

R-111-POTASH

ATS-13-1145

Form 3160-3
(March 2012)OCD Hobbs
HOBBS OCDFORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

15. Lease Serial No. **SHL**
NM-121957, NM-94095

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
Capella BOP Federal Com. #4H

9. API Well No.

30-025-42632

10. Field and Pool, or Exploratory

LOST TANK, DELAWARE (40289)

11. Sec., T. R. M. or Blk. and Survey or Area

Sec. 17, T21S-R32E, SHL

Sec. 8, T21S-R32E, BHL

12. County or Parish

Lea County

13. State

NM

1a. Type of work: ☒ DRILL☐ REENTER

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

2. Name of Operator Yates Petroleum Corporation

3a. Address 105 S. Fourth St.
Artesia, NM 882103b. Phone No. (include area code)
575-748-4120

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 1600' FSL & 1900' FEL Section 17, SHL (J)

At proposed prod. zone 330' FNL & 1980' FEL Section 8, BHL (B)

14. Distance in miles and direction from nearest town or post office*

43 miles east of Carlsbad

15. Distance from proposed* location to nearest property or lease line, ft. 1600' SHL
330' BHL
(Also to nearest drig. unit line, if any)

16. No. of acres in lease

1280 - SHL
640 - SHL 1920.000

17. Spacing Unit dedicated to this well

280 acres
NW4SE4, W2NE4 Section 17, W2E2 Section 818. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20' from the
Caper BFE Fed #5

19. Proposed Depth

8424' TVD
16552' TD

20. BLM/BIA Bond No. on file

NMB000434
NMB000920

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

3651'

22. Approximate date work will start*

02/15/2014

23. Estimated duration

60 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

Travis Hahn

Name (Printed/Typed)

Travis Hahn

Date

08/23/2013

Title

Land Regulatory Agent

Approved by (Signature)

Steve Caffey

Name (Printed/Typed)

Office

CARLSBAD FIELD OFFICE

Date

JUN 8 2015

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)

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

JUN 16 2015

YATES PETROLEUM CORPORATION
 Capella BOP Federal #4H
 1600' FSL & 1900' FEL Sec. 17 T21S-R32E SHL
 330' FNL & 1980' FEL, Sec. 8 T21S-R32E BHL
 Lea County, New Mexico

HOBBS OCD

JUN 15 2015

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1. The estimated tops of geologic markers are as follows:

Rustler	1040'
Top of Salt	1120'
Base of Salt	3000'
Bell Canyon	4550'
Cherry Canyon	5410'
Manzanita Marker	5700'
Brushy Canyon	6700'
Brushy Canyon Marker	8173'
Brushy Horizontal TRGT	8702' Oil
Lateral Hole (TD)	16552' Oil

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: Approx.: 0' - 1065'

Oil or Gas: See above--All Potential Zones

** See COA*

3. Pressure Control Equipment: 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375" casing and also on the 9.625" casing. Pressure tests to 3000 PSI and held for 30 minutes will be conducted before drilling out from under all casing strings, which are set and cemented in place. Test will be conducted by an Independent Tester, utilizing a test plug in the well head. Test will be held for 10" on each segment of the system tested. Any leaks will be repaired at the time of test. Annular preventer will be tested to 50% of rated working pressure. Accumulator system will be inspected for correct pre charge pressures, and proper functionality, prior to connection to the BOP system. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit.

4. Auxiliary Equipment:

A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

5. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New) 13 3/8" will be J-55/H-40 Hybrid

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
26"	20"	94#	H-40		0-65'	65'
17.5"	13.375"	48#	J-55	ST&C	0-1065'	1065'
12.25"	9.625"	40#	J-55	LT&C	0'-80'	80'
12.25"	9.625"	36#	J-55	LT&C	80'-3300'	3220'
12.25"	9.625"	40#	J-55	LT&C	3300'-4200'	900'
12.25"	9.625"	40#	HCK-55	LT&C	4200'-4600'	400'
8.75"	5.5"	17#	P-110	Buttress Thread	0'-4600'	4600'
8.5"	5.5"	17#	P-110	Buttress Thread	4600'-16552'	11952'

Minimum Casing Design Factors: Burst 1.0, Tensile 2.8, Collapse 1.125

B. CEMENTING PROGRAM:

Surface casing (0' – 1065'): Lead with 600 sacks of Class PozC 35:65:6 (WT 12.50 YLD 2.0); tail in with 205 sacks of Class C + 2% CaCl₂ (WT 14.80 YLD 1.34). Designed with 100% excess, TOC is surface.

