

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1261673
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
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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: _____

1261673



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
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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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Schnackenberg 3408 1-23H14
Doc ID	1261673

Tops

Name	Top	Datum
Base Heebner	3469	
Lansing	3796	
Cottage Grove	4106	
Oswego	4426	
Pawnee	4481	
Cherokee	4513	
Verdigris	4561	
Mississippian	4710	

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/11/2015
Job End Date:	6/14/2015
State:	Kansas
County:	Harper
API Number:	15-077-22140-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Schnackenberg 3408 1-23H14
Longitude:	-98.16368958
Latitude:	37.06572200
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,675
Total Base Water Volume (gal):	4,183,326
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	Archer	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	95.02811	None
Sand (Proppant)	Archer	Proppant					
			Silica Substrate	NA	100.00000	4.64407	None
AFR101	Archer	Friction Reducer					
			Water	7732-18-5	60.00000	0.03000	None
			Aliphatic Hydrocarbon	64742-47-8	30.00000	0.01500	None
			Anionic Polymer	NA	30.00000	0.01500	None
			Polyol Ester	NA	5.00000	0.00250	None
			Oxyalkylated Alcohol	68002-97-1	5.00000	0.00250	None
			Polyglycol Ester	NA	1.00000	0.00050	None
			Tetrasodium Ethylenediaminetetraacetate	64-02-8	0.10000	0.00005	None
Hydrochloric Acid (15%)	Archer	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.03959	None
SCI-1	Archer	Liquid Scale Inhibitor					
			Water	7732-18-5	90.00000	0.00895	None
			Acrylic Polymer	28205-96-1	15.00000	0.00149	None
			Sodium Salt of Phosphate Ester	68131-72-6	15.00000	0.00149	None

Chemflush	Archer	Enviro-Friendly Chemical Flush					
			Hydrotreated Petroleum Distillate	64742-47-8	99.00000	0.00181	None
			Alcohol Ethoxylate Surfactants	NA	10.00000	0.00018	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.00000	0.00073	None
			Water	7732-18-5	35.00000	0.00051	None
			Citric Acid	77-92-9	30.00000	0.00044	None
AHIB 160	Archer	Corrosion Inhibitor					
			Methyl Alcohol	67-56-1	80.00000	0.00033	None
			Alcohol Ethoxylate Surfactants	NA	15.00000	0.00006	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00006	None
			n-olefins	NA	8.00000	0.00003	None
			Propargyl Alcohol	107-19-7	6.00000	0.00002	None
Lodyne	Archer	Non-Emulsifying Surfactant					
			WATER	7732-18-5	60.00000	0.00015	None
			TRADE SECRET	NA	40.00000	0.00010	None
			NONYL PHENOL, 4 MOL	104-40-5	10.00000	0.00002	None
			METHANOL	67-56-1	10.00000	0.00002	None
			ISOPROPANOL	67-63-0	10.00000	0.00002	None

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.

* 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)

Schnackenberg 3408 1-23H14 Perforations and Shot Density

Stage Nr	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	Wellbore	String Perforated	Perforation Company	Fluid Type
34	6/14/15	Perforated	5,269	4,761	5,271	4,761	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
34	6/14/15	Perforated	5,345	4,762	5,347	4,762	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
34	6/14/15	Perforated	5,422	4,760	5,424	4,760	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
34	6/14/15	Perforated	5,498	4,758	5,500	4,758	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
34	6/14/15	Perforated	5,574	4,756	5,576	4,756	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
33	6/14/15	Perforated	5,634	4,755	5,636	4,755	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
33	6/14/15	Perforated	5,718	4,754	5,720	4,754	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
33	6/14/15	Perforated	5,802	4,755	5,804	4,755	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
33	6/14/15	Perforated	5,885	4,753	5,887	4,753	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
33	6/14/15	Perforated	5,969	4,752	5,971	4,752	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
32	6/14/15	Perforated	6,029	4,752	6,031	4,752	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
32	6/14/15	Perforated	6,113	4,753	6,115	4,753	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
32	6/14/15	Perforated	6,197	4,753	6,199	4,753	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
32	6/14/15	Perforated	6,281	4,753	6,283	4,753	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
32	6/14/15	Perforated	6,365	4,754	6,367	4,754	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
31	6/14/15	Perforated	6,425	4,755	6,427	4,755	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
31	6/14/15	Perforated	6,510	4,756	6,512	4,756	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
31	6/14/15	Perforated	6,595	4,755	6,597	4,755	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
31	6/14/15	Perforated	6,680	4,755	6,682	4,755	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
31	6/14/15	Perforated	6,765	4,754	6,767	4,754	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
30	6/14/15	Perforated	6,825	4,754	6,827	4,754	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
30	6/14/15	Perforated	6,909	4,755	6,911	4,755	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
30	6/14/15	Perforated	6,993	4,755	6,995	4,754	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
30	6/14/15	Perforated	7,077	4,754	7,079	4,754	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
30	6/14/15	Perforated	7,161	4,752	7,163	4,752	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
29	6/13/15	Perforated	7,221	4,750	7,223	4,750	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
29	6/13/15	Perforated	7,306	4,748	7,308	4,747	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
29	6/13/15	Perforated	7,391	4,745	7,393	4,745	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
29	6/13/15	Perforated	7,476	4,743	7,478	4,743	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
29	6/13/15	Perforated	7,561	4,741	7,563	4,741	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
28	6/13/15	Perforated	7,621	4,740	7,623	4,740	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
28	6/13/15	Perforated	7,705	4,738	7,707	4,738	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
28	6/13/15	Perforated	7,790	4,739	7,792	4,739	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
28	6/13/15	Perforated	7,874	4,741	7,876	4,741	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
28	6/13/15	Perforated	7,958	4,742	7,960	4,742	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
27	6/13/15	Perforated	8,018	4,742	8,020	4,742	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
27	6/13/15	Perforated	8,093	4,740	8,095	4,740	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
27	6/13/15	Perforated	8,168	4,739	8,170	4,738	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
27	6/13/15	Perforated	8,242	4,736	8,244	4,736	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
27	6/13/15	Perforated	8,317	4,734	8,319	4,734	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
26	6/12/15	Perforated	8,377	4,732	8,379	4,732	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water

