Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1195891

Form ACO-1
August 2013
**Form must be Typed**
**Form must be Signed**
**All blanks must be Filled**

# 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: Wanda Ledbetter
Phone: ( 405 ) 429-5500
CONTRACTOR: License # 34464
Name: Lariat Services, Inc. dba Chaparral Supply, Hondo Heavy Haul
Wellsite Geologist: Bob Wilcox
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ 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
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

| 11/29/2013 | 1/13/2014 | 3/22/2014 |
|---|---|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |

API No. 15 - 15-077-21994-01-00
Spot Description:
SE - SE - SW - SE Sec. 20 Twp. 34 S. R. 8 ☐ East ☑ West
315 Feet from ☐ North / ☑ South Line of Section
1330 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Harper
Lease Name: Bailey 3408 Well #: 1-29H
Field Name:
Producing Formation: Mississippi
Elevation: Ground: 1265 Kelly Bushing: 1286
Total Vertical Depth: 9746 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 780 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: 18000 ppm Fluid volume: 6520 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Lojo Disposal
Lease Name: unnamed License #: 56371
Quarter SW Sec. 10 Twp. 26 S. R. 15 ☐ East ☑ West
County: Woods County, OK Permit #: 99999

**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**

☑ **Confidentiality Requested**
Date: 03/28/2014
☑ **Confidential Release Date:** 03/27/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
**ALT** ☑ I ☐ II ☐ III **Approved by:** NAOMI JAMES **Date:** 04/01/2014

[redacted] 1195891

Operator Name: SandRidge Exploration and Production LLC Lease Name: Bailey 3408 Well #: 1-29H

Sec. 20 Twp. 34 S. R. 8 ☐ East ☑ West County: Harper

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☐ Yes ☑ No
*(Attach Additional Sheets)*

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Compensated Neutron
Array Induction
Prizm

☑ Log Formation (Top), Depth and Datum ☐ Sample

| Name | Top | Datum |
|---|---|---|
| Base Heebner | 3469 | -2186 |
| Lansing | 3795 | -2510 |
| Cottage Grove | 4096 | -2792 |
| Oswego | 4527 | -3108 |
| Cherokee | 4689 | -3218 |
| Verdigris | 4715 | -3235 |
| Mississippi | 4997 | -3372 |

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
|---|---|---|---|---|---|---|---|
| Conductor | 30 | 20 | 75 | 90 | Grout | 10 | See Report |
| Surface | 12.25 | 9.625 | 36 | 780 | Class A | 405 | See Report |
| Intermediate | 8.75 | 7 | 11.6 | 5409 | Class A POZ | 340 | See Report |

ADDITIONAL CEMENTING / SQUEEZE RECORD

| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
|---|---|---|---|---|
| ☐ Perforate<br>☐ Protect Casing<br>☐ Plug Back TD<br>☐ Plug Off Zone | -<br>- | | | |

Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☑ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☑ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)* | Depth |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: 4.5 Set At: 9746 Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR.

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|---|---|---|---|---|---|
| | | | | | |

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
*(If vented, Submit ACO-18.)*

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

**Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202**

| | |
|---|---|
| Form | ACO1 - Well Completion |
| Operator | SandRidge Exploration and Production LLC |
| Well Name | Bailey 3408 1-29H |
| Doc ID | 1195891 |

Casing

| Purpose Of String | Size Hole Drilled | Size Casing Set | Weight | Setting Depth | Type Of Cement | Number of Sacks Used | Type and Percent Additives |
|---|---|---|---|---|---|---|---|
| Conductor | 30 | 20 | 75 | 90 | Grout | 10 | See Report |
| Surface | 12.25 | 9.625 | 36 | 780 | Class A | 405 | See Report |
| Intermediate | 8.75 | 7 | 11.6 | 5409 | Class A POZ | 340 | See Report |
| | | | | | | | |

# Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|---|---|
| Job Start Date: | 2/23/2014 |
| Job End Date: | 2/26/2014 |
| State: | Kansas |
| County: | Harper |
| API Number: | 15-077-21994-00-00 |
| Operator Name: | SandRidge Energy |
| Well Name and Number: | Bailey 3408 1-29H |
| Longitude: | -98.20768000 |
| Latitude: | 37.05155000 |
| Datum: | NAD27 |
| Federal/Tribal Well: | NO |
| True Vertical Depth: | 4,712 |
| Total Base Water Volume (gal): | 2,489,004 |
| Total Base Non Water Volume: | 0 |

