

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

HOBBBS OCCR
JAN 12 2017
RECEIVED

SUNDRY NOTICES AND REPORTS ON Wells
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

Carrizal Field Office
OCD Hobbs

5. Lease Serial No. 95065194
6. If Indian, Allottee or Tribe Name
7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	8. Well Name and No. STARCASTER 18 FED COM 1H
2. Name of Operator BTA OIL PRODUCERS Contact: KAYLA MCCONNELL E-Mail: kmccconnell@btaoil.com	9. API Well No. 30-025-43388-00-X1
3a. Address 104 SOUTH PECOS STREET MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432.682.3753
10. Field and Pool or Exploratory Area BELL LAKE	11. County or Parish, State LEA COUNTY, NM
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 18 T23S R34E Lot 1 330FNL 1270FWL	

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

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

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

BTA Oil Producers, LLC respectfully request approval for the following changes to the original approved APD.

Approved: 5M BOP & Choke Manifold
Change to: 3M BOP & Choke Manifold (See attached diagram)

Approved: Mud Weight 4963'-14881' Cut Brine 8.3-9.3
Change to: Mud Weight 4963'-14881' Cut Brine 8.5-9.1 ppg

9-5/8" Intermediate Casing
Approved- Grade: HCP-80
Change to- Grade: J-55

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #362428 verified by the BLM Well Information System For BTA OIL PRODUCERS, sent to the Hobbs Committed to AFMSS for processing by DEBORAH MCKINNEY on 01/05/2017 (17DLM0242SE)	
Name (Printed/Typed) KAYLA MCCONNELL	Title PRODUCTION ASSISTANT
Signature (Electronic Submission)	Date 01/02/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>MUSTAFA HAQUE</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>01/06/2017</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office Hobbs		

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

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #362428 that would not fit on the form

32. Additional remarks, continued

(*Casing string will be kept 1/3 full while running.)

5-1/2" Production Casing
Approved- Depth: 14850' MD #/ft: 20# Grade: HCP-110
Change to- Depth: 14881' MD #/ft: 17# Grade: P-110

A variance is also requested for the following items below:

Coflex Choke Line
-See attached for test charts and specs.

Multi Bowl wellhead
-See attached running procedure and Schematic

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BTA Oil Producers, LLC
LEASE NO.:	LC065194
WELL NAME & NO.:	1H-Starcaster 18 Fed Com
SURFACE HOLE FOOTAGE:	330'/N & 1270'/W
BOTTOM HOLE FOOTAGE:	330'/S & 660'/W
LOCATION:	Section 18, T. 23 S., R. 34 E., NMPM
COUNTY:	Lea County, New Mexico

All previous COAs still apply except the following:

A. CASING

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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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.

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

Possibility of water flows in the Castile, and Salado.

Possibility of lost circulation in the Rustler, Red Beds, and Delaware.

1. The 13-3/8 inch surface casing shall be set at approximately 1216 feet and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - 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 is to include the lead cement slurry.**
- 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.

Intermediate casing must be kept fluid filled to meet minimum collapse requirement.

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 A.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

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

B. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
- 2. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.**
 - a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**

- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
- c. Manufacturer representative shall install the test plug for the initial BOP test.**
- d. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
- e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

MHH 01062017

NM OIL CONSERVATION

ARTESIA DISTRICT
OCD Hobbs

AUG 18 2016

Form 3160-3
(August 2007)

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC-085194	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator: Endurance Resources, LLC (270329)		7. If Unit or CA Agreement, Name and No.	
3a. Address: 203 West Wall Suite 1000 Midland, Tx 79701		8. Lease Name and Well No. (313567) Starcaster 18 Fed Com 1H	
3b. Phone No. (include area code): 432-242-4680		9. API Well No. 30-025-43386	
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface 330' FNL & 1270' FWL At proposed prod. zone 330' FSL & 660' FWL		10. Field and Pool, or Exploratory Bell Lake; Bone Springs, North (5150) K2	
14. Distance in miles and direction from nearest town or post office? 26 miles Northwest of Jal, New Mexico		11. Sec., T. R. M. or Blk. and Survey or Area Sec 18-23a-34e	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 155'		12. County or Parish Lea	
16. No. of acres in lease 320 ac		13. State NM	
17. Spacing Unit dedicated to this well 180 ac		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1320'	
19. Proposed Depth MD: 14881' TVD: 10469'		20. BLM/BIA Bond No. on file NMB001200-1220	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3509' GL		22. Approximate date work will start* 06/01/2016	
		23. Estimated duration 45 days	

