

**OCD - HOBBS**  
**11/01/2018**  
**RECEIVED**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM015091
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator BTA OIL PRODUCERS LLC [260297]		8. Lease Name and Well No. ROJO 7811 22 FEDERAL COM 15H [322775]
3a. Address 104 S. Pecos Midland TX 79701	3b. Phone No. (include area code) (432)682-3753	9. API Well No. 30-025-45333
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE / 220 FSL / 1280 FEL / LAT 32.109386 / LONG -103.555792 At proposed prod. zone NENE / 50 FNL / 990 FEL / LAT 32.123158 / LONG -103.554861		10. Field and Pool, or Exploratory BOBCAT DRAW / UPPER WOLFCAMP
11. Sec., T, R, M, or Blk. and Survey or Area SEC 22 / T25S / R33E / NMP		
14. Distance in miles and direction from nearest town or post office* 21 miles	12. County or Parish LEA	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 50 feet	16. No of acres in lease 840	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1240 feet	19. Proposed Depth 12407 feet / 17373 feet	20. BLM/BIA Bond No. in file FED: NMB000849
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3345 feet	22. Approximate date work will start* 05/01/2018	23. Estimated duration 45 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)

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1. Well plat certified by a registered surveyor.</li> <li>2. A Drilling Plan.</li> <li>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).</li> </ul> | <ul style="list-style-type: none"> <li>4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).</li> <li>5. Operator certification.</li> <li>6. Such other site specific information and/or plans as may be requested by the BLM.</li> </ul> |
|---|---|

25. Signature (Electronic Submission)	Name (Printed/Typed) Katy Reddell / Ph: (432)682-3753	Date 02/01/2018
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 10/18/2018
Title Assistant Field Manager Lands & Minerals CARLSBAD		

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

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

**GCP Rec 11/01/2018**

**APPROVED WITH CONDITIONS**

Approval Date: 10/18/2018

**Kz**  
**11/07/2018**



<b>APD ID:</b> 10400026835	<b>Submission Date:</b> 02/01/2018	<b>Highlighted data reflects the most recent changes</b> <a href="#">Show Final Text</a>
<b>Operator Name:</b> BTA OIL PRODUCERS LLC		
<b>Well Name:</b> ROJO 7811 22 FEDERAL COM	<b>Well Number:</b> 15H	
<b>Well Type:</b> OIL WELL	<b>Well Work Type:</b> Drill	

### Section 1 - Existing Roads

**Will existing roads be used?** YES

**Existing Road Map:**

1056\_Rojo\_7811\_22\_Fed\_Com\_\_15H\_Vicinity\_Map\_20180201184110.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:**

1056\_Rojo\_7811\_22\_Fed\_Com\_\_15H\_Topographical\_\_Access\_Rd\_20180201184127.pdf

**New road type:** RESOURCE

**Length:** 472 Feet **Width (ft.):** 25

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

**Army Corp of Engineers (ACOE) permit required?** NO

**ACOE Permit Number(s):**

**New road travel width:** 15

**New road access erosion control:** Road construction requirements and regular maintenance would alleviate potential impacts to the access road from water erosion damage.

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

**New road access plan attachment:**

**Access road engineering design?** NO

**Access road engineering design attachment:**

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

**Access surfacing type:** OTHER

**Access topsoil source:** BOTH

**Access surfacing type description:** Native Caliche

**Access onsite topsoil source depth:** 6

**Offsite topsoil source description:** Material will be obtained from the closest existing caliche pit as designated by the BLM.

**Onsite topsoil removal process:** The top 6 inches of topsoil is pushed off and stockpiled along the side of the location. An approximate 160' X 160' area is used within the proposed well site to remove caliche. Subsoil is removed and stockpiled within the pad site to build the location and road. Then subsoil is pushed back in the hole and caliche is spread accordingly across proposed access road.

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

### **Drainage Control**

**New road drainage crossing:** OTHER

**Drainage Control comments:** Proposed access road will be crowned and ditched and constructed of 6 inch rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, maintain good drainage, and to be consistent with local drainage patterns.

**Road Drainage Control Structures (DCS) description:** Any ditches will be at 3:1 slope and 3 feet wide.

**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:**

Rojo\_7811\_22\_Fed\_Com\_\_15H\_\_1mi\_Radius\_Map\_20180201184331.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:** If well is productive, we will use the existing well pad for the tank battery and all necessary production facilities.

