

# Carlsbad Field Office

**OCD Artesia**  
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

FEB 21 2019

**APPLICATION FOR PERMIT TO DRILL DISTRICT ARTESIA O.C.D.**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. NMNM0556542  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No. CHICKEN FRY F C 24 28 22 WXY 12H 325010
2. Name of Operator MARATHON OIL PERMIAN LLC		9. API-Well No. 372098 30-015-45761
3a. Address 5555 San Felipe St. Houston TX 77056	3b. Phone No. (include area code) (713)629-6600	10. Field and Pool, or Exploratory PURPLE-SAGE WOLFCAMP GAS / WOL
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNE / 310 FNL / 2216 FEL / LAT 32.2099303 / LONG -104.074222 At proposed prod. zone SWSE / 330 FSL / 2350 FEL / LAT 32.196933 / LONG -104.074364		11. Sec., T, R, M, or Blk. and Survey or Area SEC 22 / T24S / R28E / NMP
14. Distance in miles and direction from nearest town or post office* 17 miles		12. County or Parish EDDY
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 310 feet		16. No of acres in lease 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 790 feet		17. Spacing Unit dedicated to this well 320  20. BLM/BIA Bond No. in file FED: NMB001555
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3007 feet	22. Approximate date work will start* 05/20/2018	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.<br>2. A Drilling Plan.<br>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).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature (Electronic Submission)  Title Sr. Regulatory Compliance Rep	Name (Printed/Typed) Jennifer Van Curen / Ph: (713)296-2500	Date 04/26/2018
Approved by (Signature) (Electronic Submission)  Title Assistant Field Manager Lands & Minerals	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959  Office CARLSBAD	Date 01/30/2019

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.

**APPROVED WITH CONDITIONS**

Approval Date: 01/30/2019 *RW 2-22-19*

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

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

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

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

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

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

**ITEM 24:** If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

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

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

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

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

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

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

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

## Additional Operator Remarks

### Location of Well

1. SHL: NWNE / 310 FNL / 2216 FEL / TWSP: 24S / RANGE: 28E / SECTION: 22 / LAT: 32.2099303 / LONG: -104.074222 ( TVD: 0 feet, MD: 0 feet )  
PPP: NWSE / 1347 FSL / 2349 FEL / TWSP: 24S / RANGE: 28E / SECTION: 22 / LAT: 32.1997158 / LONG: -104.0744023 ( TVD: 9584 feet, MD: 13115 feet )  
PPP: SWNE / 2640 FNL / 2331 FEL / TWSP: 24S / RANGE: 28E / SECTION: 22 / LAT: 32.2034054 / LONG: -104.074451 ( TVD: 9572 feet, MD: 11773 feet )  
PPP: NWNE / 330 FNL / 2313 FEL / TWSP: 24S / RANGE: 28E / SECTION: 22 / LAT: 32.2098758 / LONG: -104.0745343 ( TVD: 9309 feet, MD: 9336 feet )  
BHL: SWSE / 330 FSL / 2350 FEL / TWSP: 24S / RANGE: 28E / SECTION: 22 / LAT: 32.196933 / LONG: -104.074364 ( TVD: 9593 feet, MD: 14126 feet )

### BLM Point of Contact

Name: Katrina Ponder

Title: Geologist

Phone: 5752345969

Email: kponder@blm.gov

**CONFIDENTIAL**

## **Review and Appeal Rights**

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

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**PECOS DISTRICT  
DRILLING CONDITIONS OF APPROVAL**

<b>OPERATOR'S NAME:</b>	<b>Marathon Oil Permian LLC</b>
<b>LEASE NO.:</b>	<b>NMNM0556542</b>
<b>WELL NAME &amp; NO.:</b>	<b>Chicken Fry F C 24 28 22 WXY 12H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>310'/N &amp; 2216'/E</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>330'/S &amp; 2350'/E</b>
<b>LOCATION:</b>	<b>Section 22, T.24 S., R.28 E., NMPM</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP

**A. Hydrogen Sulfide**

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

**B. CASING**

1. The 13-3/8 inch surface casing shall be set at approximately 400 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8 hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

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

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

- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the 7 inch production casing is:

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

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

- Cement should tie-back 100' into the previous casing. Operator shall provide method of verification.

### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.

## 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. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log (one log per well pad is acceptable) run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the

following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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

#### B. PRESSURE CONTROL

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

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

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. 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.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

- c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### C. DRILLING MUD

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

#### D. WASTE MATERIAL AND FLUIDS

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

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

#### **Waste Minimization Plan (WMP)**

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

**ZS 011419**



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

# Operator Certification Data Report

02/11/2019

## Operator Certification

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

**NAME:** Jennifer Van Curen

**Signed on:** 04/24/2018

**Title:** Sr. Regulatory Compliance Rep

**Street Address:** 5555 San Felipe St.

**City:** Houston

**State:** TX

**Zip:** 77056

**Phone:** (713)296-2500

**Email address:** jvancuren@marathonoil.com

## Field Representative

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



APD ID: 10400029572

Submission Date: 04/26/2018

Highlighted data reflects the most recent changes

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

**Section 1 - General**

APD ID: 10400029572

Tie to previous NOS?

Submission Date: 04/26/2018

BLM Office: CARLSBAD

User: Jennifer Van Curen

Title: Sr. Regulatory Compliance Rep

Federal/Indian APD: FED

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

Lease number: NMNM0556542

Lease Acres: 160

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: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: PURPLE-SAGE  
WOLFCAMP GAS

Pool Name: WOLFCAMP,  
(GAS)

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

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

Describe other minerals:

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

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: Number: 275-2

CHICKEN FRY FEDERAL COM

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 17 Miles

Distance to nearest well: 790 FT

Distance to lease line: 310 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Plat\_\_CHICKEN\_FRY\_FEDERAL\_COM\_24\_28\_22\_WXY\_12H\_REV1\_CERT\_\_FORM\_C\_102\_\_2018042  
4111220\_20181203105102.pdf

Well work start Date: 05/20/2018

Duration: 30 DAYS

### Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: R3781\_009

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	310	FNL	221 6	FEL	24S	28E	22	Aliquot NWNE	32.20993 03	- 104.0742 22	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	300 7	0	0
KOP Leg #1	228	FNL	231 3	FEL	24S	28E	22	Aliquot NWNE	32.21015 87	- 104.0745 404	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 597 6	898 8	898 3
PPP Leg #1	330	FNL	231 3	FEL	24S	28E	22	Aliquot NWNE	32.20987 58	- 104.0745 343	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 630 2	933 6	930 9

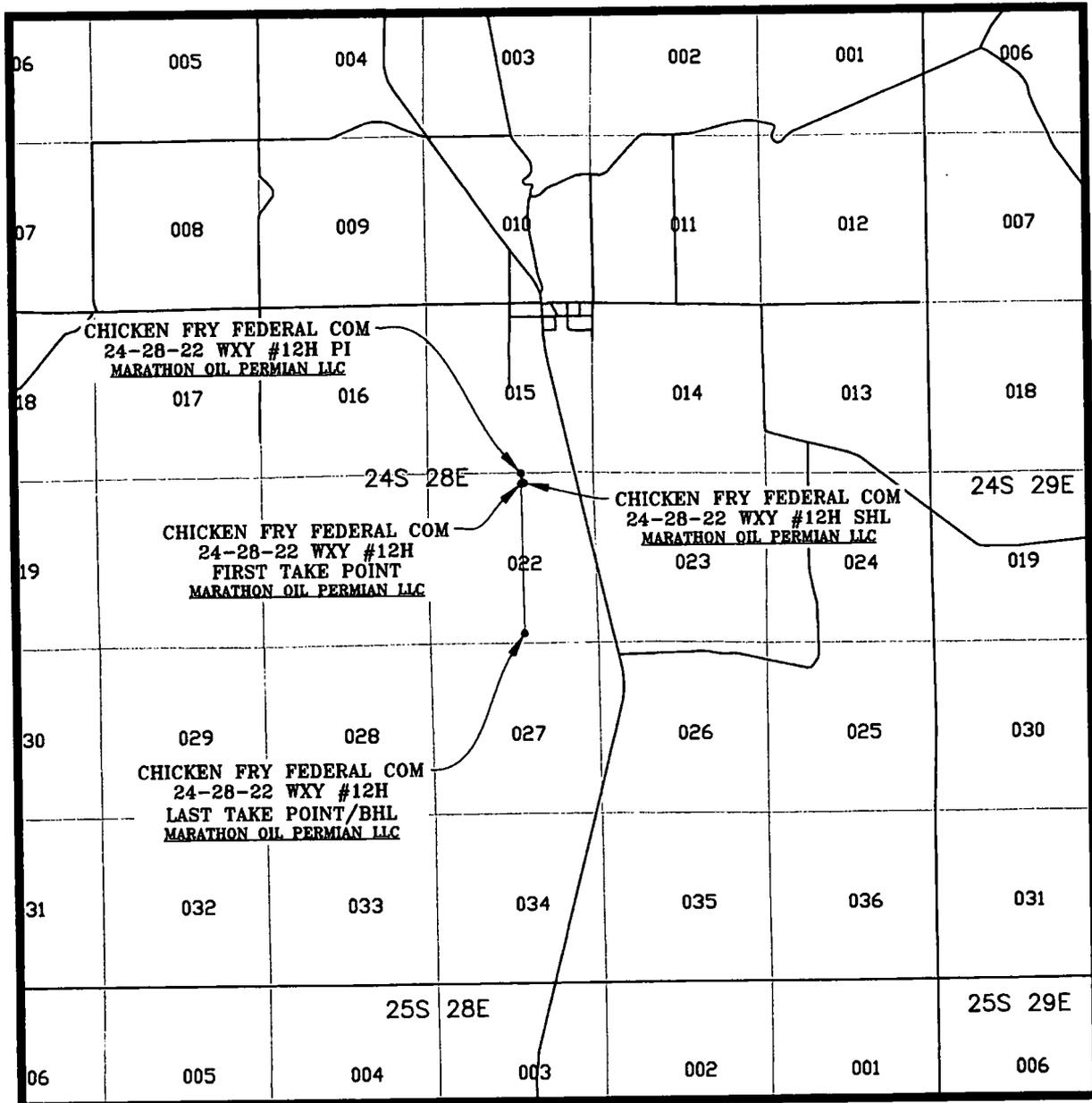
Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP Leg #1	2640	FNL	2331	FEL	24S	28E	22	Aliquot SWNE	32.2034054	-104.074451	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 0556542	-65675	11773	9572
PPP Leg #1	1347	FSL	2349	FEL	24S	28E	22	Aliquot NWSE	32.1997158	-104.0744023	EDD Y	NEW MEXICO	NEW MEXICO	S	STATE	-6577	13115	9584
EXIT Leg #1	330	FSL	2350	FEL	24S	28E	22	Aliquot SWSE	32.196933	-104.074364	EDD Y	NEW MEXICO	NEW MEXICO	S	STATE	-6586	14126	9593
BHL Leg #1	330	FSL	2350	FEL	24S	28E	22	Aliquot SWSE	32.196933	-104.074364	EDD Y	NEW MEXICO	NEW MEXICO	S	STATE	-6586	14126	9593

# VICINITY MAP



SEC. 22 TWP. 24-S RGE. 28-E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY  
 DESCRIPTION: 310' FNL & 2216' FEL  
 ELEVATION: 3007'  
 OPERATOR: MARATHON OIL PERMIAN LLC  
 LEASE: CHICKEN FRY FEDERAL COM 24-28-22  
 U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.

SCALE: 1" = 1 MILE

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-8900 OFFICE  
 JOB No. R3781\_009



APD ID: 10400029572

Submission Date: 04/26/2018

Highlighted data  
reflects the most  
recent changes

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

Show Final Text

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

**Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	SALADO	2373	634	634	SALT, ANHYDRITE	OTHER : Brine	No
2	CASTILE	1300	1073	1073	SALT, ANHYDRITE	OTHER : Brine	No
3	BASE OF SALT	-26	2399	2399	LIMESTONE, SANDSTONE	OTHER : Brine	No
4	LAMAR	-220	2593	2593	SHALE, SANDSTONE	NATURAL GAS, OIL	No
5	BELL CANYON	-256	2629	2629	SHALE, SANDSTONE	NATURAL GAS, OIL	No
6	CHERRY CANYON	-1091	3464	3464	SANDSTONE, OTHER : Carbonate	NATURAL GAS, OIL	No
7	BRUSHY CANYON	-2321	4694	4697.9	SANDSTONE, OTHER : Carbonate	NATURAL GAS, OIL	No
8	BONE SPRING	-3835	6208	6213.3	SHALE, SANDSTONE, OTHER : Carbonate	NATURAL GAS, OIL	No
9	WOLFCAMP	-7059	9432	9504.2	SHALE, SANDSTONE, OTHER : Carbonates	NATURAL GAS, OIL	Yes

**Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M

Rating Depth: 15152

Equipment: 13 5/8 Annular, blind ram, pipe ram, and double ram will be installed and tested for each of the 12 1/4, 8 3/4, and 6 1/8 casing strings.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

Testing Procedure: - 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. - 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 Order #2 III.B.1.i. - A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

test pressure is broken the system will be tested. See attached schematic.

**Choke Diagram Attachment:**

2\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_5M\_10M.TWO\_CHOKE\_MANIFOLD.BLM\_20180418145404.pdf

2\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_Choke\_Line\_Flex\_III\_Rig\_20180418145404.pdf

2\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_Choke\_Line\_Test\_Chart\_SN\_63393\_20180418145405.pdf

2\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_Contitech\_Hose\_SN\_663393\_20180418145406.pdf

**BOP Diagram Attachment:**

3\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_10\_5M\_Flex.BOPE.BLM\_20180418145426.pdf

3\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_WH\_TH\_Design\_1B\_5K\_10K\_7in\_x\_4.5in\_20180418145427.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	500	0	500	3007	2507	500	J-55	54.5	STC	5.22	1.81	BUOY	3.42	BUOY	3.42
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2600	0	2600	3007	407	2600	J-55	36	LTC	2.26	2.01	BUOY	2.51	BUOY	2.51
3	PRODUCTION	8.75	7.0	NEW	API	N	0	9883	0	9555	3007	-6548	9883	P-110	29	BUTT	1.72	1.16	BUOY	2.68	BUOY	2.68
4	LINER	6.125	4.5	NEW	API	N	8988	14126	8983	9593	-5976	-6586	5138	P-110	13.5	BUTT	1.79	1.42	BUOY	2.18	BUOY	2.18

**Casing Attachments**

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**Casing Attachments**

---

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Surface\_20180419062925.pdf

---

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Intermediate\_20180419062937.pdf

---

**Casing ID:** 3      **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Intermediate\_II\_20180419062948.pdf

---

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

Casing Attachments

Casing ID: 4 String Type: LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Liner\_20180419063003.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	500	0	0	0	0	0	No Lead only Tail cement.	N/A
SURFACE	Tail		0	500	515	1.33	14.8	695	100	Class C	0.02 Gal/Sk Defoamer + 0.5% Extender + 1% Accelerator
INTERMEDIATE	Lead		0	2080	618	2.37	12.7	1466	125	Class C	0.02 Gal/Sk Defoamer + 0.5% Extender + 1% Accelerator
INTERMEDIATE	Tail		2080	2600	153	1.33	14.8	204	25	Class C	0.3 % Retarder
PRODUCTION	Lead		0	8883	624	3.21	11	2003	50	Class C	0.85% retarder + 10% extender + 0.02 gal/sk defoamer + 2.0% Extender + 0.15% Viscosifier
PRODUCTION	Tail		8883	9883	158	1.24	14.4	195	30	Class H	3% extender + 0.15% Dispersant + 0.03 gal/sk retarder
LINER	Lead		8988	1412 6	0	0	0	0	0	No Lead only Tail Cement	N/A
LINER	Tail		8988	1412 6	514	1.22	14.8	629	30	Class H	0.1% retarder + 3.5% extender + 0.3% fluid loss + 0.1% Dispersant

Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

### 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
500	2600	SALT SATURATED	9.9	10.2							
0	500	WATER-BASED MUD	8.4	8.8							
2600	9883	OTHER : Cut Brine	9	9.4							
9883	14126	OIL-BASED MUD	11.5	12							

### Section 6 - Test, Logging, Coring

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

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. If Hydrogen Sulfide is encountered , measured amounts and formations will be reported to the BLM

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

GR

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**Coring operation description for the well:**

Open Hole Logs: GR while drilling from 9 5/8" Intermediate casing shoe to TD.

**Section 7 - Pressure**

**Anticipated Bottom Hole Pressure:** 5276

**Anticipated Surface Pressure:** 3165.54

**Anticipated Bottom Hole Temperature(F):** 143

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

4\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_H2S\_Contiengency\_Plan\_Summary\_20180419070925.pdf

4\_Marathon\_Carlsbad\_\_Chicken\_Fry\_Fed\_24\_28\_22\_12H\_15H\_16H\_H2S\_Contingency\_Plan\_032618\_20180419070928.pdf

4\_Chicken\_Fry\_Fed\_Com\_24\_28\_22\_WXY\_12H\_Pad\_Layout\_Flex\_III\_20180419070926.pdf

GasCapturePlan\_Chicken\_Fry\_Federal\_Com\_275\_2\_20180424141758.pdf

**Section 8 - Other Information**

**Proposed horizontal/directional/multi-lateral plan submission:**

5\_Marathon\_Oil\_\_Chicken\_Fry\_Federal\_Com\_24\_28\_22\_WXY\_12H\_\_Plan\_\_1\_36x48WP\_20180419071148.pdf

5\_Marathon\_Oil\_\_Chicken\_Fry\_Federal\_Com\_24\_28\_22\_WXY\_12H\_\_Plan\_\_1\_Planning\_Report\_20180419071148.pdf

Chicken\_Fry\_Federal\_Com\_24\_28\_22\_Pad\_\_Federal\_Minerals\_20180424105318.pdf

**Other proposed operations facets description:**

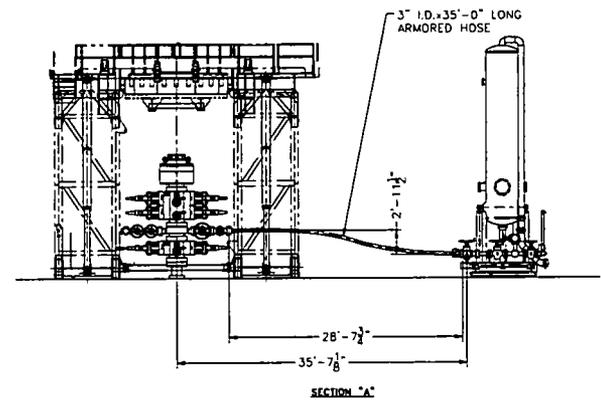
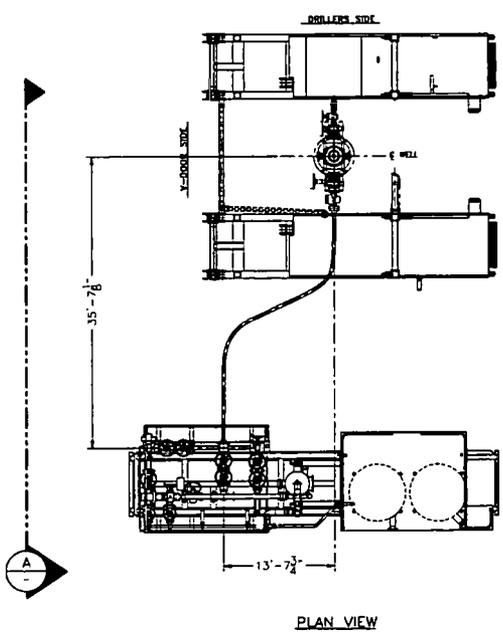
Potential Hazards:

- 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:**

**Other Variance attachment:**





**ISSUED FOR FABRICATION**  
 December-19-2007  
 DRAFTSMAN  
 ENGINEER

**PROPRIETARY**  
 THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, COPIED, OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF A QUALIFIED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.

**HELMERICH & PAYNE**  
 INTERNATIONAL DRILLING CO.

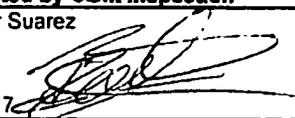
REV	DATE	DESCRIPTION	BY	SCALE	SHEET	TOTAL SHEETS	DATE	DRW	CHK	APP
12/18/07		REMOVED SHEET TOTAL CALL OUT	JAV					JBC		
				3/16"=1"	2	3	4-10-07			

TITLE: CHOKE LINE SYSTEM  
 CUSTOMER: FLEXRIC3  
 PROJECT: \_\_\_\_\_  
 DATE: 4-10-07  
 SHEET: 2 OF 3  
 210-P1-07 A

# Certificate of Conformity



ContiTech

<b>Certificate Number</b> 953233-4	<b>COM Order Reference</b> 953233	<b>Customer Name &amp; Address</b> HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA	
<b>Customer Purchase Order No:</b> 740053080			
<b>Project:</b>			
<b>Test Center Address</b> ContiTech Oil & Marine Corp. 11535 Brittmoores Park Drive Houston, TX 77041 USA	<b>Accepted by COM Inspection</b> Signed: Roger Suarez Date: 5/11/17 		<b>Accepted by Client Inspection</b>

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

Item	Part No.	Description	Qty	Serial Number	Specifications
------	----------	-------------	-----	---------------	----------------

30		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	63393	ContiTech Standard
----	--	---	---	-------	--------------------

# Hydrostatic Test Certificate



ContiTech

Certificate Number 953233-4		COM Order Reference 953233		Customer Name & Address	
Customer Purchase Order No: 740053080		Project:		HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA	
Test Center Address		Accepted by GOM Inspection		Accepted by Client Inspection	
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA		Signed: Roger Suarez  Date: 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.

Item	Part No.	Description	Qty	Serial Number	Work Press	Test Press	Test Time (minutes)
30		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	63393	10,000 psi	15,000 psi	60

63393

6 AM

JOB # *46-70-4081*  
 PBC# *457233*  
 HOSE DESCRIPTION: *3" ID. 10k. Chlor. 671*  
 TEST PRESSURE: *1500*  
 CHART RECORDER # *94816*  
 CHART SETTING: *110*  
 CBC REPRESENTATIVE: *Eric Hahn*  
 DATE: *5-5-70*

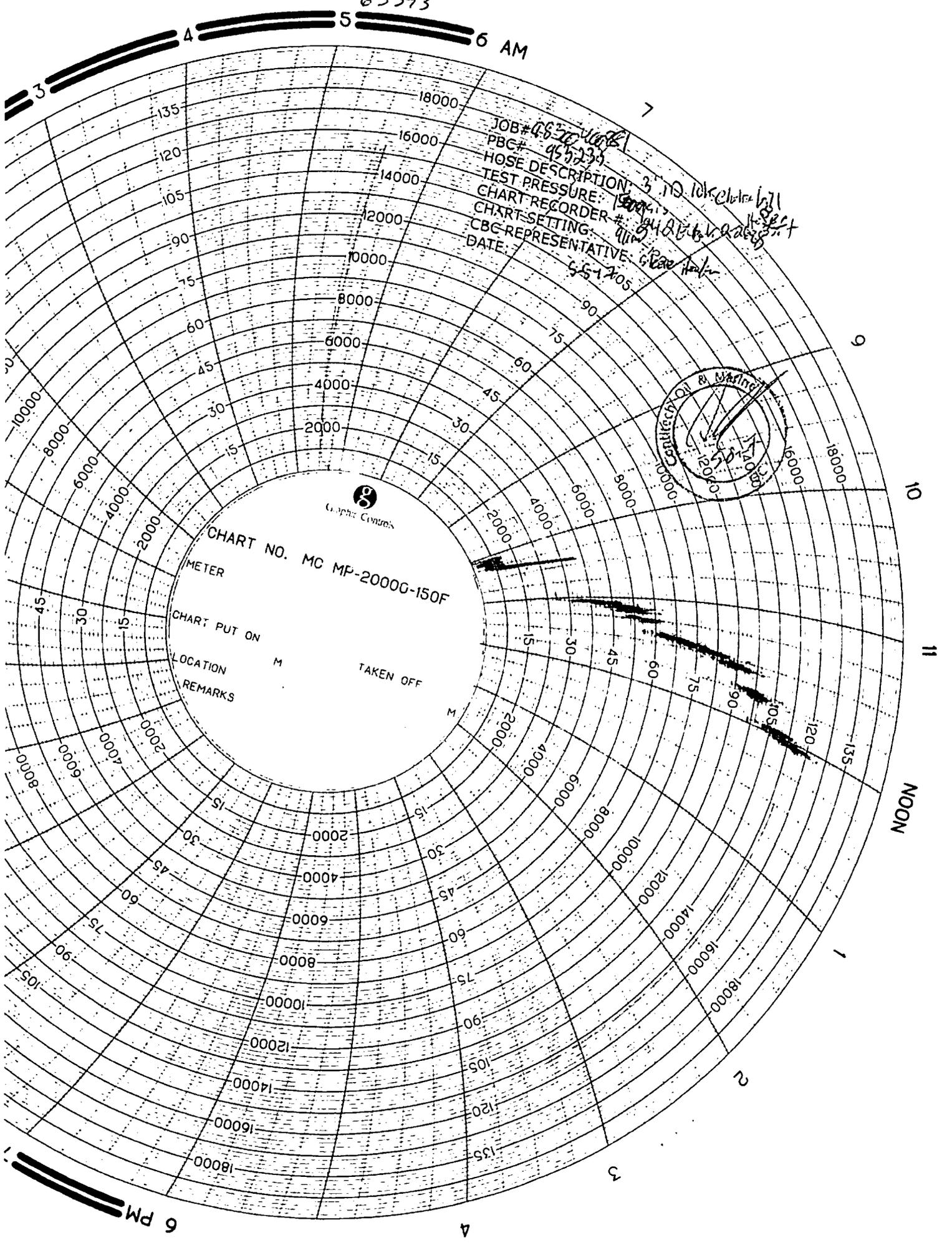


CHART NO. MC MP-2000G-150F

METER  
 CHART PUT ON  
 LOCATION  
 REMARKS  
 M  
 TAKEN OFF  
 M

NOON

6 PM

4

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 : <i>Leola Linder</i>
	Appr. by: <i>[Signature]</i>

# CHOKER AND KILL HOSES

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

# DATA BOOK

Purchaser: H & P

Purchaser Order No.:

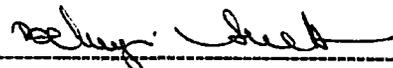
ContiTech Rubber Order No.: 531895

ContiTech Beattie Co. Order No.: 006227

**NOT DESIGNED FOR WELL TESTING**

## CONTENT

		<u>Page</u>
1.	API QMS Certificate (No.: 0760 )	3.
2.	American Petroleum Institute Certificate of Authority To Use the Official API Monogram (No.: 16C-0004 )	4.
3.	Quality Control Inspection and Test Certificates (No.: 1595, 1596, 1597, 1598, 1599 )	5-9.
4.	Hose Data Sheet	10.
5.	Metal Parts	
5.1.	Raw Material Quality Certificates (No.: EUR-240960, EUR-251871, 81687/12-0 )	11-14.
5.2.	Hardness Test Reports (No.: HB 2150/12, HB 2151/12, HB 2159/12 )	15-17.
5.3.	Ultrasonic Test Reports (No.: U12/124, U12/126, U12/129, U12/127 )	18-21.
5.4.	NDT Examiner Certificate (Name: Joó Imre )	22-23.
5.5.	Welding Procedure Specification (No.: 140-60 )	24-27.
5.6.	Welding Procedure Qualification Record (No.: BUD 0600014/1 )	28-29.
5.7.	Welder's Approval Test Certificates (No.: RK-1894628-A1-X2, RK-1894628-A1-X-1, RK-2096656-B, RK-1894628-A1-X3, RK1079715-A1-X )	30-41.
5.8.	Welding Log Sheets (No.: 240, 241 )	42-43.
5.9.	Visual Examination Record (No.: 696/12 )	44.
5.10.	NDT Examiner Certificate (Name: Benkő Péter )	45-46.
5.11.	Radiographic Test Certificates (No.: 1458/12, 1459/12, 1460/12, 1461/12, 1462/12 )	47-51.
5.12.	NDT Examiner Certificate (Name: Ménesi István )	52-53.
5.13.	MP Examination Record (No.: 1262/12 )	54.
5.14.	NDT Examiner Certificate (Name: Oravec Gábor )	55-56.
6.	Steel Cord	
6.1.	Inspection Certificate (No.: 437089 )	57.
7.	Outside Stripwound Tube	
7.1.	Inspection Certificate (No.: 917781/001 )	58.
8.	Certificate of Calibration (Manometer Serial No.: 0227-073 )	59-61.