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24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Tinlee Tilton</i>	Name (Printed/Typed) Tinlee Tilton	Date 01/28/2016
Title Engineer		
Approved by (Signature) <i>/s/George MacDoneii</i>	Name (Printed/Typed)	Date JUL 29 2016
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

K2 08/19/16

*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL



Endurance Resources LLC

DRILLING & OPERATIONS PROGRAM

**Starcaster 18 Federal #1H
SHL: 330' FNL & 1270' FWL**

Sec 18-23S-34E

BHL: 330' FSL & 660' FWL

Sec 18-23S-34E

Lea Co, NM

1. Geological Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geological Markers

Fresh Water	311'
Rustler	979'
Top of Salt	1,416'
Lamar Limestone	4,943'
Delaware	5,025' - Oil
Bone Spring	8,551' - Oil
1 st Bone Spring	9,626' - Oil
2 nd Bone Spring	10,201' - Oil
TVD:	10,469'; MD: 14,881'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

The estimated depths at which water, oil and gas will be encountered are as follows:

Water: Average depth to water: 311'. Minimum depth: 255'. Max: 430'. As reported from the New Mexico Office of the State Engineer website.

Oil & Gas: 4,990' – 10,500' (Delaware through Bone Spring)

No other formations are expected to give up oil, gas, or fresh water in measurable quantities.



Endurance Resources LLC

DRILLING & OPERATIONS PROGRAM

**Starcaster 18 Federal #1H
 SHL: 330' FNL & 1270' FWL
 Sec 18-23S-34E
 BHL: 330' FSL & 660' FWL
 Sec 18-23S-34E
 Lea Co, NM**

Proposed Casing Program:

Hole Size	Casing Size	Depth	#/ft	Grade	Connection	Collapse	Burst	Tension
17.5"	13-3/8"	1,216'	54.5	J-55	BTC	2.22	5.38	15.3
12.25"	9-5/8"	4,963'	40	J-55	LT&C	1.61	2.39	3.66
8.75"	5-1/2"	14881'	17	P-110	BTC	2.41	2.5	2.25

NOTE: ALL CASING IS NEW & API APPROVED. WHILE RUNNING CASING, PIPE WILL BE KEPT A MINIMUM OF 1/3 FULL AT ALL TIMES TO AVOID APPROACHING COLLAPSE PRESSURE OF THE CASING. SURFACE CASING WILL BE WATCHED & NECESSARY ADJUSTMENTS MADE TO ENSURE PIPE IS FULL DUE TO LOST CIRCULATION ZONES THAT MAY OCCUR. CENTRALIZERS WILL BE USED ON SURFACE CASING



4. Proposed Casing Program:

Size	Depth	#/ft	Grade	Connection	Collapse	Burst	Tension
13-3/8"	1,216'	54.5	J-55	BTC	1.79	4.34	13.72
9-5/8"	4,963'	40	HCL-80	LT&C	1.67	2.48	3.66
5-1/2"	14,881'	20.0	HCP-110	BTC	2.41	2.5	2.24

NOTE: ALL CASING IS NEW & API APPROVED. WHILE RUNNING CASING, PIPE WILL BE KEPT A MINIMUM OF 1/3 FULL AT ALL TIMES TO AVOID APPROACHING COLLAPSE PRESSURE OF THE CASING. SURFACE CASING WILL BE WATCHED & NECESSARY ADJUSTMENTS MADE TO ENSURE PIPE IS FULL DUE TO LOST CIRCULATION ZONES THAT MAY OCCUR. CENTRALIZERS WILL BE USED ON SURFACE CASING