**Hydraulic Fracturing Fluid Composition:**

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|---|---|---|---|---|---|---|---|
| Water | Operator | Carrier | | | | | |
| | | | Water | 7732-18-5 | 100.00000 | 94.44088 | |
| Sand, White, 40/70 | Baker Hughes | Proppant | | | | | |
| | | | Crystalline Silica (Quartz) | 14808-60-7 | 100.00000 | 4.48847 | |
| HCl, 10.1 - 15% | Baker Hughes | Acidizing | | | | | |
| | | | Water | 7732-18-5 | 85.00000 | 0.72920 | SmartCare Product |
| | | | Hydrochloric Acid | 7647-01-0 | 15.00000 | 0.12868 | SmartCare Product |
| FRW-15A, tote | Baker Hughes | Friction Reducer | | | | | |
| | | | Contains non-hazardous ingredients that are shown in the non-MSDS section of this report. | NA | 100.00000 | 0.07155 | SmartCare Product |
| NE-900, tote | Baker Hughes | Non-emulsifier | | | | | |
| | | | Methanol | 67-56-1 | 30.00000 | 0.01300 | SmartCare Product |
| | | | Nonyl phenyl polyethylene glycol ether | 9016-45-9 | 10.00000 | 0.00433 | SmartCare Product |
| Scaletrol 7208, 330 gl tote | Baker Hughes | Scale Inhibitor | | | | | |
| | | | Ethylene Glycol | 107-21-1 | 30.00000 | 0.00716 | |
| Ferrotrol 300L (Totes) | Baker Hughes | Iron Control | | | | | |
| | | | Citric Acid | 77-92-9 | 60.00000 | 0.00281 | SmartCare Product |
| CI-27 (260 gal tote) | Baker Hughes | Corrosion Inhibitor | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Methanol | 67-56-1 | 60.00000 | 0.00041 | |
| | | | Thiourea Polymer | 68527-49-1 | 30.00000 | 0.00020 | |
| | | | Fatty Acids | Trade Secret | 30.00000 | 0.00020 | |
| | | | Polyoxyalkylenes | Trade Secret | 30.00000 | 0.00020 | |
| | | | Propargyl Alcohol | 107-19-7 | 10.00000 | 0.00007 | |
| | | | Olefin | Trade Secret | 5.00000 | 0.00003 | |
| Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS. | | | | | | | |
| | | Other Chemicals | | | | | |
| | | | Water | 7732-18-5 | | 0.03702 | |
| | | | Copolymer of Acrylamide and Sodium Acrylate | 25987-30-8 | | 0.02862 | |
| | | | Hydrotreated Light Distillate | 64742-47-8 | | 0.02147 | |
| | | | Copolymer | Trade Secret | | 0.01733 | |
| | | | Sorbitan Monooleate | 1338-43-8 | | 0.00358 | |
| | | | Nonyl Phenol Ethoxylate | 127087-87-0 | | 0.00358 | |
| | | | Diethylene Glycol | 111-46-6 | | 0.00119 | |
| | | | Sodium Chloride | 7647-14-5 | | 0.00000 | |
| | | | Formaldehyde | 50-00-0 | | 0.00000 | |
| | | | Potassium Chloride | 7447-40-7 | | | |
| | | | 2-Propenoic, Polymer with Sodium Phosphinate, Sodium Salt | 71050-62-9 | | | |
| | | | Calcium Chloride | 10043-52-4 | | | |
| | | | Polyacrylate | Trade Secret | | | |

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

DrillRight TECHNOLOGY, INC.

# Survey Report

**DRT Job # : DR1312198**

| | |
|---|---|
| **Company:** | Sandridge |
| **Well Name:** | Bailey 3408 1-29H |
| **Legals:** | Sec: 20 Township: 34S Range: 8W |
| **County/State:** | Harper County KS |
| **Rig Name:** | Lariat 20 |

| Customer Rep | Position |
|---|---|

| Directional Driller | MWD Operator |
|---|---|
| Allen Landers | George Hunt |
| Robert Phililips | Dallas Detweiler |
| Mike Foster | |
| Scott Graham | |