ContiTech Rubber  
Industrial Kft.  
Quality Control Dept.  
(1)



# 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 Whitaker*  
**Manager of Operations, APIQR**

Accredited by Member 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 contacting the registered organization. This certificate has been issued from APIQR offices located at 1120 L Street, N.W., Washington, D.C. 20007-4070, 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.api-qr.com/verify](http://www.api-qr.com/verify).





**American  
Petroleum  
Institute**



## Certificate of Authority to use the Official API Monogram

License Number: 16C-0004

ORIGINAL

The American Petroleum Institute hereby grants to

**CONTITECH RUBBER INDUSTRIAL LTD.**  
Budapesti ut 10  
Szeged  
Hungary

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API Spec 16C and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram should be used in conjunction with this certificate number: 16C-0004

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following product: Flexible Choke and Kill Lines

QMS Exclusions: No Exclusions Identified as Applicable

# COPY

Effective Date: OCTOBER 15, 2010

Expiration Date: OCTOBER 15, 2013

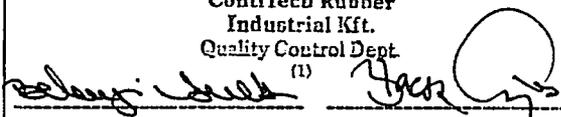
To verify the authenticity of this license, go to [www.api.org/compositalist](http://www.api.org/compositalist).

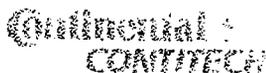
American Petroleum Institute

Director of Global Industry Services

CONTITECH RUBBER  
Industrial Kft.

No: QC-DB-380/2012  
Page: 4/61

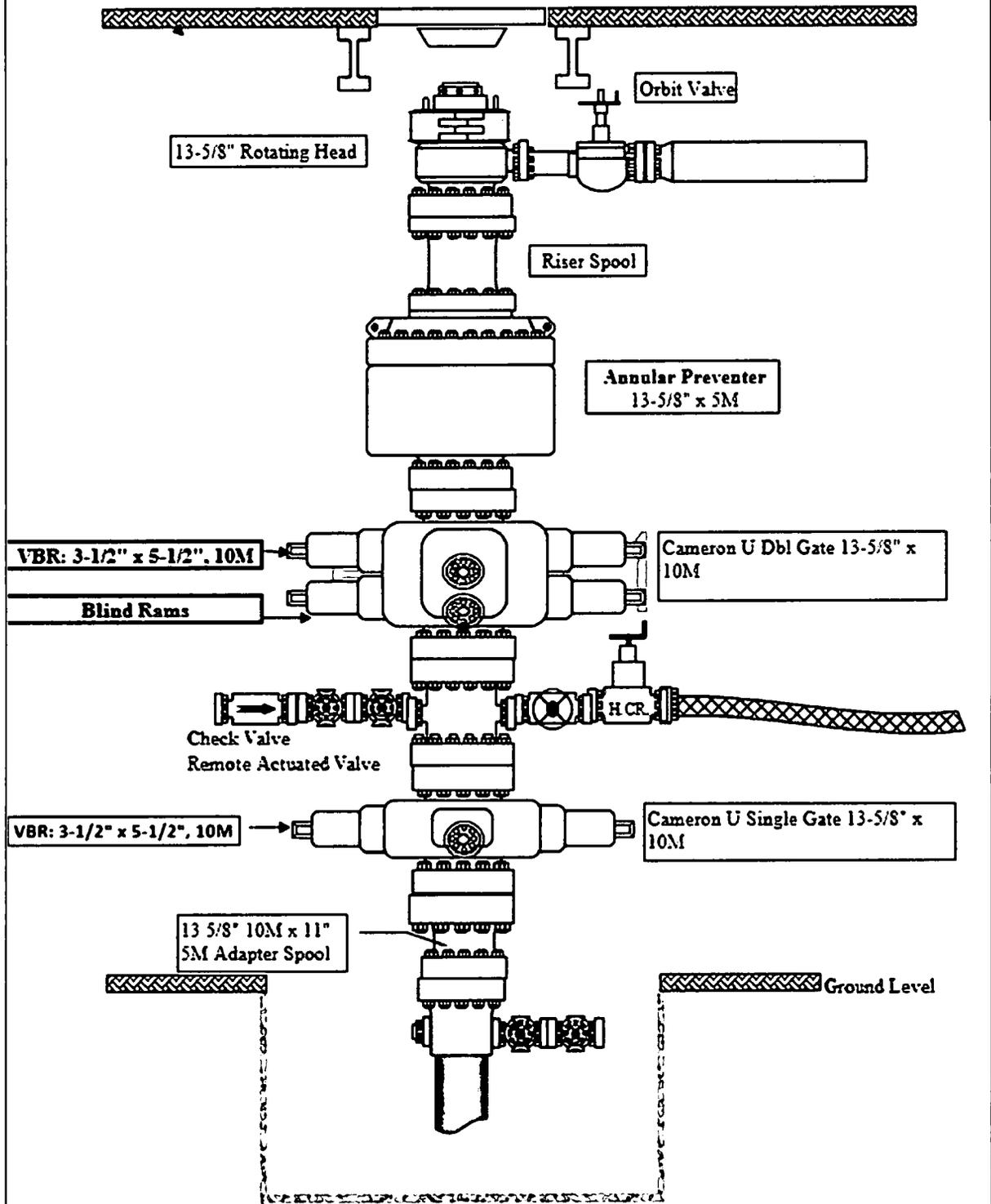
QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1599	
PURCHASER: ContiTech Beattie Co.			P.O. N°: 006227		
CONTITECH ORDER N°: 531895	HOSE TYPE: 3" ID		Choke and Kill Hose		
HOSE SERIAL N°: 63393	NOMINAL / ACTUAL LENGTH: 10,67 m / 10,72 m				
W.P. 68,9 MPa 10000 psi	T.P. 103,4 MPa 15000 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 4 1/16" 10K API Flange end	2156	2153	AISI 4130	20231	
			AISI 4130	34031	
<b>NOT DESIGNED FOR WELL TESTING</b>				<b>API Spec 16 C</b>	
				<b>Temperature rate:"B"</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:  23. August 2012.	Inspector		Quality Control  ContiTech Rubber Industrial Kft. Quality Control Dept. (1)		
					

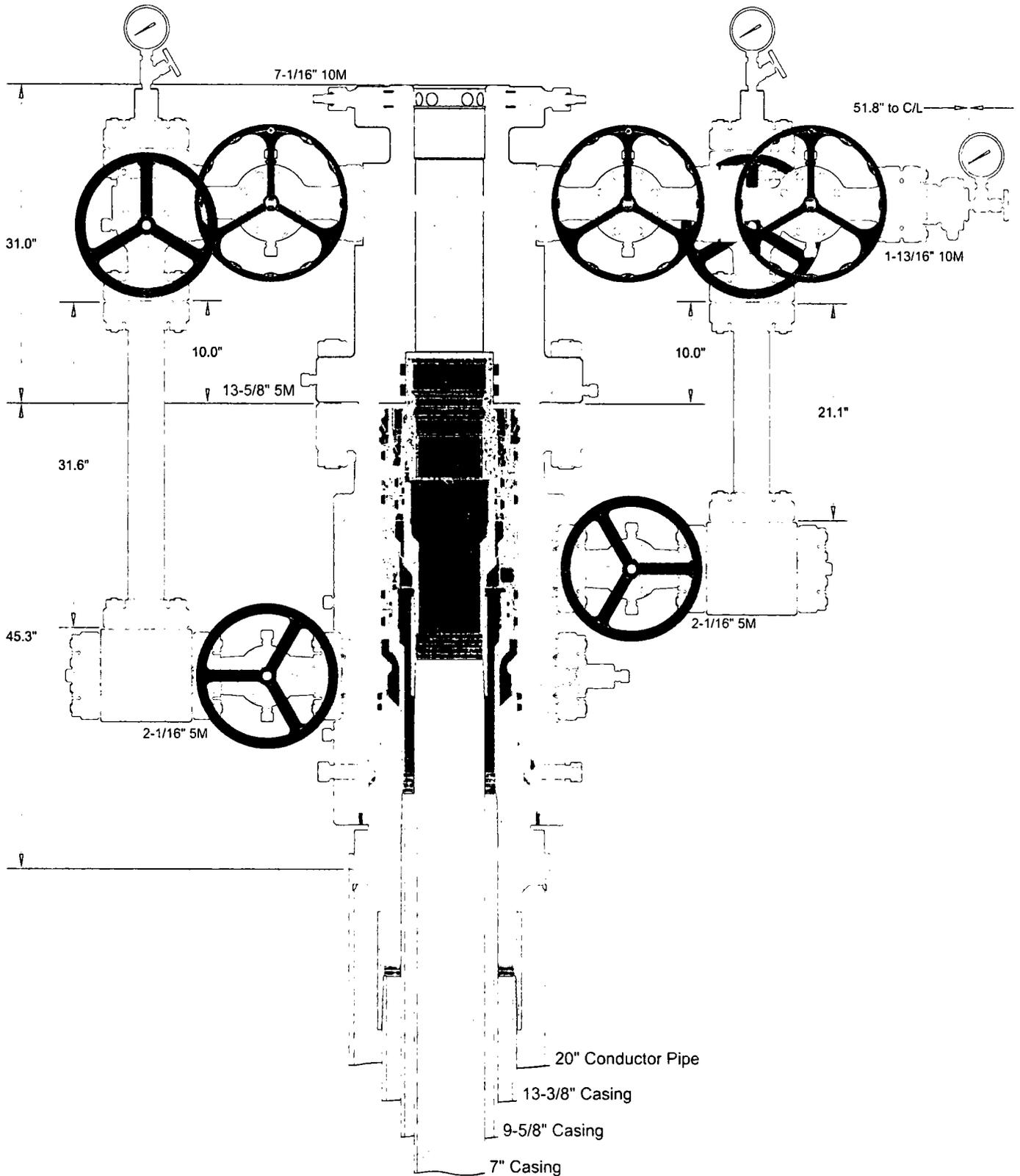


**Hose Data Sheet**

CRI Order No.	531895
Customer	ContiTech Beattie Co.
Customer Order No	PO6227 Pbc13080-H&P
Item No.	1
Hose Type	Flexible Hose
<b>Standard</b>	<b>API SPEC 16 C</b>
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4 1/16" API SPEC 6A TYPE 6BX FOR 10000 PSI C/W BX155RING GROOVE
Type of coupling other end	FLANGE 4 1/16" API SPEC 6A TYPE 6BX FOR 10000 PSI C/W BX155 RING GROOVE
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL RESISTANT
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
MBR operating [m]	1,60
MBR storage [m]	1,40
Type of packing	WOODEN CRATE ISPM-15

Operator : **Marathon Oil**  
**SM BOPE**





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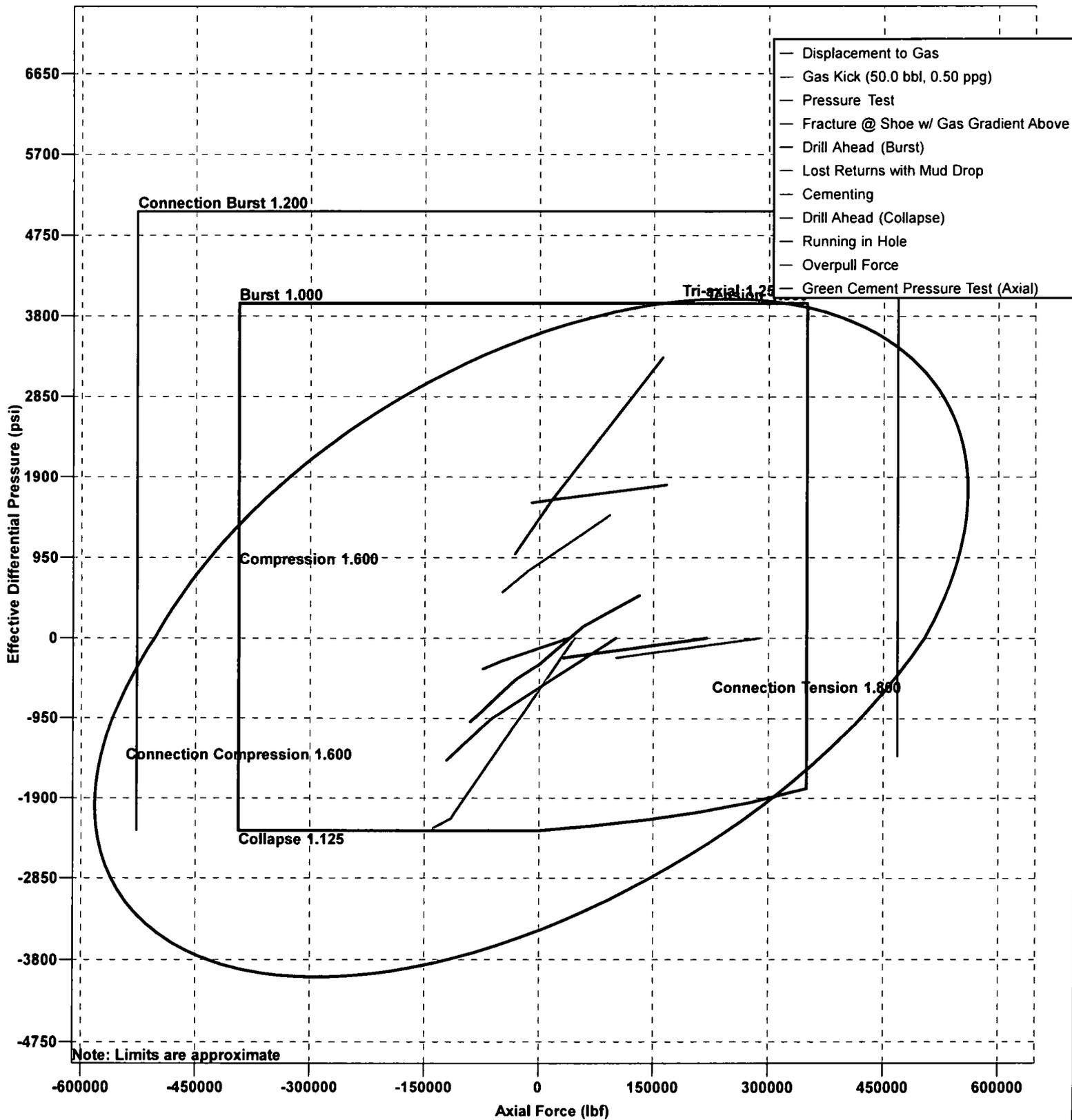
**CACTUS WELLHEAD LLC**

**MARATHON OIL COMPANY**

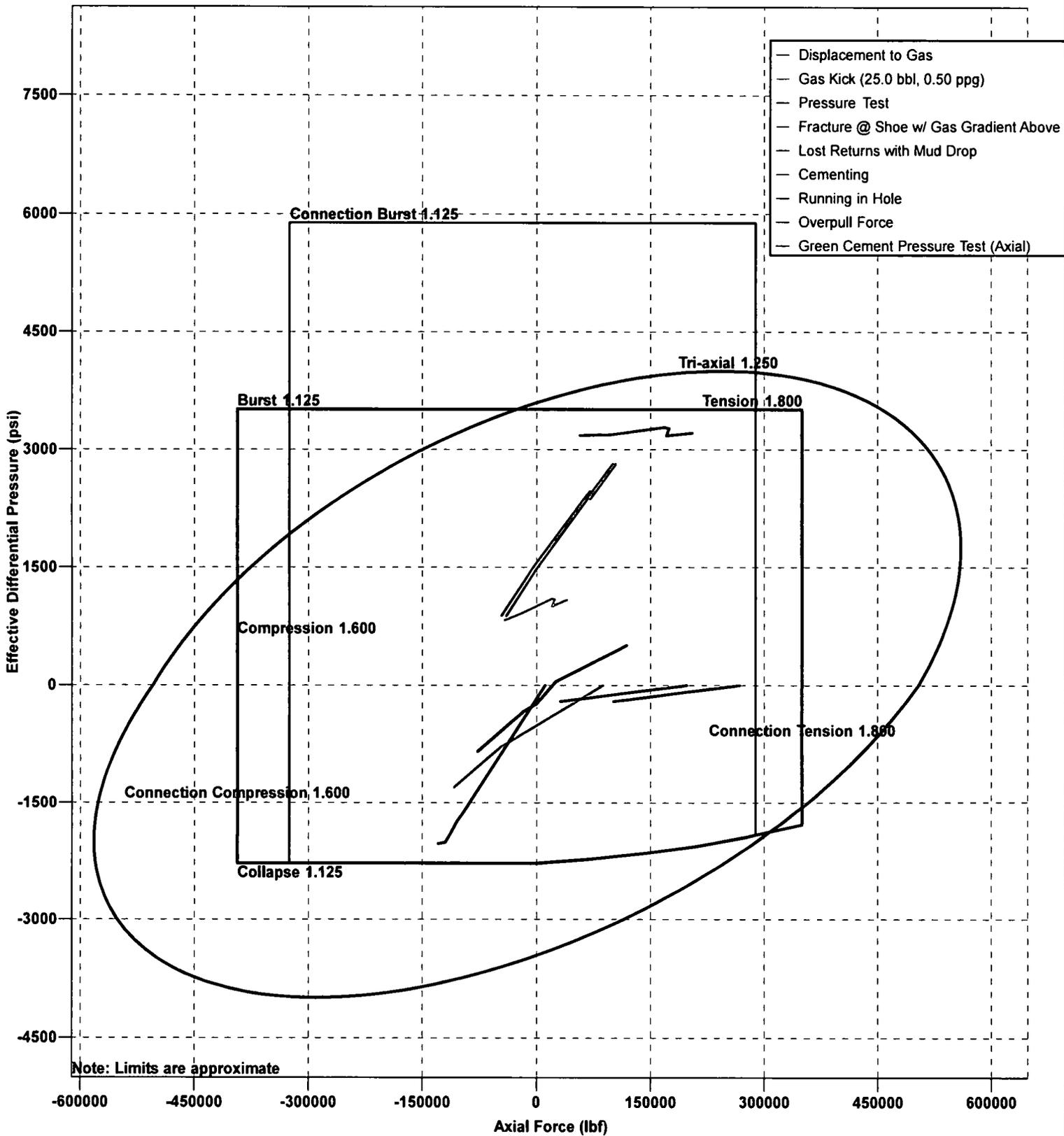
20" x 13-3/8" x 9-5/8" x 7" MBU-3T-CFL-R-DBLO Wellhead  
 With 13-5/8" 5M x 7-1/16" 10M CTH-DBLHPS Tubing Head (31" LG)  
 Utilizing Pin Down Mandrel Casing Hangers

DRAWN	DLE	24JUL17
APPRV		
DRAWING NO.	ODE0001624	

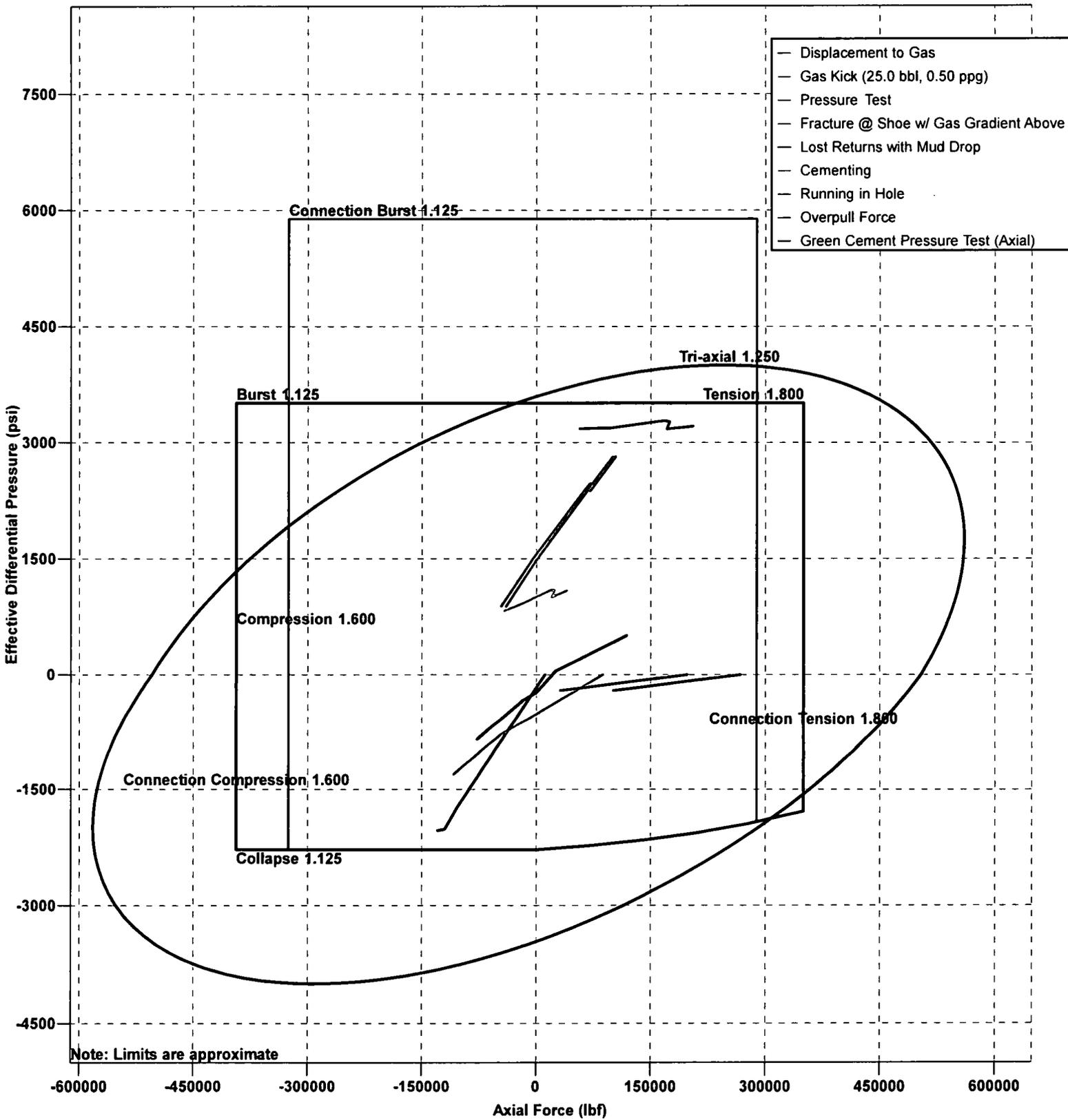
**Design Limits (9 5/8" Intermediate Casing - Section 1)**