5. Proposed Cement Program:

a. 13-3/8" Surface

Lead: 550 sks ExtendaCem Class C (13.7ppg / 1.694 cuft/sk)

Tail: 525 sks HalCem Class C (14.80ppg / 1.32 cuft/sk)

**Calculated w/ 100% excess on OH volume

b. 9-5/8" Intermediate

Lead: 1100 sks EconoCem Class C + 0.4% HR-800 Retarder + 0.125

lbm/sk Poly-E-Flake Lost Circulation Additive (12.9ppg / 1.789 cuft/sk)

Tail: 230 sks HalCem Class C (14.80 ppg / 1.326 cuft/sk)

**Calculated w/ 50% excess on OH volumes & 10% in CH

c. 5-1/2" Production

Lead: 770 sks 50/50 Poz (Class H) + 5% Cal-Seal 60 Lost Circulation

Additive + 8% Bentonite + 0.1% FE-2 + 0.25 lbm/sk D-Air 5000 Defoamer (11.5 ppg / 2.672 cuft/sk)

Tail: 1255 sks Class H + 0.5% Halad R-344 Low Fluid Loss Control + 0.4%

Halad R-322 + 0.4% HR-800 Retarder (14.5 ppg / 1.227 cuft/sk)

**Calculated w/ 20% excess in vertical OH, 20% excess on lateral OH volumes & 10% in CH

NOTE: THE ABOVE CEMENT VOLUMES COULD BE REVISED PENDING FLUID CALIPER & CALIPER LOG DATA. SURFACE AND INTERMEDIATE VOLUMES ARE DESIGNED TO CIRCULATE TO SURFACE. PRODUCTION IS DESIGNED TO TIE INTO 9 5/8" CASING.

→ need to tie back 200' ft into 9 5/8" casing (4763' approx) - See COA



ENDURANCE
RESOURCES LLC

6. Minimum Specifications for Pressure Control: — See COA

13-5/8 (3M) working pressure BOP system consisting of one set of blind rams and one set of pipe rams and a 3000# annular type preventer (please see BOP schematic). A 3M choke manifold & 120 gallon accumulator with floor and remote operating stations & auxiliary power system. Rotating head as needed. A KC will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be NU and operated at least once a day while drilling and the blind rams will be operated when out of the hole during trips. From the base of the 13-3/8" csg through running of production casing, the well will be equipped with a 10M BOP system. Below the 9-5/8 csg shoe, this 3M system will be equipped with a HCR valve, remote kill line, & annular to match. The remote kill line will be installed prior to testing the system & tested to stack pressure.

Before drilling out of the 13-3/8 surface casing, BOP will be tested by an independent service company to 250 psi low & 3000 psi high. Hydril will be tested to 250 psi low and 2500 psi high. Before drilling out the 9-5/8 Intermediate shoe BOP will be tested by an independent service company to 250 psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 psi high. These low pressure tests from 250 to 300 psi will be held a minimum of 10 minutes if test is done with a test plug & 30 minutes without a test plug.



ENDURANCE
RESOURCES, LLC

4,963' – 14,881'	Cut Brine	8.5 – 9.1	28-32	NC-12
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NOTE: NECESSARY MUD PRODUCTS FOR WEIGHT ADDITION & FLUID LOSS WILL BE ON LOCATION AT ALL TIMES. VISUAL MUD MONITORING EQUIPMENT (I.E. TRIP TANK) WILL BE IN PLACE TO DETECT VOLUME CHANGES INDICATING LOSS OR GAIN OF CIRCULATION VOLUME WITH ALARMS.

9. Auxiliary Well Control & Monitoring Equipment:

- a. A KC will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times
- c. H₂S detection equipment will be in operation & breathing apparatuses will be on location after the drill out of the 13-3/8" casing shoe until the 5-1/2" casing is cemented.

10. Testing, Logging & Coring Program: — See COA

- a. No drill stem tests are planned.
- b. Neutron Porosity well log ran from KOP to 200'.
- c. Quad combo logs from KOP to intermediate casing shoe.
- d. No coring is planned.