Intermediate Casing (0' – 4600'): Lead with 1300 sacks of Class PozC 35:65:6 (WT 12.50 YLD 2.00); tail in with 200 sacks of Class C + 2% CaCl₂ (WT 14.80 YLD 1.34). Designed with 100% excess, TOC is surface.

Production Casing: Cement to be done with DV Tool in three stages at approximately 4500' and 7900'.

See
COA

Stage 1 from 7900' – 16552': Cement with 1500 sacks of Pecos Valley Lite (WT 13.0 YLD 1.82) 30% CaCO₃, 3.2% Expansion additive, 2% Antifoam, 0.8% Retarder, 15 Fluid loss. TOC- 4500' designed with 35% excess.

Stage 2 from 4500' – 7900': Lead cement with 445 sacks of Class PozC 35:65:6 (WT. 12.50 YLD 2.0); tail in with 205 sacks of Class C + 2% CaCl₂ (WT 14.80 YLD 1.34). TOC is surface, designed with 35% excess.

Stage 3 from 0' – 4500': Lead cement with 630 sacks of Class PozC 35:65:6 (WT. 12.50 YLD 2.0); tail in with 200 sacks of Class C + 2% CaCl₂ (WT 14.80 YLD 1.34). TOC is surface, designed with 35% excess.

Well will be drilled vertically to a depth of 7947'. Well will then be kicked off at 7947' and drilled directionally at 12 degrees per 100' with an 8.75" hole to 8702' MD (8424' TVD). Hole will then be reduced to 8.5" and drilled to TD at 16552' MD (8330' TVD) where 5.5" casing will be set and cemented to the surface. Production casing will be cemented in three stages with a DV Tool placed at approximately 4500' and 7900'. Penetration point of producing zone will be encountered at 2083' FSL & 1907' FEL, Section 17-21S-32E. Deepest TVD in the lateral will be 8424'.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

See
COA

Interval	Type	Weight	Viscosity	Fluid Loss
0-1065'	Fresh Water	8.6-9.2	32-34	N/C
1065'-4600'	Brine Water	10.0-10.2	28-28	N/C
4600'-16552'	Cut Brine	8.8-9.0	28-28	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

7. EVALUATION PROGRAM:

*
See
COA

Samples: 30' samples to 4500'. 10' samples 4500' to TD.
Logging: CNL/LDT/NGT Curve – Intermediate casing
CNL/GR Curve – Surface
DLL-MSFL – Curve – Intermediate casing
CMR Curve – Intermediate casing
Horizontal-MWD-GR Horizontal
Coring: None
DST's: None
Mudlogging: From 2000' to TD (16552').

8. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE & POTENTIAL HAZARDS:

Anticipated BHP:

From: 0'	TO: 1065'	Anticipated Max. BHP:	509	PSI
From: 1065'	TO: 4600'	Anticipated Max. BHP:	2440	PSI
From: 4600'	TO: 8424'	Anticipated Max. BHP:	3942	PSI