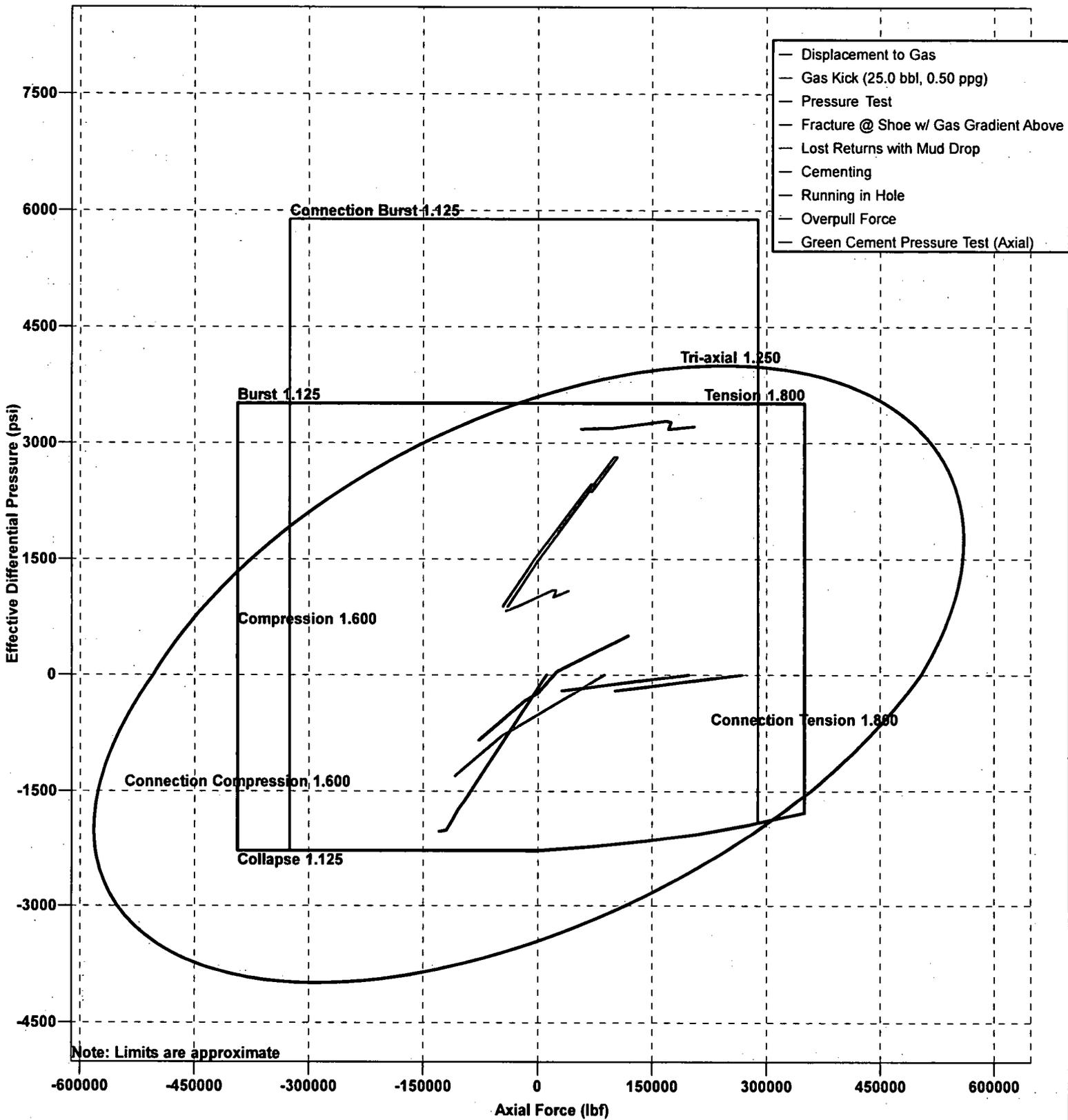
Design Limits (9 5/8" Intermediate Casing - Section 1)



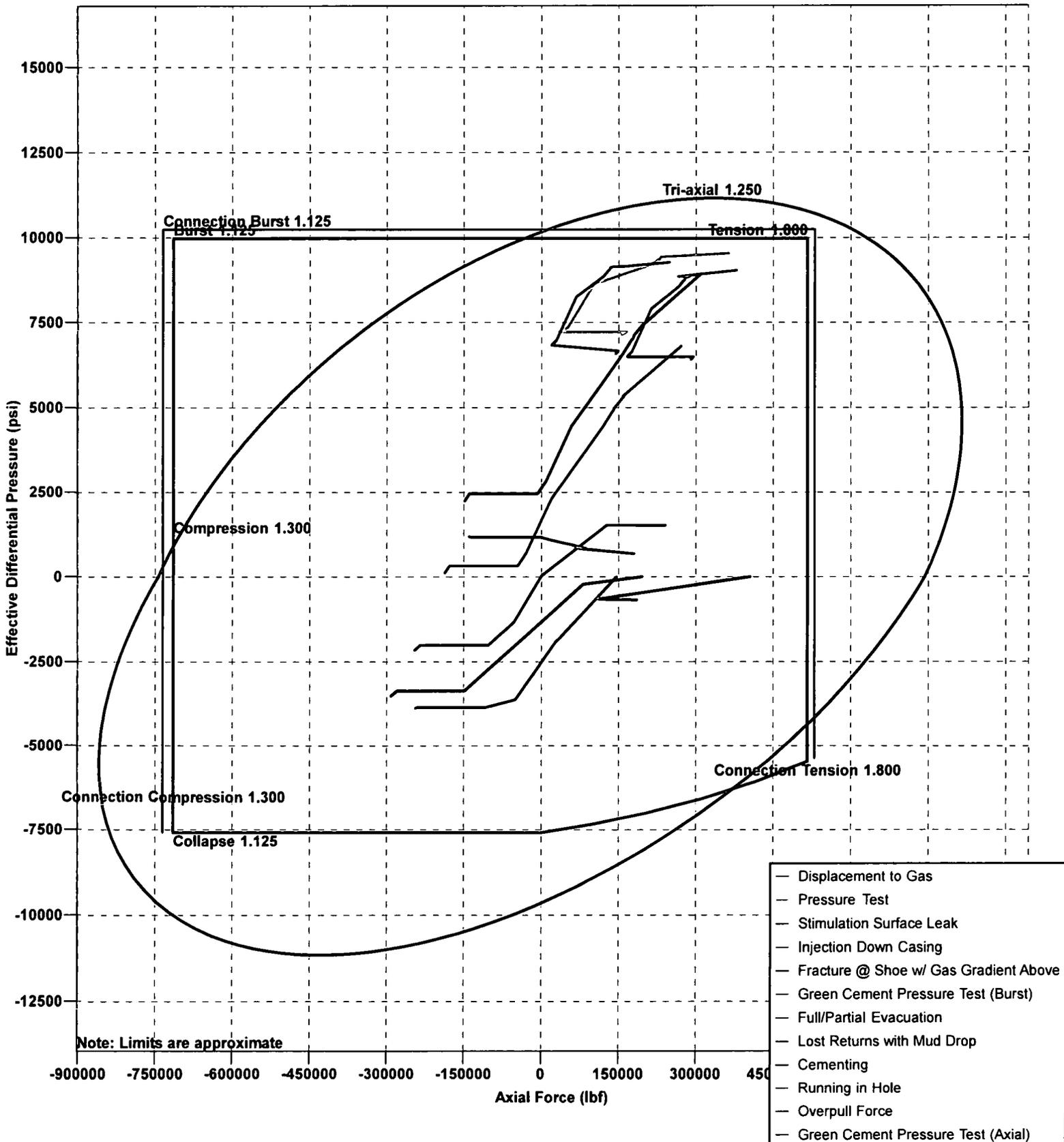
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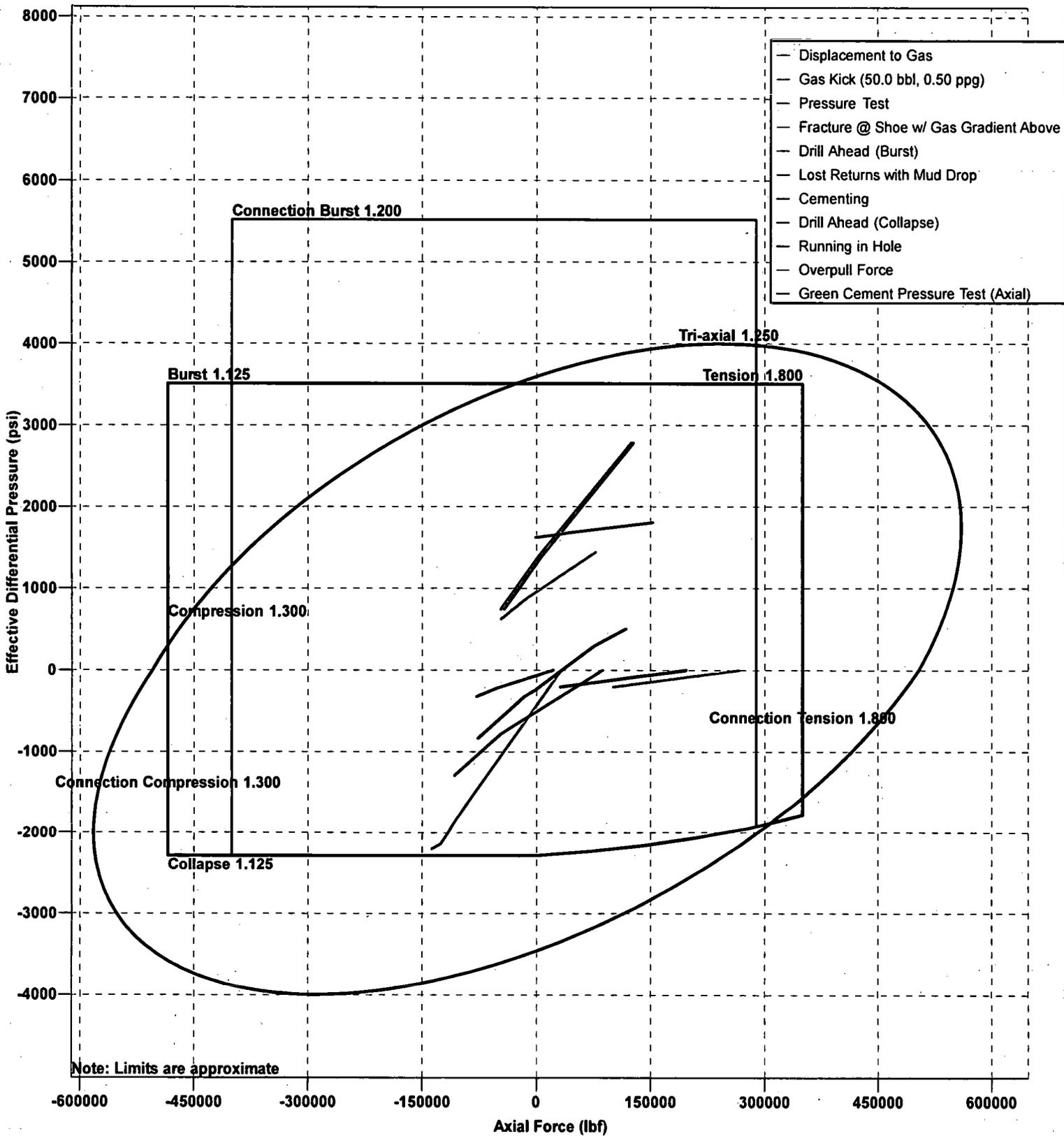
**Design Limits (9 5/8" Intermediate Casing - Section 1)**



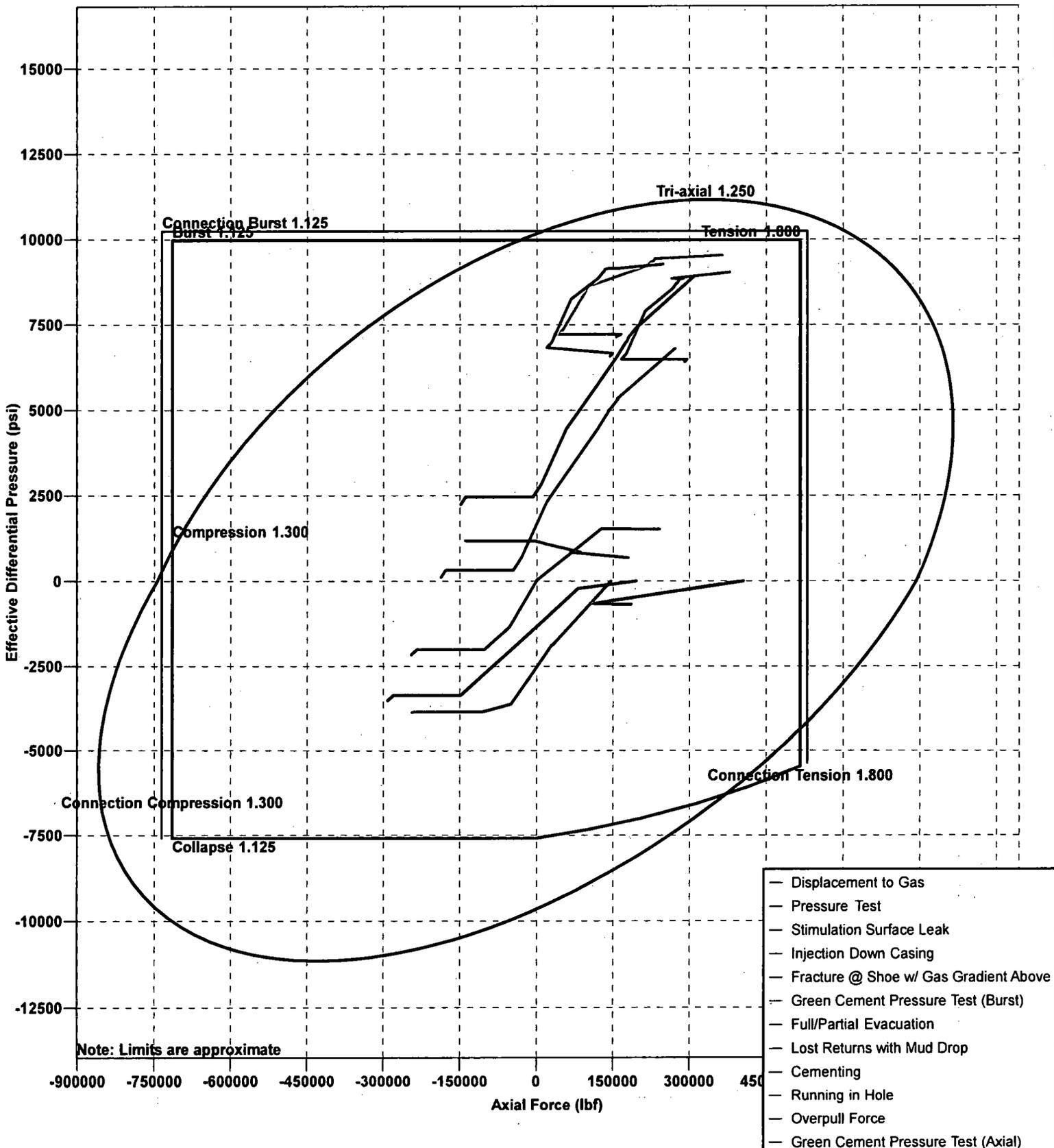
### Design Limits (7" Production Casing - Section 1)



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

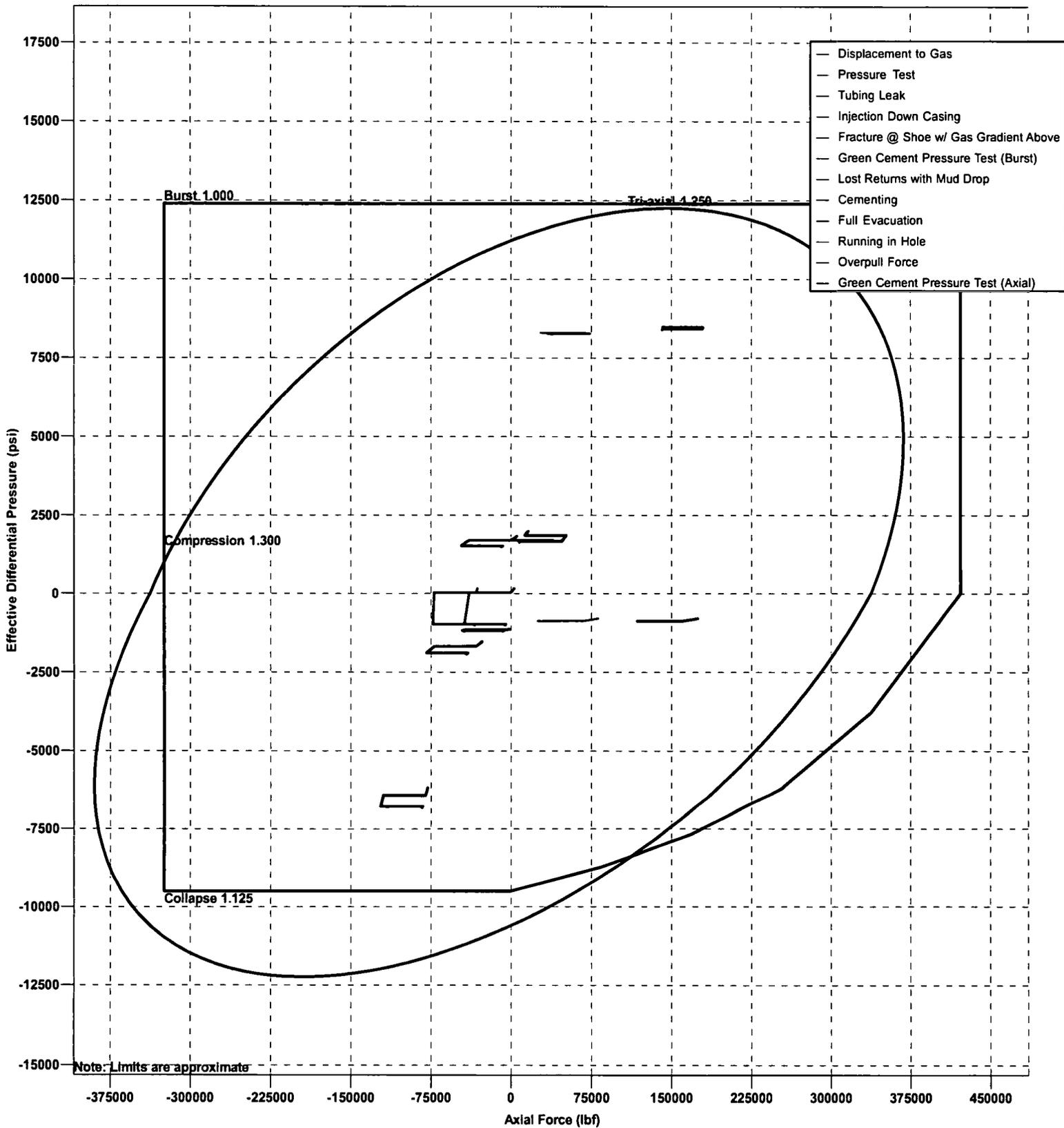


Design Limits (7" Production Casing - Section 1)

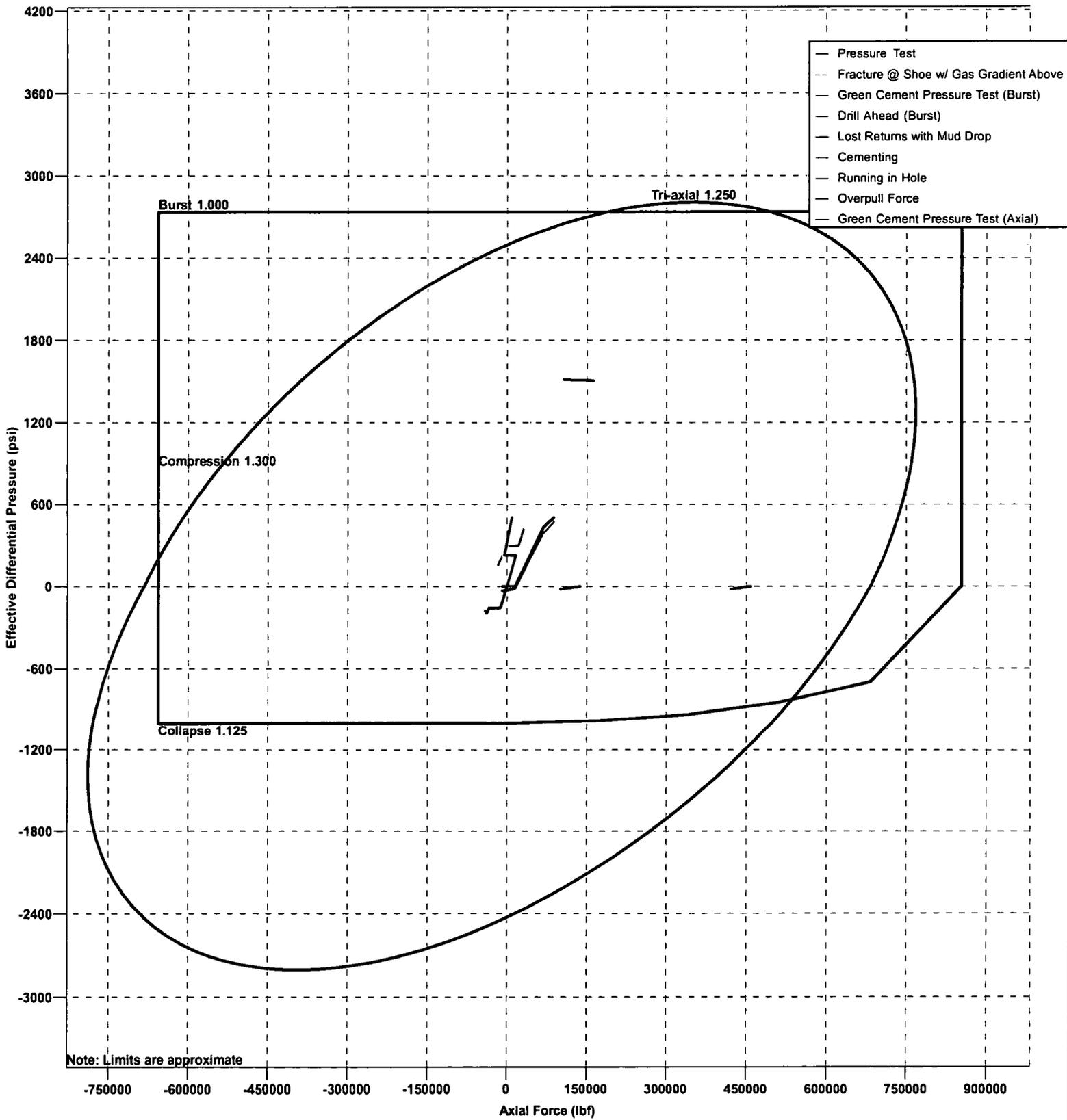


Note: Limits are approximate

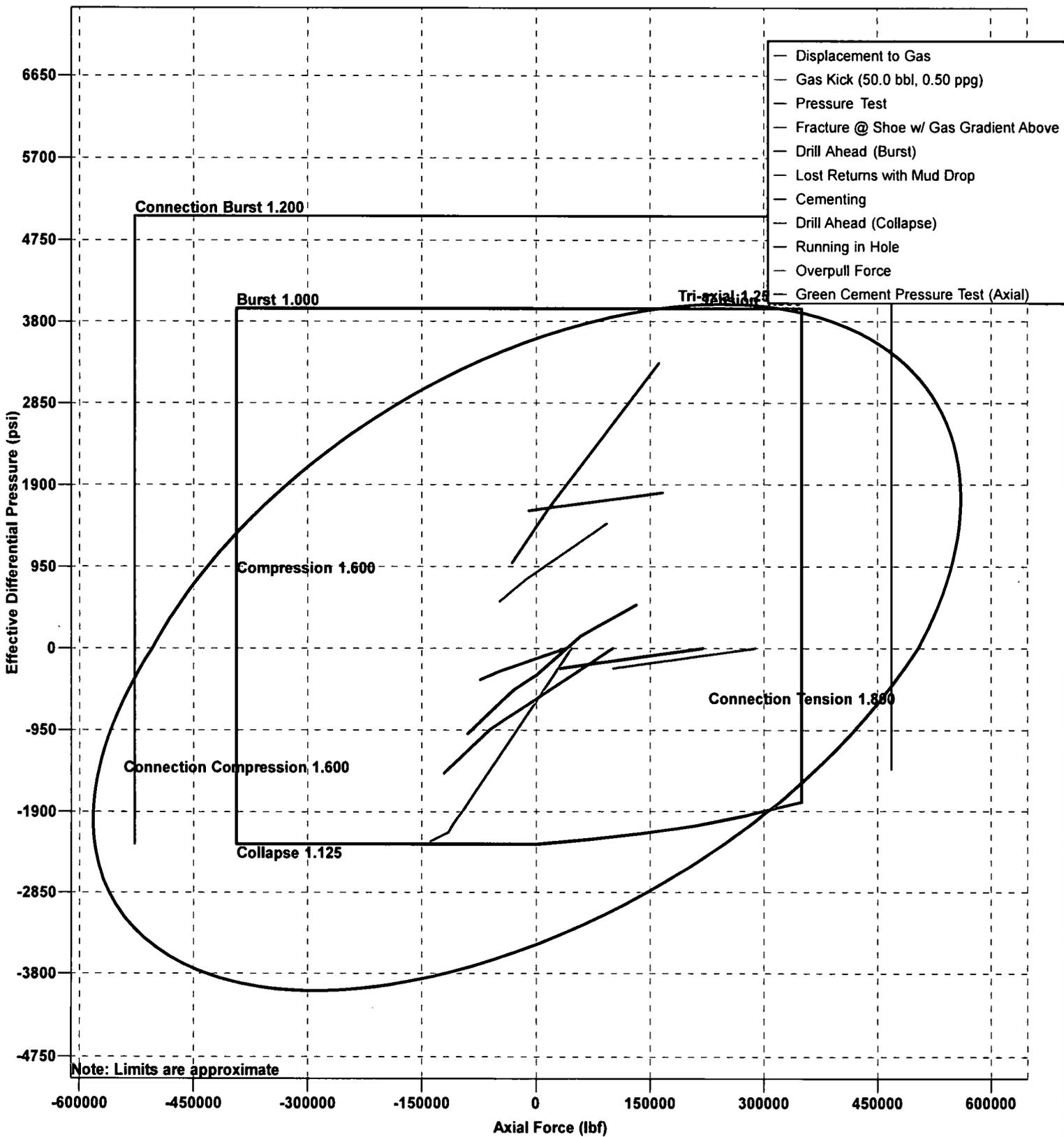
Design Limits (4 1/2" Production Liner - Section 1)



