

UNITED STATES N.M. Oil Cons. DIV-Dist. 2  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
1301 W. Grand Avenue  
Alamogordo, NM 88210

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

|                                                                                                                                                                                                                                           |                             |                                                                                                                                       |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------|----------------------------------------------------------------------------------------|
| 1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other                                                                               |                             |                                                                                                                                       |                      |                                                          |                        | 5. Lease Serial No.<br><b>LC 063621-A</b>                                                                                                                                                                                                                                                                             |                       |                                               |                                                                                        |
| b. Type of Completion: <input type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input checked="" type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr., Other                    |                             |                                                                                                                                       |                      |                                                          |                        | 6. If Indian, Allottee or Tribe Name                                                                                                                                                                                                                                                                                  |                       |                                               |                                                                                        |
| 2. Name of Operator<br><b>BOG Resources Inc.</b>                                                                                                                                                                                          |                             |                                                                                                                                       |                      |                                                          |                        | 7. Unit or CA Agreement Name and No.                                                                                                                                                                                                                                                                                  |                       |                                               |                                                                                        |
| 3. Address<br><b>P.O. Box 2267 Midland, Texas 79702</b>                                                                                                                                                                                   |                             |                                                                                                                                       |                      | 3a. Phone No. (include area code)<br><b>432 686 3689</b> |                        | 8. Lease Name and Well No.<br><b>Ranger 7 Federal 1</b>                                                                                                                                                                                                                                                               |                       |                                               |                                                                                        |
| 4. Location of Well (Report location clearly and in accordance with Federal requirements)*<br>At surface <b>2050' FNL &amp; 1980' FEL U/L G</b><br>At top prod. interval reported below<br>At total depth <b>1656' FNL &amp; 369' FEL</b> |                             |                                                                                                                                       |                      |                                                          |                        | 9. API Well No.<br><b>30-015-28690 01 S2</b>                                                                                                                                                                                                                                                                          |                       |                                               |                                                                                        |
| 14. Date Spudded <b>WO 1/20/05</b><br>15. Date T.D. Reached <b>2/5/05</b><br>16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. <b>3/10/05</b>                                          |                             |                                                                                                                                       |                      |                                                          |                        | 10. Field and Pool, or Exploratory<br><b>Sand Tank; Bone Spring</b>                                                                                                                                                                                                                                                   |                       |                                               |                                                                                        |
|                                                                                                                                                                                                                                           |                             |                                                                                                                                       |                      |                                                          |                        | 11. Sec., T., R., M., or Block and Survey or Area<br><b>Sec 7, T18S, R30E</b>                                                                                                                                                                                                                                         |                       |                                               |                                                                                        |
| 18. Total Depth: MD <b>9445</b> TVD <b>7914</b>                                                                                                                                                                                           |                             |                                                                                                                                       |                      |                                                          |                        | 19. Plug Back T.D.: MD <b>9445</b> TVD                                                                                                                                                                                                                                                                                |                       | 20. Depth Bridge Plug Set: MD <b>7461</b> 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 Cement Depth     | No. of Sks. & Type of Cement                                                                                                                                                                                                                                                                                          | Slurry Vol. (BBL)     | Cement Top*                                   | Amount Pulled                                                                          |
| 14 3/4                                                                                                                                                                                                                                    | 11 3/4                      | 42                                                                                                                                    |                      | 661                                                      |                        | 350 sx Prem                                                                                                                                                                                                                                                                                                           |                       | Surface                                       |                                                                                        |
| 11                                                                                                                                                                                                                                        | 8 5/8                       | 32                                                                                                                                    |                      | 3350                                                     |                        | 1100 sx Prem                                                                                                                                                                                                                                                                                                          |                       | Surface                                       |                                                                                        |
| 7 7/8                                                                                                                                                                                                                                     | 5 1/2                       | 17                                                                                                                                    |                      | 11780                                                    |                        | 1551 sx Prem                                                                                                                                                                                                                                                                                                          |                       | 2900' TS                                      |                                                                                        |
|                                                                                                                                                                                                                                           | 3 1/2                       | 9.3                                                                                                                                   | 6811                 | 9417                                                     |                        | 100 acid sol                                                                                                                                                                                                                                                                                                          |                       |                                               |                                                                                        |
| 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 7/8                                                                                                                                                                                                                                     | 6754                        |                                                                                                                                       |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| 25. Producing Intervals                                                                                                                                                                                                                   |                             |                                                                                                                                       |                      |                                                          | 26. Perforation Record |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| Formation                                                                                                                                                                                                                                 | Top                         | Bottom                                                                                                                                | Perforated Interval  | Size                                                     | No. Holes              | Perf. Status                                                                                                                                                                                                                                                                                                          |                       |                                               |                                                                                        |
| A) 2nd Bone Spring                                                                                                                                                                                                                        | 6936                        |                                                                                                                                       | 8257 - 9100          | 0.34                                                     | 45                     | Producing                                                                                                                                                                                                                                                                                                             |                       |                                               |                                                                                        |
| B)                                                                                                                                                                                                                                        |                             |                                                                                                                                       | 8290 - 9032          | 0.34                                                     | 45                     |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| C)                                                                                                                                                                                                                                        |                             |                                                                                                                                       |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| D)                                                                                                                                                                                                                                        |                             |                                                                                                                                       |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| 27. Acid, Fracture, Treatment, Cement Squeeze, Etc.                                                                                                                                                                                       |                             |                                                                                                                                       |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| Depth Interval                                                                                                                                                                                                                            |                             | Amount and Type of Material                                                                                                           |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| 8257 - 9100                                                                                                                                                                                                                               |                             | Pumped 10000 gal 7.5% HCl acid; 25 # Linear pre-pad; Spectra Star 2500 pad; pumped 1 ppg Super LC 20/40. Frac screened out.           |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| 8290 - 9100                                                                                                                                                                                                                               |                             | Frac w/ 15880 gals 15% HCl; 141120 gal Spectra Star 2500; 7182 gal 25# Linear pad; 3000# 100 mesh sand; 175500 # Super LC 20/40 sand. |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| 28. Production - Interval A                                                                                                                                                                                                               |                             |                                                                                                                                       |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| Date First Produced<br>3/10/05                                                                                                                                                                                                            | Test Date<br>3/16/05        | Hours Tested<br>24                                                                                                                    | Test Production<br>→ | Oil BBL<br>411                                           | Gas MCF<br>290         | Water BBL<br>30                                                                                                                                                                                                                                                                                                       | Oil Gravity<br>41.4   | Gas Gravity                                   | Production Method<br>Pumping                                                           |
| Choke Size                                                                                                                                                                                                                                | Tbg. Press. Flwg. SI<br>220 | Csg. Press.                                                                                                                           | 24 Hr.<br>→          | Oil BBL                                                  | Gas MCF                | Water BBL                                                                                                                                                                                                                                                                                                             | Gas: Oil Ratio<br>705 | Well Status<br>POW                            | ACCEPTED FOR RECORD<br><br>APR - 4 2005<br><br>ALEXIS C. SWOBODA<br>PETROLEUM ENGINEER |
| 28a. Production-Interval B                                                                                                                                                                                                                |                             |                                                                                                                                       |                      |                                                          |                        |                                                                                                                                                                                                                                                                                                                       |                       |                                               |                                                                                        |
| Date First Produced                                                                                                                                                                                                                       | Test Date                   | Hours Tested                                                                                                                          | Test Production<br>→ | Oil BBL                                                  | Gas MCF                | Water BBL                                                                                                                                                                                                                                                                                                             | Oil Gravity           | Gas Gravity                                   | Production Method                                                                      |
| Choke Size                                                                                                                                                                                                                                | Tbg. Press. Flwg. SI        | Csg. Press.                                                                                                                           | 24 Hr.<br>→          | Oil BBL                                                  | Gas MCF                | Water BBL                                                                                                                                                                                                                                                                                                             | Gas: Oil Ratio        | Well Status                                   |                                                                                        |

