 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36 °

Well	Pony Express Fed Com #503H					
Well Position	+N/-S	-29.8 usft	Northing:	575,279.06 usft	Latitude:	32° 34' 47.294 N
	+E/-W	0.2 usft	Easting:	703,951.79 usft	Longitude:	103° 40' 16.388 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,533.5 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/25/2022	6.46	60.30	47,601.95235783

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.85

Plan Survey Tool Program	Date	8/25/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,548.4	BLM Plan #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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	72.05	2,297.4	17.2	53.0	1.00	1.00	0.00	72.05	
4,595.0	8.00	72.05	4,570.0	115.6	356.9	0.00	0.00	0.00	0.00	
5,128.3	0.00	0.00	5,101.6	127.1	392.3	1.50	-1.50	0.00	180.00	
9,810.1	0.00	0.00	9,783.4	127.1	392.3	0.00	0.00	0.00	0.00	VP - Pony Express
10,710.1	90.00	179.60	10,356.4	-445.9	396.3	10.00	10.00	0.00	179.60	
10,710.7	90.00	179.61	10,356.4	-446.5	396.3	2.00	-0.04	2.00	91.07	
20,548.4	90.00	179.61	10,356.4	-10,284.0	462.7	0.00	0.00	0.00	0.00	BHL - Pony Express

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #503H
Company:	Matador Production Company	TVD Reference:	KB @ 3562.0usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3562.0usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,282.0	0.00	0.00	1,282.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
1,600.0	1.00	72.05	1,600.0	0.3	0.8	-0.3	1.00	1.00	0.00
1,645.0	1.45	72.05	1,645.0	0.6	1.7	-0.6	1.00	1.00	0.00
Salado									
1,700.0	2.00	72.05	1,700.0	1.1	3.3	-1.1	1.00	1.00	0.00
1,800.0	3.00	72.05	1,799.9	2.4	7.5	-2.4	1.00	1.00	0.00
1,900.0	4.00	72.05	1,899.7	4.3	13.3	-4.3	1.00	1.00	0.00
2,000.0	5.00	72.05	1,999.4	6.7	20.7	-6.7	1.00	1.00	0.00
2,100.0	6.00	72.05	2,098.9	9.7	29.9	-9.6	1.00	1.00	0.00
2,200.0	7.00	72.05	2,198.3	13.2	40.6	-13.1	1.00	1.00	0.00
2,300.0	8.00	72.05	2,297.4	17.2	53.0	-17.0	1.00	1.00	0.00
Start 2295.0 hold at 2300.0 MD									
2,400.0	8.00	72.05	2,396.4	21.5	66.3	-21.3	0.00	0.00	0.00
2,500.0	8.00	72.05	2,495.5	25.8	79.5	-25.6	0.00	0.00	0.00
2,600.0	8.00	72.05	2,594.5	30.1	92.8	-29.8	0.00	0.00	0.00
2,700.0	8.00	72.05	2,693.5	34.3	106.0	-34.1	0.00	0.00	0.00
2,800.0	8.00	72.05	2,792.5	38.6	119.2	-38.3	0.00	0.00	0.00
2,900.0	8.00	72.05	2,891.6	42.9	132.5	-42.6	0.00	0.00	0.00
2,924.7	8.00	72.05	2,916.0	44.0	135.8	-43.6	0.00	0.00	0.00
G30: CS14-CSB/Tansill									
3,000.0	8.00	72.05	2,990.6	47.2	145.7	-46.8	0.00	0.00	0.00
3,039.8	8.00	72.05	3,030.0	48.9	151.0	-48.5	0.00	0.00	0.00
Yates (GDS)									
3,100.0	8.00	72.05	3,089.6	51.5	159.0	-51.1	0.00	0.00	0.00
3,200.0	8.00	72.05	3,188.6	55.8	172.2	-55.3	0.00	0.00	0.00
3,300.0	8.00	72.05	3,287.7	60.1	185.4	-59.6	0.00	0.00	0.00
3,400.0	8.00	72.05	3,386.7	64.4	198.7	-63.8	0.00	0.00	0.00
3,420.5	8.00	72.05	3,407.0	65.2	201.4	-64.7	0.00	0.00	0.00
Capitan (GDS)									
3,500.0	8.00	72.05	3,485.7	68.7	211.9	-68.1	0.00	0.00	0.00
3,600.0	8.00	72.05	3,584.8	72.9	225.2	-72.4	0.00	0.00	0.00
3,700.0	8.00	72.05	3,683.8	77.2	238.4	-76.6	0.00	0.00	0.00
3,800.0	8.00	72.05	3,782.8	81.5	251.6	-80.9	0.00	0.00	0.00
3,900.0	8.00	72.05	3,881.8	85.8	264.9	-85.1	0.00	0.00	0.00
4,000.0	8.00	72.05	3,980.9	90.1	278.1	-89.4	0.00	0.00	0.00

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3562.0usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3562.0usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.0	8.00	72.05	4,079.9	94.4	291.4	-93.6	0.00	0.00	0.00
4,200.0	8.00	72.05	4,178.9	98.7	304.6	-97.9	0.00	0.00	0.00
4,300.0	8.00	72.05	4,277.9	103.0	317.8	-102.1	0.00	0.00	0.00
4,400.0	8.00	72.05	4,377.0	107.3	331.1	-106.4	0.00	0.00	0.00
4,500.0	8.00	72.05	4,476.0	111.5	344.3	-110.6	0.00	0.00	0.00
4,595.0	8.00	72.05	4,570.0	115.6	356.9	-114.7	0.00	0.00	0.00
Start Drop -1.50									
4,600.0	7.92	72.05	4,575.0	115.8	357.6	-114.9	1.50	-1.50	0.00
4,700.0	6.42	72.05	4,674.2	119.7	369.4	-118.7	1.50	-1.50	0.00
4,800.0	4.92	72.05	4,773.7	122.7	378.8	-121.7	1.50	-1.50	0.00
4,900.0	3.42	72.05	4,873.5	125.0	385.8	-124.0	1.50	-1.50	0.00
5,000.0	1.92	72.05	4,973.4	126.4	390.2	-125.4	1.50	-1.50	0.00
5,100.0	0.42	72.05	5,073.3	127.0	392.2	-126.0	1.50	-1.50	0.00
5,128.3	0.00	0.00	5,101.6	127.1	392.3	-126.0	1.50	-1.50	0.00
Start 4681.8 hold at 5128.3 MD									
5,200.0	0.00	0.00	5,173.3	127.1	392.3	-126.0	0.00	0.00	0.00
5,284.7	0.00	0.00	5,258.0	127.1	392.3	-126.0	0.00	0.00	0.00
Cherry Canyon									
5,300.0	0.00	0.00	5,273.3	127.1	392.3	-126.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,373.3	127.1	392.3	-126.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,473.3	127.1	392.3	-126.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,573.3	127.1	392.3	-126.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,673.3	127.1	392.3	-126.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,773.3	127.1	392.3	-126.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,873.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,973.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,073.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,173.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,245.7	0.00	0.00	6,219.0	127.1	392.3	-126.0	0.00	0.00	0.00
Brushy Canyon									
6,300.0	0.00	0.00	6,273.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,373.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,473.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,573.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,673.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,773.3	127.1	392.3	-126.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,873.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,973.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,073.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,173.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,273.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,373.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,473.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,573.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,673.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,773.3	127.1	392.3	-126.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,873.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,973.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,073.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,173.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,230.7	0.00	0.00	8,204.0	127.1	392.3	-126.0	0.00	0.00	0.00
BSGL									
8,300.0	0.00	0.00	8,273.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,373.3	127.1	392.3	-126.0	0.00	0.00	0.00

Planning Report

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Project:	Ranger/Arrowhead	MD Reference:	KB @ 3562.0usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,448.7	0.00	0.00	8,422.0	127.1	392.3	-126.0	0.00	0.00	0.00
U. Avalon Shale									
8,500.0	0.00	0.00	8,473.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,573.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,673.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,749.7	0.00	0.00	8,723.0	127.1	392.3	-126.0	0.00	0.00	0.00
Avalon Carb									
8,800.0	0.00	0.00	8,773.3	127.1	392.3	-126.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,873.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,000.0	0.00	0.00	8,973.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,051.7	0.00	0.00	9,025.0	127.1	392.3	-126.0	0.00	0.00	0.00
L. Avalon Shale									
9,100.0	0.00	0.00	9,073.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,173.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,201.7	0.00	0.00	9,175.0	127.1	392.3	-126.0	0.00	0.00	0.00
FBSC									
9,254.7	0.00	0.00	9,228.0	127.1	392.3	-126.0	0.00	0.00	0.00
FBSG									
9,300.0	0.00	0.00	9,273.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,373.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,473.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,537.7	0.00	0.00	9,511.0	127.1	392.3	-126.0	0.00	0.00	0.00
SBSC									
9,600.0	0.00	0.00	9,573.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,673.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,764.7	0.00	0.00	9,738.0	127.1	392.3	-126.0	0.00	0.00	0.00
SBSG									
9,800.0	0.00	0.00	9,773.3	127.1	392.3	-126.0	0.00	0.00	0.00
9,810.1	0.00	0.00	9,783.4	127.1	392.3	-126.0	0.00	0.00	0.00
Start Build 10.00 - VP - Pony Express Fed Com #503H									
9,900.0	8.99	179.60	9,873.0	120.0	392.3	-119.0	10.00	10.00	0.00
10,000.0	18.99	179.60	9,969.9	95.9	392.5	-94.8	10.00	10.00	0.00
10,100.0	28.99	179.60	10,061.1	55.3	392.8	-54.2	10.00	10.00	0.00
10,200.0	38.99	179.60	10,143.9	-0.6	393.2	1.6	10.00	10.00	0.00
10,300.0	48.99	179.60	10,215.8	-69.9	393.6	71.0	10.00	10.00	0.00
10,400.0	58.99	179.60	10,274.5	-150.7	394.2	151.8	10.00	10.00	0.00
10,456.1	64.61	179.60	10,301.0	-200.2	394.5	201.2	10.00	10.00	0.00
TBSC									
10,500.0	68.99	179.60	10,318.3	-240.5	394.8	241.5	10.00	10.00	0.00
10,600.0	78.99	179.60	10,345.8	-336.5	395.5	337.5	10.00	10.00	0.00
10,700.0	88.99	179.60	10,356.3	-435.8	396.2	436.8	10.00	10.00	0.00
10,710.1	90.00	179.60	10,356.4	-445.9	396.3	446.9	10.00	10.00	0.00
Start DLS 2.00 TFO 91.07									
10,710.7	90.00	179.61	10,356.4	-446.5	396.3	447.6	2.00	-0.04	2.00
Start 9837.7 hold at 10710.7 MD									
10,800.0	90.00	179.61	10,356.4	-535.8	396.9	536.8	0.00	0.00	0.00
10,900.0	90.00	179.61	10,356.4	-635.8	397.5	636.8	0.00	0.00	0.00
11,000.0	90.00	179.61	10,356.4	-735.8	398.2	736.8	0.00	0.00	0.00
11,100.0	90.00	179.61	10,356.4	-835.8	398.9	836.8	0.00	0.00	0.00
11,200.0	90.00	179.61	10,356.4	-935.8	399.6	936.8	0.00	0.00	0.00
11,300.0	90.00	179.61	10,356.4	-1,035.8	400.2	1,036.8	0.00	0.00	0.00
11,400.0	90.00	179.61	10,356.4	-1,135.8	400.9	1,136.8	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #503H
Company:	Matador Production Company	TVD Reference:	KB @ 3562.0usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3562.0usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,500.0	90.00	179.61	10,356.4	-1,235.8	401.6	1,236.8	0.00	0.00	0.00
11,600.0	90.00	179.61	10,356.4	-1,335.8	402.3	1,336.8	0.00	0.00	0.00
11,700.0	90.00	179.61	10,356.4	-1,435.8	402.9	1,436.8	0.00	0.00	0.00
11,800.0	90.00	179.61	10,356.4	-1,535.8	403.6	1,536.8	0.00	0.00	0.00
11,900.0	90.00	179.61	10,356.4	-1,635.8	404.3	1,636.8	0.00	0.00	0.00
12,000.0	90.00	179.61	10,356.4	-1,735.8	405.0	1,736.8	0.00	0.00	0.00
12,100.0	90.00	179.61	10,356.4	-1,835.8	405.6	1,836.8	0.00	0.00	0.00
12,200.0	90.00	179.61	10,356.4	-1,935.8	406.3	1,936.8	0.00	0.00	0.00
12,300.0	90.00	179.61	10,356.4	-2,035.8	407.0	2,036.8	0.00	0.00	0.00
12,400.0	90.00	179.61	10,356.4	-2,135.8	407.7	2,136.8	0.00	0.00	0.00
12,500.0	90.00	179.61	10,356.4	-2,235.8	408.3	2,236.8	0.00	0.00	0.00
12,600.0	90.00	179.61	10,356.4	-2,335.8	409.0	2,336.8	0.00	0.00	0.00
12,700.0	90.00	179.61	10,356.4	-2,435.8	409.7	2,436.8	0.00	0.00	0.00
12,800.0	90.00	179.61	10,356.4	-2,535.8	410.4	2,536.8	0.00	0.00	0.00
12,900.0	90.00	179.61	10,356.4	-2,635.8	411.0	2,636.8	0.00	0.00	0.00
13,000.0	90.00	179.61	10,356.4	-2,735.8	411.7	2,736.8	0.00	0.00	0.00
13,100.0	90.00	179.61	10,356.4	-2,835.8	412.4	2,836.8	0.00	0.00	0.00
13,200.0	90.00	179.61	10,356.4	-2,935.8	413.1	2,936.8	0.00	0.00	0.00
13,300.0	90.00	179.61	10,356.4	-3,035.8	413.8	3,036.8	0.00	0.00	0.00
13,400.0	90.00	179.61	10,356.4	-3,135.7	414.4	3,136.8	0.00	0.00	0.00
13,500.0	90.00	179.61	10,356.4	-3,235.7	415.1	3,236.8	0.00	0.00	0.00
13,600.0	90.00	179.61	10,356.4	-3,335.7	415.8	3,336.8	0.00	0.00	0.00
13,700.0	90.00	179.61	10,356.4	-3,435.7	416.5	3,436.8	0.00	0.00	0.00
13,800.0	90.00	179.61	10,356.4	-3,535.7	417.1	3,536.8	0.00	0.00	0.00
13,900.0	90.00	179.61	10,356.4	-3,635.7	417.8	3,636.8	0.00	0.00	0.00
14,000.0	90.00	179.61	10,356.4	-3,735.7	418.5	3,736.8	0.00	0.00	0.00
14,100.0	90.00	179.61	10,356.4	-3,835.7	419.2	3,836.8	0.00	0.00	0.00
14,200.0	90.00	179.61	10,356.4	-3,935.7	419.8	3,936.8	0.00	0.00	0.00
14,300.0	90.00	179.61	10,356.4	-4,035.7	420.5	4,036.8	0.00	0.00	0.00
14,400.0	90.00	179.61	10,356.4	-4,135.7	421.2	4,136.8	0.00	0.00	0.00
14,500.0	90.00	179.61	10,356.4	-4,235.7	421.9	4,236.8	0.00	0.00	0.00
14,600.0	90.00	179.61	10,356.4	-4,335.7	422.5	4,336.8	0.00	0.00	0.00
14,700.0	90.00	179.61	10,356.4	-4,435.7	423.2	4,436.8	0.00	0.00	0.00
14,800.0	90.00	179.61	10,356.4	-4,535.7	423.9	4,536.8	0.00	0.00	0.00
14,900.0	90.00	179.61	10,356.4	-4,635.7	424.6	4,636.8	0.00	0.00	0.00
15,000.0	90.00	179.61	10,356.4	-4,735.7	425.2	4,736.8	0.00	0.00	0.00
15,100.0	90.00	179.61	10,356.4	-4,835.7	425.9	4,836.8	0.00	0.00	0.00
15,200.0	90.00	179.61	10,356.4	-4,935.7	426.6	4,936.8	0.00	0.00	0.00
15,300.0	90.00	179.61	10,356.4	-5,035.7	427.3	5,036.8	0.00	0.00	0.00
15,400.0	90.00	179.61	10,356.4	-5,135.7	427.9	5,136.8	0.00	0.00	0.00
15,500.0	90.00	179.61	10,356.4	-5,235.7	428.6	5,236.8	0.00	0.00	0.00
15,600.0	90.00	179.61	10,356.4	-5,335.7	429.3	5,336.8	0.00	0.00	0.00
15,700.0	90.00	179.61	10,356.4	-5,435.7	430.0	5,436.8	0.00	0.00	0.00
15,800.0	90.00	179.61	10,356.4	-5,535.7	430.6	5,536.8	0.00	0.00	0.00
15,900.0	90.00	179.61	10,356.4	-5,635.7	431.3	5,636.8	0.00	0.00	0.00
16,000.0	90.00	179.61	10,356.4	-5,735.7	432.0	5,736.8	0.00	0.00	0.00
16,100.0	90.00	179.61	10,356.4	-5,835.7	432.7	5,836.8	0.00	0.00	0.00
16,200.0	90.00	179.61	10,356.4	-5,935.7	433.3	5,936.8	0.00	0.00	0.00
16,300.0	90.00	179.61	10,356.4	-6,035.7	434.0	6,036.8	0.00	0.00	0.00
16,400.0	90.00	179.61	10,356.4	-6,135.7	434.7	6,136.8	0.00	0.00	0.00
16,500.0	90.00	179.61	10,356.4	-6,235.7	435.4	6,236.8	0.00	0.00	0.00
16,600.0	90.00	179.61	10,356.4	-6,335.7	436.0	6,336.8	0.00	0.00	0.00
16,700.0	90.00	179.61	10,356.4	-6,435.7	436.7	6,436.8	0.00	0.00	0.00
16,800.0	90.00	179.61	10,356.4	-6,535.7	437.4	6,536.8	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #503H
Company:	Matador Production Company	TVD Reference:	KB @ 3562.0usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3562.0usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,900.0	90.00	179.61	10,356.4	-6,635.7	438.1	6,636.8	0.00	0.00	0.00	
17,000.0	90.00	179.61	10,356.4	-6,735.7	438.7	6,736.8	0.00	0.00	0.00	
17,100.0	90.00	179.61	10,356.4	-6,835.7	439.4	6,836.8	0.00	0.00	0.00	
17,200.0	90.00	179.61	10,356.4	-6,935.7	440.1	6,936.8	0.00	0.00	0.00	
17,300.0	90.00	179.61	10,356.4	-7,035.7	440.8	7,036.8	0.00	0.00	0.00	
17,400.0	90.00	179.61	10,356.4	-7,135.7	441.4	7,136.8	0.00	0.00	0.00	
17,500.0	90.00	179.61	10,356.4	-7,235.7	442.1	7,236.8	0.00	0.00	0.00	
17,600.0	90.00	179.61	10,356.4	-7,335.7	442.8	7,336.8	0.00	0.00	0.00	
17,700.0	90.00	179.61	10,356.4	-7,435.7	443.5	7,436.8	0.00	0.00	0.00	
17,800.0	90.00	179.61	10,356.4	-7,535.6	444.1	7,536.8	0.00	0.00	0.00	
17,900.0	90.00	179.61	10,356.4	-7,635.6	444.8	7,636.8	0.00	0.00	0.00	
18,000.0	90.00	179.61	10,356.4	-7,735.6	445.5	7,736.8	0.00	0.00	0.00	
18,100.0	90.00	179.61	10,356.4	-7,835.6	446.2	7,836.8	0.00	0.00	0.00	
18,200.0	90.00	179.61	10,356.4	-7,935.6	446.8	7,936.8	0.00	0.00	0.00	
18,300.0	90.00	179.61	10,356.4	-8,035.6	447.5	8,036.8	0.00	0.00	0.00	
18,400.0	90.00	179.61	10,356.4	-8,135.6	448.2	8,136.8	0.00	0.00	0.00	
18,500.0	90.00	179.61	10,356.4	-8,235.6	448.9	8,236.8	0.00	0.00	0.00	
18,600.0	90.00	179.61	10,356.4	-8,335.6	449.5	8,336.8	0.00	0.00	0.00	
18,700.0	90.00	179.61	10,356.4	-8,435.6	450.2	8,436.8	0.00	0.00	0.00	
18,800.0	90.00	179.61	10,356.4	-8,535.6	450.9	8,536.8	0.00	0.00	0.00	
18,900.0	90.00	179.61	10,356.4	-8,635.6	451.6	8,636.8	0.00	0.00	0.00	
19,000.0	90.00	179.61	10,356.4	-8,735.6	452.2	8,736.8	0.00	0.00	0.00	
19,100.0	90.00	179.61	10,356.4	-8,835.6	452.9	8,836.8	0.00	0.00	0.00	
19,200.0	90.00	179.61	10,356.4	-8,935.6	453.6	8,936.8	0.00	0.00	0.00	
19,300.0	90.00	179.61	10,356.4	-9,035.6	454.3	9,036.8	0.00	0.00	0.00	
19,400.0	90.00	179.61	10,356.4	-9,135.6	454.9	9,136.8	0.00	0.00	0.00	
19,500.0	90.00	179.61	10,356.4	-9,235.6	455.6	9,236.8	0.00	0.00	0.00	
19,600.0	90.00	179.61	10,356.4	-9,335.6	456.3	9,336.8	0.00	0.00	0.00	
19,700.0	90.00	179.61	10,356.4	-9,435.6	457.0	9,436.8	0.00	0.00	0.00	
19,800.0	90.00	179.61	10,356.4	-9,535.6	457.6	9,536.8	0.00	0.00	0.00	
19,900.0	90.00	179.61	10,356.4	-9,635.6	458.3	9,636.8	0.00	0.00	0.00	
20,000.0	90.00	179.61	10,356.4	-9,735.6	459.0	9,736.8	0.00	0.00	0.00	
20,100.0	90.00	179.61	10,356.4	-9,835.6	459.7	9,836.8	0.00	0.00	0.00	
20,200.0	90.00	179.61	10,356.4	-9,935.6	460.3	9,936.8	0.00	0.00	0.00	
20,300.0	90.00	179.61	10,356.4	-10,035.6	461.0	10,036.8	0.00	0.00	0.00	
20,400.0	90.00	179.61	10,356.4	-10,135.6	461.7	10,136.8	0.00	0.00	0.00	
20,500.0	90.00	179.61	10,356.4	-10,235.6	462.4	10,236.8	0.00	0.00	0.00	
20,548.4	90.00	179.61	10,356.4	-10,284.0	462.7	10,285.2	0.00	0.00	0.00	
TD at 20548.4 - BHL - Pony Express Fed Com #503H										

