

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED  
OMB NO. 1004-0137  
Expires March 31, 2007

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

|                                                                                                                                                                                                                                                |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------|------------------------|------------------------------|-----------------------|---------------------------|-------------------|
| 1a. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other                                                                                    |                                    | 5. Lease Serial No.<br><b>MM 108958</b>                                                                                                                                                                                                                                                                               |                             |                     |                        |                              |                       |                           |                   |
| b. Type of Completion: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr.<br>Other                       |                                    | 6. If Indian, Allottee or Tribe Name                                                                                                                                                                                                                                                                                  |                             |                     |                        |                              |                       |                           |                   |
| 2. Name of Operator<br><b>EOG Resources Inc.</b>                                                                                                                                                                                               |                                    | 7. Unit or CA Agreement Name and No.                                                                                                                                                                                                                                                                                  |                             |                     |                        |                              |                       |                           |                   |
| 3. Address<br><b>P.O. Box 2267 Midland, Texas 79702</b>                                                                                                                                                                                        |                                    | 8. Lease Name and Well No.<br><b>Hudson 15 Fed Com 2H</b>                                                                                                                                                                                                                                                             |                             |                     |                        |                              |                       |                           |                   |
| 3a. Phone No. (include area code)<br><b>432 686 3689</b>                                                                                                                                                                                       |                                    | 9. API Well No.<br><b>30-015-35015</b>                                                                                                                                                                                                                                                                                |                             |                     |                        |                              |                       |                           |                   |
| 4. Location of Well (Report location clearly and in accordance with Federal requirements)*<br>At surface <b>1880' FSL &amp; 660' FEL U/L I</b><br>At top prod. interval reported below<br>At total depth <b>1772' FSL &amp; 746' FWL U/L L</b> |                                    | 10. Field and Pool, or Exploratory<br><b>Collins Ranch, Wolfcamp NE Gas</b>                                                                                                                                                                                                                                           |                             |                     |                        |                              |                       |                           |                   |
| 14. Date Spudded<br><b>10/25/06</b>                                                                                                                                                                                                            |                                    | 11. Sec., T., R., M., or Block and Survey or Area<br><b>Sec 15, T17S, R24E</b>                                                                                                                                                                                                                                        |                             |                     |                        |                              |                       |                           |                   |
| 15. Date T.D. Reached<br><b>11/03/06</b>                                                                                                                                                                                                       |                                    | 12. County or Parish<br><b>Eddy</b>                                                                                                                                                                                                                                                                                   |                             |                     |                        |                              |                       |                           |                   |
| 16. Date Completed<br><input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod.<br><b>12/04/06</b>                                                                                                                     |                                    | 13. State<br><b>NM</b>                                                                                                                                                                                                                                                                                                |                             |                     |                        |                              |                       |                           |                   |
| 17. Elevations (DF, RKB, RT, GL)*<br><b>3743 GL</b>                                                                                                                                                                                            |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| 18. Total Depth: MD<br>TVD <b>8536</b><br><b>4819</b>                                                                                                                                                                                          |                                    | 19. Plug Back T.D.: MD<br>TVD                                                                                                                                                                                                                                                                                         |                             |                     |                        |                              |                       |                           |                   |
| 20. Depth Bridge Plug Set: MD<br>TVD                                                                                                                                                                                                           |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| 21. Type Electric & Other Mechanical Logs Run (Submit copy of each)                                                                                                                                                                            |                                    | 22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis)<br>Was DST run <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report)<br>Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit copy) |                             |                     |                        |                              |                       |                           |                   |
| 23. Casing and Liner Record (Report all strings set in well)                                                                                                                                                                                   |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| Hole Size                                                                                                                                                                                                                                      | Size/Grade                         | Wt. (#ft.)                                                                                                                                                                                                                                                                                                            | Top (MD)                    | Bottom (MD)         | Stage Cementer Depth   | No. of Sks. & Type of Cement | Slurry Vol. (BBL)     | Cement Top*               | Amount Pulled     |
| 12 1/4                                                                                                                                                                                                                                         | 8 5/8                              | 32                                                                                                                                                                                                                                                                                                                    |                             | 909                 |                        | 1355 PP                      |                       | Surface                   |                   |
|                                                                                                                                                                                                                                                |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        | 100 Thixset                  |                       |                           |                   |
| 7 7/8                                                                                                                                                                                                                                          | 5 1/2                              | 17                                                                                                                                                                                                                                                                                                                    |                             | 8500                |                        | 460 C                        |                       | Surface                   |                   |
|                                                                                                                                                                                                                                                |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        | 550 ASC                      |                       |                           |                   |
| 24. Tubing Record                                                                                                                                                                                                                              |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| Size                                                                                                                                                                                                                                           | Depth Set (MD)                     | Packer Depth (MD)                                                                                                                                                                                                                                                                                                     | Size                        | Depth Set (MD)      | Packer Depth (MD)      | Size                         | Depth Set (MD)        | Packer Depth (MD)         |                   |
| 2 3/8                                                                                                                                                                                                                                          | 5753                               |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| 25. Producing Intervals                                                                                                                                                                                                                        |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     | 26. Perforation Record |                              |                       |                           |                   |
| Formation                                                                                                                                                                                                                                      | Top                                | Bottom                                                                                                                                                                                                                                                                                                                | Perforated Interval         | Size                | No. Holes              | Perf. Status                 |                       |                           |                   |
| A) <b>Wolfcamp</b>                                                                                                                                                                                                                             | <b>5060</b>                        |                                                                                                                                                                                                                                                                                                                       | <b>5100' - 8400'</b>        | <b>0.54"</b>        | <b>84</b>              | <b>Producing</b>             |                       |                           |                   |
| B)                                                                                                                                                                                                                                             |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| C)                                                                                                                                                                                                                                             |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| D)                                                                                                                                                                                                                                             |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| 27. Acid, Fracture, Treatment, Cement Squeeze, Etc.                                                                                                                                                                                            |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| Depth Interval                                                                                                                                                                                                                                 |                                    | Amount and Type of Material                                                                                                                                                                                                                                                                                           |                             |                     |                        |                              |                       |                           |                   |
| <b>5100' - 8400'</b>                                                                                                                                                                                                                           |                                    | <b>Frac w/ 296 bbls 15% HCL acid, 6787 bbls slick water, 2556 bbls lightening</b>                                                                                                                                                                                                                                     |                             |                     |                        |                              |                       |                           |                   |
|                                                                                                                                                                                                                                                |                                    | <b>1800 XL gel, 315453 lbs 30/70 Brown sand, 136444 lbs 16/30 White sand.</b>                                                                                                                                                                                                                                         |                             |                     |                        |                              |                       |                           |                   |
| 28. Production - Interval A                                                                                                                                                                                                                    |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| Date First Produced<br><b>12/04/06</b>                                                                                                                                                                                                         | Test Date<br><b>12/12/06</b>       | Hours Tested<br><b>24</b>                                                                                                                                                                                                                                                                                             | Test Production<br><b>→</b> | Oil BBL<br><b>0</b> | Gas MCF<br><b>2312</b> | Water BBL<br><b>34</b>       | Oil Gravity Corr. API | Gas Gravity               | Production Method |
| Choke Size<br><b>Open</b>                                                                                                                                                                                                                      | Tbg. Press. Flwg. SI<br><b>240</b> | Csg. Press.<br><b>675</b>                                                                                                                                                                                                                                                                                             | 24 Hr.<br><b>→</b>          | Oil BBL             | Gas MCF                | Water BBL                    | Gas: Oil Ratio        | Well Status<br><b>PGW</b> |                   |
| 28a. Production-Interval B                                                                                                                                                                                                                     |                                    |                                                                                                                                                                                                                                                                                                                       |                             |                     |                        |                              |                       |                           |                   |
| Date First Produced                                                                                                                                                                                                                            | Test Date                          | Hours Tested                                                                                                                                                                                                                                                                                                          | Test Production<br><b>→</b> | Oil BBL             | Gas MCF                | Water BBL                    | Oil Gravity Corr. API | Gas Gravity               | Production Method |
| Choke Size                                                                                                                                                                                                                                     | Tbg. Press. Flwg. SI               | Csg. Press.                                                                                                                                                                                                                                                                                                           | 24 Hr.<br><b>→</b>          | Oil BBL             | Gas MCF                | Water BBL                    | Gas: Oil Ratio        | Well Status               |                   |

