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**JUL 07 2010**  
**HOBBSOCD**

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**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-86151
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. <b>&lt;305960&gt;</b> Blue Quail Federal #3
3b. Phone No. (include area code) <b>&lt;1431 99&gt;</b> (713) 495-6537		9. API Well No. <b>30-015-025-39818</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660' FSL, 1980 FWL, Unit Letter N At proposed prod. zone		10. Field and Pool, or Exploratory Sand Dunes, Bone Springs <b>&lt;53800&gt;</b>
11. Sec., T. R. M. or Blk. and Survey or Area Section 7, T-23-S, R-32-E		12. County or Parish Lea
13. State NM		
14. Distance in miles and direction from nearest town or post office* 39 miles west and north of Jal, New Mexico	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 120
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.) 3548' 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.<br>2. A Drilling Plan.<br>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).<br>5. Operator certification<br>6. Such other site specific information and/or plans as may be required by the BLM. |
|---|---|

25. Signature <i>Bridget Helfrich</i>		Name (Printed/Typed) Bridget Helfrich	Date 5-10-10
Title Regulatory Technician			
Approved by (Signature) <b>/s/ Don Peterson</b>		Name (Printed/Typed)	Date <b>JUL 2 2010</b>
Title <b>FIELD MANAGER</b>		Office <b>CARLSBAD FIELD OFFICE</b>	

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

*Ka*

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

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

## EXHIBIT 1

RECEIVED

JUL 07 2010

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

HOBBBSOCD

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

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

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

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 <b>30-025-39818</b>	Pool Code <b>53800</b>	Pool Name <b>Sand Dunes, Bone Springs</b>
Property Code <b>305960</b>	Property Name <b>BLUE QUAIL FEDERAL</b>	Well Number <b>3</b>
OGRID No. <b>143199</b>	Operator Name <b>ENERVEST OPERATING, LLC</b>	Elevation <b>3548'</b>

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	7	23-S	32-E		660	SOUTH	1980	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 <b>40</b>	Joint or Infill <b>Y</b>	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

<p>LOT 1</p> <p>45.96 AC</p> <p>LOT 2</p> <p>45.98 AC</p> <p>LOT 3</p> <p>45.98 AC</p> <p>LOT 4</p> <p>46.00 AC</p> <p>1980'</p> <p>3536.5' 3544.4' 3542.6' 3553.0'</p> <p>600' 600' 660'</p> <p>GEODETTIC COORDINATES NAD 27 NME</p> <p>Y=478285.7 N X=690697.4 E</p> <p>LAT.=32.313414° N LONG.=103.716066° W</p>	<p>OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>James C. Hunnicutt</i> 4/22/10 Signature Date James C. Hunnicutt Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>GARY G. EIDSON FEBRUARY 16, 2010 Date Surveyed Signature &amp; Seal of Professional Surveyor <i>Gary G. Eidson</i> 2/25/10 101470185 Certificate No. GARY EIDSON 12841</p>
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**ENERVEST OPERATING, LLC**  
**BLUE QUAIL FEDERAL #3**  
**660' FSL & 1980' FWL SEC 7, T23S, R32E**  
**LEA COUNTY, NM**

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% CaCl<sub>2</sub> (wt. 13.5 ppg, Yield 1.75 cu ft/sk) & 185 sks Class "C" + 2% CaCl<sub>2</sub> (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: 1<sup>st</sup> 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'. 2<sup>nd</sup> 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

