

# **EXHIBIT 4**

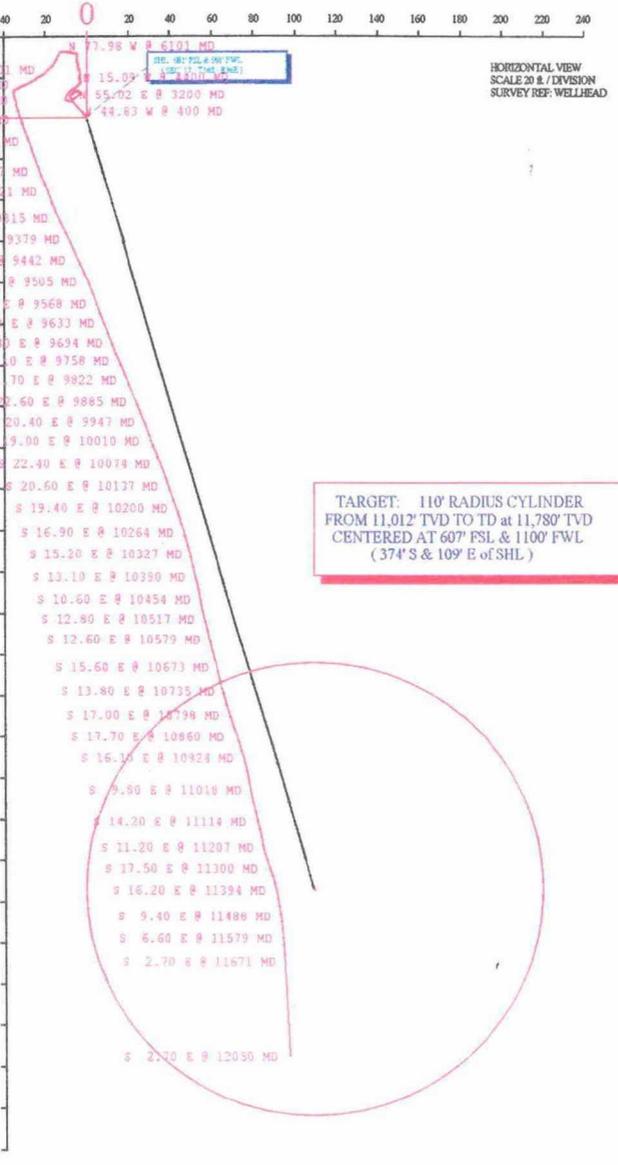
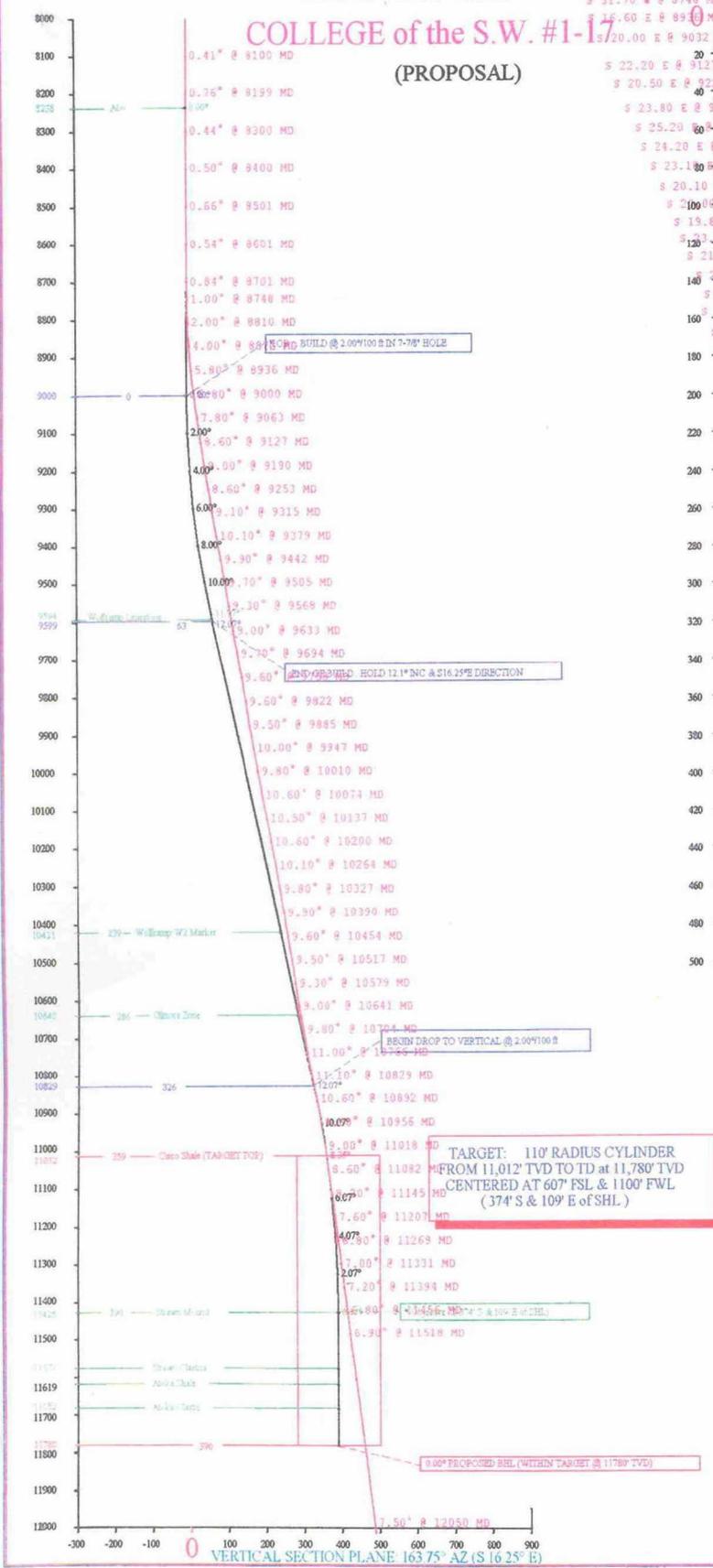
# CHESAPEAKE

