



KANSAS CORPORATION COMMISSION 1091741  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

**CONFIDENTIAL** WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34192  
Name: SandRidge Exploration and Production LLC  
Address 1: 123 ROBERT S. KERR AVE  
Address 2:  
City: OKLAHOMA CITY State: OK Zip: 73102 + 6406  
Contact Person: Tiffany Golay  
Phone: (405) 429-6543  
CONTRACTOR: License # 34464  
Name: Lariat Services, Inc.  
Wellsite Geologist: Kathy Gentry  
Purchaser: Atlas (gas), NCRA (oil)

Designate Type of Completion:

- New Well  Re-Entry  Workover
- Oil  WSW  SWD  SLOW  
 Gas  D&A  ENHR  SIGW  
 OG  GSW  Temp. Abd.  
 CM (Coal Bed Methane)  
 Cathodic  Other (Core, Expl., etc.):

If Workover/Re-entry: Old Well Info as follows:

Operator:  
Well Name:  
Original Comp. Date: Original Total Depth:  
 Deepening  Re-perf.  Conv. to ENHR  Conv. to SWD  
 Conv. to GSW  
 Plug Back: Plug Back Total Depth  
 Commingled Permit #:  
 Dual Completion Permit #:  
 SWD Permit #:  
 ENHR Permit #:  
 GSW Permit #:

|                                   |                 |   |
|-----------------------------------|-----------------|---|
| 8/2/2012                          | 8/22/2012       | 8/25/2012                               |
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>Recompletion Date |

API No. 15 - 15-033-21654-01-00  
Spot Description:  
S2\_S2\_SE\_SE Sec. 26 Twp. 33 S. R. 17  East  West  
200 Feet from  North /  South Line of Section  
660 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
County: Comanche  
Lease Name: Warren 3317 Well #: 1-26H  
Field Name:  
Producing Formation: Mississippian  
Elevation: Ground: 1799 Kelly Bushing: 1819  
Total Depth: 9786 Plug Back Total Depth:  
Amount of Surface Pipe Set and Cemented at: 750 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: Feet  
If Alternate II completion, cement circulated from:  
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 30000 ppm Fluid volume: 100 bbls  
Dewatering method used: Hauled to Disposal  
Location of fluid disposal if hauled offsite:  
Operator Name: KBW Oil & Gas Company  
Lease Name: Harmon 1 License #: 5993  
Quarter NW Sec. 11 Twp. 33 S. R. 20  East  West  
County: Comanche Permit #: D-22304

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received  
Date: 11/29/2012  
 Confidential Release Date:  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: NAOMI JAMES Date: 12/03/2012



## **Sandridge Energy, INC.(mid-con.)**

**Comanche County (KS27S)**

**Sec. 26-T33S-R17W**

**Warren 3317 1-26H**

**Wellbore #1**

**Design: Wellbore #1**

## **Standard Survey Report**

**29 August, 2012**

# **Archer**



# Archer Directional Drilling Services

## Survey Report



Company: Sandridge Energy, INC.(mid-con.)  
 Project: Comanche County (KS27S)  
 Site: Sec. 26-T33S-R17W  
 Well: Warren 3317 1-26H  
 Wellbore: Wellbore #1  
 Design: Wellbore #1

Local Co-ordinate Reference: Well Warren 3317 1-26H  
 TVD Reference: WELL @ 1817.0usft (Original Well Elev)  
 MD Reference: WELL @ 1817.0usft (Original Well Elev)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: EDM 5000.1 Single User Db

|             |                                      |               |                |
|-------------|--------------------------------------|---------------|----------------|
| Project     | Comanche County (KS27S), KS South    |               |                |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum:  | NAD 1927 (NADCON CONUS)              |               |                |
| Map Zone:   | Kansas South 1502                    |               |                |

|                       |                   |              |                   |                   |                 |
|-----------------------|-------------------|--------------|-------------------|-------------------|-----------------|
| Site                  | Sec. 26-T33S-R17W |              |                   |                   |                 |
| Site Position:        | Map               | Northing:    | 171,717.00 usft   | Latitude:         | 37° 8' 11.621 N |
| From:                 |                   | Easting:     | 1,816,494.00 usft | Longitude:        | 99° 7' 46.109 W |
| Position Uncertainty: | 0.0 usft          | Slot Radius: | 13-3/16 "         | Grid Convergence: | -0.39 °         |