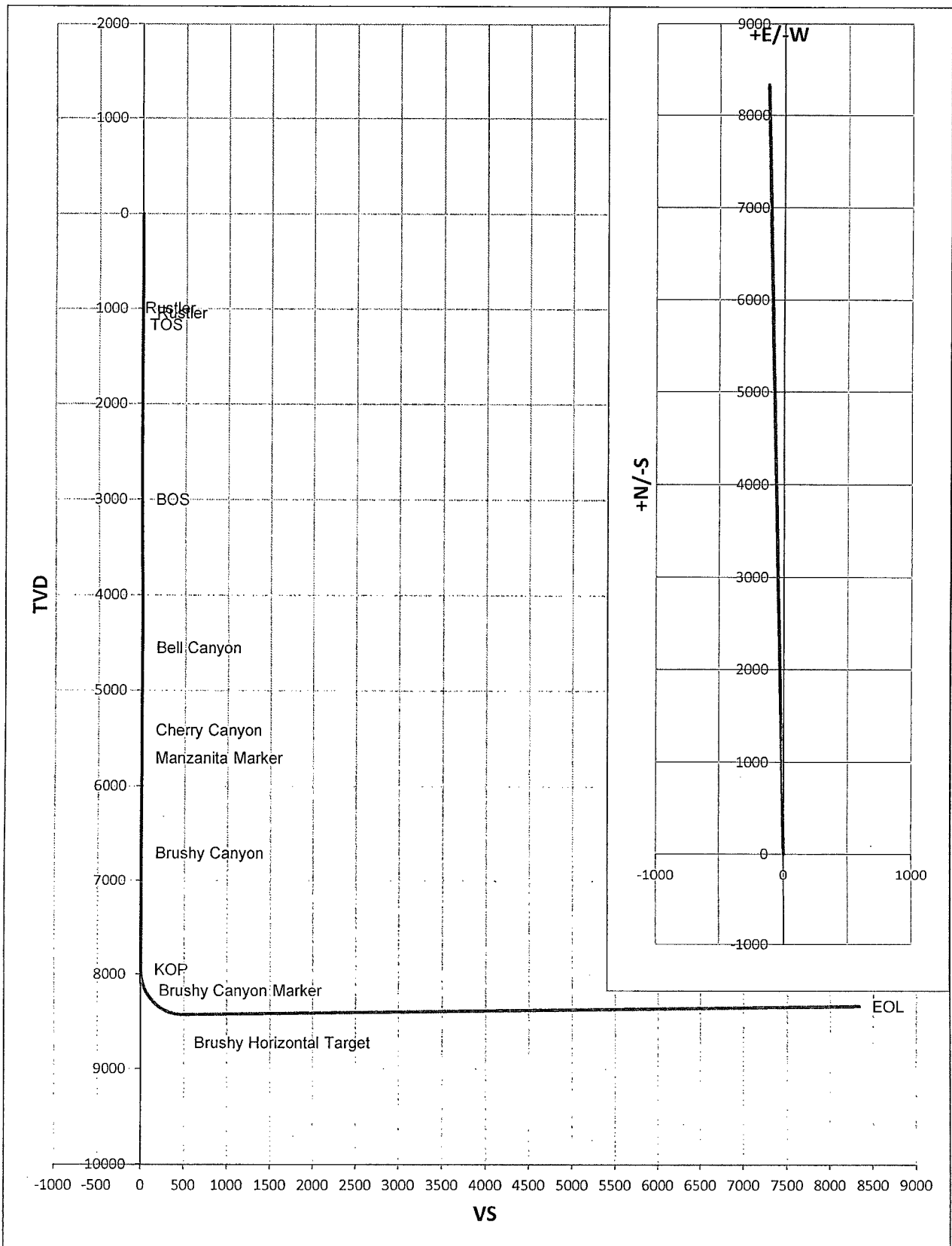
No abnormal pressures or temperatures are anticipated
H₂S is not Anticipated

9. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 65 days to drill the well with completion taking another 30 days.

Well Name: Capella BOP Federal Com #4H		Tgt N/-S: 8331.61	
Surface Location: Section 17 ,Township 21S Range 32E		Tgt E/-W: -125.80	EOC TVD/MD: 8424.20 / 8702.50
Bottom Hole Location: Section 8 ,Township 21S Range 32E		VS: 8332.56	
		VS Az: 359.13	EOL TVD/MD: 8330.00 / 16551.87