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

## 28b. Production - Interval C

| Date First Produced | Test Date            | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity    | Gas Gravity | Production Method |
|---------------------|----------------------|--------------|-----------------|---------|---------|-----------|----------------|-------------|-------------------|
| Choke Size          | Tbg. Press. Flwg. 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    | Gas Gravity | Production Method |
|---------------------|----------------------|--------------|-----------------|---------|---------|-----------|----------------|-------------|-------------------|
| Choke Size          | Tbg. Press. Flwg. 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 |
|           |     |        |                              | 1st Bone Spring | 6669        |
|           |     |        |                              | 2nd Bone Spring | 6936        |

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 AnalystSignature Stan WagnerDate 3/30/05

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.

**DISTRICT I**  
1625 N. French Dr., Hobbs, NM 88240

**DISTRICT II**  
1301 W. Grand Avenue, Artesia, NM 88210

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

**DISTRICT IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals, and Natural Resources Department

**OIL CONSERVATION DIVISION**

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

Form C-102

Revised August 15, 2000

Submit to Appropriate District Office

State Lease - 4 copies

Fee Lease - 3 copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                                         |  |                                                   |  |                                                 |                                 |
|-----------------------------------------|--|---------------------------------------------------|--|-------------------------------------------------|---------------------------------|
| <sup>1</sup> API Number<br>30-015-28690 |  | <sup>2</sup> Pool Code<br>96832                   |  | <sup>3</sup> Pool Name<br>Sand Tank Bone Spring |                                 |
| <sup>4</sup> Property Code<br>17763     |  | <sup>5</sup> Property Name<br>RANGER 7 FED. COM   |  |                                                 | <sup>6</sup> Well Number<br>1H  |
| <sup>7</sup> OGRID No.                  |  | <sup>8</sup> Operator Name<br>EOG RESOURCES, INC. |  |                                                 | <sup>9</sup> Elevation<br>3515' |

**<sup>10</sup> Surface Location**

| UL or lot no. | Section | Township | Range             | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------------------|---------|---------------|------------------|---------------|----------------|--------|
| G             | 7       | 18 SOUTH | 30 EAST, N.M.P.M. |         | 2051'         | NORTH            | 1981'         | EAST           | EDDY   |

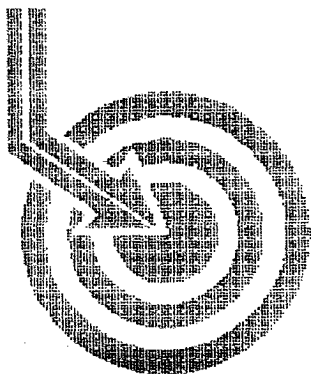
**<sup>11</sup> Bottom Hole Location If Different From Surface**

| UL or lot no.                       | Section | Township                      | Range             | Lot Idn                          | Feet from the | North/South line        | Feet from the | East/West line | County |
|-------------------------------------|---------|-------------------------------|-------------------|----------------------------------|---------------|-------------------------|---------------|----------------|--------|
| H                                   | 7       | 18 SOUTH                      | 30 EAST, N.M.P.M. |                                  | 1656          | NORTH                   | 369           | EAST           | EDDY   |
| <sup>12</sup> Dedicated Acres<br>80 |         | <sup>13</sup> Joint or Infill |                   | <sup>14</sup> Consolidation Code |               | <sup>15</sup> Order No. |               |                |        |

