Form 3160-3
(March 2012)

OCD Hobbs

HOBBS OCD

MAR 07 2016

RECEIVED

ATS-15-435

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM-114362

6. If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
N/A

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

8. Lease Name and Well No.
MONUMENT FEDERAL 1 (316020)

2. Name of Operator RUBICON OIL & GAS, LLC (194266)

9. API Well No.
30-025- 43111

3a. Address 508 WEST WALL AVENUE, SUITE 500
MIDLAND TX 79701

3b. Phone No. *(include area code)*
432 687-5100

10. Field and Pool, or Exploratory
BRUNSON; DRINKARD-ABO SOUTH (7900)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 330' FNL & 330' FWL 17-23S-38E
At proposed prod. zone SAME

11. Sec., T. R. M. or Blk. and Survey or Area
17-23S-38E NMPM

14. Distance in miles and direction from nearest town or post office*
9 AIR MILES SE 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)
330'

16. No. of acres in lease
1,160.00

17. Spacing Unit dedicated to this well
NWNW

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1043' (Susan 1 (P&A))

19. Proposed Depth
8,100'

20. BLM/BIA Bond No. on file
~~NMB-6315~~ NMB000711

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3,377' UNGRADED

22. Approximate date work will start*
05/01/2015

23. Estimated duration
1 MONTH

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

Name *(Printed/Typed)*
BRIAN WOOD (PHONE: 505 466-8120)

Date
01/26/2015

Title
CONSULTANT

(FAX: 505 466-9682)

Approved by *(Signature)*
Steve Caffey

Name *(Printed/Typed)*

Date
FEB 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)

*(Instructions on page 2)

Lea County Controlled Water Basin

KZ
03/07/16

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

MAR 08 2016

Rubicon Oil & Gas, LLC
Monument Federal 1
330' FNL & 330' FWL
Sec. 17, T. 23 S., R. 38 E.
Lea County, NM

Drilling Program

1. ESTIMATED TOPS

Name	MD	Contents
Ogallala	0'	fresh water
Top salt	1390'	
Anhydrite	1500'	
Base salt	2615'	
Yates	2950'	
Seven Rivers	3250'	
Queen	3900'	
San Andres	4500'	
Glorieta	5700'	
Tubb	6700'	oil
Drinkard	6850'	oil
Abo	7200'	oil
TD	8100'	

2. NOTABLE ZONES

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. A windmill is ≈3,000' west-northwest. The windmill is not in the State Engineer's database. Closest water well that is in the database is 5,749' northeast. Water was reported at a depth of 335' in that 400' deep well (CP 00687).

3. PRESSURE CONTROL See COA

The drilling contract has not yet been awarded. Thus, the exact BOP model to be used is not yet known. A typical 5,000-psi model is attached. If equipment changes, then a Sundry Notice will be filed. System will meet Onshore Orders 2 (BOP) and 6 (H_2S) requirements.

- See COA

BOP and choke manifold will be installed and pressure tested before drilling out of the surface casing. Subsequent pressure tests will be performed whenever the pressure seals are broken. BOP and manifold mechanical operating conditions will be checked daily. BOP will be tested at least once every 30 days.

Ram type preventers and related pressure control equipment will be pressure tested to the working pressure of the stack if a test plug is used. If a plug is not used, then the stack will be tested to the rated working pressure of the stack or 70% of the minimum internal yield of the casing, whichever is less. Annular type preventers will be pressure tested to 50% of their working pressure. All casing strings will be pressure tested to 0.22 psi/foot or 1,500 psi, whichever is greater, not to exceed 70% of the internal yield. The casing shoe will be tested by drilling 5' to 20' out from under the shoe and pressure tested to a maximum expected mud weight equivalent as shown in the mud program.

A manual locking device (e. g., hand wheels) or automatic locking devices will be installed on the BOP stack. Remote controls capable of both opening and closing all preventers will be readily accessible to the driller.

Choke manifold and accumulator will meet or exceed BLM standards. BOP equipment will be tested after any repairs. Pipe and blind rams and annular preventer will be activated on each trip. Weekly BOP drills will be conducted with each crew. All tests, maintenance, and BOP drills will be recorded on the rig tower sheets.