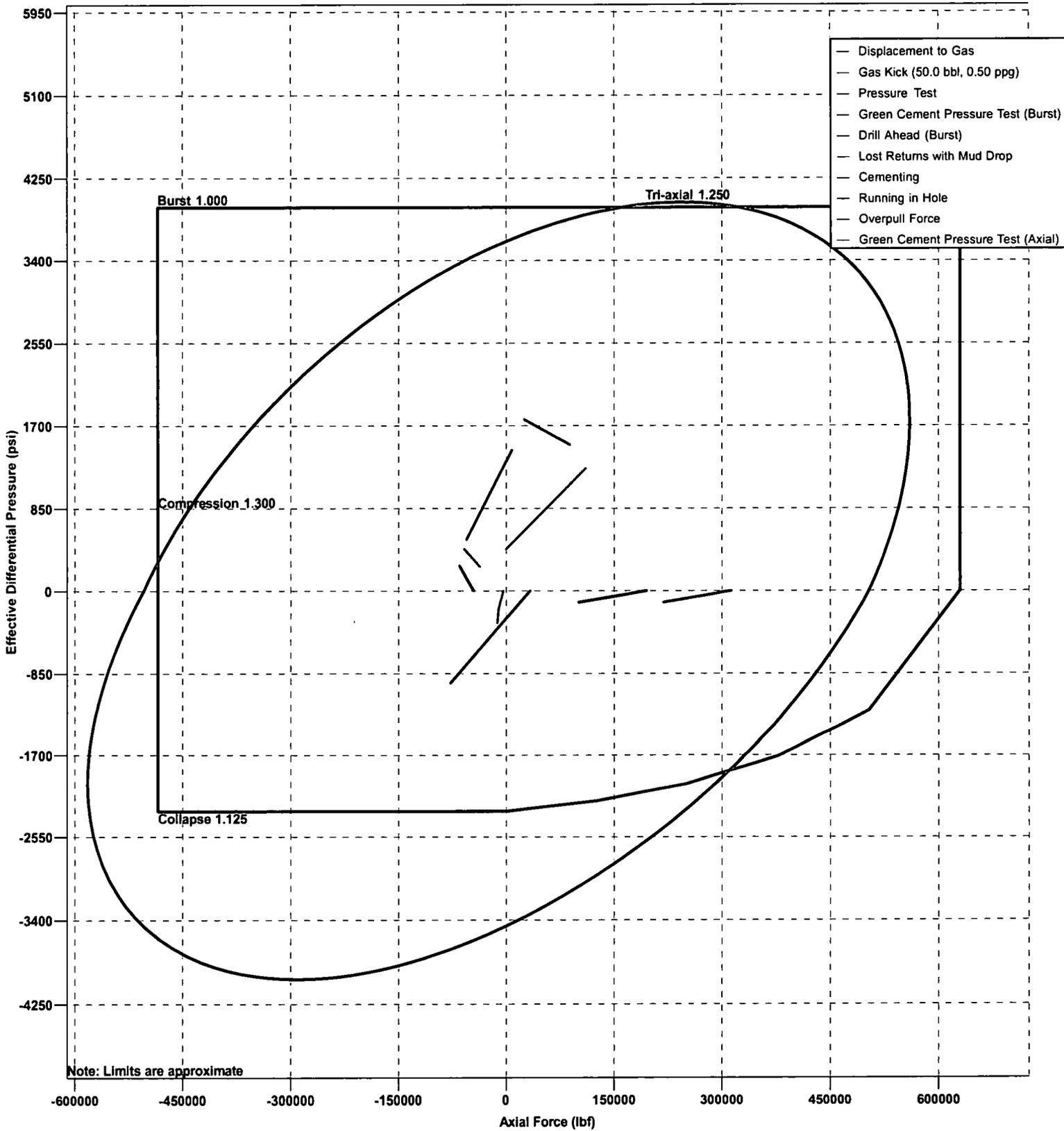
Design Limits (13 3/8" Surface Casing - Section 1)



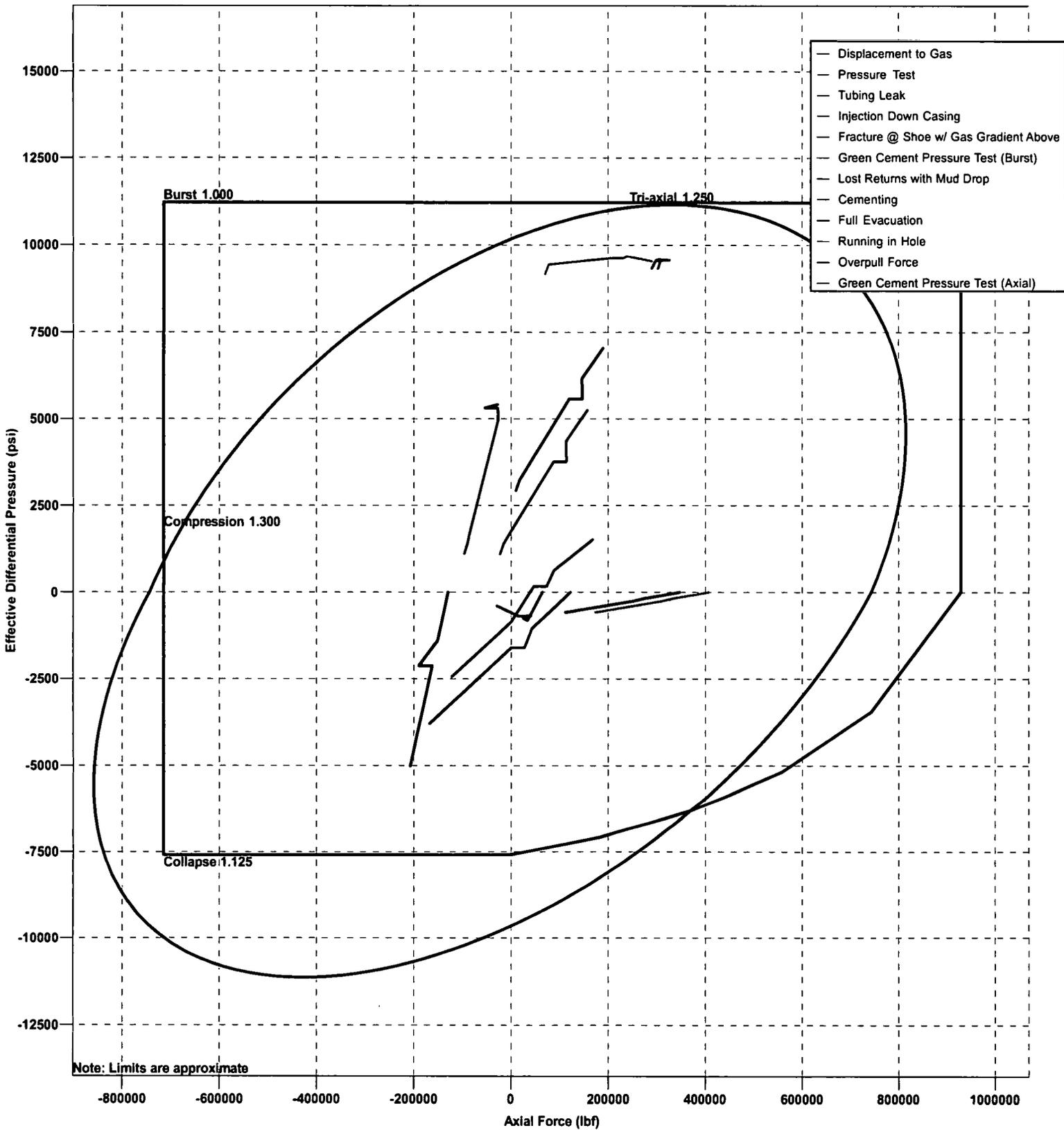
### Design Limits (9 5/8" Intermediate Casing - Section 1)



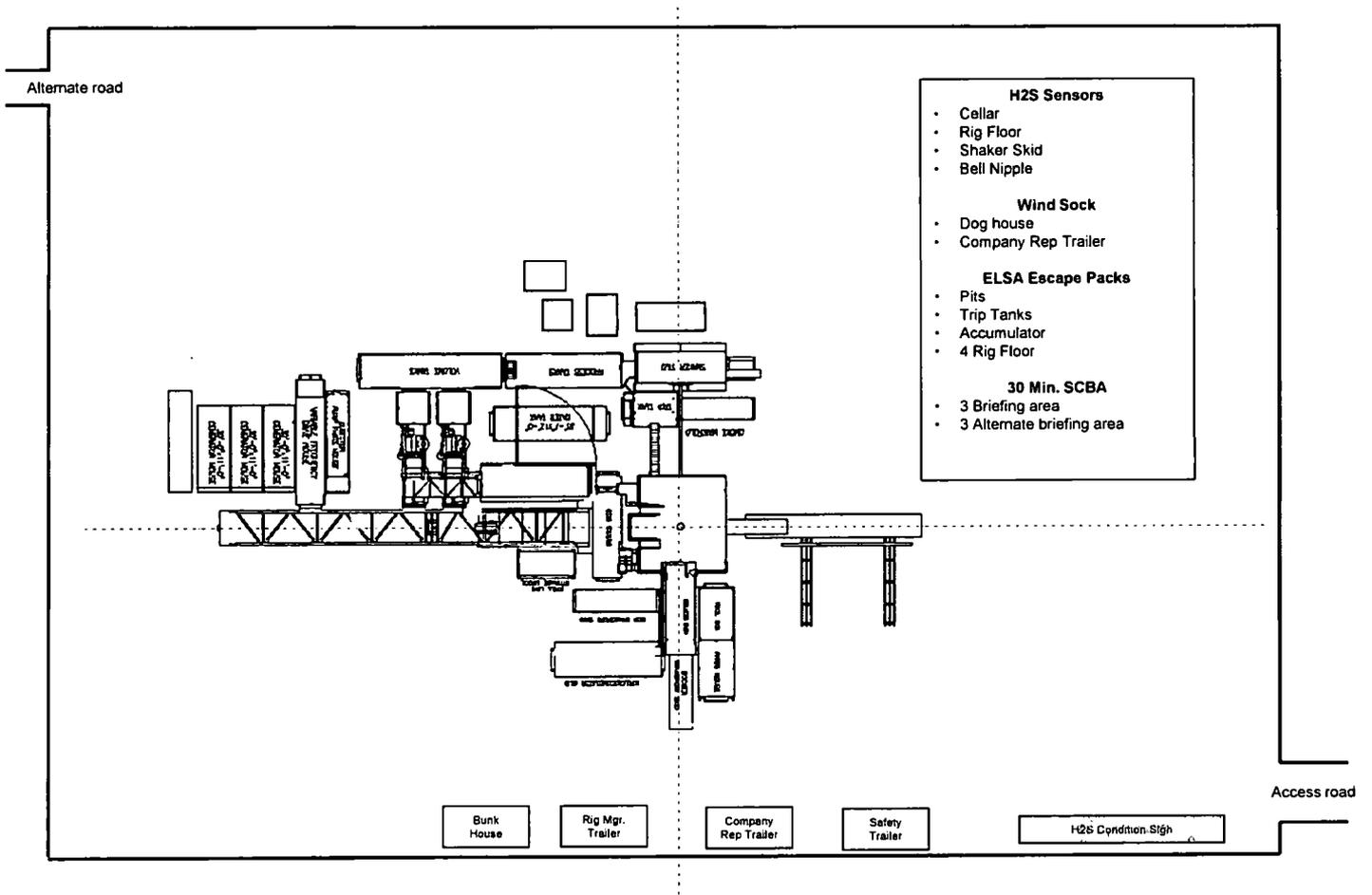
Design Limits (9 5/8" Intermediate Casing - Section 1)

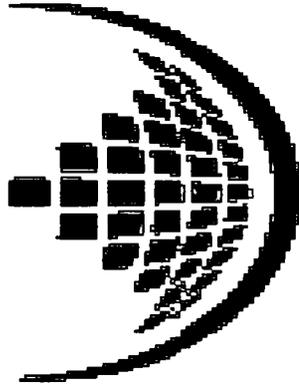


Design Limits (7" Production Casing - Section 1)



# MARATHON OIL - H2S Preparedness and Contingency Plan Summary





**TOTAL SAFETY**

**MARATHON OIL COMPANY**

**CHICKEN FRY FEDERAL COM 24-28-22**

**WA Well # 15H**

**WD Well # 16H**

**WXY Well # 12H**

**SHL: 310' FNL & 2216' FEL of Unit Letter 'B', Section 22, T-24S, R-28E**

**BHL: 330' FSL & 2350' FEL of Unit Letter 'O', Section 22, T-24S, R-28E**

**EDDY County, New Mexico**

**Rig: PRECISION 594**

**3/26/2018**

**EMERGENCY MEDICAL PROCEDURES  
DO NOT PANIC  
REMAIN CALM-THINK**

1. HOLD YOUR BREATH. (DO NOT INHALE, STOP BREATHING)
2. PUT ON BREATHING APPARATUS. (NOTE: DO NOT ATTEMPT RESCUE UNTIL YOU HAVE PUT ON BREATHING APPARATUS.)
3. REMOVE VICTIM (S) TO FRESH AIR AS QUICKLY AS POSSIBLE.
4. BE SURE YOU HAVE MOVED VICTIM OUT OF CONTAMINATED AREA BEFORE REMOVING YOUR RESPIRATOR.
5. APPLY MOUTH-TO-MOUTH ARTIFICIAL RESPIRATION, WHICH IS MORE EFFECTIVE, WHILE SOMEONE ELSE GETS THE OXYGEN RESUSCITATOR. RENDER OXYGEN RESUSCITATION ONLY IF PORPERLY TRAINED IN ITS USE.
6. PROVIDE FOR PROMPT TRANSPORTATION TO HOSPITAL AND CONTUNUE GIVING ARTIFICIAL RESPIRATION IF NEEDED.
7. HOSPITAL (S) OR MEDICAL FACILITIES NEED TO BE INFORMED BEFOREHAND, OF THE POSSIBILITY OF H2S GAS POISONING, NO MATTER HOW REMOTE THE POSSIBLITY IS.

Lea Regional Medical Center	(575)492-5000
5419 N Lovington Hwy, Hobbs, NM 88240	
AMBULANCE	911
FIRE DEPARTMENT- HOBBS, NM	(575) 397-9308
POLICE - HOBBS, NM	(575) 397-9265

8. NOTIFY EMERGENCY-ROOM PERSONEL THAT THE VICTIM (S) HAVE POSSIBLY BEEN EXPOSED TO H2S GAS POISONING.

\*\*\*\*\*  
\*\*\*\*\*

**TOTAL SAFETY INC  
1420 East Greene St.  
Carlsbad, NM 88220**

**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**

## H2S DRILLING OPERATIONS PLAN INDEX

- I. INTRODUCTION
  - A. Oil Company Address and Legal Description of Well Site
  - B. Directions to Well Site
  - C. Purpose of Plan
  
- II. LOCATION LAYOUT
  - A. Location Map
  - B. General & Specific Area Maps
  
- III. SAFETY EQUIPMENT
  - A. Safety Equipment Provided by TOTAL SAFETY INC.
  - B. Type of Equipment and Storage Locations
  - C. Maximum Number of People on Location at any one time
  
- IV. OPERATING PROCEDURES
  - A. Blowout Prevention Measures During Drilling
  - B. Gas Monitoring Equipment
  - C. Crew Training and Protection
  - D. Metallurgical Considerations
  - E. Mud Program and Treating
  - F. Well Control Equipment
  
- V. OPERATING CONDITIONS
  - A. Definition of Warning Flags
  - B. Circulating Out Kick (Wait and Weight Method)
  - C. Coring Operations in H<sub>2</sub>S Bearing Zones
  
- VI. EMERGENCY PROCEDURES
  - A. Sounding Alarm
  - B. Drilling Crew Actions
  - C. Responsibilities of Personnel
  - D. Steps to be Taken
  - E. Company and Contract Personnel
  - F. Leak Ignition
  - G. General Equipment
  - 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 H<sub>2</sub>S**
- F. Safe Practices**

# **INTRODUCTION**

**H2S DRILLING OPERATIONS PLAN**  
This Drilling Operations Plan was written specifically for:

**MARATHON OIL COMPANY**  
**3122 NATIONAL PARKS HIGHWAY**  
**CALRSBAD, NM 88220**

Action Plan for Accidental Release of H2S

**CHICKEN FRY FEDERAL COM 24-28-22**

**WA Well # 15H**

**WD Well # 16H**

**WXY Well # 12H**

**EDDY COUNTY, NM**

Information, provisions and practices, as set forth in this plan, may be subject to revision and/or updating.

03-26-2018

# **CHICKEN FRY FEDERAL COM 24-28-22**

**WA Well # 15H**

**WD Well # 16H**

**WXY Well # 12H**

**EDDY 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 SOUTH FOR 13.8 MILES TO A CALICHE ROAD. TURN RIGHT ONTO CALICHE ROAD, HEADING WEST FOR 0.6 MILES TO PROPOSED LEASE ROAD FOR THE CHICKEN FRY FEDERAL COM 24-28-22 WA9H, TB8H, WXY12H & WA15H. TURN RIGHT ON TO SAID PROPOSED LEASE ROAD, HEADING NORTH, FOR 531 FEET ENTERING THE SOUTHWEST CORNER OF SAID WELL LOCATION PAD.

**GPS Coordinates: 32.20993033, -104.07422196**  
**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, H<sub>2</sub>S.

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 supersedes the minimum requirements as outlined in this plan.

**Definitions:** For the purpose of this plan the following definitions are to be referred to:

**Controlled Release** – Any release that is planned and occurs during normal operations. A controlled release is managed per the procedures outlined in this section.

**Uncontrolled Release** – Any release that is unplanned and not immediately contained utilizing established shut-in procedures. An uncontrolled release is normally associated with a loss of well control.

**SCBA – (Self Contained Breathing Apparatus)** – A full-face mask respirator with a supplied positive pressure air source.

**Donned SCBA** – When it is required per this plan to “**don**” a SCBA, personnel will be 100% masked up and be on supplied breathing air.

**SCBA On Person** – When it is required per this plan to have SCBA “on person”, personnel will be required to wear the SCBA equipment - but not be masked up.

**“Qualified Buddy”** – Person who has been fit tested and is trained and is familiar with the requirements of donning an SCBA. This person will provide immediate assistance to another person who may be utilizing an SCBA or SkaPack in an IDLH atmosphere in the event of an emergency situation.

**In Scope Personnel** – Rig Personnel who will be working or otherwise present in potential H<sub>2</sub>S release areas, including the rig floor, cellar, pits, and shaker areas. This would not include 3rd party contractors who do not have a function, besides evacuating the rig, during an emergency condition such as during a well control event or H<sub>2</sub>S / LEL alarm. All qualified personnel that have a function to shut a well in during an emergency will be considered In-Scope per this plan

**Out of Scope Personnel** –. All personnel that are not in scope will be Out of Scope per the definition of this plan

**H<sub>2</sub>S Office** – Onsite office trailer space or vehicle that will be designated as the H<sub>2</sub>S office

**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.

# EXISTING WELL LOCATION MAP

CHICKEN FRY FEDERAL 24-28-22 (PAD 2)

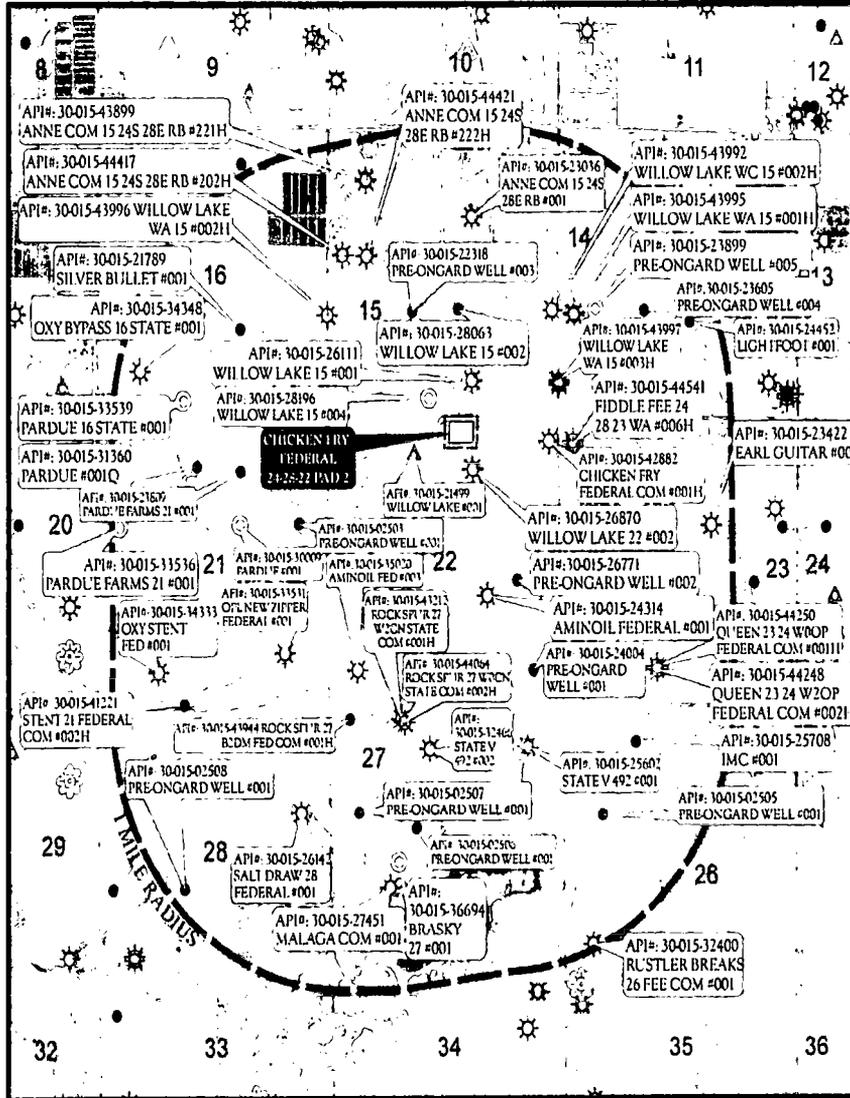
SEC. 22 TWP. 24-S RGE. 28-E

SURVEY: N.M.P.M.

COUNTY: EDDY

OPERATOR: MARATHON OIL PERMIAN LLC

U.S.G.S. TOPOGRAPHIC MAP: MALAGA, NM.



