11-582

OCD-ARTESIA

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JUL 26 2011

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Form 3160-3
(August 2007)

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

EA 11-1015

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5 Lease Serial No.
NMNM2748

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER NOS RCVD 7/23/11

7 If Unit or CA Agreement, Name and No.

1b Type of Well. ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Glssler B 72 (2389)

2. Name of Operator BURNETT OIL CO., INC (3080)

9 API Well No.
30-015-39247

3a. Address 801 CHERRY St., STE 1500
FORT WPORTH, TEXAS 76102

3b. Phone No. *(include area code)*
817-332-5108

10 Field and Pool, or Exploratory
LOCO HILLS Glorieta Yeso (96718)

4 Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface Unit P ~~890~~ 990' FSL, ~~990~~ 840' FEL (P)
At proposed prod zone 990' 840' same as above per Operator 6/22 JLH

11. Sec., T R. M. or Blk. and Survey or Area
SEC 8T17S, R30E

14 Distance in miles and direction from nearest town or post office*
6 miles North and East of Loco Hills

12 County or Parish
EDDY

13. State
NM

| 15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330' | 16. No. of acres in lease 1240 | 17 Spacing Unit dedicated to this well 40 |
|---|---|---|
| 18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 330' | 19. Proposed Depth 6100 | 20 BLM/BIA Bond No. on file #00197 |
| 21 Elevations (Show whether DF, KDB, RT, GL, etc ) 3679' | 22 Approximate date work will start* 9/19/11 | 23. Estimated duration 15 days |

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

| 25 Signature Mary Carter Starkey | Name *(Printed/Typed)* Mary Carter Starkey | Date 06/11/2011 |
|---|---|---|
| Title Regulatory Coordinator | | |
| Approved by *(Signature)* /s/ Don Peterson | Name *(Printed/Typed)* | Date JUL 25 2011 |
| 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)

*(Instructions on page 2)

Roswell Controlled Water Basin

KZ 07/28/11

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

**MASTER DEVELOPMENT PLAN**
**BURNETT OIL CO., INC.**
**ALL VERTICAL CEDAR LAKE YESO/ LOCO HILLS PADDOCK WELLS**
FEDERAL LEASE (NM) LC029338A, LC029339A, LC030570A, LC055264, LC055958, NM2746, NM2747, NM2748, NM 05067 & NM 074939.
Section 1, 8, 11, 12, 13, 14, 23, 24 & 25, Township 17 South, Range 30 East, Eddy County, New Mexico

## A: DRILLING PROGRAM

1. **Geological Name of Formation with Estimated Depth:**
   a. Alluvium.....Surface
   b. Anhydrite..... 390'
   c. Salt.....530'
   d. Base Salt.....1290'
   e. Yates.....1450'
   f. Seven Rivers..1604'
   g. Queen..... 2222'
   h. Grayburg..... 2670'
   i. San Andres.....2985'
   j. Glorieta.....4460'
   k. Yeso.....4580'

2. **Estimated tops of Geologic Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

| | | |
|---|---|---|
| a. Seven Rivers..... | 1604' | Oil |
| b. Queen..... | 2222' | Oil |
| c. Grayburg..... | 2670' | Oil |
| d. San Andres..... | 2985' | Oil |
| e. Glorieta..... | 4460' | Oil |
| f. Yeso..... | 4580' | Oil |
| g. Total Depth | 6100' | |

No other formations are expected to yield oil, gas or fresh water in measurable volumes. Deepest water is expected to be above 400'. We will set 10-3/4" casing @ approx. +/- 400' in the Anhydrite, above the Salt and circulate cement to surface.
We will isolate the oil zones by running 7" casing to total depth and circulating cement to surface.

3. **Casing Program: (ALL CASING WILL BE NEW API APPROVED MATERIAL.)**

| Hole Size | Interval | OD Csg | Weight | Collar | Grade | Collapse Design Factor | Burst Design Factor | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|
| **(MW = 10 PPG IN DESIGN FACTOR CALCULATIONS.)** | | | | | | | | |
| 14-3/4" | 0'-400' | 10-3/4" | 32.75# | ST&C | H40 | 1.125 | 1.00 | 1.80 |
| 8-3/4" | 0'-6100' | 7" | 23.00# | LT&C | J55 | * 1.125 | 1.00 | 1.80 |

*** 500' of fresh water gradient (.433 psi/ft) fluid will be maintained inside casing to keep SF 1.125. If fluid is not at the surface, the fluid level inside 7" Casing will be determined by wireline to insure a 500' minimum of standing fluid.**

4. **Cementing Program (Note Yields and DV Tool Depth if Multiple Stage.)**
**BLM WILL BE NOTIFIED TO HAVE THE OPTION TO WITNESS ALL CEMENTING AND TAG OPERATIONS.**

   a. **10-3/4" Surface** Cement to surface Lead with 150 sx Class C cement +10% A-10, + 10#/sx LCM-1 1% CaCl 0.01 gps FR-6L, 14.6 ppg, 1.67 CF/Sk Yield. Tail with 500 sks Class C

cement + 2% CaCl + 0.01 gps FP-6L.14.8 ppg, 1.35 CF/Sx yield. **TOC Surface.**
Excess cement 100%

