



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1183048
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

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 #: _____

| | | |
|-----------------------------------|-----------------|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1183048

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____ | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|--|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone | | | | |
| | | | | |

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 <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: _____ Set At: _____ 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: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ | PRODUCTION INTERVAL: _____ _____ |
|--|---|---|

| | |
|-----------|--|
| Form | ACO1 - Well Completion |
| Operator | SandRidge Exploration and Production LLC |
| Well Name | Bird 3319 1-6 |
| Doc ID | 1183048 |

Tops

| Name | Top | Datum |
|--------------------------|------|-------|
| Anhydrite | 2346 | |
| Heebner | 4153 | |
| Lansing | 4327 | |
| Marmaton | 4834 | |
| Oswego | 4875 | |
| Pawnee | 4923 | |
| Cherokee | 4950 | |
| Morrow/Miss Unconformity | 5045 | |
| Mississippi/Meramec | 5077 | |
| Mississippi/Osage | 5376 | |
| Viola | 5830 | |
| Simpson | 6131 | |
| Oil Creek | 6193 | |



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

TICKET

TICKET NUMBER: WY-126-1
 TICKET DATE: 09/30/2013

ELECTRONIC

SANDRIDGE ENERGY
 ***** DO NOT MAIL!!! *****
 123 ROBERT S KERR AVE
 OKLAHOMA CITY, OK 73102-6406

YARD: WY WAYNOKA OK
 LEASE: Bird 3319
 WELL#: 1-6H
 RIG #: Horizon 5
 Co/St: COMANCHE, KS

| DESCRIPTION | QUANTITY | RATE | AMOUNT |
|--|----------|------------------------------|---------------------|
| 9/30/2013 DRILLED 30" CONDUCTOR HOLE | | | |
| 9/30/2013 20" CONDUCTOR PIPE (.250 WALL) | | | |
| 9/30/2013 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING | | | |
| 9/30/2013 DRILL & INSTALL 6' X 6' CELLAR TINHORN | | | |
| 9/30/2013 DRILLED 20" MOUSE HOLE (PER FOOT) | | | |
| 9/30/2013 16" CONDUCTOR PIPE (.250 WALL) | | | |
| 9/30/2013 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE | | | |
| 9/30/2013 WELDING SERVICES FOR PIPE & LIDS | | | |
| 9/30/2013 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE | | | |
| 9/30/2013 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE) | | | |
| 9/30/2013 20 YDS OF 10 SACK GROUT | | | |
| 9/30/2013 TAXABLE ITEMS | | | 6,900.00 |
| 9/30/2013 BID - TAXABLE ITEMS | | | 14,350.00 |
| | | | |
| | | Sub Total: | 21,250.00 |
| | | Tax COMANCHE COUNTY (6.3 %): | 434.70 |
| | | TICKET TOTAL: | <u>\$ 21,684.70</u> |

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

Approved Signature _____

ALLIED OIL & GAS SERVICES, LLC 059939

Federal Tax I.D.# 20-5975804

COMMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Medicine Lodge KS

| | | | | | | | |
|---------------------------|------------------------|---|------------------|---------------------------------------|--|--------------------------|---------------------------|
| DATE <u>10/18/13</u> | SEC <u>6</u> | TWP <u>33s</u> | RANGE <u>19w</u> | 10/17/13 CALLED OUT <u>8:30 PM</u> | 10/18/13 ON LOCATION <u>3:20 AM</u> | JOB START <u>7:00 AM</u> | JOB FINISH <u>9:45 PM</u> |
| LEASE <u>Bird</u> | WELL # <u>3319 1-6</u> | LOCATION <u>Coldwater KS, South 5mi, West 5miles,</u> | | | COUNTY <u>Conroche</u> | STATE <u>KS</u> | |
| OLD OR (NEW) (Circle one) | | | | <u>North into</u> | | | |

CONTRACTOR Horizon #5
TYPE OF JOB Production
HOLE SIZE 8 3/4 T.D. 6211
CASING SIZE 7 DEPTH 6188
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 1400 MINIMUM
MEAS. LINE SHOE JOINT 88'
CEMENT LEFT IN CSG. 88'
PERFS.
DISPLACEMENT 233 1/2 BBLs Fresh H₂O

