HOBBS OCD

APR 26 2019

RECEIVED

Form 3160-3 (June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM027805

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.
FRIZZLE FRY F C 22 32 15 WA 2H (325473)

2. Name of Operator
MARATHON OIL PERMIAN LLC (372098)

9. API Well No.
30-025-45890

3a. Address
5555 San Felipe St. Houston TX 77056

3b. Phone No. *(include area code)*
(713)629-6600

10. Field and Pool, or Exploratory (98166)
~~COG MEDANOS, NORTH~~ / WOLFCAMP,

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface NWNW / 273 FNL / 792 FWL / LAT 32.398205 / LONG -103.6685641

At proposed prod. zone SWSW / 330 FSL / 330 FWL / LAT 32.3708201 / LONG -103.670046

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 15 / T22S / R32E / NMP

14. Distance in miles and direction from nearest town or post office*
20 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
273 feet

16. No of acres in lease
640

17. Spacing Unit dedicated to this well
640

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
652 feet

19. Proposed Depth
12213 feet / 22132 feet

20. BLM/BIA Bond No. in file
FED: NMB001555

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3791 feet

22. Approximate date work will start*
04/15/2018

23. Estimated duration
30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Melissa Szudera / Ph: (713)296-3179	03/28/2018

Title
REGULATORY COMPLIANCE REPRESENTATIVE

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	03/21/2019

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

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

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

GCP Rec 04/26/19

APPROVED WITH CONDITIONS

Approval Date: 03/21/2019

KZ 04/29/19

(Continued on page 2)

*(Instructions on page 2)

Additional Operator Remarks

Location of Well

1. SHL: NWNW / 273 FNL / 792 FWL / TWSP: 22S / RANGE: 32E / SECTION: 15 / LAT: 32.398205 / LONG: -103.6685641 (TVD: 0 feet, MD: 0 feet)
   PPP: NWNW / 0 FNL / 330 FWL / TWSP: 22S / RANGE: 32E / SECTION: 22 / LAT: 32.3844283 / LONG: -103.6700545 (TVD: 12213 feet, MD: 17182 feet)
   PPP: NWNW / 330 FNL / 330 FWL / TWSP: 22S / RANGE: 32E / SECTION: 15 / LAT: 32.3980415 / LONG: -103.6700593 (TVD: 11848 feet, MD: 11950 feet)
   BHL: SWSW / 330 FSL / 330 FWL / TWSP: 22S / RANGE: 32E / SECTION: 22 / LAT: 32.3708201 / LONG: -103.670046 (TVD: 12213 feet, MD: 22132 feet)

BLM Point of Contact

Name: Tenille Ortiz
Title: Legal Instruments Examiner
Phone: 5752342224
Email: tortiz@blm.gov

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**MARATHON OIL PERMIAN LLC**
LEASE NO.:	**NMNM027805**
WELL NAME & NO.:	**FRIZZLW FRY FC 22 32 15 WA 2H**
SURFACE HOLE FOOTAGE:	**273'/N & 792'/W**
BOTTOM HOLE FOOTAGE	**330'/S & 330'/W**
LOCATION:	**SECTION 15, T22S, R32E, NMPM**
COUNTY:	**LEA**

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
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. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1050** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

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)

☒ Chaves and Roosevelt Counties
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575)

☒ 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) 393-3612

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. 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. 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

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: 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.

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.

ZS 012919

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

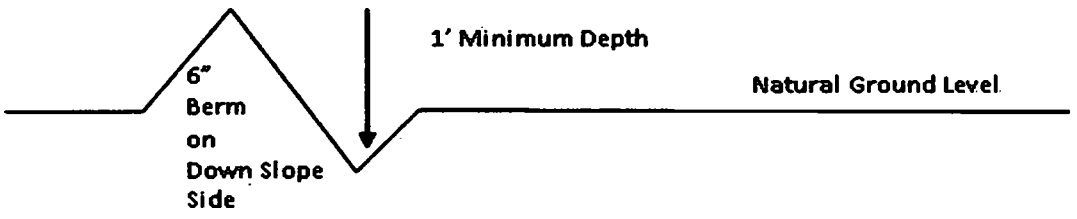
Surfacing of the well pad is not required.

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

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

Construction Steps 1. Salvage topsoil 3. Redistribute topsoil
2. Construct road 4. Revegetate slopes

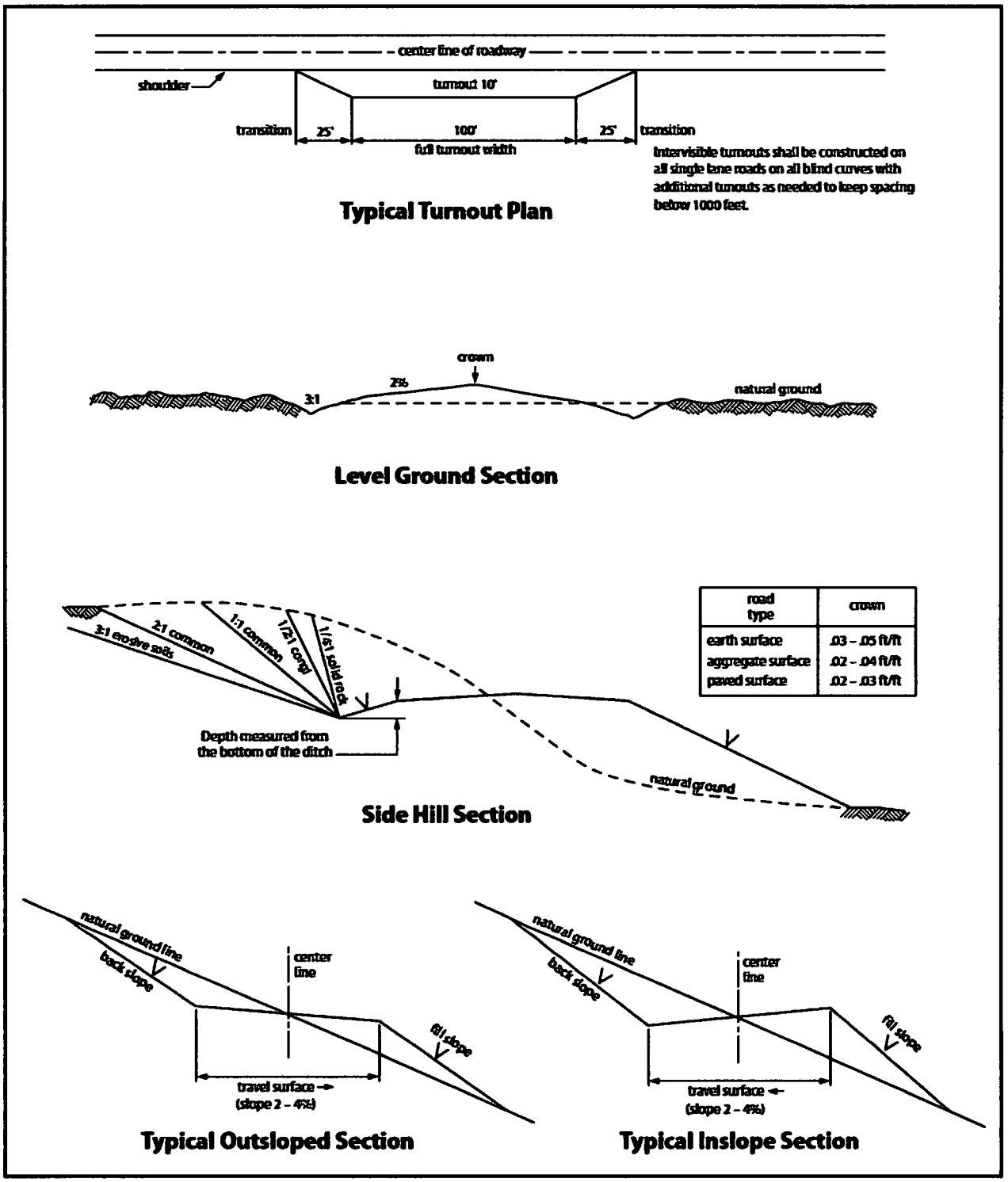


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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

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

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

Seed Mixture for LPC Sand/Shinnery Sites

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

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

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

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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

AFMSS

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

Application Data Report

04/01/2019

APD ID: 10400028856 **Submission Date:** 03/28/2018

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

[redacted]

Show Final Text

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

APD ID: 10400028856 **Tie to previous NOS?** **Submission Date:** 03/28/2018

BLM Office: CARLSBAD **User:** Melissa Szudera **Title:** REGULATORY COMPLIANCE REPRESENTATIVE

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM027805 **Lease Acres:** 640

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** MARATHON OIL PERMIAN LLC

Operator letter of designation:

Operator Info

Operator Organization Name: MARATHON OIL PERMIAN LLC

Operator Address: 5555 San Felipe St. **Zip:** 77056

Operator PO Box:

Operator City: Houston **State:** TX

Operator Phone: (713)629-6600

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

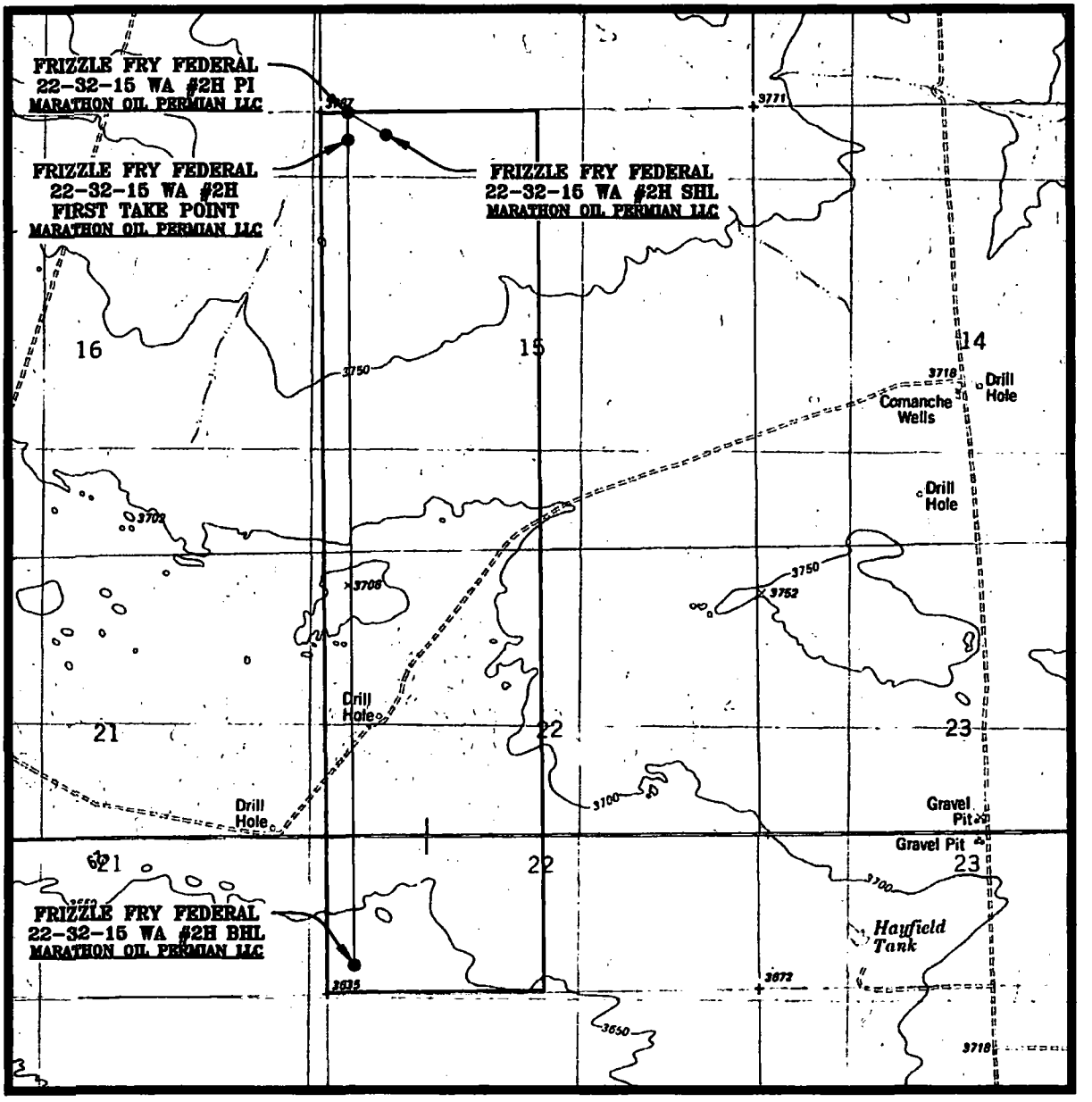
Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** LOS MEDANOS, NORTH **Pool Name:** WOLFCAMP, (GAS)

LOCATION VERIFICATION MAP



SEC. 15 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
DESCRIPTION: 273' FNL & 792' FWL
ELEVATION: 3791'
OPERATOR: MARATHON OIL PERMIAN LLC
LEASE: FRIZZLE FRY FEDERAL 22-32-15
U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

SCALE: 1" = 2000'
CONTOUR INTERVAL = 10'

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. RS833_002

AFMSS

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

Drilling Plan Data Report

04/01/2019

APD ID: 10400028856 **Submission Date:** 03/28/2018

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

Well Type: OIL WELL **Well Work Type:** Drill

[redacted]

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	2813	977	977	DOLOMITE,ANHYDRITE	OTHER : Brine	No
2	SALADO	1538	1275	1275	SALT,ANHYDRITE	OTHER : Brine	No
3	CASTILE	-282	3095	3098	SALT	OTHER : Brine	No
4	LAMAR	-2000	4813	4841	LIMESTONE,SANDSTONE	NATURAL GAS,OIL	No
5	BELL CANYON	-2077	4890	4919	SHALE,SANDSTONE	NATURAL GAS,OIL	No
6	CHERRY CANYON	-3144	5957	5987	SHALE,SANDSTONE	NATURAL GAS,OIL	No
7	BRUSHY CANYON	-4204	7017	7047	SANDSTONE,OTHER : Carbonate	NATURAL GAS,OIL	No
8	BONE SPRING	-5899	8712	8742	SANDSTONE,OTHER : Carbonate	NATURAL GAS,OIL	No
9	BONE SPRING 1ST	-7045	9858	9888	SANDSTONE,OTHER : Carbonate	NATURAL GAS,OIL	No
10	BONE SPRING 2ND	-7735	10548	10578	SANDSTONE,OTHER : Carbonates	NATURAL GAS,OIL	No
11	BONE SPRING 3RD	-8803	11616	11646	SANDSTONE,OTHER : Carbonates	NATURAL GAS,OIL	No
12	WOLFCAMP	-9174	11987	12043	SANDSTONE,OTHER : CARBONATE	NATURAL GAS,OIL	No
13	WOLFCAMP	-9319	12132	12262	SHALE,SANDSTONE,OTHER : CARBONATES	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
4	LINER	6.125	4.5	NEW	API	N	11570	22132	11540	12213	3791	-8422	10562	P-110	13.5	BUTT	1.4	1.53	BUOY	1.91	BUOY	1.91

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

DRILL_3_FRIZZLE_FRY_F_C_22_32_15_2H_3_csg__Surface_20180621085417.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

DRILL_3_FRIZZLE_FRY_F_C_22_32_15_2H_3_csg__9.625_Intermediate_20180621085430.pdf

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		4620	11550	656	2.7	11	1771	70	Class C	0.8% retarder + 10% extender + 0.02 gal/sk + 2.0% Extender + 015% Viscosifier
PRODUCTION	Tail		11550	12550	179	1.09	15.6	195	30	Class H	3% extender + 0.1% Dispersant + 0.2% retarder
LINER	Lead		11570	21132	0	0	0	0	0	NA	NA
LINER	Tail		11570	21132	1060	1.22	14.5	1295	30	CLASS H	0.15% retarder + 3.5% extender +

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: The necessary mud products for additional weight and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized: Losses or gains in the mud system will be monitored visually/manually as well as with an electronic PVT.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1050	4820	SALT SATURATED	9.9	10.2							
0	1050	WATER-BASED MUD	8.4	8.8							
12550	22132	OIL-BASED MUD	11.5	12.5							

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

DRILL_8_INFO_FRIZZLE_FRY_F_C_22_32_15_2H_PrelimA_36x48WM_20180621090212.pdf

DRILL_8_INFO_FRIZZLE_FRY_F_C22_32_15_2H_PrelimA_WPReport_20180621090213.pdf

Other proposed operations facets description:

Potential Hazards:
- H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- No abnormal temperatures or pressures are anticipated. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.
- No losses are anticipated at this time.
- All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.
- Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

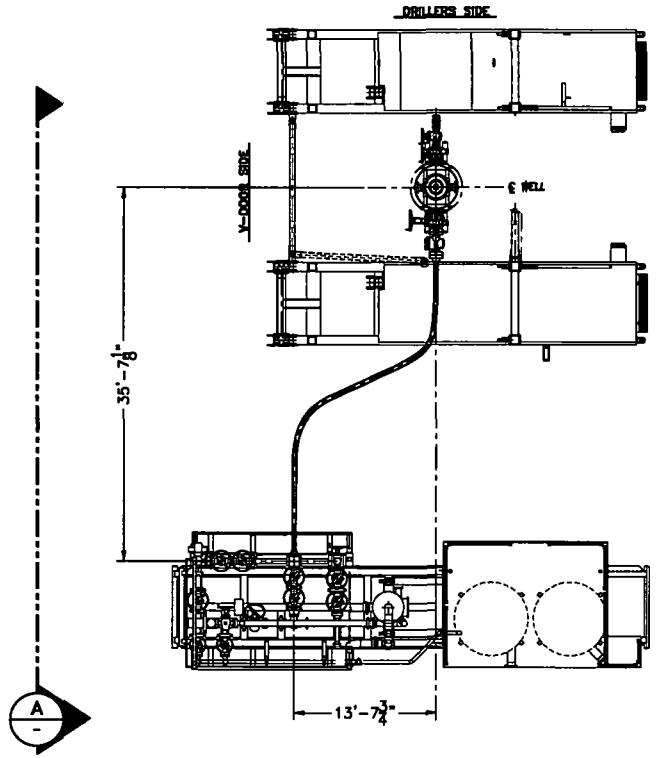
Other proposed operations facets attachment:

DRILL_8_FACET_Frizzle_Fry_F_C_22_32_15_WA_2H___Drilling_Plan_20180621090229.doc

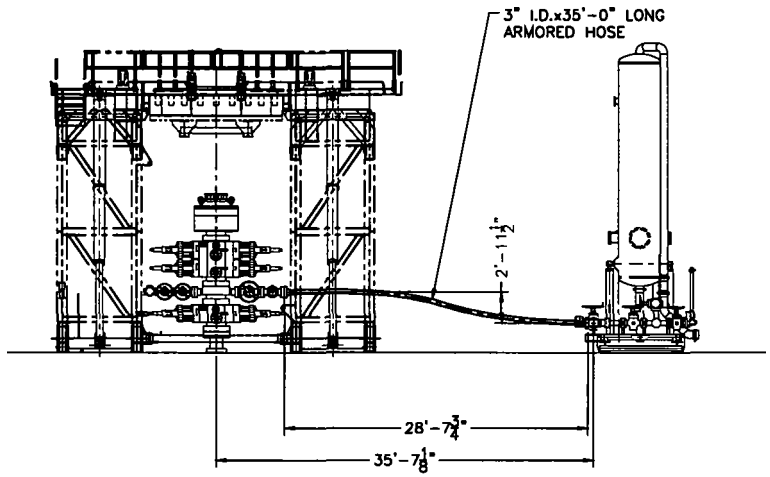
DRILL_8_FACET_Batch_Drilling_Plan_and_Surface_Rig_Request_20180613061127__2__20180621090228.pdf

