

SECRETARY'S POTASH

OCD Artesia

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT


APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB NO 1004-0137
Expires March 31, 2007

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5 Lease Serial No NM62210SH; NM62211Mid; NM-89049BH
1b. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6 If Indian, Allottee or Tribe Name N/A
2 Name of Operator Yates Petroleum Corporation		7 If Unit or CA Agreement, Name and No N/A
3a Address 105 South Fourth Street, Artesia, NM 88210	3b Phone No (include area code) 505-748-1471	8 Lease Name and Well No Nucleus BGN Fed. Com. #1-H
4 Location of well (Report location clearly and in accordance with any State requirements *) At surface 1750' FNL & 330' FWL, 31-19S-30E, SWNW (F) At proposed prod zone 1980' FNL & 330' FEL, 31-19S-30E, SENE		9 API Well No 30-015-39241
14 Distance in miles and direction from the nearest town or post office* Approximately 41 miles southeast of Artesia, New Mexico		10 Field and Pool, or Exploratory PARKWAY
15 Distance from proposed* location to nearest (Also to nearest drlg unit line, if any) 330'		11 Sec, T, R, M, or Blk And Survey or Area Sec. 31-19S-30E
16 No. of acres in lease 40.00		12 County or Parish Eddy
17 Spacing Unit dedicated to this well S2N2, Section 31, T19S-R30E		13 State NM
18 Distance from proposed location* to nearest well, drilling, completed, apphed for, on this lease, ft. 1320'		20 BLM/ BIA Bond No on file NATIONWIDE BOND #NMB000434
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3333' GL		22 Approximate date work will start* ASAP
		23 Estimated duration 60 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 | 4 Bond to cover the operations unless covered by existing bond on file(see item 20 above) |
| 2 ap | 5 Operator certification |
| 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) | 6 Such other site specific information and/ or plans as may be required by the BLM |

25 Signature 	Name (Printed/ Typed) Cy Cowan	Date 3/28/11
Title Land Regulatory Agent		
Approved By (Signature) /s/ Jesse J. Juen	Name (Printed/ Typed)	Date JUN 22 2011
Title STATE DIRECTOR		Office NM STATE OFFICE

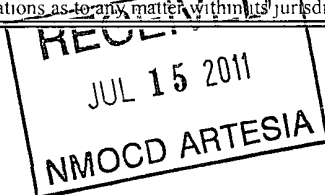
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to cc operations thereon

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 wilfully 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)



KZ 07/15/11

Capitan Controlled Water Basin

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

**Approval Subject to General Requirements
& Special Stipulations Attached**

YATES PETROLEUM CORPORATION

Nucleus BGN Federal Com. #1-H
1750' FNL & 330' FWL, Surface Hole
1980' FNL & 330' FEL, Bottom Hole
Section 31 -T19S-R30-E
Eddy County, New Mexico

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

Salt	370'	Cherry Canyon	3650' Oil Pay
Tansill	1350' Oil Pay	Brushy Canyon	4310' Oil Pay
Yates	1450' Oil Pay	Bone Spring	5860' Oil Pay
Seven Rivers	1700' Oil Pay	1st Bone Spring	7430' Oil
Capitan	1950' Oil Pay	2 nd Bone Spring	8030' Oil Pay 8032'-MD
Delaware	3550' Oil Pay	Target Sand	8375' Oil Pay 8642'-MD
		TD (Lateral Hole)	8420' 12796'-MD

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

Water: Approx 250' - 350'

Oil or Gas: See above--All Potential Zones

3. Pressure Control Equipment: **A 2000 psi annular preventer will be on the 20' casing and tested to 2000# and held for 30 minutes..** 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375 casing and also on the 9 5/8" 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. 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 B.

See Onshore
Order #2

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.

1. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New)

	Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
See COA	26	20"	94#	H-40	ST&C	0-350' 325	350'
	17 1/2"	13 3/8"	54.5#	J-55	ST&C	0-100'	100'
	17 1/2"	13 3/8"	48#	J-55	ST&C	100-1200'	1100'
	17 1/2"	13 3/8"	54.5#	J-55	ST&C	1200-1990' / 400	700'
	12 1/4"	9 5/8"	36#	K-55	LT&C	0-3500'	3500'
	8 3/4"	5 1/2"	17#	HCP-110	LT&C	0-8700'	8700'
	8 1/2"	5 1/2"	17#	L-80	LT&C	8700'-12796'	4096'

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

B. CEMENTING PROGRAM:

Surface casing: 375 sacks Class C Lite **Gilsonite 3lb/bbl, Poly-E-Flake .125 lb/bbl, & 2% CaCl₂** (YLD 1.34 WT.14.80). Tail in w/210 sacks Class C + 2% CaCl₂ (YLD 1.34 WT 14.80). Designed with 100% excess. TOC-Surface.

Intermediate Casing: Lead with 1200 sacks C Lite, **Gilsonite 3lb/bbl, poly-E-Flake .125 lb/bbl, & 2% CaCl₂** (YLD 2.00 WT 12.50); tail in with 210 sacks Class C + 2% CaCl₂ (YLD 1.34 WT. 14.80). Designed with 100% excess. TOC-Surface

2nd Intermediate Casing: Lead w/975 sacks C Lite (YLD 2 00 WT 12.50) tail in w/200 sacks Class C + 2% CaCl₂ (YLD 1.34 WT 14.8). **TOC-Surface**. Designed with 100% excess.

Production Casing. Cement to be done in two stages with stage tool at approx. 5200'.

Stage 1 from 5200'-12796'; cement with 2000 sacks Pecos Valley Lite + **calcium Carbonate 22.5 lb/sack, Extender 1.5 lb/sack, Retarder 0.01 lb/sack, Retarder 0.6 lb/sack & Antifoam Agent 0.15 lb/sack.** (YLD 1.83 WT. 13.00). TOC-5200'

Stage 2 from 3000'-5200'; Lead with 325 sacks Lite Crete + **Retarder .03 gal/sack, Anti-foam .2%, Dispersant .1%, & Extender 39 lb/sack.** (YLD 2.66 WT 9.90). Tail In with 100 sacks Pecos Valley Lite + **Calcium Carbinat 22.5 lb/sack, Extender 1.5 lb/sack, Retarder 0.01 lb/sack, Retarder 0.6 lb/sack & Antifoam Agent 0.15 lb/sack.** (YLD 1.41 WT 13.00). TOC- ~~3000'~~ ^{See COA}. Designed with 100% excess.

Well will be drilled vertically to 7898'. Well will be kicked off at approximately 7898' and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 8700' MD (8375' TVD), Hole will be reduced to 8 1/2" and drilled to 12796' MD (8420' TVD) where 5 1/2" will be set and cemented. Penetration point of producing zone will be encountered at 1774' FNL & 802' FWL, Section 31-19S-30E. Deepest TVD is 8420' in the lateral.

5. Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
0-350' ³²⁵	Fresh Water	8.6-9.2	35-40	N/C
350'-1900' ¹⁴⁰⁰	Brine Water	10.0	28	N/C
1900'-3500'	Cut Brine ^{Fresh Water}	8.4-8.8	28-29	N/C
3500'-12796'	Cut Brine (lateral)	8.8-9.0	28-32	<10-12

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.

6. EVALUATION PROGRAM: ^{See COA}

Samples: 30' samples to 3000'. 10 samples 3000' to TD.

Logging: Platform Express/Hals/ DipoleSonic, CMR.

Coring: As warranted.

DST's: As warranted.