**Production Facilities map:**

Production\_Facility\_Layout\_20180131163053.pdf

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

## Section 5 - Location and Types of Water Supply

### Water Source Table

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

**Water source type:** OTHER

**Describe type:**

**Source longitude:** -103.652695

**Source latitude:** 32.06315

**Source datum:** NAD27

**Water source permit type:** PRIVATE CONTRACT

**Source land ownership:** PRIVATE

**Water source transport method:** TRUCKING

**Source transportation land ownership:** PRIVATE

**Water source volume (barrels):** 100000

**Source volume (acre-feet):** 12.88931

**Source volume (gal):** 4200000

**Water source and transportation map:**

Rojo\_7811\_22\_Federal\_Com\_\_\_WATER\_TRANSPORTATION\_MAP.pdf\_20180201184448.pdf

**Water source comments:**

**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:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

**Additional information attachment:**

## **Section 6 - Construction Materials**

**Construction Materials description:** Caliche used for construction of the drilling pad and access road will be obtained from the closest existing caliche pit as approved by the BLM or from prevailing deposits found under the location. If there is not sufficient material available, caliche will be purchased from the nearest caliche pit located in Section 23 T25S R33E Lea County, NM. Alternative location if original location closes will be located in Sec 3 T26S R33E Lea County, NM.

**Construction Materials source location attachment:**

## **Section 7 - Methods for Handling Waste**

**Waste type:** GARBAGE

**Waste content description:** Trash

**Amount of waste:** 500 pounds

**Waste disposal frequency :** One Time Only

**Safe containment description:** Trash produced during drilling and completion operations will be collected in a trash container and disposed of properly.

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** Trucked to an approved disposal facility.

**Waste type:** DRILLING

**Waste content description:** Drilling fluids and cuttings.

**Amount of waste:** 4164 barrels

**Waste disposal frequency :** One Time Only

**Safe containment description:** All drilling fluids will be stored safely and disposed of properly.

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** Trucked to an approved disposal facility.

**Waste type:** SEWAGE

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

**Amount of waste:** 1000 gallons

**Waste disposal frequency :** One Time Only

**Safe containment description:** Waste material will be stored safely and disposed of properly.

**Safe containmant attachment:**

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

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

**Disposal type description:**

**Disposal location description:** Trucked to an 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?** NO

**Description of cuttings location**

**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:** It is possible that a mobile home will be used at the well site during drilling operations.

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

## Section 9 - Well Site Layout

### Well Site Layout Diagram:

Rojo\_7811\_22\_Fed\_Com\_\_15H\_Well\_Site\_Plan\_20180201185157.pdf

### Comments:

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** New Surface Disturbance

**Multiple Well Pad Name:** ROJO 7811 22 FEDERAL COM

**Multiple Well Pad Number:** 14 - 17

### Recontouring attachment:

**Drainage/Erosion control construction:** During construction proper erosion control methods will be used to control erosion, runoff, and siltation of the surrounding area.

**Drainage/Erosion control reclamation:** Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

<b>Well pad proposed disturbance (acres):</b> 0	<b>Well pad interim reclamation (acres):</b> 4.49	<b>Well pad long term disturbance (acres):</b> 4.49
<b>Road proposed disturbance (acres):</b> 0	<b>Road interim reclamation (acres):</b> 0.26	<b>Road long term disturbance (acres):</b> 0.16
<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> 0	<b>Total interim reclamation:</b> 4.75	<b>Total long term disturbance:</b> 4.65

### Disturbance Comments:

**Reconstruction method:** 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 redistribution:** Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations.

**Soil treatment:** To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

**Existing Vegetation at the well pad:** The historic climax plant community is a grassland dominated by black grama, dropseeds, and blue stems with sand sage and shinnery oak distributed evenly throughout. Current landscape displays mesquite, shinnery oak, yucca, desert sage, fourwing saltbush, snakeweed, and bunch grasses.

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

**Existing Vegetation Community at the road:** Refer to "Existing Vegetation at the well pad"

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

**Existing Vegetation Community at the road attachment:**

**Existing Vegetation Community at the pipeline:** Refer to "Existing Vegetation at the well pad"

**Existing Vegetation Community at the pipeline attachment:**

**Existing Vegetation Community at other disturbances:** Refer to "Existing Vegetation at the well pad"

**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:**

**Seed source:**

**Seed name:**

**Source name:**

**Source address:**

**Source phone:**

**Seed cultivar:**

**Seed use location:**

**PLS pounds per acre:**

**Proposed seeding season:**

### Seed Summary

**Total pounds/Acre:**

**Seed Type**

**Pounds/Acre**

**Seed reclamation attachment:**

### Operator Contact/Responsible Official Contact Info

**First Name:**

**Last Name:**

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

**Phone:**

**Email:**

**Seedbed prep:**

**Seed BMP:**

**Seed method:**

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** No invasive species present. Standard regular maintenance to maintain a clear location and road.

