12-313

OCD-HOBBS

Form 3160-3
(February 2005)

HOBBS OCD

AUG 07 2013

RECEIVED

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

5. Lease Serial No.: **NM-120907**

6. If Indian, Allottee or Tribe Name: **N/A**

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

1a. Type of Work: [ ] DRILL [X] REENTER

1b. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: **Jackson Federal SWD #1** (40068)

2. Name of Operator: **Yates Petroleum Corporation** (025575)

9. API Well No.: **30-025-28242**

3a. Address: **105 South Fourth Street, Artesia, NM 88210**

3b. Phone No. *(include area code)*: **575-748-1471** (96802)

10. Field and Pool, or Exploratory: **SWD --inject into the Bell Canyon and Cherry Canyon of Delaware Mt. Group.**

4. Location of well *(Report location clearly and In accordance with any State requirements.*)*
At surface: **660' FNL & 660' FWL, NWNW, Section 26-T24S-32E**
At proposed prod. zone: **Same**

11. Sec., T., R., M., or Blk. And Survey or Area: **Sec. 26-24S-32E**

14. Distance in miles and direction from the nearest town or post office*: **Approximately 40 miles southeast of Carlsbad, NM**

12. County or Parish: **Lea**

13. State: **NM**

15. Distance from proposed* location to nearest lease line. (Also to nearest drlg. unit line, if any): **660'**

16. No. of acres in lease: **1640.00**

17. Spacing Unit dedicated to this well: **None-SWD well**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: **Approx. 2700'**

19. Proposed Depth: **6550'**

20. BLM/ BIA Bond No. on file: **NATIONWIDE BOND #NMB000434**

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3571 per plat ~~3569 GL~~

22. Aproximate date work will start*: **ASAP**

23. Estimated duration: **30 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. ap
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 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: Cy Cowan | Name *(Printed/ Typed)*: **Cy Cowan** | Date: 3/28/12

Title: **Land Regulatory Agent**

Approved By *(Signature)*: /s/George MacDonell | Name *(Printed/ Typed)*: /s/George MacDonell | Date: AUG - 2 2013

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 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 Unite States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* *(Instructions on page 2)*

SWD-1308

KZ 08/09/13

Carlsbad Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

AUG 13 2013

YATES PETROLEUM CORPORATION
Jackson Federal SWD #1 Re-entry
660' FNL and 660' FWL
Section 26-T24S-R32E
Lea County, New Mexico

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

Rustler	869'	Bell Canyon	4,892'
Salado	1,178'	Cherry Canyon	5,685'
Castille	3,139'	Brushy Canyon	7,149'
BOS	4,490'	Bone Springs	8,794'
Lamar Lime	4,868'		

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

Water: Already Cased Off
Oil or Gas: None—This will be a SWD well for Yate's water

3. Pressure Control Equipment: An 11" 5M BOP will be installed on the 8 5/8" casing and rated to 5000 PSI. Pressure tests on this re-entry will be conducted when nippled up before drilling out surface plug and prior to drilling the intermediate plug. 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.

4. 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 casing to be used

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13 3/8"	61#	K-55	ST&C	0-622'-in place	
11"	8 5/8"	24# & 32#	K-55	ST&C	0-4973'-inplace	
7 7/8"	5 1/2"	15.5#	J-55	LT&C	0-6550'	6550'

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

B. CEMENTING PROGRAM:

Surface Casing: Originally cemented with 750 sacks and circulated to surface.

Intermediate Casing: Originally cemented with 1500 sacks and cement circulated to surface.

See COA

Production Casing: Production casing will be cemented in two stages with a DV tool set at 5023'.

Stage One: Cement with 369 sacks with 369 sacks Pecos Valley Lite(Yld. 1.41 Wt. 13.00) with D112 0.4%; D151 22.5 lb/sack; D174 1.5 lb/sack: D177 0.01 lb/sack; D800 0.6 lb/sack; and D46 0.15 lb/sack . Cement designed with 25% excess. TOC 5023'.

Stage Two: Cement with 716 sacks 35:65:6 PzC (Yld. 2.00 Wt. 12.5). Tail in 200 sacks Class C (Yld. 1.34 Wt. 14.80) with CaCl2 2%. Cement designed with 25% excess. TOC surface'.

