

ATS-10-561

OCD-HOBBS RECEIVED

Form 3160-3
(August 2007)

JUL 07 2010

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBSOCD

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-62223
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
2. Name of Operator EnerVest Operating LLC		7. If Unit or CA Agreement, Name and No.
3a. Address 1001 Fannin Street, Suite 800 Houston, Texas 77002		8. Lease Name and Well No. <30595> Sharbro Federal #9
3b. Phone No. (include area code) (713) 495-6537		9. API Well No. 30-045-025-39819
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FSL, 2080 FWL, Unit Letter K At proposed prod. zone		10. Field and Pool, or Exploratory Sand Dunes, Bone Springs
14. Distance in miles and direction from nearest town or post office* 39 miles west and north of Jal, New Mexico		11. Sec., T. R. M. or Blk. and Survey or Area Section 7, T-23-S, R-32-E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1980'	16. No. of acres in lease 280	17. Spacing Unit dedicated to this well 40 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,320'	19. Proposed Depth 8,800'	20. BLM/BIA Bond No. on file NMB000503
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3532' GL	22. Approximate date work will start* 06/16/2010	23. Estimated duration 2 weeks

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 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 Bridget Helfrich	Name (Printed/Typed) Bridget Helfrich	Date 5-10-10
Title Regulatory Technician		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date JUL 2 2010
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)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

ATTACHED FOR
CONDITIONS OF APPROVAL

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

JUL 07 2010

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

HOBBSOCD

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-39819	Pool Code 53800	Pool Name Sand Dunes, Bone Springs
Property Code 305951	Property Name SHARBRO FEDERAL	Well Number 9
OGRID No. 143199	Operator Name ENERVEST OPERATING, LLC	Elevation 3532'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	7	23-S	32-E		1980	SOUTH	2080	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill Y	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 1			
45.96 AC LOT 2	GEODETIC COORDINATES NAD 27 NME $Y=479606.5$ N $X=690790.1$ E $LAT.=32.317043^{\circ}$ N $LONG.=103.715742^{\circ}$ W		
45.98 AC LOT 3			
45.98 AC LOT 4			
46.00 AC			

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

James C. Hurnicutt 4/22/10
Signature Date
James C. Hurnicutt
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

GARY G. EIDSON
FEBRUARY 16 2010
Date Surveyed
Signature & Seal of 12641
Professional Surveyor
Gary G. Eidson 2/25/10
10.11.0186
Certificate No. GARY EIDSON 12641

ENERVEST OPERATING, LLC
SHARBRO FEDERAL #9
1980' FSL & 2080' FWL SEC 7, T23S, R32E
LEA COUNTY, NM

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

Base of Salt	4400'	Cherry Canyon	5511'	Avalon Sand	8624'
Lamar Lime	4572'	Brushy Canyon	8235'	TD	8800'
Ramsey Sand	4608'	Bone Spring	8522'		

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

Water: 150 – 250'

Oil or Gas: 5600 – 8700'

3. **PRESSURE CONTROL EQUIPMENT:** BOPE will be installed on the 13 3/8" casing and rated for 3M. BOP systems will be consistent with API RP 53. Pressure tests 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.

3A. **AUXILIARY EQUIPMENT:** Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and drill collars will be available on the rig floor in the open position at all times for use when the Kelly is not in use.

4. **PROPOSED CASING AND CEMENTING PROGRAM:**

A. Casing Program: (All New)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt/ft</u>	<u>Grade</u>	<u>Thread</u>	<u>Interval</u>	<u>Length</u>	<u>Safety Factors</u>
17 1/2"	13 3/8"	48#	H-40	STC	0 – 600'	600'	2.02 (c) 2.46 (b) 9.63 (t)
12 1/4"	8 5/8"	32#	J-55	LTC	0 – 4500'	4500'	1.54 (c) 1.23 (b) 3.40 (t)
7 7/8"	5 1/2"	17#	N-80	LTC	0 – 8800'	8800'	1.30 (c) 1.66 (b) 1.92 (t)

EXHIBIT 7

B. Cementing Program:

Surface Casing: 355 sks Class "C" + 4% Gel + 2% CaCl₂ (wt. 13.5 ppg, Yield 1.75 cu ft/sk) & 185 sks Class "C" + 2% CaCl₂ (wt. 14.8 ppg, Yield 1.34 cu ft/sk) Circulate to surface.