Auxiliary equipment will include:

- upper and lower kelly cocks will be installed while drilling
- inside BOP or stabbing valve with handle available on rig floor
- safety valve(s) and subs to fit all string connections in use
- electronic/mechanical mud monitor with a minimum pit volume totalizer, stroke counter, & flow sensor

4. CASING & CEMENT

Conductor pipe will be set at 40'. All casing will be new. Safety factors are minimums.

Hole O. D.	Interval	Casing O. D.	lb/ft	Grade	Connect	Collapse SF	Burst SF	Tension Connect SF	Tension Body SF
12.25"	GL - 1450'	9.625"	36	J-55	STC	1.3	1.0	1.8	2.0
8.75"	GL - 8100'	7"	29	P-110	LTC	1.3	1.0	1.8	2.0

casing	depth set	sacks cement	TOC	gallons per sack	density (ppg)	cu ft per sack	total cubic feet	excess	blend
9.625" lead	1450'	285	GL	10.14	12.8	1.87	532	100%	1
9.625" tail		300		6.31	14.8	1.32	396		2
7" lead	8100'	340	GL	14.05	11.8	2.41	819	35%	3
7" tail		650		5.57	14.2	1.29	838		4

Surface Casing:
Centralizers will be installed on each of the first 3 joints starting with the shoe joint. A total of 12 regular bow type centralizers will be installed, typically on every third joint.
Blend 1 will consist of 65/35/6 Class C with 6% gel + 5% salt + ¼ pound per sack cello-flake + 0.2% C-41P.
Blend 2 will consist of Class C + 2% $CaCl_2$.

Production Casing:
Forty-nine centralizers will be installed. Twenty-two will be regular bow type centralizers. Twenty-seven will be turbolizer type centralizers. Turbolizers will be

installed on the middle of the shoe joint, on the first connection above the float collar, every other joint to 7200', every third joint to 5000', and regular bow type centralizer on every fourth joint to 1300'.
Blend 3 will consist of 50/50 poz Class H + 10% gel + 5% salt + ¼ pound per sack cello-flake+ 0.2% C-41P.
Blend 4 will consist of 50/50 poz Class H + 2% gel + 5% salt + 3 pounds per sack Kol-Seal™ + 0.3% C-15.

5. MUD PROGRAM

An electronic/mechanical mud monitor with a minimum pit volume totalizer, stroke counter, and flow sensor will be used.

Interval	Type	Weight	Viscosity	Fluid Loss
0' – 1450'	fresh water spud mud	8.4 – 8.7	32 - 34	no control
1450' - TD	brine with sweeps	10	29	10 - 15 cc

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or abnormal pressures. If poor hole conditions are encountered, then mud properties may be adjusted in order to run open hole logs or casing.

6. CORES, TESTS, & LOGS

See COA

No core or drill stem test is planned.

Spectral gamma ray – density – neutron – induction –micro logs will be run from TD to the surface casing shoe.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≤3,507 psi.

No H_2S is expected during the drilling phase. Nevertheless, H_2S safety package will be on location before drilling out of the surface casing.

Adequate flare lines will be installed to safely vent gas from the mud gas separator away from the rig to a point ≥150' from the wellhead.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take 1 month to drill and complete the well.