1" = 3,000'

- |                    |                     |                      |                                   |                                 |
|--------------------|---------------------|----------------------|-----------------------------------|---------------------------------|
| Proposed Well Pad  | ☐                   | ☼ Gas, Active        | ⊕ Salt Water Injection, Cancelled | ⚠ Salt Water Injection, New     |
| Arch Survey Limits | — — —               | ☼ Gas, Cancelled     | ⊖ Injection, Abandoned            | ⚠ Salt Water Injection, Plugged |
| Section Line       | —————               | ☼ Gas, New           | ● Oil, Active                     | ● Water, Active                 |
| ☼ CO2 Active       | ☼ Gas, Plugged      | ☼ Gas, Abandoned     | ○ Oil, Cancelled                  | ● Water, Plugged                |
| ☼ CO2 Cancelled    | ☼ Gas, Abandoned    | ☼ Injection, Active  | ● Oil, New                        |                                 |
| ☼ CO2, Plugged     | ☼ Injection, Active | ☼ Injection, New     | ● Oil, Plugged                    |                                 |
|                    | ☼ Injection, New    | ☼ Injection, Plugged | ○ Oil, Abandoned                  |                                 |
|                    |                     |                      | ⚠ Salt Water Injection, Active    |                                 |

  
 PREPARED BY:  
 RSQUARED GLOBAL, LLC  
 1199 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-6900 OFFICE  
 JOB No. RJ781

# WELL LOCATION PLAT

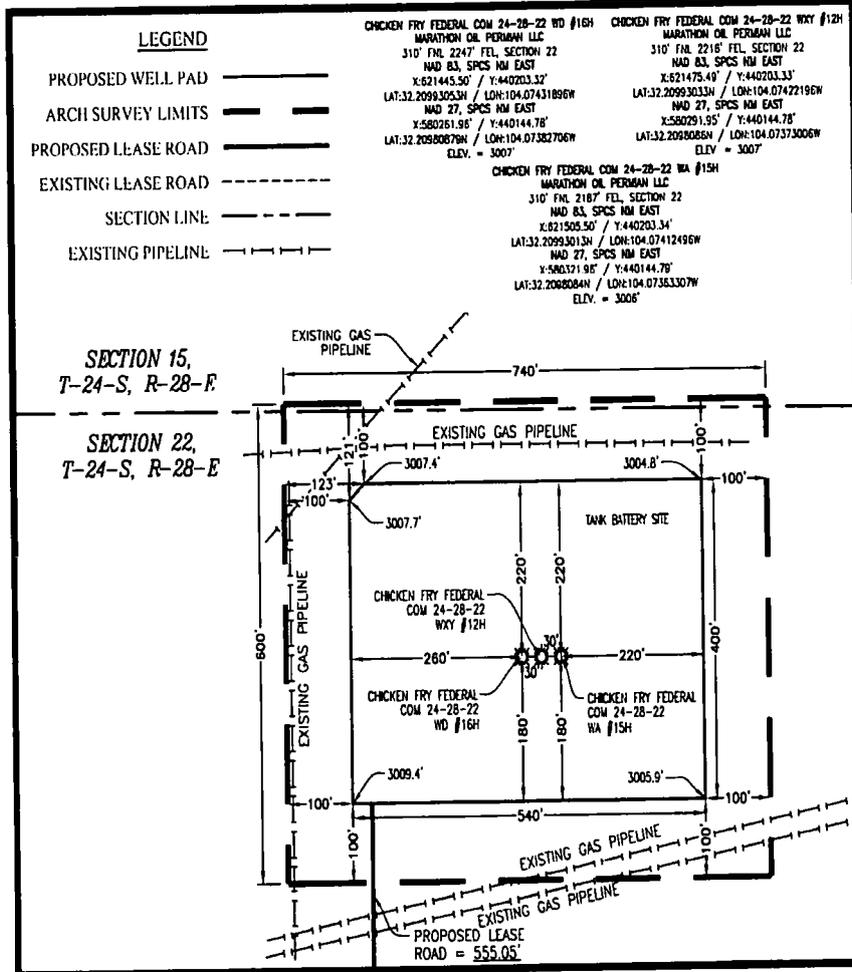
CHICKEN FRY FEDERAL COM 24-28-22

SEC. 22 TWP. 24-S RGE. 28-E

SURVEY: N.M.P.M.

COUNTY: EDDY

U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



**DIRECTIONS TO LOCATION:**

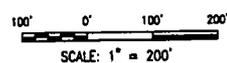
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**PRELIMINARY**

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PREPARED BY:  
 B-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 518-328-6900 OFFICE  
 JOB No. R3781\_007



## SAFETY EQUIPMENT

All H2S related Safety Equipment must be installed, tested and Operational at a depth of 500 feet above, or 3 days prior to penetrating the first zone expected to contain H2S.

### SAFETY EQUIPMENT PROVIDED BY TOTAL SAFETY INC.

<u>QTY</u>	<u>EQUIPMENT</u>
6 each	30-minute self-contained breathing apparatus
6 each	ELSA Escape Packs
1 Lot	Sufficient low-pressure airline hose with quick connects
1	6 Channel fixed H2S monitor
4	H2S Sensors (Loc determined at rig up – General: Cellar, Shale Shaker, floor/driller area)
4	Explosion proof Alarm Station (1-Drill Floor, 1- Pits/Shakers, 1- Generators, 1 Quarters area)
10	Personal H2S Monitors
1	Gastec pump type gas detector
Set	Various range of H2s & SO2 detector tubes
2 each	Windsocks w/frames and poles
1 Set	H2S and briefing area signs
1 Set	Well condition signs and flags
1	Flare Gun & Flares

## 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 H<sub>2</sub>S and SO<sub>2</sub> 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 H<sub>2</sub>S ‘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 H<sub>2</sub>S 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).
10. The primary means of communication will be cell phones.

11. A barricade will be available to block the entrance to location should an emergency occur. In most cases the use of a vehicle is used to block the entrance.
12. A 6-channel H<sub>2</sub>S monitor will be located in the doghouse. The 3 sensors will be installed: one on the shale shaker, one at the Cellar, one at the rig floor.
13. An undulating high and low pitch siren and light will be installed on the derrick "A" leg.
14. If H<sub>2</sub>S concentration reach 10 ppm an explosion-proof bug blower (fan) will be installed under the rig floor to disperse possible accumulations of H<sub>2</sub>S.
15. Any time it is necessary to flare gas containing H<sub>2</sub>S, a Sulfur Dioxide monitor or Detector tubes will be used to determine SO<sub>2</sub> concentrations.
16. A flare gun with flares will also be provided in the event it is necessary to ignite the well from a safe distance.

## 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 H<sub>2</sub>S 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 H<sub>2</sub>S service. All drill string components should be inspected to IADC critical service specifications prior to running in well.

### GAS MONITORING EQUIPMENT

1. A continuous H<sub>2</sub>S detection system, consisting of three H<sub>2</sub>S detectors and an audible/visual warning system will be in operating during all phases of this H<sub>2</sub>S Drilling Operations Plan. The detection system will be adjusted and calibrated such that an H<sub>2</sub>S 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. H<sub>2</sub>S continually present at or above threshold levels) a trained operator or H<sub>2</sub>S supervisor will monitor the H<sub>2</sub>S detection system.

2. When approaching or completing H<sub>2</sub>S formations, crewmembers may attach personnel H<sub>2</sub>S monitors to their person.

3. Hand held H<sub>2</sub>S sampling gas detectors will be used to check areas not covered by automatic monitoring equipment.

## CREW TRAINING AND PROTECTION

1. All personnel working at the well site will be properly trained in accordance with the general training requirements outlined in the API Recommended Practices for Safe Drilling of Wells Containing H<sub>2</sub>S. The training will cover, but will not be limited to, the following:
  - a. General information of H<sub>2</sub>S AND SO<sub>2</sub> GAS
  - b. Hazards of these gases
  - c. Safety equipment on location
  - d. Proper use and care of personal protective equipment
  - e. Operational procedures in dealing with H<sub>2</sub>S gas
  - f. Evacuation procedures
  - g. First aid, reviving an H<sub>2</sub>S victim, toxicity, etc.
  - h. Designated Safe Briefing Areas
  - i. Buddy System
  - j. Regulations
  - k. Review of Drilling Operations Plan
  
2. Initial training shall be completed when drilling reaches, a depth of 500' above or 3 days prior to penetrating (whichever comes first) the first zone containing or expected to contain H<sub>2</sub>S. It must also include a review of the site specific Drilling Operations Plan and, if applicable, the Public Protections Plan.
  
3. Weekly H<sub>2</sub>S and well control drills for all personnel on each working crew shall be conducted.
  
4. All training sessions and drills shall be recorded on the driller's log or its equivalent.
  
5. Safety Equipment:  
As outlined in the Safety Equipment index, H<sub>2</sub>S safety protection equipment will be available to/or assigned each person on location.
  
6. One person (by job title) shall be designated and identified to all on-site personnel as the person primarily responsible for the overall operation of the on-site safety and training programs. This will be the PIC

## METALLURGICAL CONSIDERATIONS

1. Steel drill pipe used in H<sub>2</sub>S 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 H<sub>2</sub>S 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 H<sub>2</sub>S and reliability of the H<sub>2</sub>S 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 H<sub>2</sub>S control prior to drilling into the H<sub>2</sub>s 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 H<sub>2</sub>S be encountered while tripping string following drill stem testing

## WELL CONTROL EQUIPMENT

### 1. Flare System

a. A flare system shall be designed and installed to safely gather and burn H<sub>2</sub>S Bearing gas.

1. Flare lines shall be located as far from the operating site as feasible and in a manner to compensate for wind changes.
2. The flare line mouth shall be located not less than 150' from wellbore.
3. Flare lines shall be straight unless targeted with running tees.
4. Flare Gun & Flares to ignite the well

### 2. Remote Controlled Choke

a. A remote controlled choke shall be installed for all H<sub>2</sub>S drilling and where feasible for completion operations. A remote controlled valve may be used in lieu of this requirement for completions operations.

### 3. Mud-gas separators and rotating heads shall be installed and operable for all exploratory wells.

## 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 H<sub>2</sub>S exists but no H<sub>2</sub>S has been detected.
  
2. Condition:  
**YELLOW-POTENTIAL DANGER, CAUTION**  
Any operation where the possibility of encountering H<sub>2</sub>S exists and in all situations where concentrations of H<sub>2</sub>S 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 H<sub>2</sub>S at or greater than 10ppm. Breathing apparatus must be worn.
  - a. Safety action:

**\*MASK UP.** All personnel will have protective breathing equipment with them. All nonessential personnel will move to the Safe Briefing Area and stay there until instructed to do otherwise. All essential Qualified Personnel, using the "Buddy System" (those necessary to maintain control of the well) will don breathing apparatus to perform operations related to well control.

The decision to ignite the well is the responsibility of the operator's on-site representative and should be made only as a last resort, when it is clear that:

- \*human life is endangered**
- \*there is no hope of controlling the well under prevailing conditions**

Order evacuation of local people within the danger zone. Request help from local authorities, State Police, Sheriff's Dept. and Service Representative.

### **CIRCULATING OUT KICK (WAIT AND WEIGHT METHOD)**

If it is suspected that H<sub>2</sub>S is present with the gas whenever a kick is taken, the wait and weight method of eliminating gas and raising the mud will be followed.

#### **1. Wait and Weight Method:**

##### **a. The wait and Weight Method is:**

- \*increase density of mud in pits to 'kill' weight mud.**
- \*open choke and bring pump to initial circulating pressure by holding casing pressure at original valve until pump is up to predetermined speed.**
- \*when initial circulating pressure is obtained on drill pipe, zero pump stroke counter and record time.**
- \*reduce drill pipe pressure from initial circulating pressure to final circulating pressure by using pump strokes and/or time according to graph**
- \*when 'kill' weight mud is at the bit, hold final circulating pressure until kill weight mud is to surface.**

**b. If a kick has occurred, the standard blowout procedure will be followed and the wait and weight method will be used to kill the well. When the well has been put on the choke and circulation has been established, the following safety procedure must be established.**

- \*determine when gas is anticipated to reach surface.**

- \*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 H<sub>2</sub>S 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 H<sub>2</sub>S 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 H<sub>2</sub>S.
  - a. Yellow Caution Flag will be flown at the well condition sign.
  - b. The “NO SMOKING” rule will be enforced

### DRILL STEM TESTING OF H<sub>2</sub>S ZONES

1. The DST subsurface equipment will be suitable for H<sub>2</sub>S service as recommended by the API
2. Drill stem testing of H<sub>2</sub>S 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 H<sub>2</sub>S from drill string
  - a. During drill stem tests adequate Filming Amine for H<sub>2</sub>S corrosion and Aqua Ammonia for neutralizing H<sub>2</sub>S should be on location.
8. On completion of DST, if H<sub>2</sub>S 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

on” conditions until such time that readings in the work area do not exceed 10ppm of H<sub>2</sub>S gas.

# 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 H<sub>2</sub>S.

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: H<sub>2</sub>S 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

## STEPS TO BE TAKEN

In the event of an accidental release of a potentially hazardous volume of H<sub>2</sub>S, the following steps will be taken:

1. Contact by the quickest means of communications: the main offices of Oil Company & Contractor as listed on the preceding page.
2. An assigned crewmember will blockade the entrance to the location. No unauthorized personnel will be allowed entry into the location.
3. The operator's on-site representative will remain on location and attempt to regain control of the well.
4. The drilling company's rig superintendent will begin evacuation of those persons in immediate danger. He will begin by telephoning residents in the danger zone. In the event of no contact by telephoning, the tool pusher will proceed at once to each dwelling for a person-to-person contact. In the event the tool pusher cannot leave the location, he will assign a responsible crewmember to proceed in the evacuation of local residents. Upon arrival, the Sheriff's Department and TOTAL SAFETY personnel will aid in further evacuation.

## LEAK IGNITION

Leak Ignition procedure: (used to ignite a leak in the event it becomes necessary to protect the public)

1. Two men, the operator's on-site representative and the contractor's rig superintendent or TOTAL SAFETY's representative(s), wearing self-contained pressure demand air masks must determine the perimeter of the flammable area. This should be done with one man using an H<sub>2</sub>S detector and the other one using a flammable gas detector. The flammable perimeter should be established at 30% to 40% of the lower flammable limits.
2. After the flammable perimeter has been established and all employees and citizens have been removed from the area, the ignition team should move to the up-wind area of the leak perimeter and fire a flare into the area if the leak isn't ignited on the first attempt, move in 20 to 30 feet and fire again. Continue moving in and firing until the leak is ignited or the flammable gas detector indicates the ignition

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.

## CRITICAL OPERATIONS

These guidelines will be implemented during H2S alarms on drilling locations with the intent of minimizing catastrophic damage of “**critical tasks**” **ONLY** and exposure of field personnel (e.g. cement in the stack).

We will wait on Total Safety (or H2S Safety Company) for all other alarm events that aren't defined as “critical”.

- 1.) H2S alarm sounds, crews secure well, and muster based off of wind direction. MOC Operation, MOC Safety, and H2S service company notification will be made and representative from the H2S Service Company is in route to location.
- 2.) Two qualified in scope personnel will don SCBA, utilizing the "buddy system", and respond to area of H2S alarm location to verify the presence of H2S utilizing hand held four gas analyzer or other approved and provided method.
- 3.) If no H2S is found, the “all clear” will be authorized by the Marathon Oil Drilling Superintendent and HES to resume operations. H2S service company will still be required to respond.

**Note:** Personnel will return to muster area awaiting H2S service company and additional equipment if H2S is verified.

**Note:** Personnel will be trained annually on H2S and the elements of this guideline. The MOC HES Advisor and Co Man will receive hands on training from a H2S service company field tech, on how to properly identify the location of the alarming sensor, and the proper method for checking the alarmed area.

# APPENDICES

## EMERGENCY & MEDICAL FACILITIES:

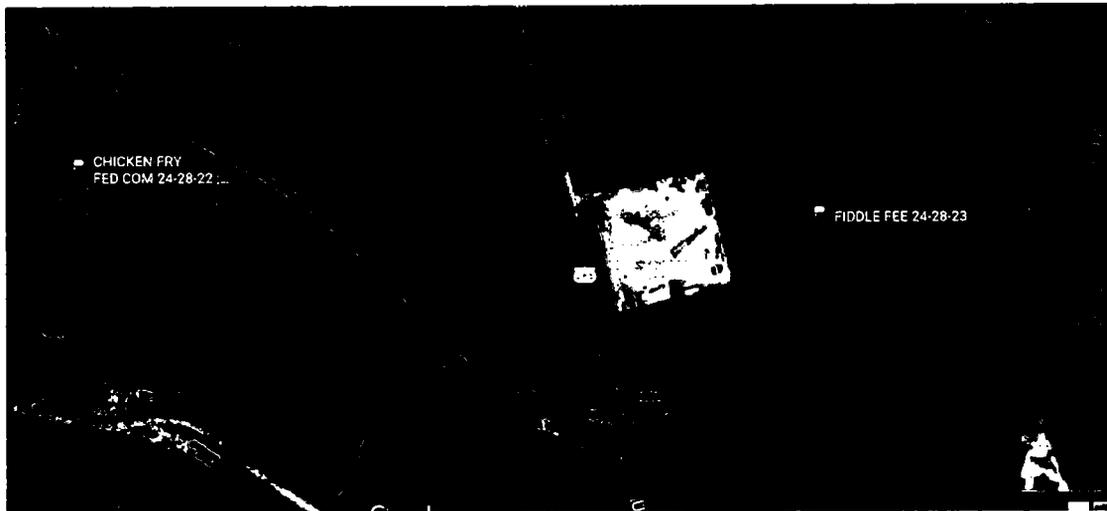
Marathon Oil Corporation Emergency Numbers			
Brent Evans	Drilling Manager	blevans@marathonoil.com	832 967-8474
Mark Bly	Drilling Superintendent	permiansuper@marathonoil.com	281-840-0467
Chad Butler	Drilling Superintendent	permiansuper@marathonoil.com	281-840-0467
Jacob Beaty	Drilling Engineer	jabeaty@marathonoil.com	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	
Precision 594	Company Man	PD594@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	
Precision 594	HES Advisor	PD594hes@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, 1<sup>st</sup> dial "911" They will determine nearest helicopter and confirm the need for helicopter.

# RESIDENTS AND LANDOWNERS

## AERIAL SATELLITE MAP



## RESIDENCE

THERE ARE NO RESIDENCE WITHIN 1 MILE RADIUS OF WELL LOCATION.

# 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). Its 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 in 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 consciousness and unconsciousness, and between unconsciousness and death.

Where high concentrations cause respiratory paralysis, spontaneous breathing does not return unless artificial respiration is applied. 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.

**SUBACUTE: RESULTS IN IRRITATION, PRINCIPALLY OF THE EYES, PERSISTENT COUGH, TIGHTENING OR BURNING IN THE CHEST AND SKIN IRRITATION FOLLOVED BY DEPRESSION OF THE CENTRAL NERVOUS SYSTEM. The eye irritation ranges in severity from mild conjunctivitis to swelling and bulging of the conjunctiva photophobia (abnormal intolerance of light) and temporary blindness.**

#### **D. TREATMENT**

1. Victim should be removed to fresh air immediately by rescuers wearing respiratory protective equipment. Protect yourself while rescuing.
2. If the victim is not breathing, begin immediately to apply artificial respiration. (See other chart for the chances for life after breathing has stopped.) If a resuscitator is available let another employee get it and prepare for use.
3. Treat for shock, keep victim warm and comfortable
4. Call a doctor, in all cases, victims of poisoning should be attended by a physician.

#### **E. CHARACTERISTICS OF H<sub>2</sub>S**

1. Extremely Toxic (refer to chart for toxicity of Hydrogen Sulfide).
2. Heavier than air. Specific gravity= 1.19.
3. Colorless, has odor of rotten eggs.
4. Burns with a blue flame and produces sulfur Dioxide (SO<sub>2</sub>) gas, which is very irritating to eyes and lungs. The SO<sub>2</sub> is also toxic and can cause serious injury.
5. H<sub>2</sub>S is almost as toxic as hydrogen cyanide.
6. H<sub>2</sub>S forms explosive mixture, with air between 4.3% and 46% by volume.
7. Between 5 and 6 times as toxic as carbon monoxide.
8. Produces irritation to eyes, throat, and respiratory tract.
9. Threshold Limit Value (TLV) maximum of eight hours exposure without protective respiratory equipment-10ppm.

## F. SAFE PRACTICES

If you are faced with an H<sub>2</sub>S problem in your operations, the following safe practices are recommended:

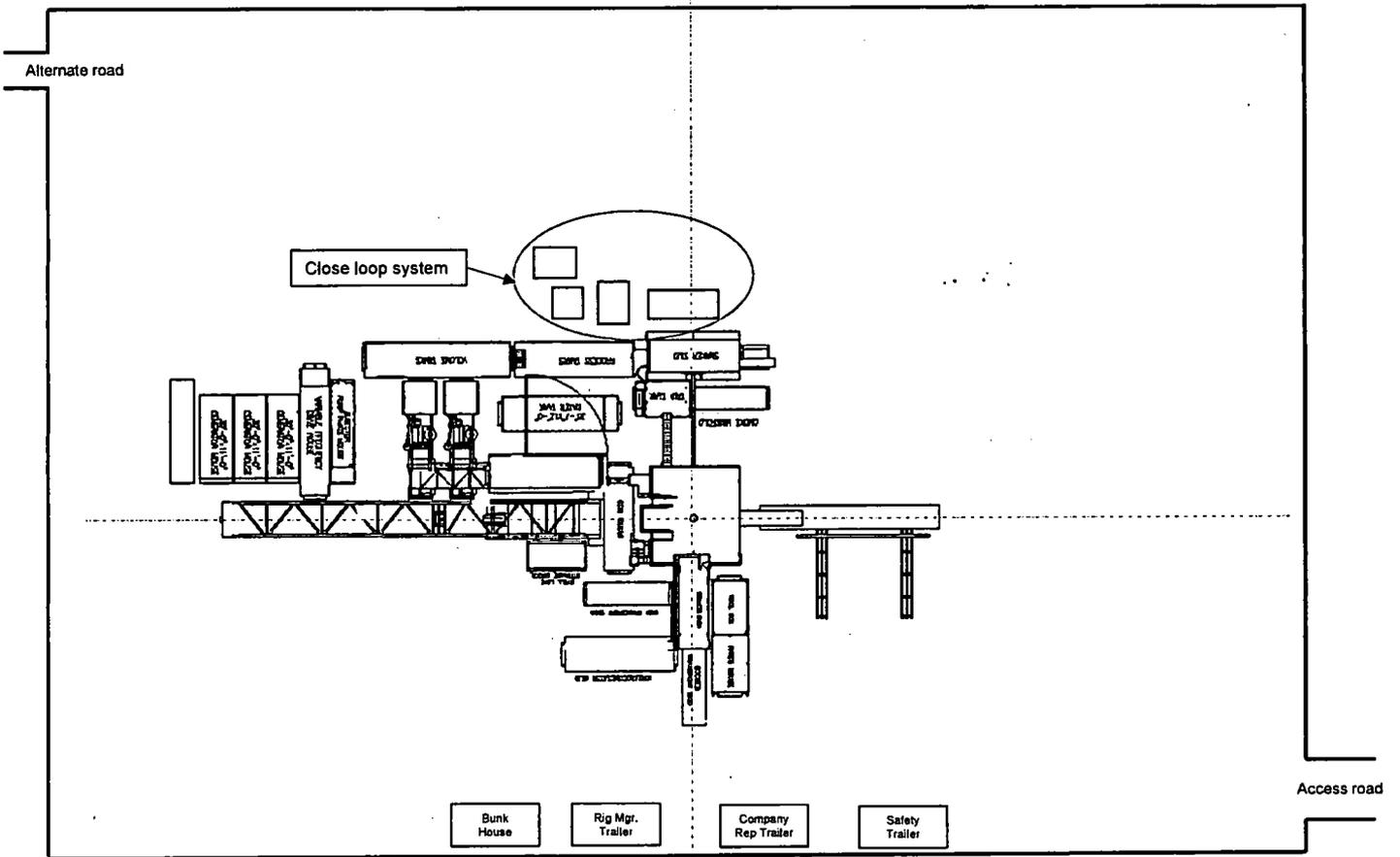
1. Be absolutely sure all concerned are familiar with the hazards concerning H<sub>2</sub>S and how to avoid it.
2. All employees should know how to operate and maintain respiration equipment.
3. Be able to give and demonstrate artificial respiration.
4. Post areas where there is poisonous gas with suitable 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 H<sub>2</sub>S 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 H<sub>2</sub>S may be present.