## Bailey 3408 1-29H Surveys

| Type | M Depth | Incl. | Azimuth | TVD | North | East | V Section | Dogleg | B Rate | T Rate | Clos Azi | Clos Dist |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TieInPoint | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| Survey | 849.00 | 0.70 | 35.00 | 848.98 | 4.25 | 2.97 | -4.55 | 0.08 | 0.08 | 4.12 | 34.95 | 5.18 |
| Survey | 939.00 | 0.60 | 37.70 | 938.97 | 5.07 | 3.58 | -5.44 | 0.12 | 0.11 | 3.00 | 35.23 | 6.21 |
| Survey | 1029.00 | 0.80 | 45.10 | 1028.97 | 5.89 | 4.31 | -6.33 | 0.24 | 0.22 | 8.22 | 36.19 | 7.30 |
| Survey | 1119.00 | 0.60 | 69.50 | 1118.96 | 6.50 | 5.20 | -7.04 | 0.39 | 0.22 | 27.11 | 38.66 | 8.32 |
| Survey | 1208.00 | 0.80 | 34.50 | 1207.96 | 7.17 | 5.98 | -7.79 | 0.52 | 0.22 | 39.33 | 39.83 | 9.34 |
| Survey | 1299.00 | 0.60 | 86.60 | 1298.95 | 7.73 | 6.82 | -8.44 | 0.70 | 0.22 | 57.25 | 41.42 | 10.31 |
| Survey | 1390.00 | 0.50 | 78.60 | 1389.95 | 7.83 | 7.69 | -8.64 | 0.14 | 0.11 | 8.79 | 44.48 | 10.97 |
| Survey | 1485.00 | 0.80 | 89.10 | 1484.94 | 7.92 | 8.76 | -8.85 | 0.34 | 0.32 | 11.05 | 47.88 | 11.81 |
| Survey | 1580.00 | 0.70 | 74.00 | 1579.94 | 8.09 | 9.98 | -9.15 | 0.23 | 0.11 | 15.89 | 50.97 | 12.85 |
| Survey | 1676.00 | 0.70 | 64.40 | 1675.93 | 8.51 | 11.07 | -9.69 | 0.12 | 0.00 | 10.00 | 52.45 | 13.96 |
| Survey | 1771.00 | 0.60 | 55.70 | 1770.92 | 9.04 | 12.01 | -10.32 | 0.15 | 0.11 | 9.16 | 53.03 | 15.03 |
| Survey | 1866.00 | 0.60 | 83.40 | 1865.92 | 9.38 | 12.91 | -10.76 | 0.30 | 0.00 | 29.16 | 54.00 | 15.96 |
| Survey | 1961.00 | 0.60 | 58.70 | 1960.91 | 9.69 | 13.83 | -11.17 | 0.27 | 0.00 | 26.00 | 54.98 | 16.89 |
| Survey | 2057.00 | 0.50 | 47.20 | 2056.91 | 10.24 | 14.57 | -11.80 | 0.15 | 0.10 | 11.98 | 54.90 | 17.81 |
| Survey | 2152.00 | 0.30 | 53.30 | 2151.90 | 10.67 | 15.07 | -12.28 | 0.21 | 0.21 | 6.42 | 54.70 | 18.46 |
| Survey | 2247.00 | 0.70 | 102.00 | 2246.90 | 10.69 | 15.84 | -12.39 | 0.58 | 0.42 | 51.26 | 55.99 | 19.11 |
| Survey | 2342.00 | 0.30 | 48.20 | 2341.90 | 10.74 | 16.59 | -12.52 | 0.61 | 0.42 | 56.63 | 57.08 | 19.76 |
| Survey | 2437.00 | 0.40 | 17.00 | 2436.90 | 11.22 | 16.87 | -13.03 | 0.22 | 0.11 | 32.84 | 56.37 | 20.26 |
| Survey | 2533.00 | 0.40 | 44.90 | 2532.90 | 11.78 | 17.21 | -13.62 | 0.20 | 0.00 | 29.06 | 55.61 | 20.86 |
| Survey | 2628.00 | 0.50 | 47.30 | 2627.89 | 12.30 | 17.75 | -14.20 | 0.11 | 0.11 | 2.53 | 55.28 | 21.60 |
| Survey | 2724.00 | 0.30 | 18.00 | 2723.89 | 12.82 | 18.13 | -14.76 | 0.29 | 0.21 | 30.52 | 54.74 | 22.20 |
| Survey | 2819.00 | 0.50 | 26.10 | 2818.89 | 13.43 | 18.39 | -15.39 | 0.22 | 0.21 | 8.53 | 53.86 | 22.77 |
| Survey | 2875.00 | 0.50 | 22.90 | 2874.89 | 13.87 | 18.59 | -15.85 | 0.05 | 0.00 | 5.71 | 53.27 | 23.19 |
| Survey | 2905.00 | 0.40 | 1.10 | 2904.89 | 14.10 | 18.65 | -16.09 | 0.65 | 0.33 | 72.67 | 52.91 | 23.38 |
| Survey | 2935.00 | 1.50 | 301.10 | 2934.88 | 14.41 | 18.31 | -16.36 | 4.48 | 3.67 | 200.00 | 51.80 | 23.30 |
| Survey | 2965.00 | 4.90 | 285.20 | 2964.83 | 14.95 | 16.74 | -16.72 | 11.61 | 11.33 | 53.00 | 48.23 | 22.44 |
| Survey | 2995.00 | 9.00 | 284.20 | 2994.61 | 15.86 | 13.23 | -17.23 | 13.67 | 13.67 | 3.33 | 39.83 | 20.65 |
| Survey | 3026.00 | 11.80 | 285.00 | 3025.09 | 17.27 | 7.81 | -18.03 | 9.04 | 9.03 | 2.58 | 24.33 | 18.95 |
| Survey | 3056.00 | 13.80 | 286.10 | 3054.35 | 19.06 | 1.41 | -19.10 | 6.72 | 6.67 | 3.67 | 4.23 | 19.11 |
| Survey | 3086.00 | 15.90 | 283.60 | 3083.34 | 21.02 | -6.02 | -20.22 | 7.32 | 7.00 | 8.33 | 344.02 | 21.87 |
| Survey | 3116.00 | 17.80 | 280.30 | 3112.05 | 22.81 | -14.53 | -21.05 | 7.09 | 6.33 | 11.00 | 327.50 | 27.04 |
| Survey | 3145.00 | 19.50 | 278.40 | 3139.53 | 24.30 | -23.68 | -21.51 | 6.22 | 5.86 | 6.55 | 315.74 | 33.93 |
| Survey | 3175.00 | 20.40 | 277.40 | 3167.73 | 25.70 | -33.82 | -21.78 | 3.21 | 3.00 | 3.33 | 307.23 | 42.48 |
| Survey | 3205.00 | 20.00 | 275.40 | 3195.88 | 26.86 | -44.11 | -21.78 | 2.66 | 1.33 | 6.67 | 301.34 | 51.64 |
| Survey | 3235.00 | 20.20 | 270.50 | 3224.06 | 27.39 | -54.40 | -21.17 | 5.65 | 0.67 | 16.33 | 296.72 | 60.91 |
| Survey | 3265.00 | 21.00 | 263.60 | 3252.15 | 26.84 | -64.92 | -19.45 | 8.51 | 2.67 | 23.00 | 292.46 | 70.25 |
| Survey | 3295.00 | 21.10 | 260.90 | 3280.14 | 25.38 | -75.60 | -16.81 | 3.25 | 0.33 | 9.00 | 288.56 | 79.75 |
| Survey | 3326.00 | 20.70 | 260.40 | 3309.10 | 23.59 | -86.51 | -13.82 | 1.41 | 1.29 | 1.61 | 285.25 | 89.67 |
| Survey | 3356.00 | 20.00 | 258.60 | 3337.23 | 21.69 | -96.77 | -10.79 | 3.13 | 2.33 | 6.00 | 282.63 | 99.17 |
| Survey | 3386.00 | 19.10 | 257.60 | 3365.50 | 19.62 | -106.59 | -7.64 | 3.20 | 3.00 | 3.33 | 280.43 | 108.38 |