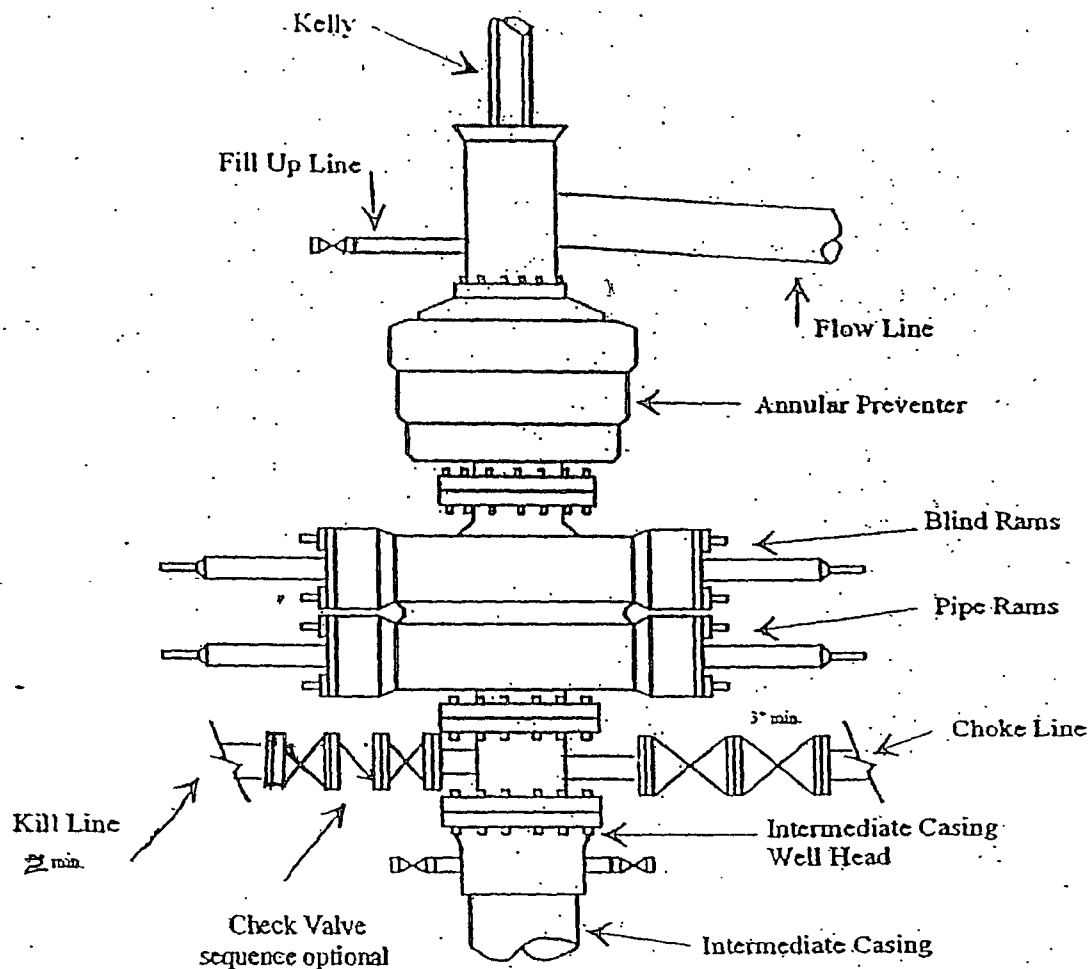
MD	Inc.	Azi.	TVD	N/S	E/W	VS	DLS	Comments
0	0	0	0	0	0	0	0	
1040.00	0.00	0.00	1040.00	0.00	0.00	0.00	0.00	Rustler
1120.00	0.00	0.00	1120.00	0.00	0.00	0.00	0.00	TOS
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	BOS
4550.00	0.00	0.00	4550.00	0.00	0.00	0.00	0.00	Bell Canyon
5410.00	0.00	0.00	5410.00	0.00	0.00	0.00	0.00	Cherry Canyon
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00	0.00	Manzanita Marker
6700.00	0.00	0.00	6700.00	0.00	0.00	0.00	0.00	Brushy Canyon
7946.77	0.00	0.00	7946.77	0.00	0.00	0.00	0.00	KOP
7950.00	0.39	359.13	7950.00	0.01	0.00	0.01	12.00	
7975.00	3.39	359.13	7974.98	0.83	-0.01	0.83	12.00	
8000.00	6.39	359.13	7999.89	2.96	-0.04	2.96	12.00	
8025.00	9.39	359.13	8024.65	6.39	-0.10	6.39	12.00	
8050.00	12.39	359.13	8049.20	11.11	-0.17	11.12	12.00	
8075.00	15.39	359.13	8073.46	17.11	-0.26	17.12	12.00	
8100.00	18.39	359.13	8097.38	24.37	-0.37	24.38	12.00	
8125.00	21.39	359.13	8120.89	32.88	-0.50	32.88	12.00	
8150.00	24.39	359.13	8143.92	42.60	-0.64	42.60	12.00	
8173.41	27.20	359.13	8165.00	52.78	-0.80	52.79	12.00	Brushy Canyon Marker
8175.00	27.39	359.13	8166.41	53.51	-0.81	53.52	12.00	
8200.00	30.39	359.13	8188.29	65.58	-0.99	65.59	12.00	
8225.00	33.39	359.13	8209.52	78.79	-1.19	78.80	12.00	
8250.00	36.39	359.13	8230.02	93.08	-1.41	93.09	12.00	
8275.00	39.39	359.13	8249.75	108.43	-1.64	108.45	12.00	
8300.00	42.39	359.13	8268.65	124.79	-1.88	124.81	12.00	
8325.00	45.39	359.13	8286.67	142.12	-2.15	142.14	12.00	
8350.00	48.39	359.13	8303.75	160.37	-2.42	160.39	12.00	
8375.00	51.39	359.13	8319.85	179.48	-2.71	179.50	12.00	
8400.00	54.39	359.13	8334.94	199.41	-3.01	199.44	12.00	
8425.00	57.39	359.13	8348.96	220.11	-3.32	220.13	12.00	
8450.00	60.39	359.13	8361.87	241.51	-3.65	241.53	12.00	
8475.00	63.39	359.13	8373.65	263.55	-3.98	263.58	12.00	
8500.00	66.39	359.13	8384.26	286.18	-4.32	286.22	12.00	
8525.00	69.39	359.13	8393.67	309.34	-4.67	309.38	12.00	
8550.00	72.39	359.13	8401.85	332.96	-5.03	332.99	12.00	
8575.00	75.39	359.13	8408.79	356.97	-5.39	357.01	12.00	
8600.00	78.39	359.13	8414.46	381.31	-5.76	381.36	12.00	
8625.00	81.39	359.13	8418.85	405.92	-6.13	405.96	12.00	
8650.00	84.39	359.13	8421.95	430.72	-6.50	430.77	12.00	
8675.00	87.39	359.13	8423.74	455.65	-6.88	455.70	12.00	
8700.00	90.39	359.13	8424.22	480.64	-7.26	480.69	12.00	
8702.50	90.69	359.13	8424.20	483.14	-7.29	483.19	12.00	Brushy Horizontal Target
16551.87	90.69	359.13	8330.00	8331.61	-125.80	8332.56	0.00	EOL