DRILL_8_FACET_FRIZZLE_FRY_F_C_22_32_15__Gas_Capture_Plan__NMOCD____20180126_20180621090230.docx

Other Variance attachment:



PLAN VIEW



SECTION "A"

ISSUED FOR FABRICATION
December-19-2007
DRAFTSMAN
ENGINEER

REV	DATE	DESCRIPTION	BY
		ENGINEERING APPROVAL	DATE
4	12/18/07	REMOVED SHEET TOTAL CALLOUT	JAY

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: CHOKE LINE SYSTEM
FLEXRIG3

CUSTOMER:

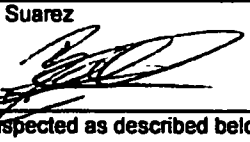
PROJECT:

DRAWN: JBG | DATE: 4-10-07 | DWG. NO.: 210-P1-07 | REV: A

SCALE: 3/16"=1' | SHEET: 2 OF 8

Hydrostatic Test Certificate

ContiTech

Certificate Number	COM Order Reference	
953233-4	953233	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740053080	
Project:		
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Date:	Roger Suarez  5/11/17

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

30	RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	63393	10,000 psi	15,000 psi	60

Continental CONTITECH

QUALITY CONTROL	No.: QC-DB- 380 / 2012
	Page : 1 / 61
Hose No.: 63389, 63390, 63391 63392, 63393	Revision : 0
	Date: 28. August 2012.
	Prepared by : Szalai Sándor
	Appr. by: Németh László

CHOKE AND KILL HOSES

id.: 3" 69 MPa x 35 ft (10,67 m)

DATA BOOK

Purchaser: H & P

Purchaser Order No.:

ContiTech Rubber Order No.: 531895

ContiTech Beattie Co. Order No.: 006227

NOT DESIGNED FOR WELL TESTING

ContiTech Rubber Industrial Kft.
Budapesti út 10., Szeged H-6728
P.O.Box 152 Szeged H-6701
Hungary

Phone: +36 62 566 737
Fax: +36 62 566 738
e-mail: info@tuid.contitech.hu
Internet: www.contitech-rubber.hu

The Court of Csongrád County as Registry Court
Registry Court No: HU 06-09-002502
EU VAT No: HU11087209

Bank data
Commercial and Creditbank Szeged
10402605-28014250-00000000

QMS REGISTERED

Certificate of Registration

APIQR REGISTRATION NUMBER
0760

This certifies that the quality management system of

CONTITECH RUBBER INDUSTRIAL LTD.
Budapesti ut 10
Szeged
Hungary

has been assessed by the American Petroleum Institute Quality Registrar (APIQR®) and found it to be in conformance with the following standard:

ISO 9001:2008

The scope of this registration and the approved quality management system applies to the
Design and Manufacture of High Pressure Hoses

APIQR® approves the organization's justification for excluding:
No Exclusions Identified as Applicable

COPY

Effective Date: October 15, 2010
Expiration Date: October 15, 2013
Registered Since: October 15, 2007

W. Dan Whittaker
Manager of Operations, APIQR

Accredited by Members of the International Accreditation Forum Multilateral Recognition Arrangement for Quality Management Systems

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of APIQR's Registration Program and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001 standard requirements may be obtained by consulting the registered organization. This certificate has been issued from APIQR offices located at 1220 L Street, N.W., Washington, D.C. 20005-4070, U.S.A. It is the property of APIQR, and must be returned upon request. To verify the authenticity of this certificate, go to www.apiqr.org/companylist.htm.

QUALITY REGISTRAR

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE

CERT. N°: 1599

PURCHASER:	ContiTech Beattie Co.	P.O. N°:	006227
CONTITECH ORDER N°:	531895	HOSE TYPE: 3" ID	Choke and Kill Hose
HOSE SERIAL N°:	63393	NOMINAL / ACTUAL LENGTH:	10,67 m / 10,72 m

W.P.	68,9	MPa	10000	psi	T.P. 103,4	MPa	15000	psi

Duration: 60 min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.

→ 10 mm = 20 MPa

COUPLINGS Type	Serial N°		Quality	Heat N°
3" coupling with	2156	2153	AISI 4130	20231
4 1/16" 10K API Flange end			AISI 4130	34031

NOT DESIGNED FOR WELL TESTING

API Spec 16 C

Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

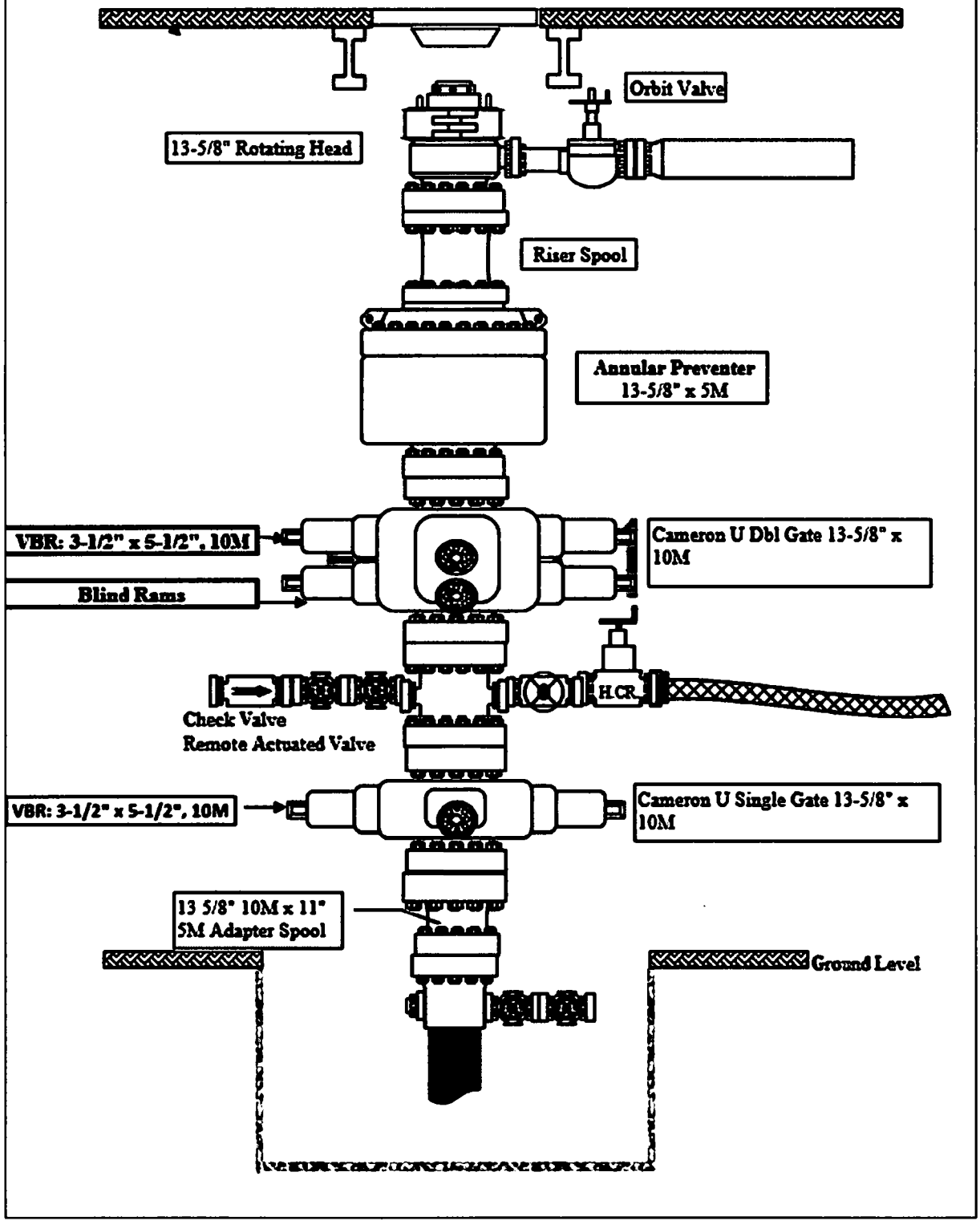
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
23. August 2012.		ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

Operator : Marathon Oil

5M BOPE



(Well Control-Positions/Roles Continued)

- **Derrick Hand, Assistant Driller Introductory Level**
  - Role is to assist Driller with kick detection by physically monitoring the well at the mixing pits/tanks
  - Regularly record mud weights/viscosity for analysis by the Supervisor level and mud engineer so pre-influx signs can be detected
  - Mix required kill fluids as directed by Supervisor or Driller
  - Due to role on the rig, training and certification is targeted more toward monitoring for influxes, either via mud samples or visual signs on the pits/tanks

- **Motorman, Floor Hand Introductory Level**
  - Role is to assist the Supervisor, Driller, or Derrick Hand with detecting influxes
  - Be certain all valves are aligned for proper well control as directed by Supervisor
  - Perform Supervisor or Driller assigned tasks during a well control event
  - Due to role on the rig, training and certification is targeted more toward monitoring for influxes

1.2 WELL CONTROL-COMPONENT AND PREVENTER COMPATIBILITY CHECKLIST

The table below, which covers the drilling and casing of the 10M Stack portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

- **Example 8-3/4" Production hole section, 10M requirement**

Component	OD	Preventer	RWP
Drill pipe	5"	Fixed lower 5" Upper 4.5-7" VBR	10M
HWDP	5"	Fixed lower 5" Upper 4.5-7" VBR	10M
Drill collars and MWD tools	6.25-6.75"	Upper 4.5-7" VBR	10M
Mud Motor	6.75"	Upper 4.5-7" VBR	10M
Production casing	5.5"	Upper 4.5-7" VBR	10M
ALL	0-13-5/8"	Annular	5M
Open-hole	-	Blind Rams	10M

- VBR = Variable Bore Ram. Compatible range listed in chart.

1.3 WELL CONTROL-BOP TESTING

BOP Test will be completed per Onshore Oil and Gas Order #2 Well Control requirements. The 5M Annular Preventer on a required 10M BOP stack will be tested to 70 % of rated working pressure including a 10 minute low pressure test. Pressure shall be maintained at least 10 minutes.

- Prior to dropping a survey instrument.
- Prior to dropping a core ball.
- After a well kill operation.
- When the mud density is reduced in the well.

- Flow checks may be made at any time at the sole discretion of the driller or his designate. The Onsite Supervisor ensures that personnel are aware of this authority and the authority to close the well in immediately without further consultation.
- Record slow circulating rates (SCR) after each crew change, bit trip, and 500' of new hole drilled and after any variance greater than 0.2 ppg in MW. Slow pump rate recordings should include return flow percent, TVD, MD & pressure. SCR's will be done on all pumps at 30, 40 & 50 SPM. Pressures will be recorded at the choke panel. SCR will be recorded in the IADC daily report and MRO Wellview daily report
- Drilling blind (i.e. without returns) is permissible only in known lithology where the absence of hydrocarbons has been predetermined and written approval of the Drilling Manager.
- All open hole logs to be run with pack-off, lubricator or Drilling Manager approved alternative means.
- The Drilling Contractor has a fully working pit level totalizer / monitoring system with read out for the driller and an audible alarm set to 10 BBL gain / loss volume. Systems are selectable to enable monitoring of all pits in use. Pit volumes are monitored at all times, especially when transferring fluids. Both systems data is recorded on a calibrated chart recorder or electronically.
- The Drilling Contractor has a fully working return mud flow indicator with drillers display and an audible alarm, and is adjustable to record any variance in return volumes.

1.6 WELL CONTROL – SHUT IN

- The "hard shut in" method (i.e. against a closed choke using either an annular or ram type preventer) is the Company standard.
- The HCR(s) or failsafe valves are left closed during drilling to prevent any erosion and buildup of solids. The adjustable choke should also be left closed.
- The rig specific shut in procedure, the BOP configuration along with space-out position for the tool joints is posted in the Driller's control cabin or doghouse.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Manager.
- During a well kill by circulation, constant bottom hole pressure is maintained throughout.
- Kill sheets are maintained by the Driller and posted in the Driller's control cabin or doghouse. The sheet is updated at a minimum every 500 feet.

Procedure While Tripping (Continued)

- Time
- Kick Volume
- Pipe depth
- MW in, MW out
- SPR's (Slow Pump Rate's)

- Regroup and identify forward plan (let well stabilize, update kill sheet, inventory mud additives and mud volumes on location)
- Company Representative, Drilling Superintendent, Drilling Engineer and Drilling Manager will discuss well control kill method to be utilized. A verbal Risk Assessment and preferred kill method will be finalized. Initial Risk Assessment will be finalized within 1 hour of initial shut in.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Contractor PIC.
- Recheck all pressures and fluid volume on accumulator unit
  If pressure has built or is anticipated during the kill to reach X,XXX psi or greater, the annular preventer CANNOT be used as per Company Well Control Policy, swap to the upper BOP pipe ram.

2.3 PROCEDURE WHILE RUNNING CASING

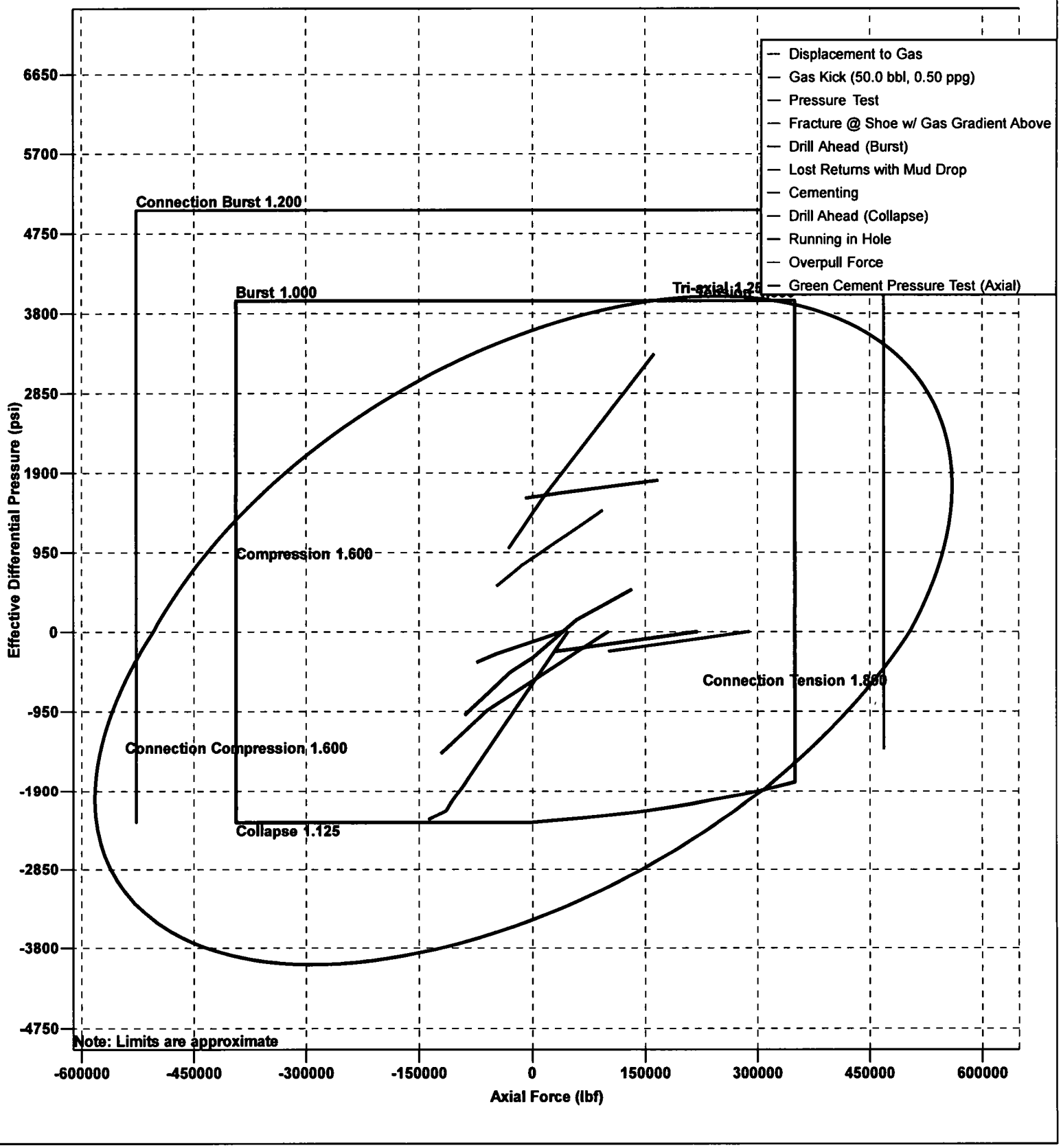
- Sound alarm (alert crew)
- Stab crossover and full opening safety valve and close
- Space out casing (ensure no coupling is located in the BOP element selected for initial closure).
- Shut down pumps (stop pumps and observe well.)
- Shut-in Well - If flow is suspected or confirmed, close uppermost applicable BOP element. (HCR and choke will already be in the closed position.)
  - **Note:** Either the uppermost pipe ram or annular preventer can be used.
- Confirm shut-in
- Notify tool pusher/company representative
- Gather all relevant data required:
  - SIDPP and SICP
  - Hole Depth and Hole TVD
  - Pit gain
  - Time
  - Kick Volume
  - Pipe depth
  - MW in, MW out
  - SPR's (Slow Pump Rate's)
- Regroup and identify forward plan (let well stabilize, update kill sheet, inventory mud additives and mud volumes on location)
- Company Representative, Drilling Superintendent, Drilling Engineer and Drilling Manager will discuss well control kill method to be utilized. A verbal Risk Assessment and preferred kill method will be finalized. Initial Risk Assessment will be finalized within 1 hour of initial shut in.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Contractor PIC.
- Recheck all pressures and fluid volume on accumulator unit
  If pressure has built or is anticipated during the kill to reach 2,500 psi or greater, the annular preventer CANNOT be used, swap to the upper BOP pipe ram.

