13-283

Form 3160-3
(March 2012)

HOBBS OCD
OCD Hobbs
JUN 0 1 2015
RECEIVED

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.
NM 107398

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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.
Viking BRU Federal #1H (314877)

2. Name of Operator Yates Petroleum Corporation (25575)

9. API Well No.
30-025- 42603

3a. Address
105 S. Fourth St.
Artesia, NM

3b. Phone No. *(include area code)*
575-748-4120

10. Field and Pool, or Exploratory
WC-025 G-06 S233527M; UPR BS (98075)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 330' FSL & 660' FWL (M)
At proposed prod. zone 330' FNL & 660' FWL (D)

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 27, T23S-R35E

14. Distance in miles and direction from nearest town or post office*
15 miles northwest of Jal

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
680

17. Spacing Unit dedicated to this well
160 acres, W2W2

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1 mile

19. Proposed Depth
10750' Pilot Hole,
9310' TVD, 13720' TD

20. BLM/BIA Bond No. on file
NMB000434
NMB000920

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3408'

22. Approximate date work will start*
06/16/2013

23. Estimated duration
30 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 — Name *(Printed/Typed)* Travis Hahn — Date 01/10/2013

Title
Land Regulatory Agent

Approved by *(Signature)* /s/George MacDonell — Name *(Printed/Typed)* — Date MAY 26 2015

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)

KZ 06/02/15

*(Instructions on page 2)

Capitan Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

JUN 0 3 2015

YATES PETROLEUM CORPORATION
Viking BRU Federal #1H
330' FSL & 660' FWL, Surface Hole
330' FNL & 660' FWL, Bottom Hole
Section 27 –T23S-R35E
Lea County, New Mexico

HOBBS OCD

JUN 0 1 2015

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

Rustler	1550'	Brushy Canyon	7580' Oil
Top of Salt	2100'	Bone Springs	8750'
Base of Salt	3700'	Avalon Shale	8810' Oil
Yates	3950' Oil	Avalon Target	9310' Oil
Capitan Reef	4170' Water	Bone Springs 1/SD	9880' Oil
Bell Canyon	5630' Oil	Bone Springs 2/SD	10520' Oil
Cherry Canyon	6170' Oil	TD (Pilot Hole)	10750'

The following are the kick off point and geological tops after plugging back:

KOP	8833'
Avalon Target (EOC)	9583' MD (9310' TVD)
TD (EOL)	13,720' MD (9310' TVD)

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

Water: Approx: 0' - 1550' & 4170' – 5600'
Oil or Gas: See above--All Potential Zones

See COA
min Test 1500 psig

3. Pressure Control Equipment: 2000 PSI BOP with a 13.625" opening will be installed on the 13 3/8". Pressure tests to 1000 PSI and held for 30 minutes will be conducted before drilling out from under 13 3/8" casing string which will be set and cemented in place A 5000 PSI BOP with a 13 5/8" opening will be installed on the 9 5/8" casing. Pressure tests to 5000 PSI and held for 30 minutes will be conducted before drilling out from under the 9 5/8" casing string which will be set and cemented in place. 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" 48# will be J-55/H-40 Hybird

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13 3/8"	54.5#	J-55	ST&C	0'-80'	80'
17 1/2"	13 3/8"	48#	J-55	ST&C	80'-1300' 1400'	1220'
17 1/2"	13 3/8"	54.5#	J-55	ST&C	1300'-1575'	275'
12 1/4"	9 5/8"	40#	J-55	LT&C	0'-80'	80'
12 1/4'	9 5/8"	36#	J-55	LT&C	80'-3200'	3120'
12 1/4"	9 5/8"	40#	J-55	LT&C	3200'-4100'	900'
12 1/4"	9 5/8"	40#	HCK-55	LT&C	4100'-5700'	1600'
8 3/4"	5 1/2"	20#	L-80	LT&C	0'-8700'	8700'
8 3/4"	5 1/2"	20#	L-80	Buttress Thread	8700'-9583'	883'
8 1/2"	5 1/2"	20#	L-80	Buttress Thread	9583'-13720'	4137'

Minimum Casing Design Factors: Burst 1.0, Tensile 1.8, Collapse 1.125

B. CEMENTING PROGRAM:

13 3/8" Surface casing: Lead in with 955 sacks of Class PozC 35:65:6 (WT 12.5 YLD 2.00), tail with 200 sacks of Class C +2% CaCl (YLD 1.34 WT 14.80). Designed with 100% excess, TOC-Surface.

