HOBBS OCD

DEC 31 2012

RECEIVED

OCD Hobbs

Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM-2512

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No. NMNM-072602X NE Drinkard

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

8. Lease Name and Well No. (225037) NORTHEAST DRINKARD UNIT #190

2. Name of Operator APACHE CORPORATION (8737)

9. API Well No. 30-025- 40904

3a. Address 303 VETERANS AIRPARK LN #3000 MIDLAND, TX 79705

3b. Phone No. *(include area code)* 432-818-1167

10. Field and Pool, or Exploratory EUNICE; BLI-TU-DRI, NORTH (22900)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 1050' FNL & 560' FWL
At proposed prod. zone SAME

11. Sec., T. R. M. or Blk. and Survey or Area LOT: 4 SEC: 3 T21S R37E

14. Distance in miles and direction from nearest town or post office* APPROX 6 MILES NORTH OF EUNICE, NM

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) 560'

16. No. of acres in lease 708 ACRES

17. Spacing Unit dedicated to this well 37.86 ACRES

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. ~ 200'

19. Proposed Depth 7200'

20. BLM/BIA Bond No. on file BLM - CO - 1463 NATIONWIDE

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3477'

22. Approximate date work will start* As Soon As Approved

23. Estimated duration ~ 10 - 15 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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 authorized officer.

25. Signature Sorina L Flores — Name *(Printed/Typed)* SORINA L. FLORES — Date 7/9/12

Title SUPV OF DRILLING SERVICES

Approved by *(Signature)* /s/ James A. Amos — Name *(Printed/Typed)* — Date DEC 27 2012

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.

**(Instructions on page 2)*

Capitan Controlled Water Basin

KZ 01/02/13

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

JAN 08 2013

PRIVATE SURFACE OWNER AGREEMENT

OPERATOR: APACHE CORPORATION

WELL NAME: NORTHEAST DRINKARD UNIT #190

UL: 4 SECTION: 3 TOWNSHIP: 21S RANGE: 37E

LOCATION: 1050' FNL & 560' FWL COUNTY: LEA STATE: NM

LEASE NUMBER: NMNM - 2512

STATEMENT OF SURFACE USE

The surface to the subject land is owned by ROBERT MC CASLAND
PO BOX 206
EUNICE, NM 88231

The surface owner has been contacted regarding the drilling of the subject well, and an agreement for surface use has been negotiated.

CERTIFICATION: I hereby certify that the statements made in this statement are to the best of my knowledge, true and correct.

NAME: JEREMY WARD

SIGNATURE: Jeremy Ward

DATE: 6/5/2012

TITLE: DRILLING ENGINEER

To expedite your Application to Drill please fax the completed form to the Bureau of Land Management (575) 234-5927 or (575) 885-9264
Attn: Legal Instruments Examiner
620 E. Green Street
Carlsbad, NM 88220

The original document with signature should be mailed as soon as possible.

DRILLING PLAN: BLM COMPLIANCE
(Supplement to BLM 3160-3)

APACHE CORPORATION (OGRID: 873) NORTHEAST DRINKARD UNIT #190

Lease #: NM-2512 Projected TD: 7200' GL: 3477'
1050' FNL & 560' FWL LOT: 4 SEC: 3 T21S R37E LEA COUNTY, NM

1. GEOLOGIC NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

FORMATION	WELL DEPTH	WATER/OIL/GAS
Quaternary Aeolian	Surf	
Rustler	1327'	
Salt Top	1387'	
Salt Bottom	2514'	
Yates	2658'	
Seven Rivers	2913'	
Queen	3482'	
Grayburg	3817'	
San Andres	4085'	
Glorieta	5276'	
Paddock	5333'	
Blinebry	5687'	Oil
Tubb	6151'	Oil
Drinkard	6599'	Oil
ABO	6852'	Oil
TD	7200'	
Depth to Ground Water:	~ 75'	

All fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth and adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential.

