

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

|                                         |                                                           |                                                           |
|-----------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <sup>1</sup> API Number<br>30-039-31047 | <sup>2</sup> Pool Code<br>72319 / 71599                   | <sup>3</sup> Pool Name<br>BLANCO MESAVERDE / BASIN DAKOTA |
| <sup>4</sup> Property Code<br>17033     | <sup>5</sup> Property Name<br>ROSA UNIT                   | <sup>6</sup> Well Number<br>9D                            |
| <sup>7</sup> OGRID No<br>120782         | <sup>8</sup> Operator Name<br>WILLIAMS PRODUCTION COMPANY | <sup>9</sup> Elevation<br>6427'                           |

<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     |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| C            | 11      | 31N      | 6W    |         | 1285          | NORTH            | 2210          | WEST           | RIO ARriba |

<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     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| F             | 11      | 31N      | 6W    |         | 1993          | NORTH            | 1454          | WEST           | RIO ARriba |

|                                                      |                               |                                  |                                                              |
|------------------------------------------------------|-------------------------------|----------------------------------|--------------------------------------------------------------|
| <sup>12</sup> Dedicated Acres<br>320.0 Acres - (W/2) | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No.<br>RCVD JUL 20 '11<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

|                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p>16</p><p>2210'</p><p>1454'</p><p>5280.00'</p><p>LEASE<br/>SF-078771</p><p>5287.92'</p></div> | <div><p>5289.24'</p><p>1285'</p><p>1993'</p><p>546°36'55"W<br/>1035.7'</p><p><b>11</b></p></div> <div><p><b>SURFACE LOCATION</b><br/>LAT: 36.91787°N<br/>LONG: 107.43307°W<br/>DATUM: NAD1927</p><p>LAT: 36.91788°N<br/>LONG: 107.43367°W<br/>DATUM: NAD1983</p><p><b>BOTTOM-HOLE</b><br/>LAT: 36.91593°N<br/>LONG: 107.43565°W<br/>DATUM: NAD1927</p><p>LAT: 36.91594°N<br/>LONG: 107.43625°W<br/>DATUM: NAD1983</p></div> | <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, 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.</p><p><u>Ben Mitchell</u> 7/19/2011<br/>Signature Date</p><p><u>Ben Mitchell</u><br/>Printed Name</p></div> <div><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>Date Revised: JULY 19, 2011<br/>Survey Date: SEPTEMBER 8, 2010</p><p>Signature and Seal of Professional Surveyor</p><div><p>JASON C. EDWARDS<br/>NEW MEXICO<br/>REGISTERED PROFESSIONAL SURVEYOR<br/>15269</p></div><p><b>JASON C. EDWARDS</b><br/>Certificate Number 15269</p></div> |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

A



# Scientific Drilling

Gyroscopic Survey Report  
for  
Williams

RCVD JUL 20 '11  
OIL CONS. DIV.  
DIST. 3

|                    |                                          |
|--------------------|------------------------------------------|
| Well Location      | S11-T31N-R6W                             |
| Well Name          | ROAS UNIT #009D                          |
| Rig Name           | AWS 485                                  |
| Survey Date        | 07/14/11                                 |
| Latitude           | 36.92 deg                                |
| North Reference    | True North                               |
| Grid Correction    | 0.00 deg                                 |
| Depth Reference    | RKB                                      |
| Calculation Method | Minimum Curvature                        |
| Section (VS) Ref   | 0.00N (ft), 0.00E (ft), 226.90Azim (deg) |
| Definitive Survey  | Computed: OutRun                         |
| Operator           | T. Atchison T. Rellergert                |

## Comments

RKB 10 FT



## Survey Report

| Well Name:   |            | ROAS UNIT #009D  |           |          |                |               |              |                  |                        |                      |
|--------------|------------|------------------|-----------|----------|----------------|---------------|--------------|------------------|------------------------|----------------------|
| Survey:      |            | Computed: OutRun |           |          |                |               |              |                  |                        |                      |
| Survey Date: |            | 07/14/11         |           |          |                |               |              |                  |                        |                      |
| MD<br>ft     | Inc<br>deg | Azim<br>deg      | TVD<br>ft | VS<br>ft | Northing<br>ft | Easting<br>ft | D-Leg<br>deg | DLS<br>deg/100ft | Closure Distance<br>ft | Closure Angle<br>deg |
| 0.00         | 0.00       | 0.00             | 0.00      | 0.00     | 0.00           | 0.00          | Invalid      | Invalid          | 0.00                   | 0.00                 |
| 25.00        | 0.83       | 260.37           | 25.00     | 0.15     | -0.03          | -0.18         | 0.83         | 3.33             | 0.18                   | 260.37               |
| 50.00        | 1.05       | 258.85           | 50.00     | 0.50     | -0.11          | -0.58         | 0.22         | 0.87             | 0.59                   | 259.78               |
| 75.00        | 1.08       | 258.04           | 74.99     | 0.89     | -0.20          | -1.04         | 0.04         | 0.15             | 1.06                   | 259.19               |
| 100.00       | 1.08       | 257.10           | 99.99     | 1.30     | -0.30          | -1.50         | 0.02         | 0.07             | 1.53                   | 258.69               |
| 125.00       | 1.05       | 257.05           | 124.98    | 1.70     | -0.40          | -1.95         | 0.03         | 0.14             | 2.00                   | 258.31               |
| 150.00       | 1.05       | 257.26           | 149.98    | 2.10     | -0.51          | -2.40         | 0.01         | 0.02             | 2.45                   | 258.10               |
| 175.00       | 1.08       | 258.77           | 174.97    | 2.50     | -0.60          | -2.86         | 0.04         | 0.15             | 2.92                   | 258.09               |
| 200.00       | 1.07       | 260.34           | 199.97    | 2.89     | -0.69          | -3.32         | 0.03         | 0.12             | 3.39                   | 258.29               |
| 225.00       | 1.17       | 264.83           | 224.96    | 3.29     | -0.75          | -3.80         | 0.13         | 0.52             | 3.87                   | 258.84               |
| 250.00       | 1.16       | 265.95           | 249.96    | 3.69     | -0.79          | -4.31         | 0.02         | 0.10             | 4.38                   | 259.60               |
| 275.00       | 1.23       | 262.95           | 274.95    | 4.10     | -0.84          | -4.83         | 0.09         | 0.38             | 4.90                   | 260.11               |
| 300.00       | 1.27       | 256.47           | 299.95    | 4.56     | -0.94          | -5.36         | 0.15         | 0.59             | 5.44                   | 260.06               |
| 325.00       | 1.20       | 251.14           | 324.94    | 5.04     | -1.09          | -5.88         | 0.14         | 0.55             | 5.98                   | 259.51               |
| 350.00       | 1.06       | 247.11           | 349.94    | 5.49     | -1.26          | -6.34         | 0.16         | 0.63             | 6.47                   | 258.73               |
| 375.00       | 1.27       | 240.97           | 374.93    | 5.98     | -1.49          | -6.80         | 0.24         | 0.97             | 6.96                   | 257.65               |
| 400.00       | 2.15       | 230.37           | 399.92    | 6.72     | -1.92          | -7.40         | 0.93         | 3.73             | 7.64                   | 255.44               |
| 425.00       | 3.35       | 223.52           | 424.89    | 7.91     | -2.75          | -8.26         | 1.24         | 4.97             | 8.71                   | 251.59               |
| 450.00       | 4.44       | 222.06           | 449.83    | 9.61     | -4.00          | -9.41         | 1.09         | 4.38             | 10.23                  | 246.99               |
| 475.00       | 4.86       | 221.58           | 474.75    | 11.62    | -5.51          | -10.77        | 0.42         | 1.69             | 12.09                  | 242.90               |
| 500.00       | 5.08       | 221.45           | 499.66    | 13.78    | -7.13          | -12.20        | 0.22         | 0.87             | 14.13                  | 239.70               |
| 525.00       | 5.29       | 220.05           | 524.56    | 16.02    | -8.84          | -13.67        | 0.24         | 0.98             | 16.28                  | 237.12               |
| 550.00       | 6.07       | 223.64           | 549.43    | 18.49    | -10.68         | -15.33        | 0.86         | 3.44             | 18.68                  | 235.13               |
| 575.00       | 6.78       | 225.01           | 574.28    | 21.28    | -12.68         | -17.28        | 0.72         | 2.89             | 21.43                  | 233.74               |
| 600.00       | 7.55       | 224.59           | 599.08    | 24.40    | -14.89         | -19.48        | 0.77         | 3.09             | 24.52                  | 232.60               |
| 625.00       | 8.27       | 222.97           | 623.84    | 27.83    | -17.37         | -21.86        | 0.75         | 3.01             | 27.92                  | 231.52               |
| 650.00       | 8.95       | 221.03           | 648.56    | 31.56    | -20.16         | -24.36        | 0.74         | 2.96             | 31.62                  | 230.39               |
| 675.00       | 9.50       | 219.77           | 673.24    | 35.54    | -23.21         | -26.95        | 0.59         | 2.36             | 35.57                  | 229.27               |
| 700.00       | 10.06      | 218.72           | 697.87    | 39.75    | -26.50         | -29.64        | 0.58         | 2.33             | 39.76                  | 228.20               |
| 725.00       | 11.13      | 220.42           | 722.45    | 44.31    | -30.04         | -32.57        | 1.11         | 4.46             | 44.31                  | 227.31               |
| 750.00       | 12.10      | 222.03           | 746.94    | 49.31    | -33.82         | -35.89        | 1.03         | 4.10             | 49.31                  | 226.70               |
| 775.00       | 12.57      | 223.13           | 771.36    | 54.64    | -37.75         | -39.50        | 0.53         | 2.11             | 54.64                  | 226.30               |
| 800.00       | 12.88      | 224.12           | 795.74    | 60.14    | -41.74         | -43.30        | 0.37         | 1.50             | 60.14                  | 226.05               |
| 825.00       | 13.47      | 225.71           | 820.09    | 65.83    | -45.77         | -47.32        | 0.69         | 2.77             | 65.84                  | 225.96               |
| 850.00       | 14.45      | 227.39           | 844.35    | 71.86    | -49.92         | -51.70        | 1.06         | 4.26             | 71.87                  | 226.01               |
| 875.00       | 14.91      | 228.13           | 868.53    | 78.19    | -54.18         | -56.39        | 0.49         | 1.96             | 78.20                  | 226.15               |
| 900.00       | 15.73      | 228.76           | 892.64    | 84.80    | -58.56         | -61.34        | 0.85         | 3.39             | 84.80                  | 226.33               |
| 925.00       | 17.54      | 228.43           | 916.60    | 91.95    | -63.29         | -66.70        | 1.80         | 7.22             | 91.95                  | 226.50               |
| 950.00       | 17.99      | 227.66           | 940.40    | 99.58    | -68.39         | -72.38        | 0.51         | 2.05             | 99.58                  | 226.62               |