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

Anticipated BHP:

From: 0	TO: 350' ³²⁵	Anticipated Max. BHP:	167	PSI
From: 350'	TO: 1900' ¹⁴⁰⁰	Anticipated Max. BHP:	988	PSI
From: 1900'	TO: 3500'	Anticipated Max. BHP:	1602	PSI
From: 3500'	TO: 8420	Anticipated Max. BHP:	3941	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

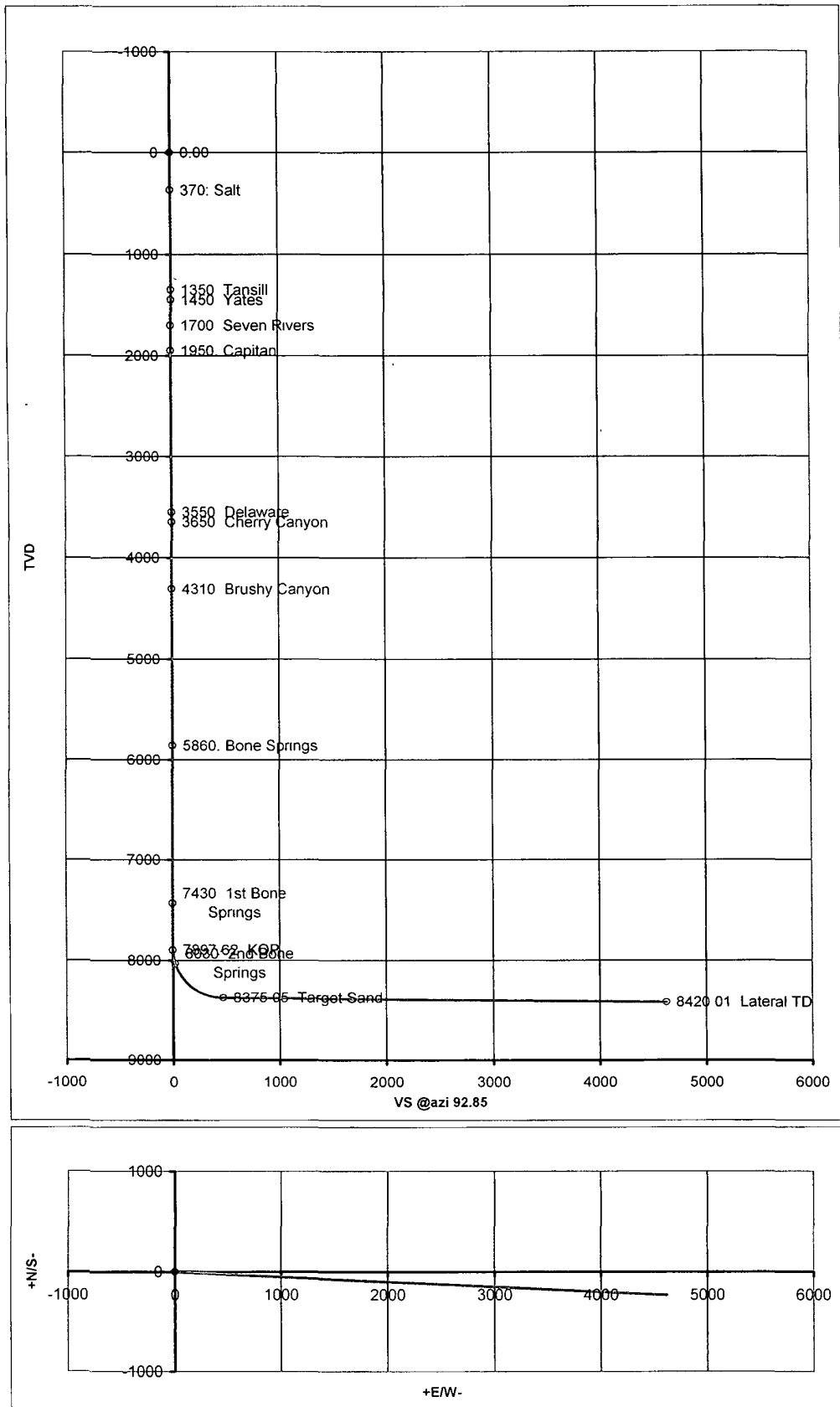
H2S Zones Anticipated: None

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 20 days.