**Weed treatment plan attachment:**

**Monitoring plan description:** Identify areas supporting weeds prior to construction; prevent the introduction and spread of weeds from construction equipment during construction; and contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas. No invasive species present. Standard regular maintenance to maintain a clear location and road.

**Monitoring plan attachment:**

**Success standards:** To 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:** BUREAU OF LAND MANAGEMENT, 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:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

**Fee Owner:** Harvey Williams

**Fee Owner Address:** PO Box 3157 San Angelo, TX 76902

**Phone:** (325)653-8211

**Email:**

**Surface use plan certification:** NO

**Surface use plan certification document:**

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** BTA will have a surface use agreement in place, before operations begin.

**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:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

## Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

### ROW Applications

**SUPO Additional Information:**

**Use a previously conducted onsite?** YES

**Previous Onsite information:** Onsite was conducted Wednesday, March 8, 2017 by Fernando Banos.

### Other SUPO Attachment

## 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 Info Data Report**

10/30/2018

### **Bond Information**

**Federal/Indian APD: FED**

**BLM Bond number: NMB000849**

**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:**



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

## Operator Certification Data Report

10/30/2018

### 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:** Katy Reddell

**Signed on:** 02/01/2018

**Title:** Regulatory Analyst

**Street Address:** 104 S Pecos

**City:** Midland

**State:** TX

**Zip:** 79701

**Phone:** (432)682-3753

**Email address:** Kreddell@btaoil.com

### Field Representative

**Representative Name:** Nick Eaton

**Street Address:** 104 South Pecos

**City:** Midland

**State:** TX

**Zip:** 79701

**Phone:** (432)682-3753

**Email address:** neaton@btaoil.com



APD ID: 10400026835

Submission Date: 02/01/2018

Operator Name: BTA OIL PRODUCERS LLC

Highlighted data reflects the most recent changes

Well Name: ROJO 7811 22 FEDERAL COM

Well Number: 15H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

APD ID: 10400026835

Tie to previous NOS?

Submission Date: 02/01/2018

BLM Office: CARLSBAD

User: Katy Reddell

Title: Regulatory Analyst

Federal/Indian APD: FED

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

Lease number: NMNM015091

Lease Acres: 840

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: BTA OIL PRODUCERS LLC

Operator letter of designation:

### Operator Info

Operator Organization Name: BTA OIL PRODUCERS LLC

Operator Address: 104 S. Pecos

Zip: 79701

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)682-3753

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: ROJO 7811 22 FEDERAL COM

Well Number: 15H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: BOBCAT DRAW

Pool Name: UPPER WOLFCAMP

Is the proposed well in an area containing other mineral resources? NONE

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

**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:** ROJO **Number:** 14 - 17

**Well Class:** HORIZONTAL

**7811 22 FEDERAL COM**

**Number of Legs:**

**Well Work Type:** Drill

**Well Type:** OIL WELL

**Describe Well Type:**

**Well sub-Type:** EXPLORATORY (WILDCAT)

**Describe sub-type:**

**Distance to town:** 21 Miles

**Distance to nearest well:** 1240 FT

**Distance to lease line:** 50 FT

**Reservoir well spacing assigned acres Measurement:** 160 Acres

**Well plat:** Rojo\_7811\_22\_Fed\_Com\_\_15H\_\_C102\_20180201181134.pdf

**Well work start Date:** 05/01/2018

**Duration:** 45 DAYS

### Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NGVD29

**Survey number:**

	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	220	FSL	128 0	FEL	25S	33E	22	Aliquot SESE	32.10938 6	- 103.5557 92	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 015091	334 5	0	0
KOP Leg #1	220	FSL	128 0	FEL	25S	33E	22	Aliquot SESE	32.10938 6	- 103.5557 92	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 015091	- 217 5	552 0	552 0
PPP Leg #1	330	FSL	990	FEL	25S	33E	22	Aliquot SESE	32.10968 7	- 103.5548 55	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 015091	- 906 2	126 88	124 07

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

	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
EXIT Leg #1	330	FNL	990	FEL	25S	33E	22	Aliquot NENE	32.12238 9	- 103.5548 61	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 015091	- 906 2	170 93	124 07
BHL Leg #1	50	FNL	990	FEL	25S	33E	22	Aliquot NENE	32.12315 8	- 103.5548 61	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 015091	- 906 2	173 73	124 07



