

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED

OMB No. 1004-0136

Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

2005 SEP 23 PM 1:45

RECEIVED

070 FARMINGTON NM

1a. Type of Work ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

HEC Petroleum Inc.

NM OGRID # 009812

3a. Address c/o Mike Pippin, LLC

3104 N. Sullivan Ave., Farmington, NM 87401

3b. Phone Number

(505) 327-4573

4. Location of Well (Footage, Sec, T. R., M. or Survey Description)

At surface: Unit Letter E, 1465' FNL, 1300' FWL

At proposed prod. Zone:

14. Distance in miles and direction from nearest town or post office*

14 Miles North of Farmington

15. Distance from proposed*

location to nearest 1300'
property or lease line, ft.

(Also to nearest drlg. Unit line, if any)

18. Distance from proposed*

location to nearest well 612'

21. Elevation (Show whether DF, KDB, RT, GL, etc.)

5812' GL

16. No of Acres in lease

320+

19. Proposed Depth

2200'

22. Approximate date work will start*

3/10/06

5. Lease Designation and Serial No.

45 USA NM-10183-A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement, Name and No.

8. Lease Name and Well No.

FEDERAL B #3

9. API Well No.

30-045-33361

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and Survey or Area

E Sec 12, T-31-N, R-13-W

12. County or Parish,

San Juan

13. State

New Mexico

17. Spacing Unit dedicated to this well

N/2

20. BLM/BIA Bond or

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CONS. DIV.

DIST. 3

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. A Drilling Plan

3. A Surface Use Plan (if the location is on National Forest System Lands, the

SUPO shall 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 authorized officer

Size of Hole	Grade, Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8" H-40 J-55	24#	200'	140 Sxs, 165 ft3 - 100% Excess
7-7/8"	5-1/2" J-55	15.5#	2200'	278 Sxs, 553 ft3 - 45% Excess

On site inspection with Roger Herrera 8/22/05.

Archy by DCA.

EA by Nelson.

SEE ATTACHED APD INFORMATION

Latitude: 36 Deg, 55', 02.8" N
Longitude: -108 Deg, 09', 34.8" W

25. Signature

Mike Pippin

Name(Printed/Typed)

Mike Pippin

Date

9/22/2005

Title

Agent - Petroleum Engineer

Approved by (Signature)

APM

Name(Printed/Typed)

Office

FFO

Date

11/4/05

Application approval does not warrant or certify 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.

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.

*(Instructions on reverse)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOCD

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

RECEIVED

☐ AMENDED REPORT

070 FARMINGTON NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-33361		² Pool Code 71629		³ Pool Name BASIN FRUITLAND COAL	
⁴ Property Code 35230		⁵ Property Name FEDERAL B			⁶ Well Number 3
⁷ OGRID No. 9812		⁸ Operator Name HEC PETROLEUM			⁹ Elevation 5812

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
E	12	31-N	13-W		1465	NORTH	1300	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 320 ⁺ N/2	¹³ Joint or Infill Y	¹⁴ Consolidation Code	¹⁵ Order No.
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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

16

	S 88-39-52 E 2676.2' (M)	FD 3 1/4" BC. B.L.M. 1952
	FD 3 1/4" BC. B.L.M. 1952	

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein
is true and complete to the best of my knowledge and
belief.

Signature

MIKE PIPPIN
Printed Name

AGENT-PETR. ENGR.
Title

9-21-05
Date

18 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.

JOHN VUKONICH 2005
Date of Survey
Signature and Seal of Professional Surveyor:

Certificate Number

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.

30-045-33361

5. Indicate Type of Lease: **FEDERAL**
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
FEDERAL: NM 10183-A

7. Lease Name or Unit Agreement Name
FEDERAL B

8. Well Number: #3

9. OGRID Number: 009812

10. Pool name or Wildcat
Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator
HEC PETROLEUM INC.

3. Address of Operator: c/o Agent, Mike Pippin LLC
3104 N. Sullivan, Farmington, NM 87401 505-327-4573

4. Well Location

Unit Letter E : 1465 feet from the North line and 1300 feet from the West line

Section 12 Township 31N Range 13W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
5812' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water >1000'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbls; Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: Register Drilling Pit ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

We intend to drill a new Fruitland Coal well. The drilling pit will be built and lined according to our general pit guidelines on file at the NMOCD in Aztec, NM.