TOXICITY OF HYDROGEN SULFIDE TO MEN

<u>H2S Per Cent (PPM)**</u>	<u>0 - 2 Minutes</u>	<u>0 - 15 Minutes</u>	<u>15 - 30 Minutes</u>	<u>30 Minutes to 1 hour</u>	<u>1 - 4 Hours</u>	<u>4 - 8 Hours</u>	<u>4 - 48 Hours</u>
0.005 (50) 0.010 (100)				Mild Conjunctiv- ities; respiratory tract irritation			
0.010 (100) 0.015 (150)		Coughing; irritation of eyes; loss of sense of smell	Disturbed respiration; pain in eyes; sleepiness	Throat	Salivation & mucous dis- charge; sharp pain in eyes; coughing	Increased symptoms*	Hemorrhage & death*
0.015 (150) 0.020 (200)		Loss of sense of smell	Throat & eye irritation	Throat & eye irritation	Difficult breathing; blurred vision; light & shy	Serious irritating effects	Hemorrhage & death*
0.025 (250) 0.035 (350)	Irritation of eyes; loss of sense of smell	Irritation of eyes	Painful secretion of tears; weariness	Light & shy; nasal catarrh; pain in eyes; difficult breathing	Hemorrhage & death		
0.035 (350)		Irritation of eyes; loss of sense of smell	Difficult respiration coughing; irritation of eyes	Increased irritation of eyes and nasal tract; dull pain head; weariness; light shy	Dizziness weak- ness; increased irritation; death	Death*	
0.050 (500)	Coughing collapse & unconscious- ness	Respiratory disturbances; irritation of eyes; collapse	Serious eye irritation; palpitation of heart; few cases of death*	Severe pain in eyes and head dizziness; trem- bling of extre- mities; great weakness & death*			
0.060 (600) 0.070 (700) 0.808 (800) 0.100 (1000) 0.150 (1500)	Collapse * unconscious- ness; death*	Collapse* unconscious- ness; death*					

\*Data secured from experiments of dogs which have susceptibility similar to men. \*\*PPM - parts per million

# MARATHON OIL - FLEX III PAD (Closed Loop System)



# **Marathon Oil Permian, LLC**

**Eddy County, NM (NAD27)**

**Chicken Fry Federal Com 24-28-22**

**WXY #12H**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**23 March, 2018**



## Planning Report

Database: Midland District	Local Co-ordinate Reference: Well WXY #12H
Company: Marathon Oil Permian, LLC	TVD Reference: KB = 25' @ 3032.00usft (Precision 594)
Project: Eddy County, NM (NAD27)	MD Reference: KB = 25' @ 3032.00usft (Precision 594)
Site: Chicken Fry Federal Com 24-28-22	North Reference: Grid
Well: WXY #12H	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: Plan #1	

<b>Project</b>	Eddy County, NM (NAD27)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		Using geodetic scale factor

<b>Site</b> Chicken Fry Federal Com 24-28-22					
<b>Site Position:</b>		<b>Northing:</b>	440,144.78 usft	<b>Latitude:</b>	32° 12' 35.311 N
<b>From:</b>	Map	<b>Easting:</b>	580,291.95 usft	<b>Longitude:</b>	104° 4' 25.428 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.14 °

<b>Well</b> WXY #12H						
<b>Well Position</b>	+N/-S	0.00 usft	<b>Northing:</b>	440,144.78 usft	<b>Latitude:</b>	32° 12' 35.311 N
	+E/-W	0.00 usft	<b>Easting:</b>	580,291.95 usft	<b>Longitude:</b>	104° 4' 25.428 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	3,007.00 usft

<b>Wellbore</b> OH					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	HDGM	3/23/2018	(°)	(°)	(nT)
			7.22	59.98	48,015

<b>Design</b> Plan #1				
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(bearing)
	0.00	0.00	0.00	180.00

<b>Plan Sections</b>										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(bearing)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,750.00	5.00	310.00	3,749.68	7.01	-8.35	2.00	2.00	0.00	310.00	
4,970.00	5.00	310.00	4,965.04	75.35	-89.80	0.00	0.00	0.00	0.00	
5,220.00	0.00	0.00	5,214.72	82.36	-98.16	2.00	-2.00	0.00	180.00	
8,988.31	0.00	0.00	8,983.03	82.36	-98.16	0.00	0.00	0.00	0.00	
9,883.31	89.50	179.22	9,555.97	-485.54	-90.42	10.00	10.00	0.00	179.22	
14,126.91	89.50	179.22	9,593.00	-4,728.59	-32.62	0.00	0.00	0.00	0.00	BHL[CF/WXY#12H]
14,171.91	89.50	179.22	9,593.39	-4,773.58	-32.01	0.00	0.00	0.00	0.00	

Planning Report

Database: Midland District  
 Company: Marathon Oil Permian, LLC  
 Project: Eddy County, NM (NAD27)  
 Site: Chicken Fry Federal Com 24-28-22  
 Well: WXY #12H  
 Wellbore: OH  
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Local Co-ordinate Reference: Well WXY #12H  
 TVD Reference: KB = 25' @ 3032.00usft (Precision 594)  
 MD Reference: KB = 25' @ 3032.00usft (Precision 594)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>KOP - Build 2.0° / 100</b>										
3,600.00	2.00	310.00	3,599.98	1.12	-1.34	-1.12	2.00	2.00	0.00	
3,700.00	4.00	310.00	3,699.84	4.49	-5.35	-4.49	2.00	2.00	0.00	
3,750.00	5.00	310.00	3,749.68	7.01	-8.35	-7.01	2.00	2.00	0.00	
<b>EOB - HOLD</b>										
3,800.00	5.00	310.00	3,799.49	9.81	-11.69	-9.81	0.00	0.00	0.00	
3,900.00	5.00	310.00	3,899.11	15.41	-18.37	-15.41	0.00	0.00	0.00	
4,000.00	5.00	310.00	3,998.73	21.01	-25.04	-21.01	0.00	0.00	0.00	
4,100.00	5.00	310.00	4,098.35	26.62	-31.72	-26.62	0.00	0.00	0.00	
4,200.00	5.00	310.00	4,197.97	32.22	-38.40	-32.22	0.00	0.00	0.00	
4,300.00	5.00	310.00	4,297.59	37.82	-45.07	-37.82	0.00	0.00	0.00	
4,400.00	5.00	310.00	4,397.21	43.42	-51.75	-43.42	0.00	0.00	0.00	
4,500.00	5.00	310.00	4,496.83	49.02	-58.42	-49.02	0.00	0.00	0.00	
4,600.00	5.00	310.00	4,596.45	54.63	-65.10	-54.63	0.00	0.00	0.00	
4,700.00	5.00	310.00	4,696.07	60.23	-71.78	-60.23	0.00	0.00	0.00	
4,800.00	5.00	310.00	4,795.69	65.83	-78.45	-65.83	0.00	0.00	0.00	
4,900.00	5.00	310.00	4,895.31	71.43	-85.13	-71.43	0.00	0.00	0.00	
4,970.00	5.00	310.00	4,965.04	75.35	-89.80	-75.35	0.00	0.00	0.00	

Planning Report

Database: Midland District  
 Company: Marathon Oil Permian, LLC  
 Project: Eddy County, NM (NAD27)  
 Site: Chicken Fry Federal Com 24-28-22  
 Well: WXY #12H  
 Wellbore: OH  
 Design: Plan #1

Local Co-ordinate Reference: Well WXY #12H  
 TVD Reference: KB = 25' @ 3032.00usft (Precision 594)  
 MD Reference: KB = 25' @ 3032.00usft (Precision 594)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
<b>DROP 2.0° / 100</b>										
5,000.00	4.40	310.00	4,994.94	76.93	-91.69	-76.93	2.00	-2.00	0.00	
5,100.00	2.40	310.00	5,094.76	80.75	-96.23	-80.75	2.00	-2.00	0.00	
5,200.00	0.40	310.00	5,194.72	82.32	-98.10	-82.32	2.00	-2.00	0.00	
5,220.00	0.00	0.00	5,214.72	82.36	-98.16	-82.36	2.00	-2.00	0.00	
<b>EOD - HOLD</b>										
5,300.00	0.00	0.00	5,294.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,394.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,494.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,594.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,694.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,794.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,894.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,994.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,094.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,194.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,294.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,394.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,494.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,594.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,694.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,794.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,894.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,994.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,094.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,194.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,294.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,394.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,494.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,594.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,694.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,794.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,894.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,994.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,094.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,194.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,294.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,394.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,494.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,594.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,694.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,794.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,894.72	82.36	-98.16	-82.36	0.00	0.00	0.00	
8,988.31	0.00	0.00	8,983.03	82.36	-98.16	-82.36	0.00	0.00	0.00	
<b>Curve KOP - Build 10.0° / 100</b>										
9,000.00	1.17	179.22	8,994.72	82.24	-98.15	-82.24	10.00	10.00	0.00	
9,050.00	6.17	179.22	9,044.60	79.04	-98.11	-79.04	10.00	10.00	0.00	
9,100.00	11.17	179.22	9,094.02	71.51	-98.01	-71.51	10.00	10.00	0.00	
9,150.00	16.17	179.22	9,142.59	59.70	-97.85	-59.70	10.00	10.00	0.00	
9,200.00	21.17	179.22	9,189.94	43.70	-97.63	-43.70	10.00	10.00	0.00	
9,250.00	26.17	179.22	9,235.72	23.64	-97.36	-23.64	10.00	10.00	0.00	
9,300.00	31.17	179.22	9,279.58	-0.34	-97.03	0.34	10.00	10.00	0.00	
9,350.00	36.17	179.22	9,321.18	-28.05	-96.65	28.05	10.00	10.00	0.00	

Planning Report

Database: Midland District  
 Company: Marathon Oil Permian, LLC  
 Project: Eddy County, NM (NAD27)  
 Site: Chicken Fry Federal Com 24-28-22  
 Well: WXY #12H  
 Wellbore: OH  
 Design: Plan #1

Local Co-ordinate Reference: Well WXY #12H  
 TVD Reference: KB = 25' @ 3032.00usft (Precision 594)  
 MD Reference: KB = 25' @ 3032.00usft (Precision 594)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,400.00	41.17	179.22	9,360.20	-59.28	-96.23	59.28	10.00	10.00	0.00	
9,450.00	46.17	179.22	9,396.36	-93.79	-95.76	93.79	10.00	10.00	0.00	
9,499.43	51.11	179.22	9,429.01	-130.87	-95.25	130.87	10.00	10.00	0.00	
<b>FTP[CF/WXY#12H]</b>										
9,500.00	51.17	179.22	9,429.37	-131.32	-95.24	131.32	10.00	10.00	0.00	
9,550.00	56.17	179.22	9,458.98	-171.58	-94.70	171.58	10.00	10.00	0.00	
9,600.00	61.17	179.22	9,484.97	-214.27	-94.11	214.27	10.00	10.00	0.00	
9,650.00	66.17	179.22	9,507.14	-259.07	-93.50	259.07	10.00	10.00	0.00	
9,700.00	71.17	179.22	9,525.32	-305.62	-92.87	305.62	10.00	10.00	0.00	
9,750.00	76.17	179.22	9,539.38	-353.59	-92.22	353.59	10.00	10.00	0.00	
9,800.00	81.17	179.22	9,549.20	-402.59	-91.55	402.59	10.00	10.00	0.00	
9,850.00	86.17	179.22	9,554.71	-452.27	-90.87	452.27	10.00	10.00	0.00	
9,883.31	89.50	179.22	9,555.97	-485.54	-90.42	485.54	10.00	10.00	0.00	
<b>EOC - HOLD</b>										
9,900.00	89.50	179.22	9,556.11	-502.23	-90.19	502.23	0.00	0.00	0.00	
10,000.00	89.50	179.22	9,556.99	-602.22	-88.83	602.22	0.00	0.00	0.00	
10,100.00	89.50	179.22	9,557.86	-702.21	-87.47	702.21	0.00	0.00	0.00	
10,200.00	89.50	179.22	9,558.73	-802.19	-86.11	802.19	0.00	0.00	0.00	
10,300.00	89.50	179.22	9,559.60	-902.18	-84.74	902.18	0.00	0.00	0.00	
10,400.00	89.50	179.22	9,560.48	-1,002.17	-83.38	1,002.17	0.00	0.00	0.00	
10,500.00	89.50	179.22	9,561.35	-1,102.15	-82.02	1,102.15	0.00	0.00	0.00	
10,600.00	89.50	179.22	9,562.22	-1,202.14	-80.66	1,202.14	0.00	0.00	0.00	
10,700.00	89.50	179.22	9,563.10	-1,302.13	-79.30	1,302.13	0.00	0.00	0.00	
10,800.00	89.50	179.22	9,563.97	-1,402.11	-77.93	1,402.11	0.00	0.00	0.00	
10,900.00	89.50	179.22	9,564.84	-1,502.10	-76.57	1,502.10	0.00	0.00	0.00	
11,000.00	89.50	179.22	9,565.71	-1,602.09	-75.21	1,602.09	0.00	0.00	0.00	
11,100.00	89.50	179.22	9,566.59	-1,702.07	-73.85	1,702.07	0.00	0.00	0.00	
11,200.00	89.50	179.22	9,567.46	-1,802.06	-72.49	1,802.06	0.00	0.00	0.00	
11,300.00	89.50	179.22	9,568.33	-1,902.05	-71.12	1,902.05	0.00	0.00	0.00	
11,400.00	89.50	179.22	9,569.20	-2,002.04	-69.76	2,002.04	0.00	0.00	0.00	
11,500.00	89.50	179.22	9,570.08	-2,102.02	-68.40	2,102.02	0.00	0.00	0.00	
11,600.00	89.50	179.22	9,570.95	-2,202.01	-67.04	2,202.01	0.00	0.00	0.00	
11,700.00	89.50	179.22	9,571.82	-2,302.00	-65.68	2,302.00	0.00	0.00	0.00	
11,800.00	89.50	179.22	9,572.69	-2,401.98	-64.31	2,401.98	0.00	0.00	0.00	
11,900.00	89.50	179.22	9,573.57	-2,501.97	-62.95	2,501.97	0.00	0.00	0.00	
12,000.00	89.50	179.22	9,574.44	-2,601.96	-61.59	2,601.96	0.00	0.00	0.00	
12,100.00	89.50	179.22	9,575.31	-2,701.94	-60.23	2,701.94	0.00	0.00	0.00	
12,200.00	89.50	179.22	9,576.18	-2,801.93	-58.87	2,801.93	0.00	0.00	0.00	
12,300.00	89.50	179.22	9,577.06	-2,901.92	-57.50	2,901.92	0.00	0.00	0.00	
12,400.00	89.50	179.22	9,577.93	-3,001.90	-56.14	3,001.90	0.00	0.00	0.00	
12,500.00	89.50	179.22	9,578.80	-3,101.89	-54.78	3,101.89	0.00	0.00	0.00	
12,600.00	89.50	179.22	9,579.68	-3,201.88	-53.42	3,201.88	0.00	0.00	0.00	
12,700.00	89.50	179.22	9,580.55	-3,301.87	-52.06	3,301.87	0.00	0.00	0.00	
12,800.00	89.50	179.22	9,581.42	-3,401.85	-50.69	3,401.85	0.00	0.00	0.00	
12,900.00	89.50	179.22	9,582.29	-3,501.84	-49.33	3,501.84	0.00	0.00	0.00	
13,000.00	89.50	179.22	9,583.17	-3,601.83	-47.97	3,601.83	0.00	0.00	0.00	
13,100.00	89.50	179.22	9,584.04	-3,701.81	-46.61	3,701.81	0.00	0.00	0.00	
13,200.00	89.50	179.22	9,584.91	-3,801.80	-45.25	3,801.80	0.00	0.00	0.00	
13,300.00	89.50	179.22	9,585.78	-3,901.79	-43.89	3,901.79	0.00	0.00	0.00	
13,400.00	89.50	179.22	9,586.66	-4,001.77	-42.52	4,001.77	0.00	0.00	0.00	
13,500.00	89.50	179.22	9,587.53	-4,101.76	-41.16	4,101.76	0.00	0.00	0.00	
13,600.00	89.50	179.22	9,588.40	-4,201.75	-39.80	4,201.75	0.00	0.00	0.00	
13,700.00	89.50	179.22	9,589.27	-4,301.73	-38.44	4,301.73	0.00	0.00	0.00	
13,800.00	89.50	179.22	9,590.15	-4,401.72	-37.08	4,401.72	0.00	0.00	0.00	

Planning Report

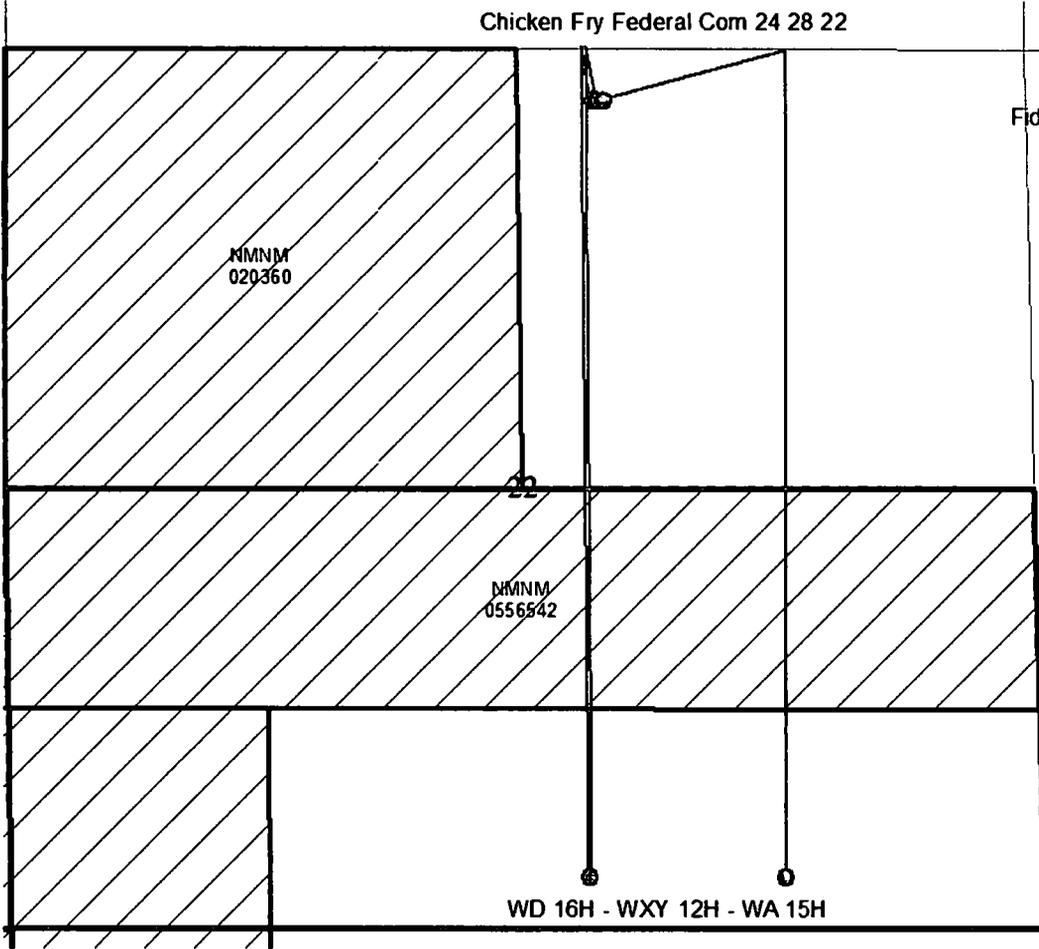
<b>Database:</b>	Midland District	<b>Local Co-ordinate Reference:</b>	Well WXY #12H
<b>Company:</b>	Marathon Oil Permian, LLC	<b>TVD Reference:</b>	KB = 25' @ 3032.00usft (Precision 594)
<b>Project:</b>	Eddy County, NM (NAD27)	<b>MD Reference:</b>	KB = 25' @ 3032.00usft (Precision 594)
<b>Site:</b>	Chicken Fry Federal Com 24-28-22	<b>North Reference:</b>	Grid
<b>Well:</b>	WXY #12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,900.00	89.50	179.22	9,591.02	-4,501.71	-35.71	4,501.71	0.00	0.00	0.00	
14,000.00	89.50	179.22	9,591.89	-4,601.70	-34.35	4,601.70	0.00	0.00	0.00	
14,100.00	89.50	179.22	9,592.77	-4,701.68	-32.99	4,701.68	0.00	0.00	0.00	
14,126.91	89.50	179.22	9,593.00	-4,728.59	-32.62	4,728.59	0.00	0.00	0.00	
TD at 14126.91 - BHL[CF/WXY#12H]										
14,171.91	89.50	179.22	9,593.39	-4,773.58	-32.01	4,773.58	0.00	0.00	0.00	
TD + 45' VS										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FTP[CF/WXY#12H]	-89.50	171.00	9,555.00	-20.07	-96.54	440,124.71	580,195.42	32° 12' 35.115 N	104° 4' 26.553 W	
- plan misses target center by 167.79usft at 9499.43usft MD (9429.01 TVD, -130.87 N, -95.25 E)										
- Point										
BHL[CF/WXY#12H]	-89.50	179.22	9,593.00	-4,728.59	-32.62	435,416.59	580,259.33	32° 11' 48.520 N	104° 4' 25.941 W	
- plan hits target center										
- Rectangle (sides W60.00 H30.00 D4,400.00)										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
3,500.00	3,500.00	0.00	0.00	KOP - Build 2.0° / 100	
3,750.00	3,749.68	7.01	-8.35	EOB - HOLD	
4,970.00	4,965.04	75.35	-89.80	DROP 2.0° / 100	
5,220.00	5,214.72	82.36	-98.16	EOD - HOLD	
8,988.31	8,983.03	82.36	-98.16	Curve KOP - Build 10.0° / 100	
9,883.31	9,555.97	-485.54	-90.42	EOC - HOLD	
14,126.91	9,593.00	-4,728.59	-32.62	TD at 14126.91	
14,171.91	9,593.39	-4,773.58	-32.01	TD + 45' VS	

Chicken Fry Federal Com 24 28 22





APD ID: 10400029572

Submission Date: 04/26/2018

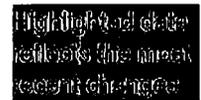
Operator Name: MARATHON OIL PERMIAN LLC

Well Name: CHICKEN FRY F C 24 28 22 WXY

Well Number: 12H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill



[Show Final Text](#)

### Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

1\_CHICKEN\_FRY\_FEDERAL\_COM\_275\_2\_ExistingRoadMapTOPO\_20181203105258.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

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:

2\_CHICKEN\_FRY\_FC\_24\_28\_22\_NM\_LE\_0001.00060\_PROPLEASERD\_20181203105313.pdf

2\_CHICKEN\_FRY\_FEDERAL\_COM\_275\_2\_NewRoad\_20181203105320.pdf

New road type: LOCAL

Length: 555.05 Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 2

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

**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 555.05' access road along with proper compaction to prevent water and wind erosion. All ditching areas will be seeded with BLM LPC sandy soils seed mix to prevent water erosion.

**New road access plan or profile prepared?** NO

New road access plan attachment:

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**Access road engineering design?** NO

**Access road engineering design attachment:**

**Access surfacing type:** OTHER

**Access topsoil source:** ONSITE

**Access surfacing type description:** 6" compacted caliche

**Access onsite topsoil source depth:** 6

**Offsite topsoil source description:**

**Onsite topsoil removal process:** The topsoil will be stripped during construction activities, spread out on edge of road, and will be seeded during the interim reclamation of the well pad.

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

### Drainage Control

**New road drainage crossing:** OTHER

**Drainage Control comments:** Crowning and ditching (both sides) shall be constructed on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.

**Road Drainage Control Structures (DCS) description:** No DCS's will be needed.

**Road Drainage Control Structures (DCS) attachment:**

### Access Additional Attachments

**Additional Attachment(s):**

### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES

**Attach Well map:**

3\_CHICKEN\_FRY\_FEDERAL\_COM\_275\_2\_1MileRadiusMap\_20181203105335.pdf

**Existing Wells description:**

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

**Submit or defer a Proposed Production Facilities plan?** SUBMIT

**Production Facilities description:** Proposed Central Tank Battery (CTB) is proposed on the north side of the proposed Chicken Fry Federal 275-2 well pad to allow for maximum interim reclamation of the well pad. - No permanent open top tanks will be used. - Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching,

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

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\_CHICKEN\_FRY\_FC\_24\_28\_22\_FACILITY\_20181116092351.pdf

## Section 5 - Location and Types of Water Supply

### Water Source Table

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

**Describe type:**

**Source latitude:** 32.21749

**Source datum:** NAD83

**Water source permit type:** PRIVATE CONTRACT

**Source land ownership:** PRIVATE

**Water source transport method:** PIPELINE

**Source transportation land ownership:** PRIVATE

**Water source volume (barrels):** 147500

**Source volume (gal):** 6195000

**Water source type:** GW WELL

**Source longitude:** -104.03986

**Source volume (acre-feet):** 19.011732

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

**Describe type:**

**Source latitude:** 32.219917

**Source datum:** NAD83

**Water source permit type:** PRIVATE CONTRACT, WATER WELL

**Source land ownership:** PRIVATE

**Water source transport method:** PIPELINE

**Source transportation land ownership:** PRIVATE

**Water source volume (barrels):** 147500

**Source volume (gal):** 6195000

**Water source type:** GW WELL

**Source longitude:** -104.083405

**Source volume (acre-feet):** 19.011732

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

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

**Water source type:** GW WELL

**Describe type:**

**Source longitude:** -104.0559

**Source latitude:** 32.218872

**Source datum:** NAD83

**Water source permit type:** PRIVATE CONTRACT

**Source land ownership:** PRIVATE

**Water source transport method:** PIPELINE

**Source transportation land ownership:** PRIVATE

**Water source volume (barrels):** 147500

**Source volume (acre-feet):** 19.011732

**Source volume (gal):** 6195000

**Water source and transportation map:**

12\_ChickenFryFedCom275\_2\_Caliche\_Ponds\_20180419094614.jpg

**Water source comments:** Water Source comments - One of the above choices will be utilized for the water supply for the proposed wells. Private ground water wells will supply water to existing fresh water ponds located in different locations that will be utilized for drilling operations pending demand and availability. The fresh water line will run parallel to the existing disturbance and will stay within 10' of the access road. Location and Types of Water Supply • All Fresh water will be obtained from a private water source. • The proposed (Diamond pond in section 14 T24S • The pond will be utilized for fresh water. • A temporary 10" expanding pipe transfer line will run West from pond along lease rd. then turn South along lease road, turn East along lease road, and turn North access road approx. 5.6 miles. Proposed water supplier Brantley

**New water well?** NO

**New Water Well Info**

**Well latitude:**

**Well Longitude:**

**Well datum:**

**Well target aquifer:**

**Est. depth to top of aquifer(ft):**

**Est thickness of aquifer:**

**Aquifer comments:**

**Aquifer documentation:**

**Well depth (ft):**

**Well casing type:**

**Well casing outside diameter (in.):**

**Well casing inside diameter (in.):**

**New water well casing?**

**Used casing source:**

**Drilling method:**

**Drill material:**

**Grout material:**

**Grout depth:**

**Casing length (ft.):**

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

**Well Production type:**

**Completion Method:**

**Water well additional information:**

**State appropriation permit:**

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**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 Lease holder Constructors Inc. Jack Yates (505-827-5750) . State caliche pit located in the NENE of S31 , T24S , R28E and NWNW OF S32 ,T24S , and R28E , Eddy County , NM. LAT 32. 180794 LONG -104.118006. • Source 2 - - Caliche will be used to construct well pad and roads. Material will be purchased from the private land owner Sterling Williams / Daniel Ingram (575-706-3169) caliche pit located in SENW of Sec 25 , T23S , R28E, Eddy County, NM. LAT 32.280335 LONG -104.042465. 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:**

12\_ChickenFryFedCom275\_2\_Caliche\_Ponds\_20180419115129.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:**

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

**Disposal type description:**

**Disposal location description:** All garbage will be collected by a third party and disposed of properly at a State approved disposal facility.