## Survey Report

Well Name: ROAS UNIT #009D  
 Survey: Computed: OutRun  
 Survey Date: 07/14/11

| MD      | Inc   | Azim   | TVD     | VS     | Northing | Easting | D-Leg | DLS       | Closure Distance | Closure Angle |
|---------|-------|--------|---------|--------|----------|---------|-------|-----------|------------------|---------------|
| ft      | deg   | deg    | ft      | ft     | ft       | ft      | deg   | deg/100ft | ft               | deg           |
| 975.00  | 18.76 | 226.32 | 964.13  | 107.46 | -73.77   | -78.14  | 0.87  | 3.49      | 107.46           | 226.65        |
| 1000.00 | 19.50 | 225.55 | 987.75  | 115.65 | -79.46   | -84.02  | 0.79  | 3.15      | 115.65           | 226.60        |
| 1025.00 | 19.98 | 225.39 | 1011.28 | 124.09 | -85.39   | -90.04  | 0.48  | 1.94      | 124.09           | 226.52        |
| 1050.00 | 20.84 | 225.54 | 1034.71 | 132.80 | -91.50   | -96.26  | 0.86  | 3.43      | 132.81           | 226.45        |
| 1075.00 | 21.06 | 225.66 | 1058.06 | 141.74 | -97.76   | -102.64 | 0.23  | 0.91      | 141.74           | 226.40        |
| 1100.00 | 21.34 | 225.90 | 1081.37 | 150.78 | -104.06  | -109.12 | 0.29  | 1.16      | 150.78           | 226.36        |
| 1125.00 | 21.60 | 226.01 | 1104.63 | 159.93 | -110.42  | -115.70 | 0.26  | 1.05      | 159.93           | 226.34        |
| 1150.00 | 21.57 | 226.23 | 1127.88 | 169.12 | -116.80  | -122.33 | 0.09  | 0.35      | 169.13           | 226.33        |
| 1175.00 | 21.42 | 227.41 | 1151.14 | 178.28 | -123.06  | -129.01 | 0.46  | 1.84      | 178.29           | 226.35        |
| 1200.00 | 21.37 | 227.89 | 1174.42 | 187.40 | -129.21  | -135.74 | 0.18  | 0.72      | 187.41           | 226.41        |
| 1225.00 | 21.38 | 229.40 | 1197.70 | 196.50 | -135.22  | -142.58 | 0.55  | 2.21      | 196.51           | 226.52        |
| 1250.00 | 21.27 | 230.84 | 1220.99 | 205.58 | -141.05  | -149.56 | 0.53  | 2.13      | 205.58           | 226.68        |
| 1275.00 | 21.12 | 231.44 | 1244.30 | 214.59 | -146.72  | -156.60 | 0.26  | 1.05      | 214.59           | 226.86        |
| 1300.00 | 20.98 | 231.63 | 1267.63 | 223.54 | -152.31  | -163.63 | 0.16  | 0.63      | 223.54           | 227.05        |
| 1325.00 | 20.95 | 231.68 | 1290.97 | 232.46 | -157.86  | -170.64 | 0.03  | 0.13      | 232.46           | 227.23        |
| 1350.00 | 20.86 | 231.68 | 1314.33 | 241.35 | -163.39  | -177.64 | 0.09  | 0.37      | 241.36           | 227.39        |
| 1375.00 | 20.93 | 231.64 | 1337.68 | 250.23 | -168.92  | -184.63 | 0.07  | 0.27      | 250.25           | 227.54        |
| 1400.00 | 20.97 | 231.66 | 1361.03 | 259.14 | -174.47  | -191.64 | 0.04  | 0.16      | 259.16           | 227.69        |
| 1425.00 | 20.98 | 231.66 | 1384.38 | 268.06 | -180.02  | -198.66 | 0.01  | 0.05      | 268.09           | 227.82        |
| 1450.00 | 20.96 | 231.56 | 1407.72 | 276.97 | -185.57  | -205.67 | 0.04  | 0.17      | 277.02           | 227.94        |
| 1475.00 | 20.86 | 230.41 | 1431.07 | 285.87 | -191.19  | -212.61 | 0.42  | 1.70      | 285.93           | 228.04        |
| 1500.00 | 20.77 | 229.32 | 1454.44 | 294.74 | -196.91  | -219.40 | 0.40  | 1.59      | 294.81           | 228.09        |
| 1525.00 | 20.62 | 228.48 | 1477.83 | 303.57 | -202.72  | -226.05 | 0.33  | 1.32      | 303.64           | 228.11        |
| 1550.00 | 20.64 | 228.12 | 1501.23 | 312.38 | -208.58  | -232.63 | 0.13  | 0.52      | 312.45           | 228.12        |
| 1575.00 | 20.71 | 228.03 | 1524.62 | 321.20 | -214.48  | -239.20 | 0.07  | 0.28      | 321.27           | 228.12        |
| 1600.00 | 20.62 | 227.94 | 1548.01 | 330.02 | -220.38  | -245.75 | 0.09  | 0.37      | 330.10           | 228.12        |
| 1625.00 | 20.61 | 227.78 | 1571.41 | 338.82 | -226.29  | -252.28 | 0.06  | 0.23      | 338.90           | 228.11        |
| 1650.00 | 20.38 | 227.69 | 1594.83 | 347.57 | -232.18  | -258.76 | 0.23  | 0.91      | 347.65           | 228.10        |
| 1675.00 | 20.65 | 227.51 | 1618.24 | 356.33 | -238.08  | -265.22 | 0.28  | 1.11      | 356.41           | 228.09        |
| 1700.00 | 20.79 | 227.48 | 1641.62 | 365.18 | -244.06  | -271.75 | 0.14  | 0.56      | 365.25           | 228.07        |
| 1725.00 | 20.75 | 227.27 | 1665.00 | 374.04 | -250.06  | -278.27 | 0.09  | 0.35      | 374.12           | 228.06        |
| 1750.00 | 20.76 | 227.17 | 1688.38 | 382.90 | -256.08  | -284.77 | 0.04  | 0.15      | 382.98           | 228.04        |
| 1775.00 | 20.85 | 226.79 | 1711.75 | 391.78 | -262.14  | -291.26 | 0.16  | 0.63      | 391.85           | 228.01        |
| 1800.00 | 20.80 | 226.66 | 1735.11 | 400.67 | -268.23  | -297.73 | 0.07  | 0.28      | 400.74           | 227.98        |
| 1825.00 | 20.69 | 226.39 | 1758.49 | 409.52 | -274.32  | -304.16 | 0.14  | 0.56      | 409.59           | 227.95        |
| 1850.00 | 20.71 | 226.21 | 1781.88 | 418.36 | -280.43  | -310.55 | 0.07  | 0.27      | 418.43           | 227.92        |
| 1875.00 | 20.71 | 226.22 | 1805.26 | 427.20 | -286.55  | -316.93 | 0.01  | 0.03      | 427.26           | 227.88        |
| 1900.00 | 20.76 | 226.36 | 1828.64 | 436.05 | -292.66  | -323.33 | 0.08  | 0.30      | 436.11           | 227.85        |