Design Targets										
Target Name										
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- Shape										
VP - Pony Express Fe - plan hits target center - Point	0.00	0.00	9,783.4	127.1	392.3	575,406.11	704,344.01	32° 34' 48.527 N	103° 40' 11.796 W	
BHL - Pony Express F - plan hits target center - Point	0.00	0.00	10,356.4	-10,284.0	462.7	564,994.95	704,414.49	32° 33' 5.503 N	103° 40' 11.730 W	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #503H
Company:	Matador Production Company	TVD Reference:	KB @ 3562.0usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3562.0usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,282.0	1,282.0	Rustler			179.61	
1,645.0	1,645.0	Salado			179.61	
2,924.7	2,916.0	G30: CS14-CSB/Tansill			179.61	
3,039.8	3,030.0	Yates (GDS)			179.61	
3,420.5	3,407.0	Capitan (GDS)			179.61	
5,284.7	5,258.0	Cherry Canyon			179.61	
6,245.7	6,219.0	Brushy Canyon			179.61	
8,230.7	8,204.0	BSGL			179.61	
8,448.7	8,422.0	U. Avalon Shale			179.61	
8,749.7	8,723.0	Avalon Carb			179.61	
9,051.7	9,025.0	L. Avalon Shale			179.61	
9,201.7	9,175.0	FBSC			179.61	
9,254.7	9,228.0	FBSG			179.61	
9,537.7	9,511.0	SBSC			179.61	
9,764.7	9,738.0	SBSG			179.61	
10,456.1	10,301.0	TBSC			179.61	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,500.0	1,500.0	0.0	0.0	Start Build 1.00	
2,300.0	2,297.4	17.2	53.0	Start 2295.0 hold at 2300.0 MD	
4,595.0	4,570.0	115.6	356.9	Start Drop -1.50	
5,128.3	5,101.6	127.1	392.3	Start 4681.8 hold at 5128.3 MD	
9,810.1	9,783.4	127.1	392.3	Start Build 10.00	
10,710.1	10,356.4	-445.9	396.3	Start DLS 2.00 TFO 91.07	
10,710.7	10,356.4	-446.5	396.3	Start 9837.7 hold at 10710.7 MD	
20,548.4	10,356.4	-10,284.0	462.7	TD at 20548.4	

Drill Plan**Pony Express Fed Com #504H**

- Matador respectfully requests the option to amend the well design of the Pony Express Fed Com #504H to make the following changes to the current APD.

Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	20	0 - 1291	0 - 1291	16	84	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	13.5	0 - 2876	0 - 2876	10.75	45.5	L-80	BUTT	1.125	1.125	1.8
Intermediate 2	9.875	0 - 5381	0 - 5381	8.625	32	P-110	VAM-Sprint FJ	1.125	1.125	1.8
Production	7.875	0 - 20306	0 - 10367	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement (ft)	Class	Blend
Surface	Lead	950	1.78	1692	13.5	100%	0	C	5% NaCl + LCM
	Tail	1600	1.35	2164	14.8	100%	991	C	5% NaCl + LCM
Intermediate 1	Lead	960	1.78	1710	13.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.35	335	14.8	50%	2301	C	5% NaCl + LCM
Intermediate 2	Lead	490	1.78	864	13.5	50%	0	C	Bentonite + 1% CaCL ₂ + 8% NaCl + LCM
	Tail	160	1.35	217	14.8	50%	4381	C	5% NaCl + LCM
Production	Lead	320	3.66	1169	10.3	25%	3255	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	1670	1.35	2255	13.2	15%	9038	A/C	Fluid Loss + Dispersant + Retarder + LCM

-Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 10-3/4" or 8-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

-Matador would also like to request a variance to perform a bradenhead squeeze on Intermediate 2 if needed.

- Matador would like to request variance for use of diverter and 2000 psi annular to be installed after running 16" casing which will be tested to 1000 psi. 5M BOP's will be installed and tested to 5000 psi after running 10.75" casing.

Mud Program

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	20	Spud Mud	0 - 1291	8.4 - 8.8	28-30	NC
Intermediate 1	13.5	Brine Water	1291 - 2876	9.5 - 10.2	28-32	NC
Intermediate 2	9.875	Fresh Water	2876 - 5381	8.4 - 8.6	28-30	NC
Production	7.875	OBM/Cut Brine	5381 - 20306	8.6 - 9.4	28-30	NC

- Kick off point / landing point: 9,805.7' MD 9,796.7' TVD / 10,705.7' MD 10,369.7' TVD

Matador Production Company

Ranger/Arrowhead

Pony Express Fed Com

Pony Express Fed Com #504H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

26 August, 2022

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #504H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.5usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Ranger/Arrowhead		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site		Pony Express Fed Com			
Site Position: From:	Lat/Long	Northing:	575,308.89 usft	Latitude:	32° 34' 47.590 N
		Easting:	703,951.60 usft	Longitude:	103° 40' 16.388 W
		Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "

Well	Pony Express Fed Com #504H					
Well Position	+N/-S	-20.8 usft	Northing:	575,288.11 usft	Latitude:	32° 34' 47.284 N
	+E/-W	1,623.9 usft	Easting:	705,575.46 usft	Longitude:	103° 39' 57.413 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,542.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/25/2022	6.46	60.30	47,602.42466741

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.85

Plan Survey Tool Program	Date	8/26/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,545.0	BLM Plan #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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	38.54	2,297.4	43.6	34.7	1.00	1.00	0.00	38.54	
2,783.7	8.00	38.54	2,776.4	96.3	76.7	0.00	0.00	0.00	0.00	
3,317.0	0.00	0.00	3,308.0	125.3	99.8	1.50	-1.50	0.00	180.00	
9,805.7	0.00	0.00	9,796.7	125.3	99.8	0.00	0.00	0.00	0.00	VP - Pony Express
10,705.7	90.00	179.61	10,369.7	-447.6	103.7	10.00	10.00	0.00	179.61	
10,773.0	90.00	179.61	10,369.7	-514.9	104.2	0.00	0.00	0.00	0.00	
20,545.1	90.00	179.61	10,369.7	-10,286.7	170.0	0.00	0.00	0.00	0.00	BHL - Pony Express

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #504H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.5usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,282.0	0.00	0.00	1,282.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
1,600.0	1.00	38.54	1,600.0	0.7	0.5	-0.7	1.00	1.00	0.00
1,645.0	1.45	38.54	1,645.0	1.4	1.1	-1.4	1.00	1.00	0.00
Salado									
1,700.0	2.00	38.54	1,700.0	2.7	2.2	-2.7	1.00	1.00	0.00
1,800.0	3.00	38.54	1,799.9	6.1	4.9	-6.1	1.00	1.00	0.00
1,900.0	4.00	38.54	1,899.7	10.9	8.7	-10.9	1.00	1.00	0.00
2,000.0	5.00	38.54	1,999.4	17.1	13.6	-17.0	1.00	1.00	0.00
2,100.0	6.00	38.54	2,098.9	24.6	19.6	-24.5	1.00	1.00	0.00
2,200.0	7.00	38.54	2,198.3	33.4	26.6	-33.3	1.00	1.00	0.00
2,300.0	8.00	38.54	2,297.4	43.6	34.7	-43.5	1.00	1.00	0.00
Start 483.7 hold at 2300.0 MD									
2,400.0	8.00	38.54	2,396.4	54.5	43.4	-54.4	0.00	0.00	0.00
2,500.0	8.00	38.54	2,495.5	65.4	52.1	-65.3	0.00	0.00	0.00
2,600.0	8.00	38.54	2,594.5	76.3	60.8	-76.1	0.00	0.00	0.00
2,700.0	8.00	38.54	2,693.5	87.2	69.4	-87.0	0.00	0.00	0.00
2,783.7	8.00	38.54	2,776.4	96.3	76.7	-96.1	0.00	0.00	0.00
Start Drop -1.50									
2,800.0	7.76	38.54	2,792.5	98.0	78.1	-97.8	1.50	-1.50	0.00
2,900.0	6.26	38.54	2,891.8	107.6	85.7	-107.3	1.50	-1.50	0.00
2,924.3	5.89	38.54	2,916.0	109.6	87.3	-109.3	1.50	-1.50	0.00
G30: CS14-CSB/Tansill									
3,000.0	4.76	38.54	2,991.3	115.1	91.6	-114.8	1.50	-1.50	0.00
3,038.8	4.17	38.54	3,030.0	117.4	93.5	-117.2	1.50	-1.50	0.00
Yates (GDS)									
3,100.0	3.26	38.54	3,091.1	120.5	96.0	-120.3	1.50	-1.50	0.00
3,200.0	1.76	38.54	3,191.0	123.9	98.7	-123.7	1.50	-1.50	0.00
3,300.0	0.26	38.54	3,291.0	125.3	99.8	-125.1	1.50	-1.50	0.00
3,317.0	0.00	0.00	3,308.0	125.3	99.8	-125.1	1.50	-1.50	0.00
Start 6488.7 hold at 3317.0 MD									
3,400.0	0.00	0.00	3,391.0	125.3	99.8	-125.1	0.00	0.00	0.00
3,416.0	0.00	0.00	3,407.0	125.3	99.8	-125.1	0.00	0.00	0.00
Capitan (GDS)									
3,500.0	0.00	0.00	3,491.0	125.3	99.8	-125.1	0.00	0.00	0.00
3,600.0	0.00	0.00	3,591.0	125.3	99.8	-125.1	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #504H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.5usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,700.0	0.00	0.00	3,691.0	125.3	99.8	-125.1	0.00	0.00	0.00
3,800.0	0.00	0.00	3,791.0	125.3	99.8	-125.1	0.00	0.00	0.00
3,900.0	0.00	0.00	3,891.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,000.0	0.00	0.00	3,991.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,100.0	0.00	0.00	4,091.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,200.0	0.00	0.00	4,191.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,300.0	0.00	0.00	4,291.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,400.0	0.00	0.00	4,391.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,500.0	0.00	0.00	4,491.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,600.0	0.00	0.00	4,591.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,700.0	0.00	0.00	4,691.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,800.0	0.00	0.00	4,791.0	125.3	99.8	-125.1	0.00	0.00	0.00
4,900.0	0.00	0.00	4,891.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,000.0	0.00	0.00	4,991.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,100.0	0.00	0.00	5,091.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,200.0	0.00	0.00	5,191.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,267.0	0.00	0.00	5,258.0	125.3	99.8	-125.1	0.00	0.00	0.00
Cherry Canyon									
5,300.0	0.00	0.00	5,291.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,400.0	0.00	0.00	5,391.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,500.0	0.00	0.00	5,491.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,600.0	0.00	0.00	5,591.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,700.0	0.00	0.00	5,691.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,800.0	0.00	0.00	5,791.0	125.3	99.8	-125.1	0.00	0.00	0.00
5,900.0	0.00	0.00	5,891.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,000.0	0.00	0.00	5,991.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,100.0	0.00	0.00	6,091.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,200.0	0.00	0.00	6,191.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,228.0	0.00	0.00	6,219.0	125.3	99.8	-125.1	0.00	0.00	0.00
Brushy Canyon									
6,300.0	0.00	0.00	6,291.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,400.0	0.00	0.00	6,391.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,500.0	0.00	0.00	6,491.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,591.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,700.0	0.00	0.00	6,691.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,791.0	125.3	99.8	-125.1	0.00	0.00	0.00
6,900.0	0.00	0.00	6,891.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,991.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,100.0	0.00	0.00	7,091.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,191.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,291.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,391.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,491.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,591.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,691.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,791.0	125.3	99.8	-125.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,891.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,991.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,100.0	0.00	0.00	8,091.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,200.0	0.00	0.00	8,191.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,213.0	0.00	0.00	8,204.0	125.3	99.8	-125.1	0.00	0.00	0.00
BSGL									
8,300.0	0.00	0.00	8,291.0	125.3	99.8	-125.1	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #504H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.5usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.0	0.00	0.00	8,391.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,431.0	0.00	0.00	8,422.0	125.3	99.8	-125.1	0.00	0.00	0.00
U. Avalon Shale									
8,500.0	0.00	0.00	8,491.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,600.0	0.00	0.00	8,591.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,700.0	0.00	0.00	8,691.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,732.0	0.00	0.00	8,723.0	125.3	99.8	-125.1	0.00	0.00	0.00
Avalon Carb									
8,800.0	0.00	0.00	8,791.0	125.3	99.8	-125.1	0.00	0.00	0.00
8,900.0	0.00	0.00	8,891.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,000.0	0.00	0.00	8,991.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,034.0	0.00	0.00	9,025.0	125.3	99.8	-125.1	0.00	0.00	0.00
L. Avalon Shale									
9,100.0	0.00	0.00	9,091.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,184.0	0.00	0.00	9,175.0	125.3	99.8	-125.1	0.00	0.00	0.00
FBSC									
9,200.0	0.00	0.00	9,191.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,237.0	0.00	0.00	9,228.0	125.3	99.8	-125.1	0.00	0.00	0.00
FBSCG									
9,300.0	0.00	0.00	9,291.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,400.0	0.00	0.00	9,391.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,500.0	0.00	0.00	9,491.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,520.0	0.00	0.00	9,511.0	125.3	99.8	-125.1	0.00	0.00	0.00
SBSC									
9,600.0	0.00	0.00	9,591.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,700.0	0.00	0.00	9,691.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,747.0	0.00	0.00	9,738.0	125.3	99.8	-125.1	0.00	0.00	0.00
SBSG									
9,800.0	0.00	0.00	9,791.0	125.3	99.8	-125.1	0.00	0.00	0.00
9,805.7	0.00	0.00	9,796.7	125.3	99.8	-125.1	0.00	0.00	0.00
Start Build 10.00 - VP - Pony Express Fed Com #504H									
9,900.0	9.43	179.61	9,890.5	117.6	99.9	-117.4	10.00	10.00	0.00
10,000.0	19.43	179.61	9,987.3	92.7	100.1	-92.5	10.00	10.00	0.00
10,100.0	29.43	179.61	10,078.2	51.4	100.3	-51.2	10.00	10.00	0.00
10,200.0	39.43	179.61	10,160.6	-5.0	100.7	5.3	10.00	10.00	0.00
10,300.0	49.43	179.61	10,231.9	-74.9	101.2	75.2	10.00	10.00	0.00
10,400.0	59.43	179.61	10,290.0	-156.2	101.8	156.4	10.00	10.00	0.00
10,422.4	61.66	179.61	10,301.0	-175.6	101.9	175.9	10.00	10.00	0.00
TBSC									
10,500.0	69.43	179.61	10,333.1	-246.3	102.4	246.5	10.00	10.00	0.00
10,600.0	79.43	179.61	10,359.9	-342.5	103.0	342.7	10.00	10.00	0.00
10,700.0	89.43	179.61	10,369.6	-441.9	103.7	442.1	10.00	10.00	0.00
10,705.7	90.00	179.61	10,369.7	-447.6	103.7	447.9	10.00	10.00	0.00
Start 67.3 hold at 10705.7 MD									
10,773.0	90.00	179.61	10,369.7	-514.9	104.2	515.1	0.00	0.00	0.00
Start 9772.1 hold at 10773.0 MD									
10,800.0	90.00	179.61	10,369.7	-541.9	104.4	542.1	0.00	0.00	0.00
10,900.0	90.00	179.61	10,369.7	-641.9	105.1	642.1	0.00	0.00	0.00
11,000.0	90.00	179.61	10,369.7	-741.9	105.7	742.1	0.00	0.00	0.00
11,100.0	90.00	179.61	10,369.7	-841.9	106.4	842.1	0.00	0.00	0.00
11,200.0	90.00	179.61	10,369.7	-941.8	107.1	942.1	0.00	0.00	0.00
11,300.0	90.00	179.61	10,369.7	-1,041.8	107.8	1,042.1	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #504H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.5usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,400.0	90.00	179.61	10,369.7	-1,141.8	108.5	1,142.1	0.00	0.00	0.00	
11,500.0	90.00	179.61	10,369.7	-1,241.8	109.1	1,242.1	0.00	0.00	0.00	
11,600.0	90.00	179.61	10,369.7	-1,341.8	109.8	1,342.1	0.00	0.00	0.00	
11,700.0	90.00	179.61	10,369.7	-1,441.8	110.5	1,442.1	0.00	0.00	0.00	
11,800.0	90.00	179.61	10,369.7	-1,541.8	111.2	1,542.1	0.00	0.00	0.00	
11,900.0	90.00	179.61	10,369.7	-1,641.8	111.9	1,642.1	0.00	0.00	0.00	
12,000.0	90.00	179.61	10,369.7	-1,741.8	112.5	1,742.1	0.00	0.00	0.00	
12,100.0	90.00	179.61	10,369.7	-1,841.8	113.2	1,842.1	0.00	0.00	0.00	
12,200.0	90.00	179.61	10,369.7	-1,941.8	113.9	1,942.1	0.00	0.00	0.00	
12,300.0	90.00	179.61	10,369.7	-2,041.8	114.6	2,042.1	0.00	0.00	0.00	
12,400.0	90.00	179.61	10,369.7	-2,141.8	115.3	2,142.1	0.00	0.00	0.00	
12,500.0	90.00	179.61	10,369.7	-2,241.8	115.9	2,242.1	0.00	0.00	0.00	
12,600.0	90.00	179.61	10,369.7	-2,341.8	116.6	2,342.1	0.00	0.00	0.00	
12,700.0	90.00	179.61	10,369.7	-2,441.8	117.3	2,442.1	0.00	0.00	0.00	
12,800.0	90.00	179.61	10,369.7	-2,541.8	118.0	2,542.1	0.00	0.00	0.00	
12,900.0	90.00	179.61	10,369.7	-2,641.8	118.7	2,642.1	0.00	0.00	0.00	
13,000.0	90.00	179.61	10,369.7	-2,741.8	119.4	2,742.1	0.00	0.00	0.00	
13,100.0	90.00	179.61	10,369.7	-2,841.8	120.0	2,842.1	0.00	0.00	0.00	
13,200.0	90.00	179.61	10,369.7	-2,941.8	120.7	2,942.1	0.00	0.00	0.00	
13,300.0	90.00	179.61	10,369.7	-3,041.8	121.4	3,042.1	0.00	0.00	0.00	
13,400.0	90.00	179.61	10,369.7	-3,141.8	122.1	3,142.1	0.00	0.00	0.00	
13,500.0	90.00	179.61	10,369.7	-3,241.8	122.8	3,242.1	0.00	0.00	0.00	
13,600.0	90.00	179.61	10,369.7	-3,341.8	123.4	3,342.1	0.00	0.00	0.00	
13,700.0	90.00	179.61	10,369.7	-3,441.8	124.1	3,442.1	0.00	0.00	0.00	
13,800.0	90.00	179.61	10,369.7	-3,541.8	124.8	3,542.1	0.00	0.00	0.00	
13,900.0	90.00	179.61	10,369.7	-3,641.8	125.5	3,642.1	0.00	0.00	0.00	
14,000.0	90.00	179.61	10,369.7	-3,741.8	126.2	3,742.1	0.00	0.00	0.00	
14,100.0	90.00	179.61	10,369.7	-3,841.8	126.8	3,842.1	0.00	0.00	0.00	
14,200.0	90.00	179.61	10,369.7	-3,941.8	127.5	3,942.1	0.00	0.00	0.00	
14,300.0	90.00	179.61	10,369.7	-4,041.8	128.2	4,042.1	0.00	0.00	0.00	
14,400.0	90.00	179.61	10,369.7	-4,141.8	128.9	4,142.1	0.00	0.00	0.00	
14,500.0	90.00	179.61	10,369.7	-4,241.8	129.6	4,242.1	0.00	0.00	0.00	
14,600.0	90.00	179.61	10,369.7	-4,341.8	130.2	4,342.1	0.00	0.00	0.00	
14,700.0	90.00	179.61	10,369.7	-4,441.8	130.9	4,442.1	0.00	0.00	0.00	
14,800.0	90.00	179.61	10,369.7	-4,541.8	131.6	4,542.1	0.00	0.00	0.00	
14,900.0	90.00	179.61	10,369.7	-4,641.8	132.3	4,642.1	0.00	0.00	0.00	
15,000.0	90.00	179.61	10,369.7	-4,741.8	133.0	4,742.1	0.00	0.00	0.00	
15,100.0	90.00	179.61	10,369.7	-4,841.8	133.6	4,842.1	0.00	0.00	0.00	
15,200.0	90.00	179.61	10,369.7	-4,941.8	134.3	4,942.1	0.00	0.00	0.00	
15,300.0	90.00	179.61	10,369.7	-5,041.8	135.0	5,042.1	0.00	0.00	0.00	
15,400.0	90.00	179.61	10,369.7	-5,141.8	135.7	5,142.1	0.00	0.00	0.00	
15,500.0	90.00	179.61	10,369.7	-5,241.7	136.4	5,242.1	0.00	0.00	0.00	
15,600.0	90.00	179.61	10,369.7	-5,341.7	137.1	5,342.1	0.00	0.00	0.00	
15,700.0	90.00	179.61	10,369.7	-5,441.7	137.7	5,442.1	0.00	0.00	0.00	
15,800.0	90.00	179.61	10,369.7	-5,541.7	138.4	5,542.1	0.00	0.00	0.00	
15,900.0	90.00	179.61	10,369.7	-5,641.7	139.1	5,642.1	0.00	0.00	0.00	
16,000.0	90.00	179.61	10,369.7	-5,741.7	139.8	5,742.1	0.00	0.00	0.00	
16,100.0	90.00	179.61	10,369.7	-5,841.7	140.5	5,842.1	0.00	0.00	0.00	
16,200.0	90.00	179.61	10,369.7	-5,941.7	141.1	5,942.1	0.00	0.00	0.00	
16,300.0	90.00	179.61	10,369.7	-6,041.7	141.8	6,042.1	0.00	0.00	0.00	
16,400.0	90.00	179.61	10,369.7	-6,141.7	142.5	6,142.1	0.00	0.00	0.00	
16,500.0	90.00	179.61	10,369.7	-6,241.7	143.2	6,242.1	0.00	0.00	0.00	
16,600.0	90.00	179.61	10,369.7	-6,341.7	143.9	6,342.1	0.00	0.00	0.00	
16,700.0	90.00	179.61	10,369.7	-6,441.7	144.5	6,442.1	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #504H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.5usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,800.0	90.00	179.61	10,369.7	-6,541.7	145.2	6,542.1	0.00	0.00	0.00	
16,900.0	90.00	179.61	10,369.7	-6,641.7	145.9	6,642.1	0.00	0.00	0.00	
17,000.0	90.00	179.61	10,369.7	-6,741.7	146.6	6,742.1	0.00	0.00	0.00	
17,100.0	90.00	179.61	10,369.7	-6,841.7	147.3	6,842.1	0.00	0.00	0.00	
17,200.0	90.00	179.61	10,369.7	-6,941.7	147.9	6,942.1	0.00	0.00	0.00	
17,300.0	90.00	179.61	10,369.7	-7,041.7	148.6	7,042.1	0.00	0.00	0.00	
17,400.0	90.00	179.61	10,369.7	-7,141.7	149.3	7,142.1	0.00	0.00	0.00	
17,500.0	90.00	179.61	10,369.7	-7,241.7	150.0	7,242.1	0.00	0.00	0.00	
17,600.0	90.00	179.61	10,369.7	-7,341.7	150.7	7,342.1	0.00	0.00	0.00	
17,700.0	90.00	179.61	10,369.7	-7,441.7	151.3	7,442.1	0.00	0.00	0.00	
17,800.0	90.00	179.61	10,369.7	-7,541.7	152.0	7,542.1	0.00	0.00	0.00	
17,900.0	90.00	179.61	10,369.7	-7,641.7	152.7	7,642.1	0.00	0.00	0.00	
18,000.0	90.00	179.61	10,369.7	-7,741.7	153.4	7,742.1	0.00	0.00	0.00	
18,100.0	90.00	179.61	10,369.7	-7,841.7	154.1	7,842.1	0.00	0.00	0.00	
18,200.0	90.00	179.61	10,369.7	-7,941.7	154.7	7,942.1	0.00	0.00	0.00	
18,300.0	90.00	179.61	10,369.7	-8,041.7	155.4	8,042.1	0.00	0.00	0.00	
18,400.0	90.00	179.61	10,369.7	-8,141.7	156.1	8,142.1	0.00	0.00	0.00	
18,500.0	90.00	179.61	10,369.7	-8,241.7	156.8	8,242.1	0.00	0.00	0.00	
18,600.0	90.00	179.61	10,369.7	-8,341.7	157.5	8,342.1	0.00	0.00	0.00	
18,700.0	90.00	179.61	10,369.7	-8,441.7	158.2	8,442.1	0.00	0.00	0.00	
18,800.0	90.00	179.61	10,369.7	-8,541.7	158.8	8,542.1	0.00	0.00	0.00	
18,900.0	90.00	179.61	10,369.7	-8,641.7	159.5	8,642.1	0.00	0.00	0.00	
19,000.0	90.00	179.61	10,369.7	-8,741.7	160.2	8,742.1	0.00	0.00	0.00	
19,100.0	90.00	179.61	10,369.7	-8,841.7	160.9	8,842.1	0.00	0.00	0.00	
19,200.0	90.00	179.61	10,369.7	-8,941.7	161.6	8,942.1	0.00	0.00	0.00	
19,300.0	90.00	179.61	10,369.7	-9,041.7	162.2	9,042.1	0.00	0.00	0.00	
19,400.0	90.00	179.61	10,369.7	-9,141.7	162.9	9,142.1	0.00	0.00	0.00	
19,500.0	90.00	179.61	10,369.7	-9,241.7	163.6	9,242.1	0.00	0.00	0.00	
19,600.0	90.00	179.61	10,369.7	-9,341.7	164.3	9,342.1	0.00	0.00	0.00	
19,700.0	90.00	179.61	10,369.7	-9,441.7	165.0	9,442.1	0.00	0.00	0.00	
19,800.0	90.00	179.61	10,369.7	-9,541.6	165.6	9,542.1	0.00	0.00	0.00	
19,900.0	90.00	179.61	10,369.7	-9,641.6	166.3	9,642.0	0.00	0.00	0.00	
20,000.0	90.00	179.61	10,369.7	-9,741.6	167.0	9,742.0	0.00	0.00	0.00	
20,100.0	90.00	179.61	10,369.7	-9,841.6	167.7	9,842.0	0.00	0.00	0.00	
20,200.0	90.00	179.61	10,369.7	-9,941.6	168.4	9,942.0	0.00	0.00	0.00	
20,300.0	90.00	179.61	10,369.7	-10,041.6	169.0	10,042.0	0.00	0.00	0.00	
20,400.0	90.00	179.61	10,369.7	-10,141.6	169.7	10,142.0	0.00	0.00	0.00	
20,500.0	90.00	179.61	10,369.7	-10,241.6	170.4	10,242.0	0.00	0.00	0.00	
20,545.1	90.00	179.61	10,369.7	-10,286.7	170.0	10,287.1	0.00	0.00	0.00	
TD at 20545.1 - BHL - Pony Express Fed Com #504H										