|                      |                   |                     |           |                   |              |                 |
|----------------------|-------------------|---------------------|-----------|-------------------|--------------|-----------------|
| Well                 | Warren 3317 1-26H |                     |           |                   |              |                 |
| Well Position        | +N/-S             | 0.0 usft            | Northing: | 171,717.00 usft   | Latitude:    | 37° 8' 11.621 N |
|                      | +E/-W             | 0.0 usft            | Easting:  | 1,816,494.00 usft | Longitude:   | 99° 7' 46.109 W |
| Position Uncertainty | 0.0 usft          | Wellhead Elevation: | usft      | Ground Level:     | 1,797.0 usft |                 |

|           |             |             |                 |               |                     |
|-----------|-------------|-------------|-----------------|---------------|---------------------|
| Wellbore  | Wellbore #1 |             |                 |               |                     |
| Magnetics | Model Name  | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|           | IGRF2010    | 08/05/12    | 5.27            | 65.15         | 61,781              |

|                   |                         |              |              |               |     |
|-------------------|-------------------------|--------------|--------------|---------------|-----|
| Design            | Wellbore #1             |              |              |               |     |
| Audit Notes:      |                         |              |              |               |     |
| Version:          | 1.0                     | Phase:       | ACTUAL       | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |     |
|                   | 0.0                     | 0.0          | 0.0          | 359.43        |     |

|                |               |                          |           |                                    |
|----------------|---------------|--------------------------|-----------|------------------------------------|
| Survey Program | Date 08/29/12 |                          |           |                                    |
| From (usft)    | To (usft)     | Survey (Wellbore)        | Tool Name | Description                        |
| 224.0          | 750.0         | Gyro (Wellbore #1)       | GYD_DP_MS | Gyrodatta gyro-compassing and drop |
| 937.0          | 9,786.0       | Archer MWD (Wellbore #1) | MWD       | MWD - Standard                     |

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 224.0                 | 0.80            | 0.14        | 224.0                 | 1.6          | 0.0          | 1.6                     | 0.36                    | 0.36                   | 0.00                  |
| 474.0                 | 0.40            | 0.14        | 474.0                 | 4.2          | 0.0          | 4.2                     | 0.16                    | -0.16                  | 0.00                  |
| 750.0                 | 0.50            | 0.14        | 750.0                 | 6.3          | 0.0          | 6.3                     | 0.04                    | 0.04                   | 0.00                  |
| 937.0                 | 0.50            | 258.40      | 937.0                 | 7.0          | -0.8         | 7.0                     | 0.41                    | 0.00                   | -54.41                |
| 1,393.0               | 0.10            | 270.10      | 1,393.0               | 6.6          | -3.1         | 6.6                     | 0.09                    | -0.09                  | 2.57                  |
| 1,867.0               | 0.40            | 97.80       | 1,867.0               | 6.4          | -1.9         | 6.4                     | 0.11                    | 0.06                   | -36.35                |
| 2,343.0               | 0.30            | 78.90       | 2,342.9               | 6.4          | 1.0          | 6.4                     | 0.03                    | -0.02                  | -3.97                 |
| 2,820.0               | 0.60            | 68.00       | 2,819.9               | 7.6          | 4.5          | 7.5                     | 0.07                    | 0.06                   | -2.29                 |
| 3,297.0               | 0.40            | 96.60       | 3,296.9               | 8.3          | 8.5          | 8.2                     | 0.07                    | -0.04                  | 6.00                  |



# Archer Directional Drilling Services

## Survey Report



**Company:** Sandridge Energy, INC.(mid-con.)  
**Project:** Comanche County (KS27S)  
**Site:** Sec. 26-T33S-R17W  
**Well:** Warren 3317 1-26H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Warren 3317 1-26H  
**TVD Reference:** WELL @ 1817.0usft (Original Well Elev)  
**MD Reference:** WELL @ 1817.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

### Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 3,773.0               | 0.50            | 72.80       | 3,772.9               | 8.7          | 12.1         | 8.6                     | 0.04                    | 0.02                   | -5.00                 |
| 3,869.0               | 0.60            | 21.30       | 3,868.9               | 9.3          | 12.7         | 9.2                     | 0.51                    | 0.10                   | -53.65                |
| 3,964.0               | 0.50            | 34.50       | 3,963.9               | 10.1         | 13.1         | 10.0                    | 0.17                    | -0.11                  | 13.89                 |
| 4,059.0               | 0.60            | 48.10       | 4,058.9               | 10.8         | 13.7         | 10.7                    | 0.17                    | 0.11                   | 14.32                 |
| 4,091.0               | 0.60            | 54.60       | 4,090.9               | 11.0         | 14.0         | 10.9                    | 0.21                    | 0.00                   | 20.31                 |
| 4,122.0               | 0.70            | 32.70       | 4,121.9               | 11.3         | 14.2         | 11.1                    | 0.86                    | 0.32                   | -70.65                |
| 4,154.0               | 0.70            | 27.20       | 4,153.9               | 11.6         | 14.4         | 11.5                    | 0.21                    | 0.00                   | -17.19                |
| 4,186.0               | 1.90            | 358.30      | 4,185.9               | 12.3         | 14.6         | 12.2                    | 4.16                    | 3.75                   | -90.31                |
| 4,218.0               | 4.00            | 355.70      | 4,217.8               | 14.0         | 14.4         | 13.8                    | 6.57                    | 6.56                   | -8.13                 |
| 4,249.0               | 6.30            | 352.20      | 4,248.7               | 16.7         | 14.1         | 16.6                    | 7.48                    | 7.42                   | -11.29                |
| 4,281.0               | 8.70            | 354.30      | 4,280.4               | 20.9         | 13.6         | 20.7                    | 7.55                    | 7.50                   | 6.56                  |
| 4,313.0               | 10.20           | 355.70      | 4,312.0               | 26.1         | 13.1         | 26.0                    | 4.74                    | 4.69                   | 4.38                  |
| 4,345.0               | 11.30           | 353.20      | 4,343.4               | 32.0         | 12.6         | 31.9                    | 3.73                    | 3.44                   | -7.81                 |
| 4,377.0               | 13.50           | 354.80      | 4,374.7               | 38.9         | 11.8         | 38.8                    | 6.96                    | 6.88                   | 5.00                  |
| 4,408.0               | 16.10           | 358.70      | 4,404.6               | 46.8         | 11.4         | 46.7                    | 8.98                    | 8.39                   | 12.58                 |
| 4,440.0               | 18.20           | 1.30        | 4,435.2               | 56.2         | 11.4         | 56.1                    | 6.98                    | 6.56                   | 8.13                  |
| 4,472.0               | 20.20           | 359.90      | 4,465.4               | 66.7         | 11.5         | 66.6                    | 6.41                    | 6.25                   | -4.38                 |
| 4,504.0               | 22.40           | 358.50      | 4,495.3               | 78.4         | 11.4         | 78.2                    | 7.06                    | 6.88                   | -4.38                 |
| 4,536.0               | 24.20           | 357.10      | 4,524.6               | 91.0         | 10.9         | 90.9                    | 5.88                    | 5.63                   | -4.38                 |
| 4,567.0               | 25.30           | 355.90      | 4,552.8               | 104.0        | 10.1         | 103.8                   | 3.90                    | 3.55                   | -3.87                 |
| 4,599.0               | 27.20           | 355.40      | 4,581.5               | 118.1        | 9.0          | 118.0                   | 5.98                    | 5.84                   | -1.56                 |
| 4,631.0               | 29.80           | 356.70      | 4,609.6               | 133.3        | 8.0          | 133.2                   | 8.35                    | 8.13                   | 4.06                  |
| 4,663.0               | 31.50           | 357.50      | 4,637.1               | 149.6        | 7.1          | 149.5                   | 5.46                    | 5.31                   | 2.50                  |
| 4,694.0               | 33.40           | 358.20      | 4,663.3               | 166.2        | 6.5          | 166.1                   | 6.25                    | 6.13                   | 2.26                  |
| 4,726.0               | 35.90           | 357.70      | 4,689.6               | 184.4        | 5.9          | 184.3                   | 7.86                    | 7.81                   | -1.56                 |
| 4,758.0               | 38.30           | 357.60      | 4,715.1               | 203.7        | 5.1          | 203.6                   | 7.50                    | 7.50                   | -0.31                 |
| 4,790.0               | 40.40           | 357.30      | 4,739.9               | 223.9        | 4.2          | 223.9                   | 6.59                    | 6.56                   | -0.94                 |
| 4,821.0               | 42.60           | 357.70      | 4,763.1               | 244.5        | 3.3          | 244.4                   | 7.15                    | 7.10                   | 1.29                  |
| 4,853.0               | 45.10           | 358.60      | 4,786.2               | 266.6        | 2.6          | 266.6                   | 8.05                    | 7.81                   | 2.81                  |
| 4,885.0               | 47.10           | 359.20      | 4,808.4               | 289.7        | 2.1          | 289.6                   | 6.39                    | 6.25                   | 1.88                  |
| 4,916.0               | 47.70           | 358.80      | 4,829.4               | 312.5        | 1.7          | 312.5                   | 2.16                    | 1.94                   | -1.29                 |
| 4,948.0               | 47.30           | 359.00      | 4,851.0               | 336.1        | 1.3          | 336.0                   | 1.33                    | -1.25                  | 0.63                  |
| 4,979.0               | 47.30           | 358.50      | 4,872.0               | 358.8        | 0.8          | 358.8                   | 1.19                    | 0.00                   | -1.81                 |
| 5,011.0               | 48.60           | 358.80      | 4,893.4               | 382.6        | 0.2          | 382.6                   | 4.12                    | 4.06                   | 0.94                  |
| 5,043.0               | 49.10           | 358.60      | 4,914.5               | 406.7        | -0.3         | 406.7                   | 1.83                    | 1.56                   | -0.63                 |
| 5,075.0               | 49.00           | 359.00      | 4,935.5               | 430.9        | -0.8         | 430.8                   | 0.89                    | -0.31                  | 1.25                  |
| 5,107.0               | 60.00           | 359.90      | 4,956.2               | 455.2        | -1.1         | 455.2                   | 3.79                    | 3.13                   | 2.81                  |
| 5,138.0               | 60.60           | 359.20      | 4,976.0               | 479.0        | -1.3         | 479.0                   | 2.60                    | 1.94                   | -2.26                 |
| 5,170.0               | 52.50           | 358.10      | 4,995.9               | 504.1        | -1.9         | 504.1                   | 6.52                    | 5.94                   | -3.44                 |
| 5,202.0               | 55.30           | 357.20      | 5,014.8               | 529.9        | -2.9         | 529.9                   | 9.04                    | 8.75                   | -2.81                 |
| 5,234.0               | 57.60           | 357.10      | 5,032.5               | 556.6        | -4.2         | 556.6                   | 7.19                    | 7.19                   | -0.31                 |
| 5,266.0               | 60.80           | 357.00      | 5,048.9               | 584.0        | -5.7         | 584.0                   | 10.00                   | 10.00                  | -0.31                 |
| 5,297.0               | 64.20           | 357.10      | 5,083.2               | 611.5        | -7.1         | 611.5                   | 10.97                   | 10.97                  | 0.32                  |