6. MUD PROGRAM: If the mud in the well bore is satisfactory condition Yates would circulate with the mud in the hole. If it is not satisfactory Yates would displace and drill with cut brine with 8.9- 9.3 ppg possibly with a small amount of fluid loss.

7. EVALUATION PROGRAM:

Samples: None
Logging: Open hole logs are available. Will run GR/CBL log.
Coring: None
DST: None

8. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE AND POTENTIAL HARZARDS:

Maximum Anticipated BHP: 3870 PSI
See COA
Abnormal Pressure Anticipated: None
Lost Circulation Zones Anticipated: None
H2S Zones Anticipated: None
Maximum Bottom Hole Temperature: 80 F

9. ANTICIPATED STARTING DATE:

Plans are to reenter this well as soon as possible after receiving approval of the APD and the application for an easement for the drill pad and SWD facility pad as well as the road access which has been applied for.

A. RE-ENTRY PLANS:

The Jackson Federal #1 was spudded on 6/25/83 and P&A on 7/27/83. They drilled the well to a TD of 8,620'. They did not set production casing in this well, only surface and intermediate casing. Both casing strings are cemented to the surface. This well is not a Yates lease. Yates has approval to inject into this well, SWD-1308.

on

Moved

Yate's plan is to re-enter the well with a completion unit. Plan to drill the surface plug out with a 7 7/8" bit, pick up drill collars and drill out the plug across the intermediate casing shoe at 4,988' and circulate. If existing mud in the well bore is in satisfactory condition Yates would circulate with the mud in the hole. If not Yates would displace and drill with cut brine with a probably 8.9-9.3 ppg possibly with a small amount of fluid loss. Yates would trip in the hole through the open hole and clean out to about 6,700'. Yates will then set a 100' 50 sack cement plug of Class H with CFR-3 0.4%; Gilsonite 3.0 lb/sack; HALAD4-344 0.5%; HR-800 0.2% and Poly-E-Flake 0.125 lb/sack designed with 10% excess with the top of cement with @ 6,500' and set 5 1/2" 15.5# J-55 casing and cement to surface in two stages with DV tool at 5023'. Yates will then perforate permeable sands between 5,300' and 6,550' and fracture stimulate. Yates will set a 5 1/2"nickel plated injection packer 100' above the top perforation and run plastic coated 2 7/8" or 3 1/2" tubing and turn the well over to production for injection.

See COA
Frac treatment approval on SWD unlikely, Sundry required

ENGINEERING ANALYZATION OF PROJECT:

Yates Petroleum Corporation does not plan any production testing in this well. The re-entry will be for injection only. There isn't any production from the same zone that Yates is planning to inject into. Also there isn't any production in the immediate area or townships surrounding this well. There is some old, minor production in the upper Bell Canyon (above the proposed injection interval) the next productive interval is the Brushy Canyon as Yates identified in the Haracz wells to the west and the Bone Springs, and currently mostly in the Avalon Shale. This well was drilled and abandoned, without finding anything worthy of testing from Bell Canyon down to the Bone Springs. The closest wells to this location are dry holes also. Those wells were drilled through the Bell Canyon zone and were non-productive.

All production in this area is/was from the Upper Bell Canyon of the Delaware. It isn't and never was very good, only with minor oil and very high water production. There are two injection wells to the west, the Exxon A Federal #2 and US Smelting Federal #5, both injecting into perfs in the Bell Canyon interval that is/was produced in their surrounding wells. The recent Turquoise SWD well just west of this well in Section 30 (SWD order 1203) were approved for injection into the exact same sands that Yates are proposing to inject into.