(See instructions and spaces for additional data on page 2)

Flowing  
ACCEPTED FOR RECORD

DEC 20 2006

FREDERICK WRIGHT  
PETROLEUM ENGINEER

## 28b. Production - Interval C

| Date First Produced | Test Date                  | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity<br>Corr. API | Gas Gravity | Production Method |
|---------------------|----------------------------|--------------|-----------------|---------|---------|-----------|--------------------------|-------------|-------------------|
| Choke Size          | Tbg. Press.<br>Flwg.<br>SI | Csg. Press.  | 24 Hr.          | Oil BBL | Gas MCF | Water BBL | Gas: Oil Ratio           | Well Status |                   |

## 28c. Production-Interval D

| Date First Produced | Test Date                  | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity<br>Corr. API | Gas Gravity | Production Method |
|---------------------|----------------------------|--------------|-----------------|---------|---------|-----------|--------------------------|-------------|-------------------|
| Choke Size          | Tbg. Press.<br>Flwg.<br>SI | Csg. Press.  | 24 Hr.          | Oil BBL | Gas MCF | Water BBL | Gas: Oil Ratio           | Well Status |                   |

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

**SOLD**

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31. Formation (Log) Markers

| Formation | Top | Bottom | Descriptions, Contents, etc. | Name                      | Top          |
|-----------|-----|--------|------------------------------|---------------------------|--------------|
|           |     |        |                              |                           | Meas. Depth  |
|           |     |        |                              | <b>Abo Shale</b>          | <b>3640'</b> |
|           |     |        |                              | <b>Wolfcamp Limestone</b> | <b>5060'</b> |

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd)   
 ☐ Geologic Report   
 ☐ DST Report   
 ☒ Directional Survey  
☐ Sundry Notice for plugging and cement verification   
☐ Core Analysis   
☐ Other:

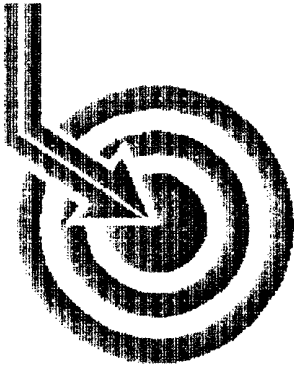
34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Stan WagnerTitle Regulatory Analyst

Signature

Stan WagnerDate 12/15/06

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.



# Scientific Drilling

**E.O.G.**

Field: Undies Collins Ranch  
Site: Eddy County, NM  
Well: Hudson 15 Fed Com #2H  
Wellpath: VH - Job #32K1006876  
Survey: 10/29/06

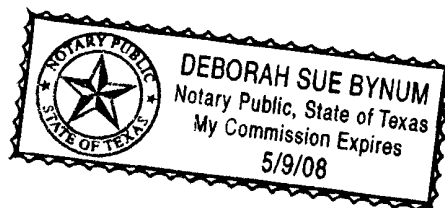
This survey is correct to the best of my knowledge  
and is supported by actual field data.

.....Deborah..... Company Representative

Notorized this date 2<sup>nd</sup> of December, 2006.

Deborah Sue Bynum

Notary Signature  
County of Midland  
State of Texas





# Scientific Drilling International Survey Report

|                                       |                                   |                                          |                   |
|---------------------------------------|-----------------------------------|------------------------------------------|-------------------|
| <b>Company:</b> E.O.G.                | <b>Date:</b> 11/22/2006           | <b>Time:</b> 12:54:03                    | <b>Page:</b> 1    |
| <b>Field:</b> Undies Collins Ranch    | <b>Co-ordinate(NE) Reference:</b> | <b>Site:</b> Eddy County, NM, Grid North |                   |
| <b>Site:</b> Eddy County, NM          | <b>Vertical (TVD) Reference:</b>  | <b>SITE</b> 0.0                          |                   |
| <b>Well:</b> Hudson 15 Fed Com #2H    | <b>Section (VS) Reference:</b>    | <b>Well</b> (0.00N,0.00E,269.84Azi)      |                   |
| <b>Wellpath:</b> VH - Job #32K1006876 | <b>Survey Calculation Method:</b> | <b>Minimum Curvature</b>                 | <b>Db:</b> Sybase |

|                                                 |                               |
|-------------------------------------------------|-------------------------------|
| <b>Survey:</b> 10/29/06                         | <b>Start Date:</b> 10/29/2006 |
| <b>Company:</b> Scientific Drilling Internatio  | <b>Engineer:</b> Madrid/Rando |
| <b>Tool:</b> Keeper;Keeper Surface Readout Gyro | <b>Tied-to:</b> From Surface  |