LEA COUNTY, NEW MEXICO  
SEC. 17 - T16S - R36E

## COLLEGE of the S.W. #1-17 (PROPOSAL)

VERTICAL VIEW  
SCALE 100' / DIVISION  
TVD REF: WELLHEAD  
VERTICAL SECTION REF: WELLHEAD

HORIZONTAL VIEW  
SCALE 20' / DIVISION  
SURVEY REF: WELLHEAD



TARGET: 110' RADIUS CYLINDER  
FROM 11,012' TVD TO TD at 11,780' TVD  
CENTERED AT 607' FSL & 1100' FWL  
(374' S & 109' E of SHL)

TARGET: 110' RADIUS CYLINDER  
FROM 11,012' TVD TO TD at 11,780' TVD  
CENTERED AT 607' FSL & 1100' FWL  
(374' S & 109' E of SHL)



| CRITICAL POINT DATA |       |        |        |       |       |       |
|---------------------|-------|--------|--------|-------|-------|-------|
|                     | MD    | Inc    | Azi.   | TVD   | N/S   | E/W   |
| SHL                 | 0     | 0.00°  | S 16 E | 0     | 0 N   | 0 E   |
| 8-5/8" CSG PT       | 4300  | 0.00°  | S 16 E | 4300  | 0 N   | 0 E   |
| KOP                 | 9000  | 0.00°  | S 16 E | 9000  | 0 N   | 0 E   |
| END OF BUILD        | 9603  | 12.07° | S 16 E | 9599  | 61 S  | 18 E  |
| BEGIN DROP          | 10861 | 12.07° | S 16 E | 10829 | 313 S | 91 E  |
| (TARGET TOP)        | 11047 | 8.35°  | S 16 E | 11012 | 345 S | 101 E |
| PROPOSED BHL        | 11817 | 0.00°  | S 16 E | 11780 | 374 S | 109 E |

DESIGNED BY DAVE EGEDAH  
FILE NAME: COLLEGE  
DATE: SEPTEMBER 10, 1999



SEP 27 1999

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

September 24, 1999

Chesapeake Operating, Inc.  
P. O. Box 18496  
Oklahoma City, Oklahoma 73154-0496

Telefax No. (405) 879-9562

Attention: Lynda F. Townsend

Re: *Application dated September 21, 1999 for Chesapeake Operating, Inc. to re-enter and recomplete the plugged and abandoned David Fasken Berry Hobbs Well No. 1 (API No. 30-025-29535), to be redesignated the College of the Southwest "17" Well No. 1, by kicking-off and directionally drilling into the Undesignated Northeast Shoe Bar-Strawn Pool (if this is the correct pool that the Hobbs District office places this well) within the S/2 SW/4 Section 17, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico.*