Intermediate Casing: 620 sks of 50/50 Poz "C" + 13% Gel + 5% Salt (wt. 11.8 ppg, Yield 2.45 cu ft/sk) & 230 sks 50/50 Poz "C" + 2% Gel + 5% Salt (wt. 14.2 ppg, Yield 1.3 cu ft/sk) Circulate to surface.

Production Casing: 1st stage: 440 sks (15:61:11) Poz: Premium "C": CSE-2 + 3% Salt (wt. 13.2 ppg, Yield 1.61 cu ft/sk) DV Tool set at approx. 6000'. 2nd stage: 100 sks 50/50 Poz "C" + 10% Gel (wt. 11.8 ppg, Yield 2.45 cu ft/sk) & 235 sks 50/50 Poz "C" + 2% Gel (wt. 14.2 ppg, Yield 1.26 cu ft/sk) Tie back to Intermediate Casing (500'). Volumes to be adjusted to caliper volume + 10%

5. **MUD PROGRAM AND AUXILIARY EQUIPMENT:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-600	FW Gel	8.4 – 8.9	32-36	N/C
600-4500	Brine	10.0	28	N/C
4500-TD	Cut Brine	8.9 – 9.3	28	<15.0

Sufficient mud material 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:**

Samples: Every 10' from intermediate casing to TD
Logging: G/R from surface to TD; Dual Induction Spectra G/R, Litho Density from 4500' to TD
Coring: None anticipated
DST's: None anticipated

7. **ABNORMAL CONDITIONS AND ANTICIPATED BHP:**

From 0 – 600': Anticipated Max. BHP: 250 psi
From 600 – 4500': Anticipated Max. BHP: 750 psi
From 4500 – 8800' (TD): Anticipated Max. BHP: 2620 psi

Anticipated Potential Hazards: None

Abnormal Pressures Anticipated: None

Lost circulation Zones Anticipated: None

H₂S Zones Anticipated: None – Based on offset wells drilled in Sec. 7 (Blue Quail Fed. #1, Blue Quail Fed. #2 & Sharbro Fed. #7). REQUEST EXEMPTION FOR H₂S DRILLING STIPS. – See COA

Maximum Bottom Hole Temperature: 160° F

8. **ANTICIPATED STARTING DATE:**

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 16 days to drill the well with completion taking another 10 days. This well lies in the CRMA prairie chicken area as defined by the 1966 NM GAP analysis study; NM State University. ENERVEST OPERATING, LLC REQUESTS AN EXEMPTION FROM THE MARCH 15 – JUNE 15 PRAIRIE CHICKEN STIPS FOR THE DRILLING, COMPLETION & WORKOVER PHASES OF THIS WELL. EnerVest contends that there are no prairie chickens in this area, as supported by the field survey prepared by Auburn University in 2000, attached to the Surface Use Plan of Operations.

WELL	Sharbro Federal #9				ENERVEST			
TYPE	VERTICAL	RIG	TBD		DATE	2/2/2010		
FIELD	SAND DUNES	COUNTY	LEA		ELEVATION	GL 3532'		
GAS/OIL	OIL	MUD	TBD		CEMENT			
LOCATION	1980' FSL & 2080' FWL OF SEC. 7, T23S, R32 (UL = K)				SBHT	NA		
COMMENTS	OBJECTIVE FORMATIONS: BONE SPRING SAND, AVALON SAND							
NOTE:								

MUD- LOGGER	SURVEYS	WOB/GPM BIT	FORMATION TOPS HOLE SIZES	VERTICAL DEPTH	MUD WEIGHT	OPEN HOLE LOGS	CEMENT	WELLHEAD	REMARKS
	300' & 600'	10/50/900gppr Insert	17.5"	600'		8 4-8.9 None			
			13-3/8" 48# H-40 STC Casing						
	Every 1000' or less	10/25/700 PDC Motor	12.25"			10 ppg Brine			
			Base of Salt	4,000 (TOC)					
			8-5/8" 32# J-55 STC Casing	4,400					
				4,600					
	Every 1000' or less	10/25/500 PDC Motor	Cherry Canyon	5,511					
			7-7/8"	6,000		8.9-9.3			
				0		DV Tool @ 6,000'			
			Brushy Canyon	8,235					
			Bone Spring	8,522					
			Avalon Sand	8,624					
			5-1/2" 17# J-55 LTC Casing	8,800					