WELL NAME: Jackson Federal #1 **FIELD:** Undesignated Double X

LOCATION: 660' FNL & 660' FWL of Section 26-24S-32E Lea Co., NM

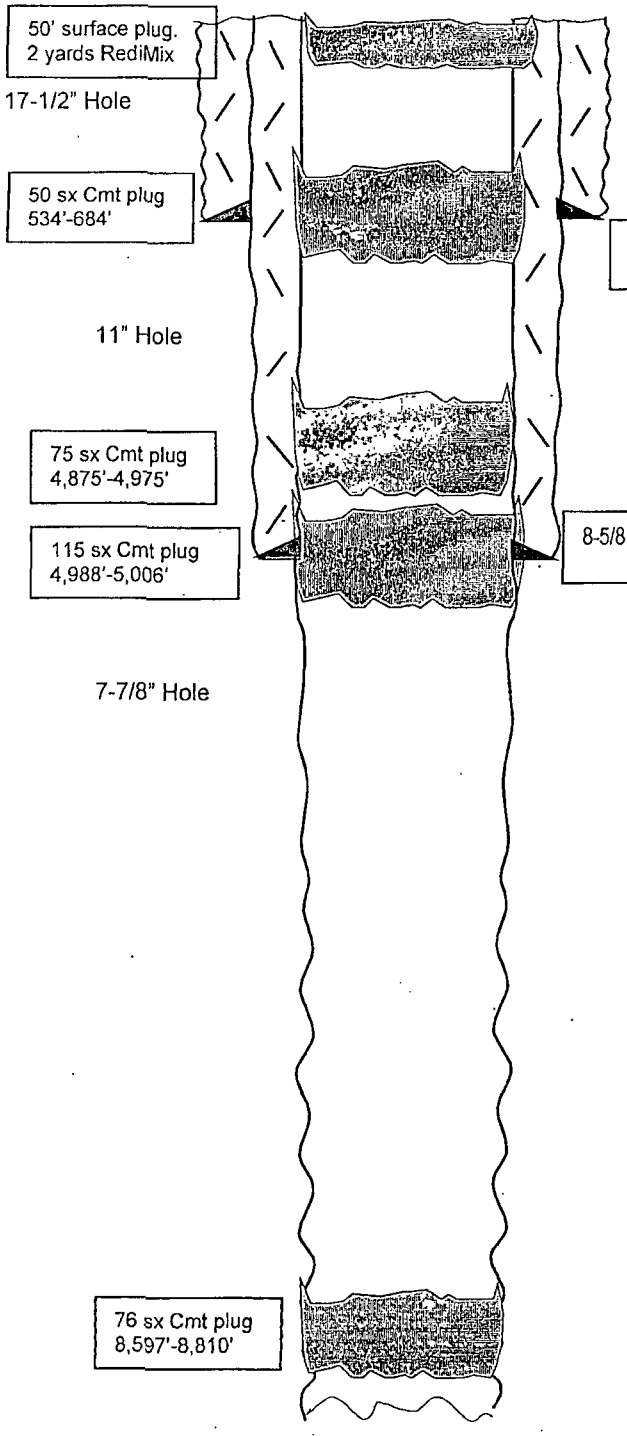
GL: 3,569' **ZERO:** **KB:**

SPUD DATE: 6/29/83 **COMPLETION DATE:**

COMMENTS: API No.: 30-025-28242

CASING PROGRAM

13-3/8" 61# K-55	622'
8-5/8" 24# & 32# K-55	4,923'
5-1/2" 15.5 # J-55	6,550'



Current

TOPS

Rustler	869'
Salado	1,178'
Castille	3,139'
BOS	4,490'
Lamar lime	4,868'
Bell Canyon	4,892'
Cherry Canyon	5,685'
Brushy Canyon	7,149'
Bone Springs	8,794'