**If cement does not circulate to surface, BLM will be notified of same, plus the plans to bring the cement to surface so BLM may witness tagging and cementing. The plan to bring the cement to surface will be to run 1" and tag top of cement at four positions 90°apart to verify cement depth.**
**Appropriate cement volumes will be pumped through 1" to bring cement to surface.**

b. **7" Production Casing**
**Stage 1 Cement:** 500 sks (50:50) Poz (Fly Ash): Class C cement + 2% Bentonite + 0.01 gps FP-6L+ 0.3% FL-52A + 1.2% CD-32 + 5% Sodium Chloride.14.2 ppg, Yield 1.27 CF/Sx. **DV @ approx. 2600' 30% excess cement**

See COA

**Stage 2 Cement:** Lead with 525 sks (35:65) Poz (Fly Ash): Class C cement + 6% Bentonite + 5 lbs/sx LCM-1 + 0.125 lbs/sx Cello Flake + .01 gps FP-6L + 5% Sodium Chloride,12.6 ppg **Yield 1.89 CF/Sx. Tail** with 100 sx Class C + 1% CaCl + 0.01 gps FP-6L.14.8 ppg, Yield 1.62 CF/Sx, **TOC Surface**. 140% **excess cement.**
The above cement volumes may be revised pending the caliper measurement from the open hole logs. **Casing design is to bring cement to the surface.**

5. **Pressure Control Equipment:**
The blowout prevention equipment (BOPE) shown in **Drilling Exhibit E & E**1 will consist of a 2000 PSI Hydril Unit (annular) with hydraulic closing equipment. The equipment will comply with Onshore Order #2 and will be tested to 50% of rated working pressure (RWP), and maintained for at least 10 minutes. The 10-3/4" drilling head will be installed on the surface casing and in use continuously until total depth is reached. An independent testing company will be used for the testing. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 2000 PSI WP rating.

6. **Proposed Mud Circulation System**

| Depth | Mud Wt | Visc | Fluid Loss | Type System |
|---|---|---|---|---|
| 0'-400' | 8.6–9.5 | | | Fresh Water |
| 400' – 6100' | 10.0 max. | | | Brine Water |

**The necessary mud products for weight addition and fluid loss control will be on location at al times.**

7. **Auxiliary Well Control and Monitoring Equipment:**
a. A Kelly cock will be in the drill string at all times.
b. A full opening drill pipe stabbing valve with the appropriate connections on the rig floor at all times.
c. Hydrogen Sulfide detection and breathing equipment will be installed and in operation at drilling depth of 1800' (which is more than 500' above top of Grayburg) until 7" casing is cemented. An H2S compliance package will be on all sites while drilling.

8. **Hydrogen Sulfide Plan and Training**:
Based on our area testing H2S at 100 PPM has a radius of 139' and does not get off our well sites. There are no schools, residences, churches, parks, public buildings, recreation area or public within 2+ miles of our area.

**All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on each well:**

a. The hazards and characteristics of Hydrogen Sulfide (H2S).
b. The proper use and maintenance of personal protective equipment and life support systems.

c. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and the prevailing wind.
d. The proper techniques for first aid and rescue procedures.
e. **ATTACHED HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN DRILLING EXHIBIT A**
f. **ATTACHED EMERGENCY CALL LIST FOR ANY ON SITE EMERGENCY DRILLING EXHIBIT B.**

**In addition, supervisory personnel will be trained in the following areas:**

a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in special maintenance requirements.
b. Corrective action and shut-in procedures when drilling or reworking a well, blowout prevention and well control procedures.
c. The contents and requirements of the H2S Drilling Operations Plan and the Public Protection Plan (if applicable.)

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan (if applicable). This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

**a. Protective equipment for essential personnel:**

1. Mark II Surviveair (or equivalent) 30 minute units located in the dog house and at the primary briefing area (to be determined.)

**b. H2S detection and monitoring equipment:**

1. Three (3) portable H2S monitors positioned on location for best coverage and response. These units have warning lights at 10 PPM and warning lights and audible sirens when H2S levels of 15 PPM is reached. A digital display inside the doghouse shows current H2S levels at all three (3) locations.
2. An H2S Safety compliance set up is on location during all operations.
3. **We will monitor and start fans at 10 ppm or less, an increase over 10 ppm results in the shutdown and installation of the mud/gas separator. See Drilling Exhibit E3.**

**c. Visual warning systems:**

1. Wind direction indicators will be positioned for maximum visibility.
2. Caution/Danger signs will be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

**d. Mud program:**

The mud program has been designed to minimize the volume of H2S circulated to the surface Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

**e. Communication**:

1. Cellular Telephone and/or 2-way radio will be provided at well site.
2. Landline telephone is located in our field office.