Rubicon Oil & Gas, LLC

Monument Federal #1

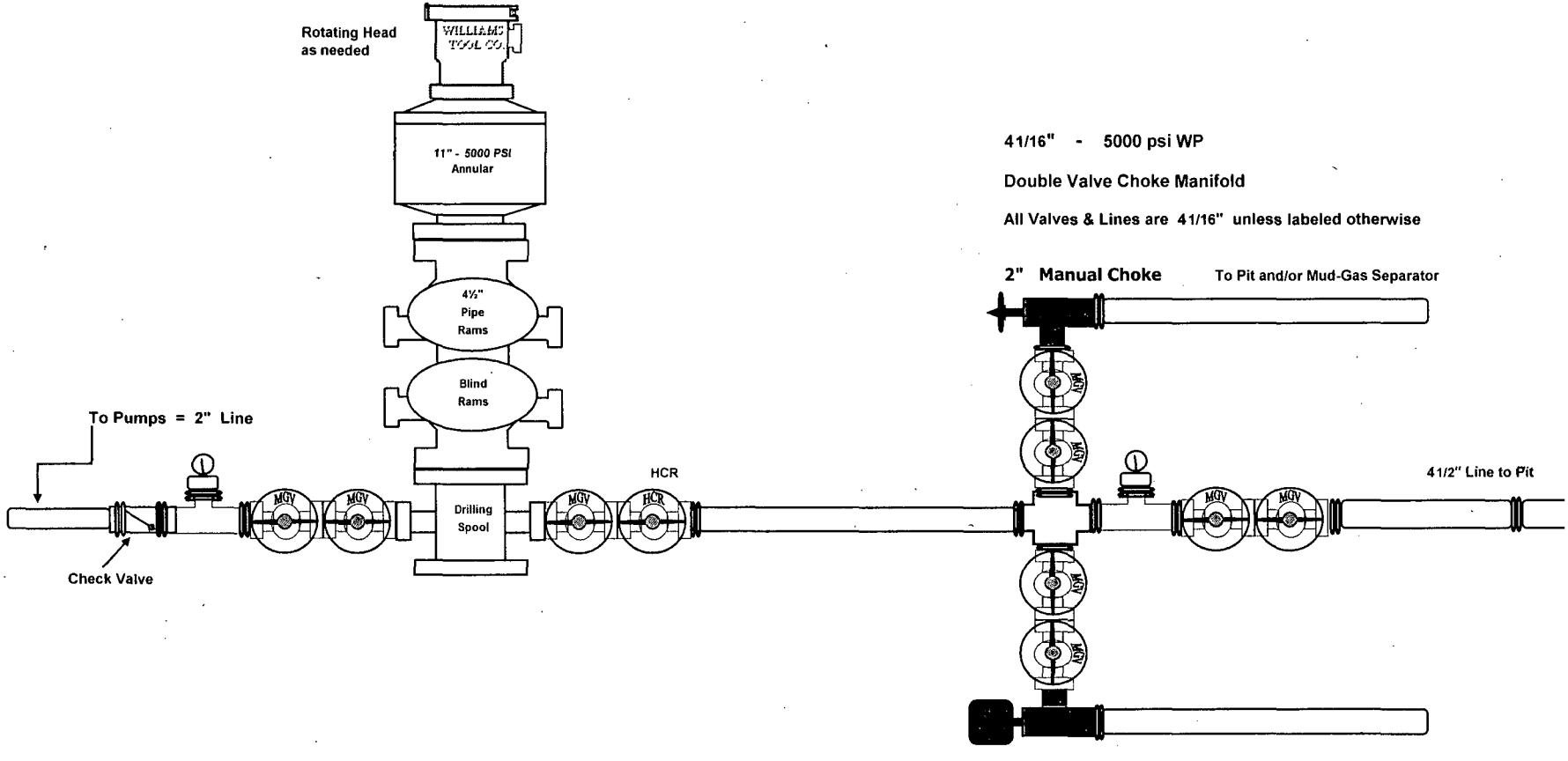
Lea County, New Mexico

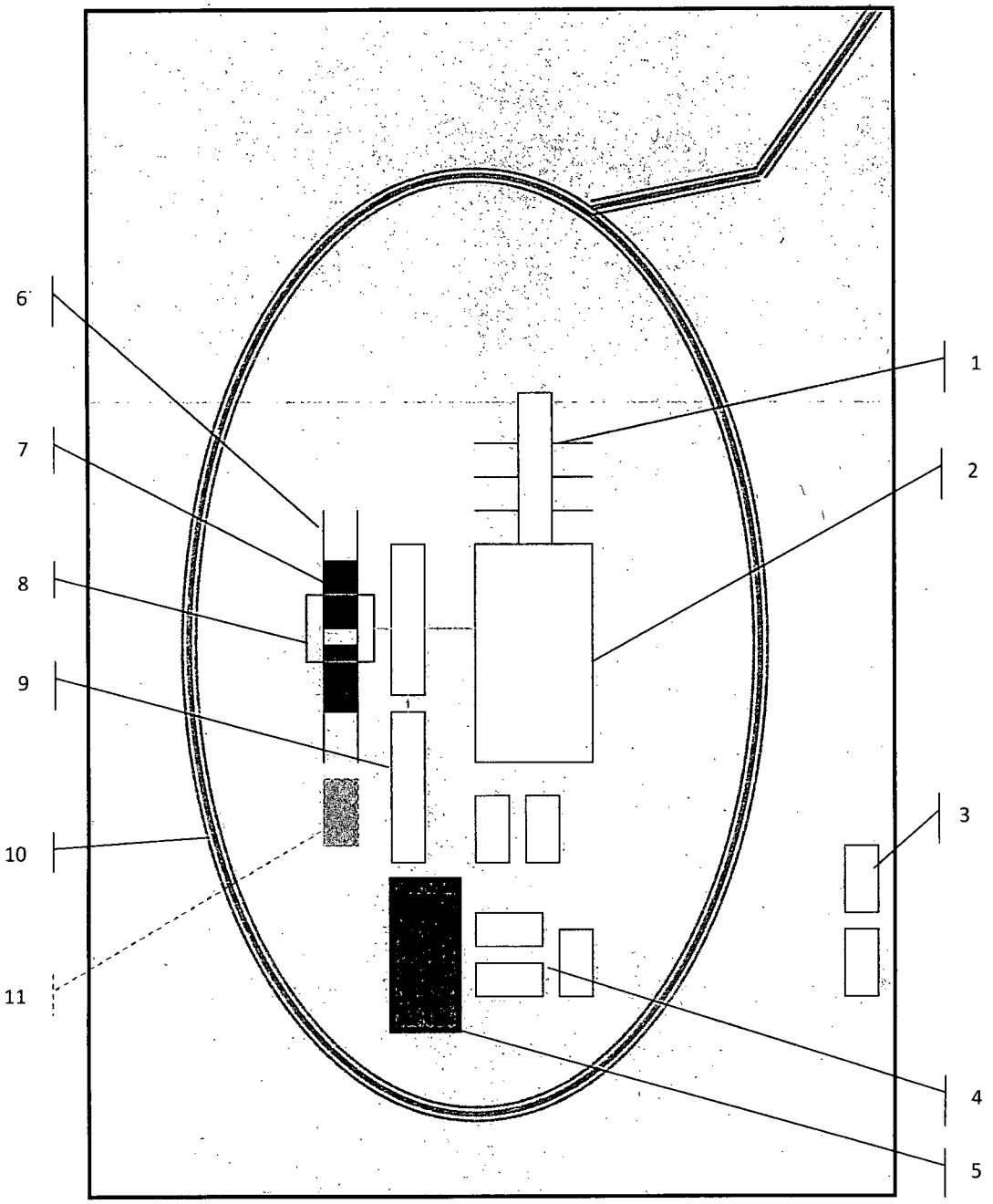
Section 17 T23S R38E 330'FSL 330'FWL