3. CASING PROGRAM: All casing is new & API approved

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
12-1/4"	0' – 1375'	8-5/8"	24#	STC	J-55	1.125	1.0	1.8
7-7/8"	0'-7200'	5-1/2"	17#	LTC	L-80	1.125	1.0	1.8

4. CEMENT PROGRAM:

A. 8-5/8" Surface cmt with (100% excess cmt; Cmt to Surface):

Lead: 500 sx Class C w/ 2% CaCl2, 0.13# CF, 3# LCM1, 0.005 gps FP-6L, 4% Bentonite
(13.5 ppg, 1.75 yld) *Comp Strengths :* ***12 hr*** *– 500 psi* ***24 hr*** *– 782 psi*

Tail: 200 sx Class C w/ 1% CaCl2, 0.13 # CF, 0.005 gps FP-6L
(14.8 ppg, 1.34 yld) *Comp Strengths :* ***12 hr*** *– 755 psi* ***24 hr*** *– 1347 psi*

B. 5-1/2" Production cmt with (30% excess cmt; cmt to surf):

Lead: 600 sx (35:65) Poz Cl C w/ 5% CaCL2, 0.125 # CF, 3# LCM1, 0.5% FL52, 0.005gps FP6L, 6% Bentonite, 0.3% Sodium Metacilicate *(12.6ppg, 2.0 yld)* *Comp Strengths:* ***12 hr*** *– 603 psi* ***24 hr*** *– 850 psi*

Tail: 350 sx (50:50) Poz Cl C w/ 5% CaCL2 + 0.13% CF, 3# LCM1 + 0.005gps FP6L + 2% Bentonite + 1% FL25 + 1% BA58 + 0.1% Sodium Metasilicate *(14.2 ppg, 1.31 yld)* *Comp Strengths:* ***12 hr*** *– 850 psi* ***24 psi*** *– 1979 psi*

*** The above cmt volumes could be revised pending caliper measurement from open hole logs. TOC is designed to reach surface on Surface and Production. The above slurry design may change, but will meet BLM specifications.* *All slurries will be tested prior to loading to confirm thickening times & a lab report furnished to Apache. Fluid loss will be tested & reported on slurries with fluid loss additives. Lab test report will be furnished prior to pumping cement.*

5. PROPOSED CONTROL EQUIPMENT

"EXHIBIT 5" shows a 900 series 11" 3M psi WP BOP consisting of an annular bag type preventer, middle blind rams, bottom pipe rams. The BOP will be nippled up on the 8-5/8" csg and utilized continuously until TD is reached. The BOP will be tested at 2000 psi, maximum surface pressure is not expected to exceed 3M psi, BHP is calculated to be approximately 3168 psi. *All BOP's and associated equipment will be tested as per BLM *Drilling Operations Order #2*. The BOP will be operated and checked each 24 hr period & the blind rams will be operated & checked when the drill pipe is out of the hole. Functional tests will be documented on the daily driller's log. *"EXHIBIT 5"*also shows a 3M psi choke manifold with a 4" panic line. Full opening stabbing valve & Kelly cock will be on derrick floor in case of need. No abnormal pressures of temperatures are expected in this well. No nearby wells have encountered any problems.

**Contingency: Apache respectfully requests a variance for using a flex hose contingent on type of rig used due to rig scheduling.*

6. AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:

9" x 3000 psi Double BOP/Blind & pipe ram (3M BOP/BOPE to be used as 2M system)
4-1/2" x 3000 psi Kelly valve
9" x 3000 psi mud cross – H2S detector on production hole
Gate-type safety valve 3" choke line from BOP to manifold
2" adjustable chokes – 4" blow down line
Fill up line as per Onshore Order #2

7. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

INTERVAL	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
0' –1375'	8.3	28 – 32	NC	Fresh Water
1375 – 7100'	10	28 – 32	NC	Brine
7100' – TD	10.1 – 10.2	32 – 33	10 - 12	Cut Brine

***** The necessary mud products for weight addition and fluid loss control will be on location at all times. In order to run open hole logs & casing, the above mud properties may have to be altered to meet these needs.***

8. LOGGING, CORING & TESTING PROGRAM: See COA

A. OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Spectral Gamma Ray, Caliper & Sonic from TD back to last csg shoe.
B. Run CNL, Gamma Ray from last csg shoe back to surface.
C. No cores or DST's are planned at this time. Mud log will be included on this well.
D. Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows & drill stem tests.

9. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. There is known presence of H_2S in this area. If H_2S is encountered the operator will comply with the provisions of *Onshore Oil & Gas Order No. 6 (SEE EXHIBIT 6)*. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: 3168 psi and estimated BHT : 115°.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after BLM has approved APD. Anticipated spud date will be as soon after BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take 10 - 15 days. If production casing is run then an additional 90 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

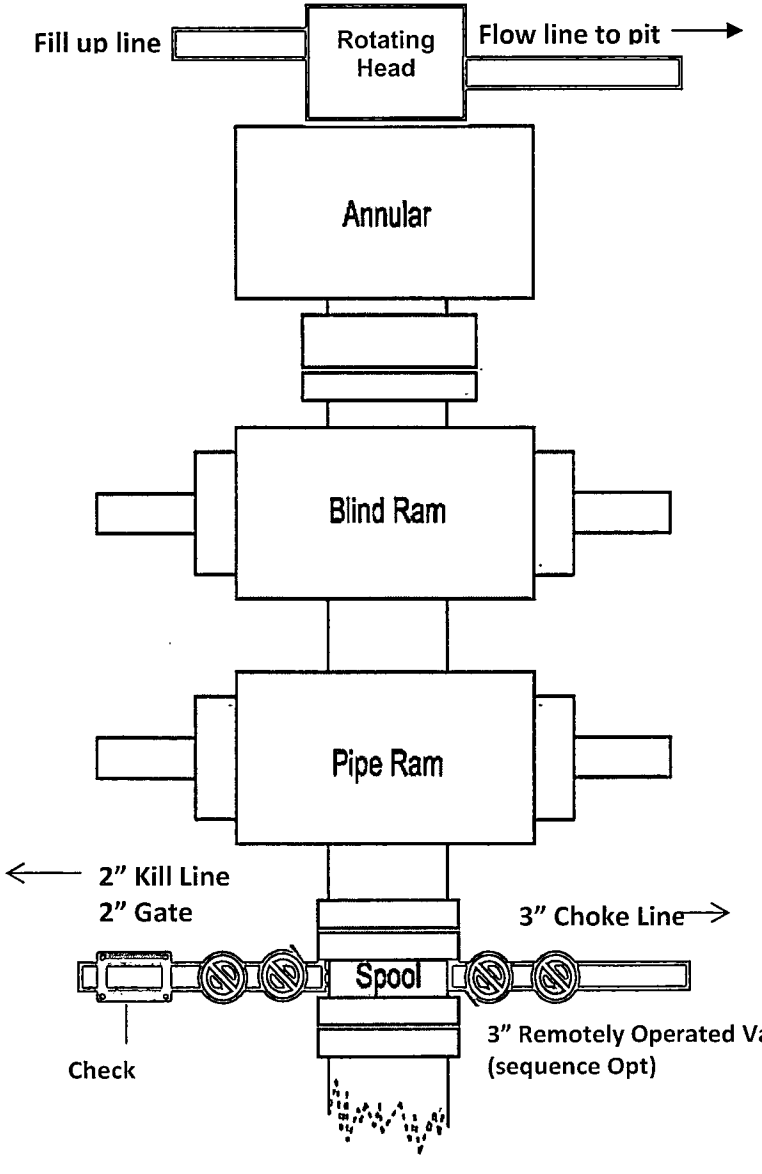
11. OTHER FACETS OF OPERATION:

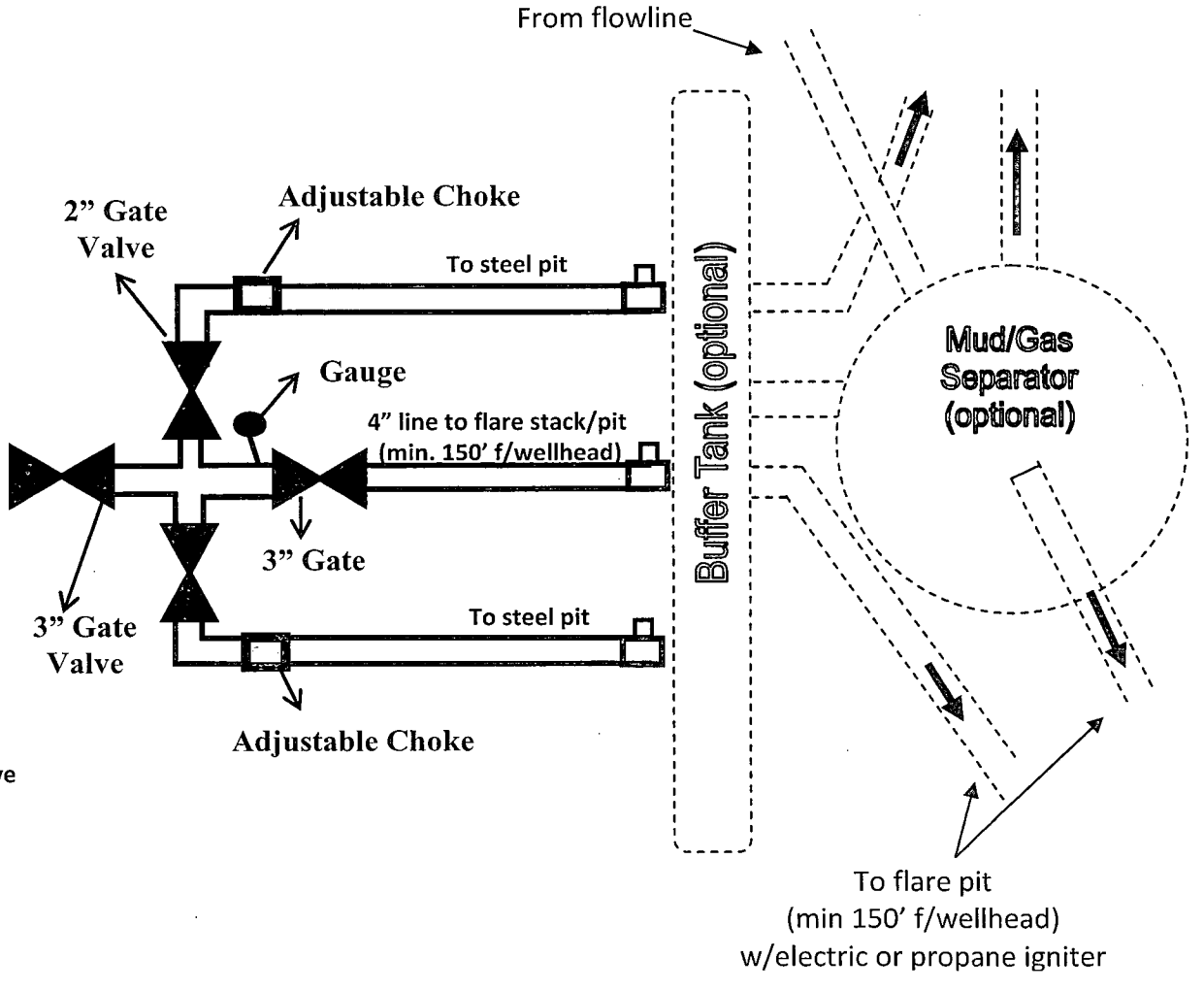
After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Eunice, BLI-TU-DRI, North formations will be perforated and stimulated in order to establish production. The well will be swab tested & potentialed as an oil well.