OWNER Sandridge Energy

CEMENT
AMOUNT ORDERED 745sx 50:50 Class A: Pozt
2% Gel + 4% FL-160 + 1% C-51 + 3# Kalseal, 210sx Class A +
.8% FL-160 + 2% CD-31, 30BBL Super Flush

EQUIPMENT
PUMP TRUCK CEMENTER Jason Whinesch
#558/555 HELPER Scott Priddy
BULK TRUCK
#561/553 DRIVER Justin Bowen
BULK TRUCK
#381/252 DRIVER James Bowen

| | | |
|---------------------------------------|----------------------|------------------|
| COMMON <u>Class A</u> | <u>210sx @ 17.90</u> | <u>3,759.00</u> |
| POZMIX | @ | |
| GEL | @ | |
| CHLORIDE | @ | |
| ASC | @ | |
| <u>Allied 50/50 Poz Blend Class A</u> | <u>745sx @ 14.40</u> | <u>10,728.00</u> |
| <u>FL-160</u> | <u>251lb @ 18.90</u> | <u>4,743.90</u> |
| <u>C-51</u> | <u>631lb @ 17.55</u> | <u>1,105.65</u> |
| <u>Kalseal</u> | <u>2235lb @ 0.98</u> | <u>2,190.30</u> |
| <u>FL-160</u> | <u>158lb @ 18.90</u> | <u>2,986.20</u> |
| <u>CD-31</u> | <u>40lb @ 10.30</u> | <u>412.00</u> |
| <u>Super Flush</u> | <u>70BBL @ 58.70</u> | <u>1,761.00</u> |
| | @ | |
| HANDLING <u>1034.02 cut</u> | @ <u>2.48</u> | <u>2564.37</u> |
| MILEAGE <u>1726.34 to/mi x 2.60</u> | | <u>4488.48</u> |
| TOTAL | | <u>39,782.90</u> |

REMARKS:

Did not circ cement
AFE Number DC13255
Well Name Bird 3319 1-6
Code: 840380
Amount: 21,474
Co. Man: Doug Langley
Co. Man Sig: Doug Langley
Notes:

SERVICE

| | | |
|---------------------------|---------------|----------------|
| DEPTH OF JOB <u>6188'</u> | | |
| PUMP TRUCK CHARGE | | <u>3651.25</u> |
| EXTRA FOOTAGE | @ | |
| MILEAGE <u>40mi</u> | @ <u>7.70</u> | <u>308</u> |
| MANIFOLD <u>1 Head</u> | @ | <u>275</u> |
| LV <u>40mi</u> | @ <u>4.40</u> | <u>176</u> |
| | @ | |
| TOTAL | | <u>4410.25</u> |

CHARGE TO: Sandridge Energy
STREET _____
CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

| | | |
|--------------------------|---|--------------|
| <u>7"</u> Rubber Plug | @ | <u>99.45</u> |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| TOTAL | | <u>99.45</u> |

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME _____

SIGNATURE _____

SALES TAX (If Any) _____
TOTAL CHARGES 39,248.60
DISCOUNT _____ IF PAID IN 30 DAYS
Net 27,474.02

ALLIED OIL & GAS SERVICES, LLC 059934

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Medicine Lodge KS

| | | | | | | | |
|-------------------------|-------------------|---|-------------------|---------------------------|-----------------------------|---------------------------|----------------------------|
| DATE <u>10-9-13</u> | SEC. <u>6</u> | TWP. <u>33S</u> | RANGE <u>19 W</u> | CALLED OUT <u>8:30 AM</u> | ON LOCATION <u>10:00 AM</u> | JOB START <u>12:30 PM</u> | JOB FINISH <u>11:59 AM</u> |
| LEASE <u>BIRD 3319</u> | WELL # <u>1-6</u> | LOCATION <u>1,160 Jct. S W 1/4 N W INTO</u> | | | COUNTY <u>COMANCHE</u> | STATE <u>KS</u> | |
| OLD OR NEW (Circle one) | | | | | | | |