11. Potential Hazards:

No abnormal pressures or temperatures are expected. If H₂S is encountered, Endurance Resources LLC will comply with Onshore Order #6. Regardless, all personnel will be trained & qualified with H₂S safety. Rig safety equipment will all also be checked daily once drill out of the 13-3/8" casing shoe to TD. It has been noted that H₂S has been encountered in the salt section. If H₂S is encountered, measurements & formations will be reported to the BLM. See COA

12. Anticipated starting date & Duration of Operations:

Road & location construction will begin after the BLM has approved the APD. Anticipated spud date will begin after BLM approval & after a drilling rig is secured. Move in operations & drilling is expected to take no more than 45 days. An additional 30-50 days will be needed to complete this well



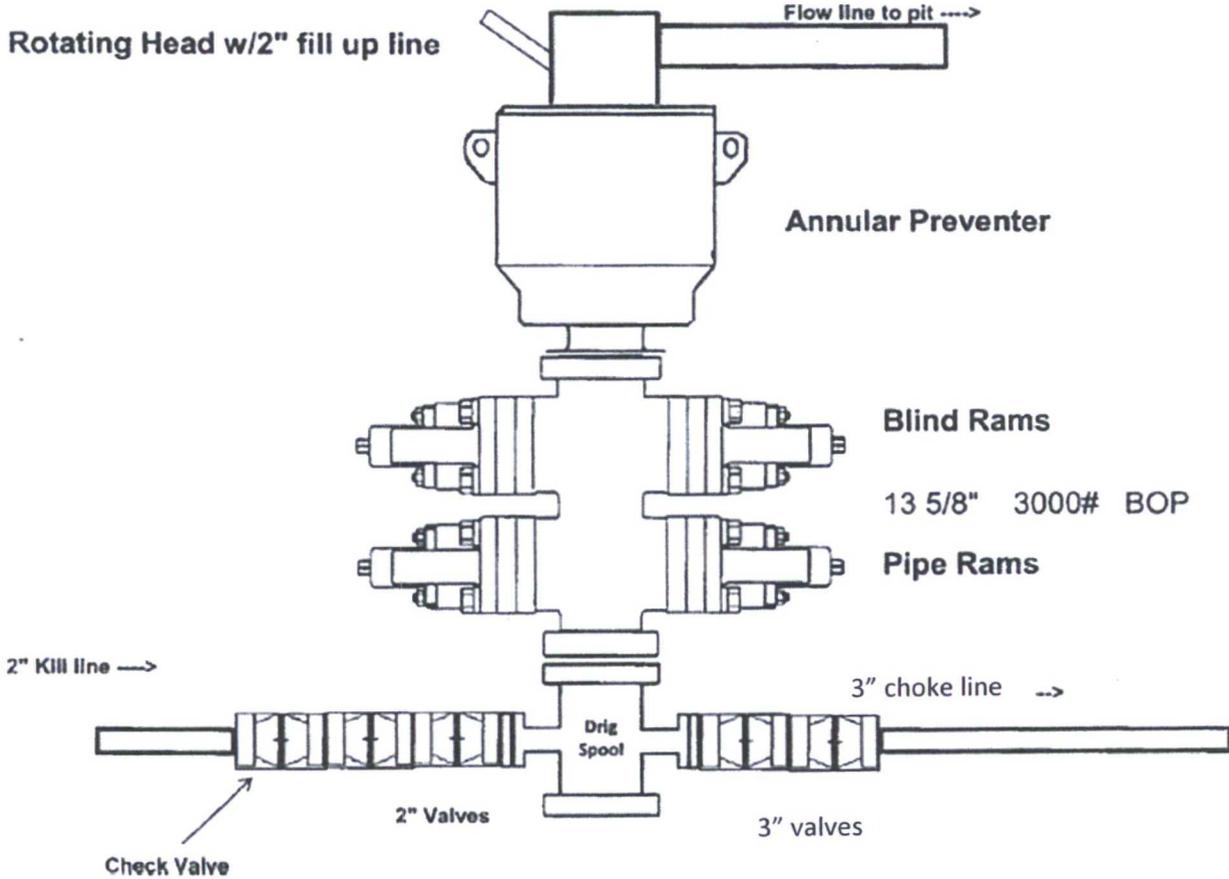
ENDURANCE
RESOURCES LLC

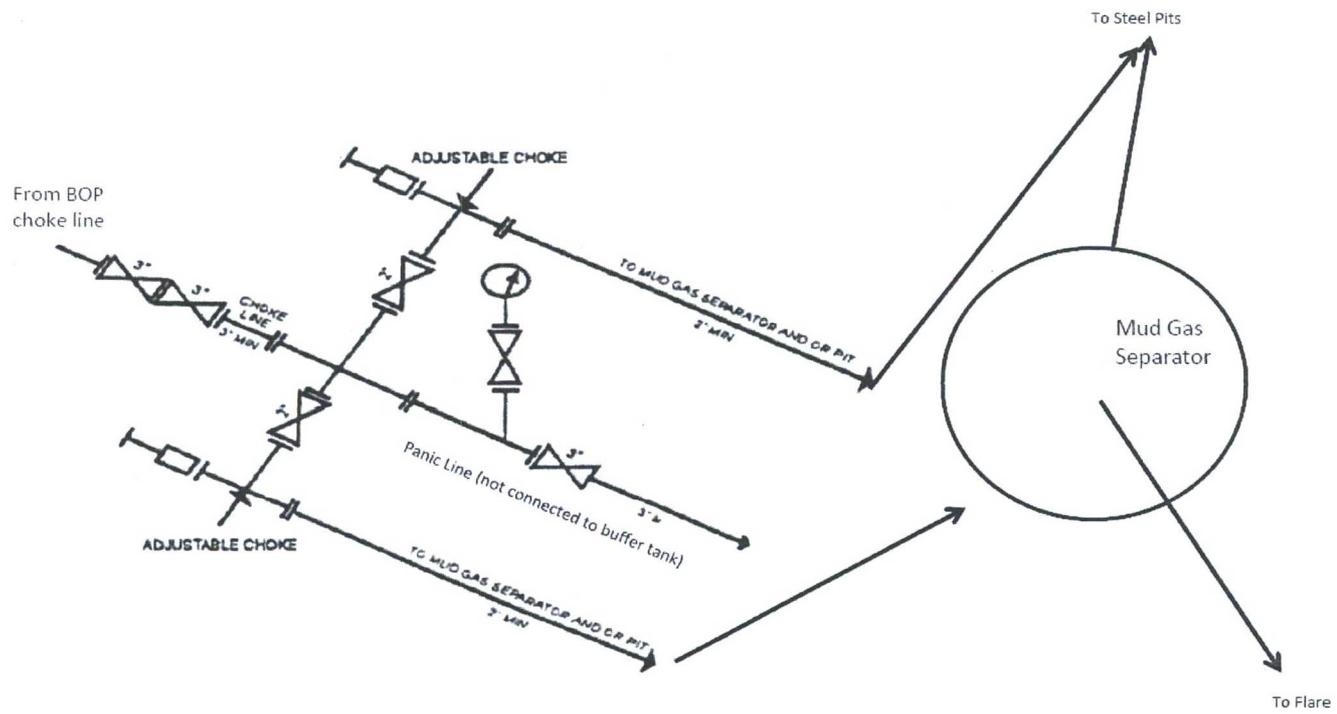
& construct surface facilities and/or lay flow lines in order to place well on production.

The 13-5/8" blowout preventer equipment (BOP) shown in exhibit A will consist of a (3M system) double ram type (3000 psi WP) preventer and a bag type (Hydril) preventer (3000 psi WP). Will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. The BOP's will be installed don the 13-3/8" casing and utilized continuously until TD is reached. All BOP's and associated equipment will be tested as per BLM drilling operations order No 2.

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 drillers log. 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 3000 psi WP rating.