APD ID: 10400026835

Submission Date: 02/01/2018

Highlighted data reflects the most recent changes

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM

Well Number: 15H

Show Final Text

Well Type: OIL 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	QUATERNARY	3345	0	0	ALLUVIUM	NONE	No
2	RUSTLER ANHYDRITE	2305	1040	1040		NONE	No
3	TOP SALT	1961	1384	1384		NONE	No
4	BASE OF SALT	-1399	4744	4744		NONE	No
5	DELAWARE	-1643	4988	4988		NATURAL GAS,OIL	No
6	BONE SPRING LIME	-5833	9178	9178		NATURAL GAS,OIL	No
7	WOLFCAMP	-8892	12237	12237		NATURAL GAS,OIL	Yes

### Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M

Rating Depth: 14000

**Equipment:** The blowout preventer equipment (BOP) shown in Exhibit A will consist of a (10M system) double ram type (5000 psi WP) preventer and a bag-type (Hydril) preventer (5000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 4-½" drill pipe rams on bottom. The BOP's will be installed on the 13-3/8" surface casing and utilized continuously until total depth is reached. All BOP's and associated equipment will be tested as per BLM drilling Operations Order No. 2. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 5000 psi WP rating.

**Requesting Variance?** YES

**Variance request:** A Choke Hose Variance is requested. See attached test chart and spec.

**Testing Procedure:** Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log.

**Choke Diagram Attachment:**

Rojo\_7811\_27\_Fed\_Com\_\_\_Choke\_Hose\_\_\_Test\_Chart\_and\_Specs\_03-24-2017.pdf

ROJO\_7811\_22\_FED\_COM\_15H\_5M\_annular\_well\_control\_plan\_for\_BLM\_20180822092634.docx

ROJO\_7811\_22\_FED\_COM\_15H\_BLM\_10M\_choke\_manifold\_20180822093301.pdf

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

Rojo\_7811\_27\_Fed\_Com\_\_\_Choke\_Hose\_\_\_Test\_Chart\_and\_Specs\_03-24-2017.pdf

ROJO\_7811\_22\_FED\_COM\_15H\_5M\_annular\_well\_control\_plan\_for\_BLM\_20180822092634.docx

ROJO\_7811\_22\_FED\_COM\_15H\_BLM\_10M\_choke\_manifold\_20180822093301.pdf

**BOP Diagram Attachment:**

ROJO\_7811\_22\_FED\_COM\_15HBLM\_10M\_BOP\_with\_5M\_annular\_20180822093849.pptx

ROJO\_7811\_22\_FED\_COM\_15H\_5M\_annular\_well\_control\_plan\_for\_BLM\_20180822094123.docx

**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	1050	0	1050	-9209	-10259	1050	J-55	54.5	STC	2.4	5.9	DRY	9	DRY	14.9
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4980	0	4980	-9209	-14169	4980	J-55	40	LTC	1.7	2.6	DRY	2.6	DRY	3.1
3	PRODUCTION	8.75	7.0	NEW	API	N	0	12428	0	12343	-9209	-21257	12428	P-110	29	LTC	1.4	1.9	DRY	2.1	DRY	2.5
4	LINER	6.125	4.5	NEW	API	N	11938	17373	11929	12407	-20792	-21762	5435	P-110	11.6	LTC	2.2	2.6	DRY	2	DRY	2.6

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

Rojo\_7811\_22\_Fed\_Com\_15H\_\_\_Casing\_Assumption\_20180201183425.pdf

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

Rojo\_7811\_22\_Fed\_Com\_\_15H\_\_Casing\_Assumption\_20180201183435.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

Rojo\_7811\_22\_Fed\_Com\_\_15H\_\_Casing\_Assumption\_20180201183443.pdf

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**Casing ID:** 4      **String Type:** LINER

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

Rojo\_7811\_22\_Fed\_Com\_\_15H\_\_Casing\_Assumption\_20180201183451.pdf

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**Section 4 - Cement**

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	860	690	1.73	13.5	1193	100	Class C	2% CaCl2
SURFACE	Tail		860	1050	200	1.33	14.8	266	100	Class C	2% CaCl2
INTERMEDIATE	Lead		0	4130	1240	2.08	12.9	2579	100	Class C	6% Gel
INTERMEDIATE	Tail		4130	4980	250	1.33	14.8	332	25	Class C	0.004 GPS cf-41L
PRODUCTION	Lead		4000	1113 4	420	2.96	10.5	1240	15	TXI	0.004 GPS cf-41L
PRODUCTION	Tail		1113 4	1243 8	200	1.18	15.6	236	15	Class H	2% Gel
LINER	Lead		1193 8	1737 3	460	1.22	14.4	561	10	50:50H	50% Class H POZ. 2% Gel 1 Gal/1000 sx CF-41L

### 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:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

**Describe the mud monitoring system utilized:** PVT/Pason/Visual Monitoring

### 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

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

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
0	1050	SPUD MUD	8.3	8.4							
1050	4980	SALT SATURATED	10	10.2							
4980	1234 3	WATER-BASED MUD	8.6	9.2							
1234 3	1240 7	OIL-BASED MUD	11	11.5							

### Section 6 - Test, Logging, Coring

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

Drill Stem Tests will be based on geological sample shows.