CONTRACTOR HORIZON
TYPE OF JOB SURFACE
HOLE SIZE 12 1/4 T.D. 656
CASING SIZE 9 5/8 ✓ DEPTH 661.68
TUBING SIZE _____ DEPTH _____
DRILL PIPE _____ DEPTH _____
TOOL _____ DEPTH _____
PRES. MAX 800 MINIMUM _____
MEAS. LINE _____ SHOE JOINT 44
CEMENT LEFT IN CSG. 49'
PERFS. _____
DISPLACEMENT 48.00 BBLs Fresh H₂O

OWNER SANDRIDGE ENERGY
CEMENT
AMOUNT ORDERED 155 SK 65-35' 6% GBL 2.70 CC
+ 1/4" FLOSEAL, SX CLASS A + 2% CC + 1/4" FLOSEAL

EQUIPMENT
PUMP TRUCK CEMENTER SCOTT PRIDDY / JASON THURMIST
558-555 HELPER SCOTT PRIDDY
BULK TRUCK
561-553 DRIVER JAMES BOWEN
BULK TRUCK
_____ DRIVER _____

| | | | |
|---------------|------------------|----------------|----------------|
| COMMON | <u>120x</u> | @ <u>17.90</u> | <u>2148.00</u> |
| POZMIX | | @ | |
| GEL | | @ | |
| CHLORIDE | <u>7</u> | @ <u>64.00</u> | <u>448.00</u> |
| ASC | | @ | |
| FLO-SEAL | <u>39 LBS</u> | @ <u>2.97</u> | <u>115.83</u> |
| FLO-SEAL | <u>30 LBS</u> | @ <u>2.97</u> | <u>89.10</u> |
| ALLIED LT MET | <u>155 SK</u> | @ <u>16.50</u> | <u>2537.50</u> |
| HANDLING | <u>30 2.88</u> | @ <u>2.48</u> | <u>751.13</u> |
| MILEAGE | <u>527.76 mi</u> | x <u>2.60</u> | <u>1359.18</u> |
| TOTAL | | | <u>7468.74</u> |

REMARKS:

Safety meeting, Press test, Pump Spacer, Pump
LD + 7L cement, Release Plug, Disp, Bump 500 approx
Release, Flare Held

AFE Number: DC13255
Well Name: BIRD 3319 1-6
Code: 830-360
Amount: 7330
Co. Man: Doug Langley
Co. Man Sig: Doug Langley
Notes: _____
CHARGE TO: SANDRIDGE ENERGY

SERVICE

| | | | |
|-------------------|------------------|---------------|-----------------|
| DEPTH OF JOB | <u>661.68 FT</u> | | |
| PUMP TRUCK CHARGE | | | <u>12058.50</u> |
| EXTRA FOOTAGE | | @ | |
| MILEAGE | <u>40 mi</u> | @ <u>7.20</u> | <u>288.00</u> |
| MANIFOLD + HEAD | | @ <u>2.75</u> | <u>19.75</u> |
| LY | <u>40 M</u> | @ <u>4.40</u> | <u>176.00</u> |
| TOTAL | | | <u>2817.50</u> |

STREET _____
CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

| | | | |
|--------------|--------------------------|-----------------|---------------|
| <u>9 5/8</u> | <u>1 TOP RUBBER PLUG</u> | @ <u>184.86</u> | <u>184.86</u> |
| | | @ | |
| | | @ | |
| | | @ | |
| | | @ | |
| TOTAL | | | <u>184.86</u> |

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) _____
TOTAL CHARGES 10971.10
DISCOUNT _____ IF PAID IN 30 DAYS
Net 7329.77

PRINTED NAME _____
SIGNATURE _____

Sandridge

Location: Kansas
 Field: Sec 6 - 35S - 19W
 Installation: Comanche County
 Well: Bird 3319 1-6

Installation Data

| Name | Latitude | Longitude | Northing | Easting |
|-----------------|--------------|-------------|-----------|------------|
| Comanche County | N37 12 26.03 | W99 25 4.61 | 198145.00 | 1732653.00 |

Coordinate System: Kansas State Planes, Southern Zone

Slot Data

| Name | North [ft] | East [ft] | Longitude | Northing | Easting |
|---------------|------------|-----------|--------------|-----------|------------|
| Bird 3319 1-6 | -2150.70 N | -728.51 E | W99 25 13.36 | 195994.28 | 1731924.49 |