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #504H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.5usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
VP - Pony Express Fe - plan hits target center - Point	0.00	0.00	9,796.7	125.3	99.8	575,413.44	705,675.29	32° 34' 48.518 N	103° 39' 56.237 W
BHL - Pony Express F - plan hits target center - Point	0.00	0.00	10,369.7	-10,286.7	170.0	565,001.34	705,745.51	32° 33' 5.484 N	103° 39' 56.180 W

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,282.0	1,282.0	Rustler		0.00	179.61
1,645.0	1,645.0	Salado		0.00	179.61
2,924.3	2,916.0	G30: CS14-CSB/Tansill		0.00	179.61
3,038.8	3,030.0	Yates (GDS)			179.61
3,416.0	3,407.0	Capitan (GDS)			179.61
5,267.0	5,258.0	Cherry Canyon			179.61
6,228.0	6,219.0	Brushy Canyon			179.61
8,213.0	8,204.0	BSGL			179.61
8,431.0	8,422.0	U. Avalon Shale			179.61
8,732.0	8,723.0	Avalon Carb			179.61
9,034.0	9,025.0	L. Avalon Shale			179.61
9,184.0	9,175.0	FBSC			179.61
9,237.0	9,228.0	FBSG			179.61
9,520.0	9,511.0	SBSC			179.61
9,747.0	9,738.0	SBSG			179.61
10,422.4	10,301.0	TBSC			179.61

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.0	1,500.0	0.0	0.0	Start Build 1.00
2,300.0	2,297.4	43.6	34.7	Start 483.7 hold at 2300.0 MD
2,783.7	2,776.4	96.3	76.7	Start Drop -1.50
3,317.0	3,308.0	125.3	99.8	Start 6488.7 hold at 3317.0 MD
9,805.7	9,796.7	125.3	99.8	Start Build 10.00
10,705.7	10,369.7	-447.6	103.7	Start 67.3 hold at 10705.7 MD
10,773.0	10,369.7	-514.9	104.2	Start 9772.1 hold at 10773.0 MD
20,545.1	10,369.7	-10,286.7	170.0	TD at 20545.1

Drill Plan**Pony Express Fed Com #505H**

- Matador respectfully requests the option to amend the well design of the Pony Express Fed Com #505H to make the following changes to the current APD.

Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	20	0 - 1302	0 - 1302	16	84	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	13.5	0 - 2940	0 - 2940	10.75	45.5	L-80	BUTT	1.125	1.125	1.8
Intermediate 2	9.875	0 - 5402	0 - 5402	8.625	32	P-110	VAM-Sprint FJ	1.125	1.125	1.8
Production	7.875	0 - 20357	0 - 10387	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement (ft)	Class	Blend
Surface	Lead	960	1.78	1710	13.5	100%	0	C	5% NaCl + LCM
	Tail	1620	1.35	2181	14.8	100%	1002	C	5% NaCl + LCM
Intermediate 1	Lead	980	1.78	1742	13.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.35	342	14.8	50%	2352	C	5% NaCl + LCM
Intermediate 2	Lead	490	1.78	869	13.5	50%	0	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	160	1.35	217	14.8	50%	4402	C	5% NaCl + LCM
Production	Lead	320	3.66	1185	10.3	25%	3222	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	1670	1.35	2255	13.2	15%	9088	A/C	Fluid Loss + Dispersant + Retarder + LCM

-Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 10-3/4" or 8-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

-Matador would also like to request a variance to perform a bradenhead squeeze on Intermediate 2 if needed.

- Matador would like to request variance for use of diverter and 2000 psi annular to be installed after running 16" casing which will be tested to 1000 psi. 5M BOP's will be installed and tested to 5000 psi after running 10.75" casing.

Mud Program

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	20	Spud Mud	0 - 1302	8.4 - 8.8	28-30	NC
Intermediate 1	13.5	Brine Water	1302 - 2940	9.5 - 10.2	28-32	NC
Intermediate 2	9.875	Fresh Water	2940 - 5402	8.4 - 8.6	28-30	NC
Production	7.875	OBM/Cut Brine	5402 - 20357	8.6 - 9.4	28-30	NC

- Kick off point / landing point: 9,848.7' MD 9,795.9' TVD / 10,748.7' MD 10,368.9' TVD

Matador Production Company

Ranger/Arrowhead

Pony Express Fed Com

Pony Express Fed Com #505H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

26 August, 2022

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #505H
Company:	Matador Production Company	TVD Reference:	KB @ 3572.9usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3572.9usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Ranger/Arrowhead		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site		Pony Express Fed Com				
Site Position:		Northing:	575,308.89 usft	Latitude:	32° 34' 47.590 N	
From:	Lat/Long	Easting:	703,951.60 usft	Longitude:	103° 40' 16.388 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36 °

Well		Pony Express Fed Com #505H				
Well Position	+N-S	292.6 usft	Northing:	575,601.46 usft	Latitude:	32° 34' 50.344 N
	+E-W	2,277.8 usft	Easting:	706,229.32 usft	Longitude:	103° 39' 49.748 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,544.4 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/25/2022	6.46	60.30	47,603.11960074

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.85

Plan Survey Tool Program	Date	8/26/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,588.5	BLM Plan #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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	103.28	2,297.4	-12.8	54.3	1.00	1.00	0.00	103.28	
7,285.8	8.00	103.28	7,234.7	-172.2	729.6	0.00	0.00	0.00	0.00	
7,819.2	0.00	0.00	7,766.3	-180.8	765.8	1.50	-1.50	0.00	180.00	
9,848.7	0.00	0.00	9,795.9	-180.8	765.8	0.00	0.00	0.00	0.00	VP - Pony Express
10,748.7	90.00	179.70	10,368.9	-753.7	768.8	10.00	10.00	0.00	179.70	
10,753.3	90.00	179.61	10,368.9	-758.3	768.8	2.00	-0.01	-2.00	-90.15	
20,588.5	90.00	179.61	10,368.9	-10,593.3	835.9	0.00	0.00	0.00	0.00	BHL - Pony Express

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #505H
Company:	Matador Production Company	TVD Reference:	KB @ 3572.9usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3572.9usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,282.0	0.00	0.00	1,282.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
1,600.0	1.00	103.28	1,600.0	-0.2	0.8	0.2	1.00	1.00	0.00
1,645.0	1.45	103.28	1,645.0	-0.4	1.8	0.4	1.00	1.00	0.00
Salado									
1,700.0	2.00	103.28	1,700.0	-0.8	3.4	0.8	1.00	1.00	0.00
1,800.0	3.00	103.28	1,799.9	-1.8	7.6	1.8	1.00	1.00	0.00
1,900.0	4.00	103.28	1,899.7	-3.2	13.6	3.2	1.00	1.00	0.00
2,000.0	5.00	103.28	1,999.4	-5.0	21.2	5.1	1.00	1.00	0.00
2,100.0	6.00	103.28	2,098.9	-7.2	30.5	7.3	1.00	1.00	0.00
2,200.0	7.00	103.28	2,198.3	-9.8	41.6	9.9	1.00	1.00	0.00
2,300.0	8.00	103.28	2,297.4	-12.8	54.3	13.0	1.00	1.00	0.00
Start 4985.8 hold at 2300.0 MD									
2,400.0	8.00	103.28	2,396.4	-16.0	67.8	16.2	0.00	0.00	0.00
2,500.0	8.00	103.28	2,495.5	-19.2	81.4	19.4	0.00	0.00	0.00
2,600.0	8.00	103.28	2,594.5	-22.4	94.9	22.7	0.00	0.00	0.00
2,700.0	8.00	103.28	2,693.5	-25.6	108.4	25.9	0.00	0.00	0.00
2,800.0	8.00	103.28	2,792.5	-28.8	122.0	29.1	0.00	0.00	0.00
2,900.0	8.00	103.28	2,891.6	-32.0	135.5	32.4	0.00	0.00	0.00
2,924.7	8.00	103.28	2,916.0	-32.8	138.9	33.1	0.00	0.00	0.00
G30: CS14-CSB/Tansill									
3,000.0	8.00	103.28	2,990.6	-35.2	149.1	35.6	0.00	0.00	0.00
3,039.8	8.00	103.28	3,030.0	-36.5	154.5	36.9	0.00	0.00	0.00
Yates (GDS)									
3,100.0	8.00	103.28	3,089.6	-38.4	162.6	38.8	0.00	0.00	0.00
3,200.0	8.00	103.28	3,188.6	-41.6	176.2	42.1	0.00	0.00	0.00
3,300.0	8.00	103.28	3,287.7	-44.8	189.7	45.3	0.00	0.00	0.00
3,400.0	8.00	103.28	3,386.7	-48.0	203.3	48.5	0.00	0.00	0.00
3,420.5	8.00	103.28	3,407.0	-48.6	206.0	49.2	0.00	0.00	0.00
Capitan (GDS)									
3,500.0	8.00	103.28	3,485.7	-51.2	216.8	51.7	0.00	0.00	0.00
3,600.0	8.00	103.28	3,584.8	-54.4	230.4	55.0	0.00	0.00	0.00
3,700.0	8.00	103.28	3,683.8	-57.6	243.9	58.2	0.00	0.00	0.00
3,800.0	8.00	103.28	3,782.8	-60.8	257.4	61.4	0.00	0.00	0.00
3,900.0	8.00	103.28	3,881.8	-64.0	271.0	64.7	0.00	0.00	0.00
4,000.0	8.00	103.28	3,980.9	-67.2	284.5	67.9	0.00	0.00	0.00

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3572.9usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3572.9usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.0	8.00	103.28	4,079.9	-70.4	298.1	71.1	0.00	0.00	0.00
4,200.0	8.00	103.28	4,178.9	-73.6	311.6	74.4	0.00	0.00	0.00
4,300.0	8.00	103.28	4,277.9	-76.8	325.2	77.6	0.00	0.00	0.00
4,400.0	8.00	103.28	4,377.0	-80.0	338.7	80.8	0.00	0.00	0.00
4,500.0	8.00	103.28	4,476.0	-83.2	352.3	84.1	0.00	0.00	0.00
4,600.0	8.00	103.28	4,575.0	-86.4	365.8	87.3	0.00	0.00	0.00
4,700.0	8.00	103.28	4,674.0	-89.6	379.3	90.5	0.00	0.00	0.00
4,800.0	8.00	103.28	4,773.1	-92.8	392.9	93.8	0.00	0.00	0.00
4,900.0	8.00	103.28	4,872.1	-95.9	406.4	97.0	0.00	0.00	0.00
5,000.0	8.00	103.28	4,971.1	-99.1	420.0	100.2	0.00	0.00	0.00
5,100.0	8.00	103.28	5,070.2	-102.3	433.5	103.5	0.00	0.00	0.00
5,200.0	8.00	103.28	5,169.2	-105.5	447.1	106.7	0.00	0.00	0.00
5,289.7	8.00	103.28	5,258.0	-108.4	459.2	109.6	0.00	0.00	0.00
Cherry Canyon									
5,300.0	8.00	103.28	5,268.2	-108.7	460.6	109.9	0.00	0.00	0.00
5,400.0	8.00	103.28	5,367.2	-111.9	474.2	113.2	0.00	0.00	0.00
5,500.0	8.00	103.28	5,466.3	-115.1	487.7	116.4	0.00	0.00	0.00
5,600.0	8.00	103.28	5,565.3	-118.3	501.3	119.6	0.00	0.00	0.00
5,700.0	8.00	103.28	5,664.3	-121.5	514.8	122.9	0.00	0.00	0.00
5,800.0	8.00	103.28	5,763.3	-124.7	528.3	126.1	0.00	0.00	0.00
5,900.0	8.00	103.28	5,862.4	-127.9	541.9	129.3	0.00	0.00	0.00
6,000.0	8.00	103.28	5,961.4	-131.1	555.4	132.6	0.00	0.00	0.00
6,100.0	8.00	103.28	6,060.4	-134.3	569.0	135.8	0.00	0.00	0.00
6,200.0	8.00	103.28	6,159.4	-137.5	582.5	139.0	0.00	0.00	0.00
6,260.1	8.00	103.28	6,219.0	-139.4	590.7	141.0	0.00	0.00	0.00
Brushy Canyon									
6,300.0	8.00	103.28	6,258.5	-140.7	596.1	142.3	0.00	0.00	0.00
6,400.0	8.00	103.28	6,357.5	-143.9	609.6	145.5	0.00	0.00	0.00
6,500.0	8.00	103.28	6,456.5	-147.1	623.2	148.7	0.00	0.00	0.00
6,600.0	8.00	103.28	6,555.6	-150.3	636.7	152.0	0.00	0.00	0.00
6,700.0	8.00	103.28	6,654.6	-153.5	650.2	155.2	0.00	0.00	0.00
6,800.0	8.00	103.28	6,753.6	-156.7	663.8	158.4	0.00	0.00	0.00
6,900.0	8.00	103.28	6,852.6	-159.9	677.3	161.7	0.00	0.00	0.00
7,000.0	8.00	103.28	6,951.7	-163.1	690.9	164.9	0.00	0.00	0.00
7,100.0	8.00	103.28	7,050.7	-166.3	704.4	168.1	0.00	0.00	0.00
7,200.0	8.00	103.28	7,149.7	-169.5	718.0	171.4	0.00	0.00	0.00
7,285.8	8.00	103.28	7,234.7	-172.2	729.6	174.1	0.00	0.00	0.00
Start Drop -1.50									
7,300.0	7.79	103.28	7,248.7	-172.7	731.5	174.6	1.50	-1.50	0.00
7,400.0	6.29	103.28	7,348.0	-175.5	743.4	177.4	1.50	-1.50	0.00
7,500.0	4.79	103.28	7,447.5	-177.7	752.8	179.7	1.50	-1.50	0.00
7,600.0	3.29	103.28	7,547.3	-179.3	759.7	181.3	1.50	-1.50	0.00
7,700.0	1.79	103.28	7,647.2	-180.4	764.0	182.4	1.50	-1.50	0.00
7,800.0	0.29	103.28	7,747.2	-180.8	765.7	182.8	1.50	-1.50	0.00
7,819.2	0.00	0.00	7,766.3	-180.8	765.8	182.8	1.50	-1.50	0.00
Start 2029.6 hold at 7819.2 MD									
7,900.0	0.00	0.00	7,847.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,947.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,100.0	0.00	0.00	8,047.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,147.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,256.8	0.00	0.00	8,204.0	-180.8	765.8	182.8	0.00	0.00	0.00
BSGL									
8,300.0	0.00	0.00	8,247.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,347.1	-180.8	765.8	182.8	0.00	0.00	0.00

