



Confidentiality Requested:

Yes  No

**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: \_\_\_\_\_

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](mailto: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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Ellis 1-19H
Doc ID	1089090

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	9519-9522; 9407-9410; 9295-9298	4226 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 40/70 sd, 4306 TLTR	
6	9184-9187; 9072-9076; 8960-8963	4205 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 40/70 sd, 8758 TLTR	
6	8848-8851; 8736-8739; 8624-8627	4329 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 40/70 sd, 13323 TLTR	
6	8513-8516; 8401-8404; 8289-8292	4227 bbls Slickwtr, 35 bbls 15% NeFe HCl, 77M lbs 40/70 sd, 17769 TLTR	
6	8177-8180; 8065-8068; 7953-7956	4245 bbls Slickstr, 36 bbls 15% NeFe HCl, 75m lbs 40/70 sd, 22240 TLTR	
6	7842-7845; 7730-7733; 7618-7721	4158 bbls Slickstr, 36 bbls 15% NeFe HCl, 75m lbs 40/70 sd, 26600 TLTR	
6	7506-7509; 7394-7397; 7282-7285	4246 bbls Slickwtr, 36 bbls 15% NeFe HCl, 76M lbs 40/70 sd, 30955 TLTR	
6	7171-7174; 7059-7062; 6947-6950	4225 Slickwtr, 36 bbls 15% NeFe HCl, 75m lbs 40/70 sd, 35838 TLTR	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Ellis 1-19H
Doc ID	1089090

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	6835-6838; 6723-6726; 6611-6614	4954 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 4/70 sd, 40912 TLTR	
6	6500-6503; 6388-6391; 6276-6279	4216 bbls Slickstr, 36 bbls 15% NeFe HCl, 75 M lbs 40/70 sd, 45237 TLTR	
6	6164-6167; 6052-6055; 5940-5943	4254 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 40/70 sd, 49579 TLTR	
6	5829-5832; 5717-5720; 5605-5608	4158 bbls Slickstr, 36 bbls 15% NeFe HCl, 73M lbs 40/70 sd, 53818 TLTR	

## Summary of Changes

Lease Name and Number: Ellis 1-19H

API/Permit #: 15-033-21605-01-00

Doc ID: 1089090

Correction Number: 1

Approved By: Deanna Garrison

Field Name	Previous Value	New Value
Approved By	NAOMI JAMES	Deanna Garrison
Approved Date	02/14/2012	08/08/2012
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1068742	../../kcc/detail/operatorEditDetail.cfm?docID=1089090
Well Type	OIL	GAS



**CONFIDENTIAL**

**WELL COMPLETION FORM**

**Form Must Be Typed  
Form must be Signed  
All blanks must be Filled**

**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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- 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

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total 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**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1068742

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
---	--	--

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Ellis 1-19H
Doc ID	1068742

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	9519-9522; 9407-9410; 9295-9298	4226 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 40/70 sd, 4306 TLTR	
6	9184-9187; 9072-9076; 8960-8963	4205 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 40/70 sd, 8758 TLTR	
6	8848-8851; 8736-8739; 8624-8627	4329 bbls Slickstr, 36 bbls 15% NeFe HCl, 75M lbs 40/70 sd, 13323 TLTR	
6	8513-8516; 8401-8404; 8289-8292	4227 bbls Slickwtr, 35 bbls 15% NeFe HCl, 77M lbs 40/70 sd, 17769 TLTR	
6	8177-8180; 8065-8068; 7953-7956	4245 bbls Slickstr, 36 bbls 15% NeFe HCl, 75m lbs 40/70 sd, 22240 TLTR	
6	7842-7845; 7730-7733; 7618-7721	4158 bbls Slickstr, 36 bbls 15% NeFe HCl, 75m lbs 40/70 sd, 26600 TLTR	
6	7506-7509; 7394-7397; 7282-7285	4246 bbls Slickwtr, 36 bbls 15% NeFe HCl, 76M lbs 40/70 sd, 30955 TLTR	
6	7171-7174; 7059-7062; 6947-6950	4225 Slickwtr, 36 bbls 15% NeFe HCl, 75m lbs 40/70 sd, 35838 TLTR	



Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

January 19, 2012

John-Mark Beaver  
SandRidge Exploration and Production LLC  
123 ROBERT S. KERR AVE  
OKLAHOMA CITY, OK 73102-6406

Re: ACO1  
API 15-033-21605-01-00  
Ellis 1-19H  
NW/4 Sec.30-31S-19W  
Comanche County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
John-Mark Beaver

# American Measurement Services

A Limited Liability Company

Ames, Oklahoma

Station Number: KS03R0012  
Producer: SANDRIDGE ENERGY  
Lease: ELLIS 1-19H  
Sample Pressure: 115.0  
Sample Temperature: 83.95  
Cylinder Number: 1119  
Analysis By: AMS  
Date Sampled: 1/10/2012  
Analysis Run Date: 1/10/2012

Gas Components	Mole Percent	GPM
Methane	84.255	
Ethane	3.208	0.8527
Propane	0.582	0.1593
lButane	0.191	0.0622
NButane	0.262	0.0821
lPentan	0.149	0.0544
NPentan	0.098	0.0354
C6 +	0.412	0.1787
Nitrogen	10.293	
CO2	0.550	
	100.00%	1.4247