Elevation Data

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

WELL PROFILE DATA

| Point | MD | Inc | Azi | TVD | North | East | deg/100ft | V. Sect |
|-------------------------|---------|-------|-------|---------|--------|-------|-----------|---------|
| Tie on KOP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| End of Build | 1000.00 | 0.00 | 0.00 | 1000.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| End of Hold | 1188.05 | 3.76 | 27.54 | 1187.91 | 5.47 | 2.85 | 2.00 | 6.17 |
| Target Bird 3319 1-6 | 3918.10 | 3.76 | 27.54 | 3912.09 | 164.25 | 85.66 | 0.00 | 185.24 |
| T.D. & Target Bird 3319 | 4106.15 | -0.00 | 0.00 | 4100.00 | 169.72 | 88.51 | 2.00 | 191.41 |
| | 6026.15 | 0.00 | 74.93 | 6020.00 | 169.72 | 88.51 | 0.00 | 191.42 |

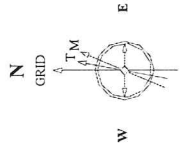
TARGET DATA

| MD | Inc | Azi | TVD | North | East | Name | Position |
|---------|-------|-------|---------|--------|-------|---------------------------|----------------------------------|
| 4106.15 | -0.00 | 0.00 | 4100.00 | 169.72 | 88.51 | Bird 3319 1-6 - 4100' TVD | 1732013.00 East: 196164.00 North |
| 6026.15 | 0.00 | 74.93 | 6020.00 | 169.72 | 88.51 | Bird 3319 1-6 - BHL | 1732013.00 East: 196164.00 North |



DrillRight
 TECHNOLOGY, INC.
 9630 Pole Rd.
 Oklahoma City, OK 73160
 Tel: (405) 604-2969

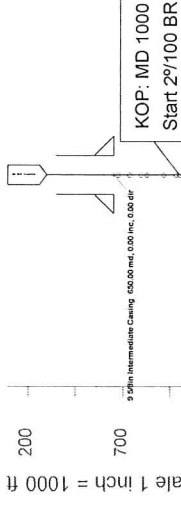
Scale 1 inch = 60 ft



2-Oct-2013
 ICRF Model I1900.0-2013.01 Dhp: 65.12 deg Field: S1897.1 NT
 Magnetic North is 5.20 deg East of True North
 GRID North is 0.56 deg West of True North
 To correct azimuth from True to GRID add 0.56 deg
 To correct azimuth from Magnetic to GRID add 5.86 deg

Created by: admin
 Date plotted: 16-Oct-2013
 Plot reference is Bird 3319 1-6 (Plan).
 Ref wellpath is Bird 3319 1-6 (PWPH1).
 Coordinates are in feet reference Bird 3319 1-6.
 True Vertical Depths are reference Bird 3319 1-6.
 Measured Depths are reference Slot.
 Plot North is aligned to GRID North.