**f. Metallurgy:**

1. All drill strings, casings, tubing, wellheads, Hydril BOPS, drilling spools, kill lines, choke manifold, valves and lines will be suitable for H2S service.
2. All elastomers used for packing and seals shall be H2S trim.

9. **Logging, Coring and Testing program:** See COA

a. Any drill stem tests will be based on geological sample shows and planned before spudding.

Density log with Spectral Gamma Ray and Caliper.
2. Total depth to Surface: Compensated Neutron with Gamma Ray.
3. Coring program will be planned and submitted on a well by well basis.
4. Additional testing will be done subsequent to setting the 7" production casing. The specific Intervals will be based on log evaluation, geological sample shows and drill stem tests.

**10. Potential Hazards:**

No abnormal pressures or temperatures are expected. There is known H2S in this area. The operator will comply with the provisions of Onshore Oil and Gas Order #6. No lost circulation is expected to occur. All personnel will be familiar with the safe operation of the equipment being used to drill this well. The maximum anticipated bottomhole pressure is 1000#. The maximum anticipated bottom hole temperature is 92°F.

**11. Anticipated Start Date and Duration of Operation**

Road and location construction will begin after BLM has approved the APD and has approved the start of the location work. Anticipated spud date will be as soon as the location building work has been completed and the drilling rig is available to move to the location. Move in and drilling is expected to take approx 25 days. If production casing is run, an additional 60 days would be required to complete the well and install the necessary surface equipment (pumping unit, electricity, flowline and storage facility) to place the well on production.

## B: SURFACE USE PROGRAM

**1. EXISTING ROADS:**

a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. This well was staked by Basin Surveys or John West Survey.
b. All roads into the location are shown on the Vicinity Map (Surface Exhibit A.)
c. Directions to location: from junction of US HWY 82 and Hagerman Cutoff, go north on Hagerman Cutoff for 1.6 miles to existing lease road. Then west on lease road s for .2 mile to lease road. Follow Surface Exhibit A and A2 to the proposed well pad.

**2. New or Reconstructed Access Roads:**

a. The well site layout, Form C-102 and Surface Exhibit A1 & A2 show the existing area. **Any additional required access road will be shown on Surface Exhibit A2 and Exhibit B.**
b. All construction material will be native caliche. It may be available at the proposed location. If unavailable on location or road, caliche will be hauled from nearest BLM approved caliche pit.

**3. Location of existing wells:**

See attached Surface Exhibit B plat showing all wells within a ½ mile radius of the proposed well site.

**4. Location of existing and/or proposed production facilities:**

See Surface Exhibit B, C and C1 for the location of existing on lease Gissler B 5 Tank Battery facility on this Federal Lease NMNM2748.

a. This battery is an existing above ground pool commingled Grayburg/Loco Hills Glorieta Yeso on lease production facility.
b. The well site will require electricity for the prime mover. We will contact the electric cooperative. to provide the electric power poles and the electric line from their nearest connection. The routing and pole placement will be provided in their ROW application. All electrical installation will be done in accordance with all existing state and federal regulations.
c. All flowline from the new well pad site is on Federal leases. (See Surface Exhibit B, C and C1 plat.) The required flowline will be laid, above ground, along existing road and flowline routing. All flowline will be 3" poly pipe.

**5. Location and Type of Water Supply:**

All water to be used in drilling this well will be brine or fresh water transported by truck over existing

and above proposed lease road from Loco Hills, New Mexico or produced water furnished from our existing waterflood facilities in the area. We may install a pump and lay a **temporary** 2" poly line on the lease from the battery to the rig for this drilling water.

6. **Construction Materials:**
All construction material for the roadway and drilling pad will be native caliche from the nearest BLM approved pit or from existing available deposits found on the location. All will be in accordance with the drilling stipulations for this well.

7. **Methods of Handling Waste Disposal:**
a. Drill cuttings will be disposed of in a closed loop system using steel haul off tanks. All drilling fluids will be hauled off location to a contracted off lease disposal location.
b. Trash, waste paper, garbage and junk will be placed in a portable, screened trash container on location. All trash and debris will be transported to an authorized off-lease disposal station within 30 days following the completion activities.
c. A properly maintained Porto-john will be provided for the crews during drilling and completion operations. All will be removed after all completion operations have ended.
d. Oil produced during testing will be put into steel storage tank for later sales.
e. Water produced during testing operations will be put in the steel frac. tanks pit until well is turned to the lease tank battery. All produced water will be disposed of through one of our approved disposal methods.

8. **Ancillary Facilities:** There are no planned ancillary facilities for this well.

9. **Well Site Layout:**
. Surface Exhibit D shows the relative location and dimensions of the drilling pad and related components. Only minor differences, if any, in length and/or width of the drilling pad are anticipated, depending on which drilling contractor is selected to drill the well. Only minor leveling of the drilling site is anticipated.