Co: Yates Petroleum Corporation	Units: Feet, ° 7100ft	VS Az: 92.85	Tgt TVD: 8420.00
Drillers: 0	Elevation:	Tgt Radius: 0.00	Tgt MD: 0.00
Well Name: Nucleus BGN Federal Com. #1H	Northing:	Tgt N/S: -230.00	Tgt Displ.: 0.00
Location: Sect. 31, 19S-30E	Easting:	Tgt E/W: 4620.00	Method: Minimum Curvature

No	MD	CL	Inc	Azi	TVD	VS	+N/S	+E/W	BR	WR	DLS	Comments
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
1	370.00	370.00	0.00	0.00	370.00	0.00	0.00	0.00	0.00	0.00	0.00	Salt
2	1350.00	980.00	0.00	0.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	Tansill
3	1450.00	100.00	0.00	0.00	1450.00	0.00	0.00	0.00	0.00	0.00	0.00	Yates
4	1700.00	250.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	Seven Rivers
5	1950.00	250.00	0.00	0.00	1950.00	0.00	0.00	0.00	0.00	0.00	0.00	Capitan
6	3550.00	1600.00	0.00	0.00	3550.00	0.00	0.00	0.00	0.00	0.00	0.00	Delaware
7	3650.00	100.00	0.00	0.00	3650.00	0.00	0.00	0.00	0.00	0.00	0.00	Cherry Canyon
8	4310.00	660.00	0.00	0.00	4310.00	0.00	0.00	0.00	0.00	0.00	0.00	Brushy Canyon
9	5860.00	1550.00	0.00	0.00	5860.00	0.00	0.01	0.00	0.00	0.00	0.00	Bone Springs
10	7430.00	1570.00	0.00	0.00	7430.00	0.00	0.01	0.00	0.00	0.00	0.00	1st Bone Springs
11	7897.62	7897.62	0.00	92.85	7897.62	0.00	0.01	0.00	0.00	1.18	0.00	KOP
12	7900.00	2.38	0.29	92.85	7900.00	0.01	0.01	0.01	12.00	0.00	12.00	
13	8000.00	100.00	12.29	92.85	7999.22	10.94	-0.54	10.92	12.00	0.00	12.00	
14	8031.76	134.14	16.10	92.85	8030.00	18.72	-0.92	18.70	12.00	0.00	12.00	2nd Bone Springs
15	8100.00	68.24	24.29	92.85	8093.99	42.25	-2.09	42.20	12.00	0.00	12.00	
16	8200.00	100.00	36.29	92.85	8180.19	92.59	-4.60	92.48	12.00	0.00	12.00	
17	8300.00	100.00	48.29	92.85	8254.03	159.75	-7.94	159.56	12.00	0.00	12.00	
18	8400.00	100.00	60.29	92.85	8312.30	240.80	-11.97	240.50	12.00	0.00	12.00	
19	8500.00	100.00	72.29	92.85	8352.44	332.19	-16.51	331.78	12.00	0.00	12.00	
20	8600.00	100.00	84.29	92.85	8372.71	429.93	-21.37	429.40	12.00	0.00	12.00	
21	8642.45	744.83	89.38	92.85	8375.05	472.30	-23.48	471.71	12.00	0.00	12.00	Target Sand
22	12796.12	4153.67	89.38	92.85	8420.01	4625.72	-230.00	4620.00	0.00	0.00	0.00	Lateral TD