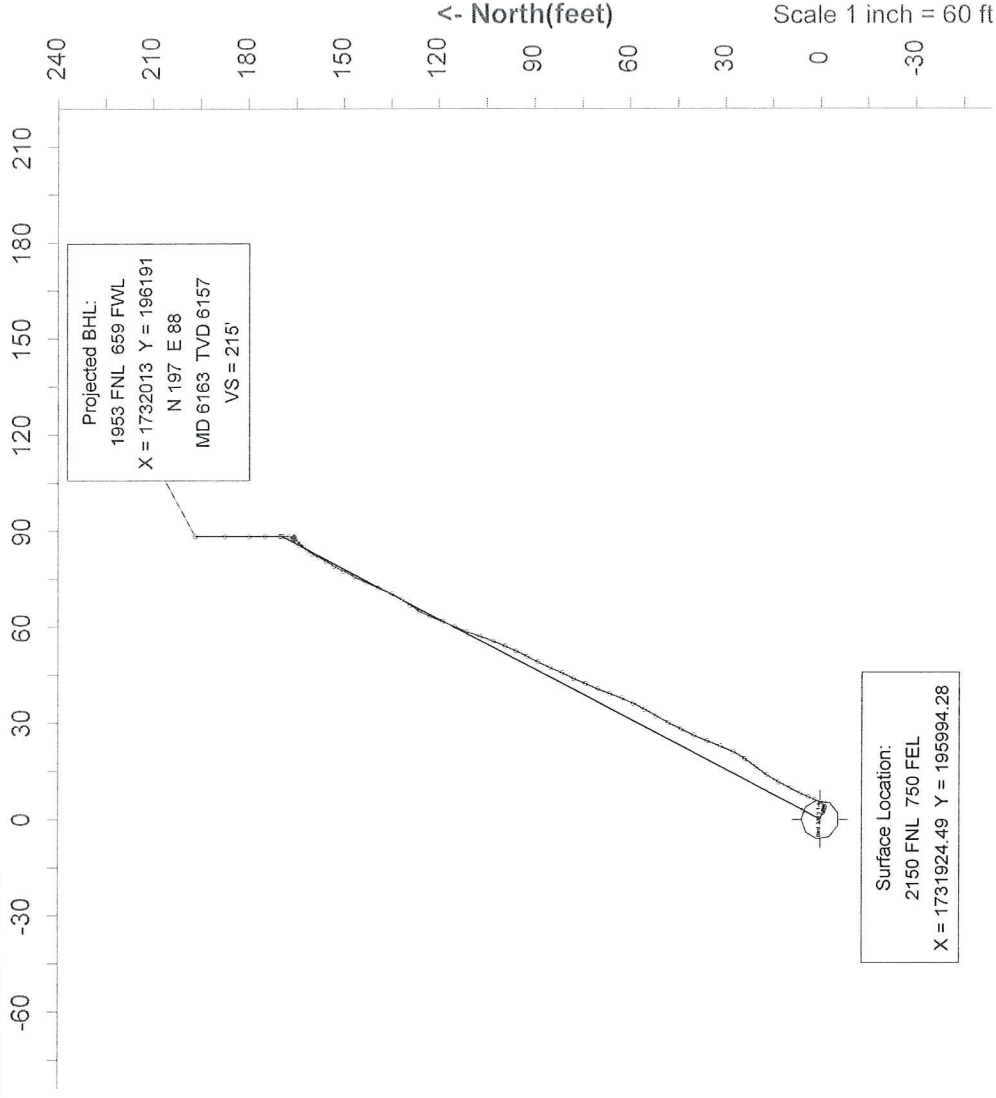
KOP: MD 1000
 Start 29/100 BR



Projected BHL:
 1953 FNL 659 FWL
 X = 1732013 Y = 196191
 N 197 E 88
 MD 6163 TVD 6157
 VS = 215'

Vertical Section (feet) ->
 Scale 1 inch = 60 ft
 Azimuth 27.54 with reference 0.00 N, 0.00 E from Bird 3319 1-6

East (feet) ->



Surface Location:
 2150 FNL 750 FEL
 X = 1731924.49 Y = 195994.28

Scale 1 inch = 60 ft

Standard Wellpath Report
Sandridge
Sec 6 - 33S - 19W, Kansas
Comanche County
Wellbore: Bird 3319 1-6 (Actual)