10. **Plans for surface Reclamation:**
a. After drilling and successful completion operations are finished, all equipment and other materials not required for normal production operations will be removed. **See Exhibit F**
b. Burnett Oil respectfully requests two (2) years to downsize the drilling location in order to have room for equipment to fracture stimulate 3 to 4 intervals. Each one requires a large volume fracture treatment with several pumps, a large sand mover, several frac tanks, a treating van and various other vehicles and equipment. Burnett will, if all fracs are completed before the 2 years, contact BLM to downsize the location.

See attached plat outlining the resulting location after downsizing, and showing the sides of location where the caliche would be left for use of kill trucks, hot oil trucks, foam units or whatever is needed to service the well during its life. It is very unsafe rig up equipment inside the safety guide wires of the service unit which is what has to happen if the location is reclaimed on all 4 sides to the safety anchors.
c. The pad size will be reduced to the amount required for normal operation of the producing well. This reduced portion will be restored to the BLM stipulations in section a.
d. If a well is abandoned, the surface location and unneeded road will be restored according to BLM stipulations within 90 days of final abandon and sit re-seeded with BLM (B) seed mix.

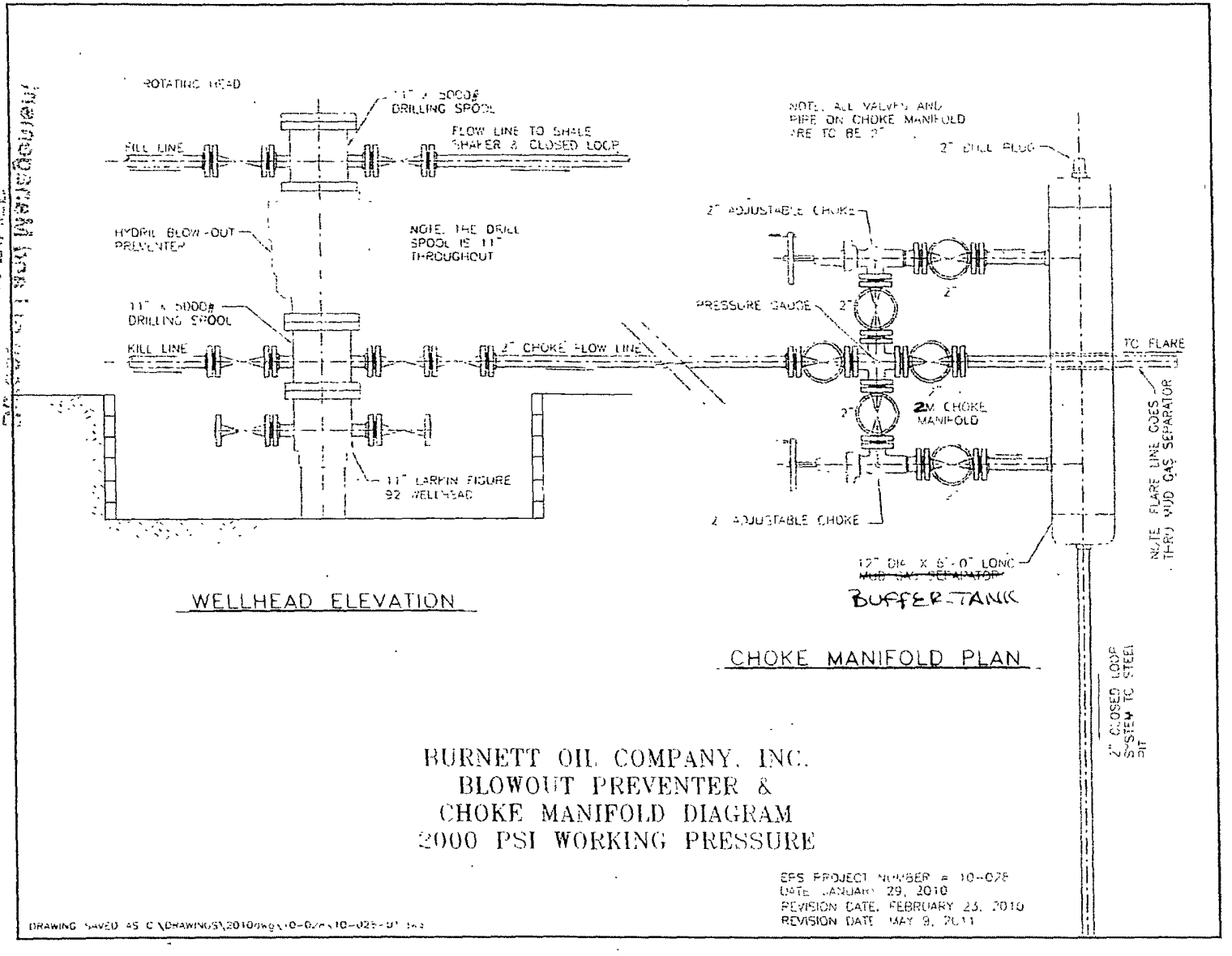
11. **Surface ownership:**
All lands are owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is multiple uses with the primary use of the region for the production of oil and gas and the grazing of livestock.

