

New Mexico Oil Conservation Division, District 1

1625 N. French Drive

Hobbs, NM 88240

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

B-30

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-0559539
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Harvard Petroleum Corp.		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 936 Roswell, NM 88202	3b. Phone No. (include area code) 505/ 523-1581	8. Lease Name and Well No. James Federal, Well No. 8
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 330' FSL & 2310' FEL At proposed prod. zone same		9. API Well No. 30-025-36102
14. Distance in miles and direction from nearest town or post office* 36.5 miles east of Carlsbad, NM		10. Field and Pool, or Exploratory Sand Dune Se. Delaware
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of Acres in lease 1440	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 29-T23S-R32E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 679	19. Proposed Depth 8700'	12. County or Parish Lea
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3672' GL	22. Approximate date work will start* December 26, 2002	13. State NM
23. Estimated duration 3 - 4 weeks		

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.

25. Signature <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date 11/27/02
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Title

Agent for: Harvard Petroleum Corp.

Approved by (Signature) /S/ JOE G. LARA	Name (Printed/Typed) /S/ JOE G. LARA	Date JAN 8 2003
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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 1 YEAR

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)

Carlsbad Controlled Water Basin

Lease Responsibility Statement: Harvard Petroleum Corp. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

OPER. OGRID NO. 10155
PROPERTY NO. 5073
POOL CODE 59930
EFF. DATE 1-10-03
API NO. 30-025-36102

George R. Smith, agent

KZ
mP

RECEIVED

2002 NOV 26 PM 3:00

BUREAU OF LAND MGMT.
ROSWELL OFFICE

121 10E 6' 1784

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District I
1825 N. French Dr. Hobbs, NM 88240

District II
811 South First, Artesia, NM 88210

District III
1000 No Brazos Rd., Aztec NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, N M 87505

Form C-102
Revised March 17, 1999
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-36102	Pool Code 59930	Pool Name THISTLE Draw Sand Dune So. Delaware
Property Code 5073	Property Name JAMES FEDERAL	Well Number 8
OGRID No. 10155	Operation Name HARVARD PETROLEUM CORP.	Elevation 3681

Surface Location									
UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
0	29	23-S	32-E		330	SOUTH	2310	EAST	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	Consolidation Code	Order No.					

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

	OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
	Signature <i>George R. Smith</i>	
	Printed Name George R. Smith	
	Title agent	
	Date 11/27/02	
	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 KNOWLEDGE AND BELIEF.	
	Date of Survey JUNE 21, 2002	
	Signature and Seal of Professional Surveyor 	
	Certificate Number NM-0559539	

APPLICATION FOR DRILLING

HARVARD PETROLEUM CORP.

James Federal, Well No. 8
330' FSL & 2310' FEL, Sec. 29-T23S-R32E
Lea County, New Mexico
Lease No.: NM-0559539
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Harvard Petroleum Corp. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Rustler	1120'	Lower Brushy Canyon	8220'
Salt	1470'	Bone Spring	8470'
Delaware	4640'	Bone Spring Sand	8560'
Cherry Canyon	5660'	T.D.	8700'
Brushy Canyon	7300'		

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

Water: Surface water between 100' - 300'.

Oil: Possible in the Delaware 4640 - 8500' and the Bone Spring below 8500'.

Gas: None expected.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	J-55	ST&C	555'	Circ. 400 sx "C"
11"	8 5/8"	24.0#	J-55	ST&C	2,500'	
11"	8 5/8"	32.0#	J-55	ST&C	4,500'	Circ. 1200 sx 35/65 Poz + 100 sx "H"
7 7/8"	5 1/2"	15.5#	K-55	LT&C	6,850'	450 sx 35/65/ Poz + 100 sx "C" neat
7 7/8"	5 1/2"	15.5#	K-55	LT&C	8,700'	400 sx 15/61/11 Poz-C-CSE

5. **Proposed Control Equipment:** A 10" 3000 psi wp Shaffer Type "E" BOP will be installed on the 13 3/8" casing and will be operated as a 2M system. Request that casing and BOP be tested with a rig pump before drilling out with 11". The 8 5/8" casing and BOPE will be tested to the maximum of 1500 psi as per Onshore Oil & Gas Order No. 2 before drilling out with the 7 7/8". See Exhibit "E".
2M

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 1400': Fresh water w/gel spud mud:	8.4 - 9.0 ppg	32 - 38	No W/L control
1400' - 4500': Cut Brine w/gel & lime:	9.0 - 10.0 ppg	28 - 30	No W/L control
4500' - 8700': Fresh Wtr w/gel & starch:	8.4 - 8.8 ppg	29 - 31	W/L control 10-15 cc +/-

7. **Auxiliary Equipment:** Blowout Preventer, Kelly cock, flow sensors and stabbing valve.