# Archer Directional Drilling Services

## Survey Report



**Company:** Sandridge Energy, INC.(mid-con.)  
**Project:** Comanche County (KS27S)  
**Site:** Sec. 26-T33S-R17W  
**Well:** Warren 3317 1-26H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Warren 3317 1-26H  
**TVD Reference:** WELL @ 1817.0usft (Original Well Elev)  
**MD Reference:** WELL @ 1817.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

### Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (*/100usft) | Build Rate (*/100usft) | Turn Rate (*/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 5,329.0               | 68.40           | 357.40      | 5,076.0               | 640.7        | -8.5         | 640.8                   | 13.15                   | 13.13                  | 0.94                  |
| 5,361.0               | 71.60           | 357.50      | 5,087.0               | 670.8        | -9.8         | 670.8                   | 10.00                   | 10.00                  | 0.31                  |
| 5,393.0               | 72.50           | 358.30      | 5,096.8               | 701.2        | -10.9        | 701.3                   | 3.88                    | 2.81                   | 2.50                  |
| 5,424.0               | 74.50           | 359.40      | 5,105.6               | 730.9        | -11.5        | 731.0                   | 7.29                    | 6.45                   | 3.65                  |
| 5,456.0               | 78.00           | 0.70        | 5,113.2               | 762.0        | -11.5        | 762.0                   | 11.63                   | 10.94                  | 4.06                  |
| 5,487.0               | 80.30           | 2.20        | 5,119.1               | 792.4        | -10.7        | 792.5                   | 8.81                    | 7.42                   | 4.84                  |
| 5,519.0               | 83.20           | 2.40        | 5,123.7               | 824.0        | -9.5         | 824.1                   | 9.08                    | 9.06                   | 0.63                  |
| 5,551.0               | 87.00           | 3.50        | 5,126.4               | 855.9        | -7.8         | 855.9                   | 12.36                   | 11.88                  | 3.44                  |
| 5,583.0               | 90.70           | 3.70        | 5,127.0               | 887.8        | -5.8         | 887.8                   | 11.80                   | 11.56                  | 0.63                  |
| 5,600.0               | 92.70           | 4.50        | 5,128.5               | 904.8        | -4.6         | 904.8                   | 12.67                   | 11.76                  | 4.71                  |
| 5,626.0               | 93.10           | 4.80        | 5,125.2               | 930.6        | -2.6         | 930.6                   | 1.92                    | 1.54                   | 1.15                  |
| 5,656.0               | 93.80           | 4.60        | 5,123.4               | 960.5        | 0.0          | 960.4                   | 2.43                    | 2.33                   | -0.67                 |
| 5,687.0               | 93.50           | 4.00        | 5,121.4               | 991.3        | 2.3          | 991.3                   | 2.16                    | -0.97                  | -1.94                 |
| 5,718.0               | 91.40           | 1.40        | 5,120.1               | 1,022.3      | 3.7          | 1,022.2                 | 10.77                   | -6.77                  | -8.39                 |
| 5,749.0               | 89.70           | 358.90      | 5,119.8               | 1,053.3      | 3.8          | 1,053.2                 | 9.75                    | -5.48                  | -8.06                 |
| 5,780.0               | 89.90           | 0.30        | 5,119.9               | 1,084.3      | 3.6          | 1,084.2                 | 4.56                    | 0.65                   | 4.52                  |
| 5,810.0               | 90.90           | 0.40        | 5,119.7               | 1,114.3      | 3.8          | 1,114.2                 | 3.35                    | 3.33                   | 0.33                  |
| 5,841.0               | 91.30           | 0.90        | 5,119.1               | 1,145.2      | 4.1          | 1,145.1                 | 2.07                    | 1.29                   | 1.61                  |
| 5,872.0               | 91.60           | 1.30        | 5,118.3               | 1,176.2      | 4.7          | 1,176.1                 | 1.61                    | 0.97                   | 1.29                  |
| 5,903.0               | 91.70           | 1.30        | 5,117.5               | 1,207.2      | 5.4          | 1,207.1                 | 0.32                    | 0.32                   | 0.00                  |