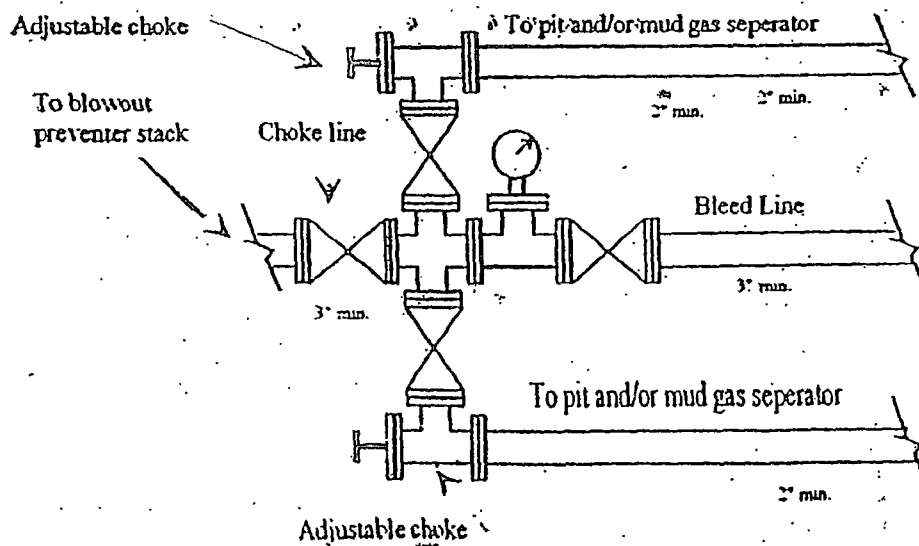


Yates Petroleum Corporation
 Typical 3,000 psi Pressure System
 Schematic
 Annular with Double Ram Preventer Stack