Not to Scale
9/7/11
MMFH

WELL NAME: Jackson Federal #1 SWD **FIELD**: Undesignated Double X

LOCATION: 660' FNL & 660' FWL of Section 26-24S-32E Lea Co., NM

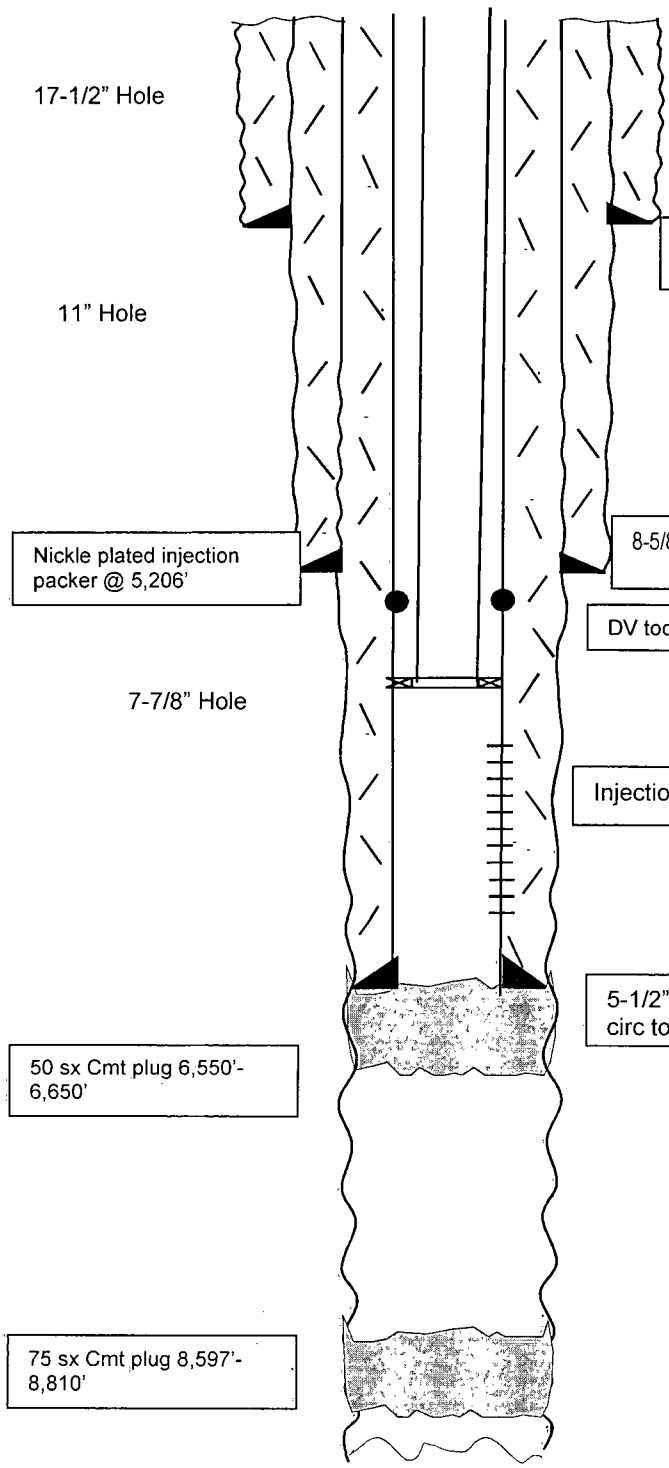
GL: 3,569' **ZERO**: _____ **KB**: _____

SPUD DATE: 6/29/83 **COMPLETION DATE**: _____

COMMENTS: API No.: 30-025-28242

CASING PROGRAM

13-3/8" 61# K-55	622'
8-5/8" 24# & 32# K-55	4,923'
5-1/2" 17 # L-80	6,550'



After

TOPS

Rustler	869'
Salado	1,178'
Castille	3,139'
BOS	4,490'
Lamar lime	4,868'
Bell Canyon	4,892'
Cherry Canyon	5,685'
Brushy Canyon	7,149'
Bone Springs	8,794'

Not to Scale
9/6/11
MMFH

Operator: Yates Petroleum Corporation | **Well: Jackson Federal #1 SWD**
Surface Lease: NM120907 **BHL: NM120907** | **API: 3002528242**
Case No: NM120907 **Lease Agreement** | **@ Srfce: T24S-R32E, Sec 26, 660FNL & 660FWL**
Subsurface Concerns for Casing Designs: | **@ M TD: T24S-R32E, Sec 26, 660FNL & 660FWL**

Well Status: P&A
Spud date: 6/25/1983
WDW, Rt of Way: 0
Admn Order, date: SWD-1308-0, 12/03/2011
Formation, Depths, psig: Bell and Cherry Cyn, 5300-6424, 1060psig