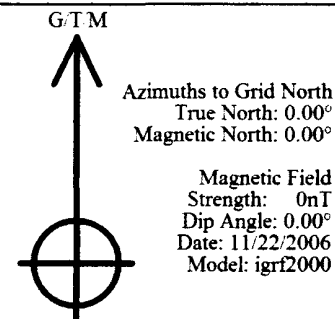
## Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | ClsD<br>ft | ClsA<br>deg |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 0.00     | 0.00        | 0.13        | 0.00      | 0.00     | 0.00      | 0.00      | 0.00             | 0.00       | 0.00        |
| 100.00   | 0.41        | 115.53      | 100.00    | -0.32    | -0.15     | 0.32      | 0.41             | 0.36       | 115.53      |
| 200.00   | 0.46        | 147.36      | 200.00    | -0.86    | -0.65     | 0.86      | 0.24             | 1.08       | 126.86      |
| 300.00   | 1.02        | 141.54      | 299.99    | -1.63    | -1.68     | 1.63      | 0.56             | 2.34       | 135.85      |
| 400.00   | 1.03        | 139.30      | 399.97    | -2.76    | -3.06     | 2.77      | 0.04             | 4.13       | 137.82      |
| 500.00   | 0.55        | 72.17       | 499.96    | -3.81    | -3.59     | 3.82      | 0.96             | 5.24       | 133.29      |
| 600.00   | 1.11        | 233.86      | 599.96    | -3.48    | -4.02     | 3.49      | 1.64             | 5.32       | 139.03      |
| 700.00   | 1.06        | 235.55      | 699.94    | -1.93    | -5.11     | 1.94      | 0.06             | 5.47       | 159.18      |
| 800.00   | 1.40        | 223.33      | 799.92    | -0.33    | -6.52     | 0.34      | 0.43             | 6.53       | 176.98      |
| 900.00   | 1.00        | 232.22      | 899.90    | 1.21     | -7.95     | -1.18     | 0.44             | 8.04       | 188.47      |
| 1000.00  | 0.83        | 240.71      | 999.88    | 2.53     | -8.84     | -2.51     | 0.22             | 9.19       | 195.83      |
| 1100.00  | 0.91        | 238.25      | 1099.87   | 3.84     | -9.61     | -3.81     | 0.09             | 10.34      | 201.64      |
| 1200.00  | 0.65        | 233.81      | 1199.86   | 4.97     | -10.36    | -4.95     | 0.27             | 11.48      | 205.51      |
| 1300.00  | 0.36        | 238.46      | 1299.86   | 5.70     | -10.86    | -5.67     | 0.29             | 12.25      | 207.57      |
| 1400.00  | 0.32        | 258.89      | 1399.86   | 6.24     | -11.08    | -6.21     | 0.13             | 12.70      | 209.28      |
| 1500.00  | 0.33        | 224.10      | 1499.85   | 6.72     | -11.34    | -6.69     | 0.19             | 13.17      | 210.53      |
| 1600.00  | 0.29        | 210.50      | 1599.85   | 7.05     | -11.76    | -7.02     | 0.08             | 13.70      | 210.81      |
| 1700.00  | 0.28        | 238.63      | 1699.85   | 7.39     | -12.11    | -7.35     | 0.14             | 14.17      | 211.27      |
| 1800.00  | 0.40        | 212.51      | 1799.85   | 7.78     | -12.53    | -7.75     | 0.19             | 14.73      | 211.73      |
| 1900.00  | 0.18        | 251.97      | 1899.85   | 8.12     | -12.87    | -8.09     | 0.28             | 15.20      | 212.13      |
| 2000.00  | 0.57        | 265.89      | 1999.85   | 8.77     | -12.96    | -8.73     | 0.40             | 15.63      | 213.97      |
| 2100.00  | 0.45        | 297.57      | 2099.84   | 9.61     | -12.81    | -9.58     | 0.30             | 16.00      | 216.77      |
| 2200.00  | 0.39        | 272.50      | 2199.84   | 10.30    | -12.62    | -10.26    | 0.19             | 16.26      | 219.13      |
| 2300.00  | 0.34        | 267.77      | 2299.84   | 10.94    | -12.61    | -10.90    | 0.06             | 16.67      | 220.84      |
| 2400.00  | 0.36        | 256.76      | 2399.84   | 11.54    | -12.70    | -11.50    | 0.07             | 17.13      | 222.18      |
| 2500.00  | 0.45        | 259.70      | 2499.83   | 12.23    | -12.84    | -12.20    | 0.09             | 17.71      | 223.53      |
| 2600.00  | 0.60        | 256.24      | 2599.83   | 13.13    | -13.03    | -13.09    | 0.15             | 18.47      | 225.12      |
| 2700.00  | 0.61        | 266.29      | 2699.82   | 14.17    | -13.19    | -14.13    | 0.11             | 19.33      | 226.97      |
| 2800.00  | 0.55        | 285.96      | 2799.82   | 15.16    | -13.09    | -15.12    | 0.21             | 20.00      | 229.11      |
| 2900.00  | 0.52        | 298.40      | 2899.82   | 16.02    | -12.75    | -15.98    | 0.12             | 20.44      | 231.43      |
| 3000.00  | 0.56        | 306.57      | 2999.81   | 16.81    | -12.24    | -16.77    | 0.09             | 20.77      | 233.88      |
| 3100.00  | 0.50        | 306.41      | 3099.81   | 17.55    | -11.69    | -17.52    | 0.06             | 21.06      | 236.29      |
| 3200.00  | 0.47        | 304.01      | 3199.80   | 18.24    | -11.20    | -18.21    | 0.04             | 21.38      | 238.40      |
| 3300.00  | 0.40        | 313.39      | 3299.80   | 18.83    | -10.73    | -18.80    | 0.10             | 21.65      | 240.28      |
| 3400.00  | 0.42        | 315.97      | 3399.80   | 19.34    | -10.23    | -19.31    | 0.03             | 21.85      | 242.09      |
| 3500.00  | 0.24        | 353.87      | 3499.80   | 19.62    | -9.76     | -19.59    | 0.27             | 21.88      | 243.52      |
| 3600.00  | 0.63        | 71.84       | 3599.79   | 19.11    | -9.38     | -19.09    | 0.63             | 21.27      | 243.84      |
| 3700.00  | 0.71        | 81.20       | 3699.79   | 17.98    | -9.11     | -17.95    | 0.14             | 20.13      | 243.09      |
| 3800.00  | 1.14        | 85.31       | 3799.77   | 16.38    | -8.94     | -16.35    | 0.43             | 18.63      | 241.34      |
| 3900.00  | 0.68        | 72.98       | 3899.76   | 14.82    | -8.68     | -14.79    | 0.50             | 17.15      | 239.59      |
| 4000.00  | 0.54        | 66.59       | 3999.75   | 13.81    | -8.32     | -13.79    | 0.16             | 16.11      | 238.90      |
| 4100.00  | 0.87        | 83.50       | 4099.75   | 12.63    | -8.05     | -12.60    | 0.39             | 14.95      | 237.45      |
| 4194.00  | 1.53        | 93.08       | 4193.73   | 10.67    | -8.03     | -10.64    | 0.73             | 13.33      | 232.96      |