## Bailey 3408 1-29H Surveys

| Type | M Depth | Incl. | Azimuth | TVD | North | East | V Section | Dogleg | B Rate | T Rate | Clos Azi | Clos Dist |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Survey | 3417.00 | 18.90 | 258.40 | 3394.81 | 17.52 | -116.46 | -4.45 | 1.06 | 0.65 | 2.58 | 278.56 | 117.77 |
| Survey | 3447.00 | 19.00 | 262.50 | 3423.19 | 15.91 | -126.06 | -1.78 | 4.45 | 0.33 | 13.67 | 277.19 | 127.06 |
| Survey | 3477.00 | 19.10 | 263.80 | 3451.55 | 14.74 | -135.78 | 0.46 | 1.45 | 0.33 | 4.33 | 276.20 | 136.58 |
| Survey | 3507.00 | 19.20 | 266.90 | 3479.89 | 13.95 | -145.59 | 2.34 | 3.41 | 0.33 | 10.33 | 275.47 | 146.26 |
| Survey | 3537.00 | 19.50 | 267.70 | 3508.19 | 13.48 | -155.52 | 3.91 | 1.33 | 1.00 | 2.67 | 274.95 | 156.10 |
| Survey | 3566.00 | 20.30 | 267.00 | 3535.46 | 13.02 | -165.38 | 5.47 | 2.88 | 2.76 | 2.41 | 274.50 | 165.89 |
| Survey | 3596.00 | 20.30 | 265.80 | 3563.60 | 12.37 | -175.76 | 7.27 | 1.39 | 0.00 | 4.00 | 274.03 | 176.19 |
| Survey | 3626.00 | 19.30 | 263.90 | 3591.82 | 11.46 | -185.88 | 9.30 | 3.96 | 3.33 | 6.33 | 273.53 | 186.23 |
| Survey | 3656.00 | 18.40 | 262.00 | 3620.22 | 10.27 | -195.50 | 11.55 | 3.63 | 3.00 | 6.33 | 273.01 | 195.77 |
| Survey | 3686.00 | 17.60 | 261.10 | 3648.75 | 8.91 | -204.67 | 13.92 | 2.82 | 2.67 | 3.00 | 272.49 | 204.86 |
| Survey | 3716.00 | 17.00 | 257.60 | 3677.40 | 7.27 | -213.43 | 16.53 | 4.00 | 2.00 | 11.67 | 271.95 | 213.55 |
| Survey | 3746.00 | 16.20 | 254.70 | 3706.14 | 5.22 | -221.75 | 19.49 | 3.84 | 2.67 | 9.67 | 271.35 | 221.81 |
| Survey | 3776.00 | 15.30 | 254.10 | 3735.02 | 3.03 | -229.60 | 22.54 | 3.05 | 3.00 | 2.00 | 270.76 | 229.62 |
| Survey | 3807.00 | 14.60 | 253.40 | 3764.97 | 0.79 | -237.28 | 25.62 | 2.33 | 2.26 | 2.26 | 270.19 | 237.28 |
| Survey | 3838.00 | 15.40 | 256.00 | 3794.91 | -1.32 | -245.01 | 28.58 | 3.37 | 2.58 | 8.39 | 269.69 | 245.01 |
| Survey | 3868.00 | 17.10 | 260.30 | 3823.71 | -3.03 | -253.22 | 31.19 | 6.94 | 5.67 | 14.33 | 269.31 | 253.24 |
| Survey | 3899.00 | 19.60 | 263.90 | 3853.13 | -4.35 | -262.89 | 33.58 | 8.85 | 8.06 | 11.61 | 269.05 | 262.93 |
| Survey | 3931.00 | 21.40 | 266.50 | 3883.10 | -5.28 | -274.06 | 35.75 | 6.30 | 5.62 | 8.12 | 268.90 | 274.11 |
| Survey | 3963.00 | 20.90 | 266.40 | 3912.95 | -5.99 | -285.58 | 37.74 | 1.57 | 1.56 | 0.31 | 268.80 | 285.64 |
| Survey | 3995.00 | 22.00 | 265.00 | 3942.73 | -6.87 | -297.25 | 39.91 | 3.79 | 3.44 | 4.37 | 268.68 | 297.33 |
| Survey | 4027.00 | 21.50 | 263.70 | 3972.45 | -8.04 | -309.05 | 42.39 | 2.17 | 1.56 | 4.06 | 268.51 | 309.15 |
| Survey | 4058.00 | 20.50 | 262.60 | 4001.39 | -9.36 | -320.08 | 44.93 | 3.47 | 3.23 | 3.55 | 268.32 | 320.22 |
| Survey | 4090.00 | 19.30 | 258.70 | 4031.48 | -11.12 | -330.82 | 47.87 | 5.59 | 3.75 | 12.19 | 268.07 | 331.01 |
| Survey | 4122.00 | 17.80 | 250.00 | 4061.82 | -13.83 | -340.61 | 51.65 | 9.83 | 4.69 | 27.19 | 267.67 | 340.89 |
| Survey | 4154.00 | 18.20 | 246.70 | 4092.25 | -17.48 | -349.80 | 56.30 | 3.42 | 1.25 | 10.31 | 267.14 | 350.24 |
| Survey | 4185.00 | 21.80 | 249.40 | 4121.38 | -21.42 | -359.63 | 61.31 | 11.99 | 11.61 | 8.71 | 266.59 | 360.27 |
| Survey | 4217.00 | 24.30 | 244.80 | 4150.83 | -26.32 | -371.16 | 67.46 | 9.62 | 7.81 | 14.38 | 265.94 | 372.09 |
| Survey | 4249.00 | 25.60 | 238.00 | 4179.85 | -32.79 | -382.98 | 75.21 | 9.83 | 4.06 | 21.25 | 265.11 | 384.38 |
| Survey | 4280.00 | 27.30 | 232.70 | 4207.61 | -40.65 | -394.32 | 84.28 | 9.38 | 5.48 | 17.10 | 264.11 | 396.41 |
| Survey | 4312.00 | 29.40 | 228.40 | 4235.77 | -50.31 | -406.03 | 95.19 | 9.15 | 6.56 | 13.44 | 262.94 | 409.14 |
| Survey | 4344.00 | 31.30 | 224.90 | 4263.39 | -61.42 | -417.78 | 107.54 | 8.11 | 5.94 | 10.94 | 261.64 | 422.27 |
| Survey | 4376.00 | 32.70 | 221.80 | 4290.53 | -73.75 | -429.41 | 121.08 | 6.74 | 4.38 | 9.69 | 260.25 | 435.70 |
| Survey | 4407.00 | 34.80 | 218.60 | 4316.30 | -86.91 | -440.51 | 135.40 | 8.87 | 6.77 | 10.32 | 258.84 | 449.00 |
| Survey | 4439.00 | 36.00 | 215.40 | 4342.39 | -101.72 | -451.66 | 151.36 | 6.90 | 3.75 | 10.00 | 257.31 | 462.97 |
| Survey | 4470.00 | 37.40 | 212.10 | 4367.25 | -117.12 | -461.94 | 167.80 | 7.80 | 4.52 | 10.65 | 255.77 | 476.56 |
| Survey | 4502.00 | 39.60 | 208.40 | 4392.30 | -134.33 | -471.96 | 186.02 | 9.95 | 6.88 | 11.56 | 254.11 | 490.70 |
| Survey | 4534.00 | 41.20 | 206.20 | 4416.66 | -152.76 | -481.46 | 205.40 | 6.70 | 5.00 | 6.88 | 252.40 | 505.11 |
| Survey | 4565.00 | 42.40 | 204.00 | 4439.78 | -171.47 | -490.22 | 224.96 | 6.11 | 3.87 | 7.10 | 250.72 | 519.34 |
| Survey | 4597.00 | 44.60 | 202.90 | 4462.99 | -191.68 | -498.98 | 246.02 | 7.27 | 6.88 | 3.44 | 248.99 | 534.53 |
| Survey | 4629.00 | 47.20 | 201.20 | 4485.26 | -212.98 | -507.60 | 268.15 | 8.98 | 8.13 | 5.31 | 247.24 | 550.47 |
| Survey | 4661.00 | 49.80 | 200.80 | 4506.46 | -235.35 | -516.19 | 291.34 | 8.18 | 8.12 | 1.25 | 245.49 | 567.31 |
| Survey | 4693.00 | 52.30 | 199.70 | 4526.58 | -258.70 | -524.80 | 315.50 | 8.26 | 7.81 | 3.44 | 243.76 | 585.10 |
| Survey | 4724.00 | 54.70 | 198.50 | 4545.01 | -282.24 | -532.94 | 339.80 | 8.34 | 7.74 | 3.87 | 242.09 | 603.06 |
| Survey | 4756.00 | 56.80 | 197.40 | 4563.02 | -307.41 | -541.09 | 365.72 | 7.15 | 6.56 | 3.44 | 240.40 | 622.32 |
| Survey | 4788.00 | 58.60 | 195.90 | 4580.12 | -333.32 | -548.84 | 392.33 | 6.88 | 5.63 | 4.69 | 238.73 | 642.13 |
| Survey | 4820.00 | 60.60 | 194.90 | 4596.31 | -359.93 | -556.16 | 419.59 | 6.81 | 6.25 | 3.12 | 237.09 | 662.47 |
| Survey | 4851.00 | 63.30 | 194.00 | 4610.89 | -386.42 | -562.99 | 446.68 | 9.08 | 8.71 | 2.90 | 235.54 | 682.85 |
| Survey | 4883.00 | 67.00 | 193.10 | 4624.34 | -414.64 | -569.78 | 475.48 | 11.84 | 11.56 | 2.81 | 233.96 | 704.68 |