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

CBL,GR,MUDLOG

**Coring operation description for the well:**

None planned

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7420

**Anticipated Surface Pressure:** 4690.46

**Anticipated Bottom Hole Temperature(F):** 180

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** NO

**Hydrogen sulfide drilling operations plan:**

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** ROJO 7811 22 FEDERAL COM

**Well Number:** 15H

## Section 8 - Other Information

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

Rojo\_7811\_22\_Fed\_Com\_\_15H\_\_Directional\_Report\_20180201184048.pdf

GAS\_CAPTURE\_PLAN\_ROJO\_7811\_22\_FED\_COM\_15H\_20180822095238.pdf

### **Other proposed operations facets description:**

A variance is requested for a Multi Bowl Wellhead. See the attached schematic and running procedure. \*All strings will be kept 1/3 full while running.

### **Other proposed operations facets attachment:**

BTA\_Oil\_Producers\_LLC\_\_EMERGENCY\_CALL\_LIST\_9\_11\_17\_20171005093924.pdf

Rojo\_7811\_27\_Fed\_Com\_\_H2S\_Plan\_03-24-2017.pdf

Rojo\_7811\_27\_Fed\_Com\_\_H2S\_Equipment\_Schematic\_03-24-2017.pdf

### **Other Variance attachment:**

Rojo\_7811\_27\_Fed\_Com\_\_Casing\_Head\_Running\_Procedure\_03-24-2017.pdf

Multi\_Bowl\_Diagram\_20180420093359\_20180810091036.pdf

GAS\_CAPTURE\_PLAN\_ROJO\_7811\_22\_FED\_COM\_15H\_20181002140027.pdf

## Well control plan for 10M BOPE with 5M annular

### Drilling

1. Sound alarm (alert crew).
2. Space out drill string.
3. Shut down pumps (stop pumps and rotary).
4. Shut-in Well with annular with HCR and choke in closed position.
5. Confirm shut-in.
6. Notify tool pusher/company representative.
7. Read and record the following:
  - a. SIDPP & SICP
  - b. Time of shut in
  - c. Pit gain
8. Regroup and identify forward plan. If pressure has increased to 2500 psi, confirm spacing and close the upper variable bore rams.
9. Prepare for well kill operation.

### Tripping

1. Sound alarm (alert rig crew)
2. Stab full opening safety valve and close valve
3. Space out drill string
4. Shut in the well with the annular with HCR and choke in closed position
5. Confirm shut in
6. Notify tool pusher/company representative
7. Read and record the following
  - a. Time of shut in
  - b. SIDPP and SICP
  - c. Pit gain
8. If pressure has increased to 2500 psi, confirm spacing and close the upper most variable bore ram.
9. Prepare for well kill operation.

### While Running Casing

1. Sound alarm (alert rig crew)
2. Stab crossover and full opening safety valve and close valve
3. Space out casing string
4. Shut in well with annular with HCR and choke in closed position
5. Confirm shut in
6. Notify tool pusher/company representative
7. Read and record the following:
  - a. SIDPP & SICP
  - b. Pit gain
  - c. Time
8. If pressure has increased to 2500 psi, confirm spacing and close the upper most variable bore ram.
9. Prepare for well kill operation.