Schnackenberg 3408 1-23H14 Perforations and Shot Density

Stage Nr	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	Wellbore	String Perforated	Perforation Company	Fluid Type
26	6/12/15	Perforated	8,452	4,730	8,454	4,729	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
26	6/12/15	Perforated	8,474	4,729	8,476	4,729	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
26	6/12/15	Perforated	8,527	4,728	8,529	4,728	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
26	6/12/15	Perforated	8,601	4,728	8,603	4,728	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
26	6/12/15	Perforated	8,676	4,729	8,678	4,729	Miss Lime - Upper	5	Original Hole	Production Liner	Baker Atlas	Fresh Water
25	6/12/15	Frac Sleeve	8,811	4,730	8,813	4,730	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
24	6/12/15	Frac Sleeve	9,036	4,729	9,038	4,729	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
23	6/12/15	Frac Sleeve	9,265	4,726	9,267	4,726	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
22	6/12/15	Frac Sleeve	9,492	4,722	9,494	4,722	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
21	6/12/15	Frac Sleeve	9,721	4,721	9,723	4,721	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
20	6/12/15	Frac Sleeve	9,947	4,721	9,949	4,721	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
19	6/12/15	Frac Sleeve	10,172	4,724	10,174	4,724	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
18	6/12/15	Frac Sleeve	10,400	4,729	10,402	4,729	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
17	6/12/15	Frac Sleeve	10,626	4,726	10,628	4,725	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
16	6/11/15	Frac Sleeve	10,840	4,724	10,842	4,724	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
15	6/11/15	Frac Sleeve	11,066	4,717	11,068	4,717	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
14	6/11/15	Frac Sleeve	11,293	4,708	11,295	4,708	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
13	6/11/15	Frac Sleeve	11,518	4,701	11,520	4,701	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
12	6/11/15	Frac Sleeve	11,741	4,704	11,743	4,704	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
11	6/11/15	Frac Sleeve	11,967	4,705	11,969	4,705	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
10	6/11/15	Frac Sleeve	12,191	4,702	12,193	4,702	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
9	6/11/15	Frac Sleeve	12,413	4,699	12,415	4,699	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
8	6/11/15	Frac Sleeve	12,632	4,700	12,634	4,700	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
7	6/11/15	Frac Sleeve	12,857	4,703	12,859	4,703	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
6	6/11/15	Frac Sleeve	13,083	4,702	13,085	4,702	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
5	6/11/15	Frac Sleeve	13,309	4,697	13,311	4,697	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
4	6/11/15	Frac Sleeve	13,536	4,691	13,538	4,691	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
3	6/11/15	Frac Sleeve	13,763	4,688	13,765	4,688	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
2	6/11/15	Frac Sleeve	13,990	4,683	13,992	4,683	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water
1	6/11/15	P-Sleeve	14,255	4,677	14,257	4,677	Miss Lime - Upper	1	Original Hole	Production Liner	Baker Atlas	Fresh Water

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
5227.0	81.80	0.50	4756.5	867.6	348.6	0.00	0.00	0.00	Start Build 12.40
5277.0	88.00	0.50	4761.0	917.4	349.0	12.40	0.00	0.00	Start DLS 2.00 TFO -43.23
5503.4	91.30	357.40	4762.3	1143.6	344.9	2.00	-43.23	1154.6	Start 100.0 hold at 5503.4 MD
5603.4	91.30	357.40	4760.1	1243.5	340.3	0.00	0.00	1254.3	Start DLS 2.00 TFO 107.08
5739.4	90.50	0.00	4757.9	1379.5	337.2	2.00	107.08	1390.1	Start DLS 0.00 TFO -89.78
14327.2	90.50	360.00	4683.0	9967.0	337.0	0.00	-89.78	9972.7	TD at 14327.2