When the drilling pit is closed, it will be closed as per our general pit closing guidelines on file at the NMOCD.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

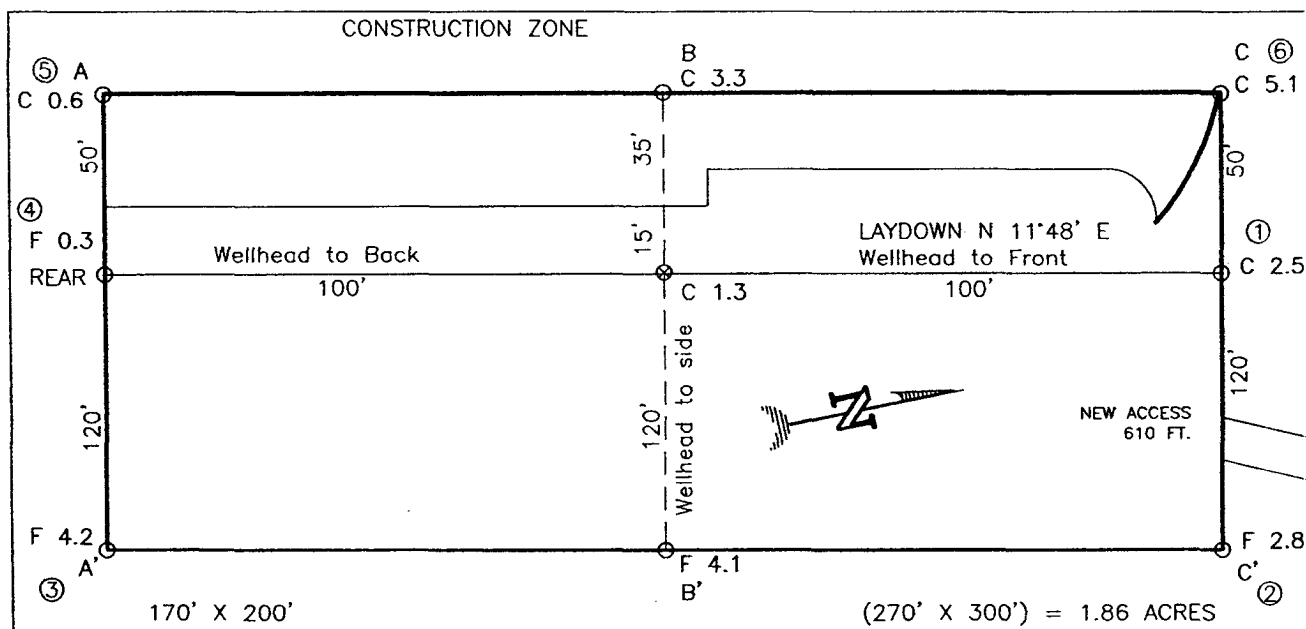
SIGNATURE Mike Pippin TITLE Agent, Petroleum Engineer DATE 9/21/05
Type or print name Mike Pippin E-mail address: mpippin@ddbroadband.net Telephone No.: 505-327-4573

For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. IV DATE NOV 07 2005

Conditions of Approval (if any):

HEC PETROLEUM
 FEDERAL B No. 3, 1465 FNL 1300 FWL
 SECTION 12, T31N, R13W, N.M.P.M., SAN JUAN COUNTY, N. M.
 GROUND ELEVATION: 5812, DATE: AUGUST 23, 2005



NOTE:

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR
 UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO
 ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO
 EXCAVATION OR CONSTRUCTION.