			OFFICE	HOME
AFE #	TBD	REGULATORY		
EV #	TBD	SAFETY, HEALTH & ENVIRONMENTAL		
API #	TBD	GEOLOGIST		

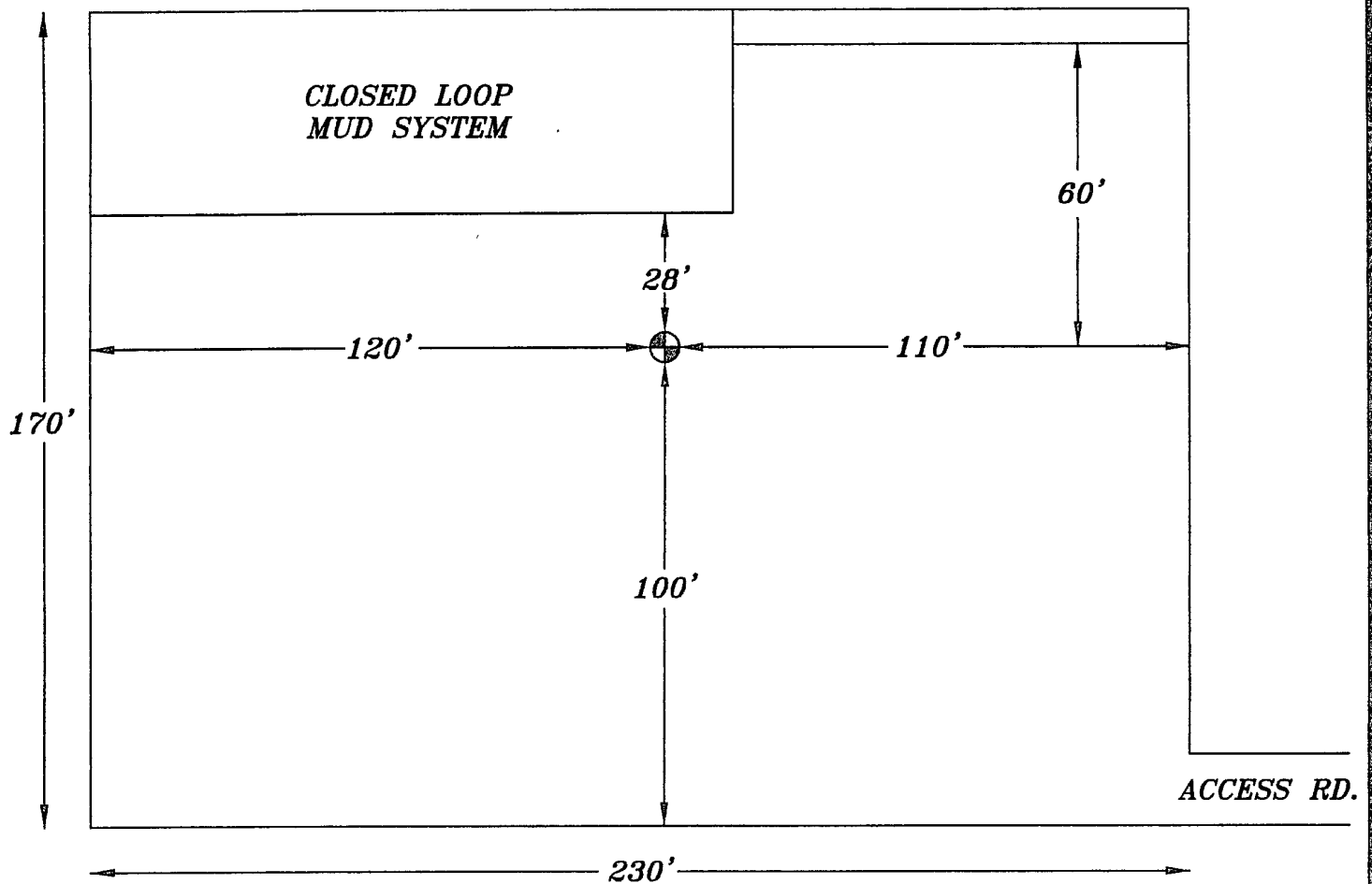