Procedures While Pulling BHA thru Stack (Continued)

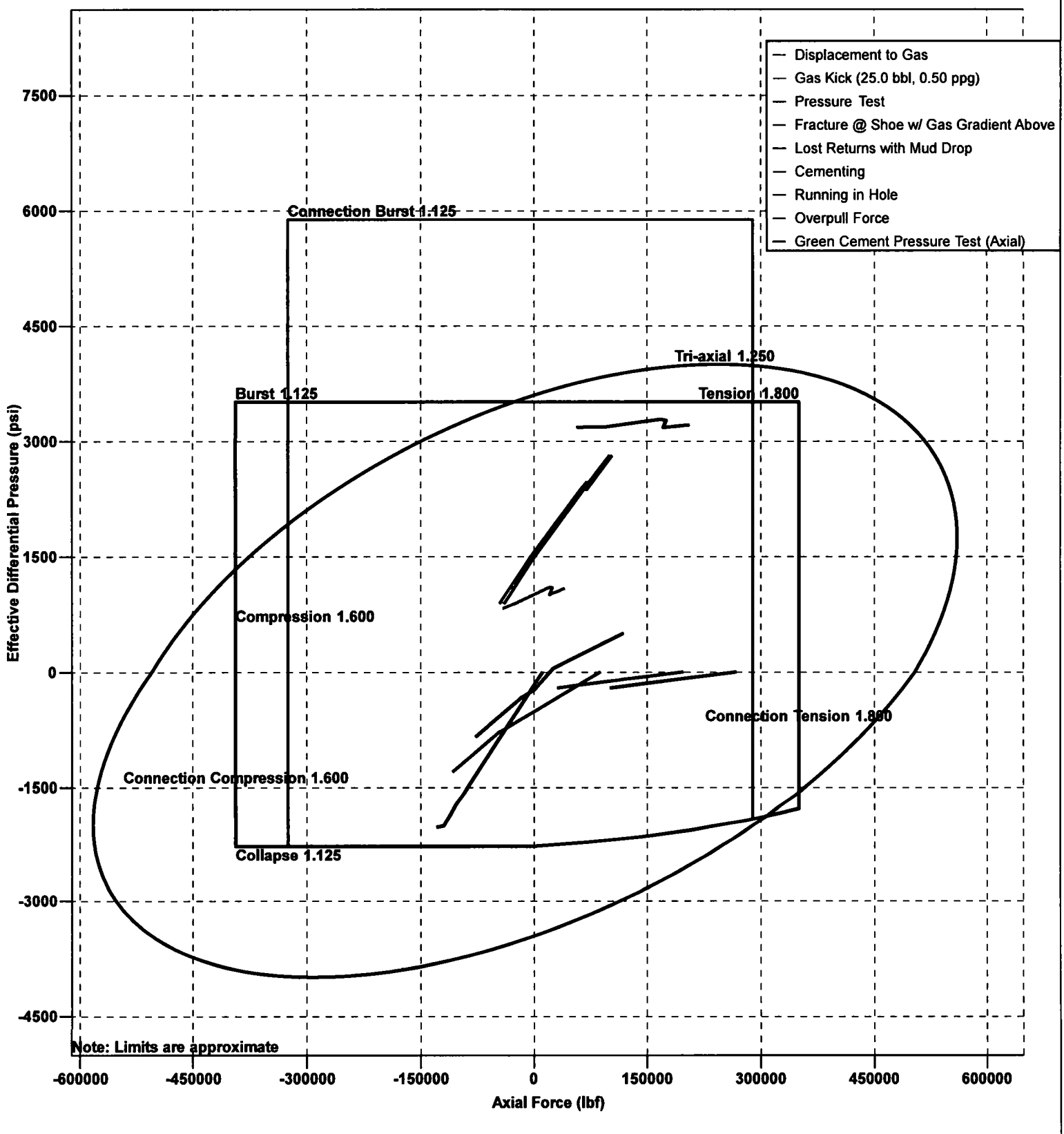
    - Time
  - Regroup and identify forward plan

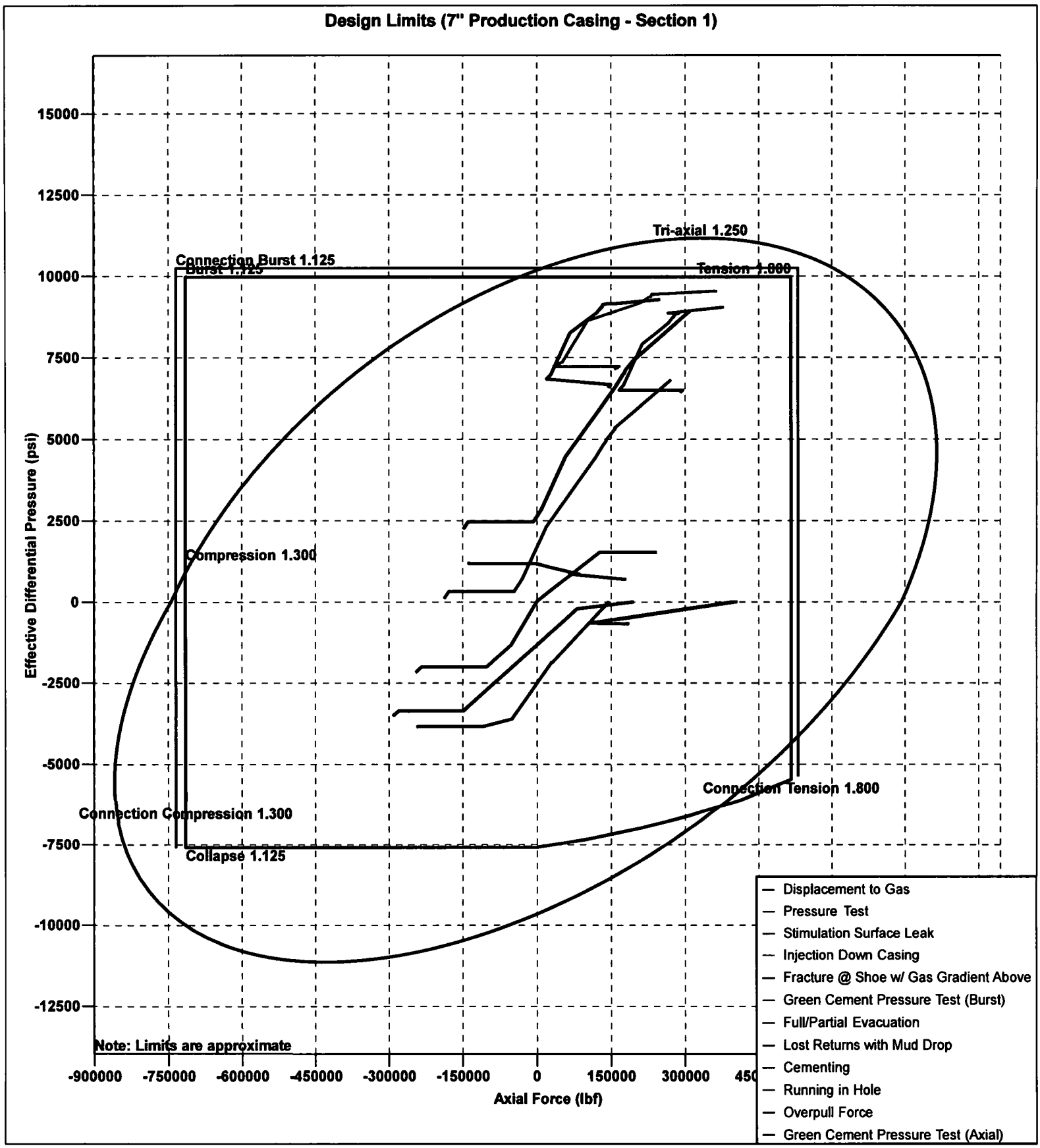
- **With BHA in the stack and <u>NO</u> compatible ram preventer and pipe combo immediately available.**
  - Sound alarm (alert crew)
  - If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
  - If impossible to pick up high enough to pull the string clear of the stack:
  - Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
  - Space out drill string with tool joint just beneath the upper pipe ram.
  - Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
  - Confirm shut-in
  - Notify toolpusher/company representative
  - Read and record the following:
    - SIDPP and SICP
    - Pit gain
    - Time

Design Limits (9 5/8" Intermediate Casing - Section 1)

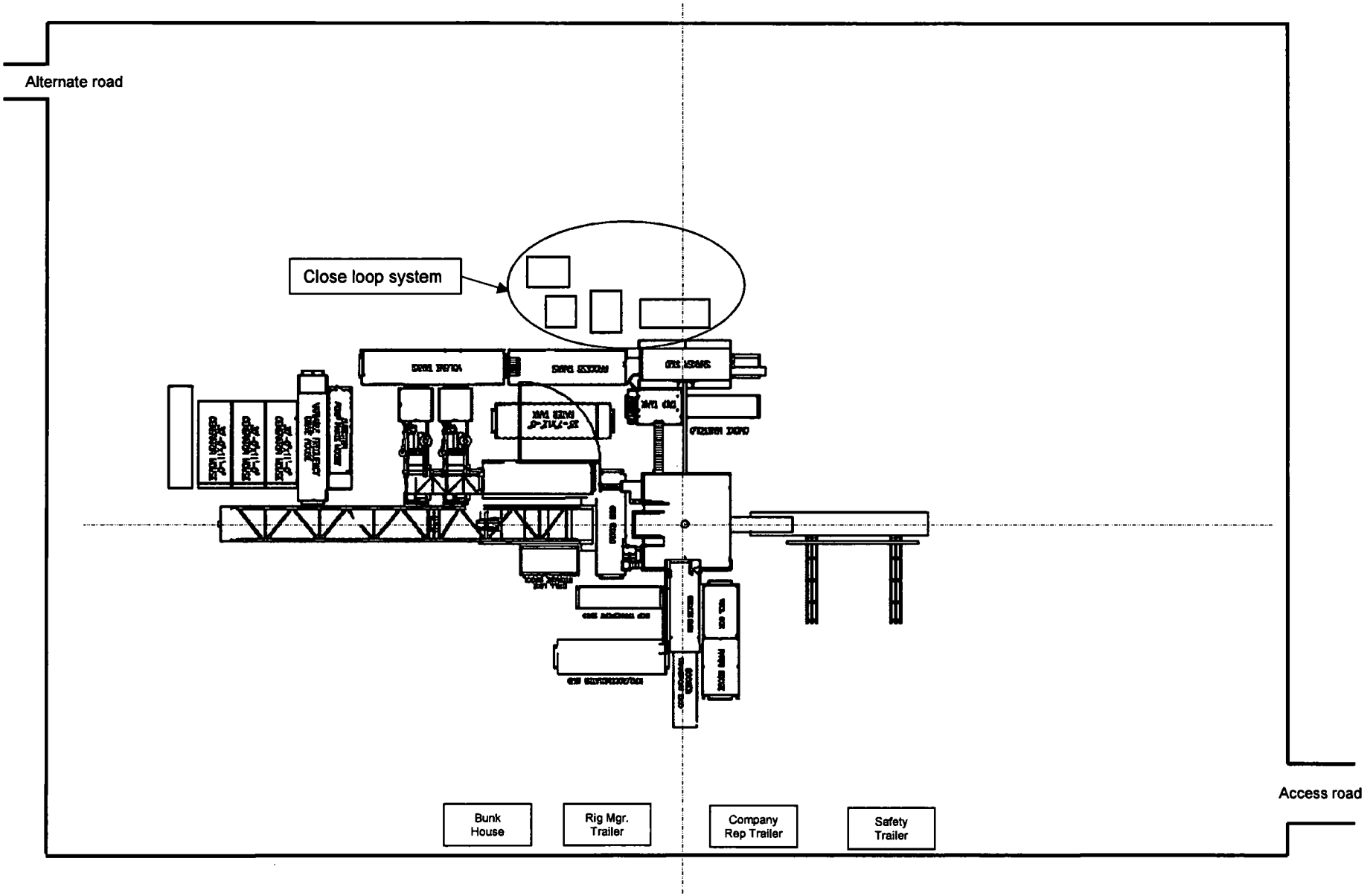


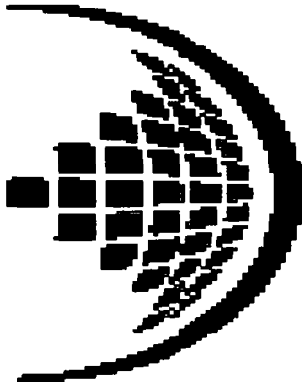
Design Limits (9 5/8" Intermediate Casing - Section 1)




Design Limits (7" Production Casing - Section 1)
Tri-axial 1.250
Connection Burst 1.125
Burst 1.125
Tension 1.000
Compression 1.300
Connection Tension 1.800
Connection Compression 1.300
Collapse 1.125
Note: Limits are approximate
Effective Differential Pressure (psi)
15000
12500
10000
7500
5000
2500
0
-2500
-5000
-7500
-10000
-12500
-900000
-750000
-600000
-450000
-300000
-150000
0
150000
300000
Axial Force (lbf)
Displacement to Gas
Pressure Test
Stimulation Surface Leak
Injection Down Casing
Fracture @ Shoe w/ Gas Gradient Above
Green Cement Pressure Test (Burst)
Full/Partial Evacuation
Lost Returns with Mud Drop
Cementing
Running in Hole
Overpull Force
Green Cement Pressure Test (Axial)

MARATHON OIL - FLEX III PAD (Closed Loop System)





TOTAL SAFETY

MARATHON OIL COMPANY

FRIZZLE FRY F C 22-32-15
TB Well # 1H
WA Well # 2H
WXY Well # 7H
TBU Well # 5H

SHL: 273' FNL & 762' FWL of Unit Letter 'D', Section 15, T-22S, R-32E
BHL: 330' FSL & 330' FWL of Unit Letter 'M', Section 15, T-22S, R-32E

LEA County, New Mexico

Rig: H&P 423

2/23/2018

THIS H2S DRILLING OPERATIONS PLAN WAS
PREPARED BY: Sean Chamblee
Strategic Account Manager
Cell: 713-703-6295

TOTAL SAFETY INC

1420 East Greene St
Carlsbad, NM 88220
Phone: 432-561-5049

H. Critical Operations

VII. LIST OF APPENDICES
- A. Emergency and Medical Facilities
- B. Law Enforcement Agencies and Fire Fighting Facilities
- C. Well Control Specialists
- D. Governmental Agencies

VIII. RESIDENTS AND LANDOWNERS
- A. Radius of Exposure Map with Residences Shown
- B. Residents Within Radius of Exposure and Telephone Numbers

IX. ADDITIONAL INFORMATION
- A. Hydrogen Sulfide Essay
- B. Hydrogen Sulfide Hazards
- C. Toxicity Table
- D. Treatment
- E. Characteristics of H2S
- F. Safe Practices

MARATHON OIL COMPANY
3122 NATIONAL PARKS HIGHWAY
CALRSBAD, NM 88220

FRIZZLE FRY F C 22-32-15
TB Well # 1H
WA Well # 2H
WXY Well # 7H
TBU Well # 5H

LEA COUNTY, NM

Directions:

FROM THE MARATHON OFFICE AT 411 TIDWELL ROAD , OTIS, NEW MEXICO, HEAD SOUTH ON TIDWELL ROAD TOWARD U. S. HIGHWAY 285 NORTH FOR 0.2 MILES. TURN LEFT ONTO U. S. HIGHWAY 285 SOUTH HEADING SOUTHEAST FOR 5.1 MILES TOWARD NEW MEXICO STATE ROAD .31. TURN LEFT ONTO NEW MEXICO STATE ROAD .31 HEADING EAST FOR 7. 7 MILES TO NEW MEXICO STATE ROAD 128 EAST. TURN
RIGHT ONTO NEW MEXICO STATE ROAD 128 EAST HEADING EAST FOR 18 MILES TO RED ROAD. TURN LEFT ONTO RED ROAD HEADING NORTH FOR 7.4 MILES TO M ILLS RANCH ROAD . TURN RIGH T ONTO MILLS RANCH ROAD (A CALICHE ROAD) HEADING NORTHEAST FOR 4.01 MILES TO A TURN ON THE RIGHT. CON TINUE ON MILLS RANCH ROAD HEADING SOUTH FOR 1.8 MILES TO A CALICHE ROAD ON THE LEFT. TURN LEFT ON CALICHE ROAD HEADING NOR TH TOWARD THE PAISANO FEDERAL #.3 FOR 0. 9 MILES TO A "y" IN THE ROAD. KEEP LEFT ON PROPOSED LEASE ROAD FOR 1 ,000 FEET TO THE FRIZZLE FRY 22-32-15 WELL LOCATIONS

GPS Coordinates: 32.399820545, -103.66866126
LEA COUNTY, NEW MEXICO

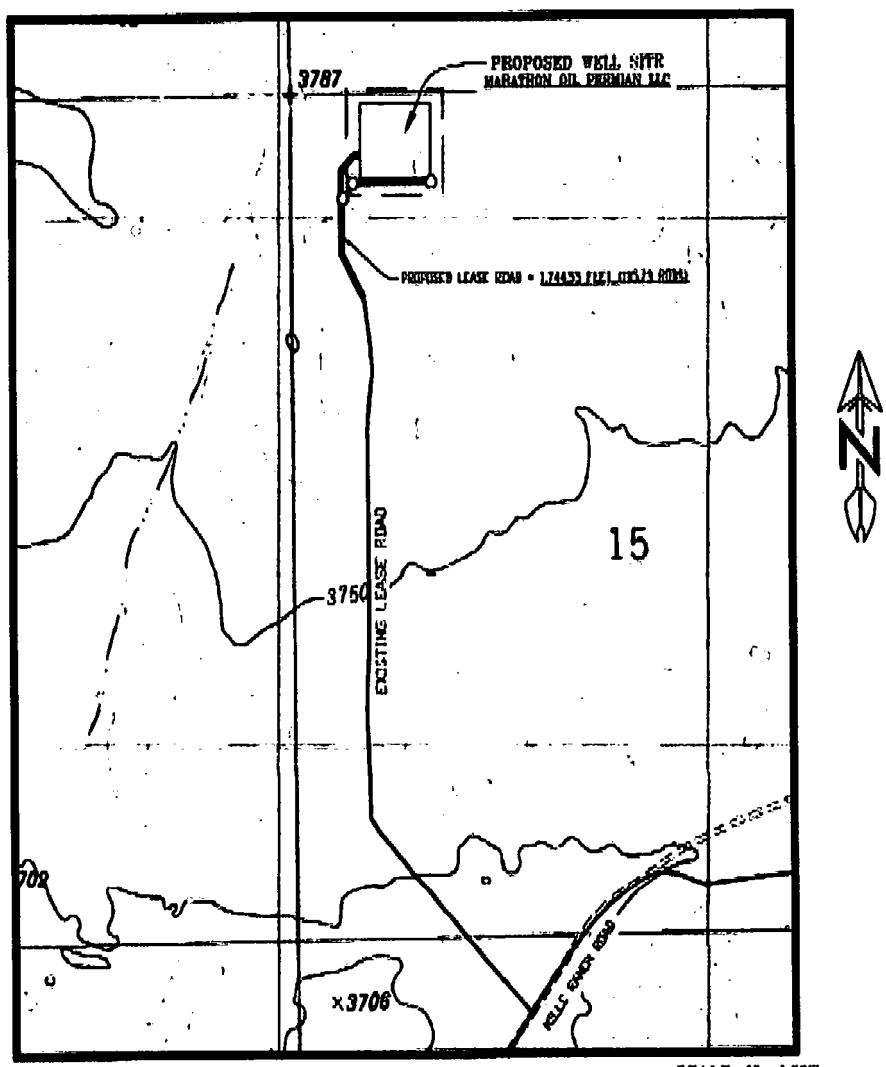
PURPOSE OF PLAN: The purpose of this plan is to safeguard the lives of the public, contract personnel and company personnel in the event of equipment failure or disasters during drilling or completion operations in formations that may contain Hydrogen Sulfide Gas, H2S.

As a precautionary measure, this Drilling Plan has been prepared to assure the safety of all concerned, should a disaster occur. However, the Oil Company Representative may have specified materials and practices for the drilling or completion of this well, which supercede the minimum requirements as outlined in this plan.

Marathon H2S Plan Custodian – Marathon HES Advisor, Supervisor or Technician that has been specifically assigned per the authorization page of this plan to maintain this document.

WELL PAD LOCATION VERIFICATION MAP

FRIZZLE FRY FEDERAL 22-32-15
SEC. 15 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.



SCALE: 1" = 1,000'
CONTOUR INTERVAL = 10'

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-383-6060 OFFICE
AOB No. RSRSB

TYPE OF EQUIPMENT AND STORAGE LOCATIONS

1. There will be six 30-minute self-contained breathing apparatus on location. They will be positioned as follows: Two at Briefing Area #1 Two at Briefing Area #2, Two at rig dog house. SCBA Facepieces will be equipped with voice amplifiers for effective means of communication when using protective breathing apparatus.

2. There will be six Escape-type packs on location. One for the Derrickman. One on the Shaker. One at the bottom of rig dog house stairway and spares.

3. A Gastec, pump type, gas detector with low and high range detector tubes for H2S and SO2 will be located in the doghouse

4. Two Briefing Areas will be designated at opposite ends of the location.

5. The Briefing Area most upwind is designated as the Safety Briefing Area #1. In an emergency, personnel must assemble at this upwind area for instructions from their supervisor.

6.The H2S 'Safety" trailer provided by Total Safety, Inc. will contain a cascade system of at least 5 each -300 C.F. air cylinders that will provide a continuous air supply to air lines located on the rig. Note: This trailer will **Only** be provided if H2S conditions require the use of the Air Trailer. (If Required)

7. Two windsocks will be installed so as to be visible from all parts of the location.

8. A well condition warning sign will be displayed at the location entrance to advise of current operating conditions. The condition signs must be at least 200' from the entrance but not more than 500' away.