## Survey Report

| Well Name:   |       | ROAS UNIT #009D  |         |        |          |         |       |           |                  |               |
|--------------|-------|------------------|---------|--------|----------|---------|-------|-----------|------------------|---------------|
| Survey:      |       | Computed: OutRun |         |        |          |         |       |           |                  |               |
| Survey Date: |       | 07/14/11         |         |        |          |         |       |           |                  |               |
| MD           | Inc   | Azim             | TVD     | VS     | Northing | Easting | D-Leg | DLS       | Closure Distance | Closure Angle |
| ft           | deg   | deg              | ft      | ft     | ft       | ft      | deg   | deg/100ft | ft               | deg           |
| 1925.00      | 20.86 | 227.38           | 1852.01 | 444.93 | -298.73  | -329.81 | 0.38  | 1.50      | 444.99           | 227.83        |
| 1950.00      | 20.92 | 228.49           | 1875.37 | 453.84 | -304.71  | -336.43 | 0.40  | 1.59      | 453.90           | 227.83        |
| 1975.00      | 20.98 | 228.85           | 1898.72 | 462.78 | -310.61  | -343.14 | 0.14  | 0.57      | 462.84           | 227.85        |
| 2000.00      | 21.06 | 228.96           | 1922.05 | 471.74 | -316.50  | -349.90 | 0.09  | 0.37      | 471.81           | 227.87        |
| 2025.00      | 21.11 | 228.93           | 1945.38 | 480.73 | -322.41  | -356.68 | 0.05  | 0.20      | 480.80           | 227.89        |
| 2050.00      | 21.13 | 229.00           | 1968.70 | 489.73 | -328.33  | -363.48 | 0.03  | 0.13      | 489.81           | 227.91        |
| 2075.00      | 20.97 | 228.92           | 1992.03 | 498.71 | -334.22  | -370.25 | 0.16  | 0.64      | 498.79           | 227.93        |
| 2100.00      | 20.97 | 228.89           | 2015.37 | 507.65 | -340.10  | -376.99 | 0.01  | 0.05      | 507.73           | 227.94        |
| 2125.00      | 21.04 | 228.97           | 2038.71 | 516.61 | -345.99  | -383.75 | 0.08  | 0.31      | 516.70           | 227.96        |
| 2150.00      | 21.10 | 228.97           | 2062.04 | 525.59 | -351.89  | -390.53 | 0.05  | 0.22      | 525.68           | 227.98        |
| 2175.00      | 21.17 | 229.06           | 2085.36 | 534.60 | -357.80  | -397.33 | 0.08  | 0.32      | 534.69           | 228.00        |
| 2200.00      | 21.13 | 229.16           | 2108.68 | 543.61 | -363.71  | -404.15 | 0.05  | 0.22      | 543.71           | 228.02        |
| 2225.00      | 21.16 | 229.05           | 2131.99 | 552.62 | -369.61  | -410.97 | 0.05  | 0.21      | 552.73           | 228.03        |
| 2250.00      | 21.28 | 229.05           | 2155.30 | 561.66 | -375.54  | -417.80 | 0.12  | 0.47      | 561.78           | 228.05        |
| 2275.00      | 21.24 | 229.28           | 2178.60 | 570.72 | -381.47  | -424.66 | 0.10  | 0.38      | 570.84           | 228.07        |
| 2300.00      | 21.30 | 229.26           | 2201.89 | 579.78 | -387.39  | -431.54 | 0.06  | 0.25      | 579.91           | 228.09        |
| 2325.00      | 21.40 | 229.22           | 2225.18 | 588.88 | -393.33  | -438.43 | 0.10  | 0.39      | 589.01           | 228.10        |
| 2350.00      | 21.47 | 229.23           | 2248.45 | 598.01 | -399.30  | -445.35 | 0.07  | 0.28      | 598.14           | 228.12        |
| 2375.00      | 21.44 | 229.33           | 2271.72 | 607.14 | -405.26  | -452.28 | 0.04  | 0.18      | 607.29           | 228.14        |
| 2400.00      | 21.37 | 229.30           | 2294.99 | 616.26 | -411.21  | -459.20 | 0.07  | 0.30      | 616.41           | 228.16        |
| 2425.00      | 21.48 | 229.23           | 2318.26 | 625.38 | -417.17  | -466.12 | 0.11  | 0.45      | 625.54           | 228.17        |
| 2450.00      | 21.43 | 229.09           | 2341.53 | 634.52 | -423.15  | -473.03 | 0.07  | 0.27      | 634.68           | 228.19        |
| 2475.00      | 21.37 | 229.10           | 2364.81 | 643.63 | -429.12  | -479.93 | 0.06  | 0.25      | 643.80           | 228.20        |
| 2500.00      | 21.39 | 228.99           | 2388.09 | 652.74 | -435.10  | -486.81 | 0.05  | 0.20      | 652.91           | 228.21        |
| 2525.00      | 21.50 | 228.98           | 2411.36 | 661.88 | -441.09  | -493.71 | 0.11  | 0.45      | 662.05           | 228.22        |
| 2550.00      | 21.60 | 228.92           | 2434.61 | 671.05 | -447.13  | -500.63 | 0.10  | 0.40      | 671.23           | 228.23        |
| 2575.00      | 21.65 | 228.95           | 2457.85 | 680.26 | -453.18  | -507.58 | 0.05  | 0.20      | 680.45           | 228.24        |
| 2600.00      | 21.77 | 228.98           | 2481.08 | 689.50 | -459.25  | -514.55 | 0.12  | 0.47      | 689.69           | 228.25        |
| 2625.00      | 21.86 | 229.06           | 2504.29 | 698.79 | -465.34  | -521.57 | 0.10  | 0.41      | 698.98           | 228.26        |
| 2650.00      | 21.97 | 229.04           | 2527.48 | 708.11 | -471.46  | -528.62 | 0.11  | 0.43      | 708.31           | 228.27        |
| 2675.00      | 22.00 | 229.06           | 2550.66 | 717.46 | -477.59  | -535.69 | 0.03  | 0.13      | 717.67           | 228.28        |
| 2700.00      | 21.85 | 228.94           | 2573.85 | 726.79 | -483.72  | -542.73 | 0.16  | 0.64      | 727.01           | 228.29        |
| 2725.00      | 21.90 | 228.79           | 2597.05 | 736.10 | -489.84  | -549.75 | 0.07  | 0.29      | 736.32           | 228.30        |
| 2750.00      | 22.01 | 228.83           | 2620.24 | 745.44 | -496.00  | -556.78 | 0.11  | 0.46      | 745.67           | 228.30        |
| 2775.00      | 21.88 | 228.62           | 2643.43 | 754.78 | -502.16  | -563.80 | 0.15  | 0.60      | 755.01           | 228.31        |
| 2800.00      | 21.22 | 228.07           | 2666.68 | 763.96 | -508.27  | -570.66 | 0.69  | 2.77      | 764.19           | 228.31        |
| 2825.00      | 20.27 | 227.61           | 2690.06 | 772.82 | -514.21  | -577.23 | 0.97  | 3.87      | 773.05           | 228.30        |
| 2850.00      | 19.59 | 226.98           | 2713.56 | 781.34 | -519.99  | -583.49 | 0.71  | 2.83      | 781.57           | 228.29        |