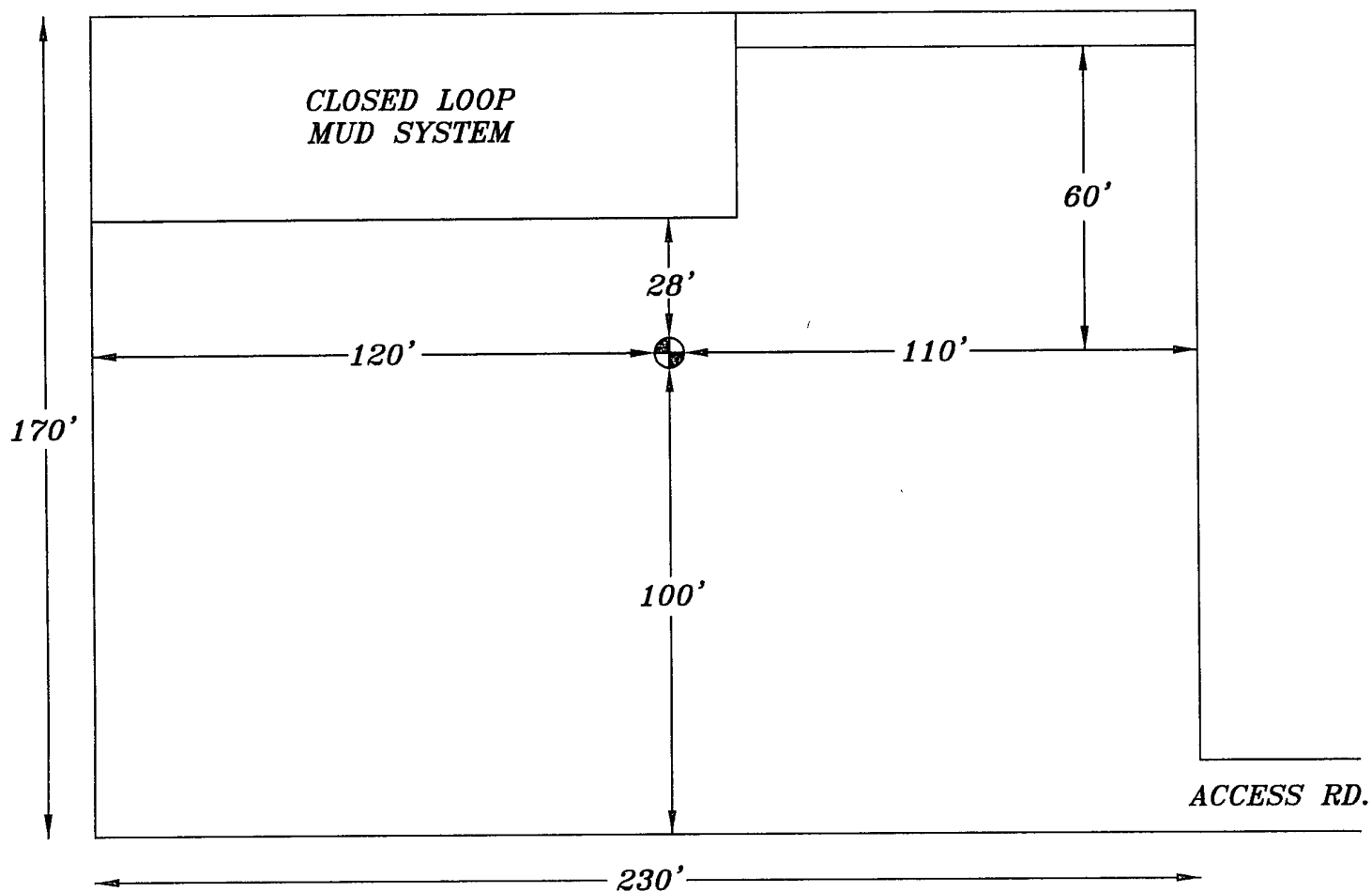
H<sub>2</sub>S Zones Anticipated: None – Based on offset wells drilled in Sec. 7 (Blue Quail Fed. #1, Blue Quail Fed. #2 & Sharbro Fed. #7). REQUEST EXEMPTION FOR H<sub>2</sub>S DRILLING STIPS. ~ See CCA

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				Blue Quail Federal #3				ENERVEST			
TYPE		VERTICAL		RIG		TBD		DATE		2/2/2010	
FIELD		SAND DUNES		COUNTY		LEA		ELEVATION		GL 3548'	
GAS/OIL		OIL		MUD		TBD		CEMENT			
LOCATION 660' FSL & 1980' FWL OF SEC. 7, T23S, R32E (UL = N)								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'	10/50/900gpr 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)		None (C.H. GR)				
			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									