12. **Other information:**

a. The area surrounding the well site is grassland. The area is relatively flat with small hills and sand dunes. The topsoil is fine, deep sand underlain by caliche. Vegetation cover is generally sparse and consists of mesquite, yucca, shinnery oak and sparse native grasses. Wildlife in the area includes deer, coyotes, rabbits, rodents, reptiles, dove and quail.
b. No permanent or live water is found in the general proximity of this area.
c. No dwellings are found within two (2) miles of this location.
d. There is intermittent cattle grazing and hunting in the area; however, the principal land use is for oil and gas production.
e. An archaeological clearance report from Boone Archaeological Services will be sent to the BLM office in Carlsbad, N.M.

**13. Bond Coverage:**

Current Bond is BLM Bond # NMB000197. The Surety Bond is #B000863. Both are effective May 21, 2004 and remain in place




# BURNETT OIL COMPANY, INC.
# BLOWOUT PREVENTER & CHOKE MANIFOLD DIAGRAM
# 2000 PSI WORKING PRESSURE

EPS PROJECT NUMBER = 10-078
DATE: JANUARY 29, 2010
REVISION DATE: FEBRUARY 23, 2010
REVISION DATE: MAY 9, 2011

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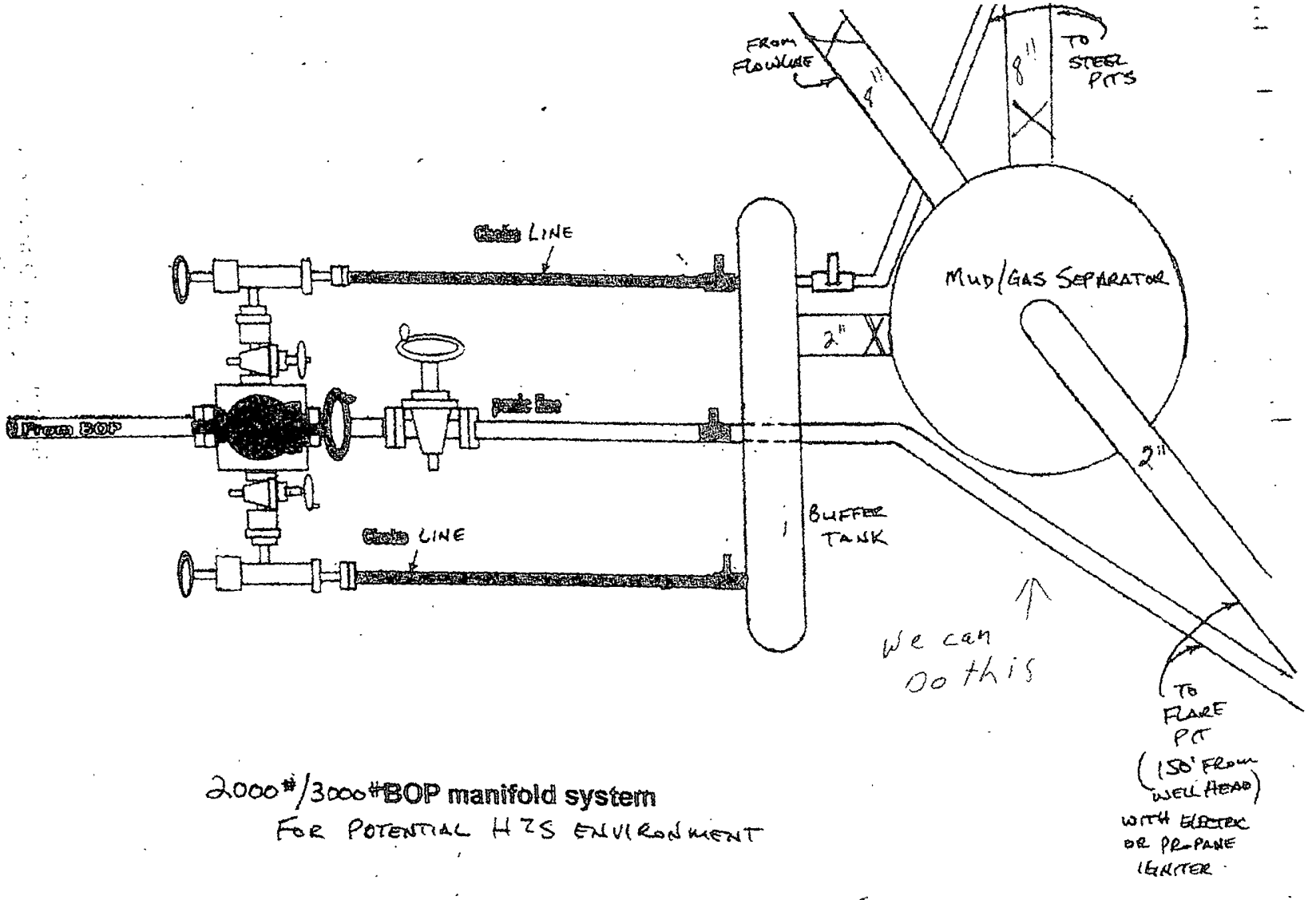
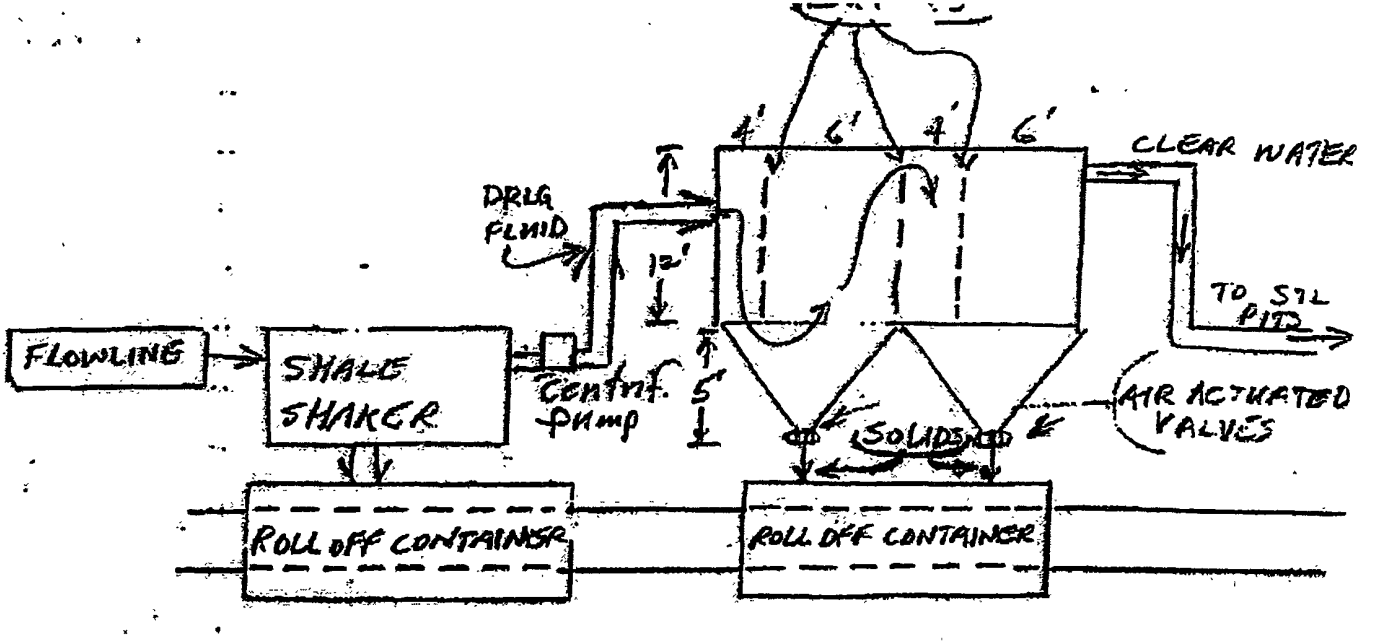



2000#/3000# BOP manifold system
FOR POTENTIAL H2S ENVIRONMENT

Need to know Pressure Rating & Size

Drilling Exhibit E3.