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**Waste type:** SEWAGE

**Waste content description:** Human waste and grey water.

**Amount of waste:** 600 barrels

**Waste disposal frequency :** Weekly

**Safe containment description:** Portable toilets and sewage tanks.

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** All sewage waste will be managed by a third party and disposed of properly at a State approved disposal facility.

**Waste type:** COMPLETIONS/STIMULATION

**Waste content description:** Oil and water from drilling operations

**Amount of waste:** 1000 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** 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.

### Reserve Pit

**Reserve Pit being used?** NO

**Temporary disposal of produced water into reserve pit?**

**Reserve pit length (ft.)**                      **Reserve pit width (ft.)**

**Reserve pit depth (ft.)**    **Reserve pit volume (cu. yd.)**

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

**Reserve pit liner**

**Reserve pit liner specifications and installation description**

### Cuttings Area

**Cuttings Area being used?** NO

**Are you storing cuttings on location?** YES

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**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:**

9\_CHICKEN\_FRY\_FEDERAL\_COM\_275\_2\_ProposedWellPadPlat\_20181116092409.pdf

**Comments:** Exterior well pad dimensions are 400' by 540'. Note this pad will have 3 total wells, see Well Pad Surface Plat. Interior well pad dimensions from first point of entry (well head) are: From west-290', north-220', east-250', south-180'. Tank battery pad is on the north for tanks and separation equipment. Total disturbance area needed for construction of well pad will be 4.95 acres. Topsoil will be places on the east (345' by 30') and west (352' by 30') sides of the pad to accommodate interim reclamation activities.

### Section 10 - Plans for Surface Reclamation

**Type of disturbance:** New Surface Disturbance

**Multiple Well Pad Name:** CHICKEN FRY FEDERAL COM

**Multiple Well Pad Number:** 275-2

**Recontouring attachment:**

9\_CHICKEN\_FRY\_FEDERAL\_COM\_275\_2\_PROP\_IR\_20181203105445.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's 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. The reclaimed areas will be will have a berm constructed against pad edge to prevent water erosion.

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

<b>Well pad proposed disturbance (acres):</b> 4.95	<b>Well pad interim reclamation (acres):</b> 2.41	<b>Well pad long term disturbance (acres):</b> 2.54
<b>Road proposed disturbance (acres):</b> 0.46	<b>Road interim reclamation (acres):</b> 0.21	<b>Road long term disturbance (acres):</b> 0.25
<b>Powerline proposed disturbance (acres):</b> 0	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 0
<b>Pipeline proposed disturbance (acres):</b> 0	<b>Pipeline interim reclamation (acres):</b> 0	<b>Pipeline long term disturbance (acres):</b> 0
<b>Other proposed disturbance (acres):</b> 0	<b>Other interim reclamation (acres):</b> 0	<b>Other long term disturbance (acres):</b> 0
<b>Total proposed disturbance:</b> 5.41	<b>Total interim reclamation:</b> 2.62	<b>Total long term disturbance:</b> 2.79

**Disturbance Comments:** IR - Well pad and ditch banks FR - all disturbances

**Reconstruction method:** Reclamation Objectives • The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities. • The BLM will be notified at least 3 days prior to commencement of any reclamation procedures. • If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed. Reclamation will be performed by using the following procedures: For Interim Reclamation: • Within 6 months of first production, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production. A plan will be submitted showing where interim reclamation will be completed in order to allow for safe operations, protection of the environment outside of drilled well, and following best management practices found in the BLM "Gold Book". • Current plans for interim reclamation include reducing the pad size to approximately 3.45 acres from the proposed size of 4.95 acres. • In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. • The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation. • Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM LPC seed mixture free of noxious weeds, will be used. • Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area. • The interim reclamation will be monitored periodically to ensure that vegetation has reestablished. For Final Reclamation: • Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment. • All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. • All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends in distinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. • After all the disturbed areas have been properly prepared; the areas will be seeded with the proper BLM LPC seed mixture free of noxious weeds. • Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

**Topsoil redistribution:** The topsoil will be evenly distributed across all reclaimed areas, ripped across the slopes, and seed accordingly. During final reclamation, Marathon will grab and evenly redistribute topsoil across the entire disturbed area (disc plowing if needed) area and seed accordingly.

**Soil treatment:** Topsoil will be stockpiled until interim reclamation. Topsoil and subsoil (fill) will be piled separately. The topsoil will be seeded after being spread across IR area.

**Existing Vegetation at the well pad:** Mesquite, shinnery oak, sand dropseed, and sage.

**Existing Vegetation at the well pad attachment:**

**Existing Vegetation Community at the road:** Mesquite, shinnery oak, sand dropseed, and sage.

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**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	
Seed Type	Pounds/Acre
OTHER	38

**Total pounds/Acre:** 38

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:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**First Name:**

**Last Name:**

**Phone:**

**Email:**

**Seedbed prep:** Rip native topsoil stockpiled during construction activities across the slope

**Seed BMP:**

**Seed method:** Broadcast seed with spreader

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** Marathon will control weeds per Federal, County and State regulations by contracting a certified third party.

**Weed treatment plan attachment:**

**Monitoring plan description:** Marathon will monitor all disturbed areas and lease roads leading to well pad monthly for weeds through routine inspections.

**Monitoring plan attachment:**

**Success standards:** Maintain all disturbed areas as per Gold Book Standards.

**Pit closure description:** N/A

**Pit closure attachment:**

## **Section 11 - Surface Ownership**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**Fee Owner:** Rustler Hills Limited Partnership

**Fee Owner Address:** 706 W. Riverside Drive Carlsbad, NM  
88220

**Phone:**

**Email:**

**Surface use plan certification:** YES

**Surface use plan certification document:**

Chicken\_Fry\_Federal\_Com\_24\_28\_22\_WA\_15H\_WD\_16H\_WXY\_12H\_Land\_Surface\_Owner\_Letter\_201804  
8.pdf

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** Marathon Oil has entered into negotiations for a Surface Use, Easement, and Damage Agreement with the above listed surface owner. Surface owner phone number can be made available upon request, for privacy reasons it has not been listed above.

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

**Disturbance type:** NEW ACCESS ROAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**Fee Owner:** Rustler Hills Limited Partnership

**Fee Owner Address:** 706 W. Riverside Drive Carlsbad, NM  
88220

**Phone:**

**Email:**

**Surface use plan certification:** YES

**Surface use plan certification document:**

Chicken\_Fry\_Federal\_Com\_24\_28\_22\_WA\_15H\_WD\_16H\_WXY\_12H\_Land\_Surface\_Owner\_Letter\_201804  
9.pdf

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** Marathon Oil has entered into negotiations for a Surface Use, Easement, and Damage Agreement with the above listed surface owner. Surface owner phone number can be made available upon request, for privacy reasons it has not been listed above.

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

**Disturbance type:** EXISTING ACCESS ROAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Operator Name:** MARATHON OIL PERMIAN LLC

**Well Name:** CHICKEN FRY F C 24 28 22 WXY

**Well Number:** 12H

**Fee Owner:** Rustler Hills Limited Partnership

**Fee Owner Address:** 706 W. Riverside Drive Carlsbad, NM  
88220

**Phone:**

**Email:**

**Surface use plan certification:** YES

**Surface use plan certification document:**

Chicken\_Fry\_Federal\_Com\_24\_28\_22\_WA\_15H\_\_WD\_16H\_\_WXY\_12H\_\_Land\_Surface\_Owner\_Letter\_201804  
4.pdf

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** Marathon Oil has entered into negotiations for a surface use, easement, and damage agreement with the above listed surface owner. Surface owner phone number can be made available upon request, for privacy reasons it has not been listed above.

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

## Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

### ROW Applications

**SUPO Additional Information:** Falls inside medium karst potential. Intermittent creek bed to the northeast corner and intermittent pond 1 mile to the south.

**Use a previously conducted onsite?** YES

**Previous Onsite information:** Performed 1/8/18. Marathon Oil Attendees: Nancy Pohl BLM Attendee: Colleen Cepero-Rios

### Other SUPO Attachment

12\_ChickenFryFedCom275\_2\_Karst\_20180419125000.jpg

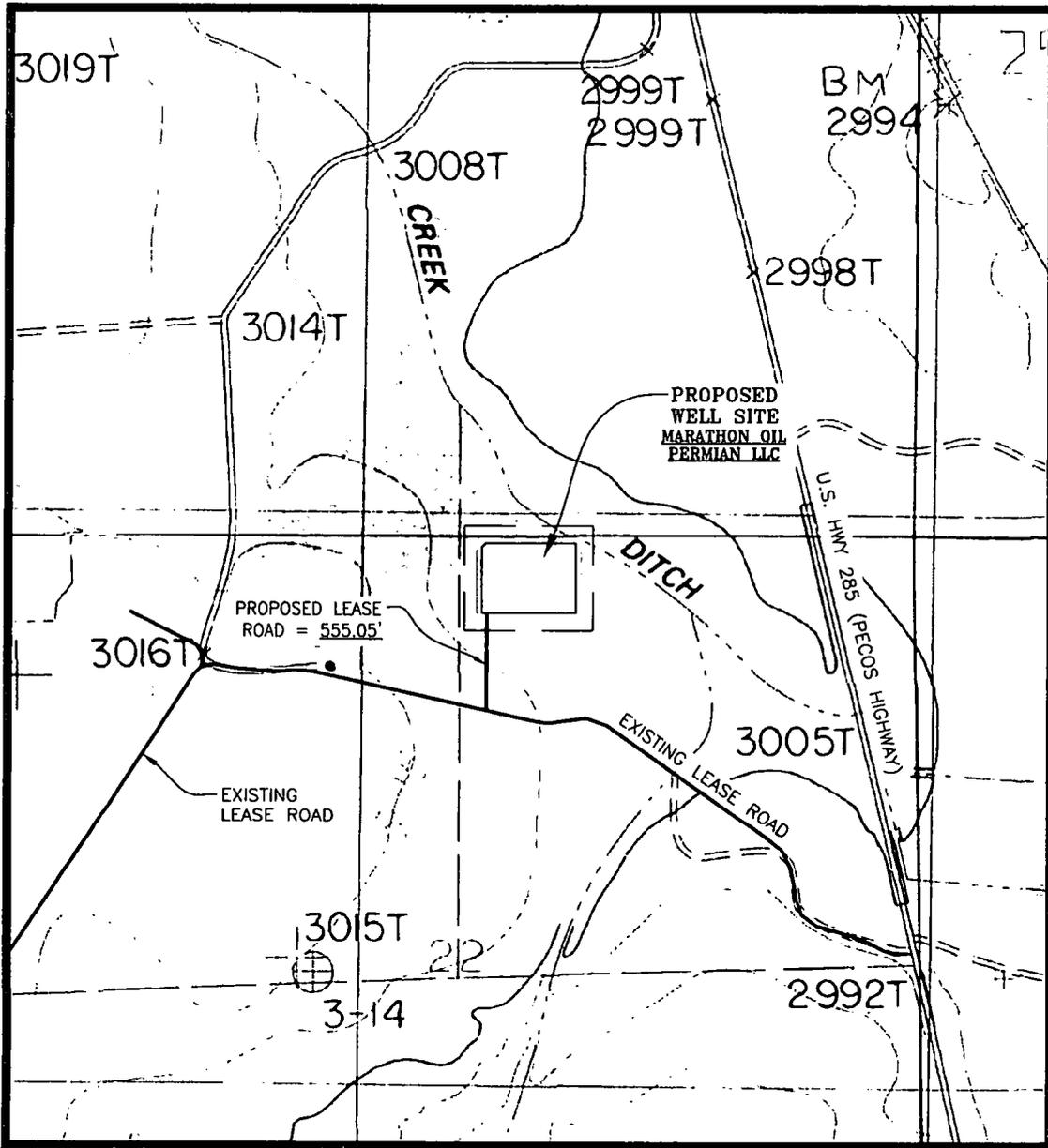
12\_ChickenFryFedCom275\_2\_Surface\_Mineral\_20180419125003.jpg

Chicken\_Fry\_Fed\_Com\_24\_28\_22\_Hydrology\_20180423055545.jpg

Chicken\_Fry\_Fed\_Com\_24\_28\_22\_LeaseMap\_20180423063706.jpg

# VICINITY AND EXISTING ROADS MAP

CHICKEN FRY FC 24 28 22  
SEC. 22 TWP. 24-S RGE. 28-E  
SURVEY: N.M.P.M.  
COUNTY: EDDY  
OPERATOR: MARATHON OIL PERMIAN LLC  
U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



4 | 11/12/2018 | ANC

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. R3781\_007

EXHIBIT "A"

NM-LE-0001.00060  
EDDY COUNTY, NM  
CHICKEN FRY FC 24 28 22  
PROPOSED LEASE ROAD EASEMENT  
MARATHON OIL PERMIAN LLC

SHEET 1 OF 3

FIELD NOTES DESCRIBING

*The centerline of a 30 foot wide proposed lease road easement, being 0.46 acres of land. Said easement being located in Section 22, Township 24 South, Range 28 East, New Mexico Principal Meridian, Eddy County, New Mexico.*

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

*BEGINNING* at a point from which a 1 inch pipe with a GLO cap found for the West quarter corner of said Section 22, bears S 52°03'38" W a distance of 3,570.50 feet.

*THENCE* continue crossing said Section 22 the following course and distance:

S 00°00'00" E a distance of 555.05 feet to the *POINT OF TERMINATION* from which a 2 inch pipe in a rock mound found for the Southeast corner of said Section 22, bears S 30°54'12" E a distance of 5,032.00 feet.

The total length of the proposed easement in said Section 22 shall be 555.05 feet (33.64 rods), and shall contain 0.46 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 EDDY

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, PS No. 21653 DATE: NOVEMBER 12, 2018

A handwritten signature in cursive script that reads "Lloyd P. Short".

R-SQUARED GLOBAL, LLC  
PROJECT NO. R3781\_007

Modification in any way of the foregoing description terminates liability of Surveyor.

EXHIBIT "A"  
 EDDY COUNTY, NEW MEXICO  
 SECTION 22, T-24-S, R-28-E, N.M.P.M.  
 CHICKEN FRY FC 24 28 22  
 PROPOSED LEASE ROAD EASEMENT  
 CERTIFICATE OF SURVEY TO ACCOMPANY  
 LEGAL DESCRIPTION FOR EASEMENT

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

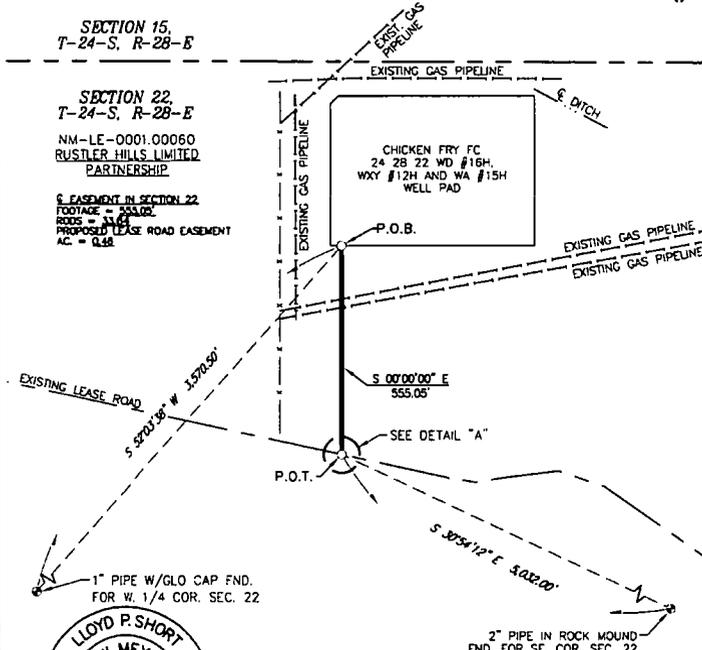


SECTION 15,  
 T-24-S, R-28-E

SECTION 22,  
 T-24-S, R-28-E

NM-LE-0001.00060  
 RUSTLER HILLS LIMITED  
 PARTNERSHIP

EASEMENT IN SECTION 22  
 FOOTAGE = 255.00'  
 ROAD = 154.4'  
 PROPOSED LEASE ROAD EASEMENT  
 AC. = 0.48



1" PIPE W/GLO CAP FND.  
 FOR W. 1/4 COR. SEC. 22

2" PIPE IN ROCK MOUND  
 FND. FOR SE. COR. SEC. 22



LLOYD P. SHORT, PS No. 21653 DATE: NOVEMBER 12, 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 SHALL BE 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
	EXISTING ROAD
	LOT LINE
	EASEMENT
	SECTION LINE
	EXIST. PIPELINE
	POWER POLE
	MONUMENT
	QUARTER SPLIT
	EDGE OF EASEMENT FENCE
	OVERHEAD POWER

**Marathon Oil**  
 Permian LLC

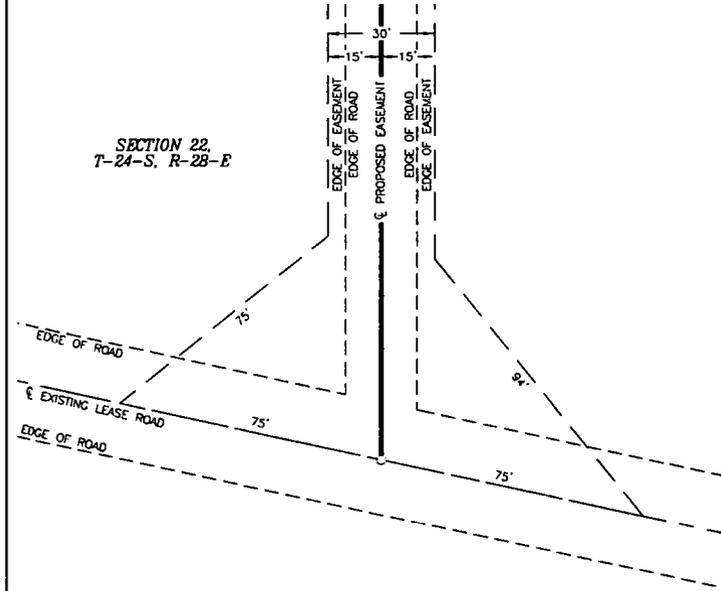
PLAT FOR A PROPOSED LEASE ROAD EASEMENT  
 CROSSING THE PROPERTY OF  
**RUSTLER HILLS LIMITED PARTNERSHIP**  
 EDDY COUNTY, NEW MEXICO

1309 LOUISVILLE AVE.  
 MONROE, LA 71201

(318) 323-6900  
 FAX (318) 362-0064

SHEET 2 OF 3		JOB NO.: R3781_007	
DRAWN BY: CAP		DWG. NO.	
DATE: 03/16/2018		R3781_007-NM-LE-0001.00060	
REV.	DATE	DESCRIPTION	BY
1	11/09/18	NAME CHANGE	JCS MVS
			CHKD

EXHIBIT "A"  
 EDDY COUNTY, NEW MEXICO  
 SECTION 22, T-24-S, R-28-E, N.M.P.M.  
 CHICKEN FRY FC 24 28 22  
 PROPOSED LEASE ROAD EASEMENT  
 CERTIFICATE OF SURVEY TO ACCOMPANY  
 LEGAL DESCRIPTION FOR EASEMENT



SECTION 22,  
 T-24-S, R-28-E



DETAIL "A"  
 N.T.S.

LLOYD P. SHORT, PS No. 21653 DATE: NOVEMBER 12, 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 SHALL BE 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.B.	P.T.
		POINT OF BEGINNING	POINT OF TERMINATION
---	EXISTING ROAD	---	---
---	LOT LINE	---	---
---	EASEMENT	---	---
---	EXIST. PIPELINE	---	---
---	OVERHEAD POWER	---	---
⊙	MONUMENT	⊙	QUARTER SPLIT
⊙	POWER POLE		

**MarathonOil**  
 Permian LLC

PLAT FOR A PROPOSED LEASE ROAD EASEMENT  
 CROSSING THE PROPERTY OF  
**RUSTLER HILLS LIMITED PARTNERSHIP**  
 EDDY COUNTY, NEW MEXICO

1309 LOUISVILLE AVE.  
 MONROE, LA 71201



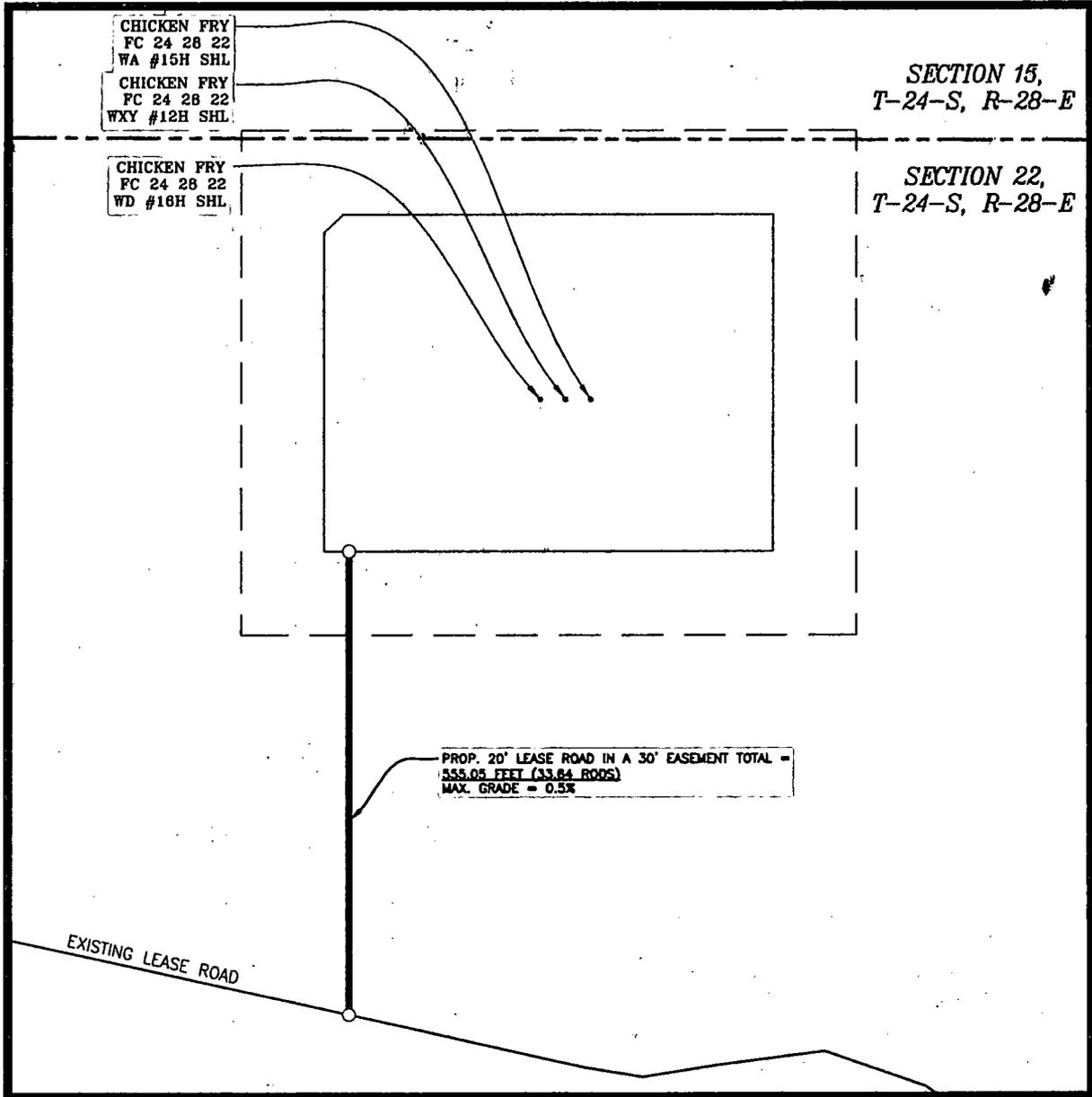
(318) 323-6900  
 FAX (318) 362-0064

SHEET 3 OF 3		JOB NO.: R3781_007	
DRAWN BY: CAP		DWG. NO.	
DATE: 03/16/2018		R3781_007-NM-LE-0001.00060	
REV.	DATE	DESCRIPTION	BY
1	11/09/18	NAME CHANGE	JCS MVS
			CHKD

# NEW OR RECONSTRUCTED ACCESS ROADS

CHICKEN FRY FC 24 28 22  
 SEC. 22 TWP. 24-S RGE. 28-E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY

OPERATOR: MARATHON OIL PERMIAN LLC  
 U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



4 | 11/12/2018 | ANC

SCALE: 1" = 200'

## LEGEND

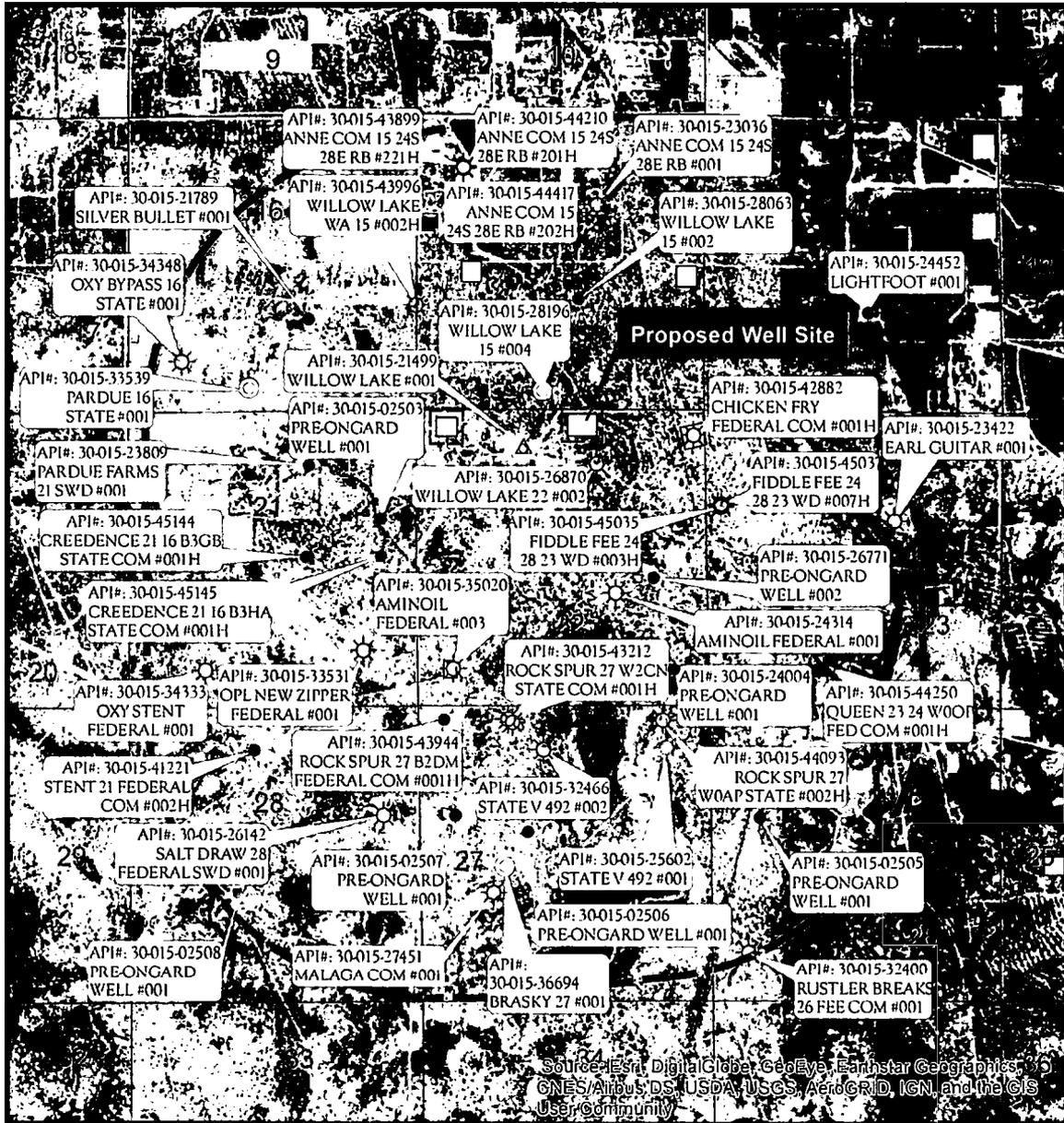
- PROPOSED WELL PAD —————
- ARCH SURVEY LIMITS - - - - -
- EXISTING LEASE ROAD —————
- PROPOSED LEASE ROAD —————
- SECTION LINE - - - - -
- PI/BEND ○
- WELLS •

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-8900 OFFICE  
 JOB No. R3781\_007

# ONE-MILE RADIUS MAP

CHICKEN FRY FC 24 28 22  
 SEC. 22 TWP. 24-S RGE. 28-E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY

OPERATOR: MARATHON OIL PERMIAN LLC  
 U.S.G.S. TOPOGRAPHIC MAP: MALAGA, NM.