| 5,933.0               | 92.20           | 0.60        | 5,116.4               | 1,237.2      | 5.9          | 1,237.1                 | 2.87                    | 1.67                   | -2.33                 |
| 5,964.0               | 92.80           | 1.20        | 5,115.1               | 1,268.2      | 6.4          | 1,268.0                 | 2.74                    | 1.94                   | 1.94                  |
| 5,995.0               | 91.20           | 358.70      | 5,114.0               | 1,299.1      | 6.4          | 1,299.0                 | 9.57                    | -5.16                  | -8.06                 |
| 6,026.0               | 88.00           | 355.70      | 5,114.2               | 1,330.1      | 4.9          | 1,330.0                 | 14.15                   | -10.32                 | -9.68                 |
| 6,057.0               | 88.40           | 355.90      | 5,115.2               | 1,361.0      | 2.6          | 1,360.9                 | 1.44                    | 1.29                   | 0.65                  |
| 6,087.0               | 88.30           | 355.60      | 5,116.1               | 1,390.9      | 0.4          | 1,390.8                 | 1.05                    | -0.33                  | -1.00                 |
| 6,118.0               | 90.20           | 355.40      | 5,116.5               | 1,421.8      | -2.0         | 1,421.7                 | 6.16                    | 6.13                   | -0.65                 |
| 6,149.0               | 92.80           | 355.30      | 5,115.6               | 1,452.7      | -4.5         | 1,452.6                 | 8.39                    | 8.39                   | -0.32                 |
| 6,180.0               | 94.40           | 355.20      | 5,113.7               | 1,483.5      | -7.1         | 1,483.5                 | 5.17                    | 5.16                   | -0.32                 |
| 6,210.0               | 94.80           | 355.10      | 5,111.3               | 1,513.3      | -9.6         | 1,513.3                 | 1.37                    | 1.33                   | -0.33                 |
| 6,241.0               | 95.30           | 355.80      | 5,108.6               | 1,544.1      | -12.1        | 1,544.1                 | 2.77                    | 1.61                   | 2.26                  |
| 6,272.0               | 94.50           | 357.20      | 5,105.9               | 1,574.9      | -14.0        | 1,575.0                 | 5.19                    | -2.58                  | 4.52                  |
| 6,303.0               | 93.30           | 358.00      | 5,103.8               | 1,605.8      | -15.3        | 1,605.9                 | 4.65                    | -3.87                  | 2.58                  |
| 6,334.0               | 93.30           | 357.80      | 5,102.0               | 1,636.7      | -16.4        | 1,636.8                 | 0.64                    | 0.00                   | -0.65                 |
| 6,364.0               | 93.50           | 357.90      | 5,100.2               | 1,666.7      | -17.5        | 1,666.8                 | 0.75                    | 0.67                   | 0.33                  |
| 6,395.0               | 93.80           | 358.20      | 5,098.3               | 1,697.6      | -18.6        | 1,697.7                 | 1.37                    | 0.97                   | 0.97                  |
| 6,426.0               | 92.80           | 358.30      | 5,096.5               | 1,728.5      | -19.5        | 1,728.6                 | 3.24                    | -3.23                  | 0.32                  |
| 6,457.0               | 92.60           | 358.00      | 5,095.0               | 1,759.5      | -20.5        | 1,759.6                 | 1.16                    | -0.65                  | -0.97                 |
| 6,488.0               | 90.00           | 358.00      | 5,094.3               | 1,790.4      | -21.6        | 1,790.6                 | 8.39                    | -8.39                  | 0.00                  |
| 6,518.0               | 90.60           | 358.30      | 5,094.2               | 1,820.4      | -22.6        | 1,820.6                 | 2.24                    | 2.00                   | 1.00                  |
| 6,580.0               | 93.40           | 0.20        | 5,092.0               | 1,882.4      | -23.4        | 1,882.5                 | 5.46                    | 4.52                   | 3.06                  |
| 6,611.0               | 93.40           | 359.90      | 5,090.2               | 1,913.3      | -23.4        | 1,913.5                 | 0.97                    | 0.00                   | -0.97                 |
| 6,641.0               | 92.80           | 359.20      | 5,088.5               | 1,943.3      | -23.6        | 1,943.4                 | 3.07                    | -2.00                  | -2.33                 |