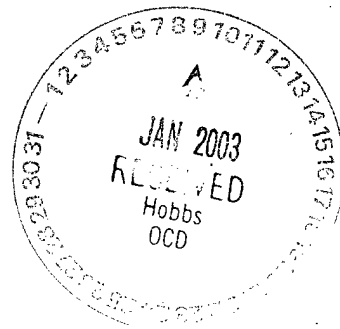
8. Testing, Logging, and Coring Program:

Drill Stem Tests: None unless conditions warrant.

Logging: T.D. to 4500': GR-CNL-LDT-DLL

T.D. to Surface: GR-Neutron

Coring: Rotary sidewall as dictated by logs.

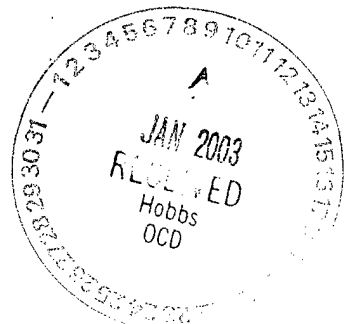


HARVARD PETROLEUM CORP.

James Federal, Well No. 8

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9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 3480 psi and a surface pressure of 1914 psi with a temperature of 147°.
10. H₂S: None expected. None in previous wells.
11. Anticipated starting date: December 26, 2002.
Anticipated completion of drilling operations: Approximately 25 days.