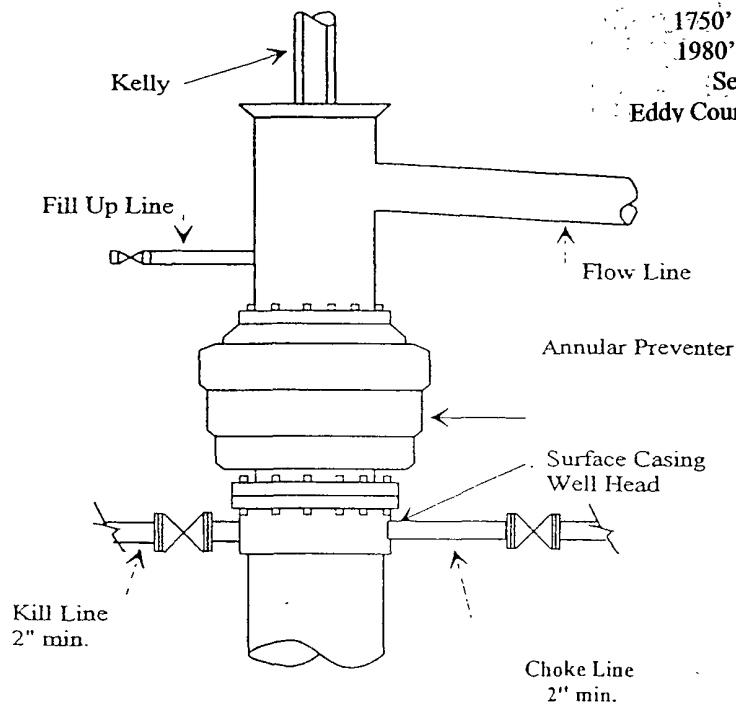


Yates Petroleum Corporation

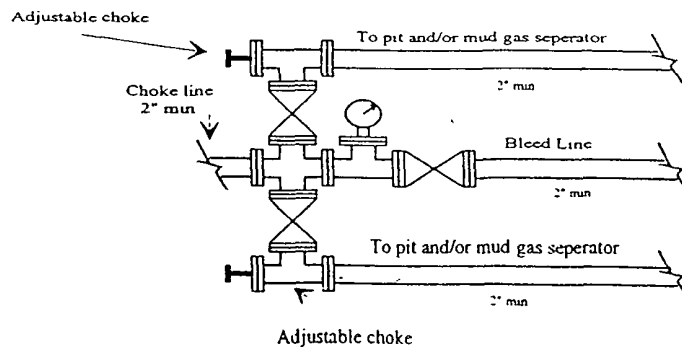
BOP-1

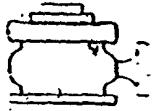
Typical low Pressure System
Schematic
Annular Preventer 2,000 psi

YATES PETROLEUM CORPORATION
Nucleus BGN Federal Com. #1H
1750' FNL and 330' FWL SHL
1980' FNL and 330' FEL BHL
Section 31, T19S-R30E
Eddy County, New Mexico Exhibit C-1