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

|                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p><sup>16</sup></p><p>NAD 27 NM E ZONE<br/>X = 599806<br/>Y = 641639<br/>LAT.: N 32.76354<br/>LONG.: W 104.00866</p><p>TERMINUS HOLE LOC.<br/>X = 601455<br/>Y = 642046<br/>LAT.: N 32.76464<br/>LONG.: W 104.00329</p></div> | <p><b><sup>17</sup> OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mike Francis</i><br/>Mike Francis<br/>Agent<br/>1/06/2005</p> <p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 24, 2004<br/>Date of Survey<br/>Signature and Seal of Professional Surveyor</p> <p><i>V. L. Bezner</i><br/>V. L. BEZNER R.P.S. #7920<br/>JOB # 99683 / 97NW / J.C.P.</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

RECORDED



# Scientific Drilling

**E.O.G.**

Field: Ranger  
Site: Eddy County, NM  
Well: Ranger 7 Fed Com #1  
Wellpath: VH - Job #32K1104742  
Survey: 11/25/04

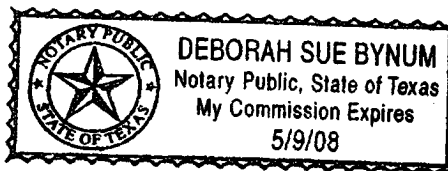
This survey is correct to the best of my knowledge  
and is supported by actual field data.

.....*Becky Shatto*..... Company Representative

Notorized this date 20<sup>th</sup> of December, 2004.

*Deborah Sue Bynum*

Notary Signature  
County of Midland  
State of Texas





Scientific  
Drilling

# Scientific Drilling International Survey Report

Company: E.O.G.  
Field: Ranger  
Site: Eddy County, NM  
Well: Ranger 7 Fed Com #1  
Wellpath: VH - Job #32K1104742