## Bailey 3408 1-29H Surveys

| Type | M Depth | Incl. | Azimuth | TVD | North | East | V Section | Dogleg | B Rate | T Rate | Clos Azi | Clos Dist |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Survey | 4915.00 | 69.80 | 191.70 | 4636.12 | -443.70 | -576.16 | 505.07 | 9.65 | 8.75 | 4.38 | 232.40 | 727.21 |
| Survey | 4947.00 | 70.20 | 189.50 | 4647.06 | -473.25 | -581.70 | 535.05 | 6.58 | 1.25 | 6.87 | 230.87 | 749.89 |
| Survey | 4978.00 | 72.70 | 186.40 | 4656.93 | -502.35 | -585.75 | 564.42 | 12.45 | 8.06 | 10.00 | 229.38 | 771.66 |
| Survey | 5010.00 | 76.00 | 184.80 | 4665.56 | -533.01 | -588.75 | 595.22 | 11.38 | 10.31 | 5.00 | 227.84 | 794.18 |
| Survey | 5042.00 | 78.80 | 181.90 | 4672.54 | -564.18 | -590.57 | 626.40 | 12.44 | 8.75 | 9.06 | 226.31 | 816.74 |
| Survey | 5073.00 | 81.10 | 180.50 | 4677.95 | -594.70 | -591.21 | 656.80 | 8.65 | 7.42 | 4.52 | 224.83 | 838.57 |
| Survey | 5105.00 | 83.30 | 182.10 | 4682.29 | -626.39 | -591.93 | 688.38 | 8.47 | 6.88 | 5.00 | 223.38 | 861.83 |
| Survey | 5137.00 | 85.30 | 182.00 | 4685.47 | -658.21 | -593.07 | 720.13 | 6.26 | 6.25 | 0.31 | 222.02 | 885.99 |
| Survey | 5169.00 | 87.40 | 181.50 | 4687.51 | -690.13 | -594.04 | 751.96 | 6.75 | 6.56 | 1.56 | 220.72 | 910.58 |
| Survey | 5200.00 | 87.50 | 181.20 | 4688.89 | -721.09 | -594.77 | 782.81 | 1.02 | 0.32 | 0.97 | 219.52 | 934.73 |
| Survey | 5232.00 | 87.60 | 181.20 | 4690.26 | -753.05 | -595.44 | 814.64 | 0.31 | 0.31 | 0.00 | 218.33 | 960.02 |
| Survey | 5264.00 | 87.50 | 181.30 | 4691.63 | -785.02 | -596.14 | 846.49 | 0.44 | 0.31 | 0.31 | 217.21 | 985.72 |
| Survey | 5296.00 | 87.30 | 181.10 | 4693.08 | -816.98 | -596.81 | 878.33 | 0.88 | 0.62 | 0.63 | 216.15 | 1011.75 |
| Survey | 5328.00 | 87.30 | 181.00 | 4694.58 | -848.94 | -597.39 | 910.15 | 0.31 | 0.00 | 0.31 | 215.13 | 1038.06 |
| Survey | 5359.00 | 87.30 | 181.10 | 4696.05 | -879.90 | -597.96 | 940.98 | 0.32 | 0.00 | 0.32 | 214.20 | 1063.85 |
| Survey | 5382.00 | 87.10 | 180.70 | 4697.17 | -902.87 | -598.32 | 963.85 | 1.94 | 0.87 | 1.74 | 213.53 | 1083.13 |
| Survey | 5490.00 | 87.70 | 180.10 | 4702.07 | -1010.76 | -599.07 | 1071.15 | 0.79 | 0.56 | 0.56 | 210.65 | 1174.96 |
| Survey | 5585.00 | 88.10 | 179.60 | 4705.55 | -1105.70 | -598.82 | 1165.48 | 0.67 | 0.42 | 0.53 | 208.44 | 1257.44 |
| Survey | 5681.00 | 88.90 | 178.40 | 4708.06 | -1201.65 | -597.15 | 1260.64 | 1.50 | 0.83 | 1.25 | 206.42 | 1341.85 |
| Survey | 5777.00 | 89.10 | 178.70 | 4709.74 | -1297.60 | -594.72 | 1355.73 | 0.38 | 0.21 | 0.31 | 204.62 | 1427.40 |
| Survey | 5872.00 | 89.10 | 179.10 | 4711.23 | -1392.58 | -592.90 | 1449.92 | 0.42 | 0.00 | 0.42 | 203.06 | 1513.54 |
| Survey | 5968.00 | 89.10 | 179.00 | 4712.74 | -1488.55 | -591.31 | 1545.11 | 0.10 | 0.00 | 0.10 | 201.66 | 1601.70 |
| Survey | 6064.00 | 89.00 | 177.50 | 4714.33 | -1584.49 | -588.38 | 1640.13 | 1.57 | 0.10 | 1.56 | 200.37 | 1690.21 |