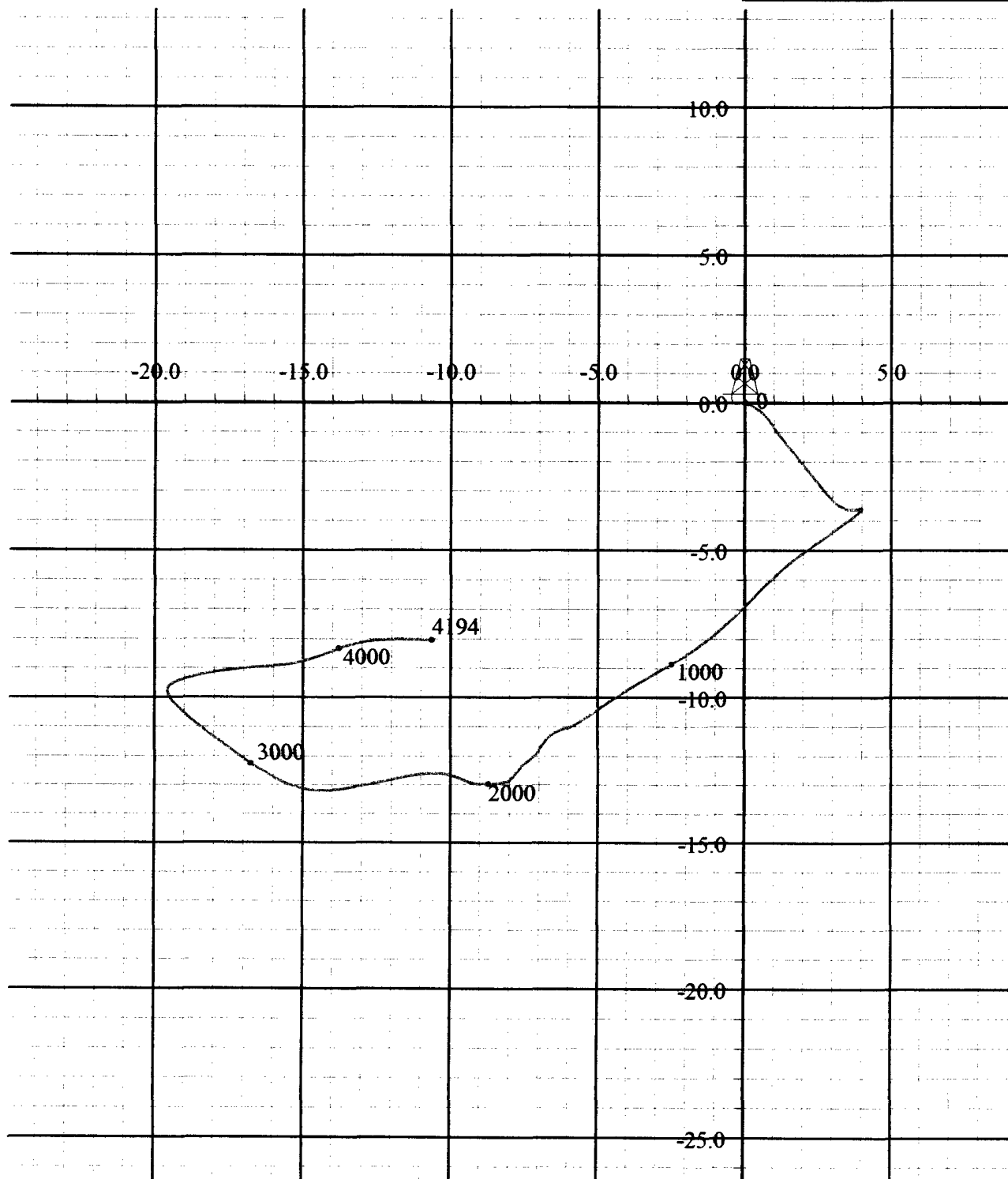
**Scientific  
Drilling**

Field: Undies Collins Ranch  
Site: Eddy County, NM  
Well: Hudson 15 Fed Com #2H  
Wellpath: VH - Job #32K1006876  
Survey: 10/29/06



West(-)/East(+) [5ft/in]

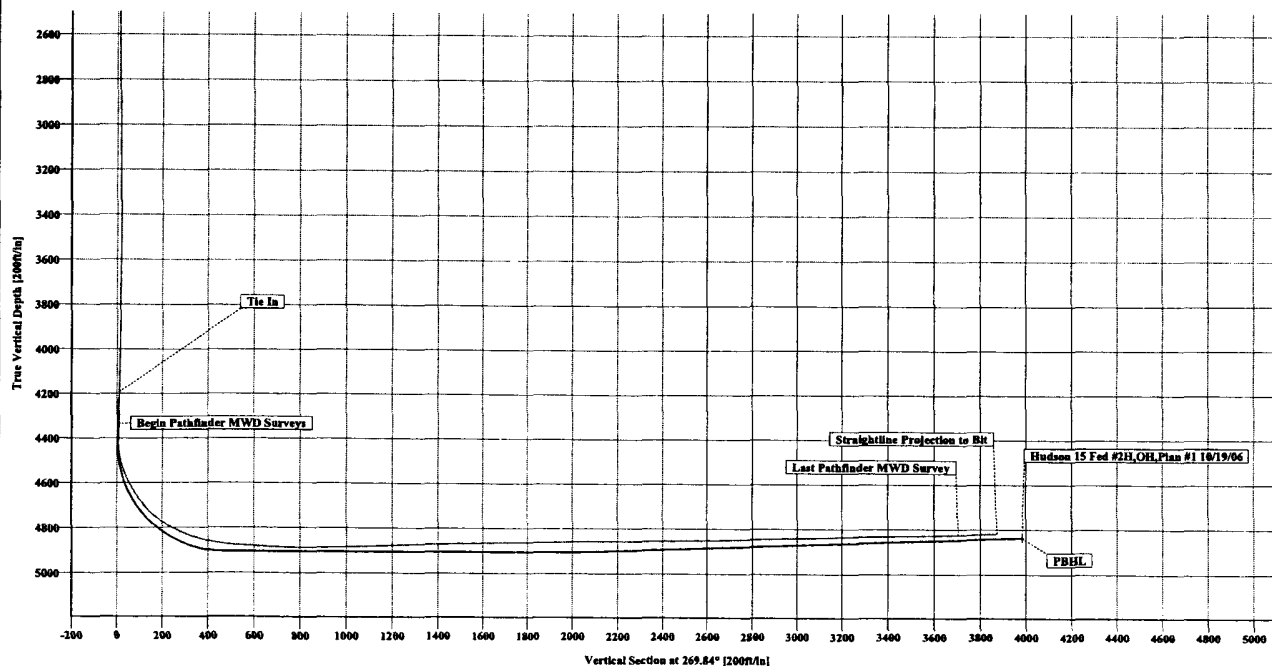
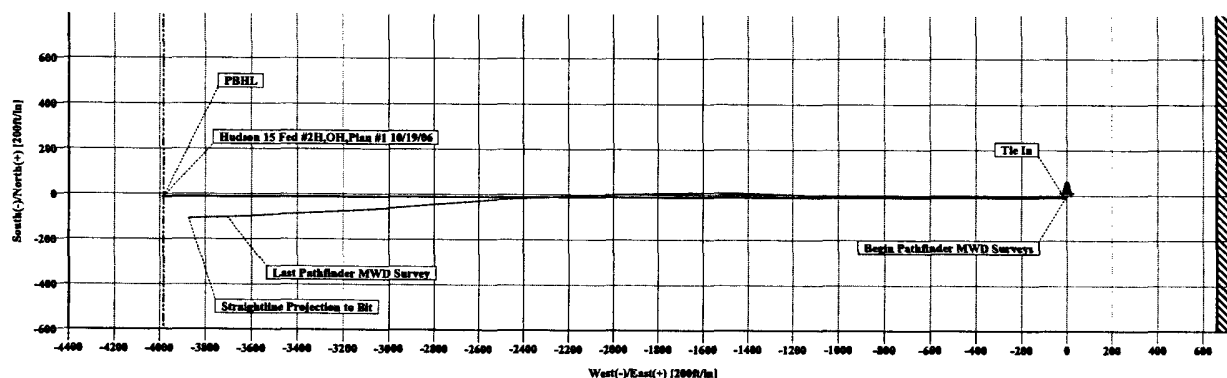
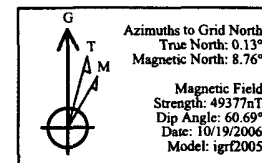
South(-)/North(+) [5ft/in]