Date: 12/20/2004 Time: 08:25:49 Page: 1  
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North  
Vertical (TVD) Reference: SITE 0.0  
Section (VS) Reference: Well (0.00N,0.00E,280.38Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 11/25/04 Start Date: 11/25/2004  
KSRG 0'-7465'  
Company: Scientific Drilling Internatio Engineer: Gonzales w/P&M  
Tool: Keeper;Keeper Surface Readout Gyro Tied-to: 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 |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 0.0      | 0.00        | 0.00        | 0.0       | 0.0      | 0.0       | 0.0       | 0.00             | 0.0        | 0.00        |
| 100.0    | 0.47        | 241.90      | 100.0     | 0.3      | -0.2      | -0.4      | 0.47             | 0.4        | 241.90      |
| 200.0    | 0.60        | 240.55      | 200.0     | 1.0      | -0.6      | -1.2      | 0.13             | 1.3        | 241.37      |
| 300.0    | 0.55        | 246.22      | 300.0     | 1.8      | -1.1      | -2.1      | 0.08             | 2.3        | 242.18      |
| 400.0    | 0.48        | 250.87      | 400.0     | 2.6      | -1.4      | -2.9      | 0.08             | 3.2        | 243.90      |
| 500.0    | 0.54        | 237.48      | 500.0     | 3.3      | -1.8      | -3.7      | 0.13             | 4.1        | 243.87      |
| 600.0    | 0.52        | 256.52      | 600.0     | 4.1      | -2.2      | -4.5      | 0.18             | 5.0        | 244.41      |
| 700.0    | 0.29        | 325.30      | 700.0     | 4.7      | -2.1      | -5.1      | 0.50             | 5.5        | 247.98      |
| 800.0    | 0.38        | 346.93      | 800.0     | 5.0      | -1.5      | -5.3      | 0.15             | 5.6        | 253.91      |
| 900.0    | 0.39        | 1.88        | 900.0     | 5.2      | -0.9      | -5.4      | 0.10             | 5.5        | 260.77      |
| 1000.0   | 0.53        | 19.34       | 1000.0    | 5.1      | -0.1      | -5.2      | 0.20             | 5.2        | 268.88      |
| 1100.0   | 0.71        | 22.28       | 1100.0    | 4.9      | 0.9       | -4.9      | 0.18             | 4.9        | 280.58      |
| 1200.0   | 0.73        | 19.47       | 1200.0    | 4.7      | 2.1       | -4.4      | 0.04             | 4.9        | 295.27      |
| 1300.0   | 0.69        | 15.90       | 1299.9    | 4.6      | 3.3       | -4.0      | 0.06             | 5.2        | 308.96      |
| 1400.0   | 0.50        | 346.89      | 1399.9    | 4.7      | 4.3       | -4.0      | 0.35             | 5.8        | 317.08      |
| 1500.0   | 0.47        | 343.32      | 1499.9    | 5.0      | 5.1       | -4.2      | 0.04             | 6.6        | 320.55      |
| 1600.0   | 0.56        | 340.62      | 1599.9    | 5.5      | 5.9       | -4.5      | 0.09             | 7.4        | 323.07      |
| 1700.0   | 0.67        | 324.33      | 1699.9    | 6.1      | 6.9       | -5.0      | 0.21             | 8.5        | 324.15      |
| 1800.0   | 0.72        | 311.57      | 1799.9    | 7.1      | 7.8       | -5.8      | 0.16             | 9.7        | 323.35      |
| 1900.0   | 0.72        | 305.80      | 1899.9    | 8.2      | 8.5       | -6.8      | 0.07             | 10.9       | 321.68      |
| 2000.0   | 0.72        | 287.56      | 1999.9    | 9.4      | 9.1       | -7.9      | 0.23             | 12.0       | 319.18      |
| 2100.0   | 0.80        | 271.95      | 2099.9    | 10.7     | 9.3       | -9.2      | 0.22             | 13.1       | 315.49      |
| 2200.0   | 1.03        | 270.14      | 2199.9    | 12.3     | 9.3       | -10.8     | 0.23             | 14.3       | 310.98      |
| 2300.0   | 1.10        | 270.02      | 2299.9    | 14.1     | 9.3       | -12.6     | 0.07             | 15.7       | 306.53      |
| 2400.0   | 1.14        | 270.40      | 2399.8    | 16.0     | 9.4       | -14.6     | 0.04             | 17.3       | 302.70      |
| 2500.0   | 1.14        | 275.54      | 2499.8    | 18.0     | 9.5       | -16.6     | 0.10             | 19.1       | 299.74      |
| 2600.0   | 1.20        | 276.35      | 2599.8    | 20.0     | 9.7       | -18.6     | 0.06             | 21.0       | 297.49      |
| 2700.0   | 0.97        | 264.22      | 2699.8    | 21.9     | 9.7       | -20.5     | 0.32             | 22.7       | 295.36      |
| 2800.0   | 1.02        | 261.61      | 2799.8    | 23.5     | 9.5       | -22.2     | 0.07             | 24.1       | 293.14      |
| 2900.0   | 1.05        | 264.64      | 2899.8    | 25.3     | 9.3       | -24.0     | 0.06             | 25.7       | 291.13      |
| 3000.0   | 1.05        | 262.99      | 2999.7    | 27.0     | 9.1       | -25.8     | 0.03             | 27.4       | 289.37      |
| 3100.0   | 1.09        | 265.27      | 3099.7    | 28.8     | 8.9       | -27.7     | 0.06             | 29.1       | 287.80      |
| 3200.0   | 1.11        | 261.85      | 3199.7    | 30.6     | 8.7       | -29.6     | 0.07             | 30.8       | 286.33      |
| 3300.0   | 1.07        | 263.07      | 3299.7    | 32.5     | 8.4       | -31.5     | 0.05             | 32.6       | 284.98      |
| 3400.0   | 1.20        | 253.00      | 3399.7    | 34.3     | 8.0       | -33.4     | 0.24             | 34.3       | 283.47      |
| 3500.0   | 1.42        | 251.40      | 3499.6    | 36.3     | 7.3       | -35.6     | 0.22             | 36.3       | 281.60      |
| 3600.0   | 1.56        | 259.69      | 3599.6    | 38.7     | 6.7       | -38.1     | 0.26             | 38.7       | 279.92      |
| 3700.0   | 1.95        | 269.39      | 3699.6    | 41.6     | 6.4       | -41.1     | 0.49             | 41.6       | 278.84      |
| 3800.0   | 2.43        | 272.59      | 3799.5    | 45.4     | 6.5       | -44.9     | 0.50             | 45.4       | 278.20      |
| 3900.0   | 2.90        | 272.46      | 3899.4    | 50.0     | 6.7       | -49.6     | 0.47             | 50.0       | 277.67      |
| 4000.0   | 2.91        | 273.49      | 3999.3    | 55.0     | 6.9       | -54.6     | 0.05             | 55.1       | 277.24      |
| 4100.0   | 3.03        | 273.43      | 4099.1    | 60.1     | 7.3       | -59.8     | 0.12             | 60.3       | 276.91      |
| 4200.0   | 3.02        | 273.13      | 4199.0    | 65.4     | 7.6       | -65.1     | 0.02             | 65.5       | 276.62      |
| 4300.0   | 3.06        | 272.00      | 4298.8    | 70.6     | 7.8       | -70.4     | 0.07             | 70.8       | 276.32      |
| 4400.0   | 3.12        | 270.53      | 4398.7    | 76.0     | 7.9       | -75.8     | 0.10             | 76.2       | 275.96      |
| 4500.0   | 3.18        | 269.50      | 4498.5    | 81.4     | 7.9       | -81.3     | 0.08             | 81.6       | 275.56      |
| 4600.0   | 3.23        | 269.60      | 4598.4    | 86.8     | 7.9       | -86.9     | 0.05             | 87.2       | 275.18      |
| 4700.0   | 3.31        | 269.08      | 4698.2    | 92.4     | 7.8       | -92.6     | 0.09             | 92.9       | 274.82      |
| 4800.0   | 3.36        | 270.73      | 4798.1    | 98.2     | 7.8       | -98.4     | 0.11             | 98.7       | 274.53      |



# Scientific Drilling International

## Survey Report

Company: E.O.G.  
 Field: Ranger  
 Site: Eddy County, NM  
 Well: Ranger 7 Fed Com #1  
 Wellpath: VH - Job #32K1104742

Date: 12/20/2004 Time: 08:25:49 Page: 2  
 Co-ordinate(N/E) Reference: Site: Eddy County, NM, Grid North  
 Vertical (TVD) Reference: SITE 0.0  
 Section (VS) Reference: Well (0.00N,0.00E,280.38Azi)  
 Survey Calculation Method: Minimum Curvature Db: Sybase