9 5/8" Intermediate Casing Stage 1. 3900'-5700': Lead with 425 sacks of Class PozC 35:65:6 (YLD 2.00 WT 12.50); tail in with 200 sacks of Class C + 2% CaCl2 (YLD 1.34 WT. 14.80). Designed with 100% excess, TOC-Surface. 3900' DV tool per Travis Helm 11/14/13

Intermediate Casing Stage 2. 0'-3900': Lead with 1080 sacks of Class PozC 35:65:6 (YLD 2.00 WT 12.50); tail in with 200 sacks of Class C + 2% CaCl2 (YLD 1.34 WT 14.80). Designed with 100% excess, TOC-Surface.

Production Casing: Cement to be done with a DV/Packer Stage tool set at 7800'.

5 1/2" Stage 1 from 7800'-13720': Lead with 290 sacks Class PozC 35:65:6 (YLD 2.00 WT 12.50); tail in with 1020 sacks of Pecos Valley Lite (YLD 1.41 WT. 13.00). 30% CaCO, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. TOC- 7800' Designed with 35% excess.

Stage 2 from 3970'-7800': Lead cement with 515 sacks of Class PozC 35:65:6 (YLD 2.00 WT. 12.50); tail in with 200 sacks of Pecos Valley Lite (YLD 1.41 WT. 13.00). 30% CaCO, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. Designed with 35% excess, TOC-3970'.

See COA

Pilot hole will be drilled vertically to 10750'. Pilot hole will then be plugged with a 200' isolation plug on bottom using Class H (YLD 0.94 WT 17.5) 100 sacks with 10% excess, and the additives being; Fresh Water 3.352 gal/sk, Dispersant 0.030 gal/sk, Retarder 0.070 gal/sk, Antifoam 0.020 gal/sk. A 600' kick off plug will then be placed from 9200' to 8600', plug will be Class H (YLD 0.94 WT 17.5) 360 sacks with 35% excess and the additives being; Fresh Water 3.352 gal/sk, Dispersant 0.030 gal/sk, Retarder 0.070 gal/sk, Antifoam 0.020 gal/sk. Well will be kicked off at approximately 8833" and directionally drilled at 12 degrees per 100' with an 8 ¾" hole to 9583' MD (9310' TVD). Hole will then be reduced to 8 1/2" and drilled to 13720' MD (9310' TVD) where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be encountered at 807' FSL & 654' FWL, Section 27-23S-35E. Deepest TVD is 10750' in the pilot hole and deepest TVD in the lateral will be 9310'.

See COA

6. Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
0-1575 1480'	Fresh Water	8.6-9.2	34-36	N/C
1575'-5700'	Brine Water	10.0-10.2	28-29	N/C (Will switch to fresh water if losses occur)
5700'-10750'	Cut Brine	8.8-9.0	28-40	N/C
8833'-13720' (lateral)	Cut Brine	8.8-9.0	28-34	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. In addition:

1. Record slow pump speed on daily drilling report after mudding up.

2. Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume.

3. When abnormal pressures are anticipated, electronic/mechanical mud monitoring equipment shall be required, which shall include as a minimum; pit volume totalizer (PVT); stroke counter; and flow sensor.

4. A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

5. A trip tank shall be used on 10M and 15M systems and on upgraded 5M systems as determined by the authorized officer.

6. a. Gas detecting equipment shall be installed in the mud return system for exploratory wells or wells where abnormal pressure is anticipated, and hydrocarbon gas shall be monitored for pore pressure changes.

7. All flare systems shall be designed to gather and burn all gas. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare.

B. EVALUATION PROGRAM:

Samples: 30' samples to 3000'. 10' samples 3000' to TD.
Logging: Platform HRLA CMR to 30 degree deviation.
Coring: As warranted.
DST's: As warranted.
Mudlogging: Surface casing to TD.

C. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From:	0	To: 1575'	Anticipated Max. BHP:	755	PSI
From:	4150'	To: 5700'	Anticipated Max. BHP:	3023	PSI
From:	5700'	To: 10750'	Anticipated Max. BHP:	5200	PSI

No abnormal pressures or temperatures are anticipated.
Lost Circulation Zones Anticipated: Possible in Capitan Reef
H2S is not anticipated.