Field: Thames Field  
 Site: Hudson 15 Fed #2H  
 Well: Hudson 15 Fed #2H  
 Wellpath: Final Plot

# PATHFINDER



#### SITE DETAILS

Hudson 15 Fed #2H  
 Site Centre Northing: 666982.00  
 Easting: 427413.00  
 Ground Level: 3743.00  
 Positional Uncertainty: 0.00  
 Convergence: -0.13

#### TARGET DETAILS

| Name | TVD     | +N/-S  | +E/-W    | Shape |
|------|---------|--------|----------|-------|
| PBHL | 4837.00 | -11.00 | -3983.00 | Point |

#### WELLPATH DETAILS

OH  
 Rig:  
 Ref. Datum: SITE 3743.00ft  
 V. Section  
 Angle  
 269.84°  
 Origin  
 +N/-S  
 0.00  
 Origin  
 +E/-W  
 0.00  
 Starting  
 From TVD  
 0.00

#### ANNOTATIONS

| No. | TVD     | MD      | Annotation                     |
|-----|---------|---------|--------------------------------|
| 1   | 4193.73 | 4194.00 | Tie In                         |
| 2   | 4335.62 | 4336.00 | Begin Pathfinder MWD Surveys   |
| 3   | 4824.73 | 8367.00 | Last Pathfinder MWD Survey     |
| 4   | 4819.92 | 8536.00 | Straightline Projection to Bit |