## Survey Report

| Well Name:   |       | ROAS UNIT #009D  |         |        |          |         |       |           |                  |               |  |
|--------------|-------|------------------|---------|--------|----------|---------|-------|-----------|------------------|---------------|--|
| Survey:      |       | Computed: OutRun |         |        |          |         |       |           |                  |               |  |
| Survey Date: |       | 07/14/11         |         |        |          |         |       |           |                  |               |  |
| MD           | Inc   | Azim             | TVD     | VS     | Northing | Easting | D-Leg | DLS       | Closure Distance | Closure Angle |  |
| ft           | deg   | deg              | ft      | ft     | ft       | ft      | deg   | deg/100ft | ft               | deg           |  |
| 2875.00      | 19.35 | 226.54           | 2737.13 | 789.67 | -525.70  | -589.56 | 0.29  | 1.15      | 789.90           | 228.28        |  |
| 2900.00      | 19.27 | 226.23           | 2760.73 | 797.94 | -531.40  | -595.54 | 0.12  | 0.50      | 798.16           | 228.26        |  |
| 2925.00      | 19.30 | 226.13           | 2784.32 | 806.19 | -537.12  | -601.50 | 0.04  | 0.18      | 806.41           | 228.24        |  |
| 2950.00      | 19.02 | 225.91           | 2807.94 | 814.40 | -542.82  | -607.41 | 0.29  | 1.16      | 814.61           | 228.21        |  |
| 2975.00      | 18.56 | 225.80           | 2831.61 | 822.45 | -548.42  | -613.18 | 0.46  | 1.85      | 822.66           | 228.19        |  |
| 3000.00      | 17.94 | 225.79           | 2855.35 | 830.28 | -553.88  | -618.80 | 0.61  | 2.45      | 830.48           | 228.17        |  |
| 3025.00      | 17.46 | 225.82           | 2879.16 | 837.88 | -559.18  | -624.25 | 0.48  | 1.92      | 838.07           | 228.15        |  |
| 3050.00      | 17.00 | 225.86           | 2903.04 | 845.28 | -564.34  | -629.56 | 0.46  | 1.86      | 845.47           | 228.13        |  |
| 3075.00      | 16.83 | 225.84           | 2926.96 | 852.55 | -569.41  | -634.78 | 0.17  | 0.66      | 852.74           | 228.11        |  |
| 3100.00      | 16.59 | 225.80           | 2950.90 | 859.74 | -574.42  | -639.93 | 0.25  | 0.99      | 859.93           | 228.09        |  |
| 3125.00      | 15.97 | 226.21           | 2974.90 | 866.75 | -579.28  | -644.98 | 0.63  | 2.51      | 866.93           | 228.07        |  |
| 3150.00      | 15.62 | 226.61           | 2998.96 | 873.55 | -583.98  | -649.90 | 0.36  | 1.44      | 873.73           | 228.06        |  |
| 3175.00      | 15.58 | 226.49           | 3023.04 | 880.27 | -588.60  | -654.78 | 0.06  | 0.23      | 880.45           | 228.05        |  |
| 3200.00      | 15.32 | 226.24           | 3047.13 | 886.93 | -593.20  | -659.60 | 0.27  | 1.06      | 887.11           | 228.03        |  |
| 3225.00      | 15.09 | 225.95           | 3071.26 | 893.49 | -597.74  | -664.33 | 0.24  | 0.97      | 893.66           | 228.02        |  |
| 3250.00      | 14.62 | 225.82           | 3095.42 | 899.90 | -602.20  | -668.93 | 0.47  | 1.88      | 900.06           | 228.00        |  |
| 3275.00      | 14.22 | 225.82           | 3119.64 | 906.12 | -606.54  | -673.39 | 0.40  | 1.60      | 906.28           | 227.99        |  |
| 3300.00      | 13.84 | 226.21           | 3143.89 | 912.18 | -610.75  | -677.75 | 0.38  | 1.54      | 912.34           | 227.98        |  |
| 3325.00      | 13.31 | 227.38           | 3168.19 | 918.05 | -614.77  | -682.03 | 0.60  | 2.39      | 918.21           | 227.97        |  |
| 3350.00      | 13.06 | 227.85           | 3192.53 | 923.75 | -618.61  | -686.24 | 0.28  | 1.12      | 923.91           | 227.97        |  |
| 3375.00      | 12.56 | 229.07           | 3216.91 | 929.29 | -622.29  | -690.39 | 0.56  | 2.25      | 929.45           | 227.97        |  |
| 3400.00      | 12.23 | 229.85           | 3241.33 | 934.65 | -625.78  | -694.47 | 0.37  | 1.49      | 934.82           | 227.98        |  |
| 3425.00      | 11.82 | 230.34           | 3265.78 | 939.85 | -629.12  | -698.46 | 0.43  | 1.70      | 940.02           | 227.99        |  |
| 3450.00      | 11.45 | 230.54           | 3290.27 | 944.88 | -632.33  | -702.35 | 0.37  | 1.47      | 945.06           | 228.00        |  |
| 3475.00      | 11.27 | 230.58           | 3314.78 | 949.80 | -635.46  | -706.15 | 0.18  | 0.72      | 949.98           | 228.02        |  |
| 3500.00      | 10.87 | 231.38           | 3339.31 | 954.59 | -638.48  | -709.88 | 0.43  | 1.70      | 954.77           | 228.03        |  |
| 3525.00      | 10.47 | 232.01           | 3363.88 | 959.20 | -641.35  | -713.51 | 0.42  | 1.67      | 959.39           | 228.05        |  |
| 3550.00      | 10.03 | 231.89           | 3388.48 | 963.63 | -644.10  | -717.02 | 0.44  | 1.76      | 963.83           | 228.07        |  |
| 3575.00      | 9.49  | 231.77           | 3413.12 | 967.86 | -646.71  | -720.35 | 0.54  | 2.18      | 968.06           | 228.08        |  |
| 3600.00      | 9.18  | 231.84           | 3437.79 | 971.90 | -649.22  | -723.54 | 0.30  | 1.22      | 972.11           | 228.10        |  |
| 3625.00      | 8.75  | 231.96           | 3462.48 | 975.78 | -651.63  | -726.61 | 0.43  | 1.73      | 976.00           | 228.11        |  |
| 3650.00      | 8.32  | 232.04           | 3487.20 | 979.48 | -653.91  | -729.53 | 0.43  | 1.72      | 979.70           | 228.13        |  |
| 3675.00      | 7.66  | 231.98           | 3511.96 | 982.94 | -656.05  | -732.27 | 0.67  | 2.67      | 983.17           | 228.14        |  |
| 3700.00      | 7.02  | 232.41           | 3536.76 | 986.12 | -658.01  | -734.79 | 0.64  | 2.55      | 986.35           | 228.16        |  |
| 3725.00      | 6.69  | 232.38           | 3561.58 | 989.09 | -659.83  | -737.15 | 0.33  | 1.34      | 989.33           | 228.17        |  |
| 3750.00      | 6.08  | 230.77           | 3586.42 | 991.86 | -661.56  | -739.33 | 0.63  | 2.53      | 992.10           | 228.18        |  |
| 3775.00      | 5.60  | 229.35           | 3611.29 | 994.40 | -663.19  | -741.28 | 0.50  | 2.00      | 994.65           | 228.18        |  |
| 3800.00      | 5.27  | 228.29           | 3636.18 | 996.76 | -664.75  | -743.07 | 0.35  | 1.40      | 997.01           | 228.18        |  |
| 3825.00      | 4.98  | 227.94           | 3661.08 | 999.00 | -666.24  | -744.73 | 0.29  | 1.16      | 999.25           | 228.18        |  |



