

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 & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised October 12, 2005  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

"As Drilled"

|                                    |                                               |                                                              |
|------------------------------------|-----------------------------------------------|--------------------------------------------------------------|
| *API Number<br><b>30-039-30755</b> | *Pool Code<br>97232 / 72319 / 71599           | *Pool Name<br>BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA |
| *Property Code<br>17033            | *Property Name<br>ROSA UNIT COM               | *Well Number<br>169D                                         |
| *OGRID No.<br>120782               | *Operator Name<br>WILLIAMS PRODUCTION COMPANY | *Elevation<br>6355'                                          |

10 Surface Location

| UL or lot no | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| J            | 3       | 31N      | 6W    |         | 2395          | SOUTH            | 1720          | EAST           | RIO ARriba |

11 Bottom Hole Location If Different From Surface

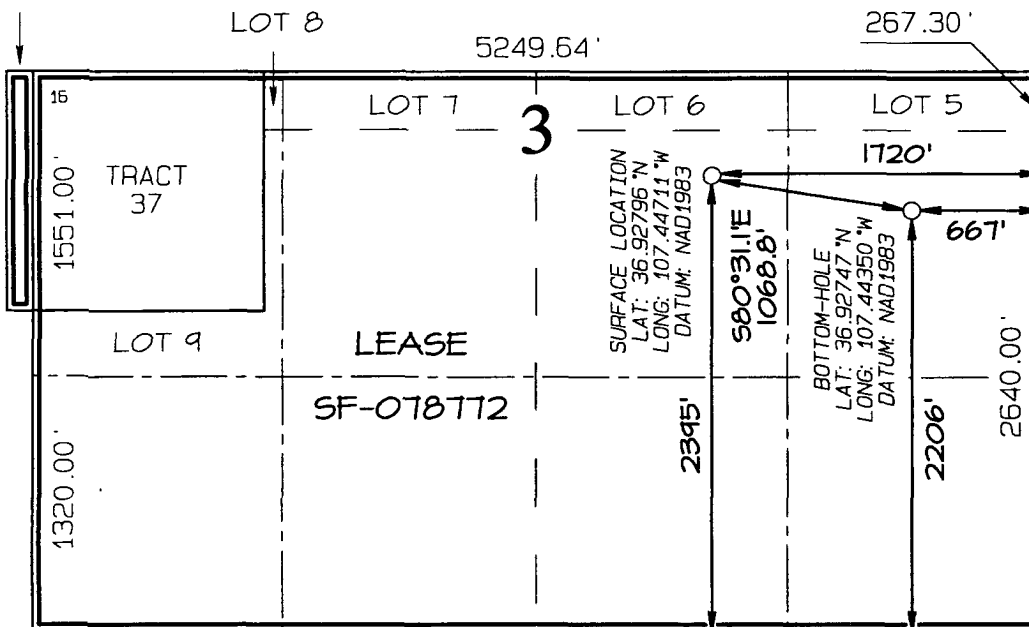
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| I             | 3       | 31N      | 6W    |         | 2206          | SOUTH            | 667           | EAST           | RIO ARriba |

|                                                          |                    |                       |                                                   |
|----------------------------------------------------------|--------------------|-----------------------|---------------------------------------------------|
| 12 Dedicated Acres<br>See Note Below for Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No.<br>RCVD SEP 18 '09<br>OIL CONS. DIV. |
|----------------------------------------------------------|--------------------|-----------------------|---------------------------------------------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION DIST. 3

352.87 Acres (MV) - Entire Section 3

355.41 Acres (MANCOS, DK)  
Entire Section 3 and Tract 37 in Section 4



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

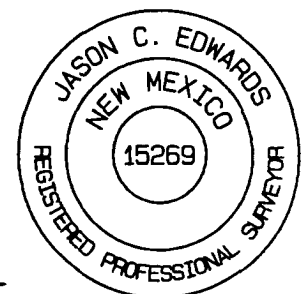
*Heather Riley* 9/17/09  
Signature Date  
*Heather Riley*  
Printed Name

18 SURVEYOR CERTIFICATION

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.