KB: 3580
GL: 3569
Corr: 11

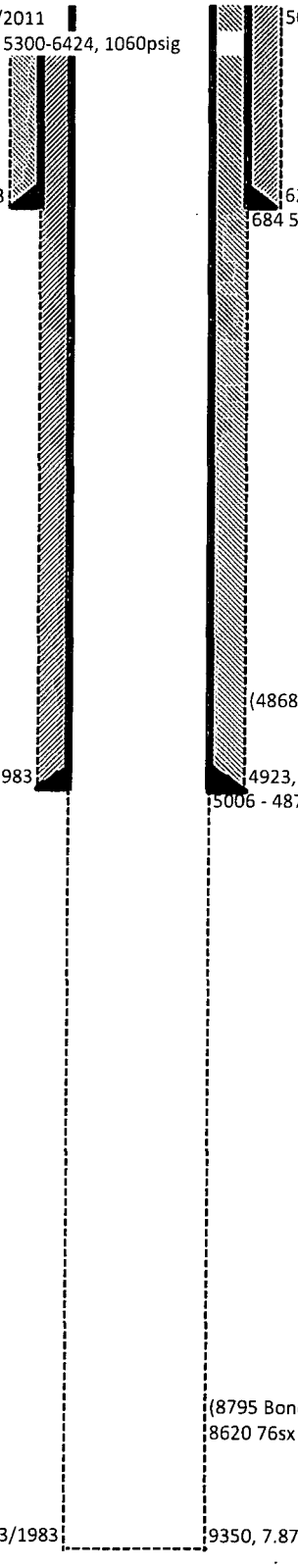


Diagram last updated: 07/30/2013

Operator: Yates Petroleum Corporation Well Name: Jackson Federal No. 1 API#: 3002528242 Lease#: NM120907 Location of Well: T24S-R32E, Sec 26, 660FNL – 660FWL

Proposed Injection Interval: Bell and Cherry Canyon (Delaware) 5300-6424 Review Date: 02/08-09/2012 NMOCD Application Date: 09/23/2011

This well has a New Mexico Oil Conservation Division Form C108 Application for Authorization to Inject. The source of the disposal water will be producing wells. The well seems to be structurally sound for conversion purposes. A review of wells that penetrate the injection zone within a half mile appear not to be adequately constructed or P&A. See well summary spread sheet below. **At this time BLM has issues/objections for this well's use as a produced water disposal well.**

Evaluation of Proposed WDW

as of 02/08/2012 - 02 OFFSET WELLS in Radius of 2700'

Includes information from the web sites: http://www.wellpromapping.com/ & http://ocdimage.emnrd.state.nm.us/imaging/

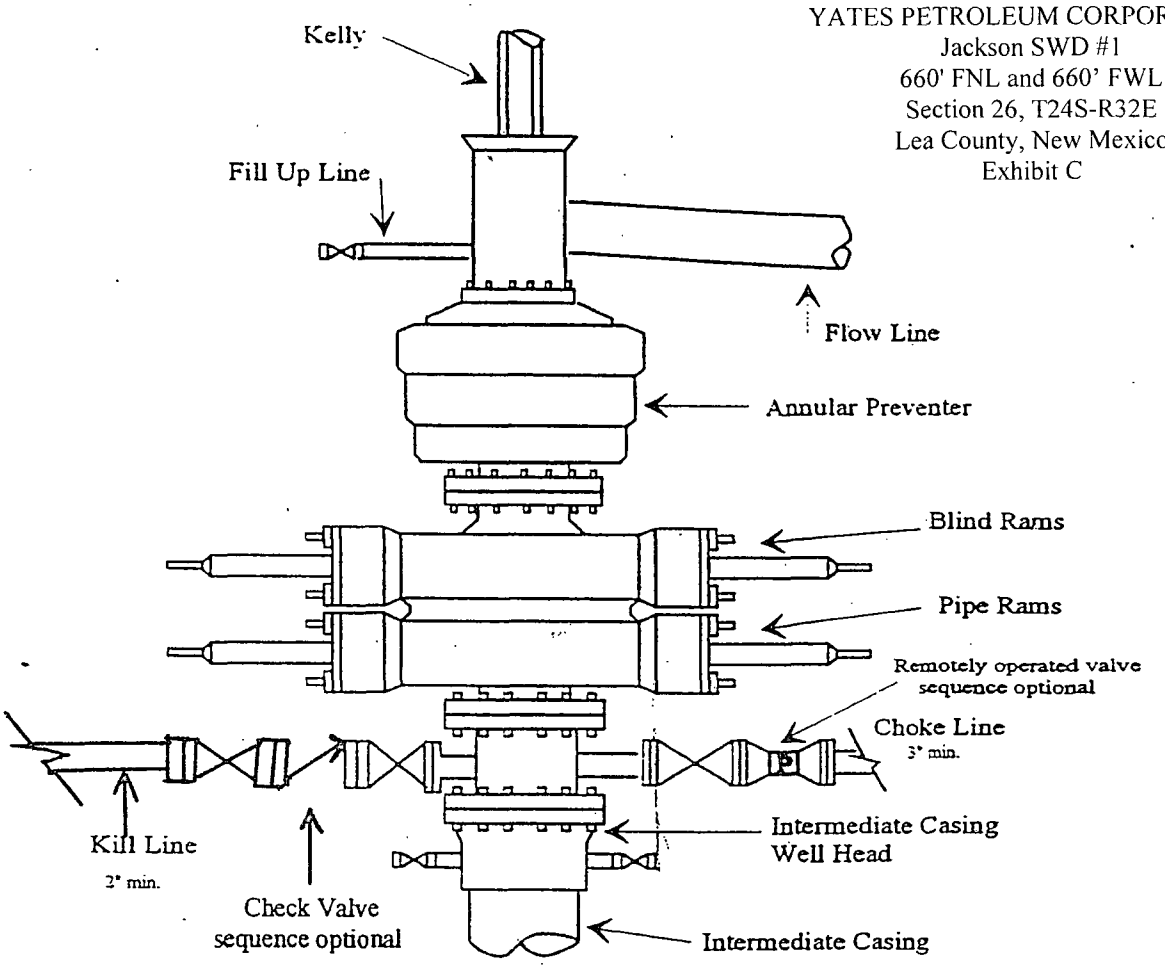
	OPERATOR	WELL NAME	No.	API 30025	SPUD	± Distance' from WDW Surface Vertical	Status	Hole Size "+TD' '= Msrd'=Vert'	Casing Description, Top of Casing-Shoe Depth, DV Tool Depth, Sx Cmt, TOC	Open Hole/Perfs Open	How Abandoned	Formations	T.A.	Plugged	Lease # Case #
0	ExxonMobile	Jackson Fed	1	28242	06/25/83	0	P&A	17.5, 622 11, 4923 7.875, 9350	13.375 61# K55, 750sx circ 20sx 8.625 32# & 24# K55, 2200sx circ 550sx	4923-9350	4 plugs from 8620-76sx, 5006-200sx, 684-50sx, & 50-2yds	Delaware & Bone Springs		07/26/83	NM120907
1	R E Williamson	Wright Fed	1	24948	01/16/75	660	P&A	, 4937	4 1/2 10.5# J55, 150sx 4452 TOC temp	4885-92 frac'd	CIBP 4775 w/cmt cap, cmt plugs set from 2550-2030, & 402-0.	Delaware		09/09/200	NM91
2	M & G	US Smelting SWD	5	08161	10/04/62	990	WDW	, 4995	NMOCD is in process of taking over operator's properties, which are SI per EL Gonzales. Did not find OCD inj order for this WDW. Dustin Winkler approved a NOI to plug this well 12/08/2009.	4913 frac'd		Delaware			LC062269a