ELEV. A-A'

C/L

5830					
5820					
5810					
5800					

ELEV. B-B'

C/L

5830					
5820					
5810					
5800					

ELEV. C-C'

C/L

5830					
5820					
5810					
5800					

NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR
 CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

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REVISION:	DATE:	REVISED BY:
RESTAKE WELL LOCATION	08/12/05	B.L.
Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15068 • Farmington, NM 87401 Phone (505) 326-1772 • Fax (505) 326-6019 NEW MEXICO L.S. No. 14831 CDR/PL: PR129CFB		
DRAWN BY: B.L.	DATE: 07/28/05	
ROW#: PR129		



HEC PETROLEUM INC.
FEDERAL B #3 FRTC
1465' FNL, 1300' FWL
Unit E Sec. 12 T31N R13W
San Juan County, NM

Drilling Program

1. ESTIMATED FORMATION TOPS (KB)

<u>Formation Name</u>	<u>Depth</u>
Ojo Alamo	518'
Kirtland	632'
Fruitland	1715'
Pictured Cliffs	2095'
TD (4-1/2")	2200'

2. NOTABLE ZONES

<u>Gas or Oil Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland		Fruitland
Pictured Cliffs	Ojo Alamo Kirtland	

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Oil or gas shows will be tested for commercial potential based on the engineer's recommendations.

3. PRESSURE CONTROL

Maximum expected pressure is ~1000 psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 7-1/16" 3,000 psi annular is on PAGE #5 & #6.

BOP equipment and all accessories will meet or exceed BLM requirements in 43 CFR Part 3160 for a 3000 psi system. A 3000 psi annular BOP will be used. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill, kill, and choke manifold lines will be 2". Accessories will include an upper Kelly cock with a handle, stabbing valve to fit drill pipe on floor at all times, string float at bit, 3000 psi choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge. BOPs will be tested every 24 hours. Tests will be recorded on IADC log.

HEC PETROLEUM INC.
FEDERAL B #3 FRTC
 1465' FNL, 1300' FWL
 Unit E Sec. 12 T31N R13W
 San Juan County, NM

4. CASING & CEMENT

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connection</u>	<u>GL Setting Depth</u>
12-1/4"	8-5/8"	24#	H-40 J-55	New	ST&C	200'
7-7/8"	5-1/2"	15.5#	J-55	New	ST&C	2200'

Surface Casing will be cemented to the surface with ~165 cu. ft. (~140 sx) Class "B" cmt or equivalent (1.18 ft³/sx yield, 15.6 ppg, & 5.2 gps) with 2% CaCl₂ and 1/4#/sx celloflake. Volume based on 100% excess. We plan to run a minimum of at least 3 centralizers. A wooden wiper plug will be displaced to within 20' of the shoe. WOC = 12 hours. Surface casing will be tested to 500 psi for 30 minutes.

Production Casing will be cemented to surface with a single stage. Total cement = ~553 cu. ft. (~278 sx). Volumes are calculated at 45% excess in the lead cmt. If cement does not circulate to surface, then a temperature survey or CBL will be run to determine the actual cement top as needed. WOC = 12 hours. Casing will be tested to 3800 psi for 30 minutes during completion operations.

Lead cement will be ~497 cu. ft. (~238 sx) Class "B" cmt or equivalent w/2% SM, 1/4#/sx cello flake, 3#/sx gilsonite mixed at 11.9 gps, 12.5 ppg for a yield of 2.09 cu. ft. per sx.

Tail cement will be ~56 cu. ft. (~40 sx) Class "B" cmt or equivalent w/1% gel, 2% Cacl₂, 1/4#/sx cello flake, 3#/sx gilsonite mixed at 6.8 gps, 14.5 ppg for a yield of 1.4 cu. ft. per sx.

Cementing equipment will include a guide shoe, and autofill float collar will be run 20' off bottom. We plan on running at least 10 centralizers.

5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>Wt./ppg.</u>	<u>Vis.</u>	<u>Fluid Loss</u>	<u>PH</u>
0'-200'	FW gel/lime spud mud	8.4-8.7	30-50	NC	10
200'-2200'	FW gel/Polymer	8.3-8.6	30-35	<20cc's	9.5

Lost circulation and absorption material will be on location.

6. CORING, TESTING, & LOGGING

No cores, open hole logs, or drill stem tests are planned. A cased hole neutron log will be run during completion operations.