BTU @ 14.65 @ 60 F - Real

Dry 967.2  
Wet 950.3

Gasoline Content

Propane And Heavier 0.5720  
Butane And Heavier 0.4127  
Pentane And Heavier 0.2685

Specific Gravity - Real 0.6465  
Z = 0.9979

H2S Field Test: PPM

Field Remarks:

Analysis Based Upon GPA 2145, 2172, And 2261

# **Sandridge Energy**

**Comanche (KS27S)**

**Sec 30-T31H-R19W - GRID**

**Ellis 1-19H**

**Wellbore #1**

**Survey: MWD Surveys**

## **Standard Survey Report**

**16 November, 2011**

# Wolverine Directional, LLC

## Survey Report

Company: Sandridge Energy	Local Co-ordinate Reference: Well Ellis 1-19H
Project: Comanche (KS27S)	TVD Reference: WELL @ 0.0ft (Original Well Elev)
Site: Sec 30-T31H-R19W - GRID	MD Reference: WELL @ 0.0ft (Original Well Elev)
Well: Ellis 1-19H	North Reference: Grid
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Wellbore #1	Database: EDM 2003.21 Single User Db

Design	Wellbore #1				
<b>Audit Notes:</b>					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	1.16	

Survey Program	Date 2011/11/16			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
980.0	9,574.0	MWD Surveys (Wellbore #1)	MWD	MWD - Standard

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
980.0	1.20	226.80	979.9	-7.0	-7.5	-7.2	0.12	0.12	0.00
<b>First MWD Survey</b>									
1,137.0	1.10	215.80	1,136.9	-9.4	-9.6	-9.6	0.15	-0.06	-7.01
1,327.0	1.30	236.00	1,326.9	-12.1	-12.4	-12.3	0.24	0.11	10.63
1,613.0	0.50	2.20	1,612.8	-12.6	-15.1	-12.9	0.58	-0.28	44.13
1,993.0	0.70	49.10	1,992.8	-9.4	-13.2	-9.7	0.13	0.05	12.34
2,469.0	0.00	180.70	2,468.8	-7.5	-11.0	-7.8	0.15	-0.15	0.00
2,945.0	0.60	130.10	2,944.8	-9.1	-9.1	-9.3	0.13	0.13	0.00
3,422.0	0.10	335.90	3,421.8	-10.4	-7.4	-10.5	0.14	-0.10	-32.33
3,898.0	0.70	96.50	3,897.8	-10.3	-4.7	-10.4	0.16	0.13	25.34
4,025.0	0.40	83.90	4,024.8	-10.4	-3.5	-10.4	0.25	-0.24	-9.92
4,056.0	0.80	88.60	4,055.8	-10.4	-3.1	-10.4	1.30	1.29	15.16
4,088.0	0.60	116.50	4,087.8	-10.4	-2.8	-10.5	1.22	-0.63	87.19
4,120.0	0.40	106.80	4,119.8	-10.5	-2.5	-10.6	0.68	-0.63	-30.31
4,152.0	0.60	109.80	4,151.8	-10.6	-2.2	-10.7	0.63	0.63	9.38
4,183.0	0.30	124.30	4,182.8	-10.7	-2.0	-10.8	1.03	-0.97	46.77
4,215.0	0.40	102.60	4,214.8	-10.8	-1.8	-10.8	0.51	0.31	-67.81
4,247.0	1.50	18.30	4,246.8	-10.4	-1.6	-10.4	4.73	3.44	-263.44
4,278.0	4.80	17.80	4,277.7	-8.8	-1.1	-8.8	10.65	10.65	-1.61
4,310.0	8.00	12.90	4,309.5	-5.3	-0.2	-5.4	10.14	10.00	-15.31
4,342.0	10.60	8.30	4,341.1	-0.3	0.7	-0.3	8.44	8.13	-14.38
4,374.0	12.50	7.40	4,372.4	6.1	1.6	6.1	5.96	5.94	-2.81
4,405.0	14.90	7.80	4,402.5	13.4	2.6	13.4	7.75	7.74	1.29
4,437.0	17.40	7.70	4,433.3	22.2	3.8	22.2	7.81	7.81	-0.31
4,469.0	19.90	7.70	4,463.6	32.3	5.2	32.4	7.81	7.81	0.00
4,501.0	22.20	7.50	4,493.5	43.7	6.7	43.8	7.19	7.19	-0.63
4,533.0	24.20	6.30	4,522.9	56.2	8.2	56.4	6.42	6.25	-3.75
4,564.0	25.90	4.40	4,551.0	69.3	9.4	69.5	6.07	5.48	-6.13
4,596.0	27.20	3.80	4,579.6	83.6	10.4	83.8	4.15	4.06	-1.88
4,628.0	28.00	3.40	4,607.9	98.4	11.4	98.6	2.57	2.50	-1.25
4,659.0	30.10	2.60	4,635.0	113.4	12.1	113.6	6.89	6.77	-2.58
4,691.0	32.50	2.40	4,662.4	130.0	12.9	130.2	7.51	7.50	-0.63
4,723.0	34.40	0.60	4,689.1	147.6	13.3	147.9	6.70	5.94	-5.63
4,755.0	36.10	358.20	4,715.2	166.1	13.1	166.3	6.85	5.31	-7.50
4,786.0	37.80	357.80	4,740.0	184.7	12.5	184.9	5.54	5.48	-1.29
4,818.0	39.90	358.60	4,764.9	204.8	11.8	205.0	6.75	6.56	2.50
4,850.0	42.20	357.90	4,789.0	225.8	11.2	226.0	7.33	7.19	-2.19
4,882.0	43.80	357.80	4,812.4	247.6	10.4	247.7	5.00	5.00	-0.31