Planning Report

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Project:	Ranger/Arrowhead	MD Reference:	KB @ 3572.9usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,474.8	0.00	0.00	8,422.0	-180.8	765.8	182.8	0.00	0.00	0.00
U. Avalon Shale									
8,500.0	0.00	0.00	8,447.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,600.0	0.00	0.00	8,547.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,700.0	0.00	0.00	8,647.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,775.8	0.00	0.00	8,723.0	-180.8	765.8	182.8	0.00	0.00	0.00
Avalon Carb									
8,800.0	0.00	0.00	8,747.1	-180.8	765.8	182.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,847.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,947.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,077.8	0.00	0.00	9,025.0	-180.8	765.8	182.8	0.00	0.00	0.00
L. Avalon Shale									
9,100.0	0.00	0.00	9,047.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,200.0	0.00	0.00	9,147.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,227.8	0.00	0.00	9,175.0	-180.8	765.8	182.8	0.00	0.00	0.00
FBSC									
9,280.8	0.00	0.00	9,228.0	-180.8	765.8	182.8	0.00	0.00	0.00
FBSC									
9,300.0	0.00	0.00	9,247.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,400.0	0.00	0.00	9,347.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,500.0	0.00	0.00	9,447.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,563.8	0.00	0.00	9,511.0	-180.8	765.8	182.8	0.00	0.00	0.00
SBSC									
9,600.0	0.00	0.00	9,547.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,700.0	0.00	0.00	9,647.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,790.8	0.00	0.00	9,738.0	-180.8	765.8	182.8	0.00	0.00	0.00
SBSC									
9,800.0	0.00	0.00	9,747.1	-180.8	765.8	182.8	0.00	0.00	0.00
9,848.7	0.00	0.00	9,795.9	-180.8	765.8	182.8	0.00	0.00	0.00
Start Build 10.00 - VP - Pony Express Fed Com #505H									
9,900.0	5.13	179.70	9,847.1	-183.1	765.8	185.1	10.00	10.00	0.00
10,000.0	15.13	179.70	9,945.4	-200.6	765.9	202.6	10.00	10.00	0.00
10,100.0	25.13	179.70	10,039.2	-235.0	766.1	237.0	10.00	10.00	0.00
10,200.0	35.13	179.70	10,125.6	-285.1	766.3	287.1	10.00	10.00	0.00
10,300.0	45.13	179.70	10,201.9	-349.5	766.7	351.5	10.00	10.00	0.00
10,400.0	55.13	179.70	10,266.0	-426.1	767.1	428.1	10.00	10.00	0.00
10,467.1	61.83	179.70	10,301.0	-483.3	767.4	485.3	10.00	10.00	0.00
TBSC									
10,500.0	65.13	179.70	10,315.7	-512.7	767.5	514.7	10.00	10.00	0.00
10,600.0	75.13	179.70	10,349.7	-606.6	768.0	608.7	10.00	10.00	0.00
10,700.0	85.13	179.70	10,366.8	-705.0	768.5	707.0	10.00	10.00	0.00
10,748.7	90.00	179.70	10,368.9	-753.7	768.8	755.7	10.00	10.00	0.00
Start DLS 2.00 TFO -90.15									
10,753.3	90.00	179.61	10,368.9	-758.3	768.8	760.3	2.00	-0.01	-2.00
Start 9835.2 hold at 10753.3 MD									
10,800.0	90.00	179.61	10,368.9	-805.0	769.1	807.0	0.00	0.00	0.00
10,900.0	90.00	179.61	10,368.9	-905.0	769.8	907.0	0.00	0.00	0.00
11,000.0	90.00	179.61	10,368.9	-1,005.0	770.5	1,007.0	0.00	0.00	0.00
11,100.0	90.00	179.61	10,368.9	-1,105.0	771.2	1,107.0	0.00	0.00	0.00
11,200.0	90.00	179.61	10,368.9	-1,205.0	771.9	1,207.0	0.00	0.00	0.00
11,300.0	90.00	179.61	10,368.9	-1,305.0	772.5	1,307.0	0.00	0.00	0.00
11,400.0	90.00	179.61	10,368.9	-1,405.0	773.2	1,407.0	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #505H
Company:	Matador Production Company	TVD Reference:	KB @ 3572.9usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3572.9usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,500.0	90.00	179.61	10,368.9	-1,505.0	773.9	1,507.0	0.00	0.00	0.00	
11,600.0	90.00	179.61	10,368.9	-1,605.0	774.6	1,607.0	0.00	0.00	0.00	
11,700.0	90.00	179.61	10,368.9	-1,705.0	775.3	1,707.0	0.00	0.00	0.00	
11,800.0	90.00	179.61	10,368.9	-1,805.0	775.9	1,807.0	0.00	0.00	0.00	
11,900.0	90.00	179.61	10,368.9	-1,905.0	776.6	1,907.0	0.00	0.00	0.00	
12,000.0	90.00	179.61	10,368.9	-2,004.9	777.3	2,007.0	0.00	0.00	0.00	
12,100.0	90.00	179.61	10,368.9	-2,104.9	778.0	2,107.0	0.00	0.00	0.00	
12,200.0	90.00	179.61	10,368.9	-2,204.9	778.7	2,207.0	0.00	0.00	0.00	
12,300.0	90.00	179.61	10,368.9	-2,304.9	779.4	2,307.0	0.00	0.00	0.00	
12,400.0	90.00	179.61	10,368.9	-2,404.9	780.0	2,407.0	0.00	0.00	0.00	
12,500.0	90.00	179.61	10,368.9	-2,504.9	780.7	2,507.0	0.00	0.00	0.00	
12,600.0	90.00	179.61	10,368.9	-2,604.9	781.4	2,607.0	0.00	0.00	0.00	
12,700.0	90.00	179.61	10,368.9	-2,704.9	782.1	2,707.0	0.00	0.00	0.00	
12,800.0	90.00	179.61	10,368.9	-2,804.9	782.8	2,807.0	0.00	0.00	0.00	
12,900.0	90.00	179.61	10,368.9	-2,904.9	783.5	2,907.0	0.00	0.00	0.00	
13,000.0	90.00	179.61	10,368.9	-3,004.9	784.1	3,007.0	0.00	0.00	0.00	
13,100.0	90.00	179.61	10,368.9	-3,104.9	784.8	3,107.0	0.00	0.00	0.00	
13,200.0	90.00	179.61	10,368.9	-3,204.9	785.5	3,207.0	0.00	0.00	0.00	
13,300.0	90.00	179.61	10,368.9	-3,304.9	786.2	3,307.0	0.00	0.00	0.00	
13,400.0	90.00	179.61	10,368.9	-3,404.9	786.9	3,407.0	0.00	0.00	0.00	
13,500.0	90.00	179.61	10,368.9	-3,504.9	787.5	3,507.0	0.00	0.00	0.00	
13,600.0	90.00	179.61	10,368.9	-3,604.9	788.2	3,607.0	0.00	0.00	0.00	
13,700.0	90.00	179.61	10,368.9	-3,704.9	788.9	3,707.0	0.00	0.00	0.00	
13,800.0	90.00	179.61	10,368.9	-3,804.9	789.6	3,807.0	0.00	0.00	0.00	
13,900.0	90.00	179.61	10,368.9	-3,904.9	790.3	3,907.0	0.00	0.00	0.00	
14,000.0	90.00	179.61	10,368.9	-4,004.9	791.0	4,007.0	0.00	0.00	0.00	
14,100.0	90.00	179.61	10,368.9	-4,104.9	791.6	4,107.0	0.00	0.00	0.00	
14,200.0	90.00	179.61	10,368.9	-4,204.9	792.3	4,207.0	0.00	0.00	0.00	
14,300.0	90.00	179.61	10,368.9	-4,304.9	793.0	4,307.0	0.00	0.00	0.00	
14,400.0	90.00	179.61	10,368.9	-4,404.9	793.7	4,407.0	0.00	0.00	0.00	
14,500.0	90.00	179.61	10,368.9	-4,504.9	794.4	4,507.0	0.00	0.00	0.00	
14,600.0	90.00	179.61	10,368.9	-4,604.9	795.0	4,607.0	0.00	0.00	0.00	
14,700.0	90.00	179.61	10,368.9	-4,704.9	795.7	4,707.0	0.00	0.00	0.00	
14,800.0	90.00	179.61	10,368.9	-4,804.9	796.4	4,807.0	0.00	0.00	0.00	
14,900.0	90.00	179.61	10,368.9	-4,904.9	797.1	4,907.0	0.00	0.00	0.00	
15,000.0	90.00	179.61	10,368.9	-5,004.9	797.8	5,007.0	0.00	0.00	0.00	
15,100.0	90.00	179.61	10,368.9	-5,104.9	798.5	5,106.9	0.00	0.00	0.00	
15,200.0	90.00	179.61	10,368.9	-5,204.9	799.1	5,206.9	0.00	0.00	0.00	
15,300.0	90.00	179.61	10,368.9	-5,304.9	799.8	5,306.9	0.00	0.00	0.00	
15,400.0	90.00	179.61	10,368.9	-5,404.9	800.5	5,406.9	0.00	0.00	0.00	
15,500.0	90.00	179.61	10,368.9	-5,504.9	801.2	5,506.9	0.00	0.00	0.00	
15,600.0	90.00	179.61	10,368.9	-5,604.9	801.9	5,606.9	0.00	0.00	0.00	
15,700.0	90.00	179.61	10,368.9	-5,704.9	802.6	5,706.9	0.00	0.00	0.00	
15,800.0	90.00	179.61	10,368.9	-5,804.9	803.2	5,806.9	0.00	0.00	0.00	
15,900.0	90.00	179.61	10,368.9	-5,904.9	803.9	5,906.9	0.00	0.00	0.00	
16,000.0	90.00	179.61	10,368.9	-6,004.9	804.6	6,006.9	0.00	0.00	0.00	
16,100.0	90.00	179.61	10,368.9	-6,104.9	805.3	6,106.9	0.00	0.00	0.00	
16,200.0	90.00	179.61	10,368.9	-6,204.9	806.0	6,206.9	0.00	0.00	0.00	
16,300.0	90.00	179.61	10,368.9	-6,304.8	806.6	6,306.9	0.00	0.00	0.00	
16,400.0	90.00	179.61	10,368.9	-6,404.8	807.3	6,406.9	0.00	0.00	0.00	
16,500.0	90.00	179.61	10,368.9	-6,504.8	808.0	6,506.9	0.00	0.00	0.00	
16,600.0	90.00	179.61	10,368.9	-6,604.8	808.7	6,606.9	0.00	0.00	0.00	
16,700.0	90.00	179.61	10,368.9	-6,704.8	809.4	6,706.9	0.00	0.00	0.00	
16,800.0	90.00	179.61	10,368.9	-6,804.8	810.1	6,806.9	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #505H
Company:	Matador Production Company	TVD Reference:	KB @ 3572.9usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3572.9usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,900.0	90.00	179.61	10,368.9	-6,904.8	810.7	6,906.9	0.00	0.00	0.00	
17,000.0	90.00	179.61	10,368.9	-7,004.8	811.4	7,006.9	0.00	0.00	0.00	
17,100.0	90.00	179.61	10,368.9	-7,104.8	812.1	7,106.9	0.00	0.00	0.00	
17,200.0	90.00	179.61	10,368.9	-7,204.8	812.8	7,206.9	0.00	0.00	0.00	
17,300.0	90.00	179.61	10,368.9	-7,304.8	813.5	7,306.9	0.00	0.00	0.00	
17,400.0	90.00	179.61	10,368.9	-7,404.8	814.2	7,406.9	0.00	0.00	0.00	
17,500.0	90.00	179.61	10,368.9	-7,504.8	814.8	7,506.9	0.00	0.00	0.00	
17,600.0	90.00	179.61	10,368.9	-7,604.8	815.5	7,606.9	0.00	0.00	0.00	
17,700.0	90.00	179.61	10,368.9	-7,704.8	816.2	7,706.9	0.00	0.00	0.00	
17,800.0	90.00	179.61	10,368.9	-7,804.8	816.9	7,806.9	0.00	0.00	0.00	
17,900.0	90.00	179.61	10,368.9	-7,904.8	817.6	7,906.9	0.00	0.00	0.00	
18,000.0	90.00	179.61	10,368.9	-8,004.8	818.2	8,006.9	0.00	0.00	0.00	
18,100.0	90.00	179.61	10,368.9	-8,104.8	818.9	8,106.9	0.00	0.00	0.00	
18,200.0	90.00	179.61	10,368.9	-8,204.8	819.6	8,206.9	0.00	0.00	0.00	
18,300.0	90.00	179.61	10,368.9	-8,304.8	820.3	8,306.9	0.00	0.00	0.00	
18,400.0	90.00	179.61	10,368.9	-8,404.8	821.0	8,406.9	0.00	0.00	0.00	
18,500.0	90.00	179.61	10,368.9	-8,504.8	821.7	8,506.9	0.00	0.00	0.00	
18,600.0	90.00	179.61	10,368.9	-8,604.8	822.3	8,606.9	0.00	0.00	0.00	
18,700.0	90.00	179.61	10,368.9	-8,704.8	823.0	8,706.9	0.00	0.00	0.00	
18,800.0	90.00	179.61	10,368.9	-8,804.8	823.7	8,806.9	0.00	0.00	0.00	
18,900.0	90.00	179.61	10,368.9	-8,904.8	824.4	8,906.9	0.00	0.00	0.00	
19,000.0	90.00	179.61	10,368.9	-9,004.8	825.1	9,006.9	0.00	0.00	0.00	
19,100.0	90.00	179.61	10,368.9	-9,104.8	825.7	9,106.9	0.00	0.00	0.00	
19,200.0	90.00	179.61	10,368.9	-9,204.8	826.4	9,206.9	0.00	0.00	0.00	
19,300.0	90.00	179.61	10,368.9	-9,304.8	827.1	9,306.9	0.00	0.00	0.00	
19,400.0	90.00	179.61	10,368.9	-9,404.8	827.8	9,406.9	0.00	0.00	0.00	
19,500.0	90.00	179.61	10,368.9	-9,504.8	828.5	9,506.9	0.00	0.00	0.00	
19,600.0	90.00	179.61	10,368.9	-9,604.8	829.2	9,606.9	0.00	0.00	0.00	
19,700.0	90.00	179.61	10,368.9	-9,704.8	829.8	9,706.9	0.00	0.00	0.00	
19,800.0	90.00	179.61	10,368.9	-9,804.8	830.5	9,806.9	0.00	0.00	0.00	
19,900.0	90.00	179.61	10,368.9	-9,904.8	831.2	9,906.9	0.00	0.00	0.00	
20,000.0	90.00	179.61	10,368.9	-10,004.8	831.9	10,006.9	0.00	0.00	0.00	
20,100.0	90.00	179.61	10,368.9	-10,104.8	832.6	10,106.9	0.00	0.00	0.00	
20,200.0	90.00	179.61	10,368.9	-10,204.8	833.3	10,206.9	0.00	0.00	0.00	
20,300.0	90.00	179.61	10,368.9	-10,304.8	833.9	10,306.9	0.00	0.00	0.00	
20,400.0	90.00	179.61	10,368.9	-10,404.8	834.6	10,406.9	0.00	0.00	0.00	
20,500.0	90.00	179.61	10,368.9	-10,504.8	835.3	10,506.9	0.00	0.00	0.00	
20,588.5	90.00	179.61	10,368.9	-10,593.3	835.9	10,595.4	0.00	0.00	0.00	
TD at 20588.5 - BHL - Pony Express Fed Com #505H										

Design Targets										
Target Name										
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- Shape										
VP - Pony Express Fe	0.00	0.01	9,795.9	-180.8	765.8	575,420.70	706,995.02	32° 34' 48.507 N	103° 39' 40.813 W	
- plan hits target center										
- Point										
BHL - Pony Express F	0.00	0.00	10,368.9	-10,593.3	835.9	565,008.11	707,065.24	32° 33' 5.469 N	103° 39' 40.761 W	
- plan hits target center										
- Point										

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #505H
Company:	Matador Production Company	TVD Reference:	KB @ 3572.9usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3572.9usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,282.0	1,282.0	Rustler		0.00	179.61	
1,645.0	1,645.0	Salado		0.00	179.61	
2,924.7	2,916.0	G30: CS14-CSB/Tansill		0.00	179.61	
3,039.8	3,030.0	Yates (GDS)		0.00	179.61	
3,420.5	3,407.0	Capitan (GDS)			179.61	
5,289.7	5,258.0	Cherry Canyon			179.61	
6,260.1	6,219.0	Brushy Canyon			179.61	
8,256.8	8,204.0	BSGL			179.61	
8,474.8	8,422.0	U. Avalon Shale			179.61	
8,775.8	8,723.0	Avalon Carb			179.61	
9,077.8	9,025.0	L. Avalon Shale			179.61	
9,227.8	9,175.0	FBSC			179.61	
9,280.8	9,228.0	FBSC			179.61	
9,563.8	9,511.0	SBSC			179.61	
9,790.8	9,738.0	SBSC			179.61	
10,467.1	10,301.0	TBSC			179.61	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,500.0	1,500.0	0.0	0.0	Start Build 1.00	
2,300.0	2,297.4	-12.8	54.3	Start 4985.8 hold at 2300.0 MD	
7,285.8	7,234.7	-172.2	729.6	Start Drop -1.50	
7,819.2	7,766.3	-180.8	765.8	Start 2029.6 hold at 7819.2 MD	
9,848.7	9,795.9	-180.8	765.8	Start Build 10.00	
10,748.7	10,368.9	-753.7	768.8	Start DLS 2.00 TFO -90.15	
10,753.3	10,368.9	-758.3	768.8	Start 9835.2 hold at 10753.3 MD	
20,588.5	10,368.9	-10,593.3	835.9	TD at 20588.5	

Drill Plan**Pony Express Fed Com #602H**

- Matador respectfully requests the option to amend the well design of the Pony Express Fed Com #602H to make the following changes to the current APD.

Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	20	0 - 1302	0 - 1302	16	84	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	13.5	0 - 2877	0 - 2877	10.75	45.5	L-80	BUTT	1.125	1.125	1.8
Intermediate 2	9.875	0 - 5312	0 - 5312	8.625	32	P-110	VAM-Sprint FJ	1.125	1.125	1.8
Production	7.875	0 - 21148	0 - 11247	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement (ft)	Class	Blend
Surface	Lead	960	1.78	1710	13.5	100%	0	C	5% NaCl + LCM
	Tail	1620	1.35	2181	14.8	100%	1002	C	5% NaCl + LCM
Intermediate 1	Lead	960	1.78	1714	13.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.35	336	14.8	50%	2302	C	5% NaCl + LCM
Intermediate 2	Lead	480	1.78	851	13.5	50%	0	C	Bentonite + 1% CaCL ₂ + 8% NaCl + LCM
	Tail	160	1.35	217	14.8	50%	4312	C	5% NaCl + LCM
Production	Lead	370	3.66	1360	10.3	25%	3215	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	1670	1.35	2257	13.2	15%	9873	A/C	Fluid Loss + Dispersant + Retarder + LCM

-Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 10-3/4" or 8-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

-Matador would also like to request a variance to perform a bradenhead squeeze on Intermediate 2 if needed.

- Matador would like to request variance for use of diverter and 2000 psi annular to be installed after running 16" casing which will be tested to 1000 psi. 5M BOP's will be installed and tested to 5000 psi after running 10.75" casing.