Wellpath (Grid) Report

| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | Easting | Northing |
|---------|----------|----------|---------|-----------|----------|-----------------------|-------------------------|------------|-----------|
| 0.00 | 0.00 | 0.000 | 0.00 | 0.00N | 0.00E | | 0.00 | 1731924.49 | 195994.28 |
| 673.00 | 0.40 | 110.900 | 672.99 | 0.84S | 2.19E | 0.06 | 0.27 | 1731926.68 | 195993.44 |
| 733.00 | 0.30 | 90.500 | 732.99 | 0.91S | 2.55E | 0.26 | 0.37 | 1731927.03 | 195993.36 |
| 795.00 | 0.50 | 121.000 | 794.99 | 1.05S | 2.94E | 0.46 | 0.42 | 1731927.43 | 195993.22 |
| 825.00 | 0.30 | 85.000 | 824.99 | 1.12S | 3.13E | 1.04 | 0.46 | 1731927.62 | 195993.16 |
| 917.00 | 0.50 | 122.000 | 916.99 | 1.31S | 3.71E | 0.34 | 0.56 | 1731928.20 | 195992.97 |
| 980.00 | 0.30 | 79.800 | 979.99 | 1.42S | 4.11E | 0.54 | 0.64 | 1731928.59 | 195992.85 |
| 1041.00 | 0.90 | 55.000 | 1040.98 | 1.12S | 4.66E | 1.05 | 1.16 | 1731929.14 | 195993.16 |
| 1103.00 | 1.60 | 26.500 | 1102.97 | 0.07S | 5.44E | 1.48 | 2.46 | 1731929.93 | 195994.21 |
| 1164.00 | 2.00 | 24.500 | 1163.94 | 1.66N | 6.26E | 0.66 | 4.37 | 1731930.75 | 195995.94 |
| 1226.00 | 2.40 | 21.000 | 1225.89 | 3.86N | 7.18E | 0.68 | 6.74 | 1731931.66 | 195998.14 |
| 1288.00 | 2.80 | 23.100 | 1287.83 | 6.47N | 8.24E | 0.66 | 9.54 | 1731932.72 | 196000.74 |
| 1350.00 | 3.70 | 27.600 | 1349.73 | 9.63N | 9.76E | 1.51 | 13.05 | 1731934.24 | 196003.91 |
| 1411.00 | 4.00 | 28.700 | 1410.59 | 13.24N | 11.69E | 0.51 | 17.15 | 1731936.18 | 196007.52 |
| 1473.00 | 4.00 | 34.100 | 1472.44 | 16.93N | 13.94E | 0.61 | 21.46 | 1731938.43 | 196011.21 |
| 1537.00 | 3.90 | 37.600 | 1536.29 | 20.50N | 16.52E | 0.41 | 25.82 | 1731941.01 | 196014.78 |
| 1599.00 | 4.00 | 32.900 | 1598.14 | 23.99N | 18.98E | 0.55 | 30.05 | 1731943.47 | 196018.27 |
| 1662.00 | 3.80 | 27.000 | 1661.00 | 27.69N | 21.12E | 0.71 | 34.32 | 1731945.61 | 196021.97 |
| 1725.00 | 4.00 | 21.600 | 1723.85 | 31.60N | 22.88E | 0.66 | 38.60 | 1731947.37 | 196025.87 |
| 1788.00 | 4.10 | 22.100 | 1786.69 | 35.73N | 24.54E | 0.17 | 43.02 | 1731949.02 | 196030.00 |
| 1851.00 | 4.30 | 22.900 | 1849.52 | 39.99N | 26.30E | 0.33 | 47.62 | 1731950.79 | 196034.27 |
| 1912.00 | 4.10 | 27.100 | 1910.36 | 44.04N | 28.19E | 0.60 | 52.08 | 1731952.67 | 196038.31 |
| 1975.00 | 4.00 | 26.800 | 1973.20 | 48.00N | 30.20E | 0.16 | 56.53 | 1731954.69 | 196042.28 |
| 2038.00 | 3.90 | 29.300 | 2036.05 | 51.83N | 32.24E | 0.32 | 60.87 | 1731956.73 | 196046.11 |
| 2101.00 | 3.70 | 27.800 | 2098.91 | 55.50N | 34.24E | 0.35 | 65.04 | 1731958.72 | 196049.78 |
| 2162.00 | 3.80 | 29.400 | 2159.78 | 59.00N | 36.15E | 0.24 | 69.03 | 1731960.64 | 196053.28 |
| 2223.00 | 3.60 | 21.500 | 2220.66 | 62.54N | 37.84E | 0.90 | 72.95 | 1731962.33 | 196056.82 |