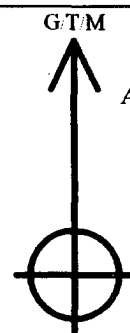
### Survey

| MD<br>ft | Incl<br>deg | Azin<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 |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 4900.0   | 2.40        | 255.26      | 4897.9    | 103.0    | 7.3       | -103.3    | 1.23             | 103.6      | 274.04      |
| 5000.0   | 0.75        | 189.97      | 4997.9    | 104.8    | 6.1       | -105.5    | 2.19             | 105.6      | 273.32      |
| 5100.0   | 0.43        | 96.18       | 5097.9    | 104.5    | 5.4       | -105.2    | 0.89             | 105.3      | 272.96      |
| 5200.0   | 0.38        | 91.99       | 5197.9    | 103.8    | 5.4       | -104.5    | 0.06             | 104.6      | 272.95      |
| 5300.0   | 0.44        | 81.24       | 5297.9    | 103.1    | 5.4       | -103.8    | 0.10             | 103.9      | 272.99      |
| 5400.0   | 0.45        | 102.45      | 5397.9    | 102.3    | 5.4       | -103.0    | 0.16             | 103.2      | 273.00      |
| 5500.0   | 0.52        | 105.86      | 5497.9    | 101.5    | 5.2       | -102.2    | 0.08             | 102.3      | 272.91      |
| 5600.0   | 0.68        | 110.80      | 5597.9    | 100.4    | 4.9       | -101.2    | 0.17             | 101.3      | 272.75      |
| 5700.0   | 0.72        | 112.15      | 5697.9    | 99.2     | 4.4       | -100.1    | 0.04             | 100.2      | 272.52      |
| 5800.0   | 0.86        | 105.01      | 5797.9    | 97.9     | 4.0       | -98.8     | 0.17             | 98.9       | 272.31      |
| 5900.0   | 0.85        | 101.99      | 5897.8    | 96.4     | 3.6       | -97.3     | 0.05             | 97.4       | 272.14      |
| 6000.0   | 0.83        | 103.00      | 5997.8    | 94.9     | 3.3       | -95.9     | 0.02             | 96.0       | 271.98      |
| 6100.0   | 0.82        | 106.11      | 6097.8    | 93.5     | 3.0       | -94.5     | 0.05             | 94.5       | 271.79      |
| 6200.0   | 0.80        | 100.13      | 6197.8    | 92.1     | 2.6       | -93.1     | 0.09             | 93.2       | 271.62      |
| 6300.0   | 0.73        | 81.95       | 6297.8    | 90.8     | 2.6       | -91.8     | 0.25             | 91.8       | 271.62      |
| 6400.0   | 0.94        | 48.91       | 6397.8    | 89.7     | 3.2       | -90.6     | 0.52             | 90.6       | 272.04      |
| 6500.0   | 0.99        | 33.14       | 6497.8    | 88.8     | 4.5       | -89.5     | 0.27             | 89.6       | 272.87      |
| 6600.0   | 1.00        | 24.63       | 6597.8    | 88.3     | 6.0       | -88.6     | 0.15             | 88.8       | 273.88      |
| 6700.0   | 0.93        | 14.08       | 6697.7    | 88.0     | 7.6       | -88.1     | 0.19             | 88.4       | 274.92      |
| 6800.0   | 0.82        | 2.95        | 6797.7    | 88.0     | 9.1       | -87.8     | 0.20             | 88.3       | 275.91      |
| 6900.0   | 0.86        | 348.64      | 6897.7    | 88.4     | 10.5      | -87.9     | 0.21             | 88.6       | 276.83      |
| 7000.0   | 0.80        | 336.68      | 6997.7    | 89.1     | 11.9      | -88.4     | 0.18             | 89.2       | 277.68      |
| 7100.0   | 0.85        | 329.86      | 7097.7    | 89.9     | 13.2      | -89.0     | 0.11             | 90.0       | 278.43      |
| 7200.0   | 0.92        | 324.85      | 7197.7    | 91.0     | 14.5      | -89.9     | 0.10             | 91.0       | 279.17      |
| 7300.0   | 0.61        | 317.17      | 7297.7    | 92.0     | 15.5      | -90.7     | 0.33             | 92.0       | 279.73      |
| 7400.0   | 0.68        | 318.71      | 7397.7    | 92.9     | 16.4      | -91.4     | 0.07             | 92.9       | 280.16      |
| 7465.0   | 0.72        | 298.13      | 7462.7    | 93.6     | 16.9      | -92.0     | 0.39             | 93.6       | 280.38      |