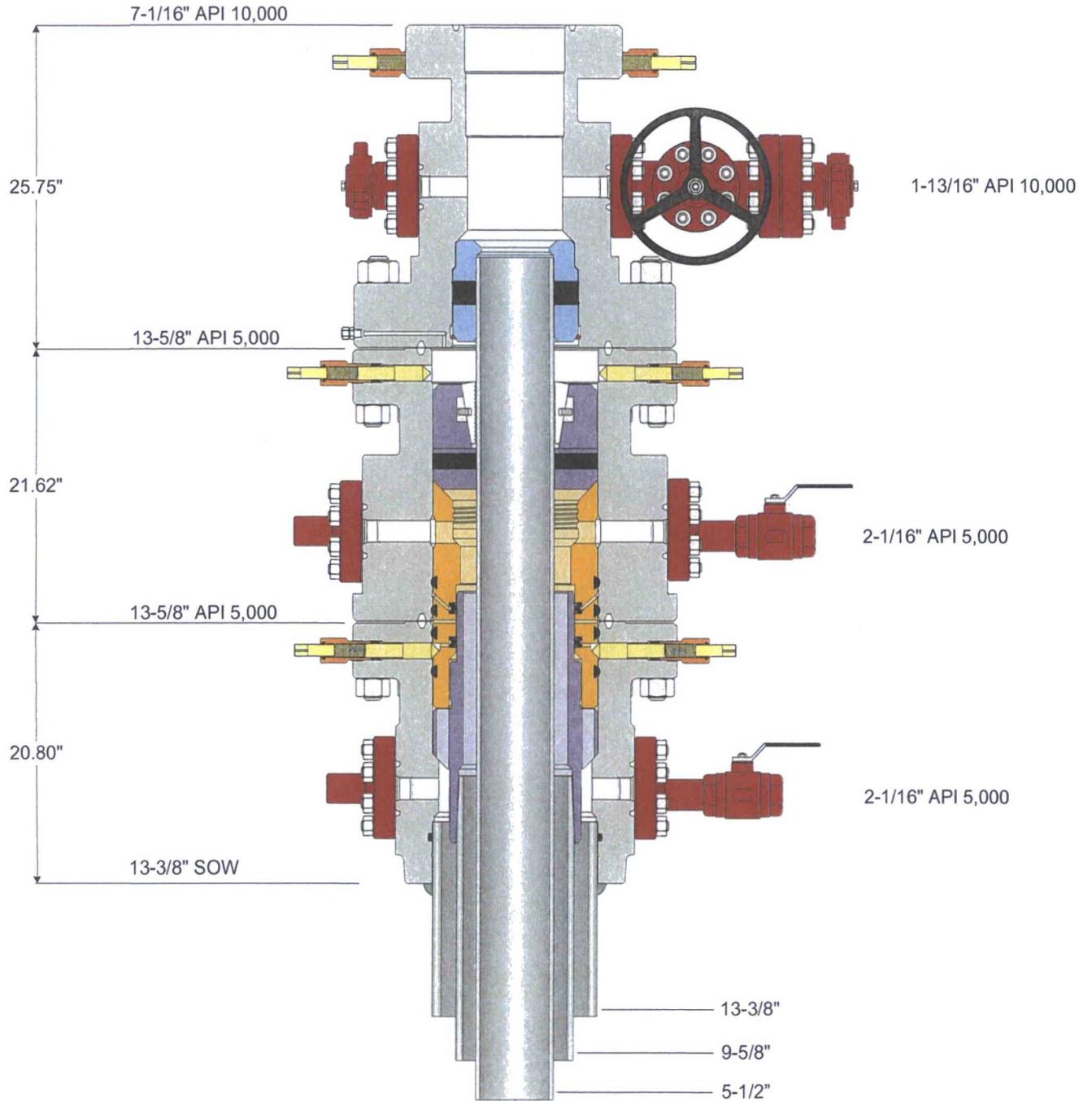
3,000 psi BOP Schematic





3M choke manifold design

NOTE: THIS DRAWING IS NOT TO SCALE. THE DIMENSIONS REFLECTED ON THIS DRAWING ARE ESTIMATED DIMENSIONS AND ARE FOR REFERENCE ONLY.