9. A list of emergency telephone numbers will be kept on rig floor, tool pusher's trailer, the Oil Company's trailer and in the "safety" trailer (if Provided).

OPERATING PROCEDURES

BLOWOUT PREVENTION MEASURES DURING DRILLING

1. Blowout Prevention Requirements:
   All BOP equipment shall meet the American Petroleum Institute specifications as to materials acceptable for H2S service and tested accordingly (or to BLM specifications).

2. Drilling String Requirements:
   All drill string components are to be of material that meets the American Petroleum Institute's specifications for H2S service. All drill string components should be inspected to IADC critical service specifications prior to running in well.

GAS MONITORING EQUIPMENT

1. A continuous H2S detection system, consisting of three H2S detectors and an audible/visual warning system will be in operating during all phases of this H2S Drilling Operations Plan. The detection system will be adjusted and calibrated such that an H2S exposure of 10 ppm or higher (at any sensor) will trigger the audible and visual portion (wailing or yelping siren) of the warning system (i.e. H2S continually present at or above threshold levels) a trained operator or H2S supervisor will monitor the H2S detection system.

2. When approaching or completing H2S formations, crewmembers may attach personnel H2S monitors to their person.

3. Hand held H2S sampling gas detectors will be used to check areas not covered by automatic monitoring equipment.

METALLURGICAL CONSIDERATONS

1. Steel drill pipe used in H2S environments should have yield strength of 95,000psi or less because of potential embrittlement problems. Must conform to the current National Association of Corrosion Engineers (NACE) Standard MR-0175-90, Material Requirement, Sulfide Stress Cracking Resistant Metallica Material for Oil Field Equipment. Drill stem joints near the top of the drill string are normally under the highest stress levels during drilling and do not have the protection of elevated down hole temperatures. These factors should be considered in design of the drill string. Precautions should be taken to minimize drill string stress caused by conditions such as excessive dogleg severity, improper torque, whip, abrasive wear or tool joints and joint imbalance. American Petroleum Institute, Bulletin RR 7G, will be used as a guideline for drill string precautions.

2. Corrosion inhibitors may be applied to the drill pipe or to the mud system as an additional safeguard.

3. Blowout preventors should meet or exceed the recommendations for H2S service as set forth in the latest edition of API RI 53.

MUD PROGRAM AND TREATING

1. It is of utmost importance that the mud be closely monitored for detection of H2S and reliability of the H2S treating chemicals.

2. Identification and analysis of sulfides in the mud and mud filtrates will be carried out per operators prescribed procedures.

3. The mud system will be pre-treated with Zinc Carbonate, Ironite Sponge or similar chemicals of H2S control prior to drilling into the H2s bearing formation. Sufficient quantities of corrosion inhibitor should be on location to treat the drill string during Drill Stem Test Operations. Additionally, Aqua Ammonia should be on hand to treat the drill string for crew protection, should H2S be encountered while tripping string following drill stem testing

OPERATING CONDITIONS

A Well Condition Sign and Flag will be posted on all access roads to the location. The sign shall be legible and large enough to be read by all persons entering the well site and be placed a minimum of 200' but no more than 500' from the well site which allows vehicles to turn around at a safe distance prior to reaching the site.

DEFINITION OF WARNING FLAGS

1. Condition:
   GREEN-NORMAL OPERATIONS
   Any operation where the possibility of encountering H2S exists but no H2S has been detected.

2. Condition:
   YELLOW-POTENTIAL DANGER, CAUTION
   Any operation where the possibility of encountering H2S exists and in all situations where concentrations of H2S are detected in the air below the threshold level (10ppm)
   a. Cause of condition:
      *Circulating up drill breaks
      *Trip gas after trip
      *Circulating out gas on choke
      *Poisonous gas present, but below threshold concentrations
      *Drill stem test
   b. Safety Action:
      *Check safety equipment and keep it with you
      *Be alert for a change in condition
      *Follow instructions

3. Condition:
   RED-EXTREME DANGER
   Presence of H2S at or greater than 10ppm. Breathing apparatus must be worn.

   a. Safety action:

*all non-essential personnel must be moved to safe briefing area
*all remaining personnel will check out and keep with them their protective breathing apparatus.
*mud men will see that the proper amount of H2S scavenging chemical is in the mud and record times checked
*make sure ignition flare is burning and valves are open to designated flare stacks

CORING OPERATIONS IN H2S BEARING ZONES

1. Personal protective breathing apparatus will be worn from 10 to 15 stands in advance of retrieving the core barrel. Cores to be transported should be sealed and marked to the presence of H2S.
   a. Yellow Caution Flag will be flown at the well condition sign.
   b. The "NO SMOKING" rule will be enforced

DRILL STEM TESTING OF H2S ZONES

1. The DST subsurface equipment will be suitable for H2S service as recommended by the API
2. Drill stem testing of H2S zone will be conducted in daylight hours
3. All non-essential personnel will be moved to an established safe area or off location
4. The "NO SMOKING" rule will be enforced
5. DST fluids will be circulated through a remote controlled choke and a separator to permit flaring of gas. A continuous pilot light will be used.
6. A yellow or red flag will be flown at entrance to location depending on present gas condition
7. If warranted, the use of Aqua Ammonia for neutralizing the toxicity of H2S from drill string
   a. During drill stem tests adequate Filming Amine for H2S corrosion and Aqua Ammonia for neutralizing H2S should be on location.
8. On completion of DST, if H2S contaminated formation fluids or gases are present in drill string, floor workers will be masked up before test valve is removed from drill string and continue "mask

EMERGENCY PROCEDURES

SOUNDING ALARM

In case of an alarm the crews will muster up at the designated area. Total Safety will be dispatched with (2) HES Techs who are to go in under protective breathing air and check the alarm readings and sniff ambient air for the presence of H2S.

By no means are the Co. Rep or HES Advisor to go in under air with the HES Tech. If there is another method in place where the Rig Manager is to go in with the Tech we need to ensure that the rig company has cleared them and that they are properly trained.

1. The fact is to be instilled in the minds of all rig personnel that the sounding alarm means only one thing: H2S IS PRESENT. Everyone is to proceed to his assigned station and the contingency plan is put into effect.

DRILLING CREW ACTIONS

1. All personnel will don their protective breathing apparatus. The driller will take necessary precautions as indicated in operating procedures.
2. The Buddy system will be implemented. All personnel will act upon directions from the operator's on-site representative.
3. If there are non-essential personnel on location, they will move off location.
4. Entrance to the location will be patrolled, and the proper well condition flag will be displayed at the entrance to the location.

RESPONSIBILITIES OF PERSONNEL

In order to assure the proper execution of this plan, it is essential that one person be responsible for and in complete charge of implementing these procedures. The responsibility will be as follows:

1. The operator's on-site representative or his assistant
2. Contract Tool Pusher

team is moving into the hazardous area. If trouble is incurred in igniting the leak by firing toward the leak, try firing 40 degrees to 90 degrees to each side of the area where you have been firing. If still no ignition is accomplished ignite the copper line burner and push it into the leak area. This should accomplish ignition. If ignition is not possible due to the makeup of the gas, the toxic leak perimeter must be established and maintained to insure evacuation is completed and continue until the emergency is secure.

3. The following equipment and man-power will be required to support the ignition team:
    a. one flare gun with flares
    b. four pressure demand air packs
    c. two nylon ropes tied to the ignition team
    d. two men in a clear area equipped with air packs
    e. portable propane bottle with copper line
4. The person with the final authority to ignite the well.

GENERAL EQUIPMENT

1. Two areas on the location will be designated as Briefing Areas. The one that is upwind from the well will be designated a the "Safe Briefing Area"
2. In the case of an emergency, personnel will assemble in the upwind area as per prior instructions from the operator's representative.
3. The H2S "Safety" trailer provide by TOTAL SAFETY will contain 10 air cylinders, a resuscitator, one 30-minute air pack and will have a windsock.
4. Two other windsocks will be installed.
5. A condition warning sign will be displayed at the location entrance.
6. A list of emergency telephone numbers will be kept on the rig floor, tool pusher's trailer and the Oil Company's trailer.
7. Two barricades will be available to block the entrance to location.
8. An undulating high and low pitch siren will be installed.
9. A telephone line or mobile phone will be available at the well site for incoming and outgoing communications.

APPENDICES

EMERGENCY & MEDICAL FACILITIES:

Marathon Oil Corporation Emergency Numbers			
Brent Evans	Drilling Manager	blevans@marathonoil.com	832 967-8474
Mark Bly	Drilling Superintendent	permiansuper@marathonoil.com	281-840-0467
Chad Butler	Drilling Superintendent	permiansuper@marathonoil.com	281-840-0467
Jacob Beaty	Drilling Engineer	jabeaty@marathonoil.com	713-296-1915
Noah Adams	HES Professional	njadams@marathonoil.com	713-591-4068
Nick Rogers	Lead HES Advisor	permiandches@marathonoil.com	281-659-3734
Scott Doughty	Lead HES Advisor	permiandches@marathonoil.com	281-659-3734
H&P 480	Company Man	Hp480@marathonoil.com	281-768-9946
H&P 498	Company Man	Hp498@marathonoil.com	281-745-0771
H&P 441	Company Man	Hp441@marathonoil.com	
H&P 423	Company Man	Hp423@marathonoil.com	
H&P 480	HES Advisor	Hp480hes@marathonoil.com	
H&P 498	HES Advisor	Hp498hes@marathonoil.com	
H&P 441	HES Advisor	HP441hes@marathonoil.com	
H&P 423	HES Advisor	Hp423hes@marathonoil.com	

Emergency Services Area Numbers: Or Call 911			
Sheriff (Eddy County, NM)	575-887-7551	New Mexico Poison Control	800-222-1222
Sheriff (Lea County, NM)	575-396-3611	Border Patrol (Las Cruces, NM)	575-528-6600
New Mexico State Police	575-392-5580/5588	Energy Minerals & Natural Resources Dept.	575-748-1283
Carlsbad Medical Center	575-887-4100	Environmental Health Dept.	505-476-8600
Lea Regional Medical Center	575-492-5000	OSHA (Santa Fe, NM)	505-827-2855
Police (Carlsbad, NM)	575-885-2111		
Police (Hobbs, NM)	575-392-9265		
Fire (Carlsbad, NM)	575-885-3124		
Fire (Hobbs, NM)	575-397-9308		
Ambulance Service	911	TOTAL SAFETY H2S – SAFETY SERVICES	432-561-5049

1. For Life Flight, 1st dial "911" They will determine nearest helicopter and confirm the need for helicopter.

ADDITIONAL INFORMATION

A. HYDROGEN SULFIDE ESSAY

A deadly enemy of those people employed in the petroleum industry, this gas can paralyze or kill quickly. At least part of the answer lies in education in the hazards, symptoms, characteristics, safe practices, treatment, and the proper use of personal protective equipment.

B. HYDROGEN SULFIDE HAZARDS

The principal hazard to personnel is asphyxiation or poisoning by inhalation. Hydrogen Sulfide is a colorless, flammable gas having an offensive odor and a sweetish taste. It is highly toxic and doubly hazardous because it is heavier than air (specific gravity = 1.19). It's offensive odor, like that of a rotten egg, has been used as an indicator by many old timers in the oil field, but is not a reliable warning of the presence of gas in a dangerous concentration because people differ greatly I their ability to detect smells. Where high concentrations are encountered, the olfactory nerves are rapidly paralyzed, diluting the sense of smell as a warning indicator. A concentration of a few hundredths of one percent higher than that causing irritation can cause asphyxia and death-in other words there is a very narrow margin between conscious ness and unconsciousness, and between unconsciousness and death.

Where high concentrations cause respiratory paralysis, spontaneous breathing does not return unless artificial respiration is applies. Although breathing is paralyzed the heart may continue beating for ten minutes after the attack.

C. PHYSIOLOGICAL SYSTEMS

ACUTE: results in almost instantaneous asphyxia, with seeming respiratory paralysis acute poisoning, or strangulation, may occur after even a few seconds inhalation of high concentration and results in panting respiration, pallor, cramps, paralysis and almost immediate loss of consciousness with extreme rapidity from respiratory and cardiac paralysis. One breath of a sufficiently high concentration may have this result.

F. SAFE PRACTICES

If you are faced with an H2S problem in your operations, the following safe practices are recommended:

1. Be absolutely sure all concerned are familiar with the hazards concerning H2S and how to avoid it.
2. All employees should know how to operate and maintain respiration equipment.
3. Be able to give and demonstrate artificial respiration.
4. Post areas where there is poisonous gas with suitable warning signs.
5. Be sure all new employees are thoroughly schooled before they are sent to the field-tomorrow may be too late.
6. Teach men to avoid gas whenever possible-work on the windward side, have fresh air mask available.
7. Never let bad judgment guide you-wear respiratory equipment when gauging tanks, etc. Never try to hold your breath in order to enter a contaminated atmosphere.
8. In areas of high concentration, a two-man operation is preferred.
9. Never enter a tank, cellar or other enclosed place where gas can accumulate without proper respiratory protective equipment and a safety belt secured to a lifeline held by another person outside.
10. Always check out danger areas first with H2S detectors before allowing anyone to enter. DO NOT TRY TO DETERMINE THE PRESENCE OF GAS BY its ODOR.
11. Wear proper respiratory equipment for the job at hand. Never take a chance with equipment with which you are unfamiliar. If in doubt, consult your supervisor.
12. Carry out practice drills every month with emergency and maintenance breathing air equipment. Telling or showing a group how to operate equipment is not enough-make them show you.
13. Maximum care should be taken to prevent the escape of fumes into the air of working places by leaks, etc.
14. Communication such as radio and telephones should be provided for those people employed where H2S may be present.

Marathon Oil

Pro Directional
Survey Report

PRODIRECTIONAL

Company:	Marathon Oil	**Local Co-ordinate Reference:**	Well WA #2H
Project:	Lea County, NM	**TVD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Site:	Frizzle Fry F C 22-32-15	**MD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Well:	WA #2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

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

Site	Frizzle Fry F C 22-32-15				
Site Position:		**Northing:**	509,175.53 usft	**Latitude:**	32.398083
From:	Map	**Easting:**	705,302.08 usft	**Longitude:**	-103.668174
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.36 °

Well	WA #2H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	509,175.52 usft	**Latitude:**	32.398082
	+E/-W	0.00 usft	**Easting:**	705,332.08 usft	**Longitude:**	-103.668077
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,791.00 usft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	2/6/2018	6.92	60.22	48,200.40

Design	Prelim Plan A				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	179.62	

Survey Tool Program **Date** 2/14/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	5,000.00	Prelim Plan A (OH)	MWD+IFR1	OWSG MWD + IFR1
5,000.00	10,000.00	Prelim Plan A (OH)	MWD+IFR1	OWSG MWD + IFR1
10,000.00	22,177.50	Prelim Plan A (OH)	MWD+IFR1	OWSG MWD + IFR1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
[FrizzleFry#2H]FTP									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00

Company:	Marathon Oil	**Local Co-ordinate Reference:**	Well WA #2H
Project:	Lea County, NM	**TVD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Site:	Frizzle Fry F C 22-32-15	**MD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Well:	WA #2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

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)
4,700.00	8.57	293.75	4,672.44	139.25	-316.47	-141.34	1.00	-1.00	0.00
4,800.00	7.57	293.75	4,771.45	144.90	-329.32	-147.08	1.00	-1.00	0.00
4,900.00	6.57	293.75	4,870.69	149.86	-340.58	-152.11	1.00	-1.00	0.00
5,000.00	5.57	293.75	4,970.12	154.11	-350.26	-156.43	1.00	-1.00	0.00
5,100.00	4.57	293.75	5,069.73	157.67	-358.34	-160.04	1.00	-1.00	0.00
5,200.00	3.57	293.75	5,169.48	160.53	-364.83	-162.94	1.00	-1.00	0.00
5,300.00	2.57	293.75	5,269.33	162.68	-369.73	-165.13	1.00	-1.00	0.00
5,400.00	1.57	293.75	5,369.27	164.14	-373.04	-166.61	1.00	-1.00	0.00
5,500.00	0.57	293.75	5,469.25	164.89	-374.74	-167.37	1.00	-1.00	0.00
5,556.79	0.00	0.00	5,526.04	165.00	-375.00	-167.48	1.00	-1.00	0.00
5,600.00	0.00	0.00	5,569.25	165.00	-375.00	-167.48	0.00	0.00	0.00
5,700.00	0.00	0.00	5,669.25	165.00	-375.00	-167.48	0.00	0.00	0.00
5,800.00	0.00	0.00	5,769.25	165.00	-375.00	-167.48	0.00	0.00	0.00
5,900.00	0.00	0.00	5,869.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,000.00	0.00	0.00	5,969.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,100.00	0.00	0.00	6,069.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,200.00	0.00	0.00	6,169.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,300.00	0.00	0.00	6,269.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,400.00	0.00	0.00	6,369.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,500.00	0.00	0.00	6,469.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,600.00	0.00	0.00	6,569.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,700.00	0.00	0.00	6,669.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,800.00	0.00	0.00	6,769.25	165.00	-375.00	-167.48	0.00	0.00	0.00
6,900.00	0.00	0.00	6,869.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,000.00	0.00	0.00	6,969.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,100.00	0.00	0.00	7,069.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,200.00	0.00	0.00	7,169.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,300.00	0.00	0.00	7,269.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,400.00	0.00	0.00	7,369.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,500.00	0.00	0.00	7,469.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,600.00	0.00	0.00	7,569.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,700.00	0.00	0.00	7,669.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,800.00	0.00	0.00	7,769.25	165.00	-375.00	-167.48	0.00	0.00	0.00
7,900.00	0.00	0.00	7,869.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,000.00	0.00	0.00	7,969.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,100.00	0.00	0.00	8,069.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,200.00	0.00	0.00	8,169.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,300.00	0.00	0.00	8,269.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,400.00	0.00	0.00	8,369.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,500.00	0.00	0.00	8,469.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,600.00	0.00	0.00	8,569.25	165.00	-375.00	-167.48	0.00	0.00	0.00
8,700.00	0.00	0.00	8,669.25	165.00	-375.00	-167.48	0.00	0.00	0.00

Company:	Marathon Oil	**Local Co-ordinate Reference:**	Well WA #2H
Project:	Lea County, NM	**TVD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Site:	Frizzle Fry F C 22-32-15	**MD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Well:	WA #2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