REV 4 BMT 11/12/2018

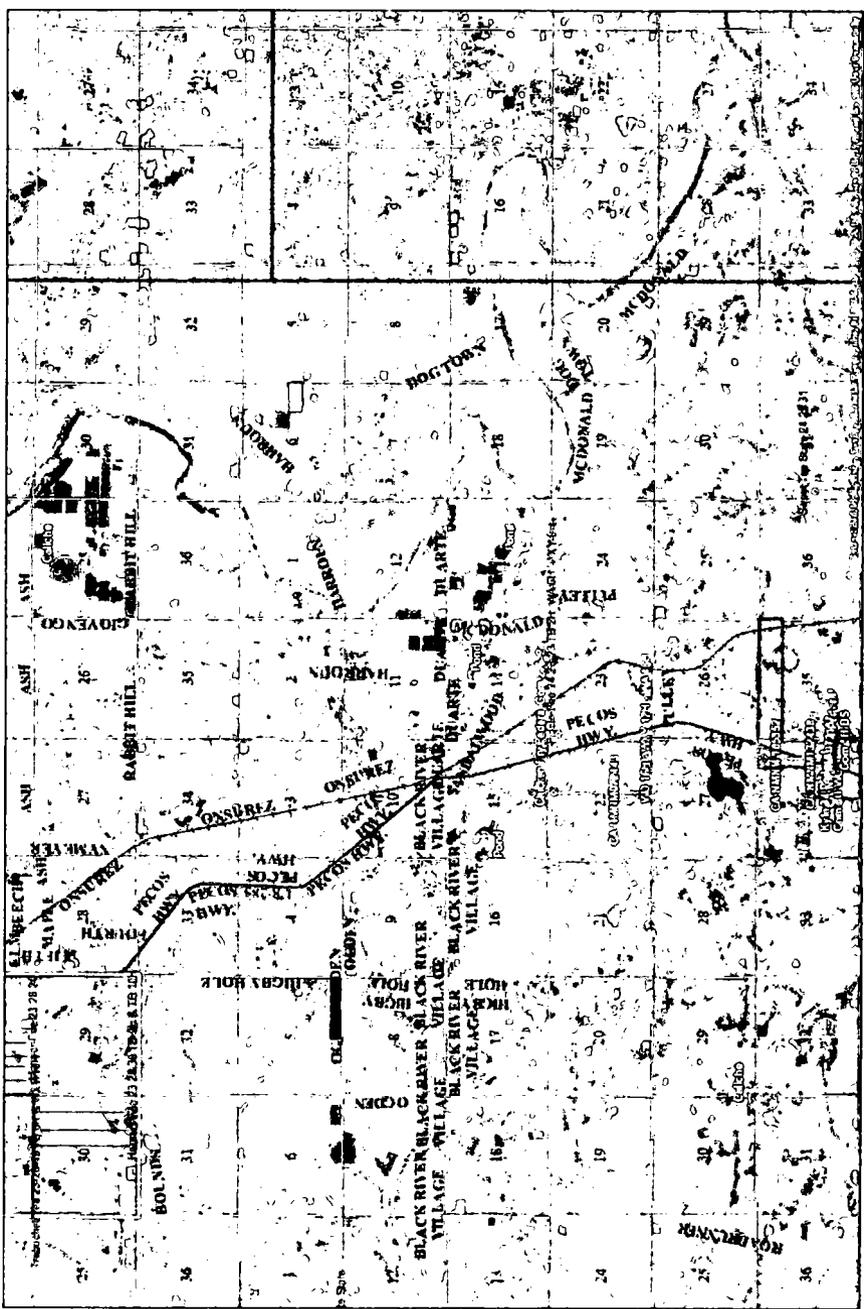
1" = 3,000'

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



SHEET 2 OF 6  
 PREPARED BY:  
 RSQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-6900 OFFICE  
 JOB No. R3781\_007



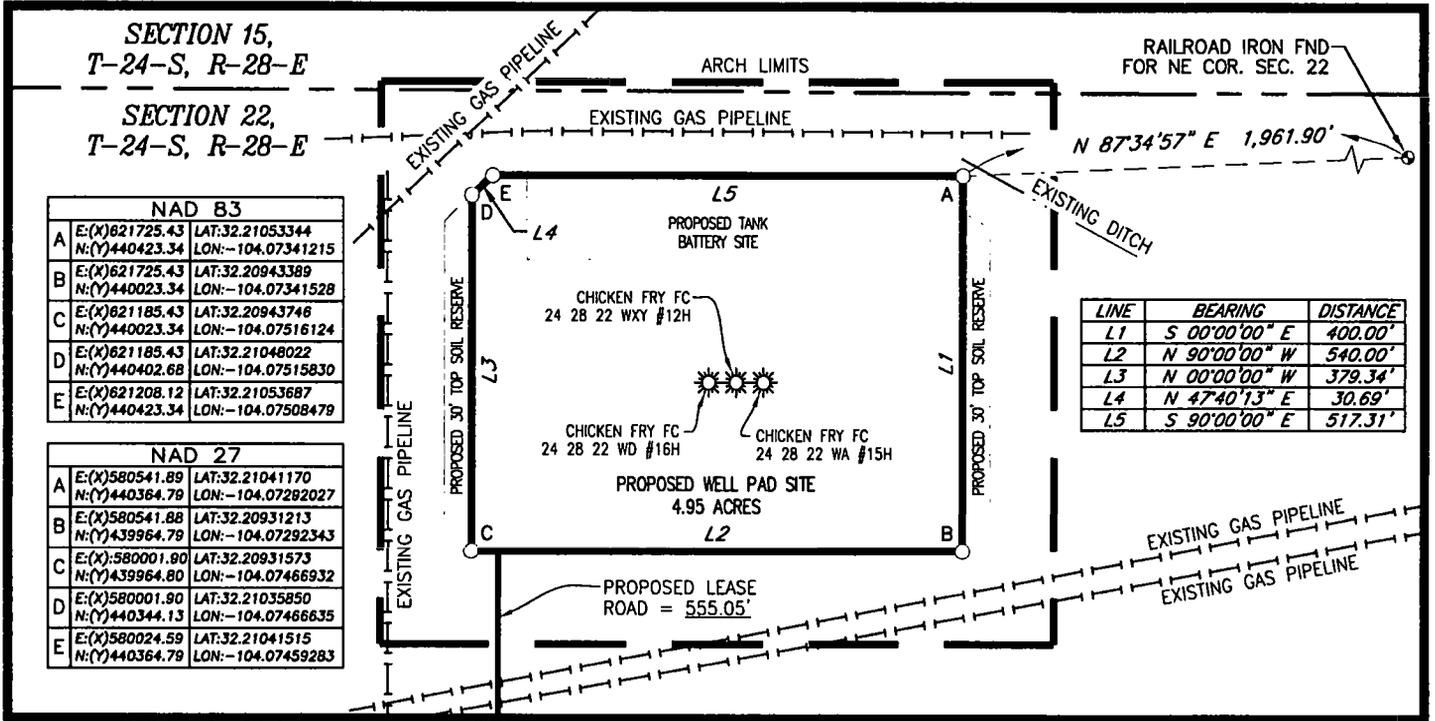
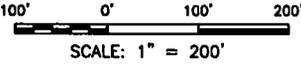




# WELL PAD PLAT

CHICKEN FRY FC 24 28 22  
 SEC. 22 TWP. 24-S RGE. 28-E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY

OPERATOR: MARATHON OIL PERMIAN LLC  
 U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



## FIELD NOTES DESCRIBING

A tract of land being 4.95 acres. Said tract being located in Section 22, Township 24 South, Range 28 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described by notes and bounds as follows:

**BEGINNING** at a point from which a railroad iron found for the Northeast corner of said Section 22 bears N 87°34'57" E a distance of 1,961.90 feet.

**THENCE**  
 S 00°00'00" E a distance of 400.00 feet to the Southeast corner of this tract.  
 N 90°00'00" W a distance of 540.00 feet to the Southwest corner of this tract.  
 N 00°00'00" W a distance of 379.34 feet, N 47°40'13" E a distance of 30.69 feet and  
 S 00°00'00" E a distance of 517.31 feet to the **POINT OF BEGINNING**.

The total area of the herein described tract contains 4.95 acres 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 EDDY

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, PS No. 21653 DATE: NOVEMBER 13, 2018

*Lloyd P. Short*

**Marathon Oil**  
 Permian LLC

PLAT FOR A SURFACE SITE ON THE PROPERTY OF  
 RUSTLER HILLS LIMITED PARTNERSHIP  
 EDDY COUNTY, NEW MEXICO

**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.)

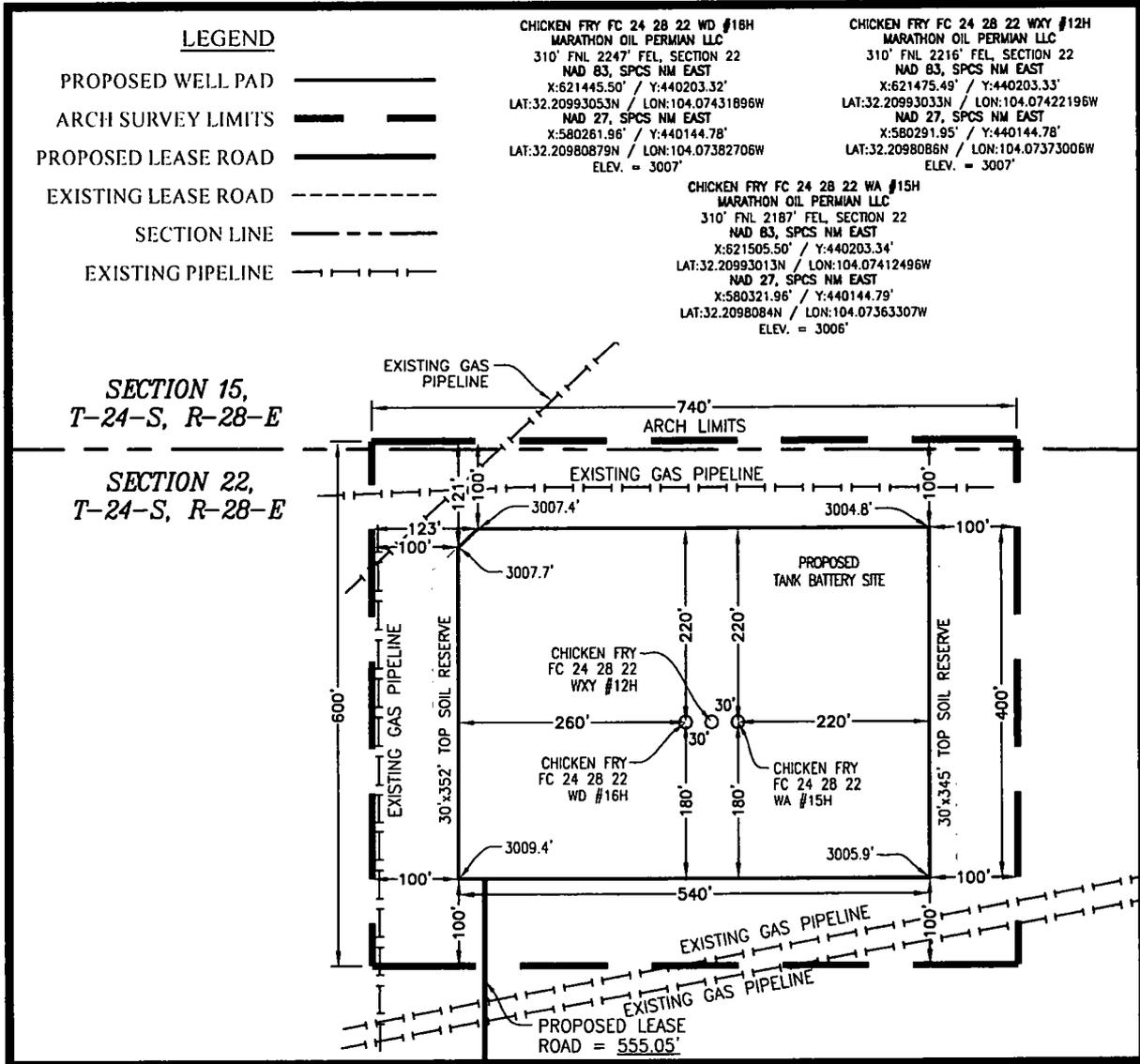
LEGEND	P.O.B. POINT OF BEGINNING	R3781_007
--- EXISTING ROAD	--- x --- x ---	ARC LIMITS
--- PROPOSED ROAD	---	FENCE
--- SURFACE SITE EDGE	---	SECTION LINE
--- EXIST. PIPELINE	---	SALT WATER DISPOSAL
● MONUMENT	● QUARTER SPLIT	WATER LINE

REV.	DATE	DESCRIPTION	BY	CHKD
4	11/12/2018	WELL NAME CHANGE	JCS	MWS
SHEET 3 OF 6		1309 LOUISVILLE AVE. MONROE, LA 71201 (318) 323-6900 FAX (318) 362-0064		
DRAWN BY: JCS				
DATE: 03/14/2018				
CHECKED BY: MWS				

# WELL LOCATION PLAT

CHICKEN FRY FC 24 28 22  
 SEC. 22 TWP. 24-S RGE. 28-E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY

OPERATOR: MARATHON OIL PERMIAN LLC  
 U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



4 | 11/12/2018 | ANC

### DIRECTIONS TO LOCATION:

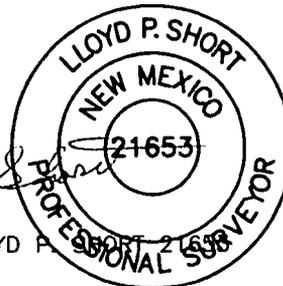
FROM THE MARATHON OFFICE AT 411 TOWELL CARLSBAD, NM, HEAD SOUTH ON TOWELL RD TOWARD US HWY 285 N. FOR 0.2 MILES, TURN LEFT ONTO US HWY 285 S, HEADING SOUTH, FOR 13.8 MILES TO A CALICHE ROAD, TURN RIGHT ONTO CALICHE ROAD, HEADING WEST, FOR 0.6 MILES TO THE PROPOSED EAST BRANCH OF CHICKEN FRY FC 24 28 22 WXY #12H, TURN RIGHT ONTO SAID PROPOSED LEASE ROAD, HEADING NORTH, FOR 555 FEET, ENTERING THE SOUTH-WEST CORNER OF SAID WELL LOCATION PAD.

### NOTE:

THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS FROM STAFF OF NEW MEXICO OIL CONSERVATION DIVISION FORM OC-100 INCLUDED IN THIS SURVEY MAP.

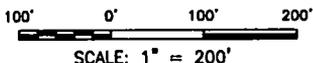
NOVEMBER 13, 2018

*Lloyd P. Short*



LLOYD P. SHORT

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1308 LOUISVILLE AVENUE, MONROE, LA 71201  
 918-923-6900 OFFICE  
 JOB No. R3761\_007





**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:

<u>Species</u>	<u>lb/acre</u>
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

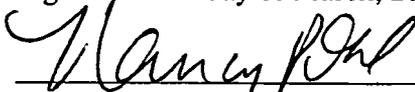
Branex Resources, Inc.  
P. O. Box 2990  
Ruidoso, NM 88355-2990

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 7<sup>th</sup> 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 Well Pad; Section 18, T24S, R35E, Lea County, New Mexico.

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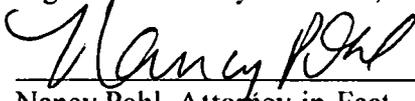
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Richardson Mineral and Royalty, LLC  
P. O. Box 2423  
Roswell, NM 88202-2423

Signed this 7<sup>th</sup> 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 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

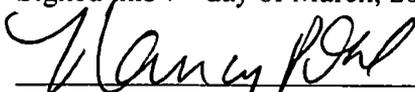
Branex Resources, Inc.  
P. O. Box 2990  
Ruidoso, NM 88355-2990

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 7<sup>th</sup> day of March, 2018.

  
\_\_\_\_\_  
Nancy Pohl, Attorney-in-Fact

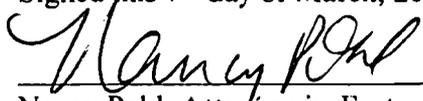
SELF-CERTIFICATION STATEMENT  
FROM LESSEE/OPERATOR  
SURFACE OWNER IDENTIFICATION

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 7<sup>th</sup> day of March, 2018.

  
\_\_\_\_\_  
Nancy Pohl, Attorney-in-Fact

Halberd Federal Wells  
Section 18, T24S-R35E  
Surface Owner  
List of Addresses

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  
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P. O. Box 2588  
Roswell, NM 88202-2588

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

## ONSITE Review Checklist

Onsite Inspection - Environmental									
Oil & Gas Operator: Marathon Oil Permian LLC				Field:					
Case #		Well Name/		Halberd Federal 24 35 18		API #			
Lease # NMNM		Number							
Twn: 24		35		34		County: Lea			
Sec: 18		Qtr:		State: NM		Total Depth:			
N/S Foot		E/W Foot:		Lat/Long		Formation(s):			
<b>REPRESENTATIVES PRESENT</b>									
Company:		Nancy Pohl			Contractor:		Harvey Waller		
BLM:		Colleen			Other:				
Surface Owner:		Madison Hinkle, et al		<input type="checkbox"/> PRESENTC <input checked="" type="checkbox"/> NOT PRESENT		Location Agreement <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Name:		BLM			Phone:				
Address:									
Other Surface Owners Involved in Access				<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Name:		Pitchfork Cattle Company	
<b>ACCESS ROAD</b>									
Existing Access:		No		Miles:		New Construction:		Yes	
								Miles: 644' on lease; ~9800' off lease	
<input checked="" type="checkbox"/> RETAIN FOR LAND OWNER <input type="checkbox"/> 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		<input type="checkbox"/> RETAIN <input type="checkbox"/> ABANDON			
Water Bars-Number/Location--				0		<input type="checkbox"/> RETAIN <input type="checkbox"/> ABANDON			
Gates-Number/Location--				0		<input type="checkbox"/> RETAIN <input type="checkbox"/> ABANDON			
Cattleguards-Number/Location--				0		<input type="checkbox"/> RETAIN <input type="checkbox"/> ABANDON			
<b>WELL SITE</b>									
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		<input type="checkbox"/> YES <input type="checkbox"/> NO			
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO									
Location/Spacing		30'							
Available Area for Frac. Equipment				Reserve Pit Lined					
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Closed Loop					

## ONSITE Review Checklist

Production Facilities <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Flowlines-- <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Length: _____ Depth: _____	Power Lines    Length: _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO    #Poles: _____
Special Requirements/TOPO Features: _____			
<b>RESOURCES</b>			
T&E Clearance Needed? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Archeological Inventory Needed Mitigation-- <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Present Use: <input checked="" type="checkbox"/> Grazing <input type="checkbox"/> Cropland <input checked="" type="checkbox"/> Oil Field Development <input type="checkbox"/> Other	
Floodplains/Wetlands-- <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Streams/Ponds-- <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Water Source-- _____ Authorization-- _____ Water Source-- <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO    Location: _____	
Nearest Residence: _____		Nearest Drainage: _____ Ephemeral <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO    Perennial <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Soil Type/Ecological Site -	Sandy		
Erosion Concerns -	Need to berm pad to prevent on-flow or off-flow		
Native Vegetation Present -	Sandy soil vegetation types		
Invasive Species Present -	Need plan to prevent invasive species being tracked in.		
Wildlife Present -	Outside LPC habitat		
<b>ALTERNATIVES CONSIDERED</b>			
<b>MITIGATION/BMP(s)</b>			
<b>RECLAMATION</b>			
Seed Mix		IR--Pad Size	See plat
Species	Broadcast Rate (lbs/acre)	Interim Reclamation Requirements--	
BLM #2	8#/acre		
Reclamation Plan Discussed	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Other/Special Conditions	

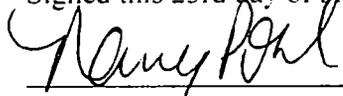
SELF-CERTIFICATION STATEMENT  
FROM LESSEE/OPERATOR  
SURFACE OWNER IDENTIFICATION

Well Number and Locations: Chicken Fry Federal Com 24 28 22 WD 16H, Chicken Fry Federal Com 24 28 22 WXY 12H, Chicken Fry Federal Com 24 28 22 WA 15H

I hereby certify to the Authorized Officer of the Bureau of Land Management that Operator has entered into negotiations for a Surface Use, Easement, and Damage Agreement with the following surface owners. The Operator and surface owner are finalizing this agreement as of this date.

Rustler Hills Limited Partnership  
706 W. Riverside Drive  
Carlsbad, NM 88220

Signed this 23rd day of April, 2018.

  
\_\_\_\_\_  
Nancy Pohl, Attorney-in-Fact

BDH

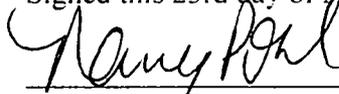
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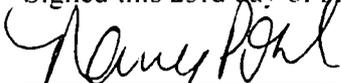
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**Section 1 - General**

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

**Section 2 - Lined Pits**

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

### **Section 3 - Unlined Pits**

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

### **Section 4 - Injection**

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

**Injection well type:**

**Injection well number:**

**Assigned injection well API number?**

**Injection well new surface disturbance (acres):**

**Minerals protection information:**

**Mineral protection attachment:**

**Underground Injection Control (UIC) Permit?**

**UIC Permit attachment:**

**Injection well name:**

**Injection well API number:**

### **Section 5 - Surface Discharge**

**Would you like to utilize Surface Discharge PWD options? NO**

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Surface discharge PWD discharge volume (bbl/day):**

**Surface Discharge NPDES Permit?**

**Surface Discharge NPDES Permit attachment:**

**Surface Discharge site facilities information:**

**Surface discharge site facilities map:**

### **Section 6 - Other**

**Would you like to utilize Other PWD options? NO**

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Other PWD discharge volume (bbl/day):**

**Other PWD type description:**

**Other PWD type attachment:**

**Have other regulatory requirements been met?**

**Other regulatory requirements attachment:**



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

**Bond 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:**