Survey Date: DECEMBER 7, 2008  
Date Revised: SEPTEMBER 16, 2009

Signature and Seal of Professional Surveyor



*Jason C. Edwards*  
Certificate Number 15269

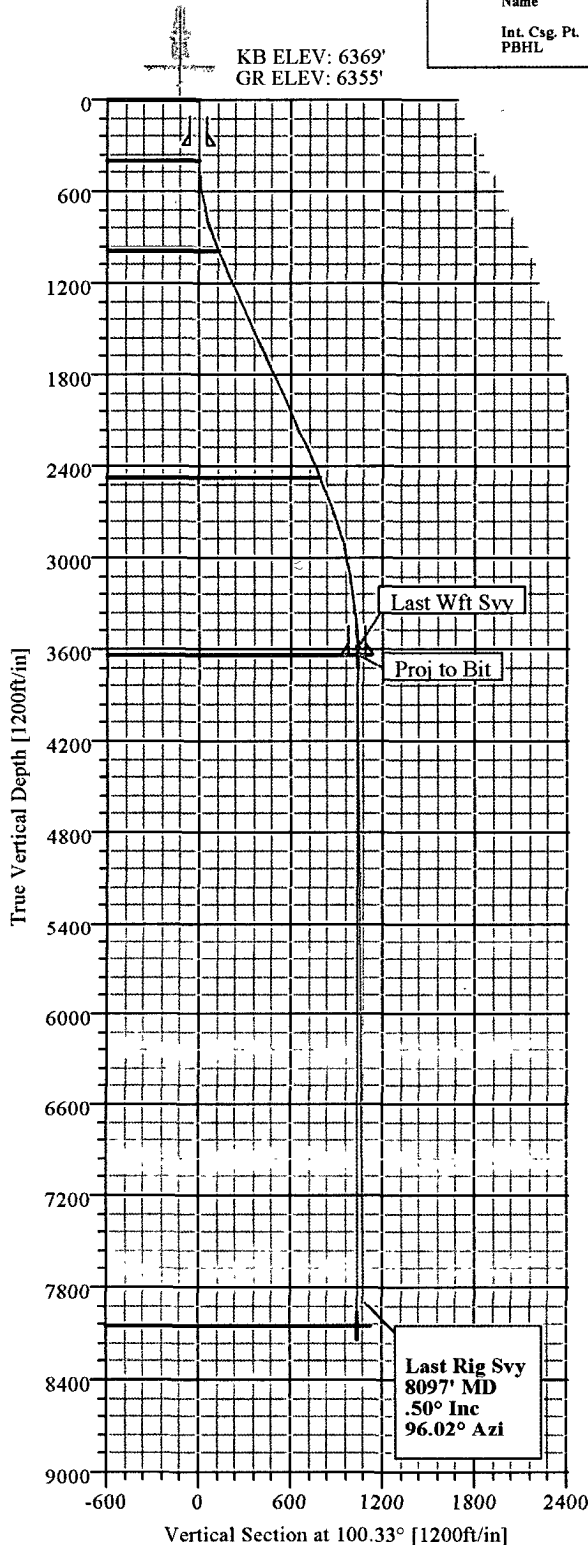


ROSA UNIT #169D  
RIO ARriba CO., NEW MEXICO  
API# 30-039-30755

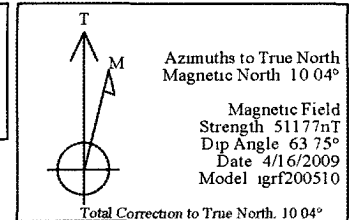
| SECTION DETAILS |         |       |        |         |         |         |      |        |         |               |
|-----------------|---------|-------|--------|---------|---------|---------|------|--------|---------|---------------|
| Sec             | MD      | Inc   | Azi    | TVD     | +N/-S   | +E/-W   | DLeg | TFace  | VSec    | Target        |
| 1               | 0.00    | 0.00  | 100.33 | 0.00    | 0.00    | 0.00    | 0.00 | 0.00   | 0.00    |               |
| 2               | 400.00  | 0.00  | 100.33 | 400.00  | 0.00    | 0.00    | 0.00 | 0.00   | 0.00    |               |
| 3               | 1001.68 | 24.07 | 100.33 | 984.14  | -22.33  | 122.50  | 4.00 | 100.33 | 124.52  |               |
| 4               | 2629.80 | 24.07 | 100.33 | 2470.72 | -141.42 | 775.69  | 0.00 | 0.00   | 788.48  |               |
| 5               | 3833.15 | 0.00  | 100.33 | 3639.00 | -186.08 | 1020.69 | 2.00 | 180.00 | 1037.51 | Int. Csg. Pt. |
| 6               | 8238.15 | 0.00  | 100.33 | 8044.00 | -186.08 | 1020.69 | 0.00 | 100.33 | 1037.51 | PBHL          |

| WELL DETAILS |       |       |            |            |               |                |      |
|--------------|-------|-------|------------|------------|---------------|----------------|------|
| Name         | +N/-S | +E/-W | Northing   | Easting    | Latitude      | Longitude      | Slot |
| #169D        | 0.00  | 0.00  | 2159270.60 | 1290522.26 | 36°55'40.660N | 107°26'49.600W | N/A  |

| TARGET DETAILS |         |         |         |            |            |               |                |       |
|----------------|---------|---------|---------|------------|------------|---------------|----------------|-------|
| Name           | TVD     | +N/-S   | +E/-W   | Northing   | Easting    | Latitude      | Longitude      | Shape |
| Int. Csg. Pt.  | 3639.00 | -186.08 | 1020.69 | 2159071.72 | 1291540.53 | 36°55'38.820N | 107°26'37.030W | Point |
| PBHL           | 8044.00 | -186.08 | 1020.69 | 2159071.72 | 1291540.53 | 36°55'38.820N | 107°26'37.030W | Point |