| 2285.00 | 3.90 | 20.000 | 2282.52 | 66.34N | 39.28E | 0.51 | 76.98 | 1731963.76 | 196060.61 |
| 2346.00 | 3.80 | 22.400 | 2343.39 | 70.15N | 40.76E | 0.31 | 81.05 | 1731965.24 | 196064.43 |
| 2409.00 | 3.90 | 22.600 | 2406.24 | 74.06N | 42.38E | 0.16 | 85.26 | 1731966.86 | 196068.34 |
| 2470.00 | 3.70 | 26.200 | 2467.11 | 77.74N | 44.04E | 0.51 | 89.30 | 1731968.53 | 196072.02 |
| 2531.00 | 3.90 | 25.000 | 2527.98 | 81.39N | 45.79E | 0.35 | 93.34 | 1731970.27 | 196075.67 |
| 2593.00 | 3.90 | 22.900 | 2589.83 | 85.24N | 47.50E | 0.23 | 97.55 | 1731971.99 | 196079.52 |
| 2654.00 | 3.70 | 26.200 | 2650.70 | 88.92N | 49.18E | 0.49 | 101.58 | 1731973.66 | 196083.20 |
| 2715.00 | 3.60 | 26.800 | 2711.58 | 92.40N | 50.91E | 0.18 | 105.46 | 1731975.39 | 196086.67 |
| 2777.00 | 3.40 | 27.500 | 2773.46 | 95.76N | 52.64E | 0.33 | 109.25 | 1731977.12 | 196090.04 |
| 2838.00 | 3.70 | 22.700 | 2834.34 | 99.18N | 54.23E | 0.69 | 113.02 | 1731978.72 | 196093.46 |
| 2899.00 | 3.90 | 21.400 | 2895.21 | 102.93N | 55.75E | 0.36 | 117.04 | 1731980.23 | 196097.21 |
| 2960.00 | 4.20 | 18.800 | 2956.06 | 106.98N | 57.22E | 0.58 | 121.31 | 1731981.71 | 196101.26 |
| 3022.00 | 4.10 | 20.800 | 3017.89 | 111.20N | 58.74E | 0.28 | 125.76 | 1731983.23 | 196105.48 |
| 3083.00 | 3.70 | 24.200 | 3078.75 | 115.03N | 60.32E | 0.76 | 129.89 | 1731984.81 | 196109.31 |
| 3145.00 | 3.90 | 22.000 | 3140.62 | 118.81N | 61.93E | 0.40 | 133.99 | 1731986.42 | 196113.09 |
| 3207.00 | 3.70 | 20.700 | 3202.48 | 122.64N | 63.43E | 0.35 | 138.07 | 1731987.92 | 196116.92 |
| 3269.00 | 3.40 | 30.700 | 3264.36 | 126.09N | 65.08E | 1.11 | 141.89 | 1731989.56 | 196120.37 |
| 3330.00 | 3.00 | 35.500 | 3325.27 | 128.95N | 66.93E | 0.79 | 145.28 | 1731991.41 | 196123.22 |
| 3392.00 | 3.00 | 33.800 | 3387.18 | 131.61N | 68.77E | 0.14 | 148.50 | 1731993.26 | 196125.89 |
| 3453.00 | 4.00 | 24.800 | 3448.07 | 134.87N | 70.55E | 1.87 | 152.21 | 1731995.04 | 196129.15 |
| 3514.00 | 4.20 | 23.700 | 3508.91 | 138.85N | 72.34E | 0.35 | 156.56 | 1731996.83 | 196133.13 |
| 3576.00 | 4.10 | 22.700 | 3570.75 | 142.97N | 74.11E | 0.20 | 161.04 | 1731998.60 | 196137.25 |
| 3638.00 | 3.70 | 27.700 | 3632.60 | 146.79N | 75.90E | 0.85 | 165.25 | 1732000.38 | 196141.07 |
| 3701.00 | 3.20 | 25.900 | 3695.49 | 150.17N | 77.61E | 0.81 | 169.04 | 1732002.09 | 196144.45 |
| 3764.00 | 2.90 | 29.000 | 3758.40 | 153.15N | 79.15E | 0.54 | 172.39 | 1732003.63 | 196147.42 |
| 3827.00 | 2.50 | 32.600 | 3821.33 | 155.70N | 80.66E | 0.69 | 175.35 | 1732005.15 | 196149.98 |
| 3890.00 | 2.30 | 25.300 | 3884.28 | 158.00N | 81.94E | 0.58 | 177.98 | 1732006.43 | 196152.28 |
| 3953.00 | 1.70 | 26.500 | 3947.24 | 159.98N | 82.90E | 0.95 | 180.18 | 1732007.39 | 196154.26 |