# Wolverine Directional, LLC

## Survey Report

**Company:** Sandridge Energy  
**Project:** Comanche (KS27S)  
**Site:** Sec 30-T31H-R19W - GRID  
**Well:** Ellis 1-19H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Ellis 1-19H  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,913.0	45.80	358.00	4,834.4	269.4	9.6	269.5	6.47	6.45	0.65
4,945.0	48.40	358.00	4,856.2	292.8	8.8	293.0	8.13	8.13	0.00
4,977.0	49.90	358.10	4,877.1	317.0	7.9	317.1	4.69	4.69	0.31
5,009.0	49.80	358.00	4,897.8	341.5	7.1	341.5	0.39	-0.31	-0.31
5,040.0	49.80	357.90	4,917.8	365.1	6.3	365.2	0.25	0.00	-0.32
5,072.0	49.70	357.40	4,938.5	389.5	5.3	389.6	1.23	-0.31	-1.56
5,104.0	49.50	357.40	4,959.2	413.9	4.1	413.9	0.63	-0.63	0.00
5,135.0	49.40	356.80	4,979.4	437.4	3.0	437.4	1.51	-0.32	-1.94
5,167.0	50.20	357.10	5,000.0	461.8	1.7	461.8	2.60	2.50	0.94
5,199.0	53.60	357.60	5,019.8	487.0	0.5	486.9	10.70	10.63	1.56
5,231.0	56.60	359.30	5,038.1	513.2	-0.2	513.1	10.34	9.38	5.31
5,262.0	59.00	1.20	5,054.6	539.4	-0.1	539.3	9.32	7.74	6.13
5,294.0	61.50	1.50	5,070.5	567.2	0.6	567.1	7.85	7.81	0.94
5,326.0	65.60	0.60	5,084.7	595.8	1.1	595.7	13.06	12.81	-2.81
5,358.0	70.20	359.30	5,096.7	625.5	1.1	625.4	14.86	14.38	-4.06
5,389.0	73.40	359.10	5,106.4	654.9	0.6	654.8	10.34	10.32	-0.65
5,421.0	76.00	358.90	5,114.9	685.8	0.1	685.6	8.15	8.13	-0.63
5,453.0	78.30	359.50	5,122.0	717.0	-0.3	716.8	7.42	7.19	1.88
5,485.0	80.50	359.60	5,127.9	748.4	-0.6	748.3	6.88	6.88	0.31
5,516.0	82.40	1.00	5,132.5	779.1	-0.4	778.9	7.58	6.13	4.52
5,543.0	84.80	1.30	5,135.5	805.9	0.1	805.7	8.96	8.89	1.11
5,608.0	87.30	2.50	5,140.0	870.7	2.3	870.6	4.26	3.85	1.85
5,640.0	87.20	2.30	5,141.5	902.6	3.6	902.5	0.70	-0.31	-0.63
5,672.0	88.80	1.90	5,142.6	934.6	4.8	934.5	5.15	5.00	-1.25
5,704.0	91.50	2.00	5,142.5	966.6	5.9	966.5	8.44	8.44	0.31
5,736.0	91.80	1.80	5,141.6	998.5	6.9	998.5	1.13	0.94	-0.63
5,832.0	92.30	2.50	5,138.2	1,094.4	10.5	1,094.4	0.90	0.52	0.73
5,927.0	89.80	0.60	5,136.4	1,189.3	13.1	1,189.4	3.31	-2.63	-2.00
6,023.0	89.30	0.30	5,137.2	1,285.3	13.9	1,285.4	0.61	-0.52	-0.31
6,119.0	90.80	0.30	5,137.1	1,381.3	14.4	1,381.3	1.56	1.56	0.00
6,214.0	90.50	359.70	5,136.0	1,476.3	14.4	1,476.3	0.71	-0.32	-0.63
6,310.0	92.80	0.50	5,133.3	1,572.3	14.5	1,572.3	2.54	2.40	0.83
6,405.0	92.00	0.80	5,129.3	1,667.2	15.6	1,667.2	0.90	-0.84	0.32
6,501.0	90.70	1.30	5,127.0	1,763.1	17.4	1,763.1	1.45	-1.35	0.52
6,597.0	90.50	0.80	5,126.0	1,859.1	19.1	1,859.1	0.56	-0.21	-0.52
6,692.0	90.30	0.70	5,125.4	1,954.1	20.4	1,954.1	0.24	-0.21	-0.11
6,788.0	90.20	0.70	5,124.9	2,050.1	21.5	2,050.1	0.10	-0.10	0.00
6,883.0	89.80	0.60	5,124.9	2,145.1	22.6	2,145.1	0.43	-0.42	-0.11
6,979.0	91.60	1.20	5,123.8	2,241.1	24.1	2,241.1	1.98	1.88	0.63
7,074.0	91.60	1.30	5,121.1	2,336.0	26.2	2,336.1	0.11	0.00	0.11
7,170.0	91.90	1.60	5,118.2	2,431.9	28.6	2,432.0	0.44	0.31	0.31
7,265.0	91.40	0.40	5,115.4	2,526.9	30.3	2,527.0	1.37	-0.53	-1.26
7,361.0	90.60	1.30	5,113.8	2,622.9	31.7	2,623.0	1.25	-0.83	0.94
7,456.0	90.00	1.00	5,113.3	2,717.8	33.6	2,718.0	0.71	-0.63	-0.32
7,551.0	89.80	1.20	5,113.4	2,812.8	35.4	2,813.0	0.30	-0.21	0.21
7,646.0	89.80	1.60	5,113.8	2,907.8	37.8	2,908.0	0.42	0.00	0.42
7,742.0	89.50	1.70	5,114.4	3,003.7	40.5	3,004.0	0.33	-0.31	0.10
7,838.0	90.60	1.80	5,114.3	3,099.7	43.5	3,099.9	1.15	1.15	0.10
7,933.0	91.00	1.60	5,112.9	3,194.7	46.3	3,194.9	0.47	0.42	-0.21
8,029.0	91.20	1.40	5,111.1	3,290.6	48.8	3,290.9	0.29	0.21	-0.21
8,125.0	91.20	1.20	5,109.1	3,386.6	51.0	3,386.9	0.21	0.00	-0.21
8,220.0	91.40	0.90	5,106.9	3,481.5	52.7	3,481.9	0.38	0.21	-0.32
8,316.0	92.80	1.10	5,103.4	3,577.4	54.4	3,577.8	1.47	1.46	0.21
8,411.0	92.80	1.20	5,098.8	3,672.3	56.3	3,672.7	0.11	0.00	0.11