BOP-3

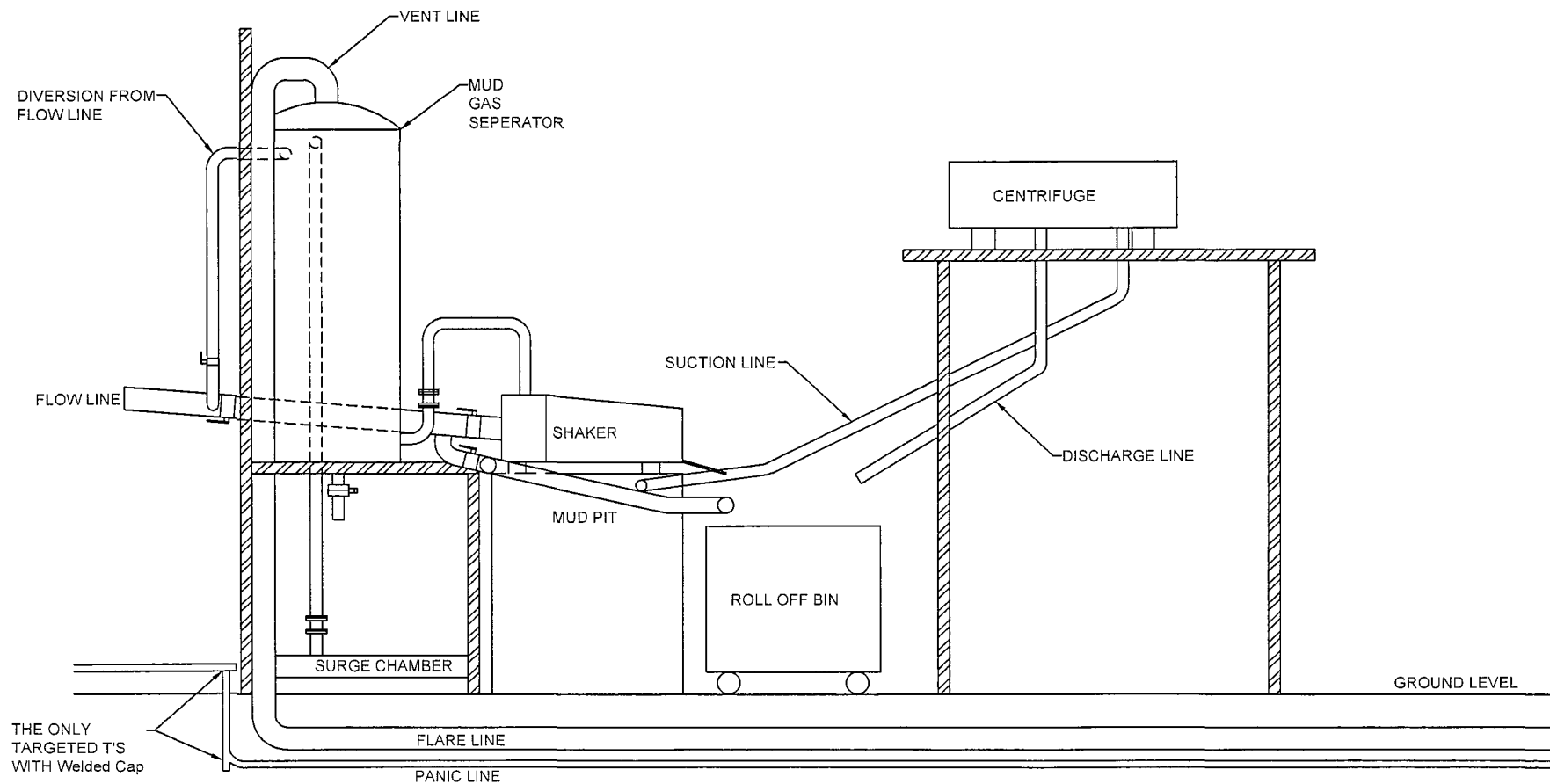


Typical 3,000 psi choke manifold assembly with at least these minimum features



YATES PETROLEUM CORPORATION

Piping from Choke Manifold to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H₂S wells and 150' from wellhead for wells expected to encounter H₂S.

Yates Petroleum Corporation

Closed Loop System

Equipment Design Plan

Closed Loop System will consist of:

1 – double panel shale shaker

1 – (minimum) Centrifuge, certain wells and flow rates may require 2 centrifuges

On certain wells, the Centrifuge will be replaced by a Clackco Settling Tank System

1 – minimum centrifugal pump to transfer fluids

2- 500 bbl. FW Tanks

1 – 500 bbl. BW Tank

1 – half round frac tank – 250 bbl. capacity as necessary to catch cement / excess mud returns generated during a cement job.

1 Set of rail cars / catch bins

Certain wells will use an ASC Auger Tank

Operation Plan

All equipment will be inspected at least hourly by rig personnel and daily by contractors' personnel.

Any spills / leaks will be reported to YPC, NMOCD, and cleaned up without delay.

Closure Plan

Drilling with Closed Loop System, haul off bins will be taken to Gandy Marley, Lea Land Farm, CRI or Sundance Services Inc.

Scale: 1 inch = 60 feet
07-24-13