Dear Ms. Townsend:

The subject filing was received in this office on September 22, 1999. My review of this application indicates that, if this well is indeed placed in the Northeast Shoe Bar-Strawn Pool, it can be administered at the District level since it involves a well that is being directionally drilled and, as long as the resulting bottom-hole location is within the set back requirements from the outer boundary of the applicable spacing and proration unit of the proposed interval to be completed [see Division Rules 111.A(6) and (7) and 111.C(1) and (2), which rules streamlined the directional drilling procedures and the "*Special Rules and Regulation for the Northeast Shoe Bar-Strawn Pool*", as promulgated by Division Order No. R-10848, as amended]. Your application for directional drilling will be forwarded to the Hobbs District office of the Division for processing. Please be aware however that if the Hobbs District office places this well into another pool with a different set of governing rules and procedures, Chesapeake Operating, Inc. will be responsible for obtaining an exception to those rules.

Should you have any questions or comments concerning this matter, please contact me in Santa Fe at (505) 827-8185. Thank you.

Sincerely,

Michael E. Stogner  
Chief Hearing Officer/Engineer

cc: New Mexico Oil Conservation Division – Hobbs  
W. Thomas Kellahin, Legal Counsel for Chesapeake Operating, Inc. - Santa Fe

**EXHIBIT 4**

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

Form C-101  
 Revised February 10, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 6 Copies  
 Fee Lease - 5 Copies

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

|   |  |                               |
|---|--|-------------------------------|
| Operator Name and Address.<br>Chesapeake Operating, Inc.<br>P. O. Box 18496<br>Oklahoma City, OK 73154-0496 |  | OGRID Number<br>147179        |
|   |  | API Number<br>30 - 0 25-29535 |
| Property Code<br>22484  | Property Name<br>College of the Southwest 17 | Well No.<br>1                 |

<sup>7</sup> Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M             | 17      | 16S      | 36E   |         | 981           | So.              | 991           | West           | LEA    |

<sup>8</sup> Proposed 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M             | 17      | 16S      | 36E   |         | 606           | So.              | 1096          | West           | LEA    |

|  |                               |
|--|-------------------------------|
| <sup>9</sup> Proposed Pool 1<br>N.E. Shoe Bar-Strawn | <sup>10</sup> Proposed Pool 2 |
|--|-------------------------------|

|  |                                   |                                 |                                    |   |
|--|-----------------------------------|---------------------------------|------------------------------------|---|
| <sup>11</sup> Work Type Code<br>R-Horizontal | <sup>12</sup> Well Type Code<br>0 | <sup>13</sup> Cable/Rotary<br>R | <sup>14</sup> Lease Type Code<br>P | <sup>15</sup> Ground Level Elevation<br>3937' |
|--|-----------------------------------|---------------------------------|------------------------------------|---|

|                              |   |                                   |   |  |
|------------------------------|---|-----------------------------------|---|--|
| <sup>16</sup> Multiple<br>No | <sup>17</sup> Proposed Depth<br>10,100' | <sup>18</sup> Formation<br>Strawn | <sup>19</sup> Contractor<br>Patterson #48 | <sup>20</sup> Spud Date<br>as soon as approved |
|------------------------------|---|-----------------------------------|---|--|

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

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|-----------|-------------|--------------------|---------------|-----------------|---------------|
| 17"       | 13-3/8"     | 48#                | 399'          | 400             | Surface       |
| 12-1/4"   | 8-5/8"      | 24 & 32#           | 4300'         | 1825 Lite       |               |
|           |             |                    |               | 200 Cl. C       |               |

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

Chesapeake Operating proposes to Re-Enter & directionally drill in the Strawn formation with Patterson as the drilling contractor.

Chesapeake will TIH w/7-7/8" bit & drill out cement plugs. COI will then TIH with DP open ended to  $\pm$  10,000', set cement kick off plug from 10,000' to  $\pm$  9,000'. TOCH w/DP to 9000', C&C, TOCH to PU kick off BHA. RU csg crew & run 5-1/2" 17# P-110 LTC to surface.