Rubicon Oil & Gas, LLC

SIERRA HAMILTON

11" - 5K Stack

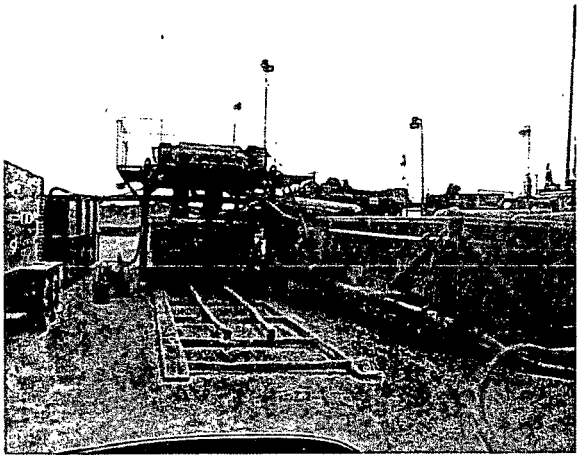




Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available



Above: Centrifugal Closed Loop System

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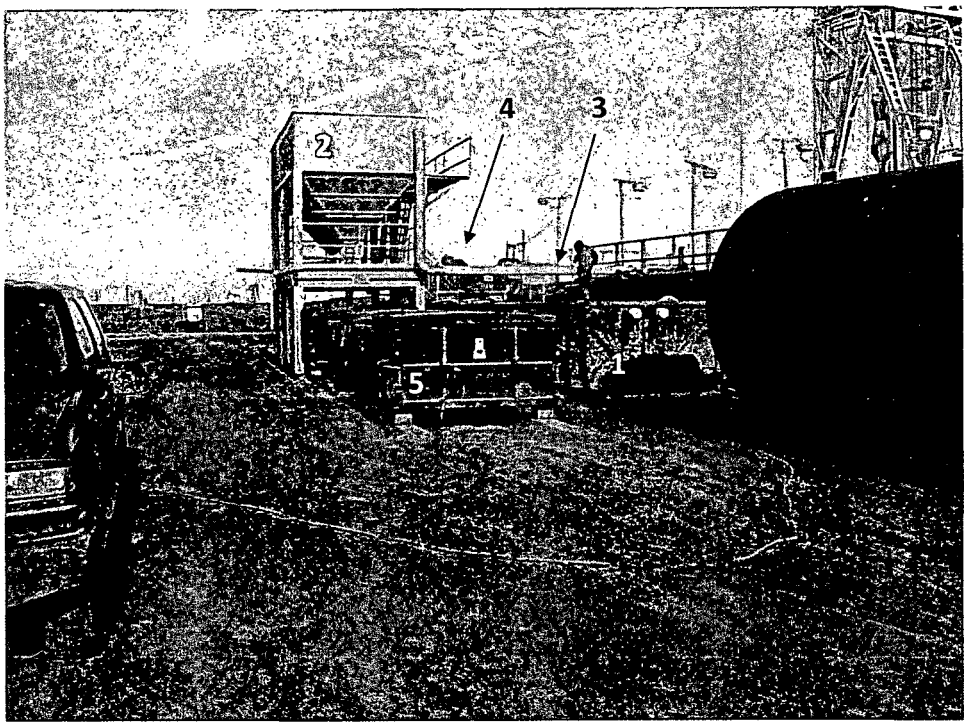
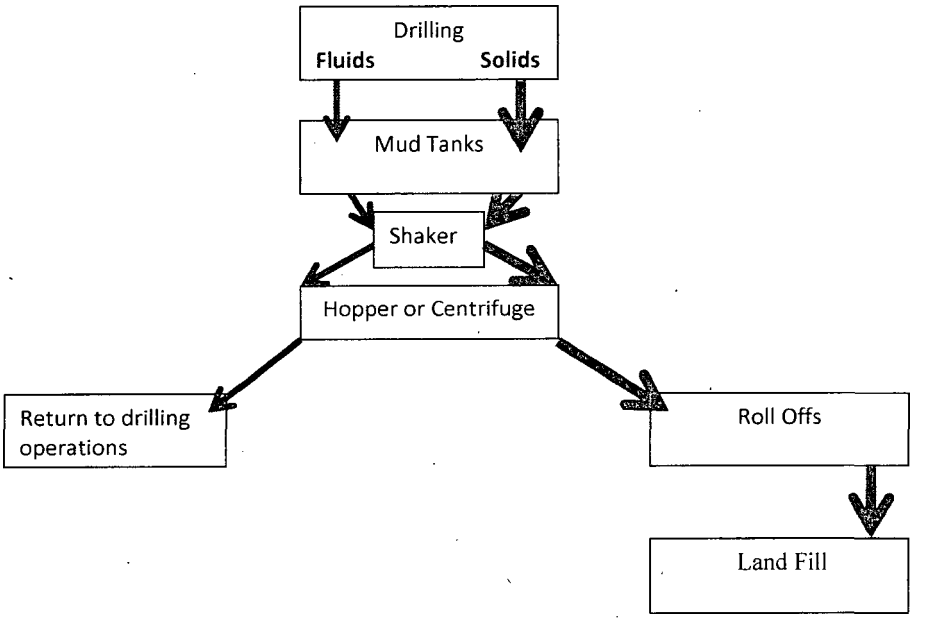
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