# Wolverine Directional, LLC

## Survey Report

**Company:** Sandridge Energy  
**Project:** Comanche (KS27S)  
**Site:** Sec 30-T31H-R19W - GRID  
**Well:** Ellis 1-19H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Ellis 1-19H  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,507.0	91.80	1.90	5,094.9	3,768.2	58.9	3,768.6	1.27	-1.04	0.73	
8,603.0	89.50	1.50	5,093.8	3,864.1	61.7	3,864.6	2.43	-2.40	-0.42	
8,698.0	89.40	1.50	5,094.7	3,959.1	64.2	3,959.6	0.11	-0.11	0.00	
8,730.0	89.70	1.20	5,095.0	3,991.1	65.0	3,991.6	1.33	0.94	-0.94	
8,794.0	90.40	1.50	5,094.9	4,055.1	66.5	4,055.6	1.19	1.09	0.47	
8,890.0	90.40	1.90	5,094.3	4,151.0	69.3	4,151.6	0.42	0.00	0.42	
8,986.0	90.50	2.40	5,093.5	4,247.0	72.9	4,247.6	0.53	0.10	0.52	
9,017.0	89.40	2.60	5,093.5	4,277.9	74.3	4,278.5	3.61	-3.55	0.65	
9,081.0	87.50	2.60	5,095.3	4,341.8	77.2	4,342.5	2.97	-2.97	0.00	
9,113.0	87.90	2.80	5,096.6	4,373.8	78.7	4,374.5	1.40	1.25	0.63	
9,177.0	88.50	3.10	5,098.6	4,437.7	82.0	4,438.4	1.05	0.94	0.47	
9,273.0	89.10	3.00	5,100.6	4,533.5	87.1	4,534.3	0.63	0.63	-0.10	
9,368.0	91.20	3.30	5,100.3	4,628.3	92.3	4,629.3	2.23	2.21	0.32	
9,464.0	93.10	3.20	5,096.7	4,724.1	97.7	4,725.1	1.98	1.98	-0.10	
9,520.0	94.20	2.20	5,093.2	4,779.9	100.4	4,781.0	2.65	1.96	-1.79	
<b>Last MWD Survey</b>										
9,574.0	94.20	2.20	5,089.2	4,833.8	102.4	4,834.8	0.00	0.00	0.00	
<b>Proj to TD - Ellis 1-19H PBHL</b>										

### Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
980.0	979.9	-7.0	-7.5	First MWD Survey
9,520.0	5,093.2	4,779.9	100.4	Last MWD Survey
9,574.0	5,089.2	4,833.8	102.4	Proj to TD

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

<b>JOB SUMMARY</b>			PROJECT NUMBER <b>SOK0947</b>	TICKET DATE <b>11/02/11</b>
COUNTY <b>Comanche</b>	State <b>Kansas</b>	COMPANY <b>Sandridge Exp and Production</b>	CUSTOMER REP <b>Felix Ortiz Jr.</b>	
LEASE NAME <b>Ellis</b>	Well No. <b>1-19H</b>	JOB TYPE <b>Surface</b>	EMPLOYEE NAME <b>Chris Bigbey</b>	

EMP NAME					
Chris Bigbey					
Jared Green					
Larry Kirchner Sr.					
RJ Stonehocker					

Form. Name \_\_\_\_\_ Type: \_\_\_\_\_  
Packer Type \_\_\_\_\_ Set At \_\_\_\_\_ 0  
Bottom Hole Temp. **80** Pressure \_\_\_\_\_  
Retainer Depth \_\_\_\_\_ Total Depth **969**

Date	Called Out <b>11/1/2011</b>	On Location <b>11/2/2011</b>	Job Started <b>11/2/2011</b>	Job Completed <b>11/2/2011</b>
Time	<b>1700</b>	<b>0320</b>	<b>0420</b>	<b>0600</b>

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Val	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data						
	New/Used	Weight	Size	Grade	From	To
Casing		36.0	9 5/8"		Surface	969
Liner						
Liner						
Tubing			0			
Drill Pipe						
Open Hole			12 1/4"		Surface	965
Perforations						
Perforations						
Perforations						

Materials			
Mud Type	WBM	Density	Lb/Gal
Disp. Fluid	Fresh Water	8.33	
Spacer type	resh Water BBL.	10	8.33
Spacer type	BBL.		
Acid Type	Gal.	%	
Acid Type	Gal.	%	
Surfactant	Gal.	ln	
NE Agent	Gal.	ln	
Fluid Loss	Gal/Lb	ln	
Gelling Agent	Gal/Lb	ln	
Fric. Red.	Gal/Lb	ln	
MISC.	Gal/Lb	ln	

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
11/2	4.0	11/2	1.5	Surface
Total	4.0	Total	1.5	

Pressures	
MAX 1,500 PSI	AVG. 300
Average Rates in BPM	
MAX 8 BPM	AVG 5
Cement Left in Pipe	
Feet 44	Reason SHOE JOINT

Cement Data			Additives			W/Rq.	Yield	Lbs/Gal
Stage 1	Sacks 440	Cement O-Tex Lite Standard	(6%Gel) 2% Calcium Chloride - 1/4 lb/sk Cellflake -	0.5% C-41P		10.88	1.84	12.70
Stage 2	Sacks 180	Cement Standard	2% Calcium Chloride - 1/4 lb/sk Cellflake			5.20	1.18	15.60
Stage 3	Sacks 0	Cement Standard	2% Calcium Chloride on the side			5.20	1.18	15.60

Summary					
Preflush Breakdown	Type: _____	MAXIMUM _____ 1,500 PSI	Preflush: BBI _____ 10.00	Type: FRESH WATER	
	Lost Returns-N _____ NO/FULL	Actual TOC _____ SURFACE	Load & Bkdn: Gal - BBI _____ N/A	Pad:Bbl -Gal _____ N/a	
	Bump Plug PSI: _____ 900	Final Circ. PSI: _____ 400	Excess /Return BBI _____ 85	Calc. Disp Bbl _____ 71	
Average ISIP _____ 5 Min. _____ 10 Min. _____ 15 Min. _____		Cement Slurry: BBI _____ 182.0	Calc. TOC: _____ SURFACE	Actual Disp. _____ 69.00	
		Total Volume BBI _____ 261.03	Disp:Bbl _____ 71.40		

CUSTOMER REPRESENTATIVE \_\_\_\_\_ *Felix Ortiz Jr.* SIGNATURE \_\_\_\_\_

<b>JOB SUMMARY</b>			PROJECT NUMBER <b>SOK0963</b>	TICKET DATE <b>11/08/11</b>
COUNTY <b>Comanche</b>	State <b>Oklahoma</b>	COMPANY <b>Sandridge Exp and Prod</b>	CUSTOMER REP <b>Felix Ortiz Jr.</b>	
LEASE NAME <b>Ellis</b>	Well No. <b>1-19H</b>	JOB TYPE <b>Intermediate</b>	EMPLOYEE NAME <b>M.Wilson</b>	

EMP NAME				
<b>Matt Wilson</b>				
<b>Johnny Breeze</b>				
<b>Jayson Pierce</b>				
<b>David Settlmeyer</b>				

Form. Name \_\_\_\_\_ Type: \_\_\_\_\_  
 Packer Type \_\_\_\_\_ Set At 0  
 Bottom Hole Temp. 0 Pressure \_\_\_\_\_  
 Retainer Depth \_\_\_\_\_ Total Depth 5567

Date	Called Out <b>11/8/2011</b>	On Location <b>11/8/2011</b>	Job Started <b>11/8/2011</b>	Job Completed <b>11/8/2011</b>
Time	<b>7:00 am</b>	<b>12:00 pm</b>	<b>1:32 pm</b>	<b>3:30 pm</b>

Tools and Accessories		
Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Val	0	IR
Centralizers	0	IR
Top Plug	1	IR
HEAD	1	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data						
	New/Used	Weight	Size	Grade	From	To
Casing		26.0	7		Surface	5,598
Liner						
Liner						
Tubing						
Drill Pipe						
Open Hole			8 3/4		Surface	5,598
Perforations						
Perforations						
Perforations						

Materials			
Mud Type	Density		Lb/Gal
Disp. Fluid	Density		Lb/Gal
Spacer type	BBL.		
Spacer type	BBL.		
Acid Type	Gal.		%
Acid Type	Gal.		%
Surfactant	Gal.		In
NE Agent	Gal.		In
Fluid Loss	Gal/Lb		In
Gelling Agent	Gal/Lb		In
Fric. Red.	Gal/Lb		In
MISC.	Gal/Lb		In
Perfpac Balls	Qty.		
Other			
Other			
Other			
Other			
Other			

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
11/8	4.0	11/8	4.0	Intermediate
Total	4.0	Total	4.0	

Pressures			
MAX	5000	AVG	400
Average Rates in BPM			
MAX	8	AVG	5
Cement Left in Pipe			
Feet	82	Reason	shoe joint

Cement Data				W/Rq.	Yield	Lbs/Gal
Stage	Sacks	Cement	Additives			
1	200	50/50 POZ PREMIUM	4% Gel - 0.4% C-12 - 0.1% C-37 - 0.5% C-41P - 2 lb/sk Phenoseal	6.77	1.44	13.60
2	0	0		0	0.00	0.00
3	0	0		0	0.00	0.00

Preflush	<u>10</u>	Type: <u>caustic</u>	Summary	Preflush: BBI	<u>20.00</u>	Type: <u>FRESH WATER</u>
Breakdown		MAXIMUM	Load & Bkdn: Gal - BBI		<u>na</u>	Pad:Bbl -Gal
		Lost Returns-N	Excess /Return BBI		<u>na</u>	Calc. Disp Bbl
		Actual TOC	Calc. TOC:		<u>4.215</u>	Actual Disp.
Average		Frac. Gradient	fract circulate PSI		<u>680</u>	Disp:Bbl
ISIP	5 Min. _____	10 Min. _____	Cement Slurry: BBI		<u>51.0</u>	
		15 Min. _____	Total Volume	BBI	<u>275.00</u>	

CUSTOMER REPRESENTATIVE \_\_\_\_\_ SIGNATURE *Felix Ortiz Jr.*



# JOB SUMMARY

<b>PROJECT NUMBER</b> SOK0985			<b>TICKET DATE</b> 11/17/11		
<b>COUNTY</b> Comanche		<b>State</b> Kansas		<b>COMPANY</b> Sandridge Exp and Production	
<b>LEASE NAME</b> Ellis			<b>Well No.</b> 1-19H		
<b>JOB TYPE</b> Liner			<b>CUSTOMER REP</b> Roger Harris		
			<b>EMPLOYEE NAME</b> Chris Bigbey		

<b>EMP NAME</b>	Chris Bigbey				
Jared Green					
Larry Kirchner Sr.					
Rocky Anthis					

Form. Name \_\_\_\_\_ Type: \_\_\_\_\_

Packer Type \_\_\_\_\_ Set At 5,598'

Bottom Hole Temp. 155 Pressure \_\_\_\_\_

Retainer Depth \_\_\_\_\_ Total Depth 9,574'

Date	Called Out	On Location	Job Started	Job Completed
	11/17/2011	11/17/2011	11/17/2011	11/17/2011
Time	0300	0730	1230	1342

Tools and Accessories		
Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Val	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data							
	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing		11.6#	4 1/2"		5,171'	9,547'	3,500
Liner Tool			2 1/4ID		5,149'	5,171'	3,500
Drill Collars			2 1/4ID		4,229.54'	5,149'	3,500
Drill Pipe		13.3	3 1/2"		Surface	4,229.54'	3,500
Open Hole			6 1/8"		Surface	9,574'	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials			
Mud Type	WBM	Density	Lb/Gal
Disp. Fluid	Fresh Water	8.33	Lb/Gal
Spacer type	resh Wate BBL.	20	8.33
Spacer type	Caustic BBL.	10	8.40
Acid Type	Gal.	%	
Acid Type	Gal.	%	
Surfactant	Gal.	In	
NE Agent	Gal.	In	
Fluid Loss	Gal/Lb	In	
Gelling Agent	Gal/Lb	In	
Fric. Red.	Gal/Lb	In	
MISC.	Gal/Lb	In	

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
11/17	8.0	11/17	1.2	Liner
Total	8.0	Total	1.2	

Perfpac Balls \_\_\_\_\_ Qty. \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Pressures	
MAX	AVG
3,500 PSI	1000
Average Rates in BPM	
MAX	AVG
6 BPM	5
Cement Left in Pipe	
Feet	Reason
43	SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	475	50:50 Poz W/ Premium	(Includes 2% Gel) - 4% Gel - .4% C-12 - .1% C-37 - 2pps Phenoseal - .5% C	6.77	1.44	13.60
2	0	0		0	0.00	0.00
3	0	0		0	0.00	0.00

Summary					
Preflush	10	Type: CAUSTIC	Preflush: BBI	20.00	Type: FRESH WATER
Breakdown		MAXIMUM 3,500 PSI	Load & Bkdn: Gal - BBI	N/A	Pad:Bbl -Gal N/a
		Lost Returns-N	Excess /Return BBI	N/A	Calc. Disp Bbl 99
		Actual TOC 4,657'	Calc. TOC:	4,657'	Actual Disp. 93.00
Average		Bump Plug PSI: 1,400	Final Circ. PSI:	900	Disp:Bbl 99.30
ISIP	5 Min.	10 Min.	Cement Slurry: BBI	121.8	
		15 Min.	Total Volume BBI	234.80	

CUSTOMER REPRESENTATIVE \_\_\_\_\_ *Roger Harris* SIGNATURE

<b>JOB SUMMARY</b>			PROJECT NUMBER <b>SOK1055</b>	TICKET DATE <b>12/15/11</b>
COUNTY <b>Comanche</b>	State <b>Kansas</b>	COMPANY <b>Sandridge Exp and Prod</b>	CUSTOMER REP <b>Brad Schornick</b>	
LEASE NAME <b>Ellis</b>	Well No. <b>1-19H</b>	JOB TYPE <b>Squeeze Job</b>	EMPLOYEE NAME <b>Larry Kirchner Jr.</b>	

EMP NAME							
Larry Kirchner Jr.							
Emmit Brock							
Jayson Pierce							
Robert Stonehocker							

Form. Name \_\_\_\_\_ Type: \_\_\_\_\_  
Packer Type \_\_\_\_\_ Set At 0  
Bottom Hole Temp. 0 Pressure \_\_\_\_\_  
Retainer Depth \_\_\_\_\_ Total Depth 0

Date	Called Out <b>12/15/2011</b>	On Location <b>12/15/2011</b>	Job Started <b>12/15/2011</b>	Job Completed <b>12/15/2011</b>
Time	<b>6:00AM</b>	<b>2:00PM</b>	<b>7:57PM</b>	<b>10:00PM</b>

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Va	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing		26.0	7		Surface		
Bridge Plug						5,200	5,000
Retainer						4,350	5,000
Tubing	Used		2 7/8		Surface	4,350	5,000
Hole in csg.						4,620	
Open Hole			0		Surface	0	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

	Density	Lb/Gal
Mud Type		
Disp. Fluid		
Spacer type	BBL.	
Spacer type	BBL.	
Acid Type	Gal.	%
Acid Type	Gal.	%
Surfactant	Gal.	In
NE Agent	Gal.	In
Fluid Loss	Gal/Lb	In
Gelling Agent	Gal/Lb	In
Fric. Red.	Gal/Lb	In
MISC.	Gal/Lb	In

Hours On Location

Date	Hours
12/15	8.0
Total	8.0

Operating Hours

Date	Hours
12/15	2.0
Total	2.0

Description of Job

Squeeze Job

Perfpac Balls \_\_\_\_\_ Qty. \_\_\_\_\_  
Other \_\_\_\_\_  
Other \_\_\_\_\_  
Other \_\_\_\_\_  
Other \_\_\_\_\_

Pressures

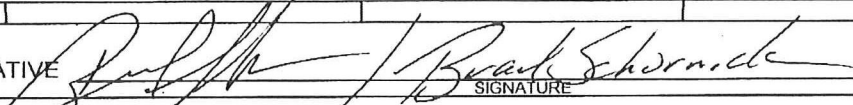
MAX	5,000	AVG	1500
Average Rates in BPM			
MAX	6	AVG	3
Cement Left in Pipe			
Feet	0	Reason	Squeeze

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	200	Premium Cement	2% Calcium Chloride		5.20	1.20
2	0	0		0	0.00	0.00
3	0	0		0	0.00	0.00