**OPERATIONAL $ MAINTENANCE**

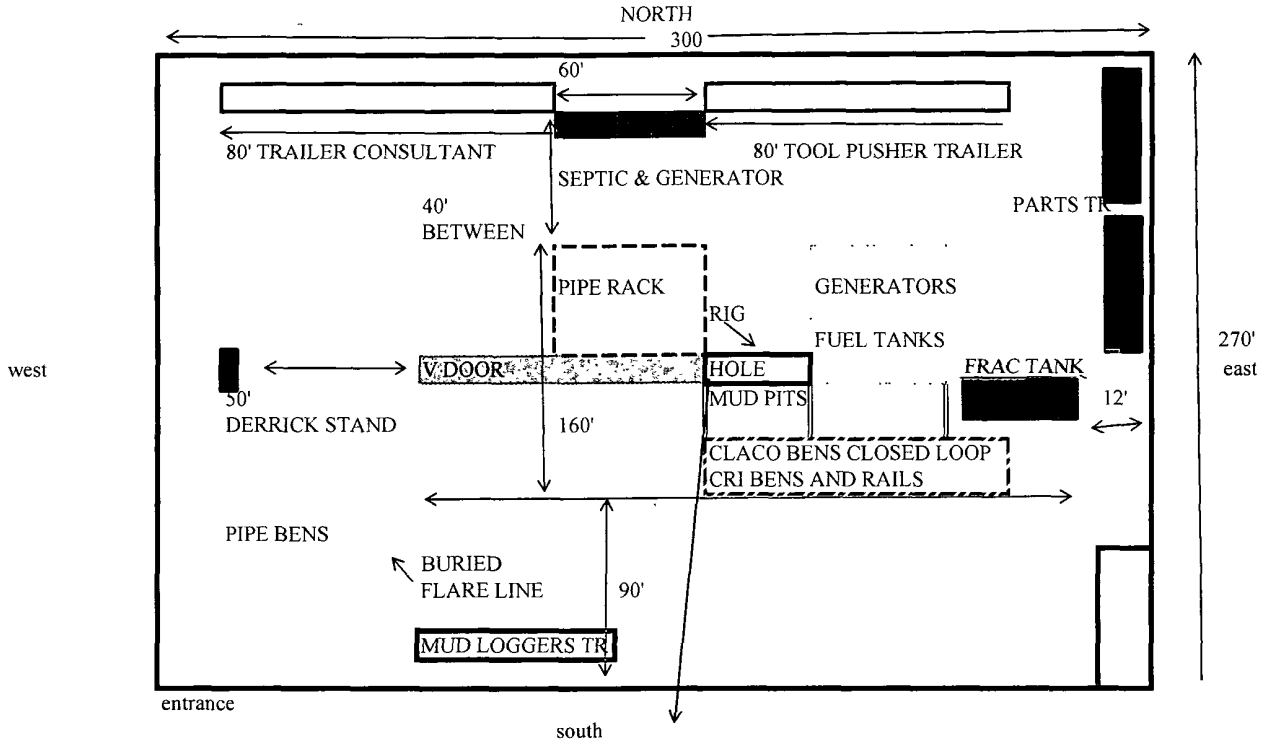
DRILLING FLUIDS FROM THE WELLBORE WILL GO THROUGH FLOWLINE ACROSS SHALE SHAKER. SOLIDS WILL DROP INTO ROLL-OFF CONTAINERS WITH BAFFLES AS DRAWN ABOVE. BAFFLES SLOW FLUID VELOCITY TO ALLOW SOLIDS TO FALL DOWN THROUGH 6" AIR AIR ACTUATED VALVES INTO ROLL- OFF CANTAINERS. CLEAN WATER GOES OUT BACK TO THE DRILLING FLUID STEEL PITS. SOLIDS ARE HAULED TO DISPOSAL. ANY LEFTOVER LIQUID WILL BE HAULED TO DISPOSAL.

BURNETT OIL CO., INC.

**Operations and Maintenance**
Closed Loop equipment will be inspected daily by each tour and any necessary maintenance performed.
Any leak in system will be repaired and/or contained immediately.
OCD notified within 48 hours
Remediation process started