D. 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.

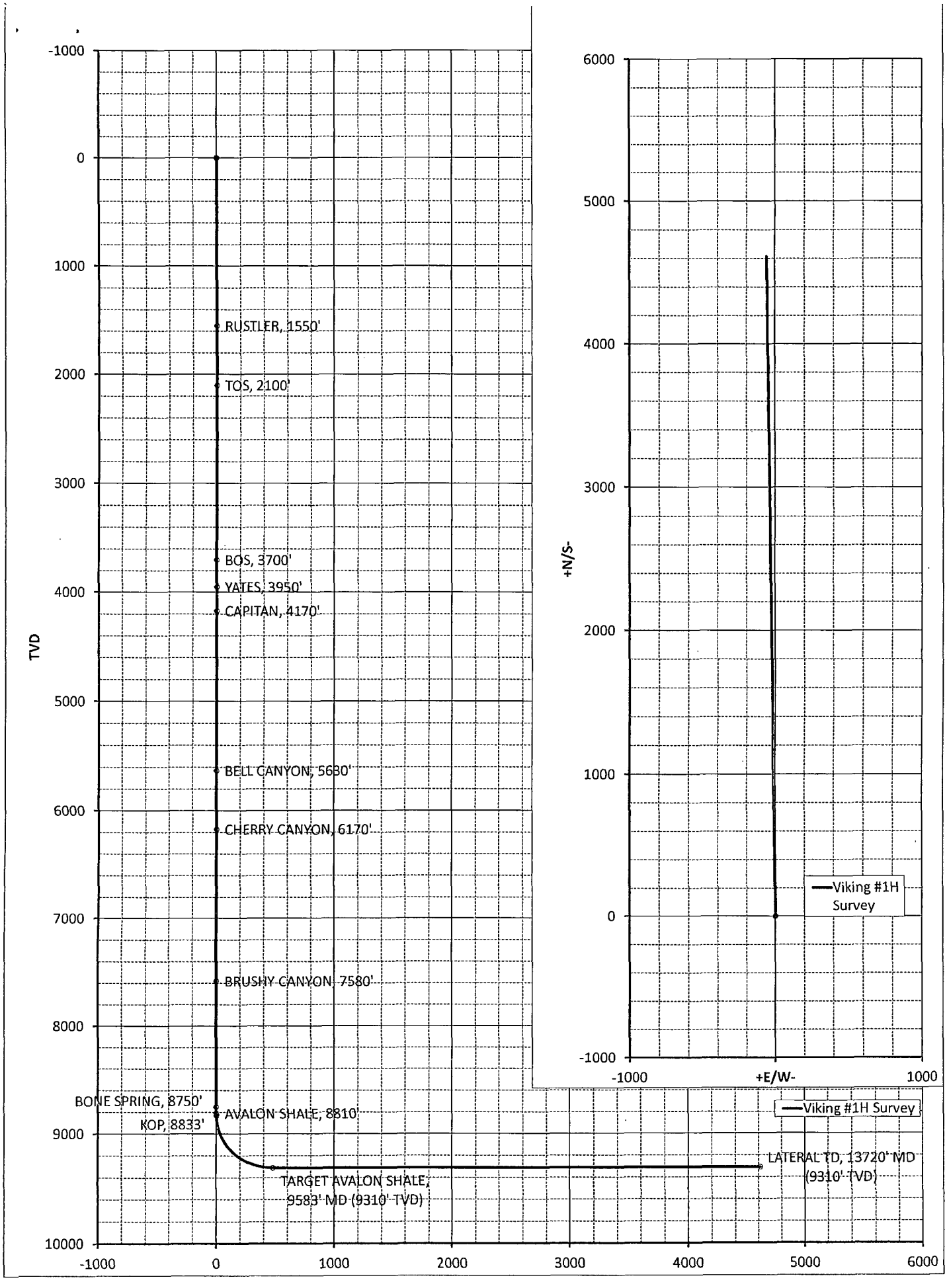
Operator Co.

Your Co.