| Survey | 6159.00 | 90.60 | 177.90 | 4714.66 | -1679.41 | -584.57 | 1734.04 | 1.74 | 1.68 | 0.42 | 199.19 | 1778.24 |
| Survey | 6255.00 | 90.80 | 177.60 | 4713.49 | -1775.33 | -580.80 | 1828.94 | 0.38 | 0.21 | 0.31 | 198.12 | 1867.92 |
| Survey | 6350.00 | 90.80 | 177.60 | 4712.16 | -1870.24 | -576.82 | 1922.82 | 0.00 | 0.00 | 0.00 | 197.14 | 1957.17 |
| Survey | 6445.00 | 91.30 | 178.60 | 4710.42 | -1965.17 | -573.67 | 2016.81 | 1.18 | 0.53 | 1.05 | 196.27 | 2047.19 |
| Survey | 6541.00 | 91.50 | 179.40 | 4708.07 | -2061.13 | -572.00 | 2111.99 | 0.86 | 0.21 | 0.83 | 195.51 | 2139.03 |
| Survey | 6637.00 | 90.30 | 180.30 | 4706.56 | -2157.12 | -571.75 | 2207.35 | 1.56 | 1.25 | 0.94 | 194.85 | 2231.61 |
| Survey | 6732.00 | 89.60 | 181.40 | 4706.64 | -2252.10 | -573.16 | 2301.90 | 1.37 | 0.74 | 1.16 | 194.28 | 2323.89 |
| Survey | 6828.00 | 90.10 | 181.20 | 4706.89 | -2348.07 | -575.34 | 2397.52 | 0.56 | 0.52 | 0.21 | 193.77 | 2417.53 |
| Survey | 6923.00 | 89.00 | 182.10 | 4707.64 | -2443.03 | -578.07 | 2492.19 | 1.50 | 1.16 | 0.95 | 193.31 | 2510.49 |
| Survey | 7014.00 | 89.00 | 181.60 | 4709.23 | -2533.97 | -581.01 | 2582.89 | 0.55 | 0.00 | 0.55 | 192.91 | 2599.73 |
| Survey | 7104.00 | 89.20 | 181.40 | 4710.64 | -2623.93 | -583.36 | 2672.55 | 0.31 | 0.22 | 0.22 | 192.53 | 2688.00 |
| Survey | 7195.00 | 89.30 | 181.00 | 4711.83 | -2714.90 | -585.27 | 2763.17 | 0.45 | 0.11 | 0.44 | 192.17 | 2777.27 |
| Survey | 7286.00 | 89.50 | 180.90 | 4712.78 | -2805.88 | -586.77 | 2853.75 | 0.24 | 0.21 | 0.11 | 191.81 | 2866.58 |
| Survey | 7377.00 | 89.80 | 181.00 | 4713.33 | -2896.87 | -588.28 | 2944.35 | 0.35 | 0.33 | 0.11 | 191.48 | 2956.00 |
| Survey | 7469.00 | 90.20 | 180.00 | 4713.33 | -2988.87 | -589.09 | 3035.86 | 1.17 | 0.43 | 1.09 | 191.15 | 3046.37 |
| Survey | 7559.00 | 89.60 | 180.90 | 4713.49 | -3078.87 | -589.79 | 3125.38 | 1.20 | 0.67 | 1.00 | 190.84 | 3134.85 |
| Survey | 7651.00 | 89.40 | 181.10 | 4714.29 | -3170.85 | -591.40 | 3216.97 | 0.31 | 0.22 | 0.22 | 190.56 | 3225.53 |
| Survey | 7741.00 | 88.50 | 181.00 | 4715.94 | -3260.82 | -593.05 | 3306.57 | 1.01 | 1.00 | 0.11 | 190.31 | 3314.31 |
| Survey | 7832.00 | 88.60 | 179.80 | 4718.24 | -3351.79 | -593.69 | 3397.04 | 1.32 | 0.11 | 1.32 | 190.04 | 3403.96 |
| Survey | 7923.00 | 89.00 | 179.80 | 4720.15 | -3442.77 | -593.37 | 3487.42 | 0.44 | 0.44 | 0.00 | 189.78 | 3493.53 |
| Survey | 8014.00 | 89.20 | 179.60 | 4721.58 | -3533.76 | -592.89 | 3577.79 | 0.31 | 0.22 | 0.22 | 189.52 | 3583.15 |
| Survey | 8106.00 | 89.50 | 180.10 | 4722.62 | -3625.75 | -592.65 | 3669.18 | 0.63 | 0.33 | 0.54 | 189.28 | 3673.87 |
| Survey | 8196.00 | 89.90 | 179.10 | 4723.09 | -3715.75 | -592.02 | 3758.55 | 1.20 | 0.44 | 1.11 | 189.05 | 3762.62 |
| Survey | 8286.00 | 89.70 | 179.90 | 4723.40 | -3805.75 | -591.23 | 3847.91 | 0.92 | 0.22 | 0.89 | 188.83 | 3851.40 |
| Survey | 8382.00 | 89.60 | 179.90 | 4723.99 | -3901.75 | -591.06 | 3943.29 | 0.10 | 0.10 | 0.00 | 188.61 | 3946.26 |

DrillRight TECHNOLOGY, INC.