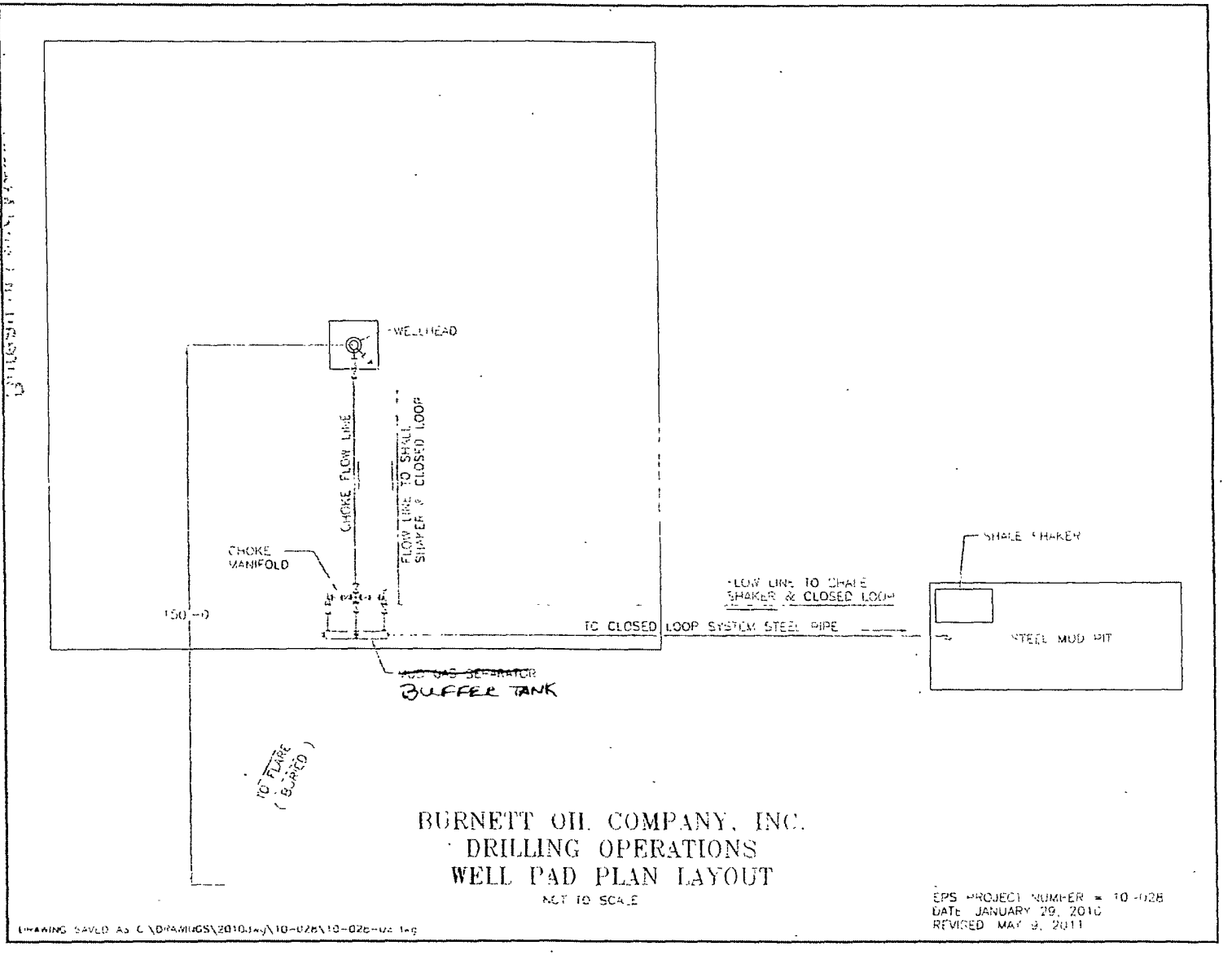
**Closure Plan**
During drilling operations all liquids, drilling fluids and cutting will be hauled off via CRO (Controlled Recovery Incorporated Permit R-9166.)

SURFACE EXHIBIT D1




Gissler B 72

SURFACE EXHIBIT D




BURNETT OIL COMPANY, INC.
DRILLING OPERATIONS
WELL PAD PLAN LAYOUT
NOT TO SCALE

EPS PROJECT NUMBER = 10-028
DATE JANUARY 29, 2010
REVISED MAY 9, 2011

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DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator BURNETT OIL CO INC OGRID # 3080
Well Name & # GISSLER B #72 Surface Type (F) (S) (P)
Location: UL P, Sect 8, Twnship 17 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd ____/____/____ C101 reviewed ____/____/____
B. 1. Check mark, Information is OK on Forms:
OGRID X BONDING FED PROP CODE X, WELL # X, SIGNATURE ____
2. Inactive Well list as of : 7/28/11 # wells 200, # Inactive wells 4
a. District Grant APD but see number of inactive wells:
No letter required X; Sent Letter to Operator ____, to Santa Fe ____
3. Additional Bonding as of: 7/28/11
a. District Denial because operator needs addition bonding:
No Letter required X; Sent Letter to Operator ____, To Santa Fe____
b. District Denial because of Inactive well list and Financial Assurance:
No Letter required X; Sent Letter to Operator ____, To Santa Fe ___

C. C102 YES___, NO ___, Signature ____
1. Pool LOCO HILLS; GLORIETA-YESO, Code 96718
a. Dedicated acreage 40, What Units P
b. SUR. Location Standard X; Non-Standard Location_____
c. Well shares acres: Yes X No ___, # of wells ____ plus this well #____
2. 2nd. Operator in same acreage, Yes_____, No X #45 30-015-36476
Agreement Letter _____, Disagreement letter_____
3. Intent to Directional Drill Yes_____, No X
a. Dedicated acreage _____, What Units _____
b. Bottomhole Location Standard _____, Non-Standard Bottomhole _____
4. Downhole Commingle: Yes_____, No X
a. Pool #2_____,Code_____, Acres_____
Pool #3_____, Code _____, Acres _____
Pool #4_____, Code_____, Acres_____
5. POTASH Area Yes _____, No X
D. Blowout Preventer Yes ____, No _____,
E. H2S Yes X No _____,
F. C144 Pit Registration Yes _____, No _____, need
G. Does APD require Santa Fe Approval:
1. Non-Standard Location: Yes _____, No X, NSL #_____
2. Non-Standard Proration: Yes_____, No X, NSP # _____
3. Simultaneous Dedication: Yes _____, No X, SD # _____
Number of wells _____ Plus #_____
4. Injection order Yes _____, No X; PMX #_____ or WFX #_____
5. SWD order Yes _____, NO X; SWD # _____
6. DHC from SF_____; DHC-HOB_____; Holding_____

7. OCD Approval Date ____/____/____ API #30-015-39247
8. Reviewers_____