WELL DETAILS: Schnackenberg 3408 1-23H14

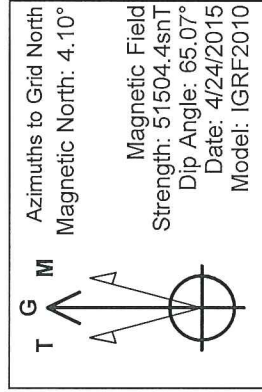
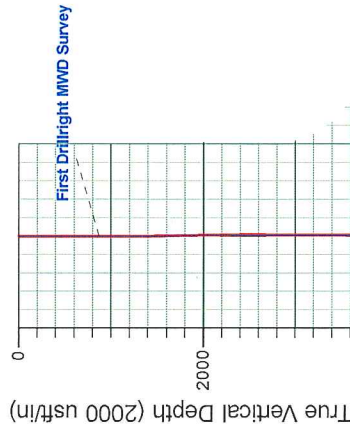
Ground Level:	1320.0		
Northing	Easting	Latitude	Longitude
145482.00	2098135.00	37° 3' 56.607 N	98° 9' 49.290 W

Project: Harper County (NAD-27)

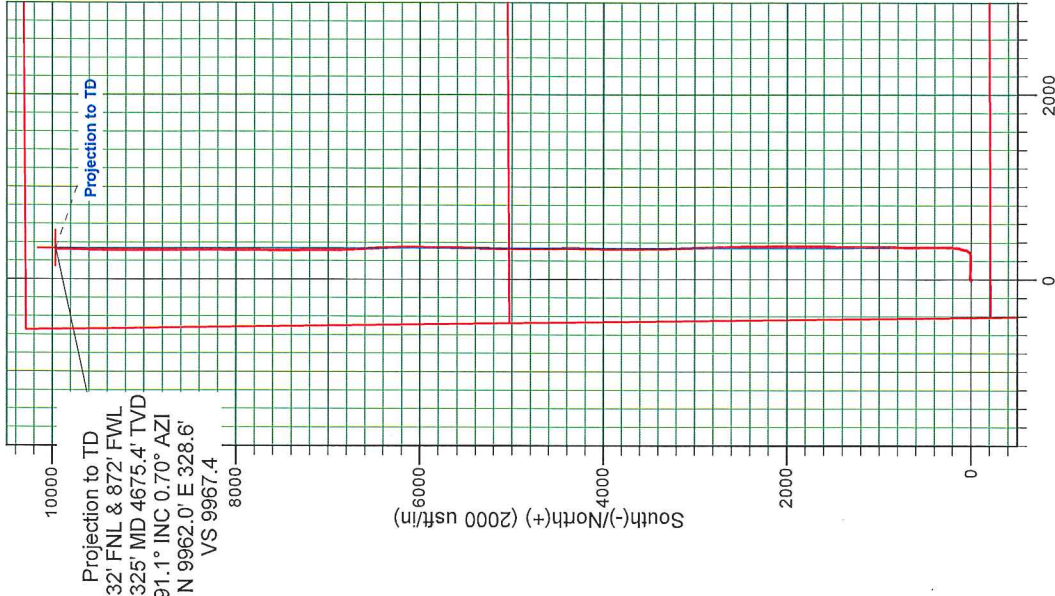
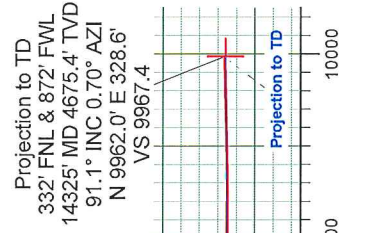
Site: Sec 23-T34S-R08W

Well: Schnackenberg 3408 1-23H14

Plan: Plan 050815 A1 (Schnackenberg 3408 1-23H14/Wellbore #1)



Target Line: 5-08-15
4770 KBTVD @ 0' VS
90.5° @ 1.94 AZI Plane



Survey Report

Company: Sandridge Energy	Local Co-ordinate Reference: Well Schnackenberg 3408 1-23H14
Project: Harper County (NAD-27)	TVD Reference: KB @ 1339.0usft
Site: Sec 23-T34S-R08W	MD Reference: KB @ 1339.0usft
Well: Schnackenberg 3408 1-23H14	North Reference: Grid
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Wellbore #1	Database: EDM 5000.1 Single User Db

Project Harper County (NAD-27)	
Map System: US State Plane 1927 (Exact solution)	System Datum: Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)	
Map Zone: Kansas South 1502	

Site Sec 23-T34S-R08W		
Site Position:	Northing: 145,269.00 usft	Latitude: 37° 3' 54.516 N
From: Map	Easting: 2,097,723.00 usft	Longitude: 98° 9' 54.382 W
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.21 °

Well Schnackenberg 3408 1-23H14		
Well Position +N/-S 0.0 usft	Northing: 145,482.00 usft	Latitude: 37° 3' 56.607 N
+E/-W 