# Survey Report

DRT Job # :

## Bailey 3408 1-29H Surveys

| Type | M Depth | Incl. | Azimuth | TVD | North | East | V Section | Dogleg | B Rate | T Rate | Clos Azi | Clos Dist |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Survey | 8477.00 | 88.90 | 180.30 | 4725.23 | -3996.74 | -591.23 | 4037.71 | 0.85 | 0.74 | 0.42 | 188.41 | 4040.23 |
| Survey | 8573.00 | 89.50 | 180.90 | 4726.57 | -4092.72 | -592.24 | 4133.21 | 0.88 | 0.63 | 0.62 | 188.23 | 4135.35 |
| Survey | 8669.00 | 89.00 | 181.10 | 4727.83 | -4188.70 | -593.92 | 4228.78 | 0.56 | 0.52 | 0.21 | 188.07 | 4230.60 |
| Survey | 8764.00 | 88.90 | 180.70 | 4729.57 | -4283.67 | -595.41 | 4323.32 | 0.43 | 0.11 | 0.42 | 187.91 | 4324.85 |
| Survey | 8860.00 | 88.10 | 181.30 | 4732.08 | -4379.62 | -597.08 | 4418.86 | 1.04 | 0.83 | 0.63 | 187.76 | 4420.13 |
| Survey | 8956.00 | 88.20 | 181.00 | 4735.18 | -4475.55 | -599.01 | 4514.41 | 0.33 | 0.10 | 0.31 | 187.62 | 4515.46 |
| Survey | 9051.00 | 88.90 | 180.50 | 4737.58 | -4570.51 | -600.25 | 4608.92 | 0.91 | 0.74 | 0.53 | 187.48 | 4609.76 |
| Survey | 9147.00 | 89.80 | 180.40 | 4738.67 | -4666.50 | -601.00 | 4704.40 | 0.94 | 0.94 | 0.10 | 187.34 | 4705.04 |
| Survey | 9242.00 | 90.50 | 180.50 | 4738.42 | -4761.50 | -601.75 | 4798.89 | 0.74 | 0.74 | 0.11 | 187.20 | 4799.37 |
| Survey | 9338.00 | 90.70 | 180.10 | 4737.41 | -4857.49 | -602.25 | 4894.34 | 0.47 | 0.21 | 0.42 | 187.07 | 4894.68 |
| Survey | 9433.00 | 90.90 | 180.30 | 4736.08 | -4952.48 | -602.58 | 4988.78 | 0.30 | 0.21 | 0.21 | 186.94 | 4989.00 |
| Survey | 9529.00 | 90.70 | 179.50 | 4734.74 | -5048.47 | -602.41 | 5084.15 | 0.86 | 0.21 | 0.83 | 186.80 | 5084.28 |
| Survey | 9625.00 | 90.90 | 180.00 | 4733.40 | -5144.46 | -601.99 | 5179.50 | 0.56 | 0.21 | 0.52 | 186.67 | 5179.56 |
| Survey | 9696.00 | 91.00 | 179.90 | 4732.22 | -5215.45 | -601.93 | 5250.04 | 0.20 | 0.14 | 0.14 | 186.58 | 5250.07 |
| PrjCalcPnt | 9746 | 91 | 179.9 | 4731.35 | -5265.44 | -601.84 | 5299.71 | 0 | 0 | 0 | 186.52 | 5299.73 |

# Sandridge

Location Kansas | Installation Harper County
Field Sec 20 - 34S - 8W | Well Bailey 3408 1-29H

## Installation Data

| Name | Latitude | Longitude | Northing | Easting |
|---|---|---|---|---|
| Harper County | N37 3 54.33 | W98 12 3.48 | 145215.00 | 2087259.00 |
| Coordinate System | Kansas State Planes, Southern Zone | | | |

## Slot Data

| Name | North [ft] | East [ft] | Latitude | Longitude | Northing | Easting |
|---|---|---|---|---|---|---|
| Bailey 3408 1-29H | 312.99 N | -1339.94 E | N37 3 57.47 | W98 12 20.00 | 145528.00 | 2085919.00 |

## Elevation Data

| Slot - Mean Sea Level [ft] | Mean Sea Level - Mudline/Ground level [ft] | Slot - Mudline/Ground level [ft] |
|---|---|---|
| 0.00 | 0.00 | 0.00 |

## WELL PROFILE DATA

| Point | MD | Inc | Azi | TVD | North | East | deg/100ft | V. Sect |
|---|---|---|---|---|---|---|---|---|
| Tie on | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.00 |
| KOP | 3000.00 | 0.00 | 0.00 | 3000.00 | 0.00 | 0.00 | 0.00 | -0.00 |
| End of Build | 3262.82 | 21.03 | 269.97 | 3256.97 | -0.03 | -47.69 | 8.00 | 5.33 |
| End of Hold | 4081.15 | 21.03 | 269.97 | 4020.80 | -0.19 | -341.29 | 0.00 | 38.18 |
| Target Bailey 3408 1-2 | 5182.67 | 88.00 | 180.00 | 4691.94 | -693.00 | -589.97 | 8.00 | 754.37 |
| Target Bailey 3408 1-2 | 5382.67 | 88.00 | 180.00 | 4698.92 | -892.88 | -589.97 | 0.00 | 953.01 |
| Target Bailey 3408 1-2 | 5400.79 | 89.45 | 180.00 | 4699.32 | -910.85 | -589.97 | 8.00 | 970.87 |
| T.D. & Target Bailey 34 | 9756.91 | 89.45 | 180.00 | 4741.00 | -5266.77 | -589.97 | 0.00 | 5299.71 |