**HEC PETROLEUM INC.
FEDERAL B #3 FRTC
1465' FNL, 1300' FWL
Unit E Sec. 12 T31N R13W
San Juan County, NM**

7. DOWN HOLE CONDITIONS

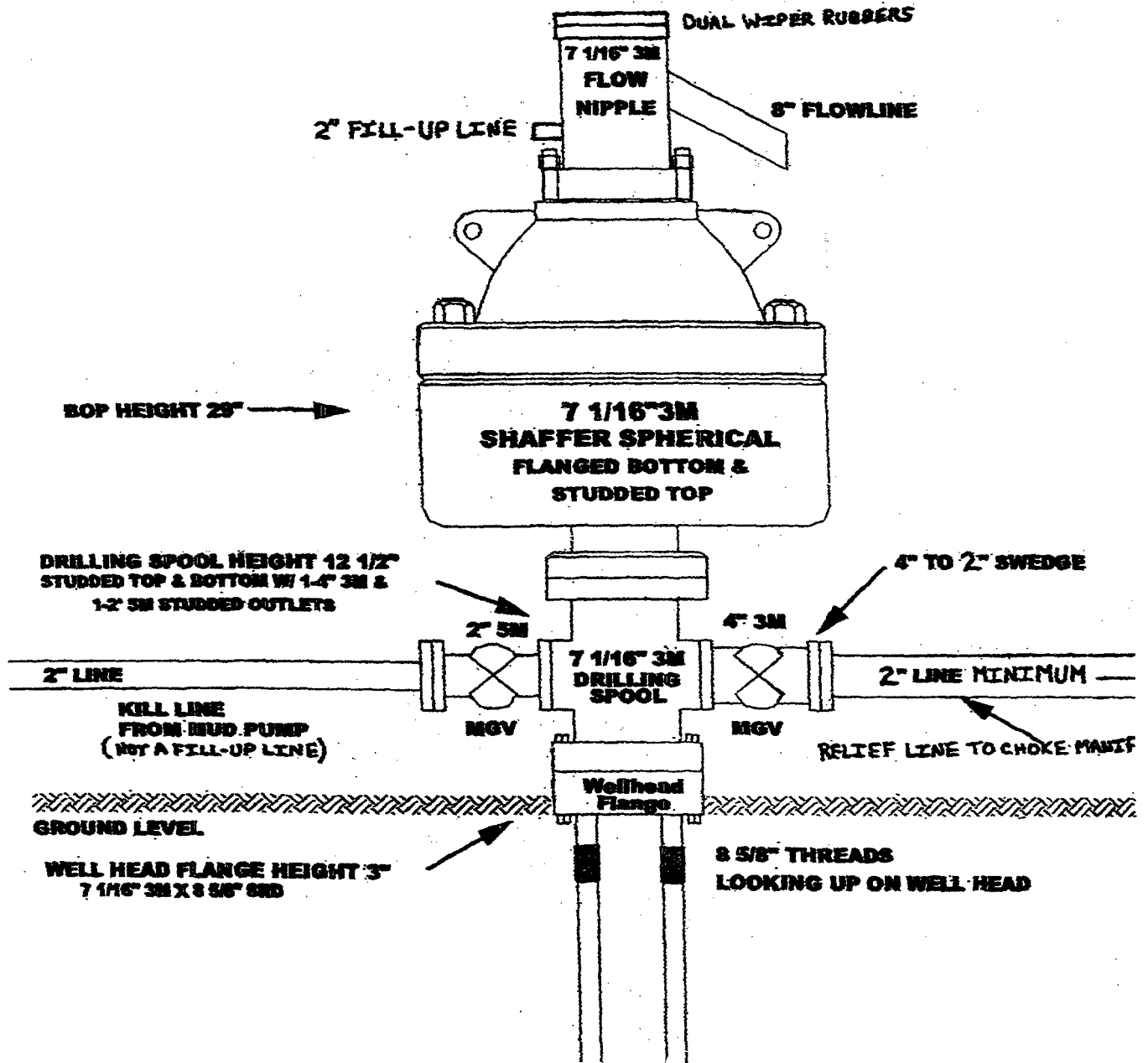
No abnormal pressures, temperatures, nor hydrogen sulfide are expected.
Maximum pressure will be ~1000 psi.