Well previously known as Berry Hobbs #1.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Barbara J. Bale*

Printed name:  
Barbara J. Bale

Title:  
Regulatory Analyst

Date:  
09/21/99

Phone:  
(405)848-3000

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY CHRIS WILLIAMS  
DISTRICT I SUPERVISOR

Title:

Approval Date: SEP 24 1999

Expiration Date:

Conditions of Approval:  
Attached

DISTRICT I  
P.O. Box 1880, Hobbs, NM 88241-1880

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
P.O. Box 2088

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

Santa Fe, New Mexico 87504-2088

AMENDED REPORT

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                            |  |                                   |
|----------------------------|--|-----------------------------------|
| API Number<br>30-025-29535 | Pool Code<br>96649                           | Pool Name<br>N.E. Shoe Bar-Strawn |
| Property Code<br>22484     | Property Name<br>COLLEGE OF THE SOUTHWEST 17 | Well Number<br>1                  |
| OGRID No.<br>147179        | Operator Name<br>CHESAPEAKE OPERATING, INC.  | Elevation<br>3937                 |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M             | 17      | 16 S     | 36 E  |         | 981           | SOUTH            | 991           | 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M             | 17      | 16 S     | 36 E  |         | 606           | SOUTH            | 1096          | WEST           | LEA    |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|-----------------|-----------------|--------------------|-----------|
| 80              |                 |                    |           |

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>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Barbara J. Bale</i><br/>Signature</p> <p>Barbara J. Bale<br/>Printed Name</p> <p>Regulatory Analyst<br/>Title</p> <p>09/21/99<br/>Date</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>RONALD J. EIDSON<br/>DMCC</p> <p>Date Signed: 8-24-99<br/>Signature &amp; Seal of Professional Surveyor<br/>Professional Surveyor No. 3239</p> |  |
| <p>SURFACE</p> <p>LAT. 32°55'02.58" N<br/>LONG. 103°22'54.83" W</p> <p>NME NAD 27<br/>Y-698773.5<br/>X-791971.3</p> |  |  |  |
|   |  | <p>BOTTOM HOLE</p> <p>LAT. 32°54'58.87" N<br/>LONG. 103°22'53.59" W</p> <p>NME NAD 27<br/>Y-698400.0<br/>X-792080.0</p>  |  |
|   |  | <p>Certificate No. RONALD J. EIDSON 3239<br/>GARY EIDSON 12641<br/>MACON McDONALD 12185</p>  |  |

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

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P.O. Box 87410, Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. Box 2088, Santa Fe, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
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Fee Lease - 3 Copies

**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|               |  |                   |
|---------------|--|-------------------|
| API Number    | Pool Code                                    | Pool Name         |
| Property Code | Property Name<br>COLLEGE OF THE SOUTHWEST 17 | Well Number<br>1  |
| OGRID No.     | Operator Name<br>CHESAPEAKE OPERATING, INC.  | Elevation<br>3937 |

**Surface Location**

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M             | 17      | 16 S     | 36 E  |         | 981           | SOUTH            | 991           | 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M             | 17      | 16 S     | 36 E  |         | 606           | SOUTH            | 1096          | WEST           | LEA    |