# Archer Directional Drilling Services

## Survey Report



**Company:** Sandridge Energy, INC.(mid-con.)  
**Project:** Comanche County (KS27S)  
**Site:** Sec. 26-T33S-R17W  
**Well:** Warren 3317 1-26H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Warren 3317 1-26H  
**TVD Reference:** WELL @ 1817.0usft (Original Well Elev)  
**MD Reference:** WELL @ 1817.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

### Survey

| Measured Depth (usft)         | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 6,672.0                       | 92.70           | 358.80      | 5,087.1               | 1,974.2      | -24.1        | 1,974.4                 | 1.33                    | -0.32                  | -1.29                 |
| 6,768.0                       | 93.30           | 358.60      | 5,082.0               | 2,070.1      | -26.3        | 2,070.2                 | 0.66                    | 0.63                   | -0.21                 |
| 6,832.0                       | 92.00           | 358.40      | 5,079.1               | 2,134.0      | -28.0        | 2,134.2                 | 2.06                    | -2.03                  | -0.31                 |
| 6,895.0                       | 90.80           | 358.30      | 5,077.5               | 2,196.9      | -29.8        | 2,197.1                 | 1.91                    | -1.90                  | -0.16                 |
| 6,959.0                       | 90.80           | 358.00      | 5,076.6               | 2,260.9      | -31.9        | 2,261.1                 | 0.47                    | 0.00                   | -0.47                 |
| 7,023.0                       | 89.10           | 357.90      | 5,076.7               | 2,324.9      | -34.2        | 2,325.1                 | 2.66                    | -2.66                  | -0.16                 |
| 7,055.0                       | 88.90           | 357.90      | 5,077.3               | 2,356.8      | -35.3        | 2,357.1                 | 0.63                    | -0.63                  | 0.00                  |
| 7,087.0                       | 89.50           | 357.70      | 5,077.7               | 2,388.8      | -36.6        | 2,389.0                 | 1.98                    | 1.88                   | -0.63                 |
| 7,150.0                       | 89.30           | 357.50      | 5,078.4               | 2,461.7      | -39.2        | 2,452.0                 | 0.46                    | -0.32                  | -0.32                 |
| 7,214.0                       | 89.50           | 357.90      | 5,079.0               | 2,515.7      | -41.8        | 2,516.0                 | 0.70                    | 0.31                   | 0.63                  |
| 7,246.0                       | 89.80           | 357.80      | 5,079.2               | 2,547.7      | -43.0        | 2,548.0                 | 0.99                    | 0.94                   | -0.31                 |
| 7,278.0                       | 90.00           | 358.50      | 5,079.3               | 2,579.6      | -44.0        | 2,580.0                 | 2.28                    | 0.63                   | 2.19                  |
| 7,342.0                       | 89.40           | 359.70      | 5,079.6               | 2,643.6      | -45.0        | 2,644.0                 | 2.10                    | -0.94                  | 1.88                  |
| 7,437.0                       | 90.10           | 359.70      | 5,080.0               | 2,738.6      | -45.5        | 2,739.0                 | 0.74                    | 0.74                   | 0.00                  |
| 7,533.0                       | 90.40           | 359.30      | 5,079.6               | 2,834.6      | -46.3        | 2,835.0                 | 0.52                    | 0.31                   | -0.42                 |
| 7,628.0                       | 91.10           | 359.80      | 5,078.4               | 2,929.6      | -47.1        | 2,929.9                 | 0.91                    | 0.74                   | 0.53                  |
| 7,724.0                       | 91.30           | 359.90      | 5,076.4               | 3,025.6      | -47.3        | 3,025.9                 | 0.23                    | 0.21                   | 0.10                  |
| 7,820.0                       | 91.50           | 359.90      | 5,074.0               | 3,121.6      | -47.5        | 3,121.9                 | 0.21                    | 0.21                   | 0.00                  |
| 7,915.0                       | 91.20           | 359.20      | 5,071.8               | 3,216.5      | -48.2        | 3,216.9                 | 0.80                    | -0.32                  | -0.74                 |
| 8,011.0                       | 91.30           | 359.20      | 5,069.7               | 3,312.5      | -49.6        | 3,312.8                 | 0.10                    | 0.10                   | 0.00                  |