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)
12,300.00	62.92	186.45	12,150.17	-145.20	-410.07	142.47	10.00	10.00	0.00
12,350.00	67.92	186.45	12,170.96	-190.36	-415.17	187.61	10.00	10.00	0.00
12,400.00	72.92	186.45	12,187.70	-237.16	-420.47	234.37	10.00	10.00	0.00
12,450.00	77.92	186.45	12,200.28	-285.23	-425.90	282.40	10.00	10.00	0.00
12,500.00	82.92	186.45	12,208.60	-334.21	-431.44	331.34	10.00	10.00	0.00
12,550.00	87.92	186.45	12,212.58	-383.72	-437.03	380.81	10.00	10.00	0.00
12,570.75	90.00	186.45	12,212.96	-404.33	-439.36	401.41	10.00	10.00	0.00
12,600.00	90.00	185.87	12,212.96	-433.41	-442.50	430.47	2.00	0.00	-2.00
12,700.00	90.00	183.87	12,212.96	-533.05	-450.98	530.04	2.00	0.00	-2.00
12,800.00	90.00	181.87	12,212.96	-632.92	-455.98	629.88	2.00	0.00	-2.00
12,900.00	90.00	179.87	12,212.96	-732.90	-457.49	729.85	2.00	0.00	-2.00
12,912.37	90.00	179.62	12,212.96	-745.27	-457.43	742.22	2.00	0.00	-2.00
13,000.00	90.00	179.62	12,212.96	-832.90	-456.85	829.85	0.00	0.00	0.00
13,100.00	90.00	179.62	12,212.96	-932.89	-456.18	929.85	0.00	0.00	0.00
13,200.00	90.00	179.62	12,212.96	-1,032.89	-455.51	1,029.85	0.00	0.00	0.00
13,300.00	90.00	179.62	12,212.96	-1,132.89	-454.85	1,129.85	0.00	0.00	0.00
13,400.00	90.00	179.62	12,212.96	-1,232.89	-454.18	1,229.85	0.00	0.00	0.00
13,500.00	90.00	179.62	12,212.96	-1,332.89	-453.51	1,329.85	0.00	0.00	0.00
13,600.00	90.00	179.62	12,212.96	-1,432.88	-452.84	1,429.85	0.00	0.00	0.00
13,700.00	90.00	179.62	12,212.96	-1,532.88	-452.18	1,529.85	0.00	0.00	0.00
13,800.00	90.00	179.62	12,212.96	-1,632.88	-451.51	1,629.85	0.00	0.00	0.00
13,900.00	90.00	179.62	12,212.96	-1,732.88	-450.84	1,729.85	0.00	0.00	0.00
14,000.00	90.00	179.62	12,212.96	-1,832.87	-450.17	1,829.85	0.00	0.00	0.00
14,100.00	90.00	179.62	12,212.96	-1,932.87	-449.51	1,929.85	0.00	0.00	0.00
14,200.00	90.00	179.62	12,212.96	-2,032.87	-448.84	2,029.85	0.00	0.00	0.00
14,300.00	90.00	179.62	12,212.97	-2,132.87	-448.17	2,129.85	0.00	0.00	0.00
14,400.00	90.00	179.62	12,212.97	-2,232.87	-447.50	2,229.85	0.00	0.00	0.00
14,500.00	90.00	179.62	12,212.97	-2,332.86	-446.84	2,329.85	0.00	0.00	0.00
14,600.00	90.00	179.62	12,212.97	-2,432.86	-446.17	2,429.85	0.00	0.00	0.00
14,700.00	90.00	179.62	12,212.97	-2,532.86	-445.50	2,529.85	0.00	0.00	0.00
14,800.00	90.00	179.62	12,212.97	-2,632.86	-444.83	2,629.85	0.00	0.00	0.00
14,900.00	90.00	179.62	12,212.97	-2,732.85	-444.17	2,729.85	0.00	0.00	0.00
15,000.00	90.00	179.62	12,212.97	-2,832.85	-443.50	2,829.85	0.00	0.00	0.00
15,100.00	90.00	179.62	12,212.97	-2,932.85	-442.83	2,929.85	0.00	0.00	0.00
15,200.00	90.00	179.62	12,212.97	-3,032.85	-442.16	3,029.85	0.00	0.00	0.00
15,300.00	90.00	179.62	12,212.97	-3,132.85	-441.50	3,129.85	0.00	0.00	0.00
15,400.00	90.00	179.62	12,212.97	-3,232.84	-440.83	3,229.85	0.00	0.00	0.00
15,500.00	90.00	179.62	12,212.97	-3,332.84	-440.16	3,329.85	0.00	0.00	0.00
15,600.00	90.00	179.62	12,212.97	-3,432.84	-439.49	3,429.85	0.00	0.00	0.00
15,700.00	90.00	179.62	12,212.97	-3,532.84	-438.83	3,529.85	0.00	0.00	0.00
15,800.00	90.00	179.62	12,212.97	-3,632.83	-438.16	3,629.85	0.00	0.00	0.00
15,900.00	90.00	179.62	12,212.97	-3,732.83	-437.49	3,729.85	0.00	0.00	0.00

Company:	Marathon Oil	**Local Co-ordinate Reference:**	Well WA #2H
Project:	Lea County, NM	**TVD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Site:	Frizzle Fry F C 22-32-15	**MD Reference:**	Well @ 3817.50usft (GL: 3791' + KB: 26.5' (H&P423))
Well:	WA #2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

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)
20,200.00	90.00	179.62	12,212.99	-8,032.74	-408.79	8,029.85	0.00	0.00	0.00
20,300.00	90.00	179.62	12,212.99	-8,132.73	-408.12	8,129.85	0.00	0.00	0.00
20,400.00	90.00	179.62	12,212.99	-8,232.73	-407.45	8,229.85	0.00	0.00	0.00
20,500.00	90.00	179.62	12,212.99	-8,332.73	-406.79	8,329.85	0.00	0.00	0.00
20,600.00	90.00	179.62	12,212.99	-8,432.73	-406.12	8,429.85	0.00	0.00	0.00
20,700.00	90.00	179.62	12,212.99	-8,532.73	-405.45	8,529.85	0.00	0.00	0.00
20,800.00	90.00	179.62	12,212.99	-8,632.72	-404.78	8,629.85	0.00	0.00	0.00
20,900.00	90.00	179.62	12,212.99	-8,732.72	-404.12	8,729.85	0.00	0.00	0.00
21,000.00	90.00	179.62	12,213.00	-8,832.72	-403.45	8,829.85	0.00	0.00	0.00
21,100.00	90.00	179.62	12,213.00	-8,932.72	-402.78	8,929.85	0.00	0.00	0.00
21,200.00	90.00	179.62	12,213.00	-9,032.71	-402.11	9,029.85	0.00	0.00	0.00
21,300.00	90.00	179.62	12,213.00	-9,132.71	-401.45	9,129.85	0.00	0.00	0.00
21,400.00	90.00	179.62	12,213.00	-9,232.71	-400.78	9,229.85	0.00	0.00	0.00
21,500.00	90.00	179.62	12,213.00	-9,332.71	-400.11	9,329.85	0.00	0.00	0.00
21,600.00	90.00	179.62	12,213.00	-9,432.71	-399.44	9,429.85	0.00	0.00	0.00
21,700.00	90.00	179.62	12,213.00	-9,532.70	-398.78	9,529.85	0.00	0.00	0.00
21,800.00	90.00	179.62	12,213.00	-9,632.70	-398.11	9,629.85	0.00	0.00	0.00
21,900.00	90.00	179.62	12,213.00	-9,732.70	-397.44	9,729.85	0.00	0.00	0.00
22,000.00	90.00	179.62	12,213.00	-9,832.70	-396.77	9,829.85	0.00	0.00	0.00
22,100.00	90.00	179.62	12,213.00	-9,932.69	-396.11	9,929.85	0.00	0.00	0.00
22,132.50	90.00	179.62	12,213.00	-9,965.19	-395.89	9,962.35	0.00	0.00	0.00
[FrizzleFry#2H]LTP/BHL									
22,177.50	90.00	179.62	12,213.00	-10,010.19	-395.59	10,007.35	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
[FrizzleFry#2H]FTP	0.00	0.00	0.00	-62.32	-461.13	509,113.20	704,870.95	32.397919	-103.669572
- plan misses target center by 465.32usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
[FrizzleFry#2H]LTP/BHL	0.00	0.00	12,213.00	-9,965.19	-395.89	499,210.33	704,936.19	32.370697	-103.669560
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____

Wolfcamp A	12132	12262	Carbonates/Shales/Sands	OIL	Y

DEEPEST EXPECTED FRESH WATER: 450' TVD

ANTICIPATED BOTTOM HOLE PRESSURE: 8,915 psi

ANTICIPATED BOTTOM HOLE TEMPERATURE: 170 °F

ANTICIPATED ABNORMAL PRESSURE: N

ANTICIPATED ABNORMAL TEMPERATURE: N

3. CASING PROGRAM

String Type	Hole Size	Csg Size	Top Set MD	Bottom Set MD	Top Set TVD	TVDBottom Set	Weight (lbs/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
Surface	17 1/2	13 3/8	0	1050	0	1050	54.5	J55	STC	3.40	1.71	2.93
Intermediate I	12 1/4	9 5/8	0	4820	0	4820	40	J55	LTC	1.17	1.42	1.97
Production csg	8 3/4	7	0	12550	0	12212	29	P110	BTC	2.21	1.18	2.29
Production Liner	6 1/8	4 1/2	11570	22132	11540	12213	13.5	P110	BTC	1.4	1.53	1.91

Minimum safety factors: Burst 1.125 Collapse 1.125 Tension 1.8 Wet/1.6 Dry

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	

Attach plugging procedure for pilot hole.

5. PRESSURE CONTROL EQUIPMENT

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12 ¼"	13 5/8	5000	Annular	x	50% of working pressure
			Blind Ram	x	5000
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8 ¾"	13 5/8	1000	5M Annular	x	50% of working pressure
			Blind Ram	x	10000
			Pipe Ram	x	
			Double Ram	x	
			Other *		
6 1/8"	13 5/8	10000	5M Annular	x	50% of working pressure
			Blind Ram	x	10000
			Pipe Ram	x	
			Double Ram	x	
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock, full opening safety valve / inside BOP and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas

A. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.

B. No abnormal temperatures or pressures are anticipated. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

C. No losses are anticipated at this time.

D. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.

E. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days.

APD ID: 10400028856 **Submission Date:** 03/28/2018

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

Well Type: OIL WELL **Well Work Type:** Drill

[redacted]

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

SUPO_1_FRIZZLE_FRY_F_C_22_32_15_ExistingRoadsMap_20180621090255.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

SUPO_2_20180202_R3833_FRIZZLE_FRY_F_C_22_32_15_NM_LE_0001.00060_REV0_CERTIFIED___BLM__PROPOSED_LEAS_20180621090316.pdf
SUPO_2_FRIZZLE_FRY_F_C_22_32_15_New_Road_20180621090318.pdf
SUPO_2_20180202_R3833_FRIZZLE_FRY_F_C_22_32_15_NM_LE_0001.00160_REV0_CERTIFIED___BLM__PROPOSED_LEAS_20180621090317.pdf

New road type: LOCAL

Length: 1745 Feet **Width (ft.):** 25

Max slope (%): 2 **Max grade (%):** 2

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: The access road will have a small low water crossing at the point of leaving the existing lease road to allow for continued drainage along existing lease road. The new road will be crowned to allow proper water drainage and ditching will be constructed on both sides of the 1,745' access road along with proper compaction to prevent water and wind erosion. All ditching areas will be seeded with BLM #2 sandy soils seed mix to prevent water erosion.

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Proposed Central Tank Battery (CTB) is proposed on the south side of the proposed Frizzle Fry Federal 22 32 15 well pad to allow for maximum interim reclamation of the well pad. 4 wells will go to this CTB. - There are 7 - 750 bbl steel tanks for oil storage and 11 – 750 bbl steel tanks for water storage planned for the CTB. - No permanent open top tanks will be used. - Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting, and nesting. - All chemical and fuel secondary containments will be covered for birds, wildlife, and livestock protection. The fluids will be disposed of as needed to prevent possible overflow. - The proposed CTB will have a secondary containment 1.5 times the holding capacity of largest storage tank plus freeboard to account for precipitation. - All above ground structures not subject to safety requirements will be painted a flat non-reflective shale green for blending with the surrounding environment. - At this time, the proposed CTB will have oil and water truck hauled from the facility. Pipelines/Flowlines: All flowlines transporting production from wells to the facility will remain on the pad; therefore, no further disturbance or ROW will be required. Powerlines: No power-lines will be needed. The power to the equipment will be provided via a natural gas generator.

Production Facilities map:

SUPO_4_FRIZZLE_FRY_F_C_22_32_15__PROPOSED_FACILITY_LAYOUT_20190121065014.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

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

Water source type: GW WELL

Describe type:

Source longitude: -103.624985

Source latitude: 32.4003

Source datum: NAD83

Water source permit type: PRIVATE CONTRACT,WATER WELL

Source land ownership: FEDERAL

Water source transport method: PIPELINE

Source transportation land ownership: FEDERAL

Water source volume (barrels): 147500

Source volume (acre-feet): 19.011732

Source volume (gal): 6195000

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

Water source type: GW WELL

Describe type:

Source longitude: -103.5595

Source latitude: 32.440388

Source datum: NAD83

Water source permit type: PRIVATE CONTRACT

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche will be used to construct well pad and roads. Material will be purchased from the nearest federal, state, or private permitted pit. • Source 1 - Caliche will be used to construct well pad and roads. Material will be purchased from the private land owners (MILLS RANCH) caliche pit located in Sec 3, T22S, R32E, Lea County, NM. Gps 32*25'25.62"N -103*39'20.08"W • Source 2 - Caliche will be used to construct well pad and roads. Material will be purchased from the BLM PIT located in Sec 13, T22S, R32E, Lea County, NM. Gps 32*23'44.20"N -103*37'15.78"W The proposed source of construction material will be located and purchased by construction contractor. Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of well pad or related infrastructure.
Construction Materials source location attachment:

SUPO_6_FRIZZLE_FRY_F_C_22_32_15_PAD_POND_CALICHE_LEASE_20180621090538.jpg

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids and produced oil and water from the well during drilling operations.

Amount of waste: 1000 barrels

Waste disposal frequency : Daily

Safe containment description: Lined steel tanks

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Waste will be stored safely and disposed of properly in an NMOCD approved disposal facility.

Waste type: GARBAGE

Waste content description: Garbage and trash (solid waste)

Amount of waste: 1200 pounds

Waste disposal frequency : Weekly

Safe containment description: All garbage will be stored in closed containers

Safe containmant attachment:

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into lined steel tanks and taken to an NMOCD approved disposal facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

SUPO_9_FRIZZLE_FRY_F_C_22_32_15_WellVicinityMap_20180621090558.pdf

SUPO_9_FRIZZLE_FRY_F_C_22_32_15_Proposed_WellPadSurfacePlat_20190123083546.pdf

SUPO_9_FRIZZLE_FRY_F_C_22_32_15_ProposedWellLocationPlat_20190123083554.pdf

Comments: Exterior well pad dimensions are 540' by 470'. Note this pad will have 4 wells, see Well Pad Surface Plat. Interior well pad dimensions from first point of entry (well head) are: From west-260', north-220', east-280', south-250'. Tank battery pad dimensions are 85' by 350' on south for tanks and separation equipment. Total disturbance area needed for construction activities will be 5.83 acres. Topsoil will be places on the west (315' x 30') of the pad to accommodate interim reclamation activities.

Section 10 - Plans for Surface Reclamation

[redacted]

Recontouring attachment:

SUPO_10_FRIZZLE_FRY_F_C_22_32_15_InterimReclamationPlat_20190123083622.pdf

Drainage/Erosion control construction: During construction, BMP's will be used to control erosion, runoff and siltation of surrounding area.

Drainage/Erosion control reclamation: BMP will be used to control erosion, runoff and siltation of surrounding area. All areas reclaimed will be ripped across the slope to prevent water erosion.

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: NA

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Mesquite, shinnery oak, sand dropseed, and sage.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type: OTHER

Seed source: COMMERCIAL

Seed name: BLM Sandy LPC mix

Source name:

Source address:

Source phone:

Seed cultivar: Broadcast

Seed use location: OTHER,WELL PAD

PLS pounds per acre: 38

Proposed seeding season: AUTUMN

Seed Summary

Total pounds/Acre: 38

Seed Type	Pounds/Acre
OTHER	38

Seed reclamation attachment:

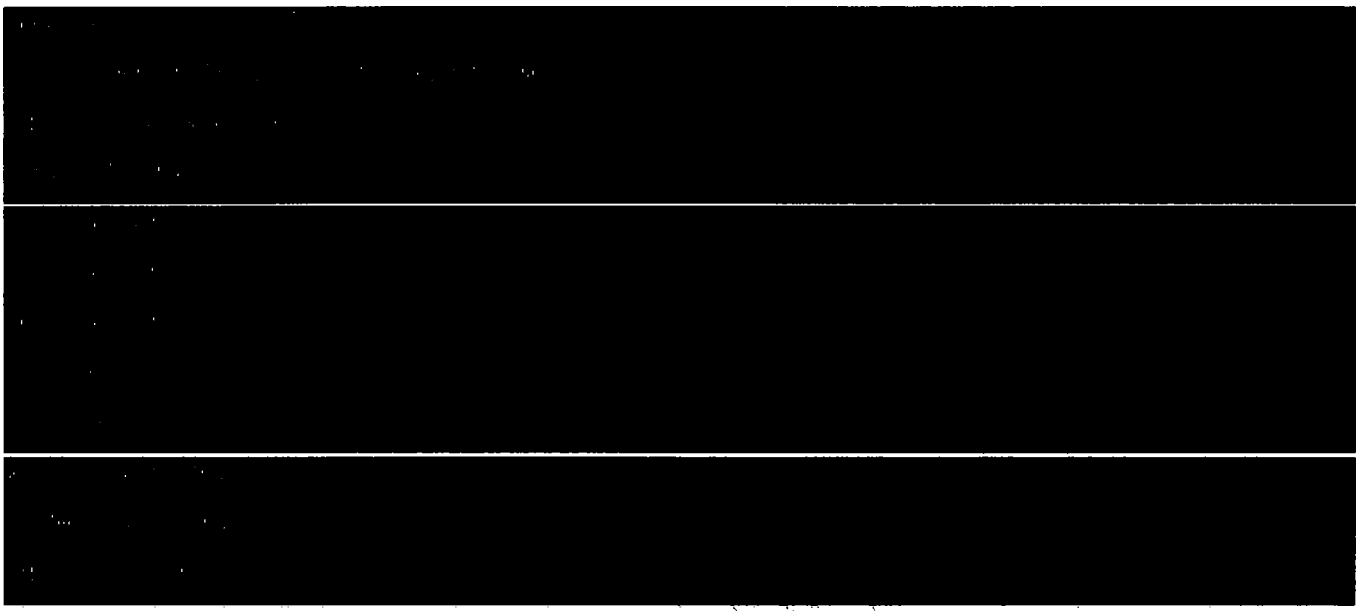
Seed_Mixture_LPC_HEA_20180323104309.pdf

Operator Contact/Responsible Official Contact Info

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: FRIZZLE FRY F C 22 32 15 WA **Well Number:** 2H