## Survey Report

| Well Name:   |      |        | ROAS UNIT #009D  |         |          |         |       |           |                  |               |  |
|--------------|------|--------|------------------|---------|----------|---------|-------|-----------|------------------|---------------|--|
| Survey:      |      |        | Computed: OutRun |         |          |         |       |           |                  |               |  |
| Survey Date: |      |        | 07/14/11         |         |          |         |       |           |                  |               |  |
| MD           | Inc  | Azim   | TVD              | VS      | Northing | Easting | D-Leg | DLS       | Closure Distance | Closure Angle |  |
| ft           | deg  | deg    | ft               | ft      | ft       | ft      | deg   | deg/100ft | ft               | deg           |  |
| 3850.00      | 4.69 | 229.56 | 3685.99          | 1001.10 | -667.63  | -746.31 | 0.32  | 1.30      | 1001.35          | 228.19        |  |
| 3875.00      | 4.36 | 230.28 | 3710.91          | 1003.07 | -668.90  | -747.82 | 0.33  | 1.31      | 1003.32          | 228.19        |  |
| 3900.00      | 4.08 | 229.96 | 3735.84          | 1004.91 | -670.08  | -749.23 | 0.28  | 1.13      | 1005.16          | 228.19        |  |
| 3925.00      | 3.47 | 229.72 | 3760.79          | 1006.55 | -671.14  | -750.49 | 0.61  | 2.46      | 1006.81          | 228.19        |  |
| 3950.00      | 3.05 | 229.03 | 3785.75          | 1007.97 | -672.06  | -751.57 | 0.42  | 1.69      | 1008.23          | 228.20        |  |
| 3975.00      | 2.74 | 228.77 | 3810.72          | 1009.23 | -672.89  | -752.52 | 0.30  | 1.22      | 1009.49          | 228.20        |  |
| 4000.00      | 2.64 | 226.91 | 3835.69          | 1010.40 | -673.68  | -753.39 | 0.14  | 0.55      | 1010.66          | 228.20        |  |
| 4025.00      | 2.19 | 225.83 | 3860.67          | 1011.46 | -674.40  | -754.15 | 0.45  | 1.79      | 1011.72          | 228.20        |  |
| 4050.00      | 1.89 | 224.10 | 3885.65          | 1012.35 | -675.03  | -754.78 | 0.31  | 1.23      | 1012.60          | 228.19        |  |
| 4075.00      | 1.76 | 223.79 | 3910.64          | 1013.14 | -675.61  | -755.34 | 0.13  | 0.52      | 1013.40          | 228.19        |  |
| 4100.00      | 1.74 | 224.42 | 3935.63          | 1013.91 | -676.16  | -755.87 | 0.03  | 0.11      | 1014.16          | 228.19        |  |
| 4125.00      | 1.86 | 226.32 | 3960.62          | 1014.69 | -676.71  | -756.43 | 0.13  | 0.54      | 1014.95          | 228.18        |  |
| 4150.00      | 1.84 | 226.49 | 3985.60          | 1015.50 | -677.26  | -757.01 | 0.02  | 0.10      | 1015.75          | 228.18        |  |
| 4175.00      | 1.68 | 225.17 | 4010.59          | 1016.26 | -677.80  | -757.56 | 0.17  | 0.67      | 1016.52          | 228.18        |  |
| 4200.00      | 0.93 | 223.83 | 4035.58          | 1016.83 | -678.20  | -757.96 | 0.74  | 2.97      | 1017.09          | 228.18        |  |
| 4225.00      | 0.83 | 232.45 | 4060.58          | 1017.22 | -678.46  | -758.25 | 0.17  | 0.67      | 1017.47          | 228.18        |  |
| 4250.00      | 1.03 | 241.10 | 4085.58          | 1017.61 | -678.68  | -758.59 | 0.25  | 1.00      | 1017.87          | 228.18        |  |
| 4275.00      | 1.03 | 236.03 | 4110.57          | 1018.06 | -678.91  | -758.97 | 0.09  | 0.37      | 1018.31          | 228.19        |  |
| 4300.00      | 0.57 | 232.11 | 4135.57          | 1018.40 | -679.12  | -759.26 | 0.47  | 1.88      | 1018.66          | 228.19        |  |
| 4325.00      | 0.40 | 230.08 | 4160.57          | 1018.61 | -679.25  | -759.42 | 0.17  | 0.67      | 1018.87          | 228.19        |  |
| 4350.00      | 0.37 | 228.87 | 4185.57          | 1018.78 | -679.36  | -759.55 | 0.03  | 0.13      | 1019.04          | 228.19        |  |
| 4375.00      | 0.40 | 227.03 | 4210.57          | 1018.95 | -679.47  | -759.67 | 0.03  | 0.12      | 1019.21          | 228.19        |  |
| 4400.00      | 0.48 | 219.54 | 4235.57          | 1019.14 | -679.61  | -759.80 | 0.10  | 0.39      | 1019.39          | 228.19        |  |
| 4425.00      | 0.65 | 195.50 | 4260.57          | 1019.36 | -679.82  | -759.91 | 0.29  | 1.16      | 1019.62          | 228.18        |  |
| 4450.00      | 0.70 | 186.67 | 4285.57          | 1019.60 | -680.11  | -759.96 | 0.12  | 0.46      | 1019.85          | 228.17        |  |
| 4475.00      | 0.70 | 184.89 | 4310.56          | 1019.83 | -680.42  | -759.99 | 0.02  | 0.09      | 1020.08          | 228.16        |  |
| 4500.00      | 0.70 | 181.87 | 4335.56          | 1020.05 | -680.72  | -760.01 | 0.04  | 0.15      | 1020.29          | 228.15        |  |
| 4525.00      | 0.56 | 178.06 | 4360.56          | 1020.24 | -681.00  | -760.01 | 0.14  | 0.56      | 1020.48          | 228.14        |  |
| 4550.00      | 0.65 | 190.21 | 4385.56          | 1020.43 | -681.26  | -760.03 | 0.15  | 0.61      | 1020.67          | 228.13        |  |
| 4575.00      | 0.80 | 190.78 | 4410.56          | 1020.69 | -681.57  | -760.09 | 0.15  | 0.60      | 1020.92          | 228.12        |  |
| 4600.00      | 0.75 | 180.62 | 4435.55          | 1020.94 | -681.90  | -760.12 | 0.14  | 0.57      | 1021.17          | 228.10        |  |
| 4625.00      | 0.52 | 176.32 | 4460.55          | 1021.13 | -682.18  | -760.12 | 0.24  | 0.97      | 1021.35          | 228.09        |  |
| 4650.00      | 0.51 | 192.35 | 4485.55          | 1021.29 | -682.40  | -760.14 | 0.14  | 0.58      | 1021.51          | 228.08        |  |
| 4675.00      | 0.44 | 179.82 | 4510.55          | 1021.45 | -682.61  | -760.16 | 0.12  | 0.50      | 1021.66          | 228.08        |  |
| 4700.00      | 0.25 | 169.75 | 4535.55          | 1021.54 | -682.76  | -760.15 | 0.21  | 0.82      | 1021.76          | 228.07        |  |
| 4725.00      | 0.30 | 195.54 | 4560.55          | 1021.63 | -682.87  | -760.16 | 0.13  | 0.53      | 1021.84          | 228.07        |  |
| 4750.00      | 0.61 | 201.49 | 4585.55          | 1021.80 | -683.06  | -760.22 | 0.31  | 1.25      | 1022.01          | 228.06        |  |
| 4775.00      | 0.75 | 193.83 | 4610.55          | 1022.06 | -683.34  | -760.31 | 0.17  | 0.67      | 1022.27          | 228.05        |  |