Yates Petroleum Corporation

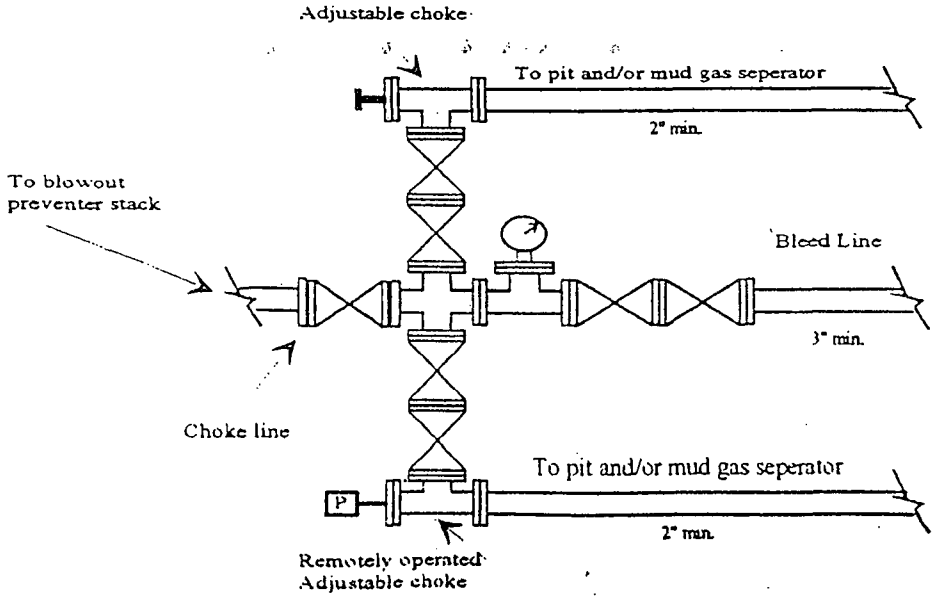
BOP-4

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

YATES PETROLEUM CORPORATION
Jackson SWD #1
660' FNL and 660' FWL
Section 26, T24S-R32E
Lea County, New Mexico
Exhibit C