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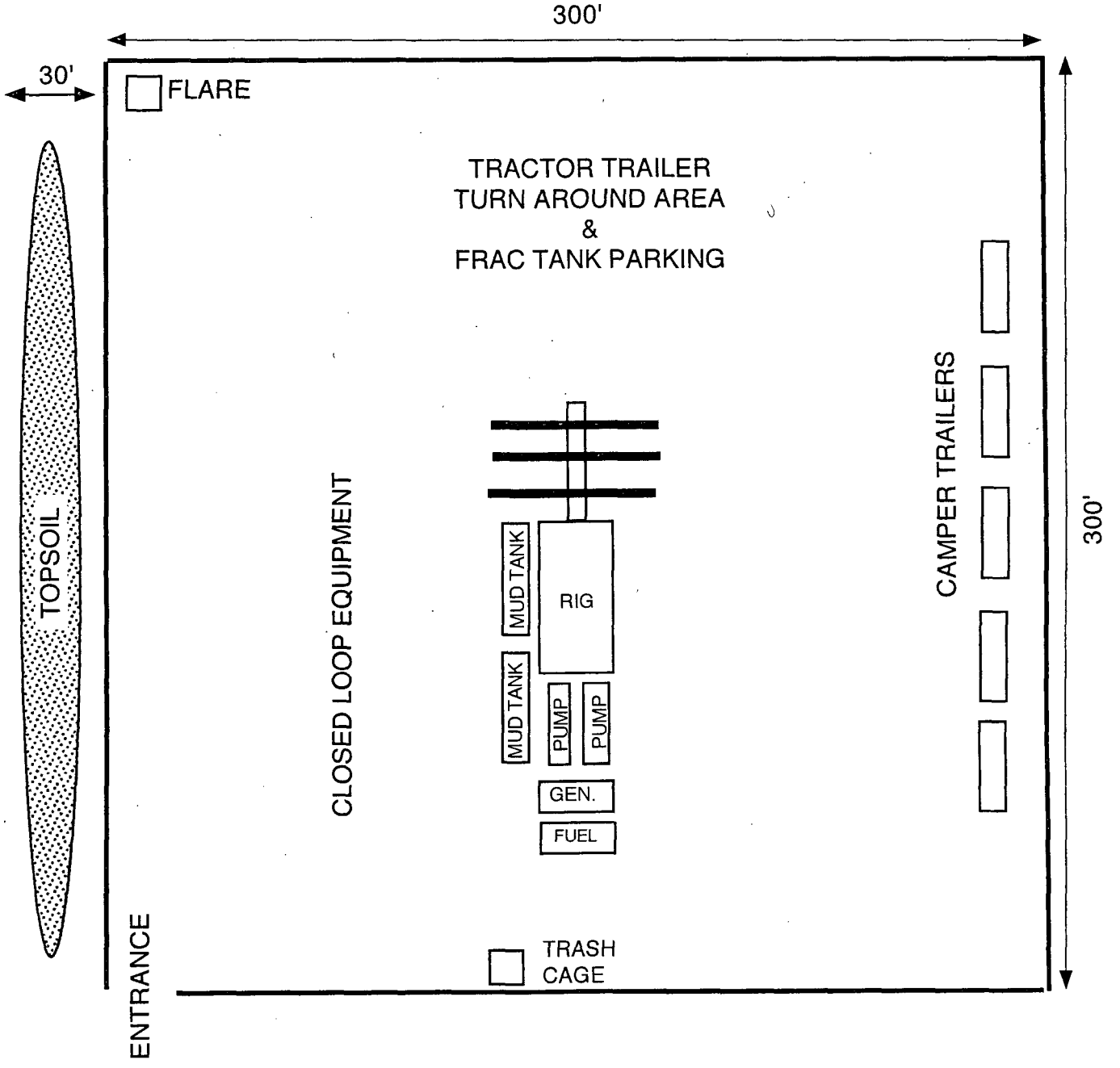
Rubicon's
Monument Federal 1
rig diagram

NORTH

1" = 50'



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