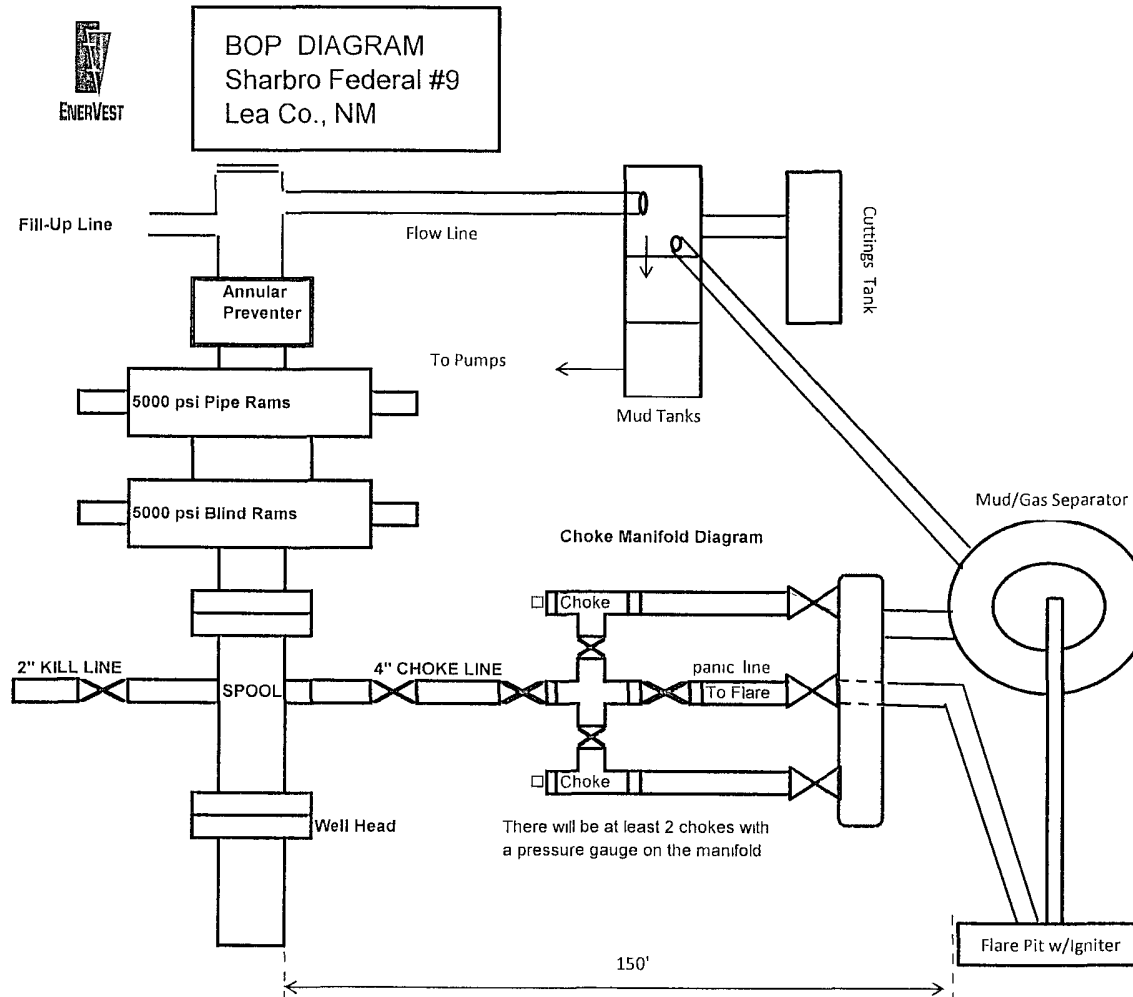
EXHIBIT 8

NOT TO SCALE

DATE:	1/7/08
DWN. BY:	RC
FILE:	C:\ENERVEST\2336 RIG LAYOUT

ENERVEST OPERATING, LLC
RIG LAYOUT