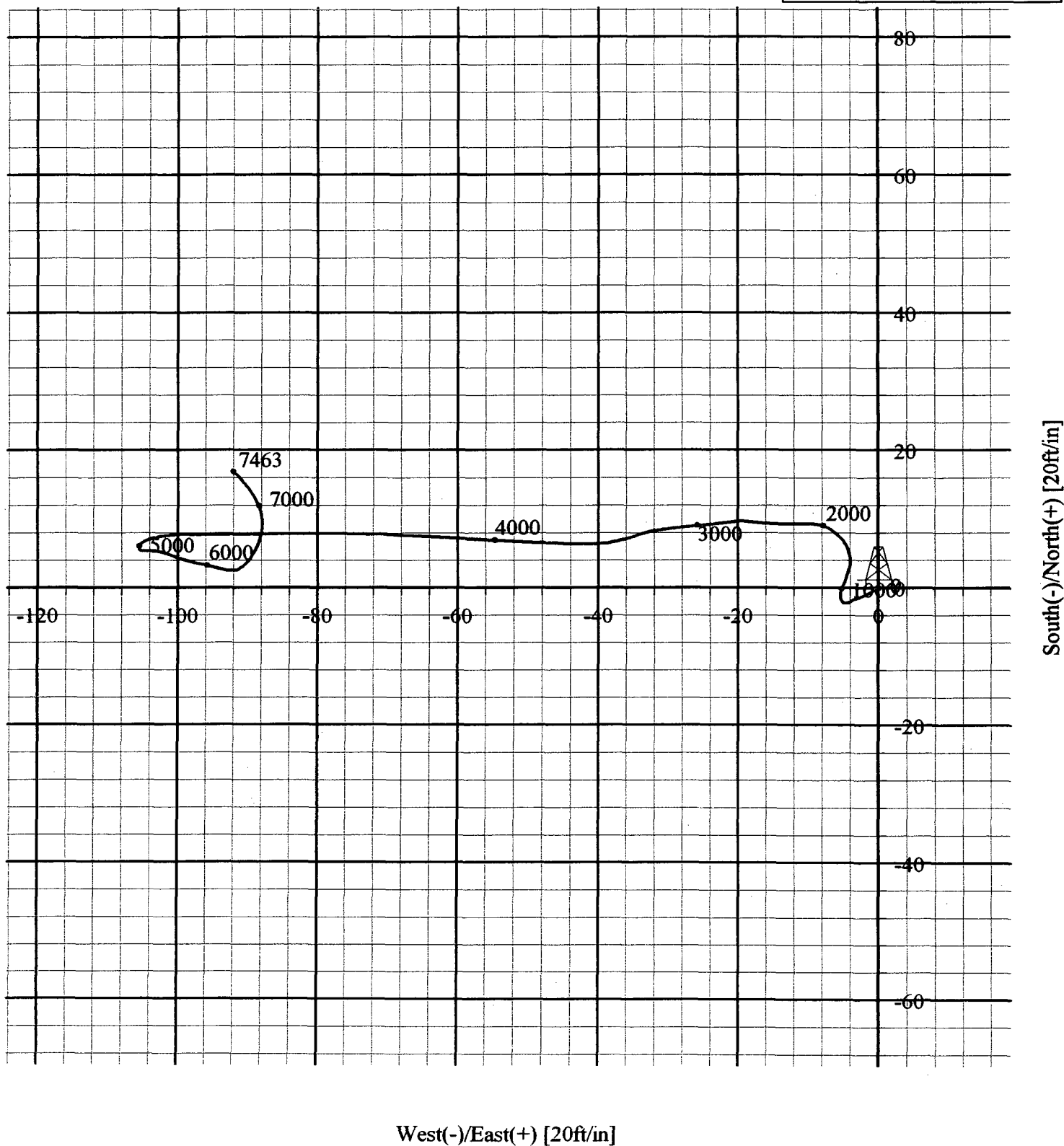
Scientific  
Drilling

Field: Ranger  
Site: Eddy County, NM  
Well: Ranger 7 Fed Com #1  
Wellpath: VH - Job #32K1104742  
Survey: 11/25/04



Azimuths to Grid North  
True North: 0.00°  
Magnetic North: 0.00°

Magnetic Field  
Strength: 0nT  
Dip Angle: 0.00°  
Date: 12/19/2004  
Model: igrf2000





# Survey Report

**INTEQ**

MIN. CURVATURE CALCULATIONS (SPE-3362)

OPERATOR: EOG Resources

WELL: Ranger 7 Fed Com #1H RE

LOCATION: Eddy Co., NM

TIE-IN PROVIDED BY: BHI Midland Office

START: 1/25/2005

FINISH:

JOB #: 833297

POSED DIRECTION: 76.13

MAG TO GRID: +8.62

| STATION | SURVEY |      |        |         |        |        | VERT.   | DLS/ |
|---------|--------|------|--------|---------|--------|--------|---------|------|
| NUMBER  | DEPTH  | INC  | AZMTH  | TVD     | N-S    | E-W    | SECTION | 100  |
| TIE-IN  | 7400   | 0.68 | 318.71 | 7397.68 | 16.38  | -91.43 | -84.84  |      |
| 1       | 7472   | 4.4  | 80.0   | 7469.61 | 17.18  | -88.99 | -82.28  | 6.7  |
| 2       | 7503   | 9.1  | 61.4   | 7500.39 | 18.56  | -85.66 | -78.72  | 16.5 |
| 3       | 7532   | 13.9 | 62.1   | 7528.80 | 21.29  | -80.57 | -73.12  | 16.6 |
| 4       | 7563   | 17.8 | 65.9   | 7558.62 | 24.97  | -72.95 | -64.84  | 13.0 |
| 5       | 7595   | 20.8 | 71.5   | 7588.82 | 28.77  | -63.09 | -54.36  | 11.0 |
| 6       | 7626   | 25.0 | 75.8   | 7617.37 | 32.13  | -51.52 | -42.32  | 14.6 |
| 7       | 7657   | 28.9 | 77.2   | 7645.00 | 35.39  | -37.86 | -28.27  | 12.7 |
| 8       | 7688   | 31.8 | 76.5   | 7671.75 | 38.96  | -22.61 | -12.61  | 9.4  |
| 9       | 7720   | 35.3 | 78.6   | 7698.42 | 42.76  | -5.34  | 5.07    | 11.5 |
| 10      | 7751   | 38.9 | 80.0   | 7723.14 | 46.22  | 13.03  | 23.73   | 11.9 |
| 11      | 7783   | 42.9 | 81.7   | 7747.32 | 49.54  | 33.71  | 44.61   | 13.0 |
| 12      | 7814   | 47.3 | 82.8   | 7769.20 | 52.49  | 55.47  | 66.43   | 14.4 |
| 13      | 7845   | 52.1 | 83.9   | 7789.24 | 55.22  | 78.94  | 89.88   | 15.7 |
| 14      | 7877   | 55.5 | 84.6   | 7808.14 | 57.80  | 104.63 | 115.44  | 10.8 |
| 15      | 7908   | 58.1 | 83.9   | 7825.11 | 60.40  | 130.44 | 141.12  | 8.6  |
| 16      | 7940   | 59.9 | 84.9   | 7841.59 | 63.08  | 157.74 | 168.26  | 6.2  |
| 17      | 7971   | 63.3 | 84.9   | 7856.33 | 65.50  | 184.89 | 195.20  | 11.0 |
| 18      | 8003   | 67.1 | 84.9   | 7869.75 | 68.08  | 213.82 | 223.91  | 11.9 |
| 19      | 8034   | 71.5 | 83.9   | 7880.71 | 70.92  | 242.67 | 252.60  | 14.5 |
| 20      | 8065   | 75.6 | 84.2   | 7889.49 | 74.00  | 272.24 | 282.04  | 13.3 |
| 21      | 8097   | 78.0 | 83.9   | 7896.79 | 77.23  | 303.22 | 312.89  | 7.6  |
| 22      | 8129   | 79.5 | 82.8   | 7903.04 | 80.86  | 334.40 | 344.03  | 5.8  |
| 23      | 8160   | 81.9 | 79.6   | 7908.05 | 85.54  | 364.62 | 374.50  | 12.8 |
| 24      | 8192   | 82.9 | 78.2   | 7912.28 | 91.65  | 395.75 | 406.18  | 5.3  |
| 25      | 8223   | 85.8 | 75.1   | 7915.33 | 98.77  | 425.75 | 437.02  | 13.7 |
| 26      | 8255   | 88.7 | 74.4   | 7916.87 | 107.18 | 456.59 | 468.97  | 9.3  |
| 27      | 8286   | 89.5 | 73.7   | 7917.35 | 115.70 | 486.39 | 499.94  | 3.4  |
| 28      | 8318   | 90.4 | 73.7   | 7917.38 | 124.68 | 517.10 | 531.91  | 2.8  |