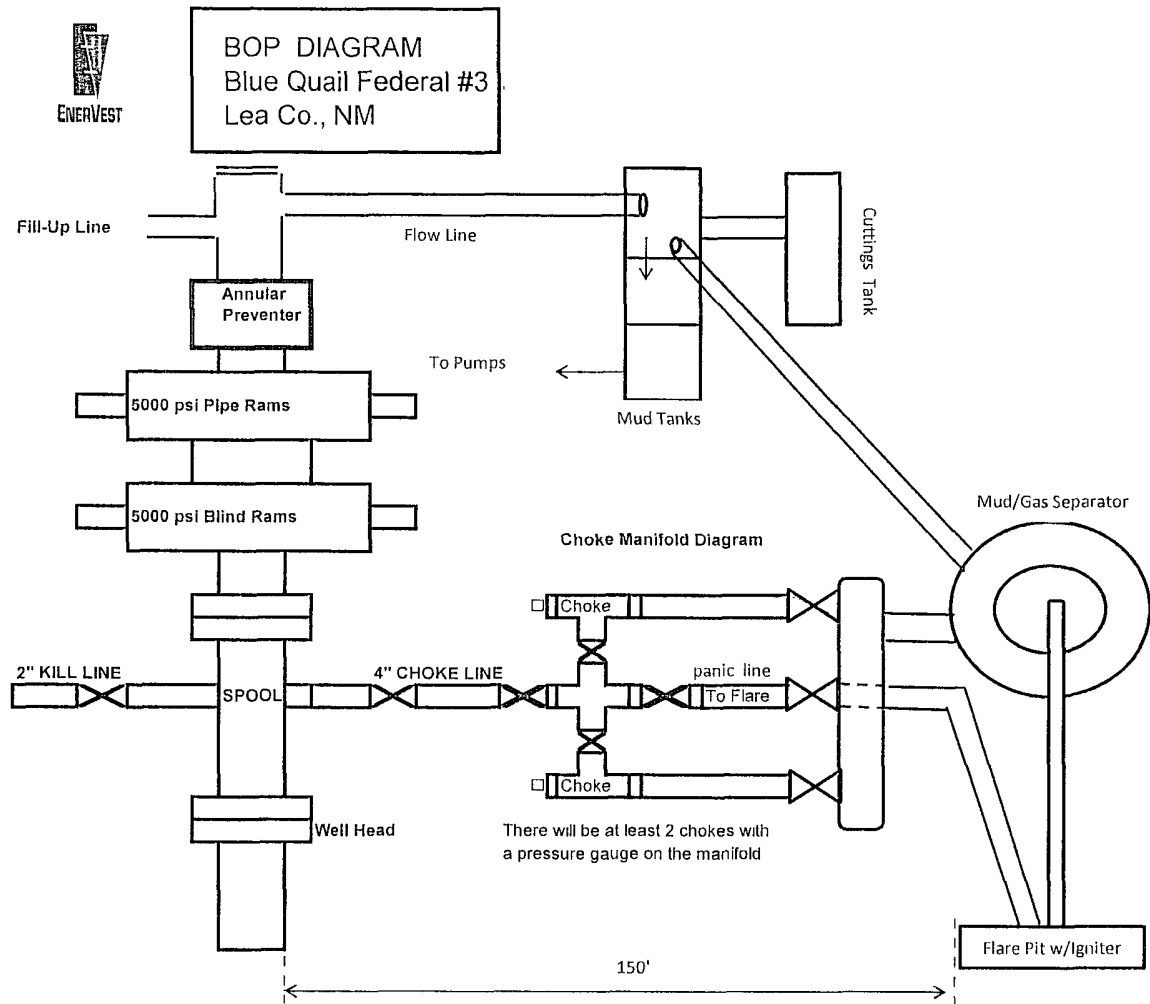
## EXHIBIT 8

NOT TO SCALE

DATE:	1/7/08
OWN. BY:	RC
FILE:	C:\ENERVEST\SS38
	RIG LAYOUT

ENERVEST OPERATING, LLC  
RIG LAYOUT