| 4016.00 | 1.70 | 43.100 | 4010.21 | 161.50N | 83.96E | 0.78 | 182.01 | 1732008.44 | 196155.77 |
| 4079.00 | 1.40 | 43.300 | 4073.19 | 162.74N | 85.12E | 0.48 | 183.66 | 1732009.61 | 196157.02 |
| 4142.00 | 1.20 | 35.100 | 4136.17 | 163.84N | 86.03E | 0.43 | 185.05 | 1732010.51 | 196158.12 |
| 4205.00 | 1.00 | 53.700 | 4199.16 | 164.70N | 86.85E | 0.65 | 186.20 | 1732011.34 | 196158.98 |
| 4269.00 | 1.10 | 55.900 | 4263.15 | 165.38N | 87.81E | 0.17 | 187.24 | 1732012.30 | 196159.66 |
| 4332.00 | 0.10 | 116.000 | 4326.14 | 165.69N | 88.36E | 1.67 | 187.77 | 1732012.85 | 196159.97 |
| 4395.00 | 0.30 | 293.100 | 4389.14 | 165.73N | 88.26E | 0.63 | 187.76 | 1732012.74 | 196160.01 |
| 4458.00 | 0.30 | 307.300 | 4452.14 | 165.90N | 87.97E | 0.12 | 187.78 | 1732012.46 | 196160.18 |
| 4521.00 | 0.20 | 271.800 | 4515.14 | 166.00N | 87.73E | 0.29 | 187.76 | 1732012.22 | 196160.28 |
| 4584.00 | 0.30 | 254.600 | 4578.14 | 165.96N | 87.46E | 0.20 | 187.60 | 1732011.95 | 196160.24 |
| 4648.00 | 0.10 | 6.900 | 4642.14 | 165.97N | 87.31E | 0.55 | 187.53 | 1732011.80 | 196160.25 |
| 4711.00 | 0.00 | 327.700 | 4705.14 | 166.03N | 87.32E | 0.16 | 187.59 | 1732011.80 | 196160.31 |
| 4774.00 | 0.10 | 142.800 | 4768.14 | 165.98N | 87.35E | 0.16 | 187.56 | 1732011.84 | 196160.26 |
| 5026.00 | 0.30 | 54.900 | 5020.14 | 166.19N | 88.02E | 0.12 | 188.06 | 1732012.51 | 196160.47 |
| 5216.00 | 0.50 | 0.000 | 5210.14 | 167.30N | 88.43E | 0.22 | 189.23 | 1732012.92 | 196161.58 |
| 5405.00 | 1.30 | 0.000 | 5399.11 | 170.27N | 88.43E | 0.42 | 191.86 | 1732012.92 | 196164.55 |
| 5594.00 | 1.50 | 0.000 | 5588.05 | 174.89N | 88.43E | 0.11 | 195.96 | 1732012.92 | 196169.17 |

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Slot and TVD's are from Slot (Bird 3319 1-6 0.00ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 27.540 degrees
Bottom hole distance is 215.69 Feet on azimuth 24.20 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 16-Oct-2013

Standard Wellpath Report
 Sandridge
 Sec 6 - 33S - 19W, Kansas
 Comanche County
 Wellbore: Bird 3319 1-6 (Actual)

Wellpath (Grid) Report

| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | Easting | Northing |
|---------|----------|----------|---------|-----------|----------|-----------------------|-------------------------|------------|-----------|
| 5784.00 | 1.50 | 0.000 | 5777.99 | 179.86N | 88.43E | ==> | 200.37 | 1732012.92 | 196174.14 |
| 5973.00 | 3.10 | 0.000 | 5966.83 | 187.45N | 88.43E | 0.85 | 207.09 | 1732012.92 | 196181.73 |
| 6163.00 | 2.50 | 0.000 | 6156.60 | 196.73N | 88.43E | 0.32 | 215.32 | 1732012.92 | 196191.01 |

All data is in Feet unless otherwise stated
 Coordinates are from Slot MD's are from Slot and TVD's are from Slot (Bird 3319 1-6 0.00ft above Mean Sea Level)
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