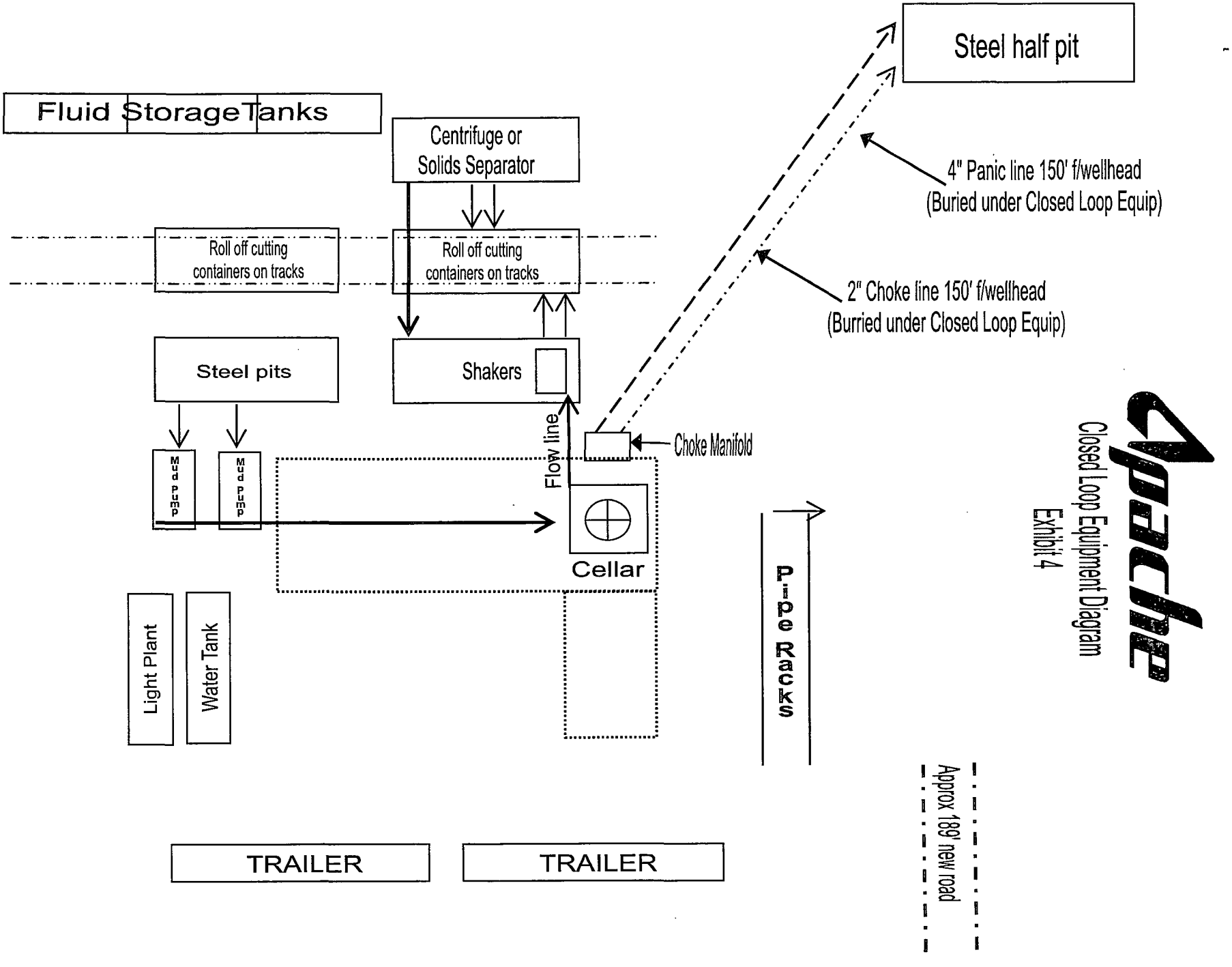
3M psi BOPE & Choke Manifold

Exhibit 3

All valve & lines on choke manifold are 2" unless noted.
Exact manifold configuration may vary







Apache

Closed Loop Equipment Diagram

Exhibit 4

DESIGN PLAN, OPERATING & MAINTENANCE PLAN, & CLOSURE PLAN
FOR OCD FOR C-144

NORTHEAST DRINKARD UNIT #190

DESIGN PLAN

Fluid & cuttings coming from drilling operations will pass over the Shale Shaker with the cuttings going to the Sundance Inc / CRI haul off bin and the cleaned fluid returning to the working steel pits.

Equipment includes:

2 – 500 bbl steel frac tanks (fresh water for drilling)
2 – 180 bbl steel working pits
3 – 75 bbl steel haul off bins
2 – Pumps (6-1/2" x 10" PZ 10 or equivalent)
1 – Shale shaker
1 – Mud cleaner – QMAX MudStripper

OPERATING AND MAINTENANCE PLAN

Inspection to occur every tour for proper operation of system and individual components. If any problems are found they will be repaired and/or corrected immediately.

CLOSURE PLAN

All haul bins containing cuttings will be removed from location and hauled to Sundance Incorporated (NM-01-0003) disposal site located 3 miles East of Eunice, NM on the Texas border / Controlled Recovery, Inc's (NM-01-0006) disposal site located near mile marker 66 on Highway 62/180.

Sorina L. Flores
Supv of Drilling Services