# Pathfinder Energy

## Survey Report

| <b>Company:</b> EOG Resources<br><b>Field:</b> Thames Field<br><b>Site:</b> Hudson 15 Fed #2H<br><b>Well:</b> Hudson 15 Fed #2H<br><b>Wellpath:</b> OH                                              |             |                                                               | <b>Date:</b> 12/11/2006 <b>Time:</b> 15:49:18 <b>Page:</b> 1<br><b>Co-ordinate(NE) Reference:</b> Well: Hudson 15 Fed #2H, Grid North<br><b>Vertical (TVD) Reference:</b> SITE 3743.0<br><b>Section (VS) Reference:</b> Well (0.00N,0.00E,269.84Azi)<br><b>Survey Calculation Method:</b> Minimum Curvature <b>Db:</b> Sybase |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|------------------|--------------------|-------------------|--------------|
| <b>Field:</b> Thames Field<br>Eddy, Co. NM<br>USA<br><b>Map System:</b> US State Plane Coordinate System 1927<br><b>Geo Datum:</b> NAD27 (Clarke 1866)<br><b>Sys Datum:</b> Mean Sea Level          |             |                                                               | <b>Map Zone:</b> New Mexico, Eastern Zone<br><b>Coordinate System:</b> Well Centre<br><b>Geomagnetic Model:</b> igrf2005                                                                                                                                                                                                      |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
| <b>Site:</b> Hudson 15 Fed #2H                                                                                                                                                                      |             |                                                               |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
| <b>Site Position:</b><br>From: Map<br><b>Position Uncertainty:</b> 0.00 ft<br><b>Ground Level:</b> 3743.00 ft                                                                                       |             | <b>Northing:</b> 666982.00 ft<br><b>Easting:</b> 427413.00 ft |                                                                                                                                                                                                                                                                                                                               | <b>Latitude:</b> 32 50 0.228 N<br><b>Longitude:</b> 104 34 10.744 W<br><b>North Reference:</b> Grid<br><b>Grid Convergence:</b> -0.13 deg                                                            |             |          |                  |                    |                   |              |
| <b>Well:</b> Hudson 15 Fed #2H <b>Slot Name:</b>                                                                                                                                                    |             |                                                               |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
| <b>Well Position:</b> +N/-S 0.00 ft<br>+E/-W 0.00 ft<br><b>Position Uncertainty:</b> 0.00 ft                                                                                                        |             | <b>Northing:</b> 666982.00 ft<br><b>Easting:</b> 427413.00 ft |                                                                                                                                                                                                                                                                                                                               | <b>Latitude:</b> 32 50 0.228 N<br><b>Longitude:</b> 104 34 10.744 W                                                                                                                                  |             |          |                  |                    |                   |              |
| <b>Wellpath:</b> OH                                                                                                                                                                                 |             |                                                               |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
| <b>Current Datum:</b> SITE<br><b>Magnetic Data:</b> 10/19/2006<br><b>Field Strength:</b> 49377 nT<br><b>Vertical Section: Depth From (TVD)</b> ft                                                   |             | <b>Height:</b> 3743.00 ft<br>+N/-S ft<br>+E/-W ft             |                                                                                                                                                                                                                                                                                                                               | <b>Drilled From:</b> Surface<br><b>Tie-on Depth:</b> 0.00 ft<br><b>Above System Datum:</b> Mean Sea Level<br><b>Declination:</b> 8.63 deg<br><b>Mag Dip Angle:</b> 60.69 deg<br><b>Direction</b> deg |             |          |                  |                    |                   |              |
| 0.00                                                                                                                                                                                                |             | 0.00                                                          |                                                                                                                                                                                                                                                                                                                               | 269.84                                                                                                                                                                                               |             |          |                  |                    |                   |              |
| <b>Survey Program for Definitive Wellpath</b><br><b>Date:</b> 12/11/2006 <b>Validated:</b> No <b>Version:</b> 0<br><b>Actual From To</b> <b>Survey</b> <b>Toolcode</b> <b>Tool Name</b><br>ft    ft |             |                                                               |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
| 100.00 4194.00 Gyro Survey (100.00-4194.00)<br>4336.00 8536.00 Pathfinder MWD Surveys (4336.00-8536.00)                                                                                             |             |                                                               |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
| <b>Survey</b>                                                                                                                                                                                       |             |                                                               |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                      |             |          |                  |                    |                   |              |
| MD<br>ft                                                                                                                                                                                            | Incl<br>deg | Azim<br>deg                                                   | TVD<br>ft                                                                                                                                                                                                                                                                                                                     | +N/-S<br>ft                                                                                                                                                                                          | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment |
| 0.00                                                                                                                                                                                                | 0.00        | 0.13                                                          | 0.00                                                                                                                                                                                                                                                                                                                          | 0.00                                                                                                                                                                                                 | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              | TIE LINE     |
| 100.00                                                                                                                                                                                              | 0.41        | 115.53                                                        | 100.00                                                                                                                                                                                                                                                                                                                        | -0.15                                                                                                                                                                                                | 0.32        | -0.32    | 0.41             | 0.41               | 0.00              |              |
| 200.00                                                                                                                                                                                              | 0.46        | 147.36                                                        | 200.00                                                                                                                                                                                                                                                                                                                        | -0.65                                                                                                                                                                                                | 0.86        | -0.86    | 0.24             | 0.05               | 31.83             |              |
| 300.00                                                                                                                                                                                              | 1.02        | 141.54                                                        | 299.99                                                                                                                                                                                                                                                                                                                        | -1.68                                                                                                                                                                                                | 1.63        | -1.63    | 0.56             | 0.56               | -5.82             |              |
| 400.00                                                                                                                                                                                              | 1.03        | 139.30                                                        | 399.97                                                                                                                                                                                                                                                                                                                        | -3.06                                                                                                                                                                                                | 2.77        | -2.76    | 0.04             | 0.01               | -2.24             |              |
| 500.00                                                                                                                                                                                              | 0.55        | 72.17                                                         | 499.96                                                                                                                                                                                                                                                                                                                        | -3.59                                                                                                                                                                                                | 3.82        | -3.81    | 0.96             | -0.48              | -67.13            |              |
| 600.00                                                                                                                                                                                              | 1.11        | 233.86                                                        | 599.96                                                                                                                                                                                                                                                                                                                        | -4.02                                                                                                                                                                                                | 3.49        | -3.48    | 1.64             | 0.56               | 161.69            |              |
| 700.00                                                                                                                                                                                              | 1.06        | 235.55                                                        | 699.94                                                                                                                                                                                                                                                                                                                        | -5.11                                                                                                                                                                                                | 1.94        | -1.93    | 0.06             | -0.05              | 1.69              |              |
| 800.00                                                                                                                                                                                              | 1.40        | 223.33                                                        | 799.92                                                                                                                                                                                                                                                                                                                        | -6.52                                                                                                                                                                                                | 0.34        | -0.33    | 0.43             | 0.34               | -12.22            |              |
| 900.00                                                                                                                                                                                              | 1.00        | 232.22                                                        | 899.90                                                                                                                                                                                                                                                                                                                        | -7.95                                                                                                                                                                                                | -1.18       | 1.21     | 0.44             | -0.40              | 8.89              |              |
| 1000.00                                                                                                                                                                                             | 0.83        | 240.71                                                        | 999.88                                                                                                                                                                                                                                                                                                                        | -8.84                                                                                                                                                                                                | -2.51       | 2.53     | 0.22             | -0.17              | 8.49              |              |
| 1100.00                                                                                                                                                                                             | 0.91        | 238.25                                                        | 1099.87                                                                                                                                                                                                                                                                                                                       | -9.61                                                                                                                                                                                                | -3.81       | 3.84     | 0.09             | 0.08               | -2.46             |              |
| 1200.00                                                                                                                                                                                             | 0.65        | 233.81                                                        | 1199.86                                                                                                                                                                                                                                                                                                                       | -10.36                                                                                                                                                                                               | -4.95       | 4.97     | 0.27             | -0.26              | -4.44             |              |
| 1300.00                                                                                                                                                                                             | 0.36        | 238.46                                                        | 1299.86                                                                                                                                                                                                                                                                                                                       | -10.86                                                                                                                                                                                               | -5.67       | 5.70     | 0.29             | -0.29              | 4.65              |              |
| 1400.00                                                                                                                                                                                             | 0.32        | 258.89                                                        | 1399.86                                                                                                                                                                                                                                                                                                                       | -11.08                                                                                                                                                                                               | -6.21       | 6.24     | 0.13             | -0.04              | 20.43             |              |
| 1500.00                                                                                                                                                                                             | 0.33        | 224.10                                                        | 1499.85                                                                                                                                                                                                                                                                                                                       | -11.34                                                                                                                                                                                               | -6.69       | 6.72     | 0.19             | 0.01               | -34.79            |              |
| 1600.00                                                                                                                                                                                             | 0.29        | 210.50                                                        | 1599.85                                                                                                                                                                                                                                                                                                                       | -11.76                                                                                                                                                                                               | -7.02       | 7.05     | 0.08             | -0.04              | -13.60            |              |
| 1700.00                                                                                                                                                                                             | 0.28        | 238.63                                                        | 1699.85                                                                                                                                                                                                                                                                                                                       | -12.11                                                                                                                                                                                               | -7.35       | 7.39     | 0.14             | -0.01              | 28.13             |              |
| 1800.00                                                                                                                                                                                             | 0.40        | 212.51                                                        | 1799.85                                                                                                                                                                                                                                                                                                                       | -12.53                                                                                                                                                                                               | -7.75       | 7.78     | 0.19             | 0.12               | -26.12            |              |
| 1900.00                                                                                                                                                                                             | 0.18        | 251.97                                                        | 1899.85                                                                                                                                                                                                                                                                                                                       | -12.87                                                                                                                                                                                               | -8.09       | 8.12     | 0.28             | -0.22              | 39.46             |              |
| 2000.00                                                                                                                                                                                             | 0.57        | 265.89                                                        | 1999.85                                                                                                                                                                                                                                                                                                                       | -12.96                                                                                                                                                                                               | -8.73       | 8.77     | 0.40             | 0.39               | 13.92             |              |
| 2100.00                                                                                                                                                                                             | 0.45        | 297.57                                                        | 2099.84                                                                                                                                                                                                                                                                                                                       | -12.81                                                                                                                                                                                               | -9.58       | 9.61     | 0.30             | -0.12              | 31.68             |              |

# Pathfinder Energy

## Survey Report

Company: EOG Resources  
Field: Thames Field  
Site: Hudson 15 Fed #2H  
Well: Hudson 15 Fed #2H  
Wellpath: OH