## Survey Report

| Well Name:   |            | ROAS UNIT #009D  |           |          |                |               |              |                  |                        |                      |
|--------------|------------|------------------|-----------|----------|----------------|---------------|--------------|------------------|------------------------|----------------------|
| Survey:      |            | Computed: OutRun |           |          |                |               |              |                  |                        |                      |
| Survey Date: |            | 07/14/11         |           |          |                |               |              |                  |                        |                      |
| MD<br>ft     | Inc<br>deg | Azim<br>deg      | TVD<br>ft | VS<br>ft | Northing<br>ft | Easting<br>ft | D-Leg<br>deg | DLS<br>deg/100ft | Closure Distance<br>ft | Closure Angle<br>deg |
| 4800.00      | 0.72       | 198.45           | 4635.55   | 1022.34  | -683.65        | -760.40       | 0.07         | 0.26             | 1022.54                | 228.04               |
| 4825.00      | 0.75       | 204.64           | 4660.54   | 1022.63  | -683.95        | -760.52       | 0.08         | 0.33             | 1022.83                | 228.03               |
| 4850.00      | 0.86       | 197.86           | 4685.54   | 1022.94  | -684.28        | -760.64       | 0.15         | 0.59             | 1023.14                | 228.03               |
| 4875.00      | 0.89       | 187.94           | 4710.54   | 1023.26  | -684.65        | -760.73       | 0.15         | 0.62             | 1023.45                | 228.01               |
| 4900.00      | 0.77       | 183.28           | 4735.54   | 1023.53  | -685.01        | -760.77       | 0.14         | 0.54             | 1023.72                | 228.00               |
| 4925.00      | 0.78       | 190.78           | 4760.53   | 1023.79  | -685.35        | -760.81       | 0.10         | 0.41             | 1023.98                | 227.99               |
| 4950.00      | 0.89       | 197.31           | 4785.53   | 1024.10  | -685.70        | -760.90       | 0.14         | 0.58             | 1024.28                | 227.98               |
| 4975.00      | 0.94       | 192.18           | 4810.53   | 1024.44  | -686.08        | -761.00       | 0.10         | 0.39             | 1024.61                | 227.96               |
| 5000.00      | 0.85       | 181.93           | 4835.52   | 1024.74  | -686.47        | -761.05       | 0.18         | 0.74             | 1024.91                | 227.95               |
| 5025.00      | 0.67       | 180.70           | 4860.52   | 1024.97  | -686.80        | -761.06       | 0.18         | 0.73             | 1025.13                | 227.94               |
| 5050.00      | 0.52       | 187.04           | 4885.52   | 1025.15  | -687.06        | -761.07       | 0.16         | 0.64             | 1025.32                | 227.93               |
| 5075.00      | 0.50       | 188.97           | 4910.52   | 1025.33  | -687.28        | -761.10       | 0.03         | 0.12             | 1025.49                | 227.92               |
| 5100.00      | 0.50       | 184.37           | 4935.52   | 1025.49  | -687.49        | -761.13       | 0.04         | 0.16             | 1025.65                | 227.91               |
| 5125.00      | 0.45       | 170.95           | 4960.52   | 1025.63  | -687.70        | -761.12       | 0.12         | 0.49             | 1025.79                | 227.90               |
| 5150.00      | 0.28       | 157.41           | 4985.52   | 1025.70  | -687.85        | -761.08       | 0.19         | 0.75             | 1025.86                | 227.89               |
| 5175.00      | 0.32       | 181.40           | 5010.52   | 1025.78  | -687.98        | -761.06       | 0.13         | 0.52             | 1025.93                | 227.89               |
| 5200.00      | 0.45       | 195.02           | 5035.52   | 1025.91  | -688.14        | -761.09       | 0.16         | 0.64             | 1026.06                | 227.88               |
| 5225.00      | 0.54       | 191.24           | 5060.52   | 1026.09  | -688.35        | -761.13       | 0.09         | 0.37             | 1026.23                | 227.87               |
| 5250.00      | 0.60       | 185.40           | 5085.51   | 1026.28  | -688.60        | -761.17       | 0.09         | 0.35             | 1026.43                | 227.87               |
| 5275.00      | 0.59       | 179.52           | 5110.51   | 1026.46  | -688.86        | -761.18       | 0.06         | 0.25             | 1026.61                | 227.86               |
| 5300.00      | 0.46       | 176.74           | 5135.51   | 1026.61  | -689.08        | -761.17       | 0.13         | 0.53             | 1026.75                | 227.85               |
| 5325.00      | 0.31       | 175.73           | 5160.51   | 1026.72  | -689.25        | -761.16       | 0.14         | 0.58             | 1026.86                | 227.84               |
| 5350.00      | 0.41       | 194.05           | 5185.51   | 1026.84  | -689.41        | -761.18       | 0.15         | 0.61             | 1026.98                | 227.83               |
| 5375.00      | 0.43       | 191.24           | 5210.51   | 1026.99  | -689.59        | -761.22       | 0.02         | 0.10             | 1027.13                | 227.83               |
| 5400.00      | 0.43       | 182.22           | 5235.51   | 1027.13  | -689.77        | -761.24       | 0.07         | 0.27             | 1027.27                | 227.82               |
| 5425.00      | 0.37       | 173.73           | 5260.51   | 1027.25  | -689.94        | -761.24       | 0.09         | 0.34             | 1027.38                | 227.81               |
| 5450.00      | 0.28       | 161.01           | 5285.51   | 1027.32  | -690.08        | -761.21       | 0.11         | 0.44             | 1027.45                | 227.81               |
| 5475.00      | 0.15       | 157.90           | 5310.51   | 1027.36  | -690.17        | -761.18       | 0.13         | 0.52             | 1027.48                | 227.80               |
| 5500.00      | 0.15       | 163.92           | 5335.51   | 1027.38  | -690.23        | -761.15       | 0.02         | 0.07             | 1027.51                | 227.80               |
| 5525.00      | 0.27       | 182.12           | 5360.51   | 1027.44  | -690.32        | -761.15       | 0.13         | 0.53             | 1027.56                | 227.79               |
| 5550.00      | 0.11       | 163.20           | 5385.51   | 1027.49  | -690.40        | -761.14       | 0.16         | 0.65             | 1027.62                | 227.79               |
| 5575.00      | 0.16       | 136.30           | 5410.51   | 1027.50  | -690.45        | -761.11       | 0.08         | 0.31             | 1027.63                | 227.79               |
| 5600.00      | 0.25       | 133.32           | 5435.51   | 1027.50  | -690.51        | -761.05       | 0.09         | 0.38             | 1027.62                | 227.78               |
| 5625.00      | 0.34       | 135.54           | 5460.51   | 1027.49  | -690.60        | -760.96       | 0.09         | 0.36             | 1027.61                | 227.77               |
| 5650.00      | 0.49       | 139.78           | 5485.51   | 1027.50  | -690.74        | -760.84       | 0.15         | 0.60             | 1027.61                | 227.76               |
| 5675.00      | 0.59       | 147.62           | 5510.51   | 1027.53  | -690.93        | -760.70       | 0.13         | 0.51             | 1027.64                | 227.75               |
| 5700.00      | 0.64       | 148.50           | 5535.50   | 1027.58  | -691.16        | -760.56       | 0.05         | 0.20             | 1027.69                | 227.74               |
| 5725.00      | 0.66       | 150.38           | 5560.50   | 1027.64  | -691.40        | -760.41       | 0.03         | 0.10             | 1027.75                | 227.72               |