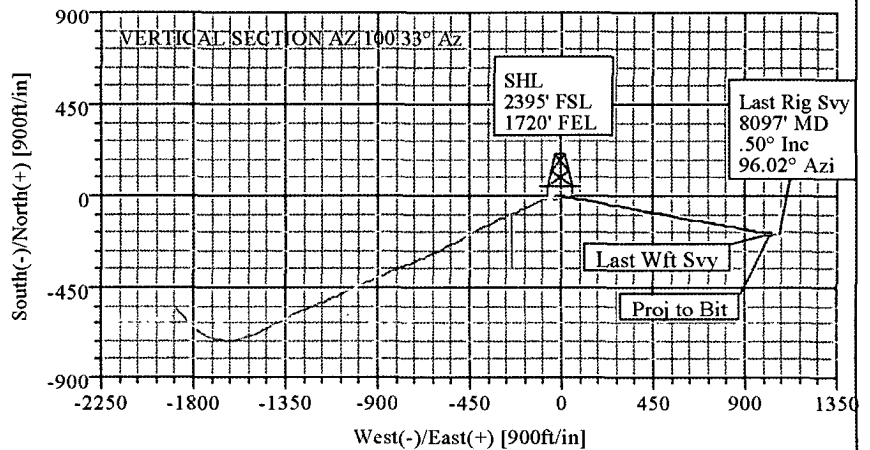
| LEGEND |                        |  |  |  |
|--------|------------------------|--|--|--|
|        | Rosa #169 (1)          |  |  |  |
|        | Rosa #169A (1)         |  |  |  |
|        | Rosa #238 (1)          |  |  |  |
|        | Rosa Unit No. 238A (1) |  |  |  |
|        | Plan #1                |  |  |  |



RCVD SEP 18 '09  
OIL CONS. DIV.  
DIST. 3



Weatherford®



| FORMATION TOP DETAILS |         |         |                        |
|-----------------------|---------|---------|------------------------|
| No.                   | TVDPath | MDPath  | Formation              |
| 1                     | 2389.00 | 2540.29 | Ojo Alamo Ss.          |
| 2                     | 2494.00 | 2655.24 | Kirtland Sh.           |
| 3                     | 2914.00 | 3100.18 | Fruitland Fm.          |
| 4                     | 3164.00 | 3355.94 | Pictured Cliff Ss.     |
| 5                     | 3479.00 | 3673.06 | Lewis Sh.              |
| 6                     | 5079.00 | 5273.15 | Cliff House Ss. Trans. |
| 7                     | 5399.00 | 5593.15 | Cliff House Ss.        |
| 8                     | 5449.00 | 5643.15 | Menefee Fm.            |
| 9                     | 5634.00 | 5828.15 | Point Lookout Ss.      |
| 10                    | 5994.00 | 6188.15 | Mancos Sh.             |
| 11                    | 6994.00 | 7188.15 | Gallup Ss.             |
| 12                    | 7719.00 | 7913.15 | Greenhorn Ls.          |
| 13                    | 7779.00 | 7973.15 | Graneros Sh.           |
| 14                    | 7914.00 | 8108.15 | Dakota Ss.             |

Plan: Plan #1 (#169D/1)

Created By: Lindsey Maddux

Date: 9/15/2009



# Weatherford International, Inc.

## Survey Report



Weatherford

|                                          |                                                             |                       |                |
|------------------------------------------|-------------------------------------------------------------|-----------------------|----------------|
| <b>Company:</b> WILLIAMS PRODUCTION      | <b>Date:</b> 9/15/2009                                      | <b>Time:</b> 12:56:19 | <b>Page:</b> 1 |
| <b>Field:</b> RIO ARRIBA CO. NM (NAD 83) | <b>Co-ordinate(NE) Reference:</b> Well: #169D, True North   |                       |                |
| <b>Site:</b> Rosa Unit #169D             | <b>Vertical (TVD) Reference:</b> SITE 6369.0                |                       |                |
| <b>Well:</b> #169D                       | <b>Section (VS) Reference:</b> Well (0.00N,0.00E,100.33Azi) |                       |                |
| <b>Wellpath:</b> 1                       | <b>Survey Calculation Method:</b> Minimum Curvature         | <b>Db:</b> Sybase     |                |