### No Pipe In Hole (Open Hole)

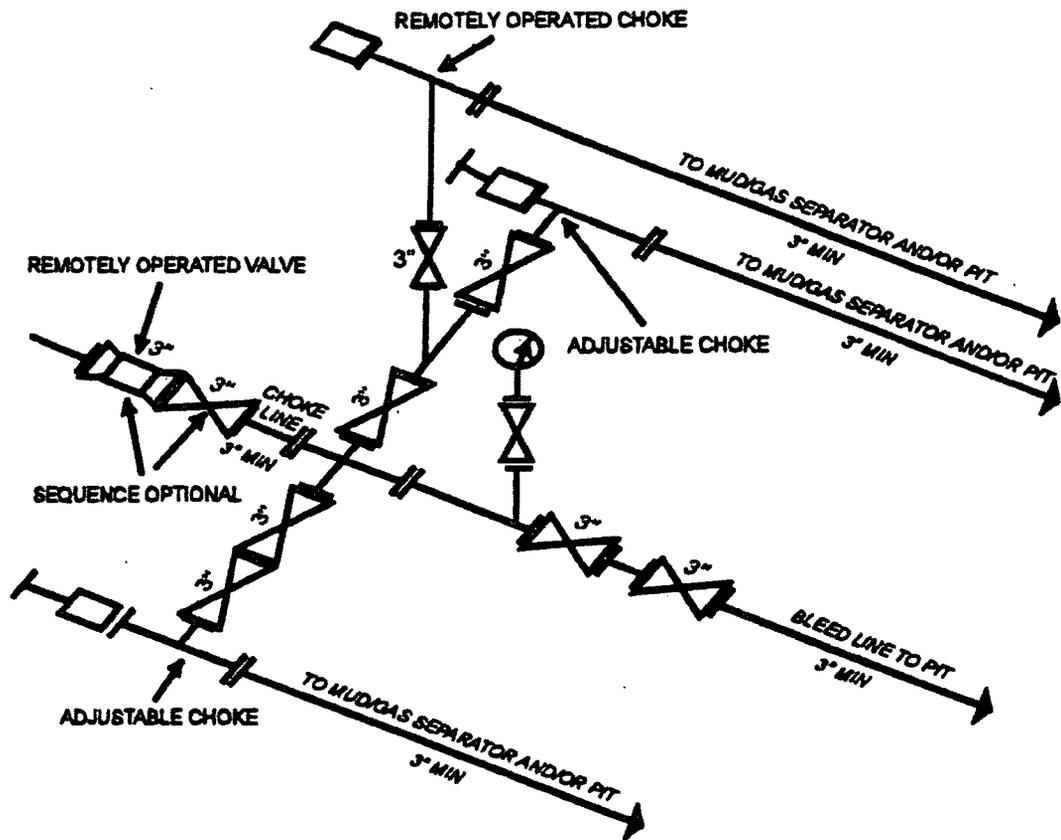
1. Sound alarm (alert rig crew)

Well control plan for 10M BOPE with 5M annular

2. Shut in blind rams with HCR and choke in closed position
3. Confirm shut in
4. Notify tool pusher/company representative
5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
6. Prepare for well kill operation