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Customer: BTA OIL PRODUCERS

Project No.: 146245

Quote No.: 291545 v2

Project Name: WEST TEXAS

Date: 07/06/16

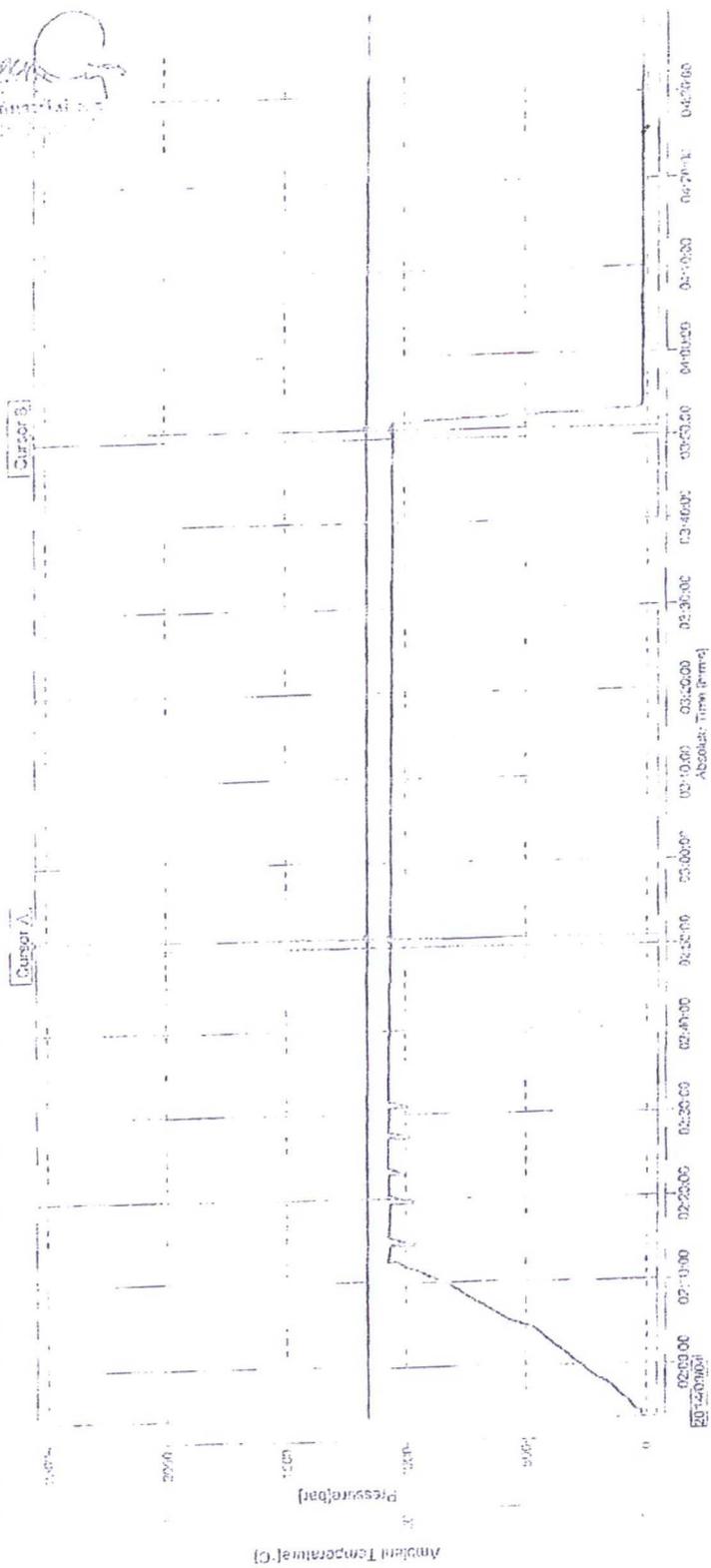
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 Print Range :
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Ambient Temperature[C]	23.24	23.14	4.10

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 Absolute Time (Time)