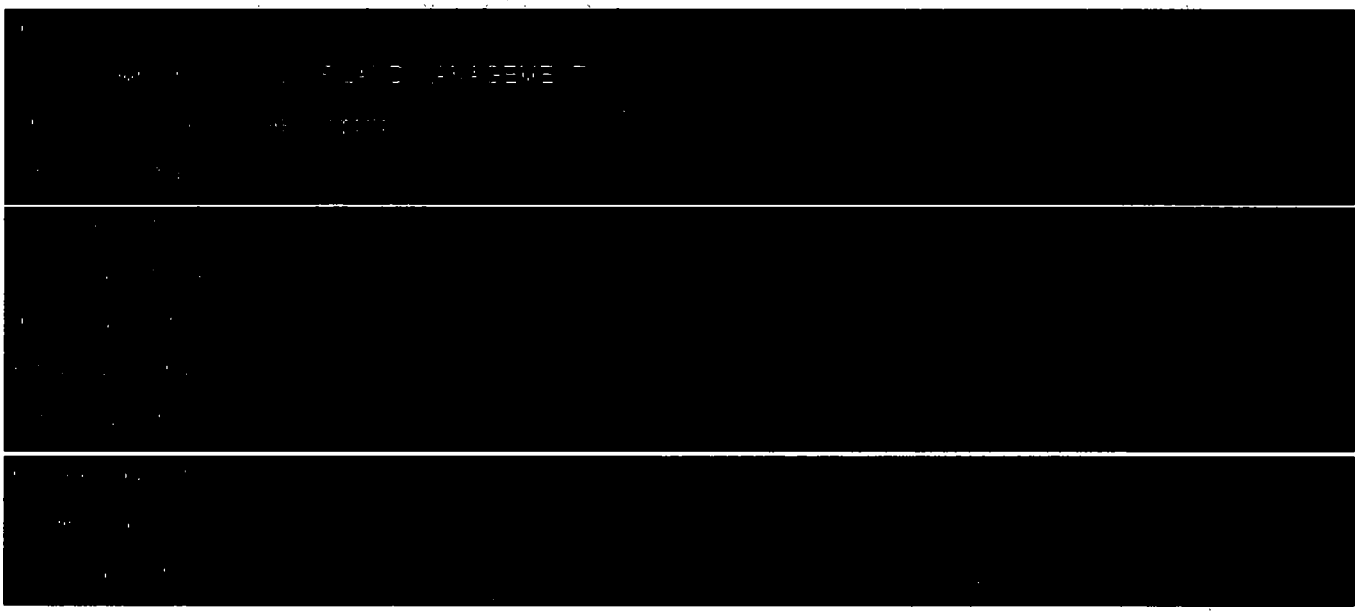
Disturbance type: NEW ACCESS ROAD



USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: EXISTING ACCESS ROAD

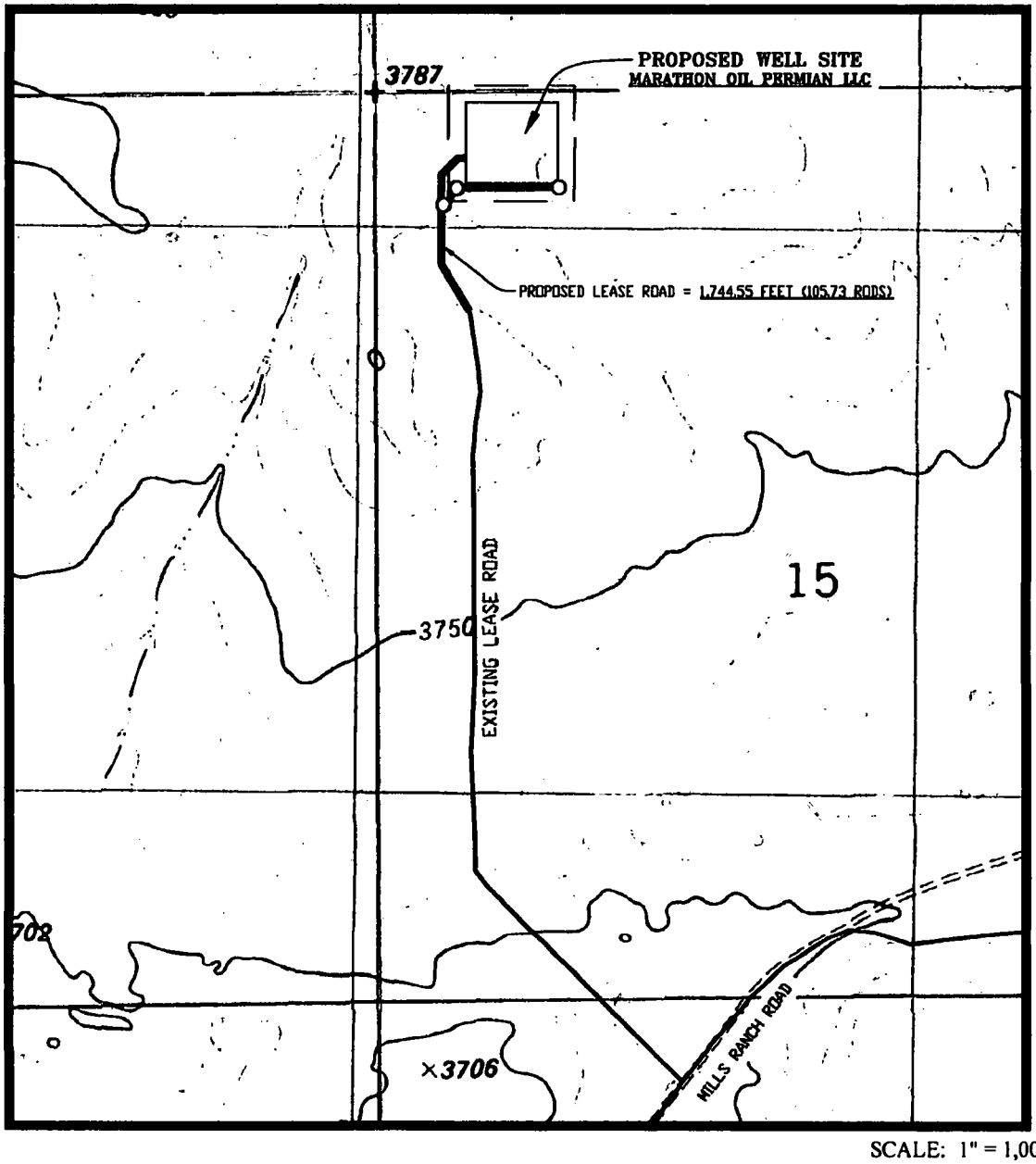


USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

WELL PAD LOCATION VERIFICATION MAP

FRIZZLE FRY F C 22-32-15
SEC. 15 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

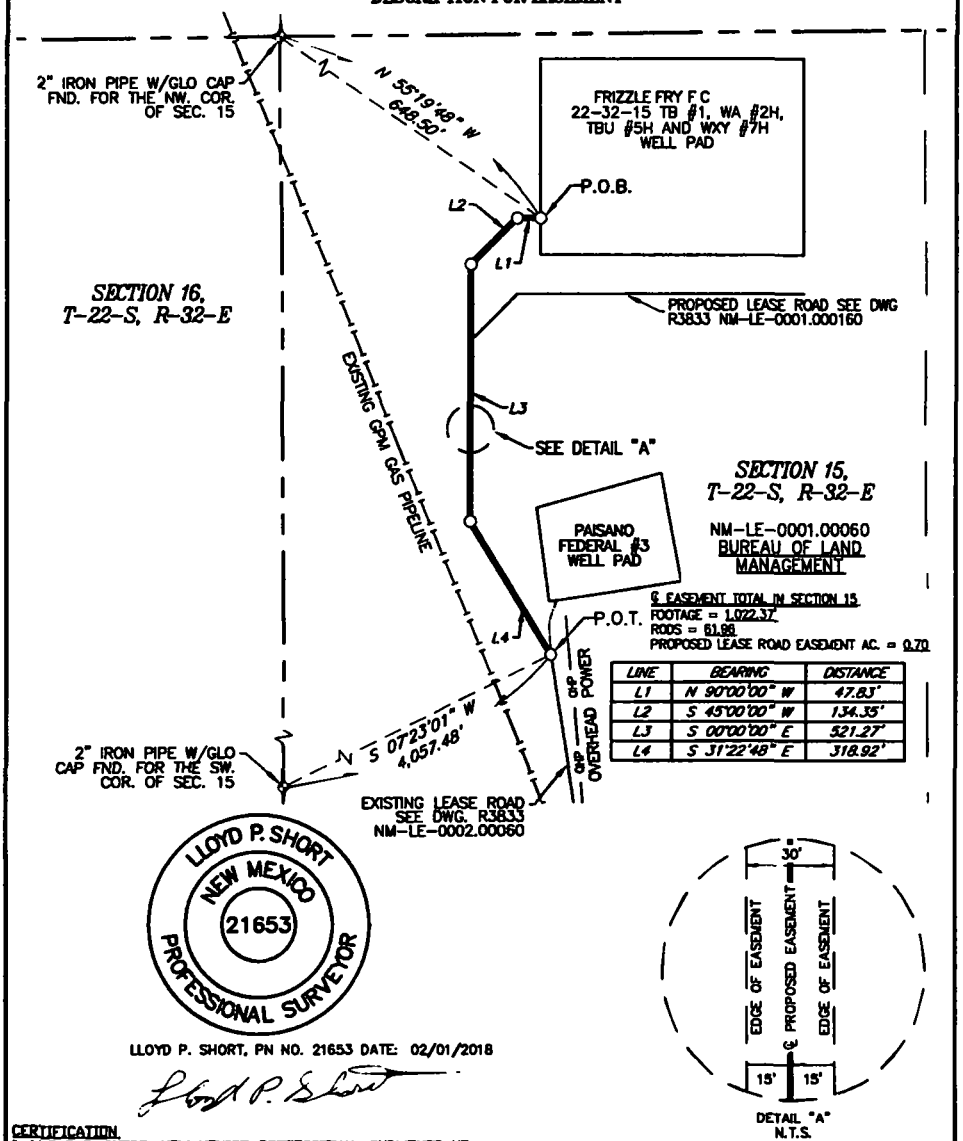


SCALE: 1" = 1,000'
CONTOUR INTERVAL = 10'

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. R3833

EXHIBIT "A"
LEA COUNTY, NEW MEXICO
SECTION 15, T-22-S, R-32-E, N.M.P.M.
FRIZZLE FRY F C 22-32-15 PROPOSED LEASE ROAD EASEMENT CERTIFICATE OF SURVEY TO ACCOMPANY LEGAL DESCRIPTION FOR EASEMENT

150' 0' 150' 300'
SCALE: 1" = 300'



℄ EASEMENT TOTAL IN SECTION 15
FOOTAGE = 1,022.37'
RODS = 61.98
PROPOSED LEASE ROAD EASEMENT AC. = 0.70

LINE	BEARING	DISTANCE
L1	N 90°00'00" W	47.83'
L2	S 45°00'00" W	134.35'
L3	S 00°00'00" E	521.27'
L4	S 31°22'48" E	318.92'

DETAIL "A"
N.T.S.

LLOYD P. SHORT NEW MEXICO 21653 PROFESSIONAL SURVEYOR

LLOYD P. SHORT, PN NO. 21653 DATE: 02/01/2018

Lloyd P. Short

CERTIFICATION
I, LLOYD P. SHORT, NEW MEXICO PROFESSIONAL SURVEYOR NO. 21653, DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

NOTE
THE EDGES OF THE PERMANENT EASEMENT ARE PARALLEL WITH THE CENTERLINE OF THE EASEMENT UNTIL REACHING THE BOUNDARIES OF THE SUBJECT TRACT OF LAND.

BASIS OF BEARING
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS AND DISTANCES ARE GRID MEASUREMENTS.)

LEGEND | P.O.B. POINT OF BEGINNING P.O.T. POINT OF TERMINATION
ROAD WAY — FENCE
℄ ROAD — SECTION LINE
℄ EASEMENT — OHP OVERHEAD POWER
EXIST. PIPELINE — PROPERTY LINE
⊙PROPERTY MONUMENT ◇PROPOSED POWER POLE ●QUARTER SPLIT

Marathon Oil
Permian LLC

PLAT FOR A PROPSED LEASE ROAD EASEMENT CROSSING THE PROPERTY OF
BUREAU OF LAND MANAGEMENT
EDDY COUNTY, NEW MEXICO

1309 LOUISVILLE AVE.
MONROE, LA 71201
(318) 323-6900
FAX (318) 362-0064

REV.	DATE	DESCRIPTION	BY	CHKD

SHEET 2 OF 2 | JOB NO.: R3833
DRAWN BY: CAP | DWG. NO.
DATE: 01/08/2018 | R3833_NM-LE-0001.00060
CHECKED BY: MVS

EXHIBIT "A"

NM-LE-0001.00160
LEA COUNTY, NEW MEXICO
FRIZZLE FRY F C 22-32-15 SHEET 1 OF 2
PROPOSED LEASE ROAD EASEMENT
MARATHON OIL PERMIAN LLC

FIELD NOTES DESCRIBING

The centerline of a 30 foot wide proposed lease road easement, being 0.50 acres of land. Said easement being located in Section 15, Township 22 South, Range 32 East, New Mexico Principal Meridian, Lea County, New Mexico.

Being more particularly described as lying 15 feet on each side of the following described centerline as shown on Detail "A" on sheet 2 of 2:

BEGINNING at a point from which a 2 inch iron pipe with a GLO cap found for the Northwest corner of said Section 15, bears N 32°15'05" W a distance of 731.80 feet.

THENCE continue crossing said Section 15 the following courses and distances:
N 45°00'00" E a distance of 134.35 feet, N 89°59'58" E a distance of 587.84 feet to the *POINT OF TERMINATION* from which a 2 inch iron pipe with a GLO cap found for the Southwest corner of said Section 15 bears S 12°18'39" W a distance of 4,869.36 feet.

The total length of the proposed lease road easement in said Section 15 is 722.19 feet (43.77 rods), and shall contain 0.50 acres of land.

The edges of the permanent easement shall be parallel with the centerline of the easement until reaching the boundaries of the subject tract of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. (All bearings and distances are grid measurements.)

Title information furnished by Marathon Oil Permian LLC.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

STATE OF NEW MEXICO
COUNTY OF LEA

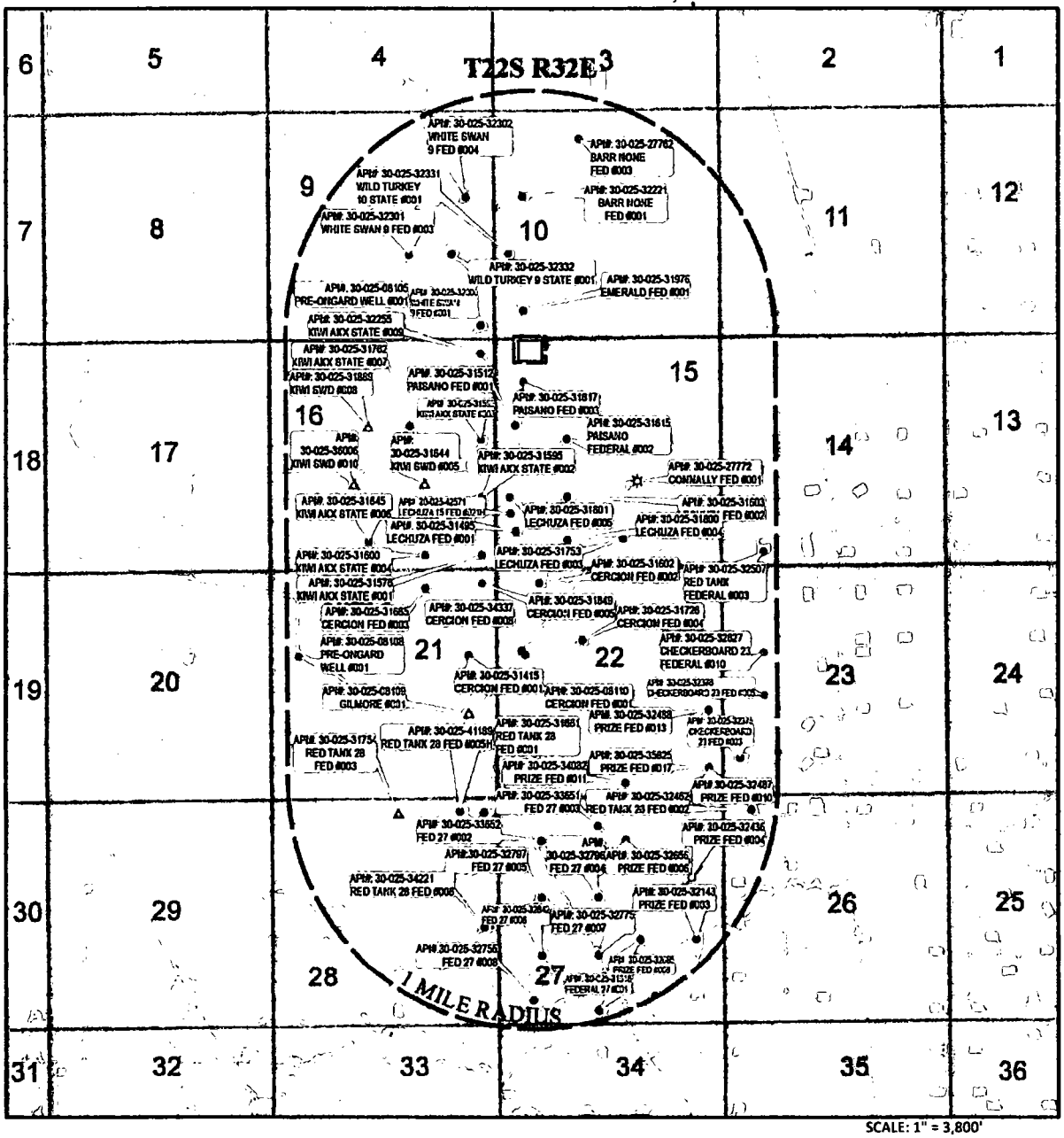
I, Lloyd P. Short, New Mexico Professional Surveyor No. 21653, do hereby certify that this easement survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an easement survey plat crossing an existing tract or tracts.

LLOYD P. SHORT, PN NO. 21653 DATE: 02/01/2018

R-SQUARED GLOBAL, LLC
PROJECT NO. R3833
Modification in any way of the foregoing description terminates liability of Surveyor.

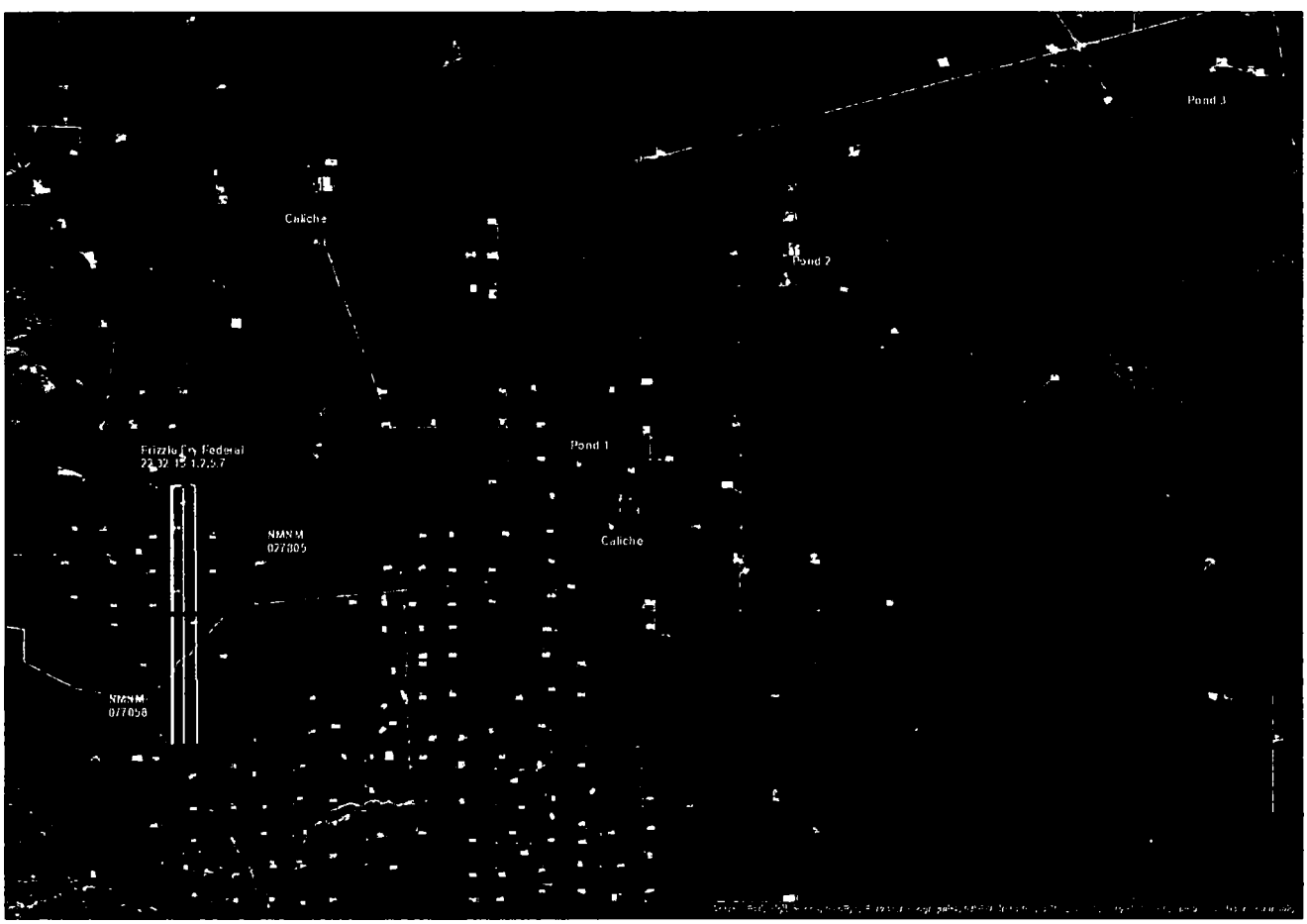
EXISTING WELL LOCATION MAP

FRIZZLE FRY F C 22 -32-15
SEC. 15 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR : MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M..