**BOP MANIFOLD SYSTEM**  
**for Potential H2S Environment**







BOP DIAGRAM  
Blue Quail Federal #3  
Lea Co., NM

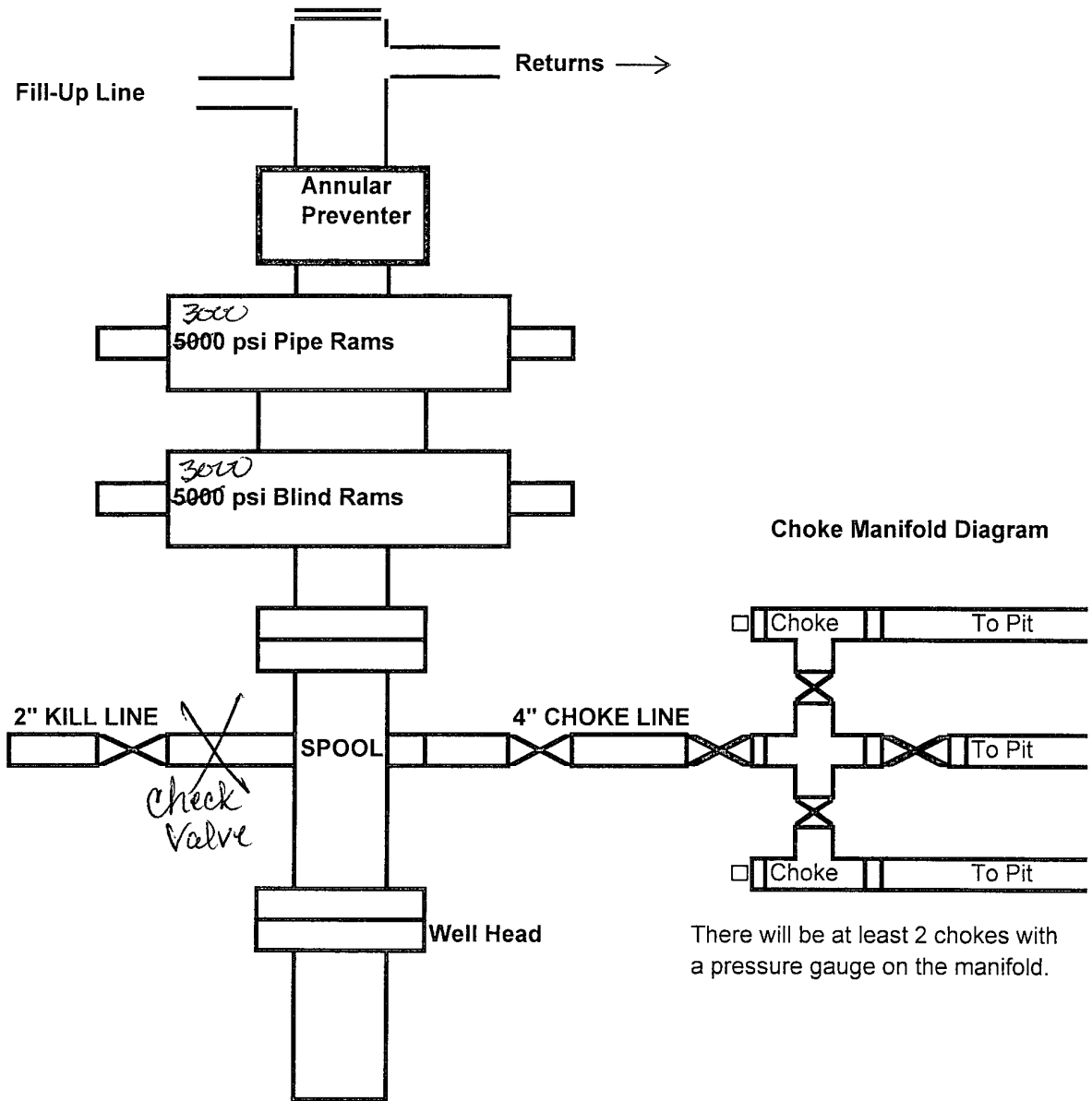


EXHIBIT 9