8. OTHER INFORMATION

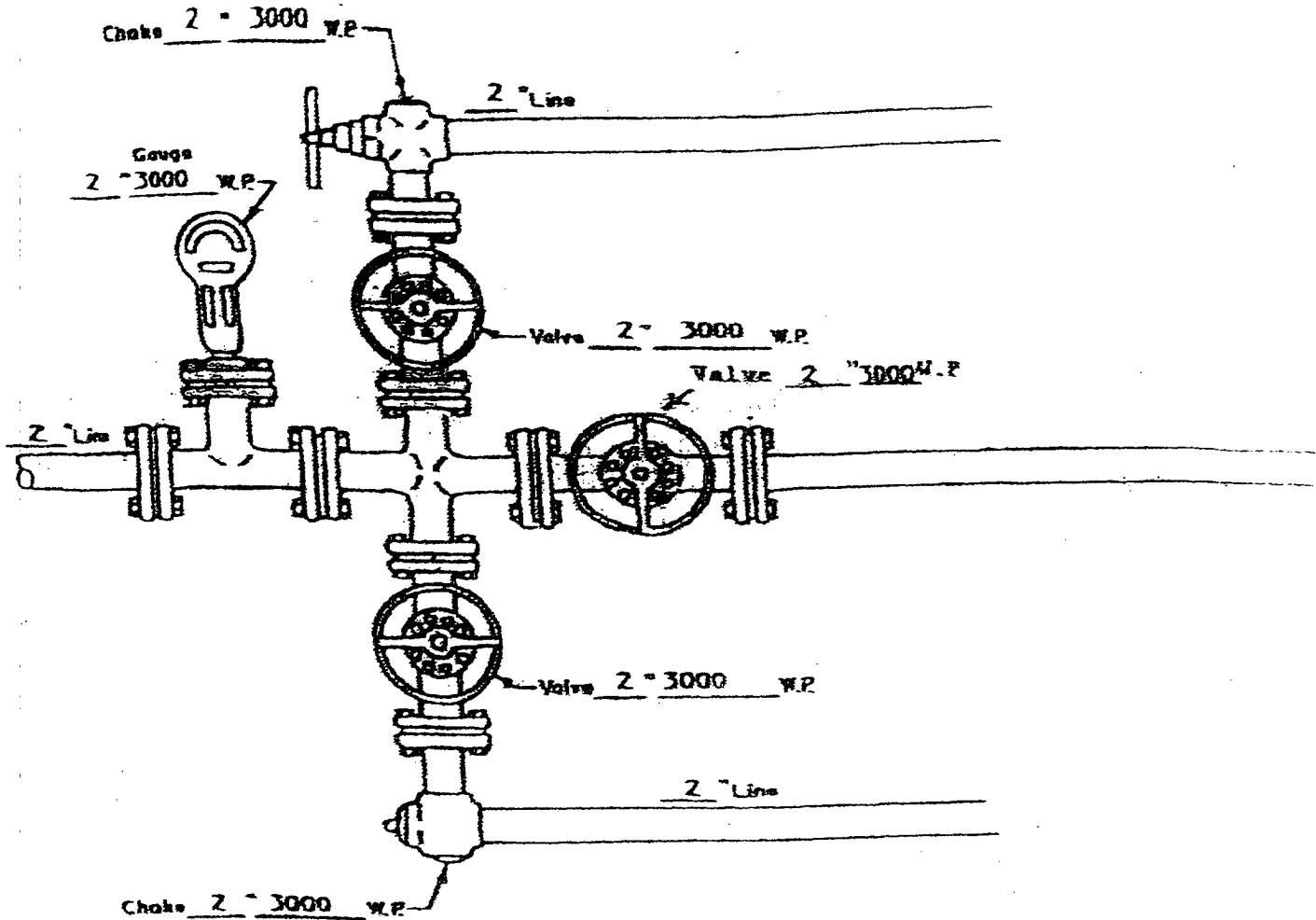
The anticipated spud date is March 10, 2006. It is expected it will take ~7 days to drill and ~7 days to complete the well. Completion will start about one month after the spud and will include hydraulic fracturing.

Drilling Rig

3000 psi BOP System



DRILLING RIG



MANIFOLD

3000 # W.P.

☒ Manual

☐ Hydraulic

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ATTACHMENT NO. 2