Survey/Planning Report

Operator	Yates Petroleum Corp.	Northing		Date	27-Nov-12
Dir. Co.	Yates Petroleum Corp.	Easting		System	2 - St. Plane
Well Name	Viking #1H Survey	Elevation		Datum	1983 - NAD83
Location	Sec. 27, 23S-35E	Latitude		Zone	4302 - Utah Central
Rig		Longitude		Scale Fac.	
Job		Units	Feet	Converg.	

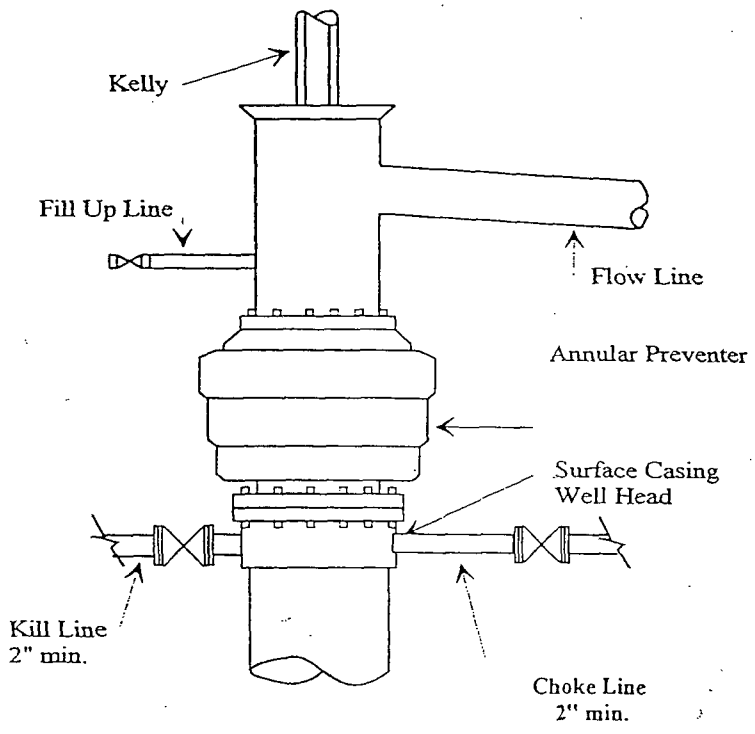
MD	INC	AZI	TVD	+N/S	+E/W	VS@359.27°	BR	TR	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1550.00	0.00	360.00	1550.00	0.00	0.00	0.00	0.00	0.00	0.00
1550: RUSTLER, 1550'									
2100.00	0.00	360.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00
2100: TOS, 2100'									
3700.00	0.00	360.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00
3700: BOS, 3700'									
3950.00	0.00	360.00	3950.00	0.00	0.00	0.00	0.00	0.00	0.00
3950: YATES, 3950'									
4170.00	0.00	360.00	4170.00	0.00	0.00	0.00	0.00	0.00	0.00
4170: CAPITAN, 4170'									
5630.00	0.00	360.00	5630.00	0.00	0.00	0.00	0.00	0.00	0.00
5630: BELL CANYON, 5630'									
6170.00	0.00	360.00	6170.00	0.01	0.00	0.01	0.00	0.00	0.00
6170: CHERRY CANYON, 6170'									
7580.00	0.00	360.00	7580.00	0.01	0.00	0.01	0.00	0.00	0.00
7580: BRUSHY CANYON, 7580'									
8750.00	0.00	360.00	8750.00	0.01	0.00	0.01	0.00	0.00	0.00
8750: BONE SPRING, 8750'									
8810.00	0.00	360.00	8810.00	0.01	0.00	0.01	0.00	0.00	0.00
8810: AVALON SHALE, 8810'									
8832.54	0.00	359.27	8832.54	0.01	0.00	0.01	0.00	-0.01	0.00
8832.54: KOP, 8833'									
8900.00	8.10	359.27	8899.78	4.77	-0.06	4.77	12.00	0.00	12.00
9000.00	20.10	359.27	8996.59	29.07	-0.37	29.08	12.00	0.00	12.00
9100.00	32.10	359.27	9086.23	72.98	-0.94	72.98	12.00	0.00	12.00
9200.00	44.10	359.27	9164.78	134.56	-1.73	134.57	12.00	0.00	12.00
9300.00	56.10	359.27	9228.82	211.12	-2.71	211.14	12.00	0.00	12.00
9400.00	68.10	359.27	9275.53	299.33	-3.84	299.35	12.00	0.00	12.00
9500.00	80.10	359.27	9302.88	395.31	-5.07	395.35	12.00	0.00	12.00
9582.53	90.00	359.27	9310.00	477.43	-6.12	477.47	12.00	0.00	12.00
9582.53: TARGET AVALON SHALE, 9583' MD (9310' TVD)									
13719.78	90.00	359.27	9310.01	4614.34	-59.17	4614.72	0.00	0.00	0.00
13719.78: LATERAL TD, 13720' MD (9310' TVD)									