## Survey Report

Well Name: ROAS UNIT #009D  
 Survey: Computed: OutRun  
 Survey Date: 07/14/11

| MD<br>ft | Inc<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | Northing<br>ft | Easting<br>ft | D-Leg<br>deg | DLS<br>deg/100ft | Closure Distance<br>ft | Closure Angle<br>deg |
|----------|------------|-------------|-----------|----------|----------------|---------------|--------------|------------------|------------------------|----------------------|
| 5750.00  | 0.66       | 146.50      | 5585.50   | 1027.70  | -691.64        | -760.26       | 0.04         | 0.18             | 1027.80                | 227.71               |
| 5775.00  | 0.70       | 146.20      | 5610.50   | 1027.75  | -691.89        | -760.10       | 0.05         | 0.20             | 1027.84                | 227.69               |
| 5800.00  | 0.76       | 151.07      | 5635.50   | 1027.81  | -692.16        | -759.93       | 0.08         | 0.33             | 1027.90                | 227.67               |
| 5825.00  | 0.80       | 155.77      | 5660.50   | 1027.91  | -692.47        | -759.78       | 0.07         | 0.30             | 1028.00                | 227.65               |
| 5850.00  | 0.85       | 156.49      | 5685.49   | 1028.03  | -692.79        | -759.64       | 0.05         | 0.21             | 1028.11                | 227.63               |
| 5875.00  | 0.84       | 152.89      | 5710.49   | 1028.14  | -693.13        | -759.48       | 0.05         | 0.21             | 1028.22                | 227.62               |
| 5900.00  | 0.76       | 153.12      | 5735.49   | 1028.24  | -693.44        | -759.32       | 0.08         | 0.31             | 1028.31                | 227.60               |
| 5925.00  | 0.72       | 151.90      | 5760.49   | 1028.32  | -693.73        | -759.17       | 0.05         | 0.19             | 1028.39                | 227.58               |
| 5950.00  | 0.59       | 146.07      | 5785.48   | 1028.38  | -693.97        | -759.02       | 0.14         | 0.57             | 1028.45                | 227.56               |
| 5975.00  | 0.43       | 143.91      | 5810.48   | 1028.42  | -694.15        | -758.90       | 0.17         | 0.67             | 1028.48                | 227.55               |
| 6000.00  | 0.36       | 164.47      | 5835.48   | 1028.46  | -694.30        | -758.82       | 0.16         | 0.62             | 1028.53                | 227.54               |
| 6025.00  | 0.37       | 179.14      | 5860.48   | 1028.55  | -694.46        | -758.80       | 0.09         | 0.37             | 1028.62                | 227.53               |
| 6050.00  | 0.34       | 185.00      | 5885.48   | 1028.66  | -694.61        | -758.81       | 0.05         | 0.18             | 1028.72                | 227.53               |
| 6075.00  | 0.36       | 191.12      | 5910.48   | 1028.78  | -694.76        | -758.83       | 0.04         | 0.16             | 1028.84                | 227.52               |
| 6100.00  | 0.43       | 204.40      | 5935.48   | 1028.93  | -694.93        | -758.88       | 0.12         | 0.48             | 1028.99                | 227.52               |
| 6125.00  | 0.49       | 211.06      | 5960.48   | 1029.12  | -695.11        | -758.98       | 0.08         | 0.32             | 1029.18                | 227.52               |
| 6150.00  | 0.53       | 215.07      | 5985.48   | 1029.34  | -695.29        | -759.10       | 0.05         | 0.20             | 1029.40                | 227.51               |
| 6175.00  | 0.57       | 215.33      | 6010.48   | 1029.57  | -695.49        | -759.24       | 0.05         | 0.18             | 1029.63                | 227.51               |
| 6200.00  | 0.66       | 218.08      | 6035.48   | 1029.84  | -695.70        | -759.40       | 0.09         | 0.37             | 1029.90                | 227.51               |
| 6225.00  | 0.73       | 214.25      | 6060.47   | 1030.14  | -695.95        | -759.58       | 0.09         | 0.34             | 1030.19                | 227.50               |
| 6250.00  | 0.74       | 207.12      | 6085.47   | 1030.44  | -696.22        | -759.74       | 0.09         | 0.37             | 1030.50                | 227.50               |
| 6275.00  | 0.75       | 205.67      | 6110.47   | 1030.75  | -696.51        | -759.88       | 0.03         | 0.10             | 1030.80                | 227.49               |
| 6300.00  | 0.87       | 201.90      | 6135.47   | 1031.07  | -696.84        | -760.02       | 0.13         | 0.52             | 1031.13                | 227.48               |
| 6325.00  | 0.84       | 198.46      | 6160.46   | 1031.41  | -697.19        | -760.15       | 0.06         | 0.23             | 1031.46                | 227.47               |
| 6350.00  | 0.78       | 196.69      | 6185.46   | 1031.72  | -697.53        | -760.26       | 0.07         | 0.28             | 1031.77                | 227.46               |
| 6375.00  | 0.82       | 199.54      | 6210.46   | 1032.02  | -697.86        | -760.37       | 0.06         | 0.22             | 1032.07                | 227.45               |
| 6400.00  | 0.84       | 203.94      | 6235.46   | 1032.35  | -698.19        | -760.50       | 0.07         | 0.27             | 1032.39                | 227.45               |
| 6425.00  | 0.76       | 206.12      | 6260.45   | 1032.67  | -698.51        | -760.65       | 0.09         | 0.35             | 1032.71                | 227.44               |
| 6450.00  | 0.64       | 206.23      | 6285.45   | 1032.95  | -698.78        | -760.78       | 0.12         | 0.46             | 1033.00                | 227.43               |
| 6475.00  | 0.57       | 219.35      | 6310.45   | 1033.21  | -699.00        | -760.92       | 0.15         | 0.62             | 1033.25                | 227.43               |
| 6500.00  | 0.63       | 219.54      | 6335.45   | 1033.47  | -699.20        | -761.09       | 0.06         | 0.24             | 1033.51                | 227.43               |
| 6525.00  | 0.65       | 219.28      | 6360.45   | 1033.74  | -699.42        | -761.27       | 0.02         | 0.07             | 1033.79                | 227.42               |
| 6550.00  | 0.56       | 218.77      | 6385.45   | 1034.00  | -699.62        | -761.43       | 0.09         | 0.35             | 1034.05                | 227.42               |
| 6575.00  | 0.47       | 218.19      | 6410.45   | 1034.23  | -699.80        | -761.57       | 0.09         | 0.37             | 1034.27                | 227.42               |
| 6600.00  | 0.43       | 220.43      | 6435.45   | 1034.42  | -699.95        | -761.70       | 0.04         | 0.18             | 1034.46                | 227.42               |
| 6625.00  | 0.41       | 217.33      | 6460.44   | 1034.60  | -700.09        | -761.81       | 0.03         | 0.12             | 1034.65                | 227.42               |
| 6650.00  | 0.30       | 197.68      | 6485.44   | 1034.75  | -700.23        | -761.89       | 0.17         | 0.66             | 1034.79                | 227.41               |
| 6675.00  | 0.22       | 184.60      | 6510.44   | 1034.84  | -700.34        | -761.91       | 0.10         | 0.39             | 1034.88                | 227.41               |
| 6700.00  | 0.06       | 169.67      | 6535.44   | 1034.88  | -700.40        | -761.91       | 0.16         | 0.65             | 1034.92                | 227.41               |