# Survey Report

INTEQ

MIN. CURVATURE CALCULATIONS (SPE-3362)

OPERATOR: EOG Resources  
WELL: Ranger 7 Fed Com #1H RE  
LOCATION: Eddy Co., NM  
TIE-IN PROVIDED BY: BHI Midland Office

START: 1/25/2005  
FINISH:  
JOB #: 833297

POSED DIRECTION: 76.13  
MAG TO GRID: +8.62

| STATION NUMBER | SURVEY DEPTH | INC  | AZMTH | TVD     | N-S    | E-W     | VERT. SECTION | DLS/ 100 |
|----------------|--------------|------|-------|---------|--------|---------|---------------|----------|
| 29             | 8349         | 92.4 | 73.3  | 7916.42 | 133.48 | 546.82  | 562.87        | 6.6      |
| 30             | 8381         | 92.8 | 73.0  | 7915.17 | 142.75 | 577.41  | 594.79        | 1.6      |
| 31             | 8413         | 92.9 | 73.3  | 7913.58 | 152.01 | 608.00  | 626.71        | 1.0      |
| 32             | 8444         | 92.0 | 73.7  | 7912.26 | 160.81 | 637.69  | 657.65        | 3.2      |
| 33             | 8476         | 91.9 | 73.7  | 7911.17 | 169.78 | 668.39  | 689.60        | 0.3      |
| 34             | 8507         | 91.1 | 74.4  | 7910.36 | 178.30 | 698.19  | 720.57        | 3.4      |
| 35             | 8539         | 90.9 | 74.4  | 7909.80 | 186.90 | 729.00  | 752.55        | 0.6      |
| 36             | 8570         | 90.9 | 74.4  | 7909.41 | 195.24 | 758.86  | 783.53        | 0.0      |
| 37             | 8602         | 90.7 | 74.4  | 7908.96 | 203.84 | 789.68  | 815.52        | 0.6      |
| 38             | 8634         | 89.6 | 75.8  | 7908.18 | 212.07 | 820.60  | 847.51        | 5.6      |
| 39             | 8655         | 89.5 | 75.1  | 7909.12 | 219.60 | 850.67  | 878.51        | 1.0      |
| 40             | 8677         | 89.3 | 75.1  | 7909.66 | 227.28 | 881.73  | 910.51        | 0.6      |
| 41             | 8708         | 89.4 | 75.1  | 7909.71 | 234.73 | 911.82  | 942.51        | 0.3      |
| 42             | 8760         | 89.3 | 76.5  | 7910.07 | 242.31 | 942.91  | 973.51        | 1.3      |
| 43             | 8791         | 89.2 | 76.1  | 7910.48 | 249.65 | 973.02  | 1004.50       | 1.3      |
| 44             | 8822         | 89.1 | 76.5  | 7910.94 | 256.99 | 1003.14 | 1035.50       | 1.3      |
| 45             | 8853         | 89.1 | 76.5  | 7911.40 | 264.46 | 1034.15 | 1066.50       | 3.4      |
| 46             | 8884         | 89.1 | 76.5  | 7911.86 | 271.70 | 1064.19 | 1097.50       | 0.6      |
| 47             | 8915         | 89.1 | 76.5  | 7912.32 | 279.17 | 1095.21 | 1128.50       | 0.3      |
| 48             | 8946         | 90.2 | 76.8  | 7910.94 | 286.33 | 1125.67 | 1159.50       | 1.0      |
| 49             | 8977         | 90.1 | 76.5  | 7910.78 | 300.87 | 1186.97 | 1221.50       | 0.5      |
| 50             | 9008         | 89.8 | 76.8  | 7910.63 | 315.42 | 1248.27 | 1283.50       | 0.7      |
| 51             | 9039         | 89.6 | 76.8  | 7910.66 | 329.81 | 1309.60 | 1345.50       | 0.3      |
| 52             | 9070         | 89.4 | 76.8  | 7911.11 | 343.98 | 1370.99 | 1407.50       | 0.7      |
| 53             | 9101         | 90.2 | 77.9  | 7911.53 | 357.56 | 1432.50 | 1469.50       | 1.7      |
| 54             | 9132         | 89.7 | 78.2  | 7911.99 | 370.60 | 1494.14 | 1531.50       | 0.9      |
| 55             | 9163         | 88.4 | 78.2  | 7912.53 | 383.48 | 1555.80 | 1602.50       | 2.1      |
| TD             | 9195         | 87.1 | 78.2  | 7914.53 | 394.93 | 1610.57 | 1664.50       | 2.3      |