**Field:** RIO ARRIBA CO. NM (NAD 83)

**Map System:** US State Plane Coordinate System 1983  
**Geo Datum:** GRS 1980  
**Sys Datum:** Mean Sea Level

**Map Zone:** New Mexico, Central Zone  
**Coordinate System:** Well Centre  
**Geomagnetic Model:** igr200510

**Site:** Rosa Unit #169D

2395' FSL 1720' FEL of SEC 3 T31N R6W

|                                      |                                |                                    |
|--------------------------------------|--------------------------------|------------------------------------|
| <b>Site Position:</b>                | <b>Northing:</b> 2159270.60 ft | <b>Latitude:</b> 36 55 40.660 N    |
| <b>From:</b> Geographic              | <b>Easting:</b> 1290522.26 ft  | <b>Longitude:</b> 107 26 49.600 W  |
| <b>Position Uncertainty:</b> 0.00 ft |                                | <b>North Reference:</b> True       |
| <b>Ground Level:</b> 6355.00 ft      |                                | <b>Grid Convergence:</b> -0.72 deg |

**Well:** #169D

**Slot Name:**

|                                      |                      |                                |                                   |
|--------------------------------------|----------------------|--------------------------------|-----------------------------------|
| <b>Well Position:</b>                | <b>+N/-S</b> 0.00 ft | <b>Northing:</b> 2159270.60 ft | <b>Latitude:</b> 36 55 40.660 N   |
|                                      | <b>+E/-W</b> 0.00 ft | <b>Easting:</b> 1290522.26 ft  | <b>Longitude:</b> 107 26 49.600 W |
| <b>Position Uncertainty:</b> 0.00 ft |                      |                                |                                   |

**Wellpath:** 1

|                                           |                          |                                           |
|-------------------------------------------|--------------------------|-------------------------------------------|
| <b>Current Datum:</b> SITE                | <b>Height</b> 6369.00 ft | <b>Drilled From:</b> Surface              |
| <b>Magnetic Data:</b> 4/16/2009           |                          | <b>Tie-on Depth:</b> 0.00 ft              |
| <b>Field Strength:</b> 51177 nT           |                          | <b>Above System Datum:</b> Mean Sea Level |
| <b>Vertical Section:</b> Depth From (TVD) |                          | <b>Declination:</b> 10.04 deg             |
|                                           | <b>+N/-S</b>             | <b>Mag Dip Angle:</b> 63.75 deg           |
|                                           | ft                       | <b>+E/-W</b>                              |
|                                           |                          | ft                                        |
|                                           |                          | <b>Direction</b>                          |
|                                           |                          | deg                                       |
| 0.00                                      | 0.00                     | 0.00 100.33                               |