## Survey Report

| Well Name:   |      | ROAS UNIT #009D  |         |         |          |         |       |           |                  |               |  |
|--------------|------|------------------|---------|---------|----------|---------|-------|-----------|------------------|---------------|--|
| Survey:      |      | Computed: OutRun |         |         |          |         |       |           |                  |               |  |
| Survey Date: |      | 07/14/11         |         |         |          |         |       |           |                  |               |  |
| MD           | Inc  | Azim             | TVD     | VS      | Northing | Easting | D-Leg | DLS       | Closure Distance | Closure Angle |  |
| ft           | deg  | deg              | ft      | ft      | ft       | ft      | deg   | deg/100ft | ft               | deg           |  |
| 6725.00      | 0.03 | 142.84           | 6560.44 | 1034.89 | -700.41  | -761.91 | 0.03  | 0.13      | 1034.93          | 227.41        |  |
| 6750.00      | 0.07 | 113.67           | 6585.44 | 1034.88 | -700.43  | -761.89 | 0.05  | 0.20      | 1034.92          | 227.41        |  |
| 6775.00      | 0.15 | 73.78            | 6610.44 | 1034.85 | -700.42  | -761.84 | 0.11  | 0.44      | 1034.89          | 227.41        |  |
| 6800.00      | 0.16 | 87.99            | 6635.44 | 1034.79 | -700.41  | -761.77 | 0.04  | 0.16      | 1034.83          | 227.40        |  |
| 6825.00      | 0.11 | 155.64           | 6660.44 | 1034.77 | -700.43  | -761.73 | 0.15  | 0.61      | 1034.81          | 227.40        |  |
| 6850.00      | 0.09 | 119.12           | 6685.44 | 1034.77 | -700.46  | -761.70 | 0.06  | 0.25      | 1034.81          | 227.40        |  |
| 6875.00      | 0.24 | 44.46            | 6710.44 | 1034.72 | -700.44  | -761.65 | 0.23  | 0.92      | 1034.76          | 227.40        |  |
| 6900.00      | 0.25 | 9.17             | 6735.44 | 1034.62 | -700.34  | -761.61 | 0.15  | 0.59      | 1034.66          | 227.40        |  |
| 6925.00      | 0.04 | 86.98            | 6760.44 | 1034.57 | -700.29  | -761.59 | 0.24  | 0.98      | 1034.61          | 227.40        |  |
| 6950.00      | 0.20 | 88.89            | 6785.44 | 1034.54 | -700.29  | -761.54 | 0.16  | 0.65      | 1034.57          | 227.40        |  |
| 6975.00      | 0.19 | 57.08            | 6810.44 | 1034.46 | -700.27  | -761.46 | 0.11  | 0.43      | 1034.50          | 227.40        |  |
| 7000.00      | 0.11 | 154.72           | 6835.44 | 1034.43 | -700.26  | -761.41 | 0.23  | 0.93      | 1034.47          | 227.40        |  |
| 7025.00      | 0.16 | 115.56           | 6860.44 | 1034.42 | -700.30  | -761.37 | 0.10  | 0.41      | 1034.46          | 227.39        |  |
| 7050.00      | 0.19 | 93.45            | 6885.44 | 1034.38 | -700.32  | -761.30 | 0.07  | 0.30      | 1034.42          | 227.39        |  |
| 7075.00      | 0.13 | 152.49           | 6910.44 | 1034.36 | -700.34  | -761.25 | 0.17  | 0.66      | 1034.40          | 227.39        |  |
| 7100.00      | 0.14 | 127.49           | 6935.44 | 1034.36 | -700.39  | -761.21 | 0.06  | 0.24      | 1034.40          | 227.38        |  |
| 7125.00      | 0.16 | 90.24            | 6960.44 | 1034.33 | -700.41  | -761.15 | 0.10  | 0.38      | 1034.37          | 227.38        |  |
| 7150.00      | 0.10 | 152.41           | 6985.44 | 1034.31 | -700.43  | -761.11 | 0.14  | 0.57      | 1034.35          | 227.38        |  |
| 7175.00      | 0.11 | 145.71           | 7010.44 | 1034.32 | -700.47  | -761.08 | 0.02  | 0.06      | 1034.36          | 227.37        |  |
| 7200.00      | 0.22 | 119.20           | 7035.44 | 1034.31 | -700.51  | -761.03 | 0.13  | 0.52      | 1034.35          | 227.37        |  |
| 7225.00      | 0.14 | 113.44           | 7060.44 | 1034.29 | -700.54  | -760.96 | 0.08  | 0.34      | 1034.32          | 227.37        |  |
| 7250.00      | 0.20 | 129.13           | 7085.44 | 1034.27 | -700.58  | -760.89 | 0.08  | 0.31      | 1034.30          | 227.36        |  |
| 7275.00      | 0.12 | 131.83           | 7110.44 | 1034.26 | -700.63  | -760.84 | 0.08  | 0.33      | 1034.29          | 227.36        |  |
| 7300.00      | 0.22 | 128.18           | 7135.44 | 1034.25 | -700.68  | -760.78 | 0.11  | 0.43      | 1034.28          | 227.36        |  |
| 7325.00      | 0.16 | 121.07           | 7160.44 | 1034.23 | -700.72  | -760.72 | 0.07  | 0.29      | 1034.26          | 227.35        |  |
| 7350.00      | 0.31 | 123.52           | 7185.44 | 1034.21 | -700.78  | -760.63 | 0.16  | 0.64      | 1034.24          | 227.35        |  |
| 7375.00      | 0.38 | 152.38           | 7210.44 | 1034.21 | -700.89  | -760.53 | 0.18  | 0.73      | 1034.24          | 227.34        |  |
| 7400.00      | 0.24 | 122.60           | 7235.44 | 1034.22 | -700.99  | -760.45 | 0.21  | 0.82      | 1034.25          | 227.33        |  |
| 7425.00      | 0.28 | 118.81           | 7260.44 | 1034.19 | -701.05  | -760.35 | 0.04  | 0.17      | 1034.22          | 227.32        |  |
| 7450.00      | 0.20 | 126.29           | 7285.44 | 1034.16 | -701.10  | -760.27 | 0.09  | 0.35      | 1034.19          | 227.32        |  |
| 7475.00      | 0.31 | 129.85           | 7310.44 | 1034.15 | -701.17  | -760.18 | 0.11  | 0.45      | 1034.17          | 227.31        |  |
| 7500.00      | 0.44 | 147.70           | 7335.44 | 1034.16 | -701.30  | -760.08 | 0.17  | 0.69      | 1034.18          | 227.30        |  |
| 7525.00      | 0.46 | 147.09           | 7360.44 | 1034.19 | -701.46  | -759.97 | 0.02  | 0.07      | 1034.22          | 227.29        |  |
| 7550.00      | 0.62 | 150.56           | 7385.44 | 1034.24 | -701.66  | -759.85 | 0.17  | 0.67      | 1034.26          | 227.28        |  |
| 7575.00      | 0.64 | 154.31           | 7410.44 | 1034.32 | -701.91  | -759.72 | 0.04  | 0.17      | 1034.34          | 227.27        |  |
| 7600.00      | 0.58 | 153.75           | 7435.43 | 1034.39 | -702.15  | -759.61 | 0.05  | 0.21      | 1034.41          | 227.25        |  |
| 7625.00      | 0.69 | 148.49           | 7460.43 | 1034.46 | -702.39  | -759.47 | 0.12  | 0.50      | 1034.48          | 227.24        |  |
| 7650.00      | 0.79 | 151.51           | 7485.43 | 1034.54 | -702.67  | -759.31 | 0.11  | 0.44      | 1034.55          | 227.22        |  |



## Survey Report

Well Name: ROAS UNIT #009D

Survey: Computed: OutRun

Survey Date: 07/14/11

| MD<br>ft | Inc<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | Northing<br>ft | Easting<br>ft | D-Leg<br>deg | DLS<br>deg/100ft | Closure Distance<br>ft | Closure Angle<br>deg |
|----------|------------|-------------|-----------|----------|----------------|---------------|--------------|------------------|------------------------|----------------------|
| 7675.00  | 0.85       | 157.45      | 7510.43   | 1034.64  | -702.99        | -759.16       | 0.10         | 0.41             | 1034.66                | 227.20               |
| 7700.00  | 0.90       | 156.04      | 7535.43   | 1034.77  | -703.34        | -759.01       | 0.05         | 0.21             | 1034.79                | 227.18               |
| 7725.00  | 1.21       | 164.55      | 7560.42   | 1034.96  | -703.78        | -758.86       | 0.34         | 1.38             | 1034.97                | 227.16               |
| 7750.00  | 1.49       | 178.04      | 7585.41   | 1035.30  | -704.35        | -758.78       | 0.42         | 1.70             | 1035.30                | 227.13               |
| 7775.00  | 1.43       | 178.60      | 7610.41   | 1035.72  | -704.99        | -758.76       | 0.06         | 0.25             | 1035.72                | 227.10               |
| 7800.00  | 1.05       | 172.55      | 7635.40   | 1036.06  | -705.53        | -758.72       | 0.40         | 1.61             | 1036.06                | 227.08               |
| 7825.00  | 0.85       | 152.16      | 7660.40   | 1036.24  | -705.92        | -758.60       | 0.39         | 1.55             | 1036.24                | 227.06               |
| 7850.00  | 0.79       | 131.79      | 7685.39   | 1036.27  | -706.20        | -758.39       | 0.30         | 1.19             | 1036.28                | 227.04               |
| 7875.00  | 0.71       | 123.93      | 7710.39   | 1036.22  | -706.40        | -758.13       | 0.13         | 0.50             | 1036.23                | 227.02               |
| 7900.00  | 0.71       | 130.32      | 7735.39   | 1036.17  | -706.59        | -757.88       | 0.08         | 0.32             | 1036.17                | 227.01               |
| 7925.00  | 0.66       | 125.99      | 7760.39   | 1036.13  | -706.77        | -757.65       | 0.07         | 0.29             | 1036.13                | 226.99               |
| 7950.00  | 0.62       | 129.00      | 7785.39   | 1036.08  | -706.94        | -757.43       | 0.05         | 0.20             | 1036.08                | 226.97               |
| 7975.00  | 0.60       | 127.67      | 7810.39   | 1036.04  | -707.11        | -757.22       | 0.03         | 0.11             | 1036.04                | 226.96               |
| 8000.00  | 0.53       | 127.51      | 7835.38   | 1036.00  | -707.26        | -757.02       | 0.08         | 0.31             | 1036.00                | 226.95               |
| 8025.00  | 0.46       | 122.83      | 7860.38   | 1035.96  | -707.38        | -756.85       | 0.07         | 0.30             | 1035.96                | 226.93               |
| 8050.00  | 0.27       | 127.53      | 7885.38   | 1035.92  | -707.47        | -756.71       | 0.19         | 0.77             | 1035.92                | 226.93               |
| 8075.00  | 0.27       | 119.47      | 7910.38   | 1035.90  | -707.54        | -756.62       | 0.04         | 0.15             | 1035.90                | 226.92               |
| 8100.00  | 0.15       | 126.99      | 7935.38   | 1035.87  | -707.59        | -756.54       | 0.12         | 0.48             | 1035.87                | 226.91               |
| 8125.00  | 0.19       | 122.79      | 7960.38   | 1035.86  | -707.63        | -756.48       | 0.04         | 0.17             | 1035.86                | 226.91               |
| 8150.00  | 0.13       | 155.78      | 7985.38   | 1035.86  | -707.68        | -756.43       | 0.11         | 0.43             | 1035.86                | 226.91               |
| 8175.00  | 0.26       | 92.65       | 8010.38   | 1035.83  | -707.71        | -756.36       | 0.23         | 0.91             | 1035.83                | 226.90               |
| 8195.14  | 0.21       | 88.75       | 8030.52   | 1035.77  | -707.71        | -756.28       | 0.04         | 0.22             | 1035.77                | 226.90               |