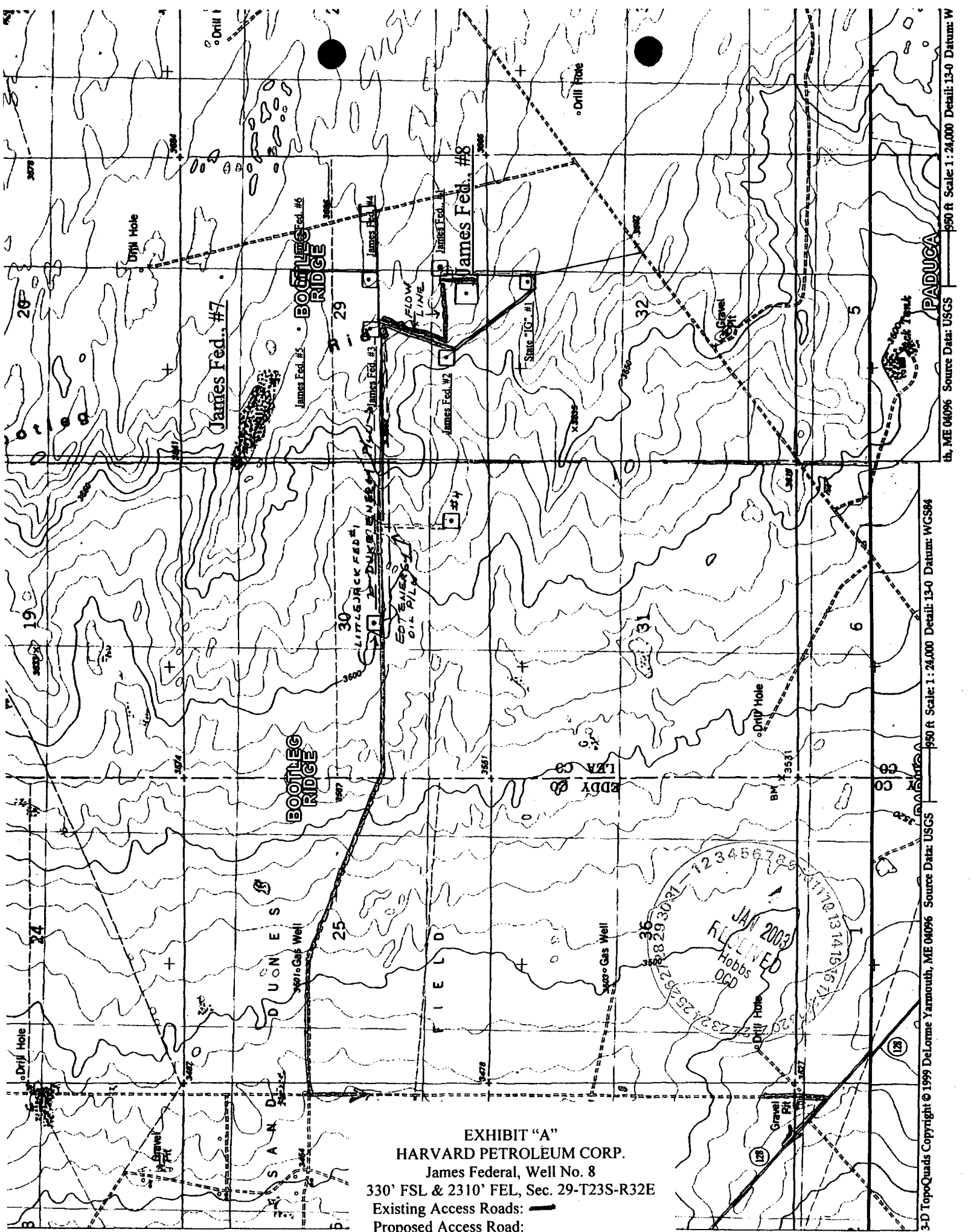
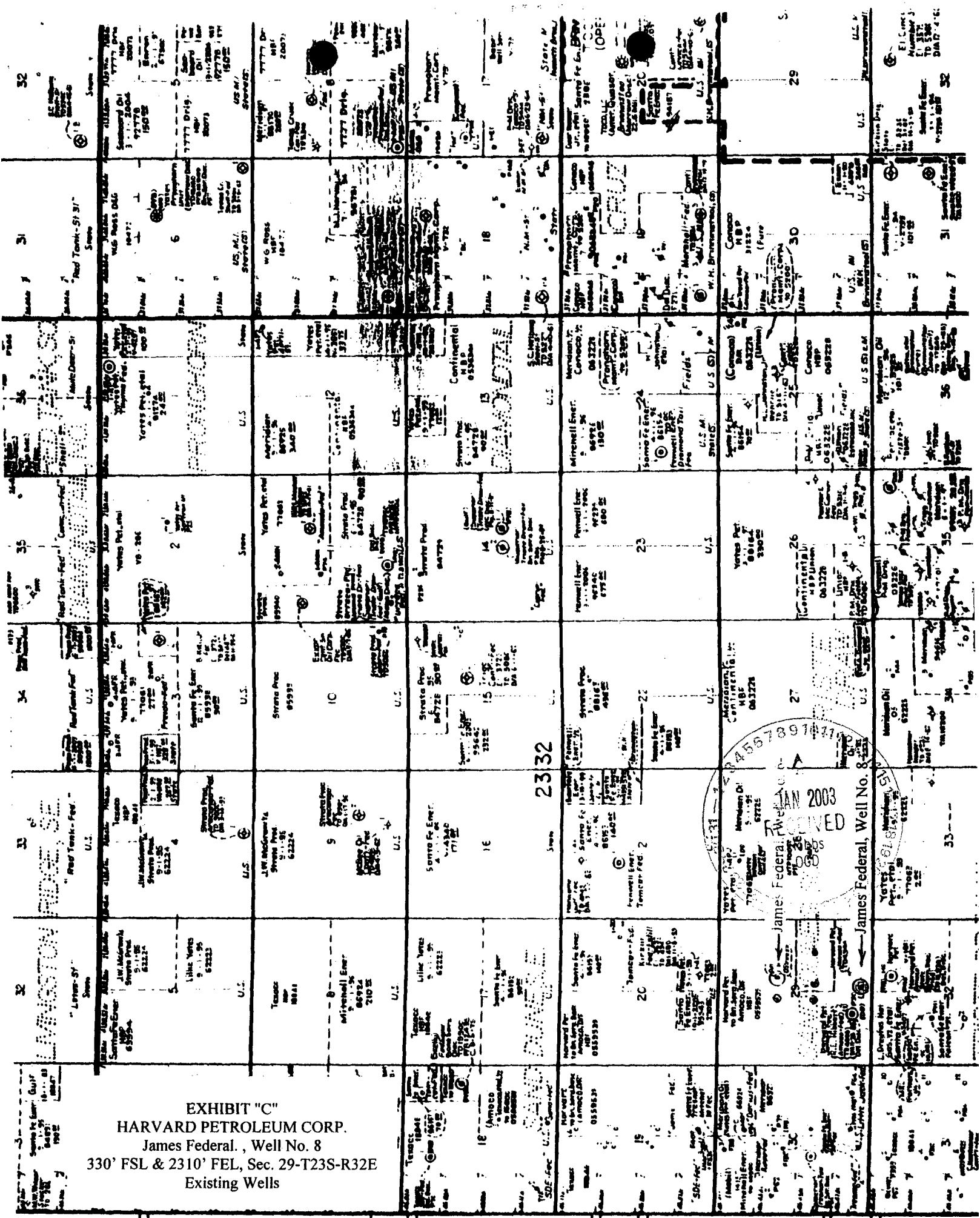