TVD
-1000
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
RUSTLER, 1550'
TOS, 2100'
BOS, 3700'
YATES, 3950'
CAPITAN, 4170'
BELL CANYON, 5680'
CHERRY CANYON, 6170'
BRUSHY CANYON, 7580'
BONE SPRING, 8750'
AVALON SHALE, 8810'
KOP, 8833'
TARGET AVALON SHALE,
9583' MD (9310' TVD)
LATERAL TD, 13720' MD
(9310' TVD)
-1000
0
1000
2000
3000
4000
5000
6000
Viking #1H Survey
-1000
+E/W-
1000
+N/S-
6000
5000
4000
3000
2000
1000
0
-1000
Viking #1H Survey

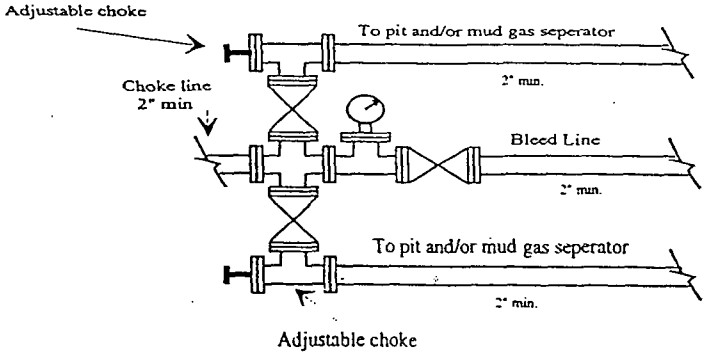
Yates Petroleum Corporation

BOP-1

Typical low Pressure System
Schematic
Annular Preventer 2,000 psi



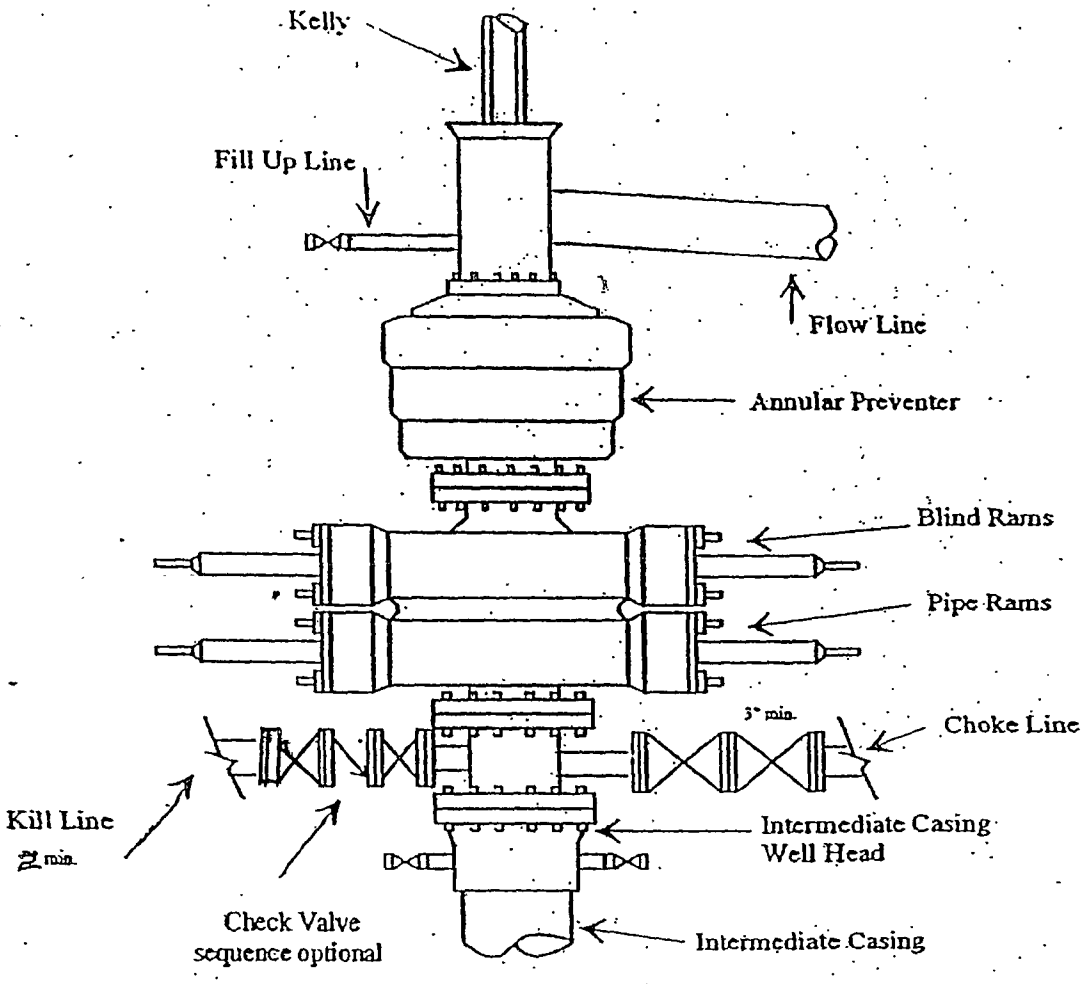
Typical 2,000 psi choke manifold assembly with at least these minimun features