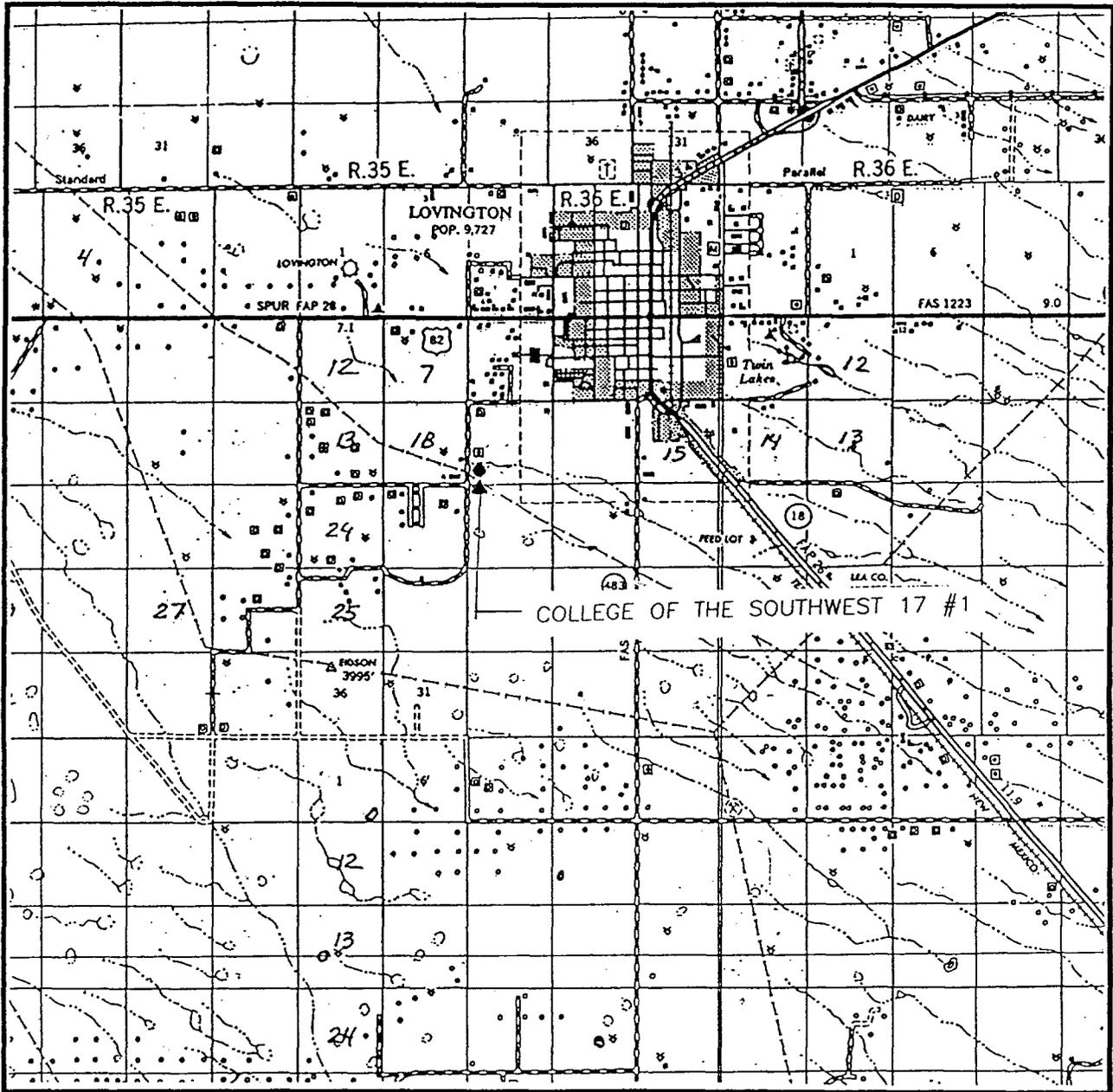
|                 |                 |                    |           |
|-----------------|-----------------|--------------------|-----------|
| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|                 |                 |                    |           |

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><b>SURFACE</b></p> <p>LAT. 32°55'02.58" N<br/>LONG. 103°22'54.83" W<br/>NME NAD 27<br/>Y-698773.5<br/>X-791971.3</p> <p>991' →</p> <p>← 1096'</p> <p>580' FSL -</p> <p>↓ 606'</p> <p>1085' FDH</p> <p><b>BOTTOM HOLE</b></p> <p>LAT. 32°54'58.87" N<br/>LONG. 103°22'53.59" W<br/>NME NAD 27<br/>Y-698400.0<br/>X-792080.0</p> | <p><b>OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p> <hr/> <p><b>SURVEYOR CERTIFICATION</b></p> <p><i>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.</i></p> <p>Date Surveyed _____ DMCC</p> <p>Signature &amp; Seal of Professional Surveyor _____</p> <p><b>RONALD J. EIDSON</b><br/>REGISTERED PROFESSIONAL SURVEYOR<br/>NEW MEXICO<br/>8-24-99</p> <p>Certificate No. RONALD J. EIDSON 3239<br/>GARY EIDSON 12641<br/>MACON McDONALD 12185</p> |
|---|--|

**EXHIBIT 4**

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 17 TWP. 16-S RGE. 36-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 981 FSL & 991' FWL

ELEVATION 3937

OPERATOR CHESAPEAKE OPERATING, INC.

LEASE COLLEGE OF THE SOUTHWEST 17

**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**  
**(505) 393-3117**