EXHIBIT "A"
HARVARD PETROLEUM CORP.
James Federal, Well No. 8
330' FSL & 2310' FEL, Sec. 29-T23S-R32E
Existing Access Roads: —
Proposed Access Road: —

EXHIBIT "C" HARVARD PETROLEUM CORP.

James Federal, Well No. 8
330' FSL & 2310' FEL, Sec. 29-T23S-R32E
Existing Wells



RIG #

BLOWOUT PREVENTOR ARRANGEMENT

2M SYSTEM

10" SHAFFER TYPE "E", 3000 psi WP

80 GALLON, 4 STATION KOOMEY ACCUMULATOR

3000 psi WP CHOKE MANIFOLD

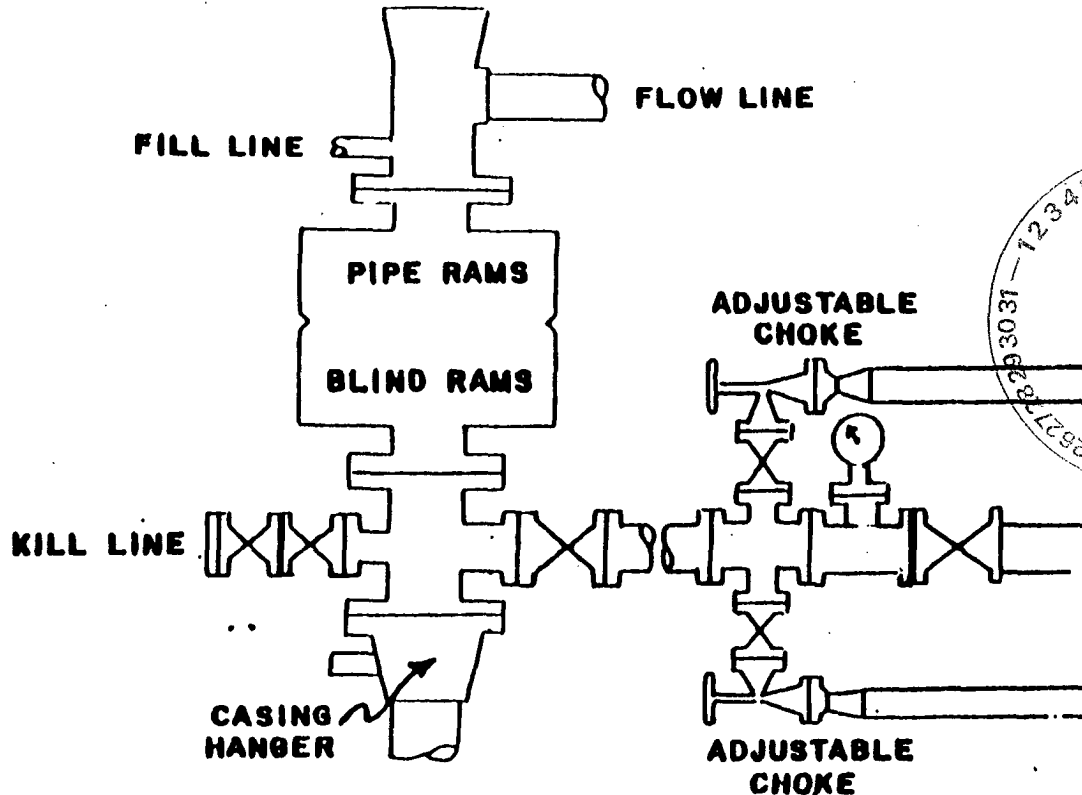


EXHIBIT "E"
HARVARD PETROLEUM CORP.
James Federal, Well No. 8
BOP Specifications