Mud Program

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	20	Spud Mud	0 - 1302	8.4 - 8.8	28-30	NC
Intermediate 1	13.5	Brine Water	1302 - 2877	9.5 - 10.2	28-32	NC
Intermediate 2	9.875	Fresh Water	2877 - 5312	8.4 - 8.6	28-30	NC
Production	7.875	OBM/Cut Brine	5312 - 21148	8.6 - 9.4	28-30	NC

- Kick off point / landing point: 10,666.3' MD 10,646.9 TVD / 11,566.3' MD 11,219.9' TVD

Matador Production Company

Ranger/Arrowhead

Pony Express Fed Com

Pony Express Fed Com #602H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

26 August, 2022

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #602H
Company:	Matador Production Company	TVD Reference:	KB @ 3561.8usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3561.8usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Ranger/Arrowhead		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site		Pony Express Fed Com			
Site Position: From:	Lat/Long	Northing:	575,308.89 usft	Latitude:	32° 34' 47.590 N
		Easting:	703,951.60 usft	Longitude:	103° 40' 16.388 W
	Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:

Well	Pony Express Fed Com #602H					
Well Position	+N/-S	0.0 usft	Northing:	575,308.89 usft	Latitude:	32° 34' 47.590 N
	+E/-W	0.0 usft	Easting:	703,951.60 usft	Longitude:	103° 40' 16.388 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,533.3 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/25/2022	6.46	60.30	47,602.00166194

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.85

Plan Survey Tool Program	Date	8/26/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,410.4	BLM Plan #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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	71.61	2,297.4	17.6	52.9	1.00	1.00	0.00	71.61	
3,846.6	8.00	71.61	3,828.9	85.5	257.2	0.00	0.00	0.00	0.00	
4,379.9	0.00	0.00	4,360.5	97.2	292.4	1.50	-1.50	0.00	180.00	
10,666.3	0.00	0.00	10,646.9	97.2	292.4	0.00	0.00	0.00	0.00	VP - Pony Express
11,566.3	90.00	172.10	11,219.9	-470.3	371.2	10.00	10.00	0.00	172.10	
11,941.7	90.00	179.61	11,219.9	-844.5	398.3	2.00	0.00	2.00	90.00	
21,411.1	90.00	179.61	11,219.9	-10,313.6	462.9	0.00	0.00	0.00	0.00	BHL - Pony Express

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3561.8usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3561.8usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,282.0	0.00	0.00	1,282.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
1,600.0	1.00	71.61	1,600.0	0.3	0.8	-0.3	1.00	1.00	0.00
1,645.0	1.45	71.61	1,645.0	0.6	1.7	-0.6	1.00	1.00	0.00
Salado									
1,700.0	2.00	71.61	1,700.0	1.1	3.3	-1.1	1.00	1.00	0.00
1,800.0	3.00	71.61	1,799.9	2.5	7.5	-2.5	1.00	1.00	0.00
1,900.0	4.00	71.61	1,899.7	4.4	13.2	-4.4	1.00	1.00	0.00
2,000.0	5.00	71.61	1,999.4	6.9	20.7	-6.8	1.00	1.00	0.00
2,100.0	6.00	71.61	2,098.9	9.9	29.8	-9.8	1.00	1.00	0.00
2,200.0	7.00	71.61	2,198.3	13.5	40.5	-13.4	1.00	1.00	0.00
2,300.0	8.00	71.61	2,297.4	17.6	52.9	-17.5	1.00	1.00	0.00
Start 1546.6 hold at 2300.0 MD									
2,400.0	8.00	71.61	2,396.4	22.0	66.1	-21.8	0.00	0.00	0.00
2,500.0	8.00	71.61	2,495.5	26.4	79.3	-26.2	0.00	0.00	0.00
2,600.0	8.00	71.61	2,594.5	30.8	92.5	-30.5	0.00	0.00	0.00
2,700.0	8.00	71.61	2,693.5	35.2	105.7	-34.9	0.00	0.00	0.00
2,800.0	8.00	71.61	2,792.5	39.5	118.9	-39.2	0.00	0.00	0.00
2,900.0	8.00	71.61	2,891.6	43.9	132.2	-43.6	0.00	0.00	0.00
2,924.7	8.00	71.61	2,916.0	45.0	135.4	-44.7	0.00	0.00	0.00
G30: CS14-CSB/Tansill									
3,000.0	8.00	71.61	2,990.6	48.3	145.4	-48.0	0.00	0.00	0.00
3,039.8	8.00	71.61	3,030.0	50.1	150.6	-49.7	0.00	0.00	0.00
Yates (GDS)									
3,100.0	8.00	71.61	3,089.6	52.7	158.6	-52.3	0.00	0.00	0.00
3,200.0	8.00	71.61	3,188.6	57.1	171.8	-56.7	0.00	0.00	0.00
3,300.0	8.00	71.61	3,287.7	61.5	185.0	-61.0	0.00	0.00	0.00
3,400.0	8.00	71.61	3,386.7	65.9	198.2	-65.4	0.00	0.00	0.00
3,420.5	8.00	71.61	3,407.0	66.8	200.9	-66.3	0.00	0.00	0.00
Capitan (GDS)									
3,500.0	8.00	71.61	3,485.7	70.3	211.4	-69.7	0.00	0.00	0.00
3,600.0	8.00	71.61	3,584.8	74.7	224.6	-74.1	0.00	0.00	0.00
3,700.0	8.00	71.61	3,683.8	79.1	237.8	-78.4	0.00	0.00	0.00
3,800.0	8.00	71.61	3,782.8	83.5	251.0	-82.8	0.00	0.00	0.00
3,846.6	8.00	71.61	3,828.9	85.5	257.2	-84.8	0.00	0.00	0.00
Start Drop -1.50									

Planning Report

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Project:	Ranger/Arrowhead	MD Reference:	KB @ 3561.8usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,900.0	7.20	71.61	3,881.9	87.7	263.9	-87.0	1.50	-1.50	0.00
4,000.0	5.70	71.61	3,981.2	91.3	274.5	-90.6	1.50	-1.50	0.00
4,100.0	4.20	71.61	4,080.9	94.0	282.7	-93.3	1.50	-1.50	0.00
4,200.0	2.70	71.61	4,180.7	95.9	288.4	-95.1	1.50	-1.50	0.00
4,300.0	1.20	71.61	4,280.6	97.0	291.6	-96.2	1.50	-1.50	0.00
4,379.9	0.00	0.00	4,360.5	97.2	292.4	-96.5	1.50	-1.50	0.00
Start 6286.4 hold at 4379.9 MD									
4,400.0	0.00	0.00	4,380.6	97.2	292.4	-96.5	0.00	0.00	0.00
4,500.0	0.00	0.00	4,480.6	97.2	292.4	-96.5	0.00	0.00	0.00
4,600.0	0.00	0.00	4,580.6	97.2	292.4	-96.5	0.00	0.00	0.00
4,700.0	0.00	0.00	4,680.6	97.2	292.4	-96.5	0.00	0.00	0.00
4,800.0	0.00	0.00	4,780.6	97.2	292.4	-96.5	0.00	0.00	0.00
4,900.0	0.00	0.00	4,880.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,000.0	0.00	0.00	4,980.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,100.0	0.00	0.00	5,080.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,180.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,277.4	0.00	0.00	5,258.0	97.2	292.4	-96.5	0.00	0.00	0.00
Cherry Canyon									
5,300.0	0.00	0.00	5,280.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,380.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,480.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,580.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,700.0	0.00	0.00	5,680.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,780.6	97.2	292.4	-96.5	0.00	0.00	0.00
5,900.0	0.00	0.00	5,880.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,980.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,100.0	0.00	0.00	6,080.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,180.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,238.4	0.00	0.00	6,219.0	97.2	292.4	-96.5	0.00	0.00	0.00
Brushy Canyon									
6,300.0	0.00	0.00	6,280.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,380.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,480.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,580.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,680.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,780.6	97.2	292.4	-96.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,880.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,980.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,080.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,180.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,280.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,380.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,480.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,580.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,680.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,780.6	97.2	292.4	-96.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,880.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,980.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,080.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,180.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,223.4	0.00	0.00	8,204.0	97.2	292.4	-96.5	0.00	0.00	0.00
BSGL									
8,300.0	0.00	0.00	8,280.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,380.6	97.2	292.4	-96.5	0.00	0.00	0.00

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Project:	Ranger/Arrowhead	MD Reference:	KB @ 3561.8usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,441.4	0.00	0.00	8,422.0	97.2	292.4	-96.5	0.00	0.00	0.00
U. Avalon Shale									
8,500.0	0.00	0.00	8,480.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,580.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,680.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,742.4	0.00	0.00	8,723.0	97.2	292.4	-96.5	0.00	0.00	0.00
Avalon Carb									
8,800.0	0.00	0.00	8,780.6	97.2	292.4	-96.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,880.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,980.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,044.4	0.00	0.00	9,025.0	97.2	292.4	-96.5	0.00	0.00	0.00
L. Avalon Shale									
9,100.0	0.00	0.00	9,080.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,194.4	0.00	0.00	9,175.0	97.2	292.4	-96.5	0.00	0.00	0.00
FBSC									
9,200.0	0.00	0.00	9,180.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,247.4	0.00	0.00	9,228.0	97.2	292.4	-96.5	0.00	0.00	0.00
FBSG									
9,300.0	0.00	0.00	9,280.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,380.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,480.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,530.4	0.00	0.00	9,511.0	97.2	292.4	-96.5	0.00	0.00	0.00
SBSC									
9,600.0	0.00	0.00	9,580.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,680.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,757.4	0.00	0.00	9,738.0	97.2	292.4	-96.5	0.00	0.00	0.00
SBSG									
9,800.0	0.00	0.00	9,780.6	97.2	292.4	-96.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,880.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,000.0	0.00	0.00	9,980.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,100.0	0.00	0.00	10,080.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,200.0	0.00	0.00	10,180.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,300.0	0.00	0.00	10,280.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,320.4	0.00	0.00	10,301.0	97.2	292.4	-96.5	0.00	0.00	0.00
TBSC									
10,400.0	0.00	0.00	10,380.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,500.0	0.00	0.00	10,480.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,600.0	0.00	0.00	10,580.6	97.2	292.4	-96.5	0.00	0.00	0.00
10,666.3	0.00	0.00	10,646.9	97.2	292.4	-96.5	0.00	0.00	0.00
Start Build 10.00 - VP - Pony Express Fed Com #602H									
10,700.0	3.37	172.10	10,680.6	96.3	292.6	-95.5	10.00	10.00	0.00
10,800.0	13.37	172.10	10,779.4	81.8	294.6	-81.1	10.00	10.00	0.00
10,900.0	23.37	172.10	10,874.2	50.7	298.9	-49.9	10.00	10.00	0.00
11,000.0	33.37	172.10	10,962.1	3.7	305.4	-2.9	10.00	10.00	0.00
11,100.0	43.37	172.10	11,040.4	-57.8	313.9	58.6	10.00	10.00	0.00
11,200.0	53.37	172.10	11,106.7	-131.7	324.2	132.5	10.00	10.00	0.00
11,300.0	63.37	172.10	11,159.1	-215.9	335.9	216.8	10.00	10.00	0.00
11,400.0	73.37	172.10	11,195.9	-307.9	348.6	308.8	10.00	10.00	0.00
11,500.0	83.37	172.10	11,216.0	-404.8	362.1	405.7	10.00	10.00	0.00
11,566.3	90.00	172.10	11,219.9	-470.3	371.2	471.3	10.00	10.00	0.00
Start DLS 2.00 TFO 90.00									
11,600.0	90.00	172.77	11,219.9	-503.7	375.6	504.7	2.00	0.00	2.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #602H
Company:	Matador Production Company	TVD Reference:	KB @ 3561.8usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3561.8usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,700.0	90.00	174.77	11,219.9	-603.1	386.5	604.1	2.00	0.00	2.00
11,800.0	90.00	176.77	11,219.9	-702.8	393.8	703.9	2.00	0.00	2.00
11,900.0	90.00	178.77	11,219.9	-802.8	397.7	803.8	2.00	0.00	2.00
11,941.7	90.00	179.61	11,219.9	-844.5	398.3	845.5	2.00	0.00	2.00
Start 9469.3 hold at 11941.7 MD									
12,000.0	90.00	179.61	11,219.9	-902.8	398.7	903.8	0.00	0.00	0.00
12,100.0	90.00	179.61	11,219.9	-1,002.8	399.4	1,003.8	0.00	0.00	0.00
12,200.0	90.00	179.61	11,219.9	-1,102.8	400.1	1,103.8	0.00	0.00	0.00
12,300.0	90.00	179.61	11,219.9	-1,202.7	400.7	1,203.8	0.00	0.00	0.00
12,400.0	90.00	179.61	11,219.9	-1,302.7	401.4	1,303.8	0.00	0.00	0.00
12,500.0	90.00	179.61	11,219.9	-1,402.7	402.1	1,403.8	0.00	0.00	0.00
12,600.0	90.00	179.61	11,219.9	-1,502.7	402.8	1,503.8	0.00	0.00	0.00
12,700.0	90.00	179.61	11,219.9	-1,602.7	403.5	1,603.8	0.00	0.00	0.00
12,800.0	90.00	179.61	11,219.9	-1,702.7	404.2	1,703.8	0.00	0.00	0.00
12,900.0	90.00	179.61	11,219.9	-1,802.7	404.8	1,803.8	0.00	0.00	0.00
13,000.0	90.00	179.61	11,219.9	-1,902.7	405.5	1,903.8	0.00	0.00	0.00
13,100.0	90.00	179.61	11,219.9	-2,002.7	406.2	2,003.8	0.00	0.00	0.00
13,200.0	90.00	179.61	11,219.9	-2,102.7	406.9	2,103.8	0.00	0.00	0.00
13,300.0	90.00	179.61	11,219.9	-2,202.7	407.6	2,203.8	0.00	0.00	0.00
13,400.0	90.00	179.61	11,219.9	-2,302.7	408.2	2,303.8	0.00	0.00	0.00
13,500.0	90.00	179.61	11,219.9	-2,402.7	408.9	2,403.8	0.00	0.00	0.00
13,600.0	90.00	179.61	11,219.9	-2,502.7	409.6	2,503.8	0.00	0.00	0.00
13,700.0	90.00	179.61	11,219.9	-2,602.7	410.3	2,603.8	0.00	0.00	0.00
13,800.0	90.00	179.61	11,219.9	-2,702.7	411.0	2,703.8	0.00	0.00	0.00
13,900.0	90.00	179.61	11,219.9	-2,802.7	411.7	2,803.8	0.00	0.00	0.00
14,000.0	90.00	179.61	11,219.9	-2,902.7	412.3	2,903.8	0.00	0.00	0.00
14,100.0	90.00	179.61	11,219.9	-3,002.7	413.0	3,003.8	0.00	0.00	0.00
14,200.0	90.00	179.61	11,219.9	-3,102.7	413.7	3,103.8	0.00	0.00	0.00
14,300.0	90.00	179.61	11,219.9	-3,202.7	414.4	3,203.8	0.00	0.00	0.00
14,400.0	90.00	179.61	11,219.9	-3,302.7	415.1	3,303.8	0.00	0.00	0.00
14,500.0	90.00	179.61	11,219.9	-3,402.7	415.7	3,403.8	0.00	0.00	0.00
14,600.0	90.00	179.61	11,219.9	-3,502.7	416.4	3,503.8	0.00	0.00	0.00
14,700.0	90.00	179.61	11,219.9	-3,602.7	417.1	3,603.8	0.00	0.00	0.00
14,800.0	90.00	179.61	11,219.9	-3,702.7	417.8	3,703.8	0.00	0.00	0.00
14,900.0	90.00	179.61	11,219.9	-3,802.7	418.5	3,803.8	0.00	0.00	0.00
15,000.0	90.00	179.61	11,219.9	-3,902.7	419.2	3,903.8	0.00	0.00	0.00
15,100.0	90.00	179.61	11,219.9	-4,002.7	419.8	4,003.8	0.00	0.00	0.00
15,200.0	90.00	179.61	11,219.9	-4,102.7	420.5	4,103.8	0.00	0.00	0.00
15,300.0	90.00	179.61	11,219.9	-4,202.7	421.2	4,203.8	0.00	0.00	0.00
15,400.0	90.00	179.61	11,219.9	-4,302.7	421.9	4,303.8	0.00	0.00	0.00
15,500.0	90.00	179.61	11,219.9	-4,402.7	422.6	4,403.8	0.00	0.00	0.00
15,600.0	90.00	179.61	11,219.9	-4,502.7	423.2	4,503.8	0.00	0.00	0.00
15,700.0	90.00	179.61	11,219.9	-4,602.7	423.9	4,603.8	0.00	0.00	0.00
15,800.0	90.00	179.61	11,219.9	-4,702.7	424.6	4,703.8	0.00	0.00	0.00
15,900.0	90.00	179.61	11,219.9	-4,802.7	425.3	4,803.8	0.00	0.00	0.00
16,000.0	90.00	179.61	11,219.9	-4,902.7	426.0	4,903.8	0.00	0.00	0.00
16,100.0	90.00	179.61	11,219.9	-5,002.7	426.7	5,003.8	0.00	0.00	0.00
16,200.0	90.00	179.61	11,219.9	-5,102.7	427.3	5,103.8	0.00	0.00	0.00
16,300.0	90.00	179.61	11,219.9	-5,202.7	428.0	5,203.8	0.00	0.00	0.00
16,400.0	90.00	179.61	11,219.9	-5,302.7	428.7	5,303.8	0.00	0.00	0.00
16,500.0	90.00	179.61	11,219.9	-5,402.7	429.4	5,403.8	0.00	0.00	0.00
16,600.0	90.00	179.61	11,219.9	-5,502.6	430.1	5,503.8	0.00	0.00	0.00
16,700.0	90.00	179.61	11,219.9	-5,602.6	430.7	5,603.8	0.00	0.00	0.00
16,800.0	90.00	179.61	11,219.9	-5,702.6	431.4	5,703.8	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #602H
Company:	Matador Production Company	TVD Reference:	KB @ 3561.8usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3561.8usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,900.0	90.00	179.61	11,219.9	-5,802.6	432.1	5,803.8	0.00	0.00	0.00
17,000.0	90.00	179.61	11,219.9	-5,902.6	432.8	5,903.8	0.00	0.00	0.00
17,100.0	90.00	179.61	11,219.9	-6,002.6	433.5	6,003.8	0.00	0.00	0.00
17,200.0	90.00	179.61	11,219.9	-6,102.6	434.2	6,103.7	0.00	0.00	0.00
17,300.0	90.00	179.61	11,219.9	-6,202.6	434.8	6,203.7	0.00	0.00	0.00
17,400.0	90.00	179.61	11,219.9	-6,302.6	435.5	6,303.7	0.00	0.00	0.00
17,500.0	90.00	179.61	11,219.9	-6,402.6	436.2	6,403.7	0.00	0.00	0.00
17,600.0	90.00	179.61	11,219.9	-6,502.6	436.9	6,503.7	0.00	0.00	0.00
17,700.0	90.00	179.61	11,219.9	-6,602.6	437.6	6,603.7	0.00	0.00	0.00
17,800.0	90.00	179.61	11,219.9	-6,702.6	438.2	6,703.7	0.00	0.00	0.00
17,900.0	90.00	179.61	11,219.9	-6,802.6	438.9	6,803.7	0.00	0.00	0.00
18,000.0	90.00	179.61	11,219.9	-6,902.6	439.6	6,903.7	0.00	0.00	0.00
18,100.0	90.00	179.61	11,219.9	-7,002.6	440.3	7,003.7	0.00	0.00	0.00
18,200.0	90.00	179.61	11,219.9	-7,102.6	441.0	7,103.7	0.00	0.00	0.00
18,300.0	90.00	179.61	11,219.9	-7,202.6	441.7	7,203.7	0.00	0.00	0.00
18,400.0	90.00	179.61	11,219.9	-7,302.6	442.3	7,303.7	0.00	0.00	0.00
18,500.0	90.00	179.61	11,219.9	-7,402.6	443.0	7,403.7	0.00	0.00	0.00
18,600.0	90.00	179.61	11,219.9	-7,502.6	443.7	7,503.7	0.00	0.00	0.00
18,700.0	90.00	179.61	11,219.9	-7,602.6	444.4	7,603.7	0.00	0.00	0.00
18,800.0	90.00	179.61	11,219.9	-7,702.6	445.1	7,703.7	0.00	0.00	0.00
18,900.0	90.00	179.61	11,219.9	-7,802.6	445.7	7,803.7	0.00	0.00	0.00
19,000.0	90.00	179.61	11,219.9	-7,902.6	446.4	7,903.7	0.00	0.00	0.00
19,100.0	90.00	179.61	11,219.9	-8,002.6	447.1	8,003.7	0.00	0.00	0.00
19,200.0	90.00	179.61	11,219.9	-8,102.6	447.8	8,103.7	0.00	0.00	0.00
19,300.0	90.00	179.61	11,219.9	-8,202.6	448.5	8,203.7	0.00	0.00	0.00
19,400.0	90.00	179.61	11,219.9	-8,302.6	449.2	8,303.7	0.00	0.00	0.00
19,500.0	90.00	179.61	11,219.9	-8,402.6	449.8	8,403.7	0.00	0.00	0.00
19,600.0	90.00	179.61	11,219.9	-8,502.6	450.5	8,503.7	0.00	0.00	0.00
19,700.0	90.00	179.61	11,219.9	-8,602.6	451.2	8,603.7	0.00	0.00	0.00
19,800.0	90.00	179.61	11,219.9	-8,702.6	451.9	8,703.7	0.00	0.00	0.00
19,900.0	90.00	179.61	11,219.9	-8,802.6	452.6	8,803.7	0.00	0.00	0.00
20,000.0	90.00	179.61	11,219.9	-8,902.6	453.2	8,903.7	0.00	0.00	0.00
20,100.0	90.00	179.61	11,219.9	-9,002.6	453.9	9,003.7	0.00	0.00	0.00
20,200.0	90.00	179.61	11,219.9	-9,102.6	454.6	9,103.7	0.00	0.00	0.00
20,300.0	90.00	179.61	11,219.9	-9,202.6	455.3	9,203.7	0.00	0.00	0.00
20,400.0	90.00	179.61	11,219.9	-9,302.6	456.0	9,303.7	0.00	0.00	0.00
20,500.0	90.00	179.61	11,219.9	-9,402.6	456.7	9,403.7	0.00	0.00	0.00
20,600.0	90.00	179.61	11,219.9	-9,502.6	457.3	9,503.7	0.00	0.00	0.00
20,700.0	90.00	179.61	11,219.9	-9,602.6	458.0	9,603.7	0.00	0.00	0.00
20,800.0	90.00	179.61	11,219.9	-9,702.6	458.7	9,703.7	0.00	0.00	0.00
20,900.0	90.00	179.61	11,219.9	-9,802.5	459.4	9,803.7	0.00	0.00	0.00
21,000.0	90.00	179.61	11,219.9	-9,902.5	460.1	9,903.7	0.00	0.00	0.00
21,100.0	90.00	179.61	11,219.9	-10,002.5	460.7	10,003.7	0.00	0.00	0.00
21,200.0	90.00	179.61	11,219.9	-10,102.5	461.4	10,103.7	0.00	0.00	0.00
21,300.0	90.00	179.61	11,219.9	-10,202.5	462.1	10,203.7	0.00	0.00	0.00
21,400.0	90.00	179.61	11,219.9	-10,302.5	462.8	10,303.7	0.00	0.00	0.00
21,411.1	90.00	179.61	11,219.9	-10,313.6	462.9	10,314.8	0.00	0.00	0.00
TD at 21411.1 - BHL - Pony Express Fed Com #602H									

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #602H
Company:	Matador Production Company	TVD Reference:	KB @ 3561.8usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3561.8usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
VP - Pony Express Fe - plan hits target center - Point	0.00	0.00	10,646.9	97.2	292.4	575,406.11	704,244.01	32° 34' 48.534 N	103° 40' 12.964 W
BHL - Pony Express F - plan hits target center - Point	0.00	0.00	11,219.9	-10,313.6	462.9	564,994.95	704,414.49	32° 33' 5.503 N	103° 40' 11.730 W

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,282.0	1,282.0	Rustler		0.00	179.61
1,645.0	1,645.0	Salado		0.00	179.61
2,924.7	2,916.0	G30: CS14-CSB/Tansill		0.00	179.61
3,039.8	3,030.0	Yates (GDS)		0.00	179.61
3,420.5	3,407.0	Capitan (GDS)		0.00	179.61
5,277.4	5,258.0	Cherry Canyon		0.00	179.61
6,238.4	6,219.0	Brushy Canyon		0.00	179.61
8,223.4	8,204.0	BSGL		0.00	179.61
8,441.4	8,422.0	U. Avalon Shale		0.00	179.61
8,742.4	8,723.0	Avalon Carb		0.00	179.61
9,044.4	9,025.0	L. Avalon Shale		0.00	179.61
9,194.4	9,175.0	FBSC		0.00	179.61
9,247.4	9,228.0	FBSG		0.00	179.61
9,530.4	9,511.0	SBSC		0.00	179.61
9,757.4	9,738.0	SBSG		0.00	179.61
10,320.4	10,301.0	TBSC		0.00	179.61

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.0	1,500.0	0.0	0.0	Start Build 1.00
2,300.0	2,297.4	17.6	52.9	Start 1546.6 hold at 2300.0 MD
3,846.6	3,828.9	85.5	257.2	Start Drop -1.50
4,379.9	4,360.5	97.2	292.4	Start 6286.4 hold at 4379.9 MD
10,666.3	10,646.9	97.2	292.4	Start Build 10.00
11,566.3	11,219.9	-470.3	371.2	Start DLS 2.00 TFO 90.00
11,941.7	11,219.9	-844.5	398.3	Start 9469.3 hold at 11941.7 MD
21,411.1	11,219.9	-10,313.6	462.9	TD at 21411.1

Drill Plan**Pony Express Fed Com #603H**

- Matador respectfully requests the option to amend the well design of the Pony Express Fed Com #603H to make the following changes to the current APD.

Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	20	0 - 1302	0 - 1302	16	84	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	13.5	0 - 2876	0 - 2876	10.75	45.5	L-80	BUTT	1.125	1.125	1.8
Intermediate 2	9.875	0 - 5381	0 - 5381	8.625	32	P-110	VAM-Sprint FJ	1.125	1.125	1.8
Production	7.875	0 - 21164	0 - 11266	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement (ft)	Class	Blend
Surface	Lead	960	1.78	1710	13.5	100%	0	C	5% NaCl + LCM
	Tail	1620	1.35	2181	14.8	100%	1002	C	5% NaCl + LCM
Intermediate 1	Lead	960	1.78	1714	13.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.35	335	14.8	50%	2301	C	5% NaCl + LCM
Intermediate 2	Lead	490	1.78	864	13.5	50%	0	C	Bentonite + 1% CaCL ₂ + 8% NaCl + LCM
	Tail	160	1.35	217	14.8	50%	4381	C	5% NaCl + LCM
Production	Lead	290	3.66	1055	10.3	25%	3255	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	1230	1.35	1663	13.2	15%	9887	A/C	Fluid Loss + Dispersant + Retarder + LCM

-Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 10-3/4" or 8-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

-Matador would also like to request a variance to perform a bradenhead squeeze on Intermediate 2 if needed.

- Matador would like to request variance for use of diverter and 2000 psi annular to be installed after running 16" casing which will be tested to 1000 psi. 5M BOP's will be installed and tested to 5000 psi after running 10.75" casing.

Mud Program

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	20	Spud Mud	0 - 1302	8.4 - 8.8	28-30	NC
Intermediate 1	13.5	Brine Water	1302 - 2876	9.5 - 10.2	28-32	NC
Intermediate 2	9.875	Fresh Water	2876 - 5381	8.4 - 8.6	28-30	NC
Production	7.875	OBM/Cut Brine	5381 - 21164	8.6 - 9.4	28-30	NC

- Kick off point / landing point: 10,652.7' MD 10,648.2' TVD / 11,552.7' MD 11,221.2' TVD

Matador Production Company

**Ranger/Arrowhead
Pony Express Fed Com
Pony Express Fed Com #603H**

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

26 August, 2022

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #603H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Ranger/Arrowhead		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site		Pony Express Fed Com			
Site Position: From:		Northing:	575,308.89 usft	Latitude:	32° 34' 47.590 N
	Lat/Long	Easting:	703,951.60 usft	Longitude:	103° 40' 16.388 W
	Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:

Well	Pony Express Fed Com #603H					
Well Position	+N/-S	9.1 usft	Northing:	575,317.95 usft	Latitude:	32° 34' 47.579 N
	+E/-W	1,623.7 usft	Easting:	705,575.27 usft	Longitude:	103° 39' 57.413 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,541.7 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/25/2022	6.46	60.30	47,602.47471600

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.85

Plan Survey Tool Program	Date	8/26/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,393.9	BLM Plan #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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	0.01	2,297.4	55.8	0.0	1.00	1.00	0.00	0.01	
2,318.5	8.00	0.01	2,315.7	58.3	0.0	0.00	0.00	0.00	0.00	
2,851.8	0.00	0.00	2,847.3	95.5	0.0	1.50	-1.50	0.00	180.00	
10,652.7	0.00	0.00	10,648.2	95.5	0.0	0.00	0.00	0.00	0.00	VP - Pony Express
11,552.7	90.00	176.75	11,221.2	-476.5	32.5	10.00	10.00	0.00	176.75	
14,370.1	90.00	179.61	11,221.2	-3,292.2	122.0	0.10	0.00	0.10	90.01	
21,394.3	90.00	179.61	11,221.2	-10,316.3	170.2	0.00	0.00	0.00	0.00	BHL - Pony Express

Planning Report

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Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,282.0	0.00	0.00	1,282.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	1.00	0.01	1,600.0	0.9	0.0	-0.9	1.00	1.00	0.00
1,645.0	1.45	0.01	1,645.0	1.8	0.0	-1.8	1.00	1.00	0.00
Salado									
1,700.0	2.00	0.01	1,700.0	3.5	0.0	-3.5	1.00	1.00	0.00
1,800.0	3.00	0.01	1,799.9	7.9	0.0	-7.9	1.00	1.00	0.00
1,900.0	4.00	0.01	1,899.7	14.0	0.0	-14.0	1.00	1.00	0.00
2,000.0	5.00	0.01	1,999.4	21.8	0.0	-21.8	1.00	1.00	0.00
2,100.0	6.00	0.01	2,098.9	31.4	0.0	-31.4	1.00	1.00	0.00
2,200.0	7.00	0.01	2,198.3	42.7	0.0	-42.7	1.00	1.00	0.00
2,300.0	8.00	0.01	2,297.4	55.8	0.0	-55.8	1.00	1.00	0.00
2,318.5	8.00	0.01	2,315.7	58.3	0.0	-58.3	0.00	0.00	0.00
2,400.0	6.78	0.01	2,396.5	68.8	0.0	-68.8	1.50	-1.50	0.00
2,500.0	5.28	0.01	2,496.0	79.3	0.0	-79.3	1.50	-1.50	0.00
2,600.0	3.78	0.01	2,595.7	87.2	0.0	-87.2	1.50	-1.50	0.00
2,700.0	2.28	0.01	2,695.5	92.5	0.0	-92.5	1.50	-1.50	0.00
2,800.0	0.78	0.01	2,795.5	95.2	0.0	-95.2	1.50	-1.50	0.00
2,851.8	0.00	0.00	2,847.3	95.5	0.0	-95.5	1.50	-1.50	0.00
2,900.0	0.00	0.00	2,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
2,920.5	0.00	0.00	2,916.0	95.5	0.0	-95.5	0.00	0.00	0.00
G30: CS14-CSB/Tansill									
3,000.0	0.00	0.00	2,995.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,034.5	0.00	0.00	3,030.0	95.5	0.0	-95.5	0.00	0.00	0.00
Yates (GDS)									
3,100.0	0.00	0.00	3,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,200.0	0.00	0.00	3,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,300.0	0.00	0.00	3,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,400.0	0.00	0.00	3,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,411.5	0.00	0.00	3,407.0	95.5	0.0	-95.5	0.00	0.00	0.00
Capitan (GDS)									
3,500.0	0.00	0.00	3,495.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,600.0	0.00	0.00	3,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,700.0	0.00	0.00	3,695.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,800.0	0.00	0.00	3,795.5	95.5	0.0	-95.5	0.00	0.00	0.00
3,900.0	0.00	0.00	3,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,000.0	0.00	0.00	3,995.5	95.5	0.0	-95.5	0.00	0.00	0.00

Planning Report

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Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.0	0.00	0.00	4,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,200.0	0.00	0.00	4,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,300.0	0.00	0.00	4,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,400.0	0.00	0.00	4,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,500.0	0.00	0.00	4,495.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,600.0	0.00	0.00	4,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,700.0	0.00	0.00	4,695.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,800.0	0.00	0.00	4,795.5	95.5	0.0	-95.5	0.00	0.00	0.00
4,900.0	0.00	0.00	4,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,000.0	0.00	0.00	4,995.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,100.0	0.00	0.00	5,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,262.5	0.00	0.00	5,258.0	95.5	0.0	-95.5	0.00	0.00	0.00
Cherry Canyon									
5,300.0	0.00	0.00	5,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,495.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,700.0	0.00	0.00	5,695.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,795.5	95.5	0.0	-95.5	0.00	0.00	0.00
5,900.0	0.00	0.00	5,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,995.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,100.0	0.00	0.00	6,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,223.5	0.00	0.00	6,219.0	95.5	0.0	-95.5	0.00	0.00	0.00
Brushy Canyon									
6,300.0	0.00	0.00	6,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,495.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,695.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,795.5	95.5	0.0	-95.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,995.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,495.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,695.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,795.5	95.5	0.0	-95.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,995.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,208.5	0.00	0.00	8,204.0	95.5	0.0	-95.5	0.00	0.00	0.00
BSGL									
8,300.0	0.00	0.00	8,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,426.5	0.00	0.00	8,422.0	95.5	0.0	-95.5	0.00	0.00	0.00
U. Avalon Shale									
8,500.0	0.00	0.00	8,495.5	95.5	0.0	-95.5	0.00	0.00	0.00

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Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.0	0.00	0.00	8,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,695.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,727.5	0.00	0.00	8,723.0	95.5	0.0	-95.5	0.00	0.00	0.00
Avalon Carb									
8,800.0	0.00	0.00	8,795.5	95.5	0.0	-95.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,995.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,029.5	0.00	0.00	9,025.0	95.5	0.0	-95.5	0.00	0.00	0.00
L. Avalon Shale									
9,100.0	0.00	0.00	9,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,179.5	0.00	0.00	9,175.0	95.5	0.0	-95.5	0.00	0.00	0.00
FBSC									
9,200.0	0.00	0.00	9,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,232.5	0.00	0.00	9,228.0	95.5	0.0	-95.5	0.00	0.00	0.00
FBSG									
9,300.0	0.00	0.00	9,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,495.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,515.5	0.00	0.00	9,511.0	95.5	0.0	-95.5	0.00	0.00	0.00
SBSC									
9,600.0	0.00	0.00	9,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,695.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,742.5	0.00	0.00	9,738.0	95.5	0.0	-95.5	0.00	0.00	0.00
SBSG									
9,800.0	0.00	0.00	9,795.5	95.5	0.0	-95.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,895.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,000.0	0.00	0.00	9,995.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,100.0	0.00	0.00	10,095.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,200.0	0.00	0.00	10,195.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,300.0	0.00	0.00	10,295.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,305.5	0.00	0.00	10,301.0	95.5	0.0	-95.5	0.00	0.00	0.00
TBSC									
10,400.0	0.00	0.00	10,395.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,500.0	0.00	0.00	10,495.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,600.0	0.00	0.00	10,595.5	95.5	0.0	-95.5	0.00	0.00	0.00
10,652.7	0.00	0.00	10,648.2	95.5	0.0	-95.5	0.00	0.00	0.00
VP - Pony Express Fed Com #603H									
10,700.0	4.73	176.75	10,695.4	93.6	0.1	-93.6	10.00	10.00	0.00
10,800.0	14.73	176.75	10,793.9	76.7	1.1	-76.7	10.00	10.00	0.00
10,900.0	24.73	176.75	10,887.9	43.0	3.0	-43.0	10.00	10.00	0.00
11,000.0	34.73	176.75	10,974.6	-6.4	5.8	6.4	10.00	10.00	0.00
11,100.0	44.73	176.75	11,051.4	-70.1	9.4	70.2	10.00	10.00	0.00
11,200.0	54.73	176.75	11,116.0	-146.2	13.7	146.3	10.00	10.00	0.00
11,300.0	64.73	176.75	11,166.3	-232.3	18.6	232.4	10.00	10.00	0.00
11,400.0	74.73	176.75	11,200.9	-325.9	23.9	325.9	10.00	10.00	0.00
11,500.0	84.73	176.75	11,218.7	-424.0	29.5	424.1	10.00	10.00	0.00
11,552.7	90.00	176.75	11,221.2	-476.5	32.5	476.6	10.00	10.00	0.00
11,600.0	90.00	176.80	11,221.2	-523.8	35.2	523.8	0.10	0.00	0.10
11,700.0	90.00	176.90	11,221.2	-623.6	40.7	623.7	0.10	0.00	0.10
11,800.0	90.00	177.00	11,221.2	-723.5	46.0	723.6	0.10	0.00	0.10
11,900.0	90.00	177.10	11,221.2	-823.3	51.1	823.5	0.10	0.00	0.10
12,000.0	90.00	177.20	11,221.2	-923.2	56.1	923.3	0.10	0.00	0.10
12,100.0	90.00	177.30	11,221.2	-1,023.1	60.9	1,023.2	0.10	0.00	0.10

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #603H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,200.0	90.00	177.41	11,221.2	-1,123.0	65.5	1,123.1	0.10	0.00	0.10
12,300.0	90.00	177.51	11,221.2	-1,222.9	69.9	1,223.1	0.10	0.00	0.10
12,400.0	90.00	177.61	11,221.2	-1,322.8	74.2	1,323.0	0.10	0.00	0.10
12,500.0	90.00	177.71	11,221.2	-1,422.7	78.3	1,422.9	0.10	0.00	0.10
12,600.0	90.00	177.81	11,221.2	-1,522.6	82.2	1,522.8	0.10	0.00	0.10
12,700.0	90.00	177.91	11,221.2	-1,622.6	85.9	1,622.8	0.10	0.00	0.10
12,800.0	90.00	178.01	11,221.2	-1,722.5	89.5	1,722.7	0.10	0.00	0.10
12,900.0	90.00	178.12	11,221.2	-1,822.4	92.8	1,822.7	0.10	0.00	0.10
13,000.0	90.00	178.22	11,221.2	-1,922.4	96.0	1,922.6	0.10	0.00	0.10
13,100.0	90.00	178.32	11,221.2	-2,022.3	99.1	2,022.6	0.10	0.00	0.10
13,200.0	90.00	178.42	11,221.2	-2,122.3	101.9	2,122.6	0.10	0.00	0.10
13,300.0	90.00	178.52	11,221.2	-2,222.3	104.6	2,222.5	0.10	0.00	0.10
13,400.0	90.00	178.62	11,221.2	-2,322.2	107.1	2,322.5	0.10	0.00	0.10
13,500.0	90.00	178.72	11,221.2	-2,422.2	109.4	2,422.5	0.10	0.00	0.10
13,600.0	90.00	178.83	11,221.2	-2,522.2	111.5	2,522.5	0.10	0.00	0.10
13,700.0	90.00	178.93	11,221.2	-2,622.2	113.5	2,622.5	0.10	0.00	0.10
13,800.0	90.00	179.03	11,221.2	-2,722.2	115.3	2,722.4	0.10	0.00	0.10
13,900.0	90.00	179.13	11,221.2	-2,822.1	116.9	2,822.4	0.10	0.00	0.10
14,000.0	90.00	179.23	11,221.2	-2,922.1	118.3	2,922.4	0.10	0.00	0.10
14,100.0	90.00	179.33	11,221.2	-3,022.1	119.5	3,022.4	0.10	0.00	0.10
14,200.0	90.00	179.43	11,221.2	-3,122.1	120.6	3,122.4	0.10	0.00	0.10
14,300.0	90.00	179.54	11,221.2	-3,222.1	121.5	3,222.4	0.10	0.00	0.10
14,370.1	90.00	179.61	11,221.2	-3,292.2	122.0	3,292.5	0.10	0.00	0.10
14,400.0	90.00	179.61	11,221.2	-3,322.1	122.2	3,322.4	0.00	0.00	0.00
14,500.0	90.00	179.61	11,221.2	-3,422.1	122.9	3,422.4	0.00	0.00	0.00
14,600.0	90.00	179.61	11,221.2	-3,522.1	123.6	3,522.4	0.00	0.00	0.00
14,700.0	90.00	179.61	11,221.2	-3,622.1	124.3	3,622.4	0.00	0.00	0.00
14,800.0	90.00	179.61	11,221.2	-3,722.1	125.0	3,722.4	0.00	0.00	0.00
14,900.0	90.00	179.61	11,221.2	-3,822.1	125.7	3,822.4	0.00	0.00	0.00
15,000.0	90.00	179.61	11,221.2	-3,922.1	126.4	3,922.4	0.00	0.00	0.00
15,100.0	90.00	179.61	11,221.2	-4,022.1	127.0	4,022.4	0.00	0.00	0.00
15,200.0	90.00	179.61	11,221.2	-4,122.1	127.7	4,122.4	0.00	0.00	0.00
15,300.0	90.00	179.61	11,221.2	-4,222.1	128.4	4,222.4	0.00	0.00	0.00
15,400.0	90.00	179.61	11,221.2	-4,322.1	129.1	4,322.4	0.00	0.00	0.00
15,500.0	90.00	179.61	11,221.2	-4,422.1	129.8	4,422.4	0.00	0.00	0.00
15,600.0	90.00	179.61	11,221.2	-4,522.1	130.5	4,522.4	0.00	0.00	0.00
15,700.0	90.00	179.61	11,221.2	-4,622.1	131.2	4,622.4	0.00	0.00	0.00
15,800.0	90.00	179.61	11,221.2	-4,722.1	131.9	4,722.4	0.00	0.00	0.00
15,900.0	90.00	179.61	11,221.2	-4,822.1	132.5	4,822.4	0.00	0.00	0.00
16,000.0	90.00	179.61	11,221.2	-4,922.1	133.2	4,922.4	0.00	0.00	0.00
16,100.0	90.00	179.61	11,221.2	-5,022.1	133.9	5,022.4	0.00	0.00	0.00
16,200.0	90.00	179.61	11,221.2	-5,122.1	134.6	5,122.4	0.00	0.00	0.00
16,300.0	90.00	179.61	11,221.2	-5,222.1	135.3	5,222.4	0.00	0.00	0.00
16,400.0	90.00	179.61	11,221.2	-5,322.1	136.0	5,322.4	0.00	0.00	0.00
16,500.0	90.00	179.61	11,221.2	-5,422.1	136.7	5,422.4	0.00	0.00	0.00
16,600.0	90.00	179.61	11,221.2	-5,522.1	137.3	5,522.4	0.00	0.00	0.00
16,700.0	90.00	179.61	11,221.2	-5,622.1	138.0	5,622.4	0.00	0.00	0.00
16,800.0	90.00	179.61	11,221.2	-5,722.1	138.7	5,722.4	0.00	0.00	0.00
16,900.0	90.00	179.61	11,221.2	-5,822.1	139.4	5,822.4	0.00	0.00	0.00
17,000.0	90.00	179.61	11,221.2	-5,922.0	140.1	5,922.4	0.00	0.00	0.00
17,100.0	90.00	179.61	11,221.2	-6,022.0	140.8	6,022.4	0.00	0.00	0.00
17,200.0	90.00	179.61	11,221.2	-6,122.0	141.5	6,122.4	0.00	0.00	0.00
17,300.0	90.00	179.61	11,221.2	-6,222.0	142.1	6,222.4	0.00	0.00	0.00
17,400.0	90.00	179.61	11,221.2	-6,322.0	142.8	6,322.4	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #603H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,500.0	90.00	179.61	11,221.2	-6,422.0	143.5	6,422.4	0.00	0.00	0.00
17,600.0	90.00	179.61	11,221.2	-6,522.0	144.2	6,522.4	0.00	0.00	0.00
17,700.0	90.00	179.61	11,221.2	-6,622.0	144.9	6,622.4	0.00	0.00	0.00
17,800.0	90.00	179.61	11,221.2	-6,722.0	145.6	6,722.4	0.00	0.00	0.00
17,900.0	90.00	179.61	11,221.2	-6,822.0	146.3	6,822.4	0.00	0.00	0.00
18,000.0	90.00	179.61	11,221.2	-6,922.0	146.9	6,922.4	0.00	0.00	0.00
18,100.0	90.00	179.61	11,221.2	-7,022.0	147.6	7,022.4	0.00	0.00	0.00
18,200.0	90.00	179.61	11,221.2	-7,122.0	148.3	7,122.4	0.00	0.00	0.00
18,300.0	90.00	179.61	11,221.2	-7,222.0	149.0	7,222.4	0.00	0.00	0.00
18,400.0	90.00	179.61	11,221.2	-7,322.0	149.7	7,322.4	0.00	0.00	0.00
18,500.0	90.00	179.61	11,221.2	-7,422.0	150.4	7,422.4	0.00	0.00	0.00
18,600.0	90.00	179.61	11,221.2	-7,522.0	151.1	7,522.4	0.00	0.00	0.00
18,700.0	90.00	179.61	11,221.2	-7,622.0	151.7	7,622.4	0.00	0.00	0.00
18,800.0	90.00	179.61	11,221.2	-7,722.0	152.4	7,722.4	0.00	0.00	0.00
18,900.0	90.00	179.61	11,221.2	-7,822.0	153.1	7,822.4	0.00	0.00	0.00
19,000.0	90.00	179.61	11,221.2	-7,922.0	153.8	7,922.4	0.00	0.00	0.00
19,100.0	90.00	179.61	11,221.2	-8,022.0	154.5	8,022.4	0.00	0.00	0.00
19,200.0	90.00	179.61	11,221.2	-8,122.0	155.2	8,122.4	0.00	0.00	0.00
19,300.0	90.00	179.61	11,221.2	-8,222.0	155.9	8,222.4	0.00	0.00	0.00
19,400.0	90.00	179.61	11,221.2	-8,322.0	156.5	8,322.4	0.00	0.00	0.00
19,500.0	90.00	179.61	11,221.2	-8,422.0	157.2	8,422.4	0.00	0.00	0.00
19,600.0	90.00	179.61	11,221.2	-8,522.0	157.9	8,522.4	0.00	0.00	0.00
19,700.0	90.00	179.61	11,221.2	-8,622.0	158.6	8,622.4	0.00	0.00	0.00
19,800.0	90.00	179.61	11,221.2	-8,722.0	159.3	8,722.4	0.00	0.00	0.00
19,900.0	90.00	179.61	11,221.2	-8,822.0	160.0	8,822.4	0.00	0.00	0.00
20,000.0	90.00	179.61	11,221.2	-8,922.0	160.7	8,922.4	0.00	0.00	0.00
20,100.0	90.00	179.61	11,221.2	-9,022.0	161.3	9,022.4	0.00	0.00	0.00
20,200.0	90.00	179.61	11,221.2	-9,122.0	162.0	9,122.4	0.00	0.00	0.00
20,300.0	90.00	179.61	11,221.2	-9,222.0	162.7	9,222.4	0.00	0.00	0.00
20,400.0	90.00	179.61	11,221.2	-9,322.0	163.4	9,322.4	0.00	0.00	0.00
20,500.0	90.00	179.61	11,221.2	-9,422.0	164.1	9,422.4	0.00	0.00	0.00
20,600.0	90.00	179.61	11,221.2	-9,522.0	164.8	9,522.4	0.00	0.00	0.00
20,700.0	90.00	179.61	11,221.2	-9,622.0	165.5	9,622.4	0.00	0.00	0.00
20,800.0	90.00	179.61	11,221.2	-9,722.0	166.2	9,722.4	0.00	0.00	0.00
20,900.0	90.00	179.61	11,221.2	-9,822.0	166.8	9,822.4	0.00	0.00	0.00
21,000.0	90.00	179.61	11,221.2	-9,922.0	167.5	9,922.4	0.00	0.00	0.00
21,100.0	90.00	179.61	11,221.2	-10,022.0	168.2	10,022.4	0.00	0.00	0.00
21,200.0	90.00	179.61	11,221.2	-10,122.0	168.9	10,122.4	0.00	0.00	0.00
21,300.0	90.00	179.61	11,221.2	-10,221.9	169.6	10,222.4	0.00	0.00	0.00
21,394.3	90.00	179.61	11,221.2	-10,316.3	170.2	10,316.7	0.00	0.00	0.00
BHL - Pony Express Fed Com #603H									

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #603H
Company:	Matador Production Company	TVD Reference:	KB @ 3570.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3570.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
VP - Pony Express Fe - plan hits target center - Point	0.00	0.00	10,648.2	95.5	0.0	575,413.44	705,575.29	32° 34' 48.524 N	103° 39' 57.406 W
BHL - Pony Express F - plan hits target center - Point	0.00	0.00	11,221.2	-10,316.3	170.2	565,001.34	705,745.51	32° 33' 5.484 N	103° 39' 56.180 W

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,282.0	1,282.0	Rustler		0.00	179.61
1,645.0	1,645.0	Salado		0.00	179.61
2,920.5	2,916.0	G30: CS14-CSB/Tansill		0.00	179.61
3,034.5	3,030.0	Yates (GDS)		0.00	179.61
3,411.5	3,407.0	Capitan (GDS)		0.00	179.61
5,262.5	5,258.0	Cherry Canyon		0.00	179.61
6,223.5	6,219.0	Brushy Canyon		0.00	179.61
8,208.5	8,204.0	BSGL		0.00	179.61
8,426.5	8,422.0	U. Avalon Shale		0.00	179.61
8,727.5	8,723.0	Avalon Carb		0.00	179.61
9,029.5	9,025.0	L. Avalon Shale		0.00	179.61
9,179.5	9,175.0	FBSC		0.00	179.61
9,232.5	9,228.0	FBSG		0.00	179.61
9,515.5	9,511.0	SBSC		0.00	179.61
9,742.5	9,738.0	SBSG		0.00	179.61
10,305.5	10,301.0	TBSC		0.00	179.61

Drill Plan**Pony Express Fed Com #604H**

- Matador respectfully requests the option to amend the well design of the Pony Express Fed Com #604H to make the following changes to the current APD.

Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	20	0 - 1302	0 - 1302	16	84	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	13.5	0 - 2940	0 - 2940	10.75	45.5	L-80	BUTT	1.125	1.125	1.8
Intermediate 2	9.875	0 - 5402	0 - 5402	8.625	32	P-110	VAM-Sprint FJ	1.125	1.125	1.8
Production	7.875	0 - 21190	0 - 11277	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement (ft)	Class	Blend
Surface	Lead	960	1.78	1710	13.5	100%	0	C	5% NaCl + LCM
	Tail	1620	1.35	2181	14.8	100%	1002	C	5% NaCl + LCM
Intermediate 1	Lead	980	1.78	1742	13.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.35	342	14.8	50%	2352	C	5% NaCl + LCM
Intermediate 2	Lead	490	1.78	869	13.5	50%	0	C	Bentonite + 1% CaCL ₂ + 8% NaCl + LCM
	Tail	160	1.35	217	14.8	50%	4402	C	5% NaCl + LCM
Production	Lead	370	3.66	1363	10.3	25%	3222	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	1670	1.35	2257	13.2	15%	9913	A/C	Fluid Loss + Dispersant + Retarder + LCM

-Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 10-3/4" or 8-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

-Matador would also like to request a variance to perform a bradenhead squeeze on Intermediate 2 if needed.

- Matador would like to request variance for use of diverter and 2000 psi annular to be installed after running 16" casing which will be tested to 1000 psi. 5M BOP's will be installed and tested to 5000 psi after running 10.75" casing.

Mud Program

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	20	Spud Mud	0 - 1302	8.4 - 8.8	28-30	NC
Intermediate 1	13.5	Brine Water	1302 - 2940	9.5 - 10.2	28-32	NC
Intermediate 2	9.875	Fresh Water	2940 - 5402	8.4 - 8.6	28-30	NC
Production	7.875	OBM/Cut Brine	5402 - 21190	8.6 - 9.4	28-30	NC

- Kick off point / landing point: 10,695.9' MD 10,649.2' TVD / 11,595.9' MD 11,222.2' TVD

Matador Production Company

Ranger/Arrowhead

Pony Express Fed Com

Pony Express Fed Com #604H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

26 August, 2022

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #604H
Company:	Matador Production Company	TVD Reference:	KB @ 3573.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3573.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Ranger/Arrowhead		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site		Pony Express Fed Com			
Site Position: From:	Lat/Long	Northing:	575,308.89 usft	Latitude:	32° 34' 47.590 N
		Easting:	703,951.60 usft	Longitude:	103° 40' 16.388 W
		Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "

Well		Pony Express Fed Com #604H				
Well Position	+N-S	322.4 usft	Northing:	575,631.29 usft	Latitude:	32° 34' 50.639 N
	+E-W	2,277.6 usft	Easting:	706,229.14 usft	Longitude:	103° 39' 49.748 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,544.7 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/25/2022	6.46	60.30	47,603.16526704

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.85

Plan Survey Tool Program	Date	8/26/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,441.9	BLM Plan #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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,600.0	8.00	107.55	2,597.4	-16.8	53.2	1.00	1.00	0.00	107.55	
6,950.8	8.00	107.55	6,905.9	-199.4	630.5	0.00	0.00	0.00	0.00	
7,484.2	0.00	0.00	7,437.5	-210.6	665.9	1.50	-1.50	0.00	180.00	
10,695.9	0.00	0.00	10,649.2	-210.6	665.9	0.00	0.00	0.00	0.00	VP - Pony Express
11,595.9	90.00	172.10	11,222.2	-778.1	744.7	10.00	10.00	0.00	172.10	
11,971.4	90.00	179.61	11,222.2	-1,152.4	771.8	2.00	0.00	2.00	90.00	
21,442.0	90.00	179.61	11,222.2	-10,622.8	836.1	0.00	0.00	0.00	0.00	BHL - Pony Express

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #604H
Company:	Matador Production Company	TVD Reference:	KB @ 3573.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3573.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,282.0	0.00	0.00	1,282.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,645.0	0.00	0.00	1,645.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado									
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
1,900.0	1.00	107.55	1,900.0	-0.3	0.8	0.3	1.00	1.00	0.00
2,000.0	2.00	107.55	2,000.0	-1.1	3.3	1.1	1.00	1.00	0.00
2,100.0	3.00	107.55	2,099.9	-2.4	7.5	2.4	1.00	1.00	0.00
2,200.0	4.00	107.55	2,199.7	-4.2	13.3	4.2	1.00	1.00	0.00
2,300.0	5.00	107.55	2,299.4	-6.6	20.8	6.6	1.00	1.00	0.00
2,400.0	6.00	107.55	2,398.9	-9.5	29.9	9.5	1.00	1.00	0.00
2,500.0	7.00	107.55	2,498.3	-12.9	40.7	13.0	1.00	1.00	0.00
2,600.0	8.00	107.55	2,597.4	-16.8	53.2	17.0	1.00	1.00	0.00
Start 4350.8 hold at 2600.0 MD									
2,700.0	8.00	107.55	2,696.4	-21.0	66.4	21.2	0.00	0.00	0.00
2,800.0	8.00	107.55	2,795.5	-25.2	79.7	25.4	0.00	0.00	0.00
2,900.0	8.00	107.55	2,894.5	-29.4	93.0	29.6	0.00	0.00	0.00
2,921.7	8.00	107.55	2,916.0	-30.3	95.9	30.6	0.00	0.00	0.00
G30: CS14-CSB/Tansill									
3,000.0	8.00	107.55	2,993.5	-33.6	106.2	33.9	0.00	0.00	0.00
3,036.8	8.00	107.55	3,030.0	-35.1	111.1	35.4	0.00	0.00	0.00
Yates (GDS)									
3,100.0	8.00	107.55	3,092.5	-37.8	119.5	38.1	0.00	0.00	0.00
3,200.0	8.00	107.55	3,191.6	-42.0	132.8	42.3	0.00	0.00	0.00
3,300.0	8.00	107.55	3,290.6	-46.2	146.1	46.6	0.00	0.00	0.00
3,400.0	8.00	107.55	3,389.6	-50.4	159.3	50.8	0.00	0.00	0.00
3,417.6	8.00	107.55	3,407.0	-51.1	161.6	51.5	0.00	0.00	0.00
Capitan (GDS)									
3,500.0	8.00	107.55	3,488.6	-54.6	172.6	55.0	0.00	0.00	0.00
3,600.0	8.00	107.55	3,587.7	-58.8	185.9	59.3	0.00	0.00	0.00
3,700.0	8.00	107.55	3,686.7	-63.0	199.1	63.5	0.00	0.00	0.00
3,800.0	8.00	107.55	3,785.7	-67.2	212.4	67.7	0.00	0.00	0.00
3,900.0	8.00	107.55	3,884.8	-71.4	225.7	72.0	0.00	0.00	0.00
4,000.0	8.00	107.55	3,983.8	-75.6	238.9	76.2	0.00	0.00	0.00

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3573.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3573.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.0	8.00	107.55	4,082.8	-79.8	252.2	80.4	0.00	0.00	0.00
4,200.0	8.00	107.55	4,181.8	-84.0	265.5	84.7	0.00	0.00	0.00
4,300.0	8.00	107.55	4,280.9	-88.2	278.7	88.9	0.00	0.00	0.00
4,400.0	8.00	107.55	4,379.9	-92.4	292.0	93.1	0.00	0.00	0.00
4,500.0	8.00	107.55	4,478.9	-96.5	305.3	97.3	0.00	0.00	0.00
4,600.0	8.00	107.55	4,577.9	-100.7	318.6	101.6	0.00	0.00	0.00
4,700.0	8.00	107.55	4,677.0	-104.9	331.8	105.8	0.00	0.00	0.00
4,800.0	8.00	107.55	4,776.0	-109.1	345.1	110.0	0.00	0.00	0.00
4,900.0	8.00	107.55	4,875.0	-113.3	358.4	114.3	0.00	0.00	0.00
5,000.0	8.00	107.55	4,974.0	-117.5	371.6	118.5	0.00	0.00	0.00
5,100.0	8.00	107.55	5,073.1	-121.7	384.9	122.7	0.00	0.00	0.00
5,200.0	8.00	107.55	5,172.1	-125.9	398.2	127.0	0.00	0.00	0.00
5,286.7	8.00	107.55	5,258.0	-129.6	409.7	130.6	0.00	0.00	0.00
Cherry Canyon									
5,300.0	8.00	107.55	5,271.1	-130.1	411.4	131.2	0.00	0.00	0.00
5,400.0	8.00	107.55	5,370.2	-134.3	424.7	135.4	0.00	0.00	0.00
5,500.0	8.00	107.55	5,469.2	-138.5	438.0	139.7	0.00	0.00	0.00
5,600.0	8.00	107.55	5,568.2	-142.7	451.3	143.9	0.00	0.00	0.00
5,700.0	8.00	107.55	5,667.2	-146.9	464.5	148.1	0.00	0.00	0.00
5,800.0	8.00	107.55	5,766.3	-151.1	477.8	152.4	0.00	0.00	0.00
5,900.0	8.00	107.55	5,865.3	-155.3	491.1	156.6	0.00	0.00	0.00
6,000.0	8.00	107.55	5,964.3	-159.5	504.3	160.8	0.00	0.00	0.00
6,100.0	8.00	107.55	6,063.3	-163.7	517.6	165.0	0.00	0.00	0.00
6,200.0	8.00	107.55	6,162.4	-167.9	530.9	169.3	0.00	0.00	0.00
6,257.2	8.00	107.55	6,219.0	-170.3	538.5	171.7	0.00	0.00	0.00
Brushy Canyon									
6,300.0	8.00	107.55	6,261.4	-172.1	544.1	173.5	0.00	0.00	0.00
6,400.0	8.00	107.55	6,360.4	-176.3	557.4	177.7	0.00	0.00	0.00
6,500.0	8.00	107.55	6,459.4	-180.5	570.7	182.0	0.00	0.00	0.00
6,600.0	8.00	107.55	6,558.5	-184.7	583.9	186.2	0.00	0.00	0.00
6,700.0	8.00	107.55	6,657.5	-188.9	597.2	190.4	0.00	0.00	0.00
6,800.0	8.00	107.55	6,756.5	-193.1	610.5	194.7	0.00	0.00	0.00
6,900.0	8.00	107.55	6,855.6	-197.3	623.8	198.9	0.00	0.00	0.00
6,950.8	8.00	107.55	6,905.9	-199.4	630.5	201.0	0.00	0.00	0.00
Start Drop -1.50									
7,000.0	7.26	107.55	6,954.6	-201.4	636.7	203.0	1.50	-1.50	0.00
7,100.0	5.76	107.55	7,054.0	-204.8	647.5	206.5	1.50	-1.50	0.00
7,200.0	4.26	107.55	7,153.6	-207.4	655.9	209.1	1.50	-1.50	0.00
7,300.0	2.76	107.55	7,253.4	-209.3	661.7	211.0	1.50	-1.50	0.00
7,400.0	1.26	107.55	7,353.3	-210.3	665.1	212.1	1.50	-1.50	0.00
7,484.2	0.00	0.00	7,437.5	-210.6	665.9	212.4	1.50	-1.50	0.00
Start 3211.7 hold at 7484.2 MD									
7,500.0	0.00	0.00	7,453.3	-210.6	665.9	212.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,553.3	-210.6	665.9	212.4	0.00	0.00	0.00
7,700.0	0.00	0.00	7,653.3	-210.6	665.9	212.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,753.3	-210.6	665.9	212.4	0.00	0.00	0.00
7,900.0	0.00	0.00	7,853.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,000.0	0.00	0.00	7,953.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,100.0	0.00	0.00	8,053.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,200.0	0.00	0.00	8,153.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,250.7	0.00	0.00	8,204.0	-210.6	665.9	212.4	0.00	0.00	0.00
BSGL									
8,300.0	0.00	0.00	8,253.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,400.0	0.00	0.00	8,353.3	-210.6	665.9	212.4	0.00	0.00	0.00

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3573.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3573.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,468.7	0.00	0.00	8,422.0	-210.6	665.9	212.4	0.00	0.00	0.00
U. Avalon Shale									
8,500.0	0.00	0.00	8,453.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,600.0	0.00	0.00	8,553.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,700.0	0.00	0.00	8,653.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,769.7	0.00	0.00	8,723.0	-210.6	665.9	212.4	0.00	0.00	0.00
Avalon Carb									
8,800.0	0.00	0.00	8,753.3	-210.6	665.9	212.4	0.00	0.00	0.00
8,900.0	0.00	0.00	8,853.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,000.0	0.00	0.00	8,953.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,071.7	0.00	0.00	9,025.0	-210.6	665.9	212.4	0.00	0.00	0.00
L. Avalon Shale									
9,100.0	0.00	0.00	9,053.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,200.0	0.00	0.00	9,153.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,221.7	0.00	0.00	9,175.0	-210.6	665.9	212.4	0.00	0.00	0.00
FBSC									
9,274.7	0.00	0.00	9,228.0	-210.6	665.9	212.4	0.00	0.00	0.00
FBSG									
9,300.0	0.00	0.00	9,253.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,400.0	0.00	0.00	9,353.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,500.0	0.00	0.00	9,453.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,557.7	0.00	0.00	9,511.0	-210.6	665.9	212.4	0.00	0.00	0.00
SBSC									
9,600.0	0.00	0.00	9,553.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,700.0	0.00	0.00	9,653.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,784.7	0.00	0.00	9,738.0	-210.6	665.9	212.4	0.00	0.00	0.00
SBSG									
9,800.0	0.00	0.00	9,753.3	-210.6	665.9	212.4	0.00	0.00	0.00
9,900.0	0.00	0.00	9,853.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,000.0	0.00	0.00	9,953.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,100.0	0.00	0.00	10,053.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,200.0	0.00	0.00	10,153.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,300.0	0.00	0.00	10,253.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,347.7	0.00	0.00	10,301.0	-210.6	665.9	212.4	0.00	0.00	0.00
TBSC									
10,400.0	0.00	0.00	10,353.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,500.0	0.00	0.00	10,453.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,600.0	0.00	0.00	10,553.3	-210.6	665.9	212.4	0.00	0.00	0.00
10,695.9	0.00	0.00	10,649.2	-210.6	665.9	212.4	0.00	0.00	0.00
Start Build 10.00 - VP - Pony Express Fed Com #604H									
10,700.0	0.41	172.10	10,653.3	-210.6	665.9	212.4	10.00	10.00	0.00
10,800.0	10.41	172.10	10,752.8	-220.0	667.2	221.7	10.00	10.00	0.00
10,900.0	20.41	172.10	10,849.0	-246.2	670.9	248.0	10.00	10.00	0.00
11,000.0	30.41	172.10	10,939.2	-288.7	676.8	290.5	10.00	10.00	0.00
11,100.0	40.41	172.10	11,020.6	-346.0	684.7	347.8	10.00	10.00	0.00
11,200.0	50.41	172.10	11,090.8	-416.5	694.5	418.3	10.00	10.00	0.00
11,300.0	60.41	172.10	11,147.4	-497.9	705.8	499.8	10.00	10.00	0.00
11,400.0	70.41	172.10	11,189.0	-587.9	718.3	589.8	10.00	10.00	0.00
11,500.0	80.41	172.10	11,214.2	-683.6	731.6	685.5	10.00	10.00	0.00
11,595.9	90.00	172.10	11,222.2	-778.1	744.7	780.1	10.00	10.00	0.00
Start DLS 2.00 TFO 90.00									
11,600.0	90.00	172.18	11,222.2	-782.2	745.3	784.2	2.00	0.00	2.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #604H
Company:	Matador Production Company	TVD Reference:	KB @ 3573.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3573.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,700.0	90.00	174.18	11,222.2	-881.5	757.1	883.5	2.00	0.00	2.00
11,800.0	90.00	176.18	11,222.2	-981.1	765.5	983.2	2.00	0.00	2.00
11,900.0	90.00	178.18	11,222.2	-1,081.0	770.4	1,083.0	2.00	0.00	2.00
11,971.4	90.00	179.61	11,222.2	-1,152.4	771.8	1,154.5	2.00	0.00	2.00
Start 9470.6 hold at 11971.4 MD									
12,000.0	90.00	179.61	11,222.2	-1,181.0	772.0	1,183.0	0.00	0.00	0.00
12,100.0	90.00	179.61	11,222.2	-1,281.0	772.7	1,283.0	0.00	0.00	0.00
12,200.0	90.00	179.61	11,222.2	-1,381.0	773.4	1,383.0	0.00	0.00	0.00
12,300.0	90.00	179.61	11,222.2	-1,481.0	774.0	1,483.0	0.00	0.00	0.00
12,400.0	90.00	179.61	11,222.2	-1,581.0	774.7	1,583.0	0.00	0.00	0.00
12,500.0	90.00	179.61	11,222.2	-1,681.0	775.4	1,683.0	0.00	0.00	0.00
12,600.0	90.00	179.61	11,222.2	-1,781.0	776.1	1,783.0	0.00	0.00	0.00
12,700.0	90.00	179.61	11,222.2	-1,881.0	776.8	1,883.0	0.00	0.00	0.00
12,800.0	90.00	179.61	11,222.2	-1,981.0	777.4	1,983.0	0.00	0.00	0.00
12,900.0	90.00	179.61	11,222.2	-2,081.0	778.1	2,083.0	0.00	0.00	0.00
13,000.0	90.00	179.61	11,222.2	-2,181.0	778.8	2,183.0	0.00	0.00	0.00
13,100.0	90.00	179.61	11,222.2	-2,281.0	779.5	2,283.0	0.00	0.00	0.00
13,200.0	90.00	179.61	11,222.2	-2,381.0	780.1	2,383.0	0.00	0.00	0.00
13,300.0	90.00	179.61	11,222.2	-2,481.0	780.8	2,483.0	0.00	0.00	0.00
13,400.0	90.00	179.61	11,222.2	-2,581.0	781.5	2,583.0	0.00	0.00	0.00
13,500.0	90.00	179.61	11,222.2	-2,681.0	782.2	2,683.0	0.00	0.00	0.00
13,600.0	90.00	179.61	11,222.2	-2,781.0	782.9	2,783.0	0.00	0.00	0.00
13,700.0	90.00	179.61	11,222.2	-2,881.0	783.5	2,883.0	0.00	0.00	0.00
13,800.0	90.00	179.61	11,222.2	-2,981.0	784.2	2,983.0	0.00	0.00	0.00
13,900.0	90.00	179.61	11,222.2	-3,081.0	784.9	3,083.0	0.00	0.00	0.00
14,000.0	90.00	179.61	11,222.2	-3,181.0	785.6	3,183.0	0.00	0.00	0.00
14,100.0	90.00	179.61	11,222.2	-3,281.0	786.3	3,283.0	0.00	0.00	0.00
14,200.0	90.00	179.61	11,222.2	-3,381.0	786.9	3,383.0	0.00	0.00	0.00
14,300.0	90.00	179.61	11,222.2	-3,481.0	787.6	3,483.0	0.00	0.00	0.00
14,400.0	90.00	179.61	11,222.2	-3,581.0	788.3	3,583.0	0.00	0.00	0.00
14,500.0	90.00	179.61	11,222.2	-3,681.0	789.0	3,683.0	0.00	0.00	0.00
14,600.0	90.00	179.61	11,222.2	-3,780.9	789.6	3,783.0	0.00	0.00	0.00
14,700.0	90.00	179.61	11,222.2	-3,880.9	790.3	3,883.0	0.00	0.00	0.00
14,800.0	90.00	179.61	11,222.2	-3,980.9	791.0	3,983.0	0.00	0.00	0.00
14,900.0	90.00	179.61	11,222.2	-4,080.9	791.7	4,083.0	0.00	0.00	0.00
15,000.0	90.00	179.61	11,222.2	-4,180.9	792.4	4,183.0	0.00	0.00	0.00
15,100.0	90.00	179.61	11,222.2	-4,280.9	793.0	4,283.0	0.00	0.00	0.00
15,200.0	90.00	179.61	11,222.2	-4,380.9	793.7	4,383.0	0.00	0.00	0.00
15,300.0	90.00	179.61	11,222.2	-4,480.9	794.4	4,483.0	0.00	0.00	0.00
15,400.0	90.00	179.61	11,222.2	-4,580.9	795.1	4,583.0	0.00	0.00	0.00
15,500.0	90.00	179.61	11,222.2	-4,680.9	795.8	4,683.0	0.00	0.00	0.00
15,600.0	90.00	179.61	11,222.2	-4,780.9	796.4	4,783.0	0.00	0.00	0.00
15,700.0	90.00	179.61	11,222.2	-4,880.9	797.1	4,883.0	0.00	0.00	0.00
15,800.0	90.00	179.61	11,222.2	-4,980.9	797.8	4,983.0	0.00	0.00	0.00
15,900.0	90.00	179.61	11,222.2	-5,080.9	798.5	5,083.0	0.00	0.00	0.00
16,000.0	90.00	179.61	11,222.2	-5,180.9	799.1	5,183.0	0.00	0.00	0.00
16,100.0	90.00	179.61	11,222.2	-5,280.9	799.8	5,283.0	0.00	0.00	0.00
16,200.0	90.00	179.61	11,222.2	-5,380.9	800.5	5,383.0	0.00	0.00	0.00
16,300.0	90.00	179.61	11,222.2	-5,480.9	801.2	5,483.0	0.00	0.00	0.00
16,400.0	90.00	179.61	11,222.2	-5,580.9	801.9	5,583.0	0.00	0.00	0.00
16,500.0	90.00	179.61	11,222.2	-5,680.9	802.5	5,683.0	0.00	0.00	0.00
16,600.0	90.00	179.61	11,222.2	-5,780.9	803.2	5,783.0	0.00	0.00	0.00
16,700.0	90.00	179.61	11,222.2	-5,880.9	803.9	5,883.0	0.00	0.00	0.00
16,800.0	90.00	179.61	11,222.2	-5,980.9	804.6	5,983.0	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #604H
Company:	Matador Production Company	TVD Reference:	KB @ 3573.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3573.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,900.0	90.00	179.61	11,222.2	-6,080.9	805.3	6,083.0	0.00	0.00	0.00
17,000.0	90.00	179.61	11,222.2	-6,180.9	805.9	6,183.0	0.00	0.00	0.00
17,100.0	90.00	179.61	11,222.2	-6,280.9	806.6	6,283.0	0.00	0.00	0.00
17,200.0	90.00	179.61	11,222.2	-6,380.9	807.3	6,383.0	0.00	0.00	0.00
17,300.0	90.00	179.61	11,222.2	-6,480.9	808.0	6,483.0	0.00	0.00	0.00
17,400.0	90.00	179.61	11,222.2	-6,580.9	808.6	6,583.0	0.00	0.00	0.00
17,500.0	90.00	179.61	11,222.2	-6,680.9	809.3	6,683.0	0.00	0.00	0.00
17,600.0	90.00	179.61	11,222.2	-6,780.9	810.0	6,783.0	0.00	0.00	0.00
17,700.0	90.00	179.61	11,222.2	-6,880.9	810.7	6,883.0	0.00	0.00	0.00
17,800.0	90.00	179.61	11,222.2	-6,980.9	811.4	6,983.0	0.00	0.00	0.00
17,900.0	90.00	179.61	11,222.2	-7,080.9	812.0	7,083.0	0.00	0.00	0.00
18,000.0	90.00	179.61	11,222.2	-7,180.9	812.7	7,183.0	0.00	0.00	0.00
18,100.0	90.00	179.61	11,222.2	-7,280.9	813.4	7,283.0	0.00	0.00	0.00
18,200.0	90.00	179.61	11,222.2	-7,380.9	814.1	7,383.0	0.00	0.00	0.00
18,300.0	90.00	179.61	11,222.2	-7,480.9	814.8	7,483.0	0.00	0.00	0.00
18,400.0	90.00	179.61	11,222.2	-7,580.9	815.4	7,583.0	0.00	0.00	0.00
18,500.0	90.00	179.61	11,222.2	-7,680.9	816.1	7,683.0	0.00	0.00	0.00
18,600.0	90.00	179.61	11,222.2	-7,780.9	816.8	7,783.0	0.00	0.00	0.00
18,700.0	90.00	179.61	11,222.2	-7,880.9	817.5	7,883.0	0.00	0.00	0.00
18,800.0	90.00	179.61	11,222.2	-7,980.9	818.1	7,983.0	0.00	0.00	0.00
18,900.0	90.00	179.61	11,222.2	-8,080.8	818.8	8,083.0	0.00	0.00	0.00
19,000.0	90.00	179.61	11,222.2	-8,180.8	819.5	8,183.0	0.00	0.00	0.00
19,100.0	90.00	179.61	11,222.2	-8,280.8	820.2	8,283.0	0.00	0.00	0.00
19,200.0	90.00	179.61	11,222.2	-8,380.8	820.9	8,383.0	0.00	0.00	0.00
19,300.0	90.00	179.61	11,222.2	-8,480.8	821.5	8,483.0	0.00	0.00	0.00
19,400.0	90.00	179.61	11,222.2	-8,580.8	822.2	8,583.0	0.00	0.00	0.00
19,500.0	90.00	179.61	11,222.2	-8,680.8	822.9	8,683.0	0.00	0.00	0.00
19,600.0	90.00	179.61	11,222.2	-8,780.8	823.6	8,783.0	0.00	0.00	0.00
19,700.0	90.00	179.61	11,222.2	-8,880.8	824.3	8,883.0	0.00	0.00	0.00
19,800.0	90.00	179.61	11,222.2	-8,980.8	824.9	8,983.0	0.00	0.00	0.00
19,900.0	90.00	179.61	11,222.2	-9,080.8	825.6	9,083.0	0.00	0.00	0.00
20,000.0	90.00	179.61	11,222.2	-9,180.8	826.3	9,183.0	0.00	0.00	0.00
20,100.0	90.00	179.61	11,222.2	-9,280.8	827.0	9,283.0	0.00	0.00	0.00
20,200.0	90.00	179.61	11,222.2	-9,380.8	827.6	9,383.0	0.00	0.00	0.00
20,300.0	90.00	179.61	11,222.2	-9,480.8	828.3	9,483.0	0.00	0.00	0.00
20,400.0	90.00	179.61	11,222.2	-9,580.8	829.0	9,583.0	0.00	0.00	0.00
20,500.0	90.00	179.61	11,222.2	-9,680.8	829.7	9,683.0	0.00	0.00	0.00
20,600.0	90.00	179.61	11,222.2	-9,780.8	830.4	9,783.0	0.00	0.00	0.00
20,700.0	90.00	179.61	11,222.2	-9,880.8	831.0	9,882.9	0.00	0.00	0.00
20,800.0	90.00	179.61	11,222.2	-9,980.8	831.7	9,982.9	0.00	0.00	0.00
20,900.0	90.00	179.61	11,222.2	-10,080.8	832.4	10,082.9	0.00	0.00	0.00
21,000.0	90.00	179.61	11,222.2	-10,180.8	833.1	10,182.9	0.00	0.00	0.00
21,100.0	90.00	179.61	11,222.2	-10,280.8	833.8	10,282.9	0.00	0.00	0.00
21,200.0	90.00	179.61	11,222.2	-10,380.8	834.4	10,382.9	0.00	0.00	0.00
21,300.0	90.00	179.61	11,222.2	-10,480.8	835.1	10,482.9	0.00	0.00	0.00
21,400.0	90.00	179.61	11,222.2	-10,580.8	835.8	10,582.9	0.00	0.00	0.00
21,442.0	90.00	179.61	11,222.2	-10,622.8	836.1	10,625.0	0.00	0.00	0.00
TD at 21442.0 - BHL - Pony Express Fed Com #604H									

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Pony Express Fed Com #604H
Company:	Matador Production Company	TVD Reference:	KB @ 3573.2usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3573.2usft
Site:	Pony Express Fed Com	North Reference:	Grid
Well:	Pony Express Fed Com #604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
VP - Pony Express Fe - plan hits target center - Point	0.00	0.01	10,649.2	-210.6	665.9	575,420.70	706,895.02	32° 34' 48.513 N	103° 39' 41.982 W
BHL - Pony Express F - plan hits target center - Point	0.00	0.00	11,222.2	-10,622.8	836.1	565,008.11	707,065.24	32° 33' 5.469 N	103° 39' 40.761 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,282.0	1,282.0	Rustler				
1,645.0	1,645.0	Salado				
2,921.7	2,916.0	G30: CS14-CSB/Tansill				
3,036.8	3,030.0	Yates (GDS)				
3,417.6	3,407.0	Capitan (GDS)		0.00	179.61	
5,286.7	5,258.0	Cherry Canyon		0.00	179.61	
6,257.2	6,219.0	Brushy Canyon		0.00	179.61	
8,250.7	8,204.0	BSGL		0.00	179.61	
8,468.7	8,422.0	U. Avalon Shale		0.00	179.61	
8,769.7	8,723.0	Avalon Carb		0.00	179.61	
9,071.7	9,025.0	L. Avalon Shale		0.00	179.61	
9,221.7	9,175.0	FBSC		0.00	179.61	
9,274.7	9,228.0	FBSG		0.00	179.61	
9,557.7	9,511.0	SBSC		0.00	179.61	
9,784.7	9,738.0	SBSG		0.00	179.61	
10,347.7	10,301.0	TBSC		0.00	179.61	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,800.0	1,800.0	0.0	0.0	Start Build 1.00
2,600.0	2,597.4	-16.8	53.2	Start 4350.8 hold at 2600.0 MD
6,950.8	6,905.9	-199.4	630.5	Start Drop -1.50
7,484.2	7,437.5	-210.6	665.9	Start 3211.7 hold at 7484.2 MD
10,695.9	10,649.2	-210.6	665.9	Start Build 10.00
11,595.9	11,222.2	-778.1	744.7	Start DLS 2.00 TFO 90.00
11,971.4	11,222.2	-1,152.4	771.8	Start 9470.6 hold at 11971.4 MD
21,442.0	11,222.2	-10,622.8	836.1	TD at 21442.0



TEC-LOCK WEDGE SC

5.500" 20 LB/FT (.361" Wall) with a 5.875" SPECIAL CLEARANCE OD
BMG ICY P110

Pipe Body Data

Nominal OD:	5.500	in
Nominal Wall:	.361	in
Nominal Weight:	20.00	lb/ft
Plain End Weight:	19.83	lb/ft
Material Grade:	ICY P110	
Mill/Specification:	BMG	
Yield Strength:	125,000	psi
Tensile Strength:	140,000	psi
Nominal ID:	4.778	in
API Drift Diameter:	4.653	in
Special Drift Diameter:	None	in
RBW:	87.5 %	
Body Yield:	729,000	lbf
Burst:	14,360	psi
Collapse:	12,200	psi

Connection Data

Standard OD:	5.875	in
Pin Bored ID:	4.778	in
Critical Section Area:	5.656	in ²
Tensile Efficiency:	97 %	
Compressive Efficiency:	100 %	
Longitudinal Yield Strength:	707,000	lbf
Compressive Limit:	729,000	lbf
Internal Pressure Rating:	14,360	psi
External Pressure Rating:	12,200	psi
Maximum Bend:	101.2	°/100ft

Operational Data

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

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

Generated on Aug 15, 2018



Issued on: 22 Apr. 2021 by Logan Van Gorp



Connection Data Sheet

OD	Weight (lb/ft)	Wall Th.	Grade	Alt. Drift:	Connection
8 5/8 in.	Nominal: 32.00 Plain End: 31.13	0.352 in.	P110EC	7.875 in.	VAM® SPRINT-FJ

PIPE PROPERTIES		
Nominal OD	8.625	in.
Nominal ID	7.921	in.
Nominal Cross Section Area	9.149	sqin.
Grade Type	High Yield	
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

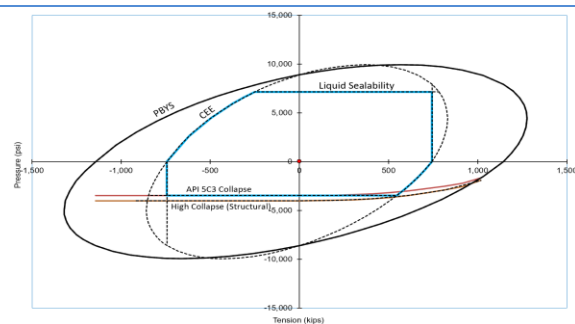
CONNECTION PROPERTIES		
Connection Type	Semi-Premium Integral Flush	
Connection OD (nom):	8.665	in.
Connection ID (nom):	7.954	in.
Make-Up Loss	2.614	in.
Critical Cross Section	6.038	sqin.
Tension Efficiency	65.0	% of pipe
Compression Efficiency	65.0	% of pipe
Internal Pressure Efficiency	80.0	% of pipe
External Pressure Efficiency	100	% of pipe

CONNECTION PERFORMANCES		
Tensile Yield Strength	744	klb
Compression Resistance	744	klb
Max. Internal Pressure	7,150	psi
Structural Collapse Resistance	4,000	psi
Max. Structural Bending	41	°/100ft
Max. Bending with Sealability	10	°/100ft

* 87.5% RBW

TORQUE VALUES		
Min. Make-up torque	15,000	ft.lb
Opt. Make-up torque	16,500	ft.lb
Max. Make-up torque	18,000	ft.lb
Max. Torque with Sealability (MTS)	48,000	ft.lb

VAM® SPRINT-FJ is a semi-premium flush connection designed for shale applications, where maximum clearance and high tension capacity are required for intermediate casing strings.



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

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

uk@vamfieldservice.com
dubai@vamfieldservice.com
nigeria@vamfieldservice.com
angola@vamfieldservice.com

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

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District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 164481

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 164481
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	12/29/2022