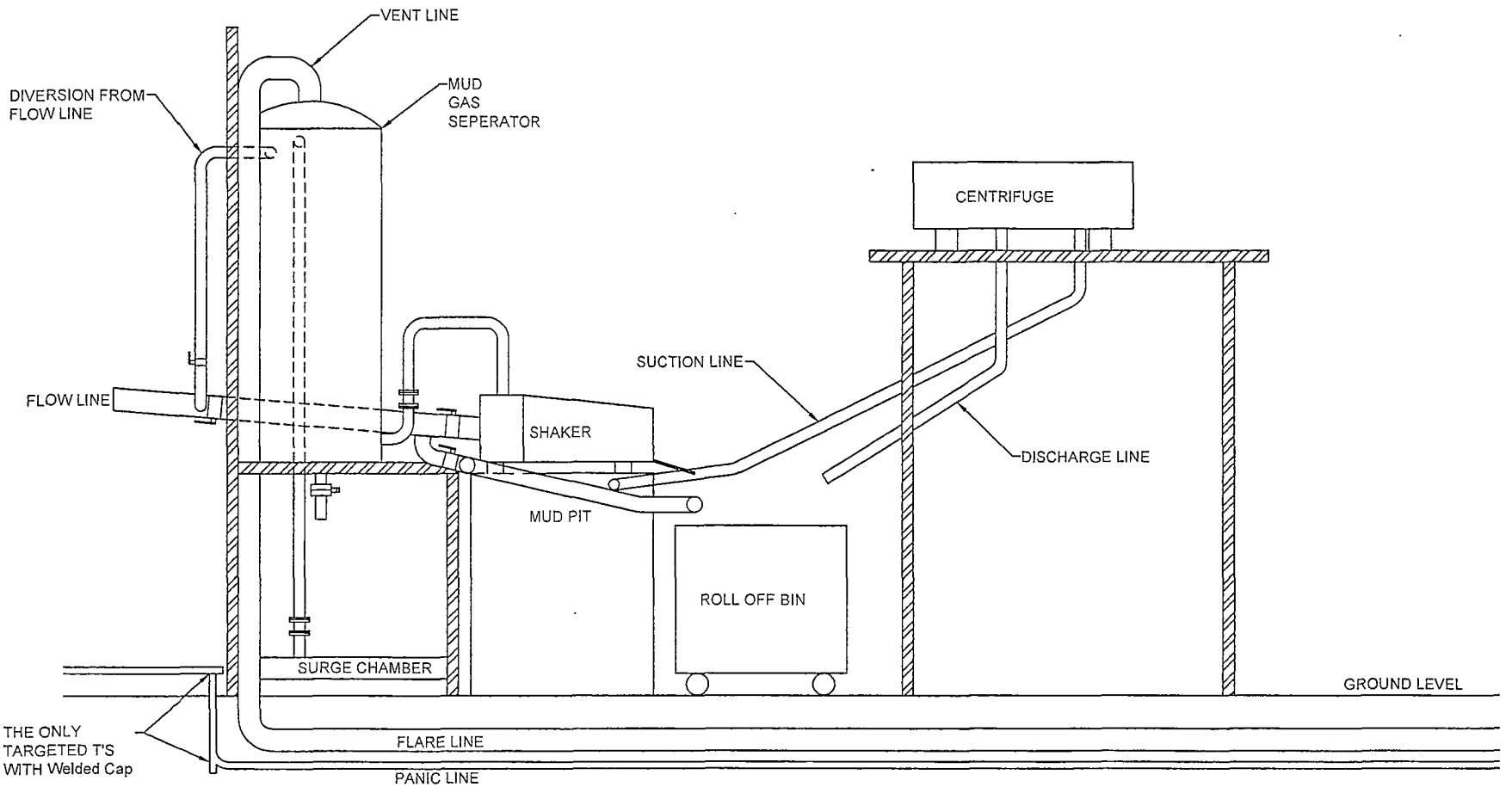
Typical 5,000 psi choke manifold assembly with at least these minimun features



Jackson SWD #1

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.