

## New Mexico Oil Conservation Division, District I

1625 N. French Drive  
Hobbs, NM 88240UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

## 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		8. Lease Name and Well No. <b>&lt;5073&gt;</b> James Federal, Well No. 12	
3b. Phone No. (include area code) <b>&lt;10155&gt;</b> 505/ 523-1581		9. API Well No. 30-025-37778	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FNL & 1980' FWL At proposed prod. zone same <b>Unit C</b>		10. Field and Pool, or Exploratory Triste Draw Delaware, West	
14. Distance in miles and direction from nearest town or post office* 36.5 miles east of Carlsbad, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 29-T23S-R32E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'		12. County or Parish Lea	13. State NM
16. No. of Acres in lease 1440		17. Spacing Unit dedicated to this well 40	
18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft. 1320'		20. BLM/BIA Bond No. on file NM-1109	
19. Proposed Depth 8700'		21. Estimated duration 3 - 4 weeks	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3675' GL		22. Approximate date work will start* January 9, 2006	
24. Attachments <b>Controlled Controlled Water Basin</b>			

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.  | 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 shall be filed with the appropriate Forest Service Office). | 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 11/28/05
Agent for: Harvard Petroleum Corp.		
Approved by (Signature) <i>/s/ Tony J. Herrell</i>	Name (Printed/Typed) <i>/s/ Tony J. Herrell</i>	Date MAR 31 2006
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)

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

DECLARED WATER BASIN 3 1/4"  
CEMENT BEHIND THE 13 3/8"  
CASING MUST BE CIRCULATED  
WITNESSDECLARED WATER BASIN 5 1/8"  
CEMENT BEHIND THE 8 3/8"  
CASING MUST BE CIRCULATED  
WITNESS*GRS*  
George R. Smith, agentAPPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

**District I**

1625 N. French Dr., Hobbs, NM 88240

**District II**

1301 W. Grand Avenue, Artesia, NM 88210

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410

**District IV**

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

## State of New Mexico

Energy, Minerals &amp; 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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-025-37778</b>	<sup>2</sup> Pool Code <b>59945</b>	<sup>3</sup> Pool Name <b>Triste Draw Delaware, West</b>
<sup>4</sup> Property Code <b>5073</b>	<sup>5</sup> Property Name <b>JAMES 29 FEDERAL</b>	<sup>6</sup> Well Number <b>12</b>
<sup>7</sup> OGRID No. <b>10155</b>	<sup>8</sup> Operator Name <b>HARVARD PETROLEUM CORP.</b>	<sup>9</sup> Elevation <b>3675</b>

<sup>10</sup> Surface Location

UL or lot no. <b>C</b>	Section <b>29</b>	Township <b>23-S</b>	Range <b>32-E</b>	Lot Idn	Feet from the <b>660</b>	North/South line <b>NORTH</b>	Feet from the <b>1980</b>	East/West line <b>WEST</b>	County <b>LEA</b>
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<sup>11</sup> 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
<sup>12</sup> Dedicated Acre <b>40</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

<sup>16</sup>	LAT N32.280947 LON W103.69881	<sup>17</sup> <b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature <u>George R. Smith</u> Date <u>11/28/05</u> Printed Name <u>George R. Smith, agent</u>
		<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> 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. OCTOBER 14, 2005 Date of Survey Signature and Seal of Professional Surveyor:
		Certificate Number <u>DAN R. REDDY / 5412</u>

## APPLICATION FOR DRILLING

### HARVARD PETROLEUM CORP.

James Federal, Well No. 12  
660' FNL & 1980' FWL, 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 8 5/8" casing. Casing and BOP will be tested before drilling out with 7 7/8", according to Onshore Oil & Gas Order No. 12 and will be tested weekly. Request variance in testing to the maximum expected surface pressure of 1914 psi.

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 550': Fresh water w/gel spud mud:	8.4 - 9.0 ppg	32 - 38	No W/L control
550' - 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 - 12.0 ppg	28 - 30	No W/L control
4500' - 8700': Fresh Wtr w/gel & starch:	8.4 - 8.8 ppg	29 - 31	W/L control 12-15 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. 12

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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. H<sub>2</sub>S: None expected. None in previous wells.
11. Anticipated starting date: January 9 2006  
Anticipated completion of drilling operations: Approximately 4 – 5 weeks.

## **MULTI POINT SURFACE USE AND OPERATIONS PLAN**

### **HARVARD PETROLEUM CORP.**

James Federal, Well No. 12  
660' FNL & 1980' FWL, Sec. 29-T23S-T32E  
Lea County, New Mexico  
Lease No.: NM-0559539  
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well; the proposed construction activities and operations plan to be followed in rehabilitating the surface and environmental effects associated with the operations.

#### **1. EXISTING ROADS:**

- A. Exhibit "A" is a portion of a BLM Topographic map showing the location of the proposed well as staked. The well site location is approximately 36.5 road miles east of Carlsbad, NM. Traveling east of Carlsbad on County Rd #605 and NM Highways 31 and 128, there will be 33.5 miles of paved highway and 3 miles of oilfield roads.
- B. Directions: Travel southeast from Carlsbad, NM on County Rd. # 605, the refinery road, for 12.5 mile to NM Highway #31. Turn left on NM #31 for approximately 2.5 miles, and then turn east onto NM Highway # 128 for 17.4 miles. Turn left (north) onto CR-29 and continue north for 1.7 miles; turn right (east) for 1.6 miles to the Little Jack Fed. #1 well pad. The road continues east for 1.0 mile the James Fed. #3 well site. Continue east to the James Fed. #4 well pad and then north for .5 mile to the James Fed. #7 well site. The proposed access road will start at the SW corner of this pad and run west for 850 feet to the southeast corner of the proposed well site.

#### **2. PLANNED ACCESS ROAD:**

- A. Length and Width: The proposed access road will be approximately 850 feet long. The proposed and existing roads are color coded on Exhibit "A".
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None.
- E. Cuts and Fills: Minor cuts to level the 3 - 4 foot dunes will be required.
- F. Gates, Cattle guards. None required.
- G. Off lease right of way: None required.

#### **3. LOCATION OF EXISTING WELLS:**

- A. Existing wells within a two-mile radius are shown on Exhibit "C".

**HARVARD PETROLEUM CORP.**

James Federal, Well No. 12

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**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;**

- A. Harvard Petroleum Corp. has production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities will be installed on the drilling pad. A 3" poly SDR 11 oil flow line will run south to the James Fed. #5 and then to the pipeline to the James Fed. Well No. 3 tank battery, 1980' FSL & 2306' FWL, Sec. 29-T28S-R32E.

**5. LOCATION AND TYPE OF WATER SUPPLY:**

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads

**6. SOURCE OF CONSTRUCTION MATERIALS:**

- A. Caliche for surfacing the proposed access road and well site pad will be obtained from the location, if available, or from a State pit in SE4 SW4 Sec. 32-T23S-R32E. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

**7. METHODS OF HANDLING WASTE DISPOSAL:**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks at the James Fed., Well #1 water disposal well, a BLM approved disposal system.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

**8. ANCILLARY FACILITIES:**

- A. None required.

**HARVARD PETROLEUM CORP.**

James Federal, Well No. 12

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**9. WELL SITE LAYOUT:**

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 500' X 500'.
- B. Mat Size: 255' X 160', plus 120' X 120' reserve pits on the north.
- C. Cut & Fill: The location will require a 3-foot cut on the north with fill to the south.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

**10. PLANS FOR RESTORATION OF THE SURFACE:**

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to be worked.

**11. OTHER INFORMATION:**

- A. Topography: The proposed well site and access road are located on top of Bootleg Ridge with a 2.3% slope to the southwest. The location has an elevation of 3675' GL.
- B. Soil: The topsoil at the well site is a brown to yellowish-red fine sand to a fine sandy loam soil with occasional small sand dunes. There may be caliche at a depth of 40 to 60 inches. The soil is part of the Maljamar and Palomas fine sands land complex.
- C. Flora and Fauna: The vegetation cover has a very sparse to fair grass cover of three-awn, sand dropseed, grama and bluestem, with the primary cover being plants of mesquite, yucca, broomweed, shinnery oak brush, sage, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None.
- E. Residences and Other Structures: None in the immediate vicinity, except oil well production facilities.
- F. Land Use: Cattle grazing.

**HARVARD PETROLEUM CORP.**

James Federal, Well No. 12

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**11. OTHER INFORMATION: cont.....**

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no evidence of archaeological, historical or cultural sites in the staked area. Archaeological Survey Consultants, P. O. Box 2285, Roswell, NM 88202, is conducting an archaeological survey and their report will be submitted to the appropriate government agencies.

**12. OPERATOR'S REPRESENTATIVE:**

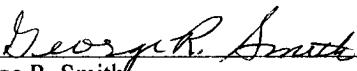
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

Jeff Harvard  
HARVARD PETROLEUM CORP.  
P. O. Box 936  
Roswell, NM 88202  
Office Phone: (505) 623-1581  
Cell Phone: (505) 626-7938

**13. CERTIFICATION:**

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Harvard Petroleum Corp. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

November 28, 2005

  
\_\_\_\_\_  
George R. Smith  
Agent for: Harvard Petroleum Corp.



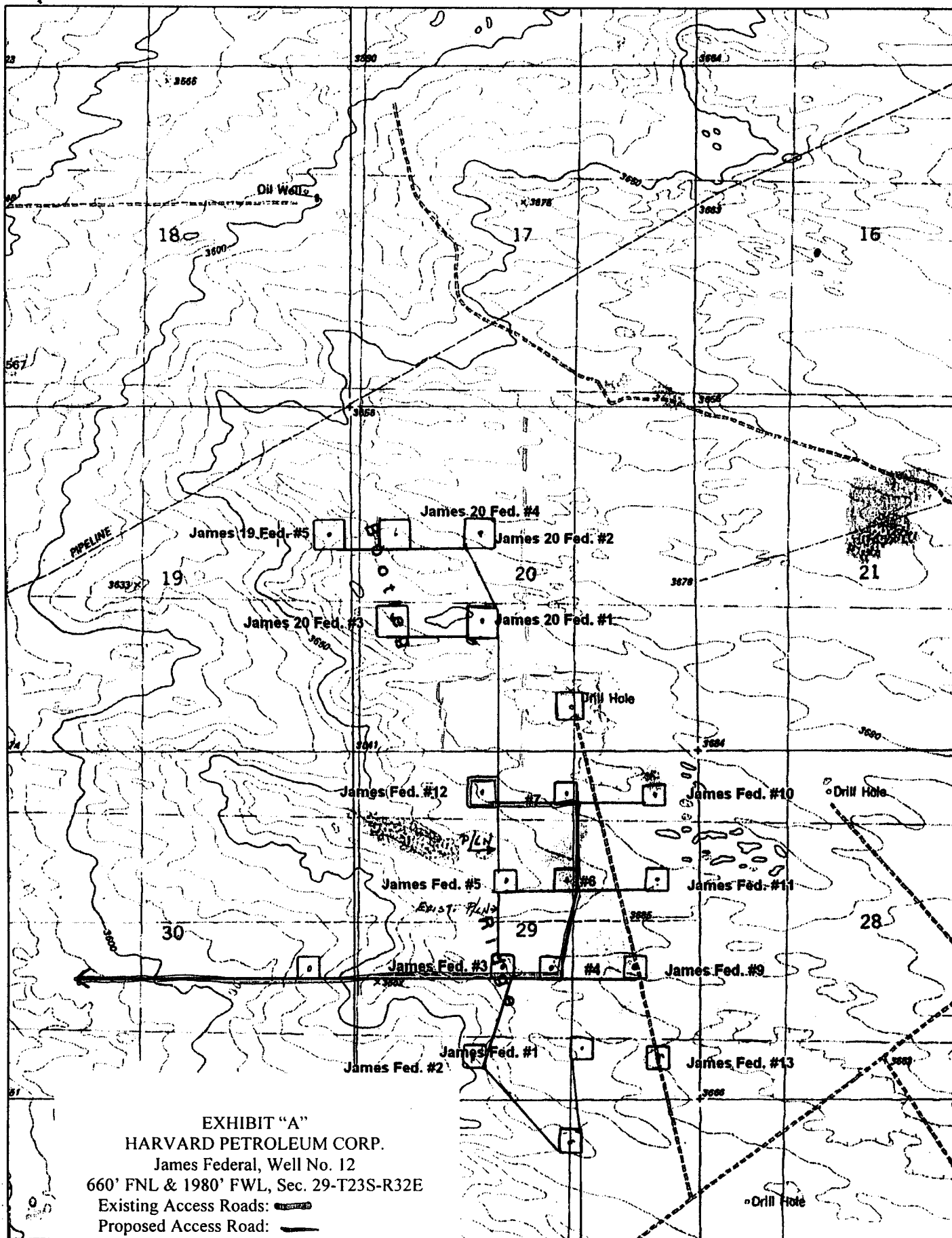


EXHIBIT "A"  
 HARVARD PETROLEUM CORP.  
 James Federal, Well No. 12  
 660' FNL & 1980' FWL, Sec. 29-T23S-R32E  
 Existing Access Roads: (dashed line)  
 Proposed Access Road: (solid line)

DELOME

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 www.delorme.com

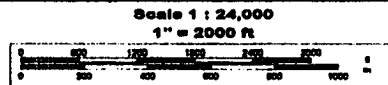


EXHIBIT "C"  
HARVARD PETROLEUM CORP.  
James Federal, Well No. 12  
660' FNL & 1980' FWL, Sec. 29-T23S-R32E  
Existing Wells



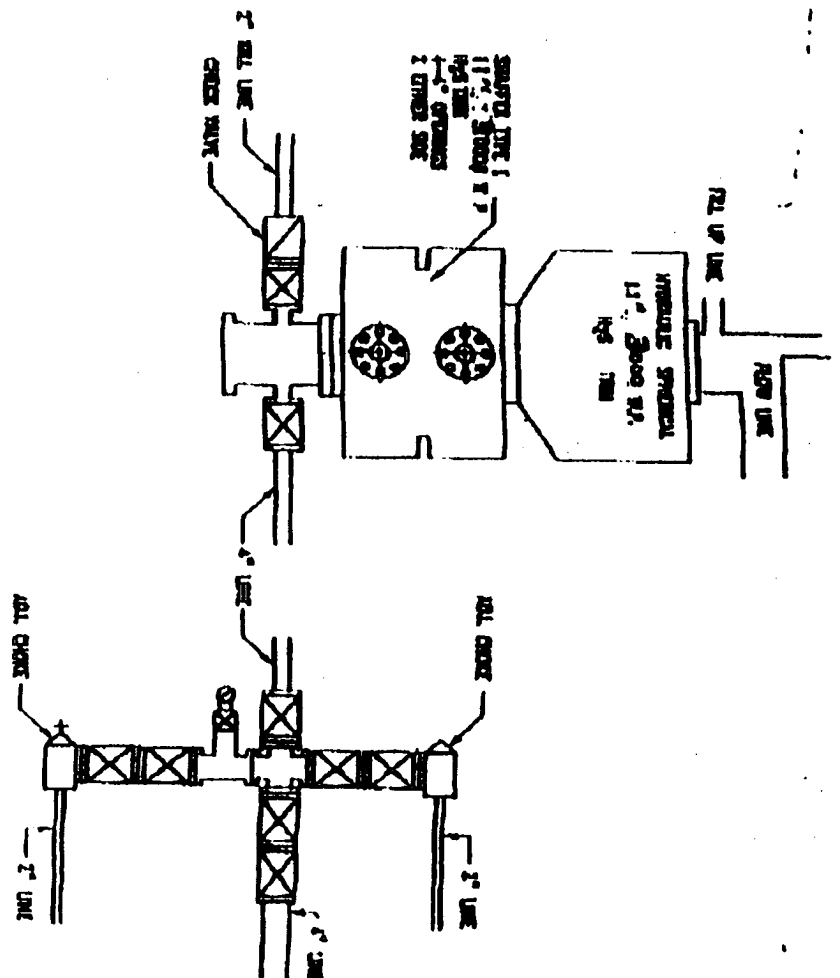


EXHIBIT "E"  
HARVARD PETROLEUM CORP.  
James Federal, Well No. 12  
BOP Specifications

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

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Harvard Petroleum Corp. Telephone: (505) 623-1581 e-mail address: \_\_\_\_\_

Address: P.O. Box 316 Roswell, NM 88202

Facility or well name: James Federal, Well No. 12 API # 3D-025-37778 U/L or Qtr/Qtr NE4NW4 Sec 29 T 23S R 32E

County: Lea Latitude N 32°28'09.47" Longitude W 103°69'88.1" NAD: 1927 ☐ 1983X Surface Owner Federal ☐ State ☐ Private ☐ Indi

☐

**Pit**

Type: DrillingX Production ☐ Disposal ☐

Workover ☐ Emergency ☐

LinedX Unlined ☐

Liner type: Synthetic ☐ Thickness 12 mil Clay ☐ Volume 10,000

+/-      bbl

**Below-grade tank**

Volume:      bbl Type of fluid:     

Construction material:     

Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

( 0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No

( 0 points)

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

( 0 points)

**Ranking Score (Total Points)**

-0-

**If this is a pit closure:** (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility     . (3) Attach a general description of remedial action taken including remediation start date and

end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface      ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

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

Date: November 28, 2005

Printed Name/Title Agent for Harvard Petroleum Corp.

Signature Georgio Amick


Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date APR 04 2006

Printed Name/Title PETROLEUM ENGINEER

Signature [Signature]

 The sender of this message has requested a read receipt. [Click here to send a receipt.](#)

**Mull, Donna, EMNRD**

**From:** Phillips, Dorothy, EMNRD  
**To:** Mull, Donna, EMNRD  
**Cc:**  
**Subject:** RE: Financial Assurance Requirement  
**Attachments:**

**Sent:** Tue 4/4/2006 9:12 AM

Donna all have a blanket bond except for Texland Petroleum, Inc. One well for 30-025-29542 is all they have. None of them appear on Jane's list.

---

**From:** Mull, Donna, EMNRD  
**Sent:** Tuesday, April 04, 2006 8:53 AM  
**To:** Phillips, Dorothy, EMNRD  
**Cc:** Macquesten, Gail, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** Financial Assurance Requirement

Dorothy, Is the Financial Assurance Requirement for these Operators OK?

Mack Energy Corp ( 13837)  
Samson Resources ( 20165)  
Texland Petroleum LP ( 186838)  
Platinum Exploration Inc (227103)  
Marathon Oil Co (14021)  
Mewbourne Oil Co (14744)  
Harvard Petroleum Corp (10155)

Please let me know. Thanks & have a nice day. Donna