Date: 12/11/2006 Time: 15:49:18 Page: 2  
Co-ordinate(NE) Reference: Well: Hudson 15 Fed #2H, Grid North  
Vertical (TVD) Reference: SITE 3743.0  
Section (VS) Reference: Well (0.00N,0.00E,269.84Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment                |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|-----------------------------|
| 2200.00  | 0.39        | 272.50      | 2199.84   | -12.62      | -10.26      | 10.30    | 0.19             | -0.06              | -25.07            |                             |
| 2300.00  | 0.34        | 267.77      | 2299.84   | -12.61      | -10.90      | 10.94    | 0.06             | -0.05              | -4.73             |                             |
| 2400.00  | 0.36        | 256.76      | 2399.84   | -12.70      | -11.50      | 11.54    | 0.07             | 0.02               | -11.01            |                             |
| 2500.00  | 0.45        | 259.70      | 2499.83   | -12.84      | -12.20      | 12.23    | 0.09             | 0.09               | 2.94              |                             |
| 2600.00  | 0.60        | 256.24      | 2599.83   | -13.03      | -13.09      | 13.13    | 0.15             | 0.15               | -3.46             |                             |
| 2700.00  | 0.61        | 266.29      | 2699.82   | -13.19      | -14.13      | 14.17    | 0.11             | 0.01               | 10.05             |                             |
| 2800.00  | 0.55        | 285.96      | 2799.82   | -13.09      | -15.12      | 15.16    | 0.21             | -0.06              | 19.67             |                             |
| 2900.00  | 0.52        | 298.40      | 2899.82   | -12.75      | -15.98      | 16.02    | 0.12             | -0.03              | 12.44             |                             |
| 3000.00  | 0.56        | 306.57      | 2999.81   | -12.24      | -16.77      | 16.81    | 0.09             | 0.04               | 8.17              |                             |
| 3100.00  | 0.50        | 306.41      | 3099.81   | -11.69      | -17.52      | 17.55    | 0.06             | -0.06              | -0.16             |                             |
| 3200.00  | 0.47        | 304.01      | 3199.80   | -11.20      | -18.21      | 18.24    | 0.04             | -0.03              | -2.40             |                             |
| 3300.00  | 0.40        | 313.39      | 3299.80   | -10.73      | -18.80      | 18.83    | 0.10             | -0.07              | 9.38              |                             |
| 3400.00  | 0.42        | 315.97      | 3399.80   | -10.23      | -19.31      | 19.34    | 0.03             | 0.02               | 2.58              |                             |
| 3500.00  | 0.24        | 353.87      | 3499.80   | -9.76       | -19.59      | 19.62    | 0.27             | -0.18              | 37.90             |                             |
| 3600.00  | 0.63        | 71.84       | 3599.79   | -9.38       | -19.09      | 19.11    | 0.63             | 0.39               | 77.97             |                             |
| 3700.00  | 0.71        | 81.20       | 3699.79   | -9.11       | -17.95      | 17.98    | 0.14             | 0.08               | 9.36              |                             |
| 3800.00  | 1.14        | 85.31       | 3799.77   | -8.94       | -16.35      | 16.37    | 0.43             | 0.43               | 4.11              |                             |
| 3900.00  | 0.68        | 72.98       | 3899.76   | -8.68       | -14.79      | 14.82    | 0.50             | -0.46              | -12.33            |                             |
| 4000.00  | 0.54        | 66.59       | 3999.75   | -8.32       | -13.79      | 13.81    | 0.16             | -0.14              | -6.39             |                             |
| 4100.00  | 0.87        | 83.50       | 4099.75   | -8.05       | -12.60      | 12.63    | 0.39             | 0.33               | 16.91             |                             |
| 4194.00  | 1.53        | 93.08       | 4193.73   | -8.03       | -10.64      | 10.66    | 0.73             | 0.70               | 10.19             |                             |
| 4336.00  | 2.90        | 95.23       | 4335.62   | -8.46       | -5.17       | 5.20     | 0.97             | 0.96               | 1.51              | Tie In                      |
| 4367.00  | 2.29        | 98.66       | 4366.58   | -8.63       | -3.78       | 3.80     | 2.03             | -1.97              | 11.06             | Begin Pathfinder MWD Survey |
| 4399.00  | 0.44        | 246.93      | 4398.58   | -8.77       | -3.26       | 3.28     | 8.36             | -5.78              | 463.34            |                             |
| 4430.00  | 4.48        | 273.65      | 4429.54   | -8.74       | -4.58       | 4.60     | 13.20            | 13.03              | 86.19             |                             |
| 4461.00  | 8.88        | 274.97      | 4460.32   | -8.46       | -8.17       | 8.20     | 14.20            | 14.19              | 4.26              |                             |
| 4493.00  | 13.19       | 273.83      | 4491.73   | -8.00       | -14.28      | 14.30    | 13.49            | 13.47              | -3.56             |                             |
| 4524.00  | 17.32       | 273.30      | 4521.63   | -7.50       | -22.42      | 22.44    | 13.33            | 13.32              | -1.71             |                             |
| 4556.00  | 21.19       | 273.83      | 4551.83   | -6.84       | -32.95      | 32.97    | 12.11            | 12.09              | 1.66              |                             |
| 4587.00  | 24.53       | 272.95      | 4580.39   | -6.13       | -44.97      | 44.98    | 10.83            | 10.77              | -2.84             |                             |
| 4619.00  | 27.96       | 271.54      | 4609.09   | -5.59       | -59.10      | 59.12    | 10.89            | 10.72              | -4.41             |                             |
| 4650.00  | 31.13       | 270.58      | 4636.06   | -5.31       | -74.39      | 74.40    | 10.34            | 10.23              | -3.10             |                             |
| 4681.00  | 34.21       | 270.40      | 4662.15   | -5.17       | -91.12      | 91.13    | 9.94             | 9.94               | -0.58             |                             |
| 4713.00  | 38.16       | 270.58      | 4687.97   | -5.00       | -110.01     | 110.02   | 12.35            | 12.34              | 0.56              |                             |
| 4744.00  | 42.03       | 270.40      | 4711.68   | -4.84       | -129.97     | 129.98   | 12.49            | 12.48              | -0.58             |                             |
| 4776.00  | 46.25       | 269.70      | 4734.64   | -4.82       | -152.25     | 152.26   | 13.28            | 13.19              | -2.19             |                             |
| 4807.00  | 50.47       | 268.38      | 4755.23   | -5.22       | -175.40     | 175.42   | 13.98            | 13.61              | -4.26             |                             |
| 4839.00  | 54.61       | 268.20      | 4774.69   | -5.98       | -200.79     | 200.80   | 12.95            | 12.94              | -0.56             |                             |
| 4869.00  | 59.27       | 268.91      | 4791.05   | -6.61       | -225.92     | 225.93   | 15.66            | 15.53              | 2.37              |                             |
| 4901.00  | 62.87       | 270.05      | 4806.53   | -6.86       | -253.92     | 253.93   | 11.67            | 11.25              | 3.56              |                             |
| 4932.00  | 66.04       | 270.58      | 4819.90   | -6.70       | -281.88     | 281.90   | 10.34            | 10.23              | 1.71              |                             |
| 4964.00  | 69.29       | 269.96      | 4832.06   | -6.56       | -311.48     | 311.49   | 10.31            | 10.16              | -1.94             |                             |
| 4995.00  | 72.02       | 269.79      | 4842.32   | -6.63       | -340.72     | 340.74   | 8.82             | 8.81               | -0.55             |                             |
| 5027.00  | 74.66       | 269.96      | 4851.50   | -6.69       | -371.38     | 371.40   | 8.27             | 8.25               | 0.53              |                             |
| 5058.00  | 77.12       | 270.49      | 4859.05   | -6.57       | -401.44     | 401.46   | 8.11             | 7.94               | 1.71              |                             |
| 5090.00  | 79.23       | 270.40      | 4865.61   | -6.33       | -432.76     | 432.77   | 6.60             | 6.59               | -0.28             |                             |
| 5121.00  | 81.60       | 270.58      | 4870.77   | -6.07       | -463.32     | 463.34   | 7.67             | 7.65               | 0.58              |                             |
| 5153.00  | 84.94       | 271.19      | 4874.52   | -5.58       | -495.09     | 495.11   | 10.61            | 10.44              | 1.91              |                             |
| 5184.00  | 87.58       | 271.81      | 4876.54   | -4.77       | -526.01     | 526.02   | 8.75             | 8.52               | 2.00              |                             |
| 5216.00  | 87.14       | 271.72      | 4878.02   | -3.78       | -557.96     | 557.97   | 1.40             | -1.37              | -0.28             |                             |
| 5247.00  | 86.79       | 271.63      | 4879.66   | -2.88       | -588.91     | 588.91   | 1.17             | -1.13              | -0.29             |                             |
| 5279.00  | 86.61       | 271.37      | 4881.50   | -2.04       | -620.84     | 620.85   | 0.99             | -0.56              | -0.81             |                             |
| 5341.00  | 86.97       | 270.49      | 4884.97   | -1.04       | -682.74     | 682.74   | 1.53             | 0.58               | -1.42             |                             |