| 8,107.0                       | 90.70           | 0.80        | 5,068.0               | 3,408.6      | -49.6        | 3,408.8                 | 1.78                    | -0.63                  | 1.67                  |
| 8,202.0                       | 91.80           | 1.80        | 5,065.9               | 3,503.4      | -47.4        | 3,503.7                 | 1.56                    | 1.16                   | 1.05                  |
| 8,298.0                       | 90.30           | 358.80      | 5,064.2               | 3,599.4      | -46.9        | 3,599.7                 | 3.49                    | -1.56                  | -3.13                 |
| 8,394.0                       | 91.10           | 358.40      | 5,063.0               | 3,695.4      | -49.3        | 3,695.7                 | 0.93                    | 0.83                   | -0.42                 |
| 8,489.0                       | 89.80           | 357.70      | 5,062.3               | 3,790.3      | -52.5        | 3,790.6                 | 1.55                    | -1.37                  | -0.74                 |
| 8,553.0                       | 90.40           | 358.50      | 5,062.1               | 3,854.3      | -54.6        | 3,854.6                 | 1.56                    | 0.94                   | 1.25                  |
| 8,585.0                       | 90.10           | 358.50      | 5,062.0               | 3,886.3      | -55.5        | 3,886.6                 | 0.94                    | -0.94                  | 0.00                  |
| 8,681.0                       | 91.90           | 359.40      | 5,060.3               | 3,982.2      | -57.2        | 3,982.6                 | 2.10                    | 1.88                   | 0.94                  |
| 8,776.0                       | 88.70           | 357.70      | 5,059.8               | 4,077.2      | -59.6        | 4,077.6                 | 3.81                    | -3.37                  | -1.79                 |
| 8,872.0                       | 87.10           | 355.80      | 5,063.3               | 4,173.0      | -65.1        | 4,173.4                 | 2.59                    | -1.67                  | -1.98                 |
| 8,968.0                       | 89.00           | 358.00      | 5,066.6               | 4,268.7      | -70.3        | 4,269.2                 | 3.03                    | 1.98                   | 2.29                  |
| 9,064.0                       | 91.10           | 355.10      | 5,066.5               | 4,364.6      | -76.0        | 4,365.1                 | 3.73                    | 2.19                   | -3.02                 |
| 9,159.0                       | 91.10           | 354.70      | 5,064.7               | 4,459.2      | -84.5        | 4,459.8                 | 0.42                    | 0.00                   | -0.42                 |
| 9,255.0                       | 91.40           | 354.30      | 5,062.6               | 4,554.7      | -93.7        | 4,555.4                 | 0.52                    | 0.31                   | -0.42                 |
| 9,351.0                       | 91.60           | 354.00      | 5,060.1               | 4,650.2      | -103.5       | 4,651.0                 | 0.38                    | 0.21                   | -0.31                 |
| 9,446.0                       | 91.10           | 353.90      | 5,057.9               | 4,744.6      | -113.5       | 4,745.6                 | 0.54                    | -0.53                  | -0.11                 |
| 9,542.0                       | 91.50           | 353.40      | 5,055.7               | 4,840.0      | -124.1       | 4,841.0                 | 0.67                    | 0.42                   | -0.52                 |
| 9,638.0                       | 92.20           | 353.40      | 5,052.6               | 4,935.3      | -135.1       | 4,936.4                 | 0.73                    | 0.73                   | 0.00                  |
| 9,733.0                       | 92.70           | 353.20      | 5,048.5               | 5,029.6      | -146.2       | 5,030.8                 | 0.67                    | 0.63                   | -0.21                 |
| <b>Last Survey</b>            |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,775.8                       | 92.70           | 353.20      | 5,046.5               | 5,072.0      | -151.2       | 5,073.2                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Warren 3317 1-26H PBHL</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,786.0                       | 92.70           | 353.20      | 5,048.0               | 5,082.1      | -152.4       | 5,083.4                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Projection to TD</b>       |                 |             |                       |              |              |                         |                         |                        |                       |