**Survey:** WFT SVY

**Start Date:** 8/27/2009

**Company:** Weatherford International, Inc  
**Tool:** MWD;MWD - Standard

**Engineer:** Lindsey Maddux  
**Tied-to:** From Surface

**Survey:** WFT SVY

| 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        | 0.00        | 0.00      | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              | MWD          |
| 358.00   | 0.81        | 152.93      | 357.99    | -2.25       | 1.15        | 1.54     | 0.23             | 0.23               | 0.00              | MWD          |
| 389.00   | 1.05        | 164.44      | 388.98    | -2.72       | 1.33        | 1.79     | 0.98             | 0.77               | 37.13             | MWD          |
| 419.00   | 1.51        | 128.42      | 418.98    | -3.23       | 1.71        | 2.26     | 3.01             | 1.53               | -120.07           | MWD          |
| 450.00   | 2.81        | 114.98      | 449.95    | -3.81       | 2.72        | 3.36     | 4.47             | 4.19               | -43.35            | MWD          |
| 480.00   | 4.14        | 103.99      | 479.90    | -4.38       | 4.44        | 5.15     | 4.94             | 4.43               | -36.63            | MWD          |
| 511.00   | 5.51        | 100.19      | 510.79    | -4.91       | 6.99        | 7.76     | 4.54             | 4.42               | -12.26            | MWD          |
| 542.00   | 6.33        | 96.04       | 541.62    | -5.36       | 10.15       | 10.95    | 2.98             | 2.65               | -13.39            | MWD          |
| 573.00   | 7.44        | 97.87       | 572.40    | -5.81       | 13.84       | 14.66    | 3.65             | 3.58               | 5.90              | MWD          |
| 602.00   | 8.63        | 95.99       | 601.11    | -6.30       | 17.86       | 18.70    | 4.20             | 4.10               | -6.48             | MWD          |
| 633.00   | 9.56        | 97.24       | 631.72    | -6.86       | 22.73       | 23.59    | 3.07             | 3.00               | 4.03              | MWD          |
| 663.00   | 10.44       | 99.37       | 661.27    | -7.62       | 27.88       | 28.80    | 3.18             | 2.93               | 7.10              | MWD          |
| 694.00   | 11.56       | 100.37      | 691.70    | -8.64       | 33.71       | 34.71    | 3.66             | 3.61               | 3.23              | MWD          |
| 725.00   | 12.88       | 99.87       | 721.99    | -9.79       | 40.17       | 41.27    | 4.27             | 4.26               | -1.61             | MWD          |
| 756.00   | 14.13       | 98.62       | 752.14    | -10.95      | 47.32       | 48.51    | 4.14             | 4.03               | -4.03             | MWD          |
| 786.00   | 15.50       | 98.62       | 781.14    | -12.10      | 54.90       | 56.18    | 4.57             | 4.57               | 0.00              | MWD          |
| 817.00   | 16.49       | 98.49       | 810.94    | -13.37      | 63.35       | 64.72    | 3.20             | 3.19               | -0.42             | MWD          |
| 847.00   | 17.94       | 98.49       | 839.59    | -14.68      | 72.13       | 73.59    | 4.83             | 4.83               | 0.00              | MWD          |
| 878.00   | 18.88       | 98.74       | 869.01    | -16.14      | 81.81       | 83.38    | 3.04             | 3.03               | 0.81              | MWD          |
| 909.00   | 19.19       | 98.24       | 898.31    | -17.64      | 91.81       | 93.48    | 1.13             | 1.00               | -1.61             | MWD          |
| 939.00   | 20.17       | 98.15       | 926.56    | -19.08      | 101.81      | 103.58   | 3.27             | 3.27               | -0.30             | MWD          |
| 969.00   | 21.13       | 99.24       | 954.63    | -20.68      | 112.26      | 114.15   | 3.45             | 3.20               | 3.63              | MWD          |
| 1000.00  | 22.19       | 100.74      | 983.44    | -22.67      | 123.53      | 125.59   | 3.86             | 3.42               | 4.84              | MWD          |
| 1031.00  | 23.31       | 100.49      | 1012.03   | -24.87      | 135.31      | 137.58   | 3.63             | 3.61               | -0.81             | MWD          |



# Weatherford International, Inc.

## Survey Report



**Weatherford**

|                                          |                                                             |                       |                |
|------------------------------------------|-------------------------------------------------------------|-----------------------|----------------|
| <b>Company:</b> WILLIAMS PRODUCTION      | <b>Date:</b> 9/15/2009                                      | <b>Time:</b> 12:56:19 | <b>Page:</b> 2 |
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| <b>Well:</b> #169D                       | <b>Section (VS) Reference:</b> Well (0.00N,0.00E,100.33Azi) |                       |                |
| <b>Wellpath:</b> 1                       | <b>Survey Calculation Method:</b> Minimum Curvature         | <b>Db:</b> Sybase     |                |