BOP MANIFOLD SYSTEM for Potential H2S Environment





BOP DIAGRAM Sharbro Federal #9 Lea Co., NM

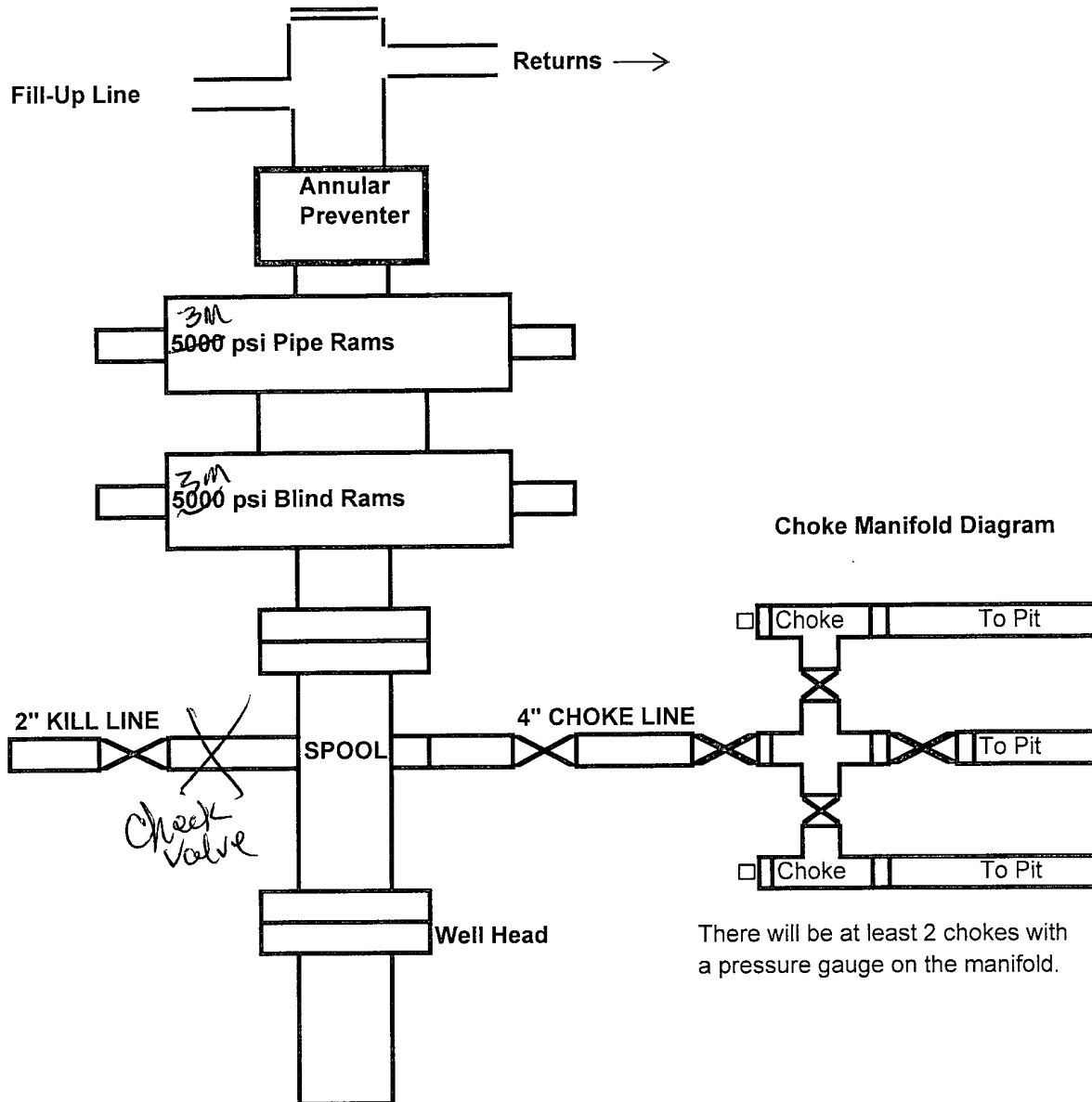


EXHIBIT 9