**Archer Directional Drilling Services**  
Survey Report



Company: Sandridge Energy, INC.(mid-con.)  
 Project: Comanche County (KS27S)  
 Site: Sec. 28-T33S-R17W  
 Well: Warren 3317 1-26H  
 Wellbore: Wellbore #1  
 Design: Wellbore #1

Local Co-ordinate Reference: Well Warren 3317 1-26H  
 TVD Reference: WELL @ 1817.0usft (Original Well Elev)  
 MD Reference: WELL @ 1817.0usft (Original Well Elev)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: EDM 5000.1 Single User Db

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N-S (usft) | +E-W (usft) | Vertical Section (usft) | Dogleg Rate (*100usft) | Build Rate (*100usft) | Turn Rate (*100usft) |
|-----------------------|-----------------|-------------|-----------------------|-------------|-------------|-------------------------|------------------------|-----------------------|----------------------|
|                       |                 |             |                       |             |             |                         |                        |                       |                      |

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |             | Comment          |
|-----------------------|-----------------------|-------------------|-------------|------------------|
|                       |                       | +N-S (usft)       | +E-W (usft) |                  |
| 750.0                 | 750.0                 | 6.3               | 0.0         |                  |
| 9,733.0               | 5,048.5               | 5,029.6           | -146.2      | Last Survey      |
| 9,786.0               | 5,046.0               | 5,082.1           | -152.4      | Projection to TD |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

Section 23  
33S 17W

Section 24  
33S 17W

BHL: 9786'  
-99.130496 37.150543



Bottom Perf: 9315'  
-99.130318 37.149358

Section 26  
33S 17W

Section 25  
33S 17W

Top Perf: 5240'  
-99.129883 37.138117

WARREN 3317 2-26H



Miss Entry: 5020'  
-99.129864 37.13764

WARREN 3317 1-26H



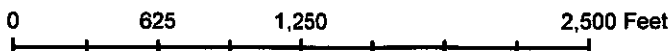
SCHANTZ 3317 1-35H

Section 35  
33S 17W

Section 36  
33S 17W



Actual Bottom-Hole Location of Warren 3317 1-26H  
Comanche County, Kansas  
T&R: 33S 17W  
Section: 26, 735' FEL & 311' FNL  
Long/Lat: -99.130496 37.150543  
1 in = 833 ft



● Actual BH Location

\* SandRidge Wells

Perf

Sections

Draftsman:

Aaron Birk

Draft Date: 11/12/2012

Drawing Name/Number:

Addendum\_Warren\_1-26H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502