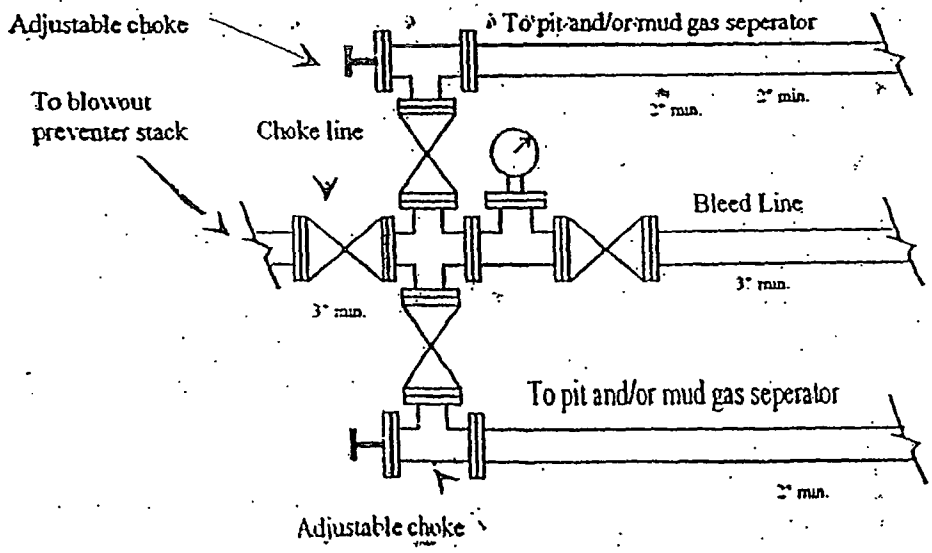
Yates Petroleum Corporation

BOP-3

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

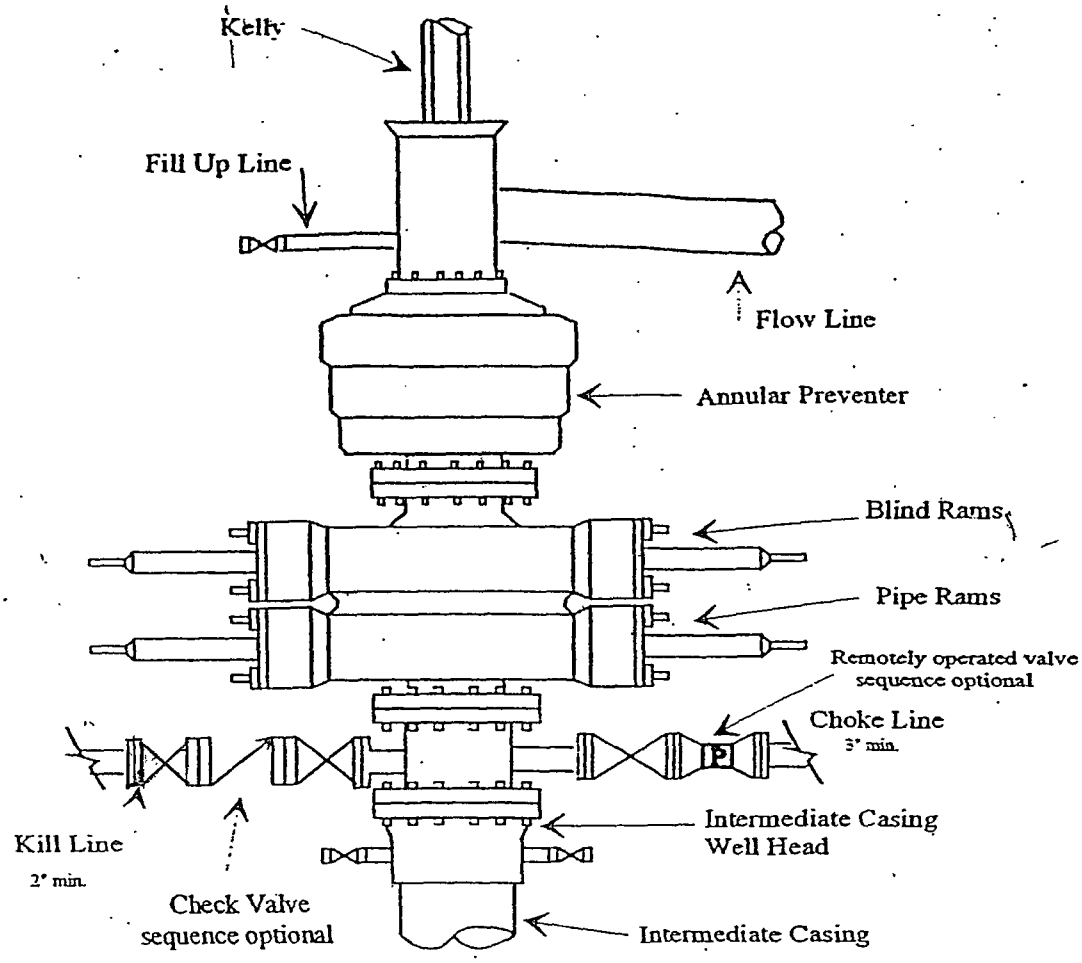