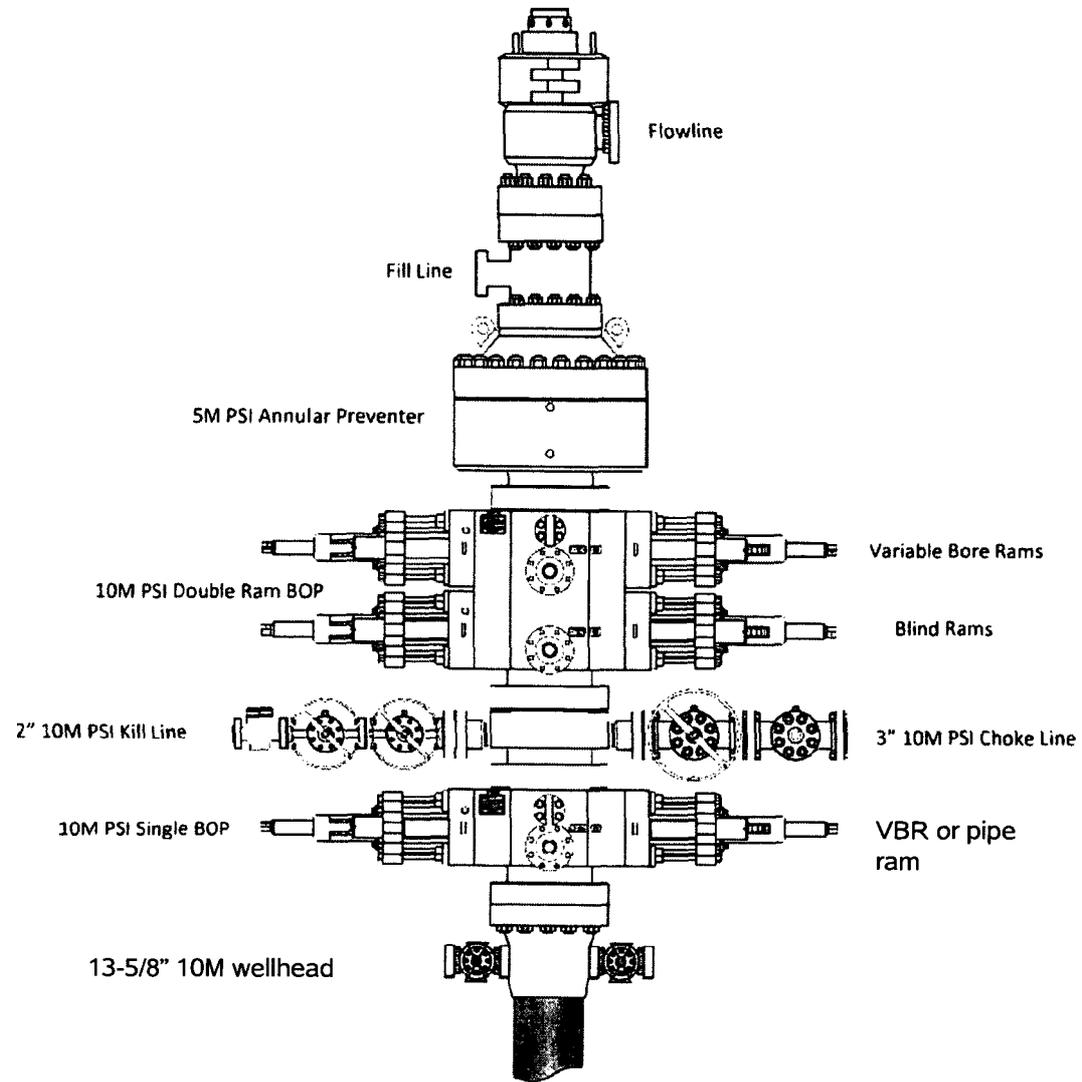
Pulling BHA thru Stack

1. Prior to pulling last joint of drill pipe thru the stack
  - a. Perform flow check, if flowing:
    - a.i. Sound Alarm (alert crew)
    - a.ii. Stab full opening safety valve and close valve
    - a.iii. Space out drill string
    - a.iv. Shut in using upper most VBR, choke and HCR in closed position
    - a.v. Confirm shut in
    - a.vi. Notify tool pusher/company representative.
    - a.vii. Read and record the following:
      - a.vii.1. SIDPP and SICP
      - a.vii.2. Pit gain
      - a.vii.3. Time
    - a.viii. Prepare for well kill operation
  2. With BHA in the stack:
    - a. If possible pull BHA clear of stack
      - a.i. Follow 'open hole' procedure above
      - b. If unable to pull BHA clear of stack
        - b.i. Stab crossover with full opening safety valve, close valve.
        - b.ii. Space out
        - b.iii. Shut in using upper most VBR. HCR and choke in closed position.
        - b.iv. Confirm shut in
        - b.v. Notify tool pusher/company rep
        - b.vi. Read and record the following:
          - b.vi.1. SIDPP and SICP
          - b.vi.2. Pit gain
          - b.vi.3. Time
        - b.vii. Prepare for well kill operation



**10M AND 15M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY**  
 [53 FR 49661, Dec. 9, 1988 and 54 FR 39528, Sept. 27, 1989]

# 13-5/8" 10M PSI BOP Stack



## Well control plan for 10M BOPE with 5M annular

### Drilling

1. Sound alarm (alert crew).
2. Space out drill string.
3. Shut down pumps (stop pumps and rotary).
4. Shut-in Well with annular with HCR and choke in closed position.
5. Confirm shut-in.
6. Notify tool pusher/company representative.
7. Read and record the following:
  - a. SIDPP & SICP
  - b. Time of shut in
  - c. Pit gain
8. Regroup and identify forward plan. If pressure has increased to 2500 psi, confirm spacing and close the upper variable bore rams.
9. Prepare for well kill operation.

### Tripping

1. Sound alarm (alert rig crew)
2. Stab full opening safety valve and close valve
3. Space out drill string
4. Shut in the well with the annular with HCR and choke in closed position
5. Confirm shut in
6. Notify tool pusher/company representative
7. Read and record the following
  - a. Time of shut in
  - b. SIDPP and SICP
  - c. Pit gain
8. If pressure has increased to 2500 psi, confirm spacing and close the upper most variable bore ram.
9. Prepare for well kill operation.

### While Running Casing

1. Sound alarm (alert rig crew)
2. Stab crossover and full opening safety valve and close valve
3. Space out casing string
4. Shut in well with annular with HCR and choke in closed position
5. Confirm shut in
6. Notify tool pusher/company representative
7. Read and record the following:
  - a. SIDPP & SICP
  - b. Pit gain
  - c. Time
8. If pressure has increased to 2500 psi, confirm spacing and close the upper most variable bore ram.
9. Prepare for well kill operation.