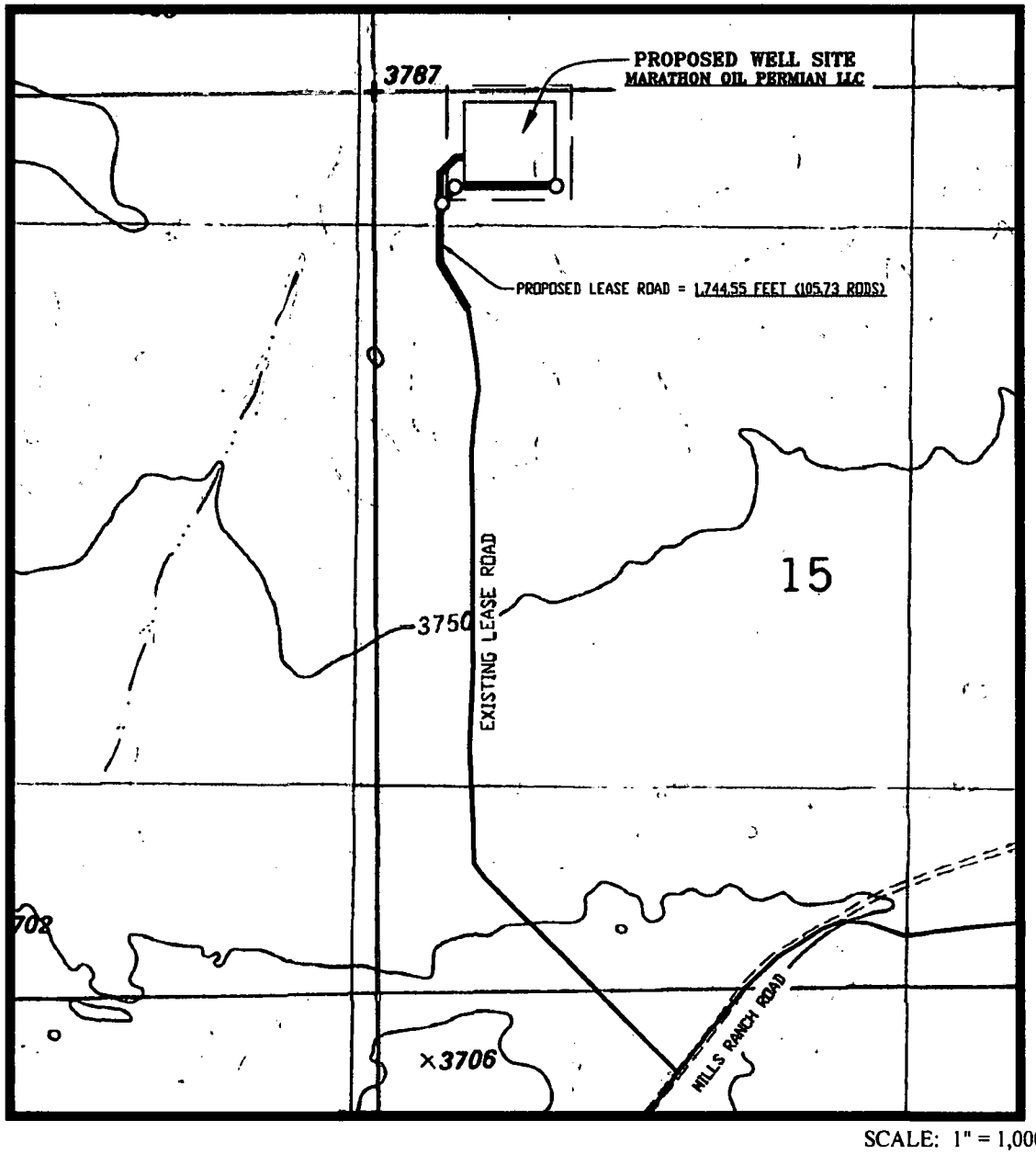
Proposed Well Pad
Arch Survey Limits
Section Line
CO2 Active
CO2 Cancelled
CO2, Plugged
Gas, Active
Gas, Cancelled
Gas, New
Gas, Plugged
Gas, Abandoned
Injection, Active
Injection, New
Injection, Plugged
Salt Water Injection, Cancelled
Injection, Abandoned
Oil, Active
Oil, Cancelled
Oil, New
Oil, Plugged
Oil, Abondoned
Salt Water Injection, Active
Salt Water Injection, New
Salt Water Injection, Plugged
Water, Active
Water, Plugged

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. R3833


Pond 3
Caliche
Pond 2
Pond 1
Caliche
NMNM
077005
NMNM
077058

WELL PAD LOCATION VERIFICATION MAP

FRIZZLE FRY F C 22-32-15
SEC. 15 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.



SCALE: 1" = 1,000'
CONTOUR INTERVAL = 10'

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. R3833

WELL LOCATION PLAT

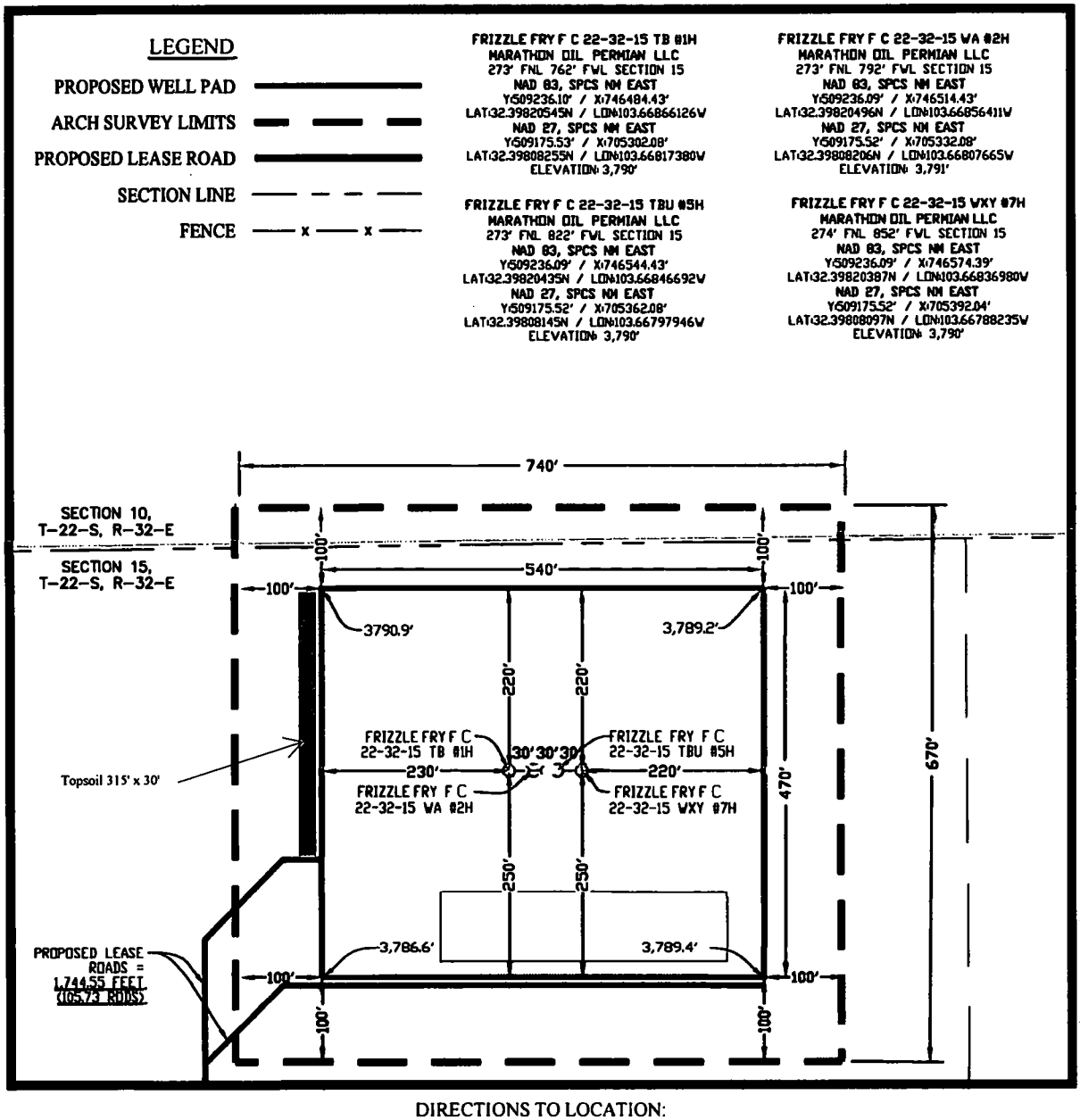
FRIZZLE FRY F C 22-32-15

SEC. 15 TWP. 22-S RGE. 32-E

SURVEY: N.M.P.M.

COUNTY: LEA

U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.



DIRECTIONS TO LOCATION:

FROM THE MARATHON OFFICE AT 411 TIDWELL ROAD, OTIS, NEW MEXICO, HEAD SOUTH ON TIDWELL ROAD TOWARD U. S. HIGHWAY 285 NORTH FOR 0.2 MILES. TURN LEFT ONTO U. S. HIGHWAY 285 SOUTH HEADING SOUTHEAST FOR 5.1 MILES TOWARD NEW MEXICO STATE ROAD 31. TURN LEFT ONTO NEW MEXICO STATE ROAD 31 HEADING EAST FOR 7.7 MILES TO NEW MEXICO STATE ROAD 128 EAST. TURN RIGHT ONTO NEW MEXICO STATE ROAD 128 EAST HEADING EAST FOR 18 MILES TO RED ROAD. TURN LEFT ONTO RED ROAD HEADING NORTH FOR 7.4 MILES TO MILLS RANCH ROAD. TURN RIGHT ONTO MILLS RANCH ROAD (A CALICHE ROAD) HEADING NORTHEAST FOR 4.01 MILES TO A TURN ON THE RIGHT. CONTINUE ON MILLS RANCH ROAD HEADING SOUTH FOR 1.8 MILES TO A CALICHE ROAD ON THE LEFT. TURN LEFT ON CALI CHE ROAD HEADING NORTH TOWARD THE PAI SANO FEDERAL #3 FOR 0.9 MILES TO A "Y" IN THE ROAD. KEEP LEFT ON PROPOSED LEASE ROAD FOR 1,000 FEET TO THE FRIZZLE FRY F C 22-32-15 WELL LOCATIONS.

NOTE:
THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS FROM STATE OF NEW MEXICO OIL CONSERVATION DIVISION FORM C-102 INCLUDED IN THIS SUBMITTAL.

100' 0' 100' 200'

SCALE: 1" = 200'

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. RS833

Exhibit A-1
Navitas Midstream, LLC
NM-133018
Navitas Pipeline
October 9, 2015

Seed Mixture for LPC/HEA Sites

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

The disturbed area associated with pipeline construction will be disked in order to loosen the soil. Seed application will be performed by dispersing seed through a hydroseeder with the appropriate amount of hydromulch to assist in an even rate of application. After application, a chain harrow will be implemented to cover the seed with soil to ensure the seed is had the proper depth (approximate ½ inch). Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

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

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	5lbs/A
Big Bluestem	5lbs/A
Plains Coreopsis	5lbs/A
Sand Dropseed	1lbs/A
Ragweed	4lbs/A
Dove weed	3lbs/A
Pig weed	2lbs/A
Black oil sunflower	3lbs/A

*Pounds of pure live seed:

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

SELF-CERTIFICATION STATEMENT
FROM LESSEE/OPERATOR
SURFACE OWNER IDENTIFICATION

Well Number and Locations: Halberd Federal 24-35-18 WXY 3H, FB 12H, TB 6H, WA 5H & WXY 10H Well Pad; Section 18, T24S, R35E, Lea County, New Mexico.

I hereby certify to the Authorized Officer of the Bureau of Land Management that Operator has entered into Surface Use Agreements with the following surface owners.

Madison M. Hinkle
P. O. Box 2292
Roswell, NM 88202-2292

G. P. Crossley
P. O. Box 2464
Roswell, NM 88202-2464

George M. O'Brien
P. O. Box 1743
Midland, Texas 79702-1743

Rolla R. Hinkle III
P. O. Box 2292
Roswell, NM 88202-2292

Branex Resources, Inc.
P. O. Box 2990
Ruidoso, NM 88355-2990

EMG Oil Properties, Inc.
1000 W. Fourth Street
Roswell, NM 88201

Nuevo Seis Limited Partnership
P. O. Box 2588
Roswell, NM 88202-2588

Richardson Mineral and Royalty, LLC
P. O. Box 2423
Roswell, NM 88202-2423

Signed this 7th day of March, 2018.

Nancy Pohl, Attorney-in-Fact

SELF-CERTIFICATION STATEMENT
FROM LESSEE/OPERATOR
SURFACE OWNER IDENTIFICATION

Well Number and Locations: Halberd Federal 24-35-18 WXY 3H, FB 12H, TB 6H, WA 5H & WXY 10H Road; Section 13, T24S, R35E, Lea County, New Mexico.

I hereby certify to the Authorized Officer of the Bureau of Land Management that Operator has entered into Surface Use Agreements with the following surface owners.

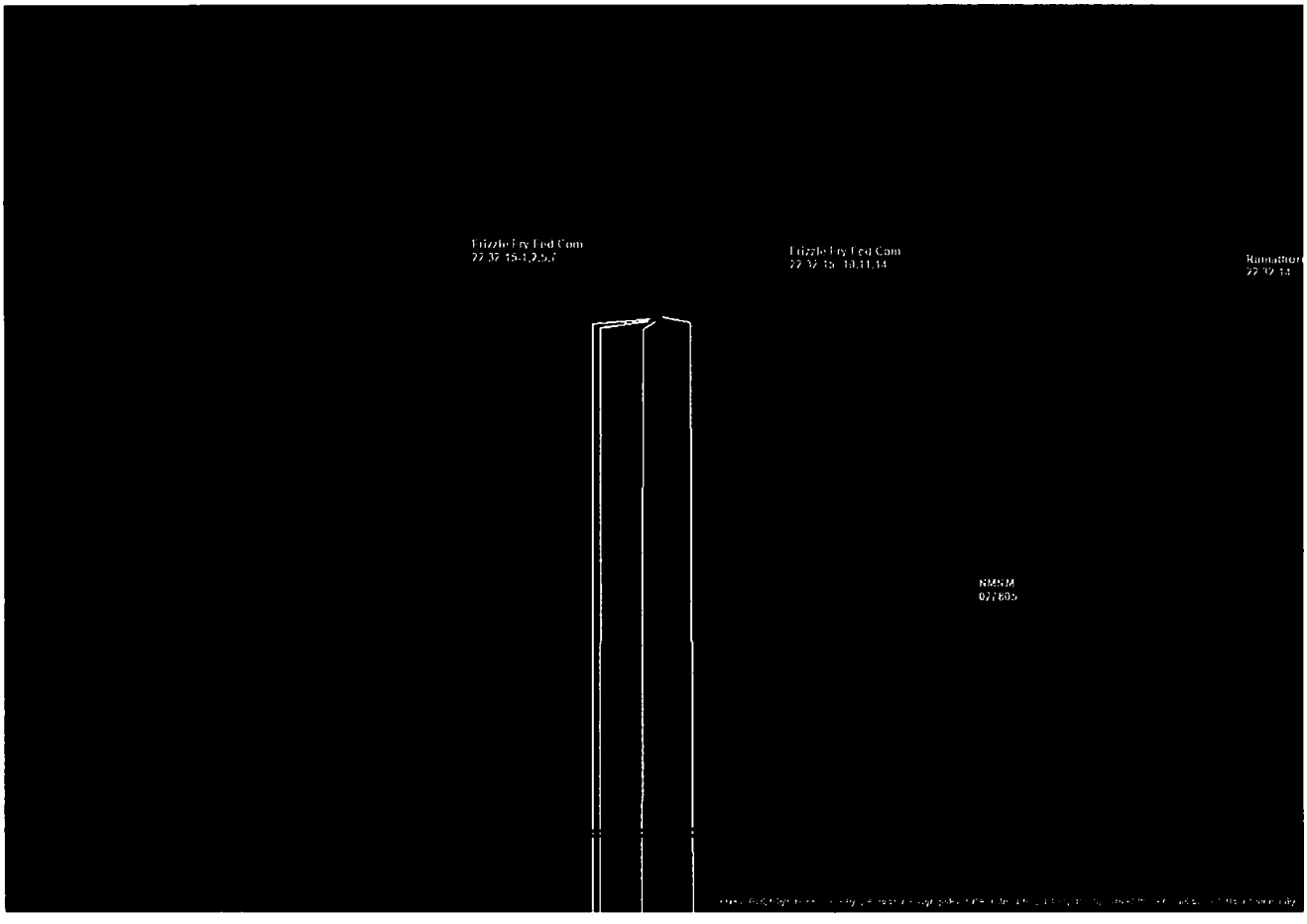
Pitchfork Cattle Company, LLC
125 Bellavia Circle Dr.
Ruidoso, NM 88355
545-631-4444

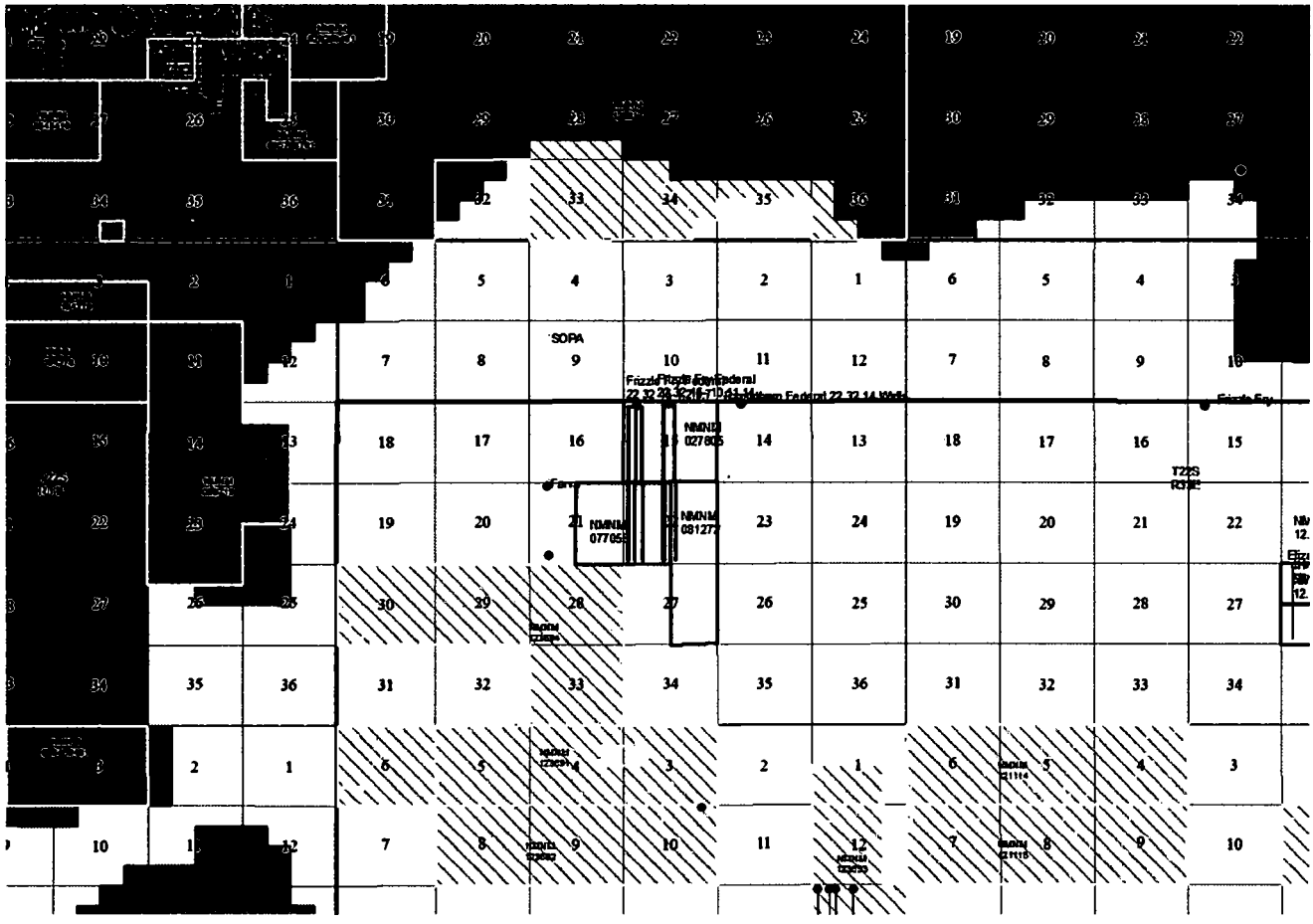
Signed this 7th day of March, 2018.