Survey: WFT SVY

| 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 |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|--------------|
| 1061.00  | 24.38       | 99.49       | 1039.47   | -26.98      | 147.26      | 149.71   | 3.81             | 3.57               | -3.33             | MWD          |
| 1093.00  | 24.31       | 97.62       | 1068.62   | -28.94      | 160.30      | 162.89   | 2.42             | -0.22              | -5.84             | MWD          |
| 1123.00  | 24.31       | 99.37       | 1095.96   | -30.76      | 172.51      | 175.23   | 2.40             | 0.00               | 5.83              | MWD          |
| 1154.00  | 24.25       | 100.62      | 1124.22   | -32.97      | 185.07      | 187.98   | 1.67             | -0.19              | 4.03              | MWD          |
| 1185.00  | 24.06       | 101.49      | 1152.51   | -35.41      | 197.52      | 200.66   | 1.30             | -0.61              | 2.81              | MWD          |
| 1216.00  | 23.94       | 101.74      | 1180.83   | -37.94      | 209.87      | 213.27   | 0.51             | -0.39              | 0.81              | MWD          |
| 1247.00  | 24.06       | 100.99      | 1209.15   | -40.43      | 222.23      | 225.88   | 1.06             | 0.39               | -2.42             | MWD          |
| 1278.00  | 24.38       | 98.49       | 1237.42   | -42.58      | 234.76      | 238.59   | 3.47             | 1.03               | -8.06             | MWD          |
| 1310.00  | 24.94       | 97.24       | 1266.50   | -44.40      | 247.99      | 251.93   | 2.39             | 1.75               | -3.91             | MWD          |
| 1341.00  | 24.00       | 99.14       | 1294.72   | -46.23      | 260.70      | 264.76   | 3.95             | -3.03              | 6.13              | MWD          |
| 1373.00  | 23.18       | 100.60      | 1324.04   | -48.42      | 273.31      | 277.56   | 3.15             | -2.56              | 4.56              | MWD          |
| 1403.00  | 23.21       | 101.14      | 1351.62   | -50.65      | 284.91      | 289.38   | 0.72             | 0.10               | 1.80              | MWD          |
| 1435.00  | 23.31       | 101.24      | 1381.02   | -53.10      | 297.31      | 302.01   | 0.34             | 0.31               | 0.31              | MWD          |
| 1467.00  | 23.50       | 102.49      | 1410.38   | -55.72      | 309.75      | 314.72   | 1.66             | 0.59               | 3.91              | MWD          |
| 1498.00  | 24.13       | 101.24      | 1438.75   | -58.29      | 322.00      | 327.23   | 2.60             | 2.03               | -4.03             | MWD          |
| 1530.00  | 24.31       | 100.37      | 1467.93   | -60.75      | 334.89      | 340.36   | 1.25             | 0.56               | -2.72             | MWD          |
| 1561.00  | 24.63       | 101.99      | 1496.14   | -63.24      | 347.49      | 353.20   | 2.40             | 1.03               | 5.23              | MWD          |
| 1593.00  | 24.50       | 101.87      | 1525.25   | -65.99      | 360.51      | 366.50   | 0.44             | -0.41              | -0.37             | MWD          |
| 1624.00  | 24.25       | 98.62       | 1553.49   | -68.27      | 373.09      | 379.29   | 4.40             | -0.81              | -10.48            | MWD          |
| 1655.00  | 24.44       | 97.99       | 1581.73   | -70.11      | 385.74      | 392.06   | 1.04             | 0.61               | -2.03             | MWD          |
| 1687.00  | 24.44       | 99.12       | 1610.86   | -72.08      | 398.83      | 405.29   | 1.46             | 0.00               | 3.53              | MWD          |
| 1718.00  | 23.63       | 100.37      | 1639.17   | -74.22      | 411.27      | 417.91   | 3.09             | -2.61              | 4.03              | MWD          |
| 1750.00  | 22.75       | 100.37      | 1668.59   | -76.48      | 423.67      | 430.51   | 2.75             | -2.75              | 0.00              | MWD          |
| 1782.00  | 23.13       | 100.24      | 1698.06   | -78.71      | 435.94      | 442.99   | 1.20             | 1.19               | -0.41             | MWD          |
| 1813.00  | 23.56       | 100.49      | 1726.52   | -80.92      | 448.02      | 455.27   | 1.42             | 1.39               | 0.81              | MWD          |
| 1845.00  | 24.00       | 99.37       | 1755.80   | -83.15      | 460.73      | 468.17   | 1.97             | 1.37               | -3.50             | MWD          |