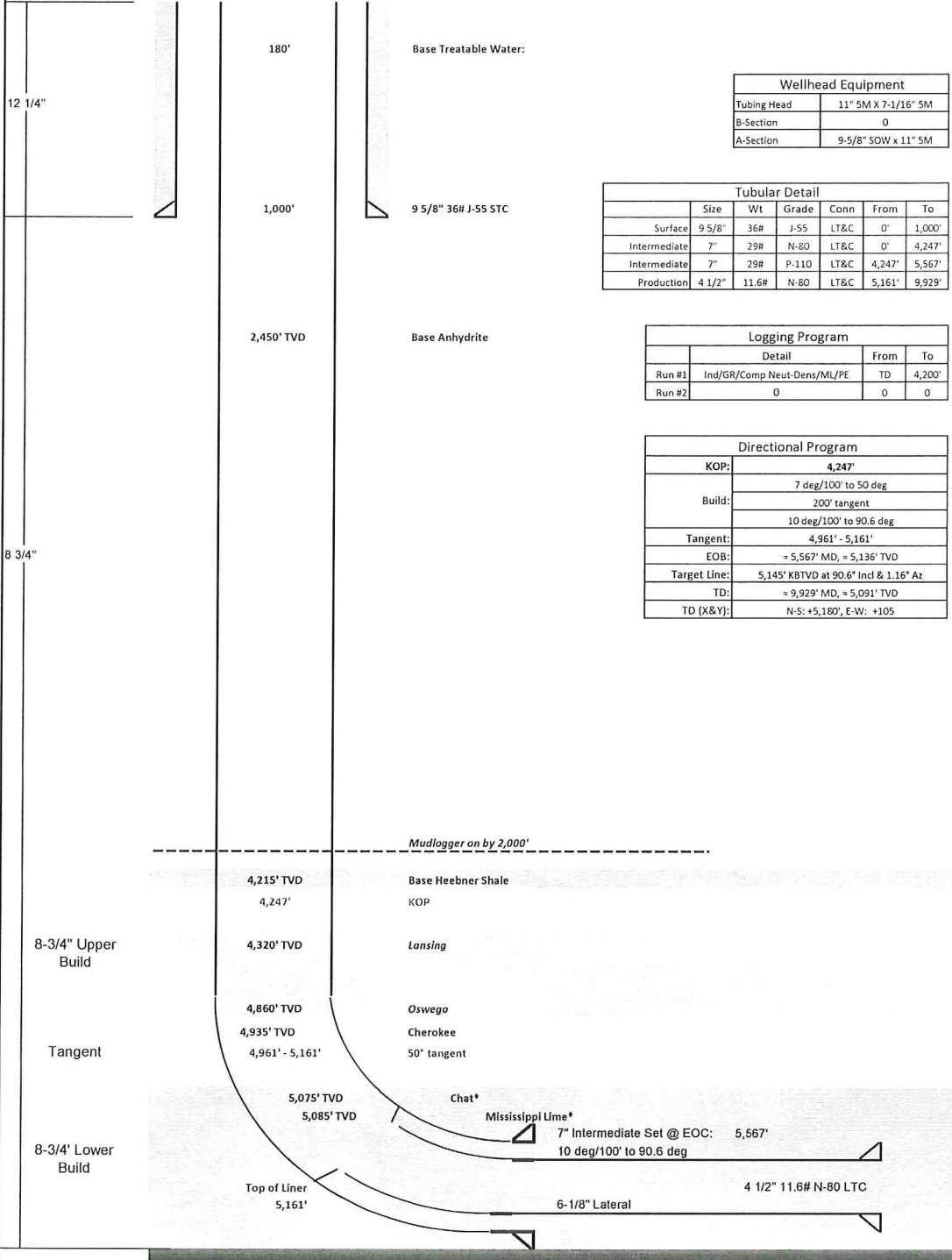
Summary

Preflush Breakdown	_____ Type: _____	Preflush: BBI	10.00	Type: Fresh Water
	MAXIMUM	Load & Bkdn: Gal - BBI	N/A	Pad: Bbl - Gal
	Lost Returns ->	Excess /Return BBI	N/A	Calc. Disp Bbl
	Actual TOC	Calc. TOC:	N/A	Actual Disp.
Average	Frac. Gradient	Treatment: Gal - BBI	N/A	Disp: Bbl
ISIP	5 Min. _____ 10 Min. _____ 15 Min. _____	Cement Slurry BBI	42.0	
		Total Volume BBI	72.50	

CUSTOMER REPRESENTATIVE  SIGNATURE

Well: Ellis 1-19H  
 Field: Kansas – Six Moons  
 County: Comanche County, Kansas  
 Type: Upper Miss Lime Horizontal  
 Surface: 200' FNL & 660' FWL of 30-T31S-R19W  
 PBHL: 330' FNL & 660' FWL of 19-T31S-R19W  
 GL: 2,053' KB: 2,071'

Engineer: Marc Harvey  
 Manager: Roger Wilson  
 Geology: Kanhthy Gentry  
 Production: Chad Hunt  
 Land: Shaun Lambert  
 AFE #: DC11450



Total Measured Depth: 9,929' MD  
 True Vertical Depth: 5,091' TVD

Prepared By	Date	Cementing	Logging Company	Mud Loggers	Mud Company	Directional
Marc Harvey	10/28/2011	O-Tex	Weatherford	Horizon Mud Logging	Chaparral Drilg Fluids	Wolverine Directional
		Greg Kirby		Russ Wollard	Jeff Taylor	Jeff Shoop
		(580) 475-2541		(405) 612-2042	(405) 637-6260	(405) 320-0406
		Liner Hanger	Soil Farming Company		HWDP	
		TIW	NA		Smith/Thomas Tool	
		Chuck Boyd (405) 226-7672				

Section 13  
31S 20W

Section 18  
31S 19W

SEAN 1-18H



764' FNL

BHL: 9574'

-99.433037 37.336061

704' FWL

Bottom Perf: 9519'

-99.433042 37.335910

Section 24  
31S 20W

Section 19  
31S 19W

Top Perf: 5605'

-99.433245 37.325166

Miss Entry: 5335'

-99.433239 37.324440

Section 25  
31S 20W

Section 30  
31S 19W

ELLIS 1-19H



Actual Bottom-Hole Location of Ellis 1-19H  
Comanche County, Kansas

T&R: 31S 19W

Section: 19, 764' FNL & 704' FEL

Long: -99.433037, Lat: 37.336061

1 in = 650 ft



Draftsman:

Matt White

Draft Date: 2/13/2012

Drawing Name/Number:

Addendum\_Ellis\_1-19H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502

● Actual BH Location

\* SandRidge Wells

--- Perf

□ PLSS Sections