Nancy Pohl, Attorney-in-Fact

ONSITE Review Checklist

Onsite Inspection - Environmental							
Oil & Gas Operator:	Marathon Oil Permian LLC			Field:			
Case # / Lease #	NMNM		Well Name/ Number	Halberd Federal 24 35 18		API #	
Twn:	24	35	34	County:	Lea	Total Depth:	
Sec:	18	Qtr:		State:	NM		
N/S Foot		E/W Foot:		Lat/Long		Formation(s):	
REPRESENTATIVES PRESENT							
Company:	Nancy Pohl			Contractor:	Harvey Waller		
BLM:	Colleen			Other:			
Surface Owner:	Madison Hinkle, et al	☐ PRESENTC	☑ NOT PRESENT	Location Agreement	☑ YES	☐ NO	
Name:	BLM			Phone:			
Address:							
Other Surface Owners Involved in Acces	☑ YES	☐ NO		Name:	Pitchfork Cattle Company		
ACCESS ROAD							
Existing Access:	No	Miles:		New Construction:	Yes	Miles:	644' on lease; ~9800' off lease
☑ RETAIN FOR LAND OWNER	☐ ABANDON			Width (FT.)		Grade (%Max)	
Culverts: Number:	0	Size:			Location:		
Cuts and Fills: Max Cut:				Max Fill:			
Surfacing: Type:	Caliche	Depth:	6"	Source:	Madera		
Low Water Crossing-Number/Location--	0	☐ RETAIN	☐ ABANDON				
Water Bars-Number/Location--	0	☐ RETAIN	☐ ABANDON				
Gates-Number/Location--	0	☐ RETAIN	☐ ABANDON				
Cattleguards-Number/Location--	0	☐ RETAIN	☐ ABANDON				
WELL SITE							
Cuts-- Depth:		Slope:		Top Soil Removal:			
Max:				Inches:	4" - 6"		
Topsoil Stockpile Location	West side of pad						
Pad Size	570' x 400'						
Water Bars Needed				Fence Crossing Location	☐ YES	☐ NO	
☐ YES ☑ NO							
Location/Spacing	30'						
Available Area for Frac. Equipment			Reserve Pit Lined				
☑ YES ☐ NO			☐ YES Closed Loop ☑ NO				


Frizzle Fry Fed Com
Frizzle Fry Fed Com
RMNM


SOPA
NMNM 027805
NMNM 077055
NMNM 081272
T22S R29E

ONSITE Review Checklist

☒ YES ☐ NO			☐ YES ☒ NO		
Production Facilities ☒ YES ☐ NO	Flowlines-- ☐ YES ☒ NO	Length:		Power Lines ☐ YES ☐ NO	Length:
		Depth:			#Poles:
Special Requirements/TOPO Features:					
RESOURCES					
T&E Clearance Needed? ☐ YES ☒ NO	Archeological Inventory Needed ☒ YES ☐ NO		Mitigation-- LPC habitat	Present Use: ☒ Grazing ☐ Cropland ☒ Oil Field Development ☐ Other	
Floodplains/Wetlands-- ☐ YES ☒ NO		Water Source--			
Streams/Ponds-- ☐ YES ☒ NO		Authorization--			
		Water Source-- ☐ YES ☐ NO Location:			
Nearest Residence:		Nearest Drainage: Ephemeral ☐ YES ☒ NO		Perennial ☒ YES ☐ NO	
Soil Type/Ecological Site -	Sandy soil				
Erosion Concerns -	Need to berm pad to prevent on-flow or off-flow				
Native Vegetation Present	Sandy soil vegetation types, mesquite, shinnary oak, sage				
Invasive Species Present	Need plan to prevent invasive species being tracked in.				
Wildlife Present -	LPC habitat but not timing stip area				
ALTERNATIVES CONSIDERED					
MITIGATION/BMP(s)					
Need to notify allottee.					
RECLAMATION					
Seed Mix			IR--Pad Size	~4.18 acre	
Species	Broadcast Rate (lbs/acre)		Interim Reclamation Requirements--		
BLM #LPC	12#/acre				
Reclamation Plan Discussed	☒ YES ☐ NO		Other/Special Conditions		

01 02-25-1920;041STAT0437;30USC181ETSEQ
Case Type 311211: O&G LSE SIMO PUBLIC LAND
Commodity 459: OIL & GAS
Case Disposition: AUTHORIZED

Total Acres: 640.000

Serial Number: NMNM 027805

Serial Number: NMNM-- - 027805

Name & Address					Int Rel	% Interest
DOMINION OK TX EXPL & PROD INC	14000 QUAIL SPGS PKY #600	OKLAHOMA CITY	OK	73134	OPERATING RIGHTS	0.000000000
DELMAR HUDSON LEWIS	616 TEXAS ST	FORT WORTH	TX	76102	OPERATING RIGHTS	0.000000000
HUDSON ANN F	616 TEXAS ST	FORT WORTH	TX	76102	OPERATING RIGHTS	0.000000000
HUDSON FRANCIS H	616 TEXAS ST	FORT WORTH	TX	76102	OPERATING RIGHTS	0.000000000
LEWIS DELMAR H	616 TEXAS ST	FORT WORTH	TX	76102	OPERATING RIGHTS	0.000000000
LINDY'S LIVING TRUST	616 TEXAS ST	FORT WORTH	TX	76102	OPERATING RIGHTS	0.000000000
MARATHON OIL PERMIAN LLC	5555 SAN FELIPE ST	HOUSTON	TX	770562701	OPERATING RIGHTS	0.000000000
XTO HOLDINGS LLC	810 HOUSTON ST	FORT WORTH	TX	761026203	LESSEE	100.000000000
TALON OIL & GAS III LLC	3131 MCKINNEY AVE STE 750	DALLAS	TX	752042457	OPERATING RIGHTS	0.000000000
RKI EXPLORATION & PRODUCTION LLC	3500 ONE WILLIAMS CTR	TULSA	OK	741720135	OPERATING RIGHTS	0.000000000
ROCKHILL RES INC	PO BOX 846	MIDLOTHIAN	VA	23113	OPERATING RIGHTS	0.000000000
ZORRO PARTNERS LTD	616 TEXAS ST	FORT WORTH	TX	761024612	OPERATING RIGHTS	0.000000000
SEALY HUTCHINGS CAVIN INC	504 N WYOMING AVE	ROSWELL	NM	882012169	OPERATING RIGHTS	0.000000000
JAVELINA PARTNERS	616 TEXAS ST	FORT WORTH	TX	761024612	OPERATING RIGHTS	0.000000000
STRATA PRODUCTION CO	PO BOX 1030	ROSWELL	NM	882021030	OPERATING RIGHTS	0.000000000
B&B OIL VENTURES INC	PO BOX 500	RICHMOND	VA	23204	OPERATING RIGHTS	0.000000000
ARD MARY H	4808 WESTRIDGE	FORT WORTH	TX	76116	OPERATING RIGHTS	0.000000000

Serial Number: NMNM-- - 027805

Mer	Twp	Rng	Sec	SType	Nr	Suff	Subdivision	District/ Field Office	County	Mgmt Agency
23	0220S	0320E	015	ALIQ			ALL;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT

Relinquished/Withdrawn Lands

Serial Number: NMNM-- - 027805

Serial Number: NMNM-- - 027805

Act Date	Act Code	Action Txt	Action Remarks	Pending Off
02/23/1976	387	CASE ESTABLISHED	SPAR531;	
02/24/1976	888	DRAWING HELD		

Serial Number: NMNM-- - 027805

Act Date	Act Code	Action Txt	Action Remarks	Pending Off
10/29/1992	932	TRF OPER RGTS FILED	(1)B&B OIL/STRATA	
10/29/1992	932	TRF OPER RGTS FILED	(2)B&B OIL/STRATA	
10/29/1992	974	AUTOMATED RECORD VERIF	MRR/JS	
11/04/1992	932	TRF OPER RGTS FILED	B&B OIL/ROCKHILL RES	
11/05/1992	575	APD FILED	STRATA PRODUCTION;	
11/17/1992	576	APD APPROVED	LECHUGA #4; BM	
11/17/1992	576	APD APPROVED	LECHUGA #5; BM	
01/06/1993	933	TRF OPER RGTS APPROVED	(1)EFF 11/01/92;	
01/06/1993	933	TRF OPER RGTS APPROVED	(2)EFF 11/01/92;	
01/06/1993	933	TRF OPER RGTS APPROVED	(3)EFF 11/01/92;	
01/06/1993	933	TRF OPER RGTS APPROVED	(4)EFF 11/01/92;	
01/06/1993	974	AUTOMATED RECORD VERIF	JLV/JS	
01/15/1993	932	TRF OPER RGTS FILED	HUDSON ETAL/STRATA	
02/08/1993	933	TRF OPER RGTS APPROVED	EFF 02/01/93;	
02/08/1993	974	AUTOMATED RECORD VERIF	GSB/JS	
02/22/1993	933	TRF OPER RGTS APPROVED	EFF 12/01/92;	
02/22/1993	974	AUTOMATED RECORD VERIF	ST/KRP	
03/18/1993	575	APD FILED	STRATA PRODUCING; BM	
04/15/1993	576	APD APPROVED	PAISANO FED #4; BM	
12/30/1994	932	TRF OPER RGTS FILED	COLLINS&WARE/DREYFUS	
03/17/1995	933	TRF OPER RGTS APPROVED	EFF 01/01/95;	
03/17/1995	974	AUTOMATED RECORD VERIF	JLV	
11/20/1995	899	TRF OF ORR FILED		
03/13/1996	932	TRF OPER RGTS FILED	(1)MOBIL PROD/STRATA	
03/13/1996	932	TRF OPER RGTS FILED	(2)MOBIL PROD/STRATA	
03/13/1996	932	TRF OPER RGTS FILED	(3)MOBIL PROD/STRATA	
04/01/1996	899	TRF OF ORR FILED		
04/01/1996	932	TRF OPER RGTS FILED	HUDSON/LINDY'S LIV TR	
06/11/1996	933	TRF OPER RGTS APPROVED	(1)EFF 04/01/96;	
06/11/1996	933	TRF OPER RGTS APPROVED	(2)EFF 04/01/96;	
06/11/1996	933	TRF OPER RGTS APPROVED	(3)EFF 04/01/96;	
06/11/1996	974	AUTOMATED RECORD VERIF	ANN	
07/09/1996	933	TRF OPER RGTS APPROVED	EFF 05/01/96;	
07/09/1996	974	AUTOMATED RECORD VERIF	ANN	
12/12/2001	817	MERGER RECOGNIZED	L DREYFUS/DOMINION	
11/01/2002	899	TRF OF ORR FILED	HUDSON, FRANCIS H	
11/01/2002	932	TRF OPER RGTS FILED	HUDSON/DH LEWIS TRUST	
01/14/2003	933	TRF OPER RGTS APPROVED	EFF 12/01/2002	
01/14/2003	974	AUTOMATED RECORD VERIF	ANN	

Serial Number: NMNM-- - 027805

Act Date	Act Code	Action Txt	Action Remarks	Pending Off
08/29/2017	974	AUTOMATED RECORD VERIF	RCC	
01/02/2018	140	ASGN FILED	MOBIL PRO/XTO HOLDI;1	
01/02/2018	899	TRF OF ORR FILED	1	
02/08/2018	139	ASGN APPROVED	EFF 02/01/18;	
02/08/2018	974	AUTOMATED RECORD VERIF	LBO	

Serial Number: NMNM-- - 027805

Line Number	Remark Text
0002	BONDED OPERATORS/LESSEES/TRANSFEREES:
0003	06/11/96 - STRATA PROD CO - NM1538 - SW;
0004	01/07/03 - STRATA PROD CO - NM1538 - SW;
0005	12/17/04 - STRATA PROD CO - NM1538 - SW;
0006	04/25/07 - LOBOS ENE PTNERS LLC - NMB000460 - SW;
0007	04/19/13 - STRATA PROD CO - NM1538 - SW;
0008	10/03/14 - STRATA PROD CO - NM1538 - SW/NM;
0009	02/19/16 - STRATA PROD CO - NM1538 SW
0010	/A/ NAME CHANGE FROM BMOG LLC TO
0011	BLACK MOUNTAIN OPERATING LLC
0012	04/24/17 - OPERATOR BONDED STRATA PRODUCTION NM1538
0013	05/11/17 - BONDED OPERATOR BLACK MTN NMB001326 SW
0014	08/25/2017 - MARATHON WYB002107 NW;

Serial Number: NMNM-- - 077058

Act Date	Act Code	Action Txt	Action Remarks	Pending Off
09/23/1988	974	AUTOMATED RECORD VERIF	LO	
01/31/1989	909	BOND ACCEPTED	01/27/89;NM1538	
02/15/1989	600	RECORDS NOTED		
02/16/1989	963	CASE MICROFILMED/SCANNED	CNUM 566,296	
04/06/1989	909	BOND ACCEPTED	EFF 04/06/89;NM1576	
08/13/1990	111	RENTAL RECEIVED	$1320.00;21/143266	
08/19/1991	111	RENTAL RECEIVED	$1320.00;21/157099	
09/16/1991	575	APD FILED	STRATA PRODUCTION CE	
10/15/1991	576	APD APPROVED	CERCION FED NO 1	
12/27/1991	650	HELD BY PROD - ACTUAL	CERCION FED NO 1	
12/27/1991	658	MEMO OF 1ST PROD-ACTUAL		
04/13/1992	932	TRF OPER RGTS FILED	EXXON/STRATA PROD CO	
04/29/1992	575	APD FILED	STRATA PRODUCTION CE	
05/20/1992	576	APD APPROVED	CERCION FED NO 2	
06/10/1992	933	TRF OPER RGTS APPROVED	EFF 05/01/92;	
06/10/1992	974	AUTOMATED RECORD VERIF	BTM/JS	
06/29/1992	575	APD FILED	STRATA PRODUCTION CE	
07/29/1992	576	APD APPROVED	CERCION FED NO 3N CE	
08/24/1992	575	APD FILED	STRATA PRODUCTION CE	
09/08/1992	576	APD APPROVED	CERCION FED NO 4	
11/18/1992	932	TRF OPER RGTS FILED	EXXON/MERIDIAN	
12/11/1992	575	APD FILED	STRATA PROD CO; BM	
01/04/1993	576	APD APPROVED	CERCION FED #5; BM	
01/07/1993	575	APD FILED	STRADA PRODUCTION; BM	
01/15/1993	576	APD APPROVED	CERCION FED #6; BM	
02/02/1993	933	TRF OPER RGTS APPROVED	EFF 01/01/93;	
02/02/1993	974	AUTOMATED RECORD VERIF	LO/JS	
02/08/1993	576	APD APPROVED	CERCION FED #7; BM	
03/04/1993	899	TRF OF ORR FILED		
03/04/1993	932	TRF OPER RGTS FILED	MERIDIAN/STRATA PROD	
05/04/1993	575	APD FILED	STRATA PRODUCTION	
05/24/1993	933	TRF OPER RGTS APPROVED	EFF 04/01/93;	
05/24/1993	974	AUTOMATED RECORD VERIF	GSB	
07/07/1993	576	APD APPROVED	7 Y CERCION FED	
03/18/1994	575	APD FILED	MERIDIAN OIL INC	
03/29/1994	575	APD FILED	MERIDIAN OIL INC	
04/13/1994	932	TRF OPER RGTS FILED	(1)EXXON/STRATA PROD	
04/13/1994	932	TRF OPER RGTS FILED	(2)EXXON/STRATA PROD	
04/18/1994	576	APD APPROVED	2 RED TANK FED	

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Act Date	Act Code	Action Txt	Action Remarks	Pending Off
09/27/2010	817	MERGER RECOGNIZED	BILL BARRETT PROP/BIL	
06/28/2011	932	TRF OPER RGTS FILED	BILL BARR/CIMAREX E;1	
08/23/2011	933	TRF OPER RGTS APPROVED	EFF 07/01/11;	
08/23/2011	974	AUTOMATED RECORD VERIF	MV	
06/17/2014	932	TRF OPER RGTS FILED	CAVIN ET/SEALY HUT;1	
10/03/2014	933	TRF OPER RGTS APPROVED	EFF 07/01/14;	
10/03/2014	974	AUTOMATED RECORD VERIF	BTM	
04/05/2017	932	TRF OPER RGTS FILED	EXXON MOB/BLACK MOU;1	
05/02/2017	932	TRF OPER RGTS FILED	EXXON MOB/BLACK MOU;1	
05/11/2017	933	TRF OPER RGTS APPROVED	EFF 05/01/17;	
05/11/2017	974	AUTOMATED RECORD VERIF	RCC	
06/22/2017	933	TRF OPER RGTS APPROVED	EFF 06/01/17;	
06/22/2017	974	AUTOMATED RECORD VERIF	EMR	
07/24/2017	932	TRF OPER RGTS FILED	BLACK MOU/MARATHON;1	
08/25/2017	933	TRF OPER RGTS APPROVED	EFF 08/01/17;	
08/25/2017	974	AUTOMATED RECORD VERIF	RCC	
01/02/2018	140	ASGN FILED	EXXONMOBI/XTO HOLDI;1	
01/02/2018	899	TRF OF ORR FILED	1	
01/02/2018	899	TRF OF ORR FILED	2	
01/02/2018	932	TRF OPER RGTS FILED	EXXON MOB/XTO HOLDI;1	FLUIDS TEAM
02/20/2018	139	ASGN APPROVED	EFF 02/01/18;	
02/20/2018	974	AUTOMATED RECORD VERIF	LBO	

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Line Number	Remark Text
0002	BONDED LESSEES/OPERATORS/TRANSFEREES:
0003	08/23/11 - EXXONMOBIL - ES0534/NW;
0004	10/03/14 - EOG RESOURCES INC - NM2380 - NW;
0005	05/11/17 - BLACK MOUNTAIN NMB001326
0006	06/22/2017 - BLACK MTN OPER LLC - NMB001326 - SW/NM;
0007	08/25/2017 - MARATHON WYB002107 NW;

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

AFMSS

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

Bond Info Data Report

04/01/2019

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001555

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: