| •'   | N   |                                       |
|--|---|---------------------------------------|
| District I<br>1625 N. French Dr., Hobbs, NM 882<br>District II<br>1301 W. Grand Avenue, Artesia, NM 88210                      | State of New Mexico<br>rgy Minerals and Natural Resource                      | Form C-101<br>June 16, 2008           |
| District III<br>1000 Rio Brazos Road, Aztec, NM 874 MAY 17 2010<br>District IV<br>1220 S. St. Francis Dr., Santa Fe, NHOBBSOCD | Oil Conservation Division<br>1220 South St. Francis Dr.<br>Santa Fe, NM 87505 | Submit to appropriate District Office |
| APPLICATION FOR PERMIT TO I  | DRILL, RE-ENTER, DEEPEN   | N, PLUGBACK, OR ADD A ZONE            |
| Operator Name and Address  |   | OC-RID Number<br>010155               |
| Harvard Petroleum Company, LLC, PO Box 936, Roswell, NM  | 4 88202   | 30- 025- 39755                        |

| <u>م</u> ۱              | eny Code |          |         |                               | Property Name           |                  |               | "Well          | No     |
|-------------------------|----------|----------|---------|-------------------------------|-------------------------|------------------|---------------|----------------|--------|
| 39                      | 162      | -        | Garrett |                               |                         |                  |               | 1              |        |
| Garrett, Drinkard, Fast |          |          |         | <sup>10</sup> Proposed Pool 2 |                         |                  |               |                |        |
|                         |          |          |         |                               | <sup>7</sup> Surface Lo | cation           |               |                |        |
| 1.1 or lot no           | Section  | Lownship | Range   | FotIdn                        | Let from the            | North-South line | Fect from the | Last West line | Counts |

| В  | 26        | 16-S     | 38-E                         |        | 400                      | North            | 2270            | East              | Lea                 |
|--|-----------|----------|------------------------------|--------|--------------------------|------------------|-----------------|-------------------|---------------------|
| <sup>8</sup> Proposed Bottom Hole Location If Different From Surface |           |          |                              |        |                          |                  |                 |                   |                     |
| DL or lot no   | Section   | Lownship | Range                        | FotIdu | Feet from the            | North/South line | Feet from the   | Lasi Westline     | County              |
| Н  | 26        | 16-S     | 38-E                         |        | 2310                     | North            | 330             | East              | Lea                 |
| Additional Well Information  |           |          |                              |        |                          |                  |                 |                   |                     |
| <sup>41</sup> Work   | Lype Code |          | <sup>12</sup> Well Type Code |        | <sup>1</sup> Cable Rotav |                  | Lease Type Code | <sup>D</sup> Gret | and Level Lievation |

| N                     | 0                            | R                       | P                        | 3694                    |
|-----------------------|------------------------------|-------------------------|--------------------------|-------------------------|
| <sup>to</sup> Muiuple | <sup>15</sup> Proposed Depth | <sup>15</sup> Lormation | <sup>11</sup> Contractor | <sup>29</sup> Spud Date |
| N                     | TVD 8500, TD 10,540          | Drinkard                | Norton Energy            | June 15, 2010           |
|                       |                              |                         |                          |                         |

## <sup>21</sup> Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight foot | Setting Depth | Sacks of Cement | Estimated TOC |
|-----------|-------------|--------------------|---------------|-----------------|---------------|
| 12 25     | 9 625       | 36                 | 2200          | 950             | Surface       |
| 8.75      | 7 00        | 26                 | 8500 /        | 1250            | Surface       |
| 6 125     | 4 50        | 11.5               | 8000 - 10540  | NA              | NA            |
|           |             |                    |               | N               |               |
|           |             |                    |               |                 |               |

<sup>22</sup> Describe the proposed program. If this application is to DELPEN or PEUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, it any. Use additional sheets if necessary.

Harvard Petroleum Company, LLC proposes to drill and produce the Drinkard Formation as follows

Drill a 12 1/4" hole to 2200' with fresh water then run 9 5/8" casing to TD. 9 5/8" casing will be cemented with adequate volume to circulate to surface. NU BOP and test then drill an 8 75" hole with brine and salt gel to TD (8500') and run open hole logs After logging, 7" 26# casing will be run to TD and cemented with adequate volumes to circulate to surface.

A whipstock will be set and a window cut at approximately 8000' and a 6 1/8" hole approximately 2500' in length will be drilled.

A 4 1/2" liner equipped with packers will be set through the horizontal section but not cemented The Drinkard formation will be tested through this liner

H2S equipment will be installed before drilling the San Andres formation

See BOP Diagram.

| <sup>23</sup> I hereby certify that the informa<br>of my knowledge and belief | tion given above is true and complete to the l | OIL CONSERVATION DIVISION  |  |  |  |  |
|---|--|--|--|--|--|--|
| Signature.  |  | Approved by.   |  |  |  |  |
| Printed name <sup>+</sup> Phelps White  |  | Inte PETINOCEUM ENGINEER   |  |  |  |  |
| Enle Consulatant  |  | Approval Date <b>MAY 2 7 2010</b> Expiration Date  |  |  |  |  |
| L-mail Address pwiv@z   | anet com                                       | CONDITION OF APPROVAL FOR APD'S  |  |  |  |  |
| Date May 14, 2010   | Phone. 575 626 7660                            | "Once the well is spud, to prevent ground water contamination<br>through whole or partial conduits from the surface, the operator              |  |  |  |  |
| Permit Expires 2 Y  | ears From Approvel                             | shall drill without interruption through the fresh water zone or<br>zones and shall immediately set in cement the water protection<br>string " |  |  |  |  |

Date Unless Drilling Underway





Exhibit "A" Harvard Petroleum Company LLC

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BOP Specifications

Garrett #1

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