## TARGET DATA

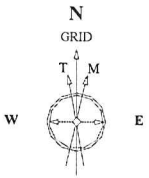
| MD | Inc | Azi | TVD | North | East | Name | Position |
|---|---|---|---|---|---|---|---|
| 5182.67 | 88.00 | 180.00 | 4691.94 | -693.00 | -589.97 | Bailey 3408 1-29H - 88° | 2085329.00 East : 144834.97 North |
| 5382.67 | 88.00 | 180.00 | 4698.92 | -892.88 | -589.97 | Bailey 3408 1-29H - End 88° | 2085329.00 East : 144635.08 North |
| 5400.79 | 89.45 | 180.00 | 4699.32 | -910.85 | -589.97 | Bailey 3408 1-29H - LP | 2085329.00 East : 144617.11 North |
| 9756.91 | 89.45 | 180.00 | 4741.00 | -5266.77 | -589.97 | Bailey 3408 1-29H - BHL | 2085329.00 East : 140261.00 North |

***Target Line: 12-20-13***

***Target: 4690 KBTVD @ 0 VS***

***89.45° @ 186.39 Azimuth Plane***

SandRidge ENERGY




26-Nov-2013
IGRF Model [1900.0-2015.0] Dip: 65.14 deg Field: 51671.2 nT
Magnetic North is 4.51 deg East of True North
GRID North is 0.18 deg East of True North
To correct azimuth from True to GRID subtract 0.18 deg
To correct azimuth from Magnetic to GRID add 4.33 deg

Created by admin
Date plotted 14-Jan-2014
Plot reference is Bailey 3408 1-29H (Plan).
Ref wellpath is Bailey 3408 1-29H (PWP#1).
Coordinates are in feet reference Bailey 3408 1-29H.
True Vertical Depths are reference Bailey 3408 1-29H.
Measured Depths are reference Slot.
Plot North is aligned to GRID North.

KOP: MD 3000
Start 8°/100 BR

Landing Point:
MD 5401 TVD 4699
S 911 W 590
89.45° @ 180 Azi
VS = 971'

Projected BHL:
332 FSL 1992 FEL
Sec 29 - 34S - 8W
X = 2085317 Y = 140262
S 5265 W 602
MD 9746 TVD 4731
VS = 5300'

<- True Vertical Depth (feet)
Scale 1 inch = 1000 ft

1000 1500 2000 2500 3000 3500 4000 4500 5000

-1000 -500 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500

Scale 1 inch = 1000 ft
Vertical Section (feet) ->

Azimuth 186.39 with reference 0.00 N, 0.00 E from Bailey 3408 1-29H

East (feet) ->
Scale 1 inch = 1000 ft
1000 -500 0 500

Surface Location:
315 FSL 1330 FEL
Sec 20 - 34S - 8W
X = 2085919 Y = 145528

Sec 20 - 34S - 8W
Sec 29 - 34S - 8W

1000 500 0 -500 -1000 -1500 -2000 -2500 -3000 -3500 -4000 -4500 -5000 -5500

<- North(feet)
Scale 1 inch = 1000 ft

## 1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well Bailey #3408 1-29 Intermediate Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 3000 psi. After a successful test we began the job by pumping 30 bbls of preflush spacer. We then mixed and pumped the following cements:

60 Bbls (240 sacks) of 13.6 ppg Lead slurry:
50:50 Class A:Poz Blend - 1.4 Yield
2.0% Gel
0.4% FL-160
0.1% SA-51

21Bbls (100 sacks) of 15.6 ppg Tail slurry:
Class A - 1.18 Yield
0.8% FL-160
0.2% CD-31

The top plug was then released and displaced with 204 of fresh water. The plug bumped and pressured up to 1300 psi. Pressure was released and floats held.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

ALLIED
OIL & GAS SERVICES, LLC

SandRidge Energy
Bailey #3408 1-29H
Harper County, KS.

## 1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well Bailey #3408 1-29H Surface Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 3000 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

85 Bbls (255 sacks) of 12.7 ppg Lead slurry:
65:35 Class A:Poz Blend - 1.87 Yield
6.0% Gel
2.0%cc
¼# Floseal

32Bbls (150 sacks) of 15.6 ppg Tail slurry:
Class A - 1.20 Yield
2.0%cc
¼# Floseal

The top plug was then released and displaced with 57 Bbls of fresh water. The plug bumped and pressured up to 1200 psi. Pressure was released and floats held.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

**BASIN SERVICES, LLC**
P O BOX 4268
ABILENE, TX 79608-4268
Phone # (325)690-0053
Fax # (325)698-0055

# TICKET

TICKET NUMBER: WY-168-1
TICKET DATE: 12/01/2013

**ELECTRONIC**

SANDRIDGE ENERGY
***** BILL IN ADP!! *****
123 ROBERT S KERR AVE
OKLAHOMA CITY, OK 73102-6406

YARD: WY WAYNOKA OK
LEASE: Bailey 3408
WELL#: 1-29H
RIG #: Lariat 20
Co/St: HARPER, KS

| DESCRIPTION | QUANTITY | RATE | AMOUNT |
|---|---|---|---|
| 12/1/2013 DRILLED 30" CONDUCTOR HOLE | | | |
| 12/1/2013 20" CONDUCTOR PIPE (.250 WALL) | | | |
| 12/1/2013 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING | | | |
| 12/1/2013 DRILL & INSTALL 6' X 6' CELLAR TINHORN | | | |
| 12/1/2013 DRILLED 20" MOUSE HOLE (PER FOOT) | | | |
| 12/1/2013 16" CONDUCTOR PIPE (.250 WALL) | | | |
| 12/1/2013 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE | | | |
| 12/1/2013 WELDING SERVICES FOR PIPE & LIDS | | | |
| 12/1/2013 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE | | | |
| 12/1/2013 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE) | | | |
| 12/1/2013 10 YDS OF 10 SACK GROUT | | | |
| 12/1/2013 TAXABLE ITEMS | | | 6,025.00 |
| 12/1/2013 8X8 HOLE COVER | | | |
| 12/1/2013 BID - TAXABLE ITEMS | | | 11,825.00 |

| | |
|---|---|
| Sub Total: | 17,850.00 |
| Tax HARPER COUNTY (6.15 %): | 370.54 |
| TICKET TOTAL: | $ 18,220.54 |

I, the undersigned, acknowledge the acceptance of the above listed goods and/or services.

Approved Signature _____