| 1877.00  | 24.88       | 100.49      | 1784.94   | -85.43      | 473.77      | 481.41   | 3.11             | 2.75               | 3.50              | MWD          |
| 1908.00  | 24.69       | 102.24      | 1813.08   | -87.99      | 486.51      | 494.40   | 2.44             | -0.61              | 5.65              | MWD          |
| 1939.00  | 24.19       | 100.34      | 1841.30   | -90.51      | 499.09      | 507.23   | 3.01             | -1.61              | -6.13             | MWD          |
| 1971.00  | 24.44       | 99.37       | 1870.47   | -92.76      | 512.07      | 520.40   | 1.47             | 0.78               | -3.03             | MWD          |
| 2002.00  | 23.50       | 101.49      | 1898.79   | -95.04      | 524.45      | 532.99   | 4.11             | -3.03              | 6.84              | MWD          |
| 2033.00  | 23.06       | 102.12      | 1927.27   | -97.54      | 536.45      | 545.24   | 1.63             | -1.42              | 2.03              | MWD          |
| 2065.00  | 23.25       | 103.37      | 1956.69   | -100.32     | 548.72      | 557.81   | 1.65             | 0.59               | 3.91              | MWD          |
| 2096.00  | 23.25       | 102.74      | 1985.17   | -103.08     | 560.64      | 570.04   | 0.80             | 0.00               | -2.03             | MWD          |
| 2128.00  | 23.38       | 101.99      | 2014.56   | -105.79     | 573.01      | 582.69   | 1.01             | 0.41               | -2.34             | MWD          |
| 2160.00  | 23.44       | 101.74      | 2043.93   | -108.41     | 585.45      | 595.40   | 0.36             | 0.19               | -0.78             | MWD          |
| 2191.00  | 23.94       | 99.49       | 2072.31   | -110.70     | 597.69      | 607.86   | 3.33             | 1.61               | -7.26             | MWD          |
| 2223.00  | 24.69       | 100.44      | 2101.48   | -112.98     | 610.67      | 621.03   | 2.64             | 2.34               | 2.97              | MWD          |
| 2255.00  | 25.81       | 100.37      | 2130.42   | -115.45     | 624.09      | 634.68   | 3.50             | 3.50               | -0.22             | MWD          |
| 2286.00  | 26.44       | 99.87       | 2158.25   | -117.84     | 637.53      | 648.33   | 2.15             | 2.03               | -1.61             | MWD          |
| 2317.00  | 26.06       | 99.12       | 2186.05   | -120.11     | 651.06      | 662.04   | 1.63             | -1.23              | -2.42             | MWD          |
| 2349.00  | 25.13       | 97.74       | 2214.91   | -122.14     | 664.73      | 675.86   | 3.45             | -2.91              | -4.31             | MWD          |
| 2380.00  | 24.19       | 99.74       | 2243.09   | -124.10     | 677.51      | 688.78   | 4.05             | -3.03              | 6.45              | MWD          |
| 2411.00  | 23.94       | 98.74       | 2271.39   | -126.13     | 689.99      | 701.42   | 1.54             | -0.81              | -3.23             | MWD          |
| 2442.00  | 22.69       | 97.62       | 2299.86   | -127.88     | 702.13      | 713.68   | 4.28             | -4.03              | -3.61             | MWD          |
| 2473.00  | 22.25       | 98.12       | 2328.51   | -129.50     | 713.87      | 725.52   | 1.55             | -1.42              | 1.61              | MWD          |
| 2505.00  | 22.06       | 101.12      | 2358.14   | -131.51     | 725.76      | 737.58   | 3.58             | -0.59              | 9.37              | MWD          |
| 2536.00  | 22.13       | 100.37      | 2386.87   | -133.69     | 737.22      | 749.24   | 0.94             | 0.23               | -2.42             | MWD          |
| 2567.00  | 22.51       | 100.24      | 2415.55   | -135.79     | 748.80      | 761.01   | 1.24             | 1.23               | -0.42             | MWD          |
| 2599.00  | 22.94       | 99.99       | 2445.06   | -137.96     | 760.97      | 773.38   | 1.38             | 1.34               | -0.78             | MWD          |
| 2631.00  | 22.77       | 101.01      | 2474.55   | -140.23     | 773.19      | 785.80   | 1.35             | -0.53              | 3.19              | MWD          |
| 2663.00  | 22.25       | 99.37       | 2504.11   | -142.40     | 785.25      | 798.05   | 2.55             | -1.62              | -5.12             | MWD          |
| 2695.00  | 22.69       | 100.12      | 2533.68   | -144.47     | 797.30      | 810.28   | 1.64             | 1.37               | 2.34              | MWD          |