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



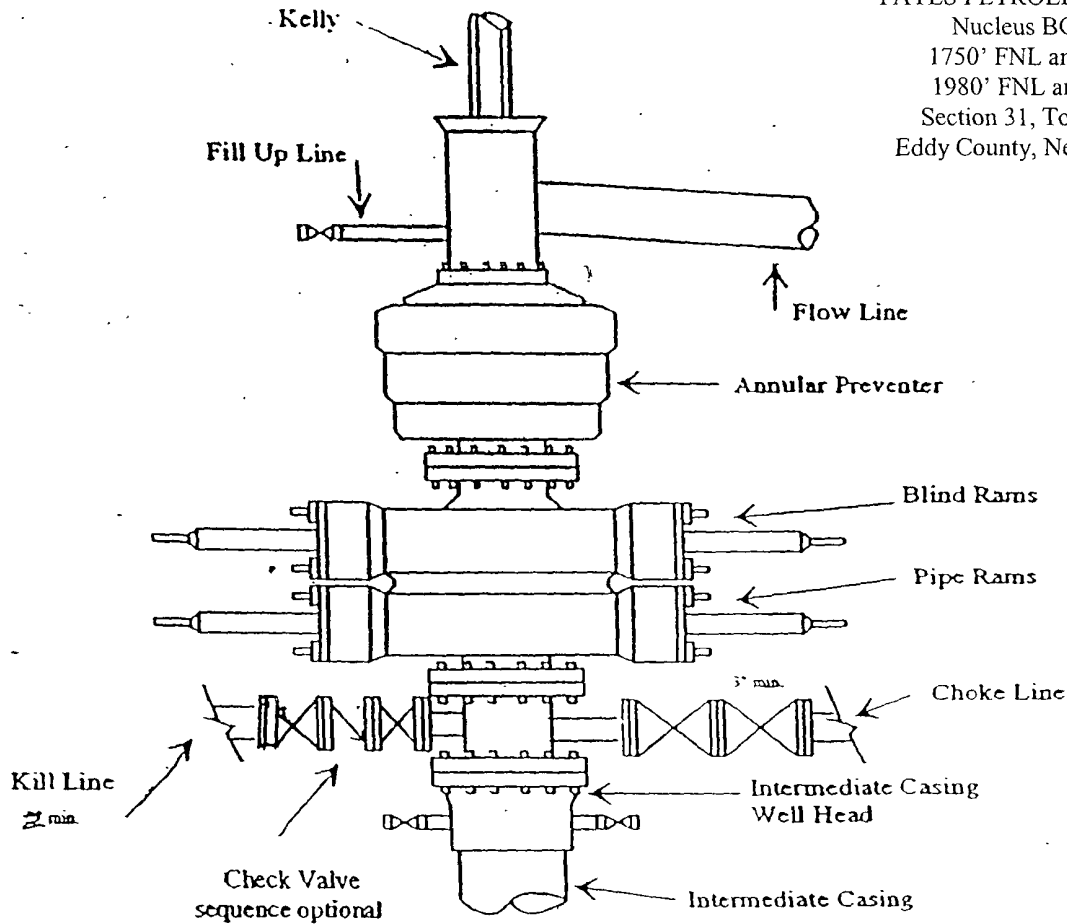


Yates Petroleum Corporation

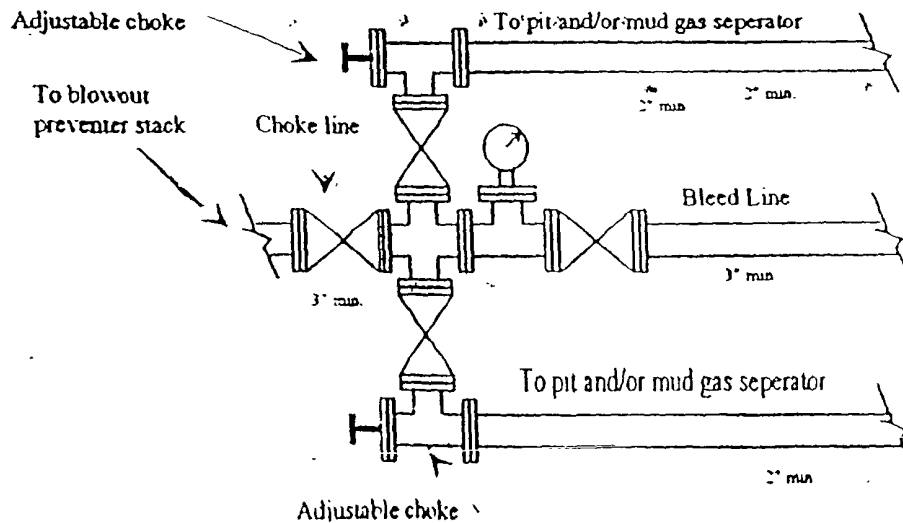
BOP-3

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

YATES PETROLEUM CORPORATION
Nucleus BGN Federal #1H
1750' FNL and 330' FWL SHL
1980' FNL and 330' FEL BHL
Section 31, Township 19S-R30E
Eddy County, New Mexico Exhibit C



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



DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator YATES PETROLEUM CORP OGRID # 25575
 Well Name & # NUCLEUS AGN FEN COM # 1H Surface Type (F) (S) (P)
 Location: UL E, Sect 31, Twnship 19 s, RNG 30 e, Sub-surface Type (F) (S) (P)
H 31 19-30

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: 7/27/11 # wells 2974, # Inactive wells 3

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: 7/27/11

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 PARKEY; BOVE SPUR, Code 49622

a. Dedicated acreage 160, What Units EFOR

b. SUR. Location Standard X; Non-Standard Location

c. Well shares acres: Yes , No X, # of wells plus this well #

2. 2nd. Operator in same acreage, Yes ; No X

Agreement Letter , Disagreement letter

3. Intent to Directional Drill Yes X, No

a. Dedicated acreage 160, What Units EFOR

b. Bottomhole Location Standard X, 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 FED

D. Blowout Preventer Yes X, No

E. H2S Yes X, No

F. C144 Pit Registration Yes , No

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 #30-0 15-39241

8. Reviewers