### No Pipe In Hole (Open Hole)

1. Sound alarm (alert rig crew)

Well control plan for 10M BOPE with 5M annular

2. Shut in blind rams with HCR and choke in closed position
3. Confirm shut in
4. Notify tool pusher/company representative
5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
6. Prepare for well kill operation

Pulling BHA thru Stack

1. Prior to pulling last joint of drill pipe thru the stack
  - a. Perform flow check, if flowing:
    - a.i. Sound Alarm (alert crew)
    - a.ii. Stab full opening safety valve and close valve
    - a.iii. Space out drill string
    - a.iv. Shut in using upper most VBR, choke and HCR in closed position
    - a.v. Confirm shut in
    - a.vi. Notify tool pusher/company representative.
    - a.vii. Read and record the following:
      - a.vii.1. SIDPP and SICP
      - a.vii.2. Pit gain
      - a.vii.3. Time
  - a.viii. Prepare for well kill operation
2. With BHA in the stack:
  - a. If possible pull BHA clear of stack
    - a.i. Follow 'open hole' procedure above
  - b. If unable to pull BHA clear of stack
    - b.i. Stab crossover with full opening safety valve, close valve.
    - b.ii. Space out
    - b.iii. Shut in using upper most VBR. HCR and choke in closed position.
    - b.iv. Confirm shut in
    - b.v. Notify tool pusher/company rep
    - b.vi. Read and record the following:
      - b.vi.1. SIDPP and SICP
      - b.vi.2. Pit gain
      - b.vi.3. Time
  - b.vii. Prepare for well kill operation



**BTA Oil Producers, LLC**

**WELL:** Rojo 7811 22 Fed Com #15H

**Casing Assumption**

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
17.500	13.375	0	1050	0	1050	No	54.5	J-55	STC	2.40	5.90	14.90	9.01	Dry	8.4
12.250	9.625	0	4980	0	4980	No	40.0	J-55	LTC	1.70	2.60	3.10	2.60	Dry	10.0
8.750	7.000	0	12438	0	12343	No	29.0	P-110	LTC	1.40	1.90	2.50	2.10	Dry	9.2
6.125	4.500	11938	17373	11929	12407	No	11.6	P-110	LTC	1.60	2.20	2.60	2.00	Dry	11.50



**BTA Oil Producers, LLC**

**WELL:** Rojo 7811 22 Fed Com #15H

**Casing Assumption**

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
17.500	13.375	0	1050	0	1050	No	54.5	J-55	STC	2.40	5.90	14.90	9.01	Dry	8.4
12.250	9.625	0	4980	0	4980	No	40.0	J-55	LTC	1.70	2.60	3.10	2.60	Dry	10.0
8.750	7.000	0	12438	0	12343	No	29.0	P-110	LTC	1.40	1.90	2.50	2.10	Dry	9.2
6.125	4.500	11938	17373	11929	12407	No	11.6	P-110	LTC	1.60	2.20	2.60	2.00	Dry	11.50



**BTA Oil Producers, LLC**

**WELL:** Rojo 7811 22 Fed Com #15H

**Casing Assumption**

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
17.500	13.375	0	1050	0	1050	No	54.5	J-55	STC	2.40	5.90	14.90	9.01	Dry	8.4
12.250	9.625	0	4980	0	4980	No	40.0	J-55	LTC	1.70	2.60	3.10	2.60	Dry	10.0
8.750	7.000	0	12438	0	12343	No	29.0	P-110	LTC	1.40	1.90	2.50	2.10	Dry	9.2
6.125	4.500	11938	17373	11929	12407	No	11.6	P-110	LTC	1.60	2.20	2.60	2.00	Dry	11.50



**BTA Oil Producers, LLC**

**WELL:** Rojo 7811 22 Fed Com #15H

**Casing Assumption**

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
17.500	13.375	0	1050	0	1050	No	54.5	J-55	STC	2.40	5.90	14.90	9.01	Dry	8.4
12.250	9.625	0	4980	0	4980	No	40.0	J-55	LTC	1.70	2.60	3.10	2.60	Dry	10.0
8.750	7.000	0	12438	0	12343	No	29.0	P-110	LTC	1.40	1.90	2.50	2.10	Dry	9.2
6.125	4.500	11938	17373	11929	12407	No	11.6	P-110	LTC	1.60	2.20	2.60	2.00	Dry	11.50