# Weatherford International, Inc.

## Survey Report

**Weatherford**

Company: WILLIAMS PRODUCTION Date: 9/15/2009 Time: 12:56:19 Page: 3  
Field: RIO ARRIBA CO. NM (NAD 83) Co-ordinate(NE) Reference: Well: #169D, True North  
Site: Rosa Unit #169D Vertical (TVD) Reference: SITE 6369.0  
Well: #169D Section (VS) Reference: Well (0.00N,0.00E,100.33Azi)  
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: WFT SVY

| 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 |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|--------------|
| 2726.00  | 22.63       | 98.12       | 2562.29   | -146.36     | 809.09      | 822.22   | 2.49             | -0.19              | -6.45             | MWD          |
| 2757.00  | 22.13       | 98.99       | 2590.95   | -148.12     | 820.76      | 834.02   | 1.93             | -1.61              | 2.81              | MWD          |
| 2788.00  | 22.25       | 99.37       | 2619.66   | -149.98     | 832.32      | 845.73   | 0.60             | 0.39               | 1.23              | MWD          |
| 2819.00  | 22.00       | 99.49       | 2648.38   | -151.90     | 843.84      | 857.40   | 0.82             | -0.81              | 0.39              | MWD          |
| 2851.00  | 21.06       | 98.12       | 2678.14   | -153.70     | 855.44      | 869.14   | 3.33             | -2.94              | -4.28             | MWD          |
| 2883.00  | 20.38       | 101.38      | 2708.07   | -155.61     | 866.60      | 880.45   | 4.18             | -2.12              | 10.19             | MWD          |
| 2914.00  | 19.19       | 102.12      | 2737.24   | -157.74     | 876.87      | 890.94   | 3.92             | -3.84              | 2.39              | MWD          |
| 2946.00  | 18.38       | 101.74      | 2767.54   | -159.87     | 886.95      | 901.24   | 2.56             | -2.53              | -1.19             | MWD          |
| 2977.00  | 17.50       | 102.24      | 2797.03   | -161.86     | 896.29      | 910.79   | 2.88             | -2.84              | 1.61              | MWD          |
| 3008.00  | 16.81       | 99.62       | 2826.65   | -163.59     | 905.27      | 919.93   | 3.34             | -2.23              | -8.45             | MWD          |
| 3040.00  | 15.88       | 97.74       | 2857.36   | -164.96     | 914.17      | 928.93   | 3.34             | -2.91              | -5.87             | MWD          |
| 3071.00  | 14.69       | 99.99       | 2887.26   | -166.21     | 922.24      | 937.10   | 4.29             | -3.84              | 7.26              | MWD          |
| 3103.00  | 13.63       | 100.37      | 2918.29   | -167.59     | 929.95      | 944.93   | 3.33             | -3.31              | 1.19              | MWD          |
| 3134.00  | 12.69       | 102.87      | 2948.48   | -169.01     | 936.86      | 951.98   | 3.54             | -3.03              | 8.06              | MWD          |
| 3166.00  | 11.75       | 104.37      | 2979.75   | -170.60     | 943.44      | 958.74   | 3.10             | -2.94              | 4.69              | MWD          |
| 3197.00  | 11.25       | 106.62      | 3010.13   | -172.25     | 949.40      | 964.90   | 2.17             | -1.61              | 7.26              | MWD          |
| 3229.00  | 10.81       | 103.74      | 3041.54   | -173.85     | 955.30      | 971.00   | 2.20             | -1.37              | -9.00             | MWD          |
| 3293.00  | 9.88        | 97.74       | 3104.50   | -176.02     | 966.58      | 982.47   | 2.22             | -1.45              | -9.37             | MWD          |
| 3357.00  | 9.06        | 102.12      | 3167.63   | -177.82     | 976.94      | 992.99   | 1.70             | -1.28              | 6.84              | MWD          |
| 3388.00  | 9.00        | 104.24      | 3198.24   | -178.93     | 981.68      | 997.85   | 1.09             | -0.19              | 6.84              | MWD          |
| 3420.00  | 8.50        | 102.87      | 3229.87   | -180.07     | 986.41      | 1002.71  | 1.69             | -1.56              | -4.28             | MWD          |
| 3452.00  | 7.88        | 100.99      | 3261.54   | -181.01     | 990.87      | 1007.27  | 2.11             | -1.94              | -5.87             | MWD          |
| 3484.00  | 7.02        | 101.62      | 3293.27   | -181.83     | 994.94      | 1011.42  | 2.70             | -2.69              | 1.97              | MWD          |
| 3516.00  | 5.50        | 99.24       | 3325.08   | -182.47     | 998.37      | 1014.91  | 4.82             | -4.75              | -7.44             | MWD          |
| 3548.00  | 4.56        | 97.99       | 3356.96   | -182.89     | 1001.14     | 1017.71  | 2.96             | -2.94              | -3.91             | MWD          |
| 3580.00  | 4.50        | 97.49       | 3388.86   | -183.23     | 1003.65     | 1020.23  | 0.22             | -0.19              | -1.56             | MWD          |
| 3611.00  | 4.38        | 94.49       | 3419.76   | -183.48     | 1006.03     | 1022.63  | 0.84             | -0.39              | -9.68             | MWD          |
| 3643.00  | 4.81        | 99.49       | 3451.66   | -183.80     | 1008.57     | 1025.18  | 1.84             | 1.34               | 15.62             | MWD          |
| 3675.00  | 4.75        | 96.37       | 3483.55   | -184.17     | 1011.21     | 1027.85  | 0.83             | -0.19              | -9.75             | MWD          |
| 3706.00  | 4.19        | 96.74       | 3514.46   | -184.44     | 1013.61     | 1030.26  | 1.81             | -1.81              | 1.19              | MWD          |
| 3736.00  | 2.88        | 100.37      | 3544.40   | -184.70     | 1015.44     | 1032.11  | 4.43             | -4.37              | 12.10             | MWD          |
| 3781.00  | 0.46        | 96.02       | 3589.38   | -184.93     | 1016.74     | 1033.42  | 5.38             | -5.38              | -9.67             | Last Wft Svy |
| 3833.00  | 0.46        | 96.02       | 3641.37   | -184.97     | 1017.15     | 1033.83  | 0.00             | 0.00               | 0.00              | Proj to Bit  |
| 8097.00  | 0.50        | 96.02       | 7905.22   | -188.72     | 1052.68     | 1069.45  | 0.00             | 0.00               | 0.00              | Last Rig Svy |

## Annotation

| MD<br>ft | TVD<br>ft |              |
|----------|-----------|--------------|
| 3781.00  | 3589.38   | Last Wft Svy |
| 3833.00  | 3641.37   | Proj to Bit  |
| 8097.00  | 7905.22   | Last Rig Svy |