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## Survey Report

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**Field:** Thames Field  
**Site:** Hudson 15 Fed #2H  
**Well:** Hudson 15 Fed #2H  
**Wellpath:** OH

**Date:** 12/11/2006      **Time:** 15:49:18      **Page:** 3  
**Co-ordinate(NE) Reference:** Well: Hudson 15 Fed #2H, Grid North  
**Vertical (TVD) Reference:** SITE 3743.0  
**Section (VS) Reference:** Well (0.00N,0.00E,269.84Azi)  
**Survey Calculation Method:** Minimum Curvature      **Db:** Sybase

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | Tool/Comment                   |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|--------------------------------|
| 5373.00  | 88.55       | 269.43      | 4886.22   | -1.06       | -714.71     | 714.71   | 5.94             | 4.94               | -3.31             |                                |
| 5467.00  | 89.87       | 269.61      | 4887.52   | -1.85       | -808.70     | 808.70   | 1.42             | 1.40               | 0.19              |                                |
| 5562.00  | 90.84       | 270.22      | 4886.93   | -1.99       | -903.69     | 903.70   | 1.21             | 1.02               | 0.64              |                                |
| 5656.00  | 92.15       | 270.84      | 4884.48   | -1.12       | -997.66     | 997.65   | 1.54             | 1.39               | 0.66              |                                |
| 5750.00  | 91.63       | 270.93      | 4881.38   | 0.33        | -1091.59    | 1091.59  | 0.56             | -0.55              | 0.10              |                                |
| 5844.00  | 92.77       | 271.45      | 4877.77   | 2.28        | -1185.50    | 1185.49  | 1.33             | 1.21               | 0.55              |                                |
| 5970.00  | 91.63       | 271.81      | 4872.93   | 5.86        | -1311.36    | 1311.33  | 0.95             | -0.90              | 0.29              |                                |
| 6098.00  | 90.92       | 271.02      | 4870.09   | 9.02        | -1439.28    | 1439.25  | 0.83             | -0.55              | -0.62             |                                |
| 6225.00  | 91.89       | 269.96      | 4866.97   | 10.11       | -1566.24    | 1566.20  | 1.13             | 0.76               | -0.83             |                                |
| 6353.00  | 91.28       | 269.17      | 4863.43   | 9.14        | -1694.18    | 1694.15  | 0.78             | -0.48              | -0.62             |                                |
| 6476.00  | 90.04       | 268.56      | 4862.01   | 6.70        | -1817.15    | 1817.12  | 1.12             | -1.01              | -0.50             |                                |
| 6602.00  | 91.71       | 268.20      | 4860.09   | 3.14        | -1943.08    | 1943.06  | 1.36             | 1.33               | -0.29             |                                |
| 6728.00  | 90.84       | 267.85      | 4857.29   | -1.20       | -2068.97    | 2068.97  | 0.74             | -0.69              | -0.28             |                                |
| 6855.00  | 89.52       | 267.06      | 4856.89   | -6.84       | -2195.84    | 2195.85  | 1.21             | -1.04              | -0.62             |                                |
| 6981.00  | 91.63       | 268.12      | 4855.62   | -12.14      | -2321.71    | 2321.74  | 1.87             | 1.67               | 0.84              |                                |
| 7107.00  | 90.40       | 266.71      | 4853.39   | -17.82      | -2447.56    | 2447.60  | 1.48             | -0.98              | -1.12             |                                |
| 7266.00  | 90.84       | 265.39      | 4851.67   | -28.77      | -2606.17    | 2606.24  | 0.88             | 0.28               | -0.83             |                                |
| 7423.00  | 92.24       | 265.48      | 4847.45   | -41.26      | -2762.61    | 2762.71  | 0.89             | 0.89               | 0.06              |                                |
| 7612.00  | 90.84       | 264.95      | 4842.37   | -57.02      | -2950.88    | 2951.02  | 0.79             | -0.74              | -0.28             |                                |
| 7800.00  | 91.98       | 266.45      | 4837.75   | -71.12      | -3138.28    | 3138.47  | 1.00             | 0.61               | 0.80              |                                |
| 7990.00  | 90.92       | 266.97      | 4832.94   | -82.02      | -3327.91    | 3328.12  | 0.62             | -0.56              | 0.27              |                                |
| 8253.00  | 91.36       | 266.97      | 4827.71   | -95.91      | -3590.49    | 3590.74  | 0.17             | 0.17               | 0.00              |                                |
| 8367.00  | 91.63       | 267.94      | 4824.73   | -100.97     | -3704.33    | 3704.60  | 0.88             | 0.24               | 0.85              | Last Pathfinder MWD Survey     |
| 8536.00  | 91.63       | 267.94      | 4819.92   | -107.05     | -3873.16    | 3873.44  | 0.00             | 0.00               | 0.00              | Straightline Projection to Bit |

### Annotation

| MD<br>ft | TVD<br>ft |                                |
|----------|-----------|--------------------------------|
| 4194.00  | 4193.73   | Tie In                         |
| 4336.00  | 4335.62   | Begin Pathfinder MWD Surveys   |
| 8367.00  | 4824.73   | Last Pathfinder MWD Survey     |
| 8536.00  | 4819.92   | Straightline Projection to Bit |