Typical 3,000 psi choke manifold assembly with at least these minimun features

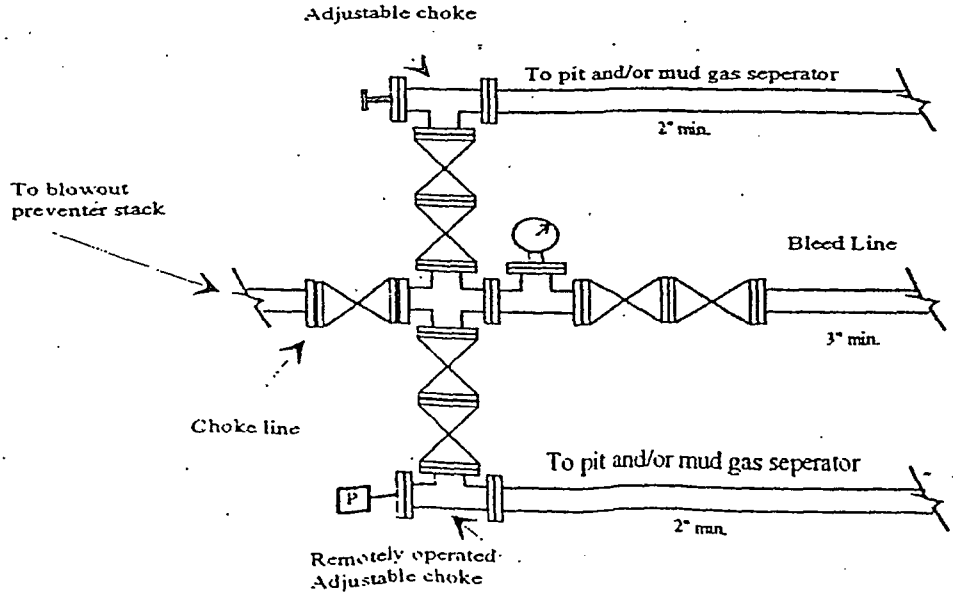


Yates Petroleum Corporation

Typical 5,000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack

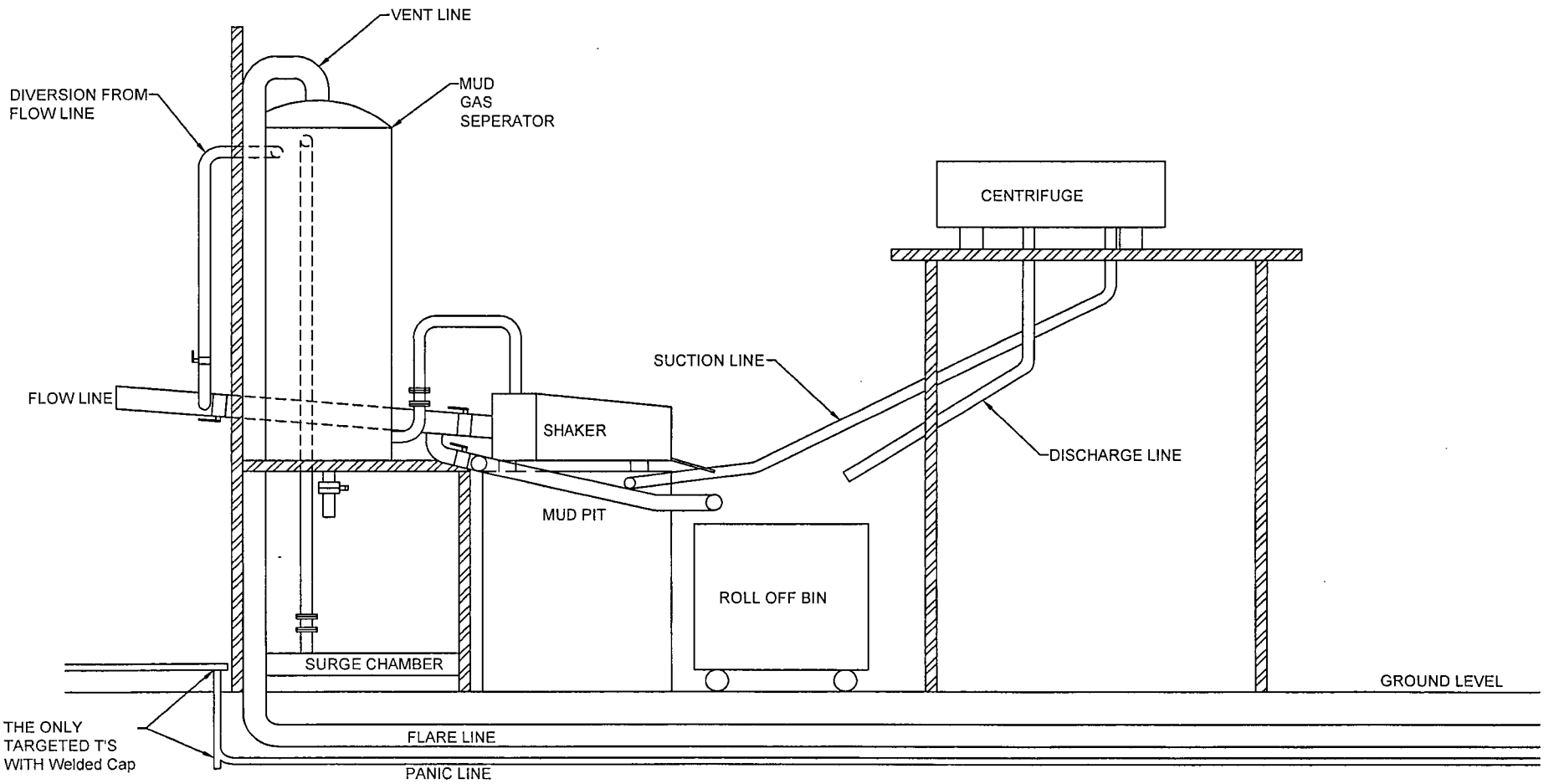


Typical 5,000 psi choke manifold assembly with at least these minimun features



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.