# Survey Report

**INTEQ**

MIN. CURVATURE CALCULATIONS (SPE-3362)

**OPERATOR: EOG Resources**

**START: 1/25/2005**

**WELL: Ranger 7 Fed Com #1H RE**

**FINISH:**

**LOCATION: Eddy Co., NM**

**JOB #: 833297**

**TIE-IN PROVIDED BY: BHI Midland Office**

**POSED DIRECTION: 76.13**

**MAG TO GRID: +8.62**

| STATION SURVEY |       |      |       |         |        |         |         | VERT. | DLS/ |
|----------------|-------|------|-------|---------|--------|---------|---------|-------|------|
| NUMBER         | DEPTH | INC  | AZMTH | TVD     | N-S    | E-W     | SECTION | 100   |      |
| 24             | 8192  | 82.9 | 78.2  | 7912.28 | 91.65  | 395.75  | 406.18  |       | 5.3  |
| 25             | 8223  | 85.8 | 75.1  | 7915.33 | 98.77  | 425.75  | 437.02  |       | 13.7 |
| 26             | 8255  | 88.7 | 74.4  | 7916.87 | 107.18 | 456.59  | 468.97  |       | 9.3  |
| 27             | 8286  | 89.5 | 73.7  | 7917.35 | 115.70 | 486.39  | 499.94  |       | 3.4  |
| 28             | 8318  | 90.4 | 73.7  | 7917.38 | 124.68 | 517.10  | 531.91  |       | 2.8  |
| 29             | 8349  | 92.4 | 73.3  | 7916.62 | 133.48 | 546.82  | 562.87  |       | 6.6  |
| 30             | 8381  | 92.8 | 73.0  | 7915.17 | 142.75 | 577.41  | 594.79  |       | 1.6  |
| 31             | 8413  | 92.9 | 73.3  | 7913.58 | 152.01 | 608.00  | 626.71  |       | 1.0  |
| 32             | 8444  | 92.0 | 73.7  | 7912.26 | 160.81 | 637.69  | 657.65  |       | 3.2  |
| 33             | 8476  | 91.9 | 73.7  | 7911.17 | 169.78 | 668.39  | 689.60  |       | 0.3  |
| 34             | 8507  | 91.1 | 74.4  | 7910.36 | 178.30 | 698.19  | 720.57  |       | 3.4  |
| 35             | 8539  | 90.9 | 74.4  | 7909.80 | 186.90 | 729.00  | 752.55  |       | 0.6  |
| 36             | 8570  | 90.9 | 74.4  | 7909.31 | 195.24 | 758.86  | 783.53  |       | 0.0  |
| 37             | 8602  | 90.7 | 74.4  | 7908.86 | 203.84 | 789.68  | 815.52  |       | 0.6  |
| 38             | 8634  | 89.6 | 75.8  | 7908.78 | 212.07 | 820.60  | 847.51  |       | 5.6  |
| 39             | 8665  | 89.5 | 76.1  | 7909.02 | 219.60 | 850.67  | 878.51  |       | 1.0  |
| 40             | 8697  | 89.3 | 76.1  | 7909.36 | 227.28 | 881.73  | 910.51  |       | 0.6  |
| 41             | 8728  | 89.4 | 76.1  | 7909.71 | 234.73 | 911.82  | 941.50  |       | 0.3  |
| 42             | 8760  | 89.3 | 76.5  | 7910.07 | 242.31 | 942.91  | 973.50  |       | 1.3  |
| 43             | 8791  | 89.2 | 76.1  | 7910.48 | 249.65 | 973.02  | 1004.50 |       | 1.3  |
| 44             | 8822  | 89.1 | 76.5  | 7910.94 | 256.99 | 1003.14 | 1035.50 |       | 1.3  |
| 45             | 8854  | 90.2 | 76.5  | 7911.13 | 264.46 | 1034.25 | 1067.49 |       | 3.4  |
| 46             | 8885  | 90.4 | 76.5  | 7910.97 | 271.70 | 1064.40 | 1098.49 |       | 0.6  |
| 47             | 8917  | 90.3 | 76.5  | 7910.78 | 279.17 | 1095.51 | 1130.49 |       | 0.3  |
| 48             | 8948  | 90.2 | 76.8  | 7910.64 | 286.33 | 1125.67 | 1161.49 |       | 1.0  |
| 49             | 9011  | 90.1 | 76.5  | 7910.48 | 300.87 | 1186.97 | 1224.49 |       | 0.5  |
| 50             | 9074  | 89.8 | 76.8  | 7910.53 | 315.42 | 1248.27 | 1287.48 |       | 0.7  |
| 51             | 9137  | 89.6 | 76.8  | 7910.86 | 329.81 | 1309.60 | 1350.48 |       | 0.3  |
| 52             | 9200  | 89.4 | 77.2  | 7911.41 | 343.98 | 1370.99 | 1413.47 |       | 0.7  |
| 53             | 9263  | 90.2 | 77.9  | 7911.63 | 357.56 | 1432.50 | 1476.45 |       | 1.7  |
| BIT            | 9361  | 90.4 | 77.5  | 7911.12 | 378.43 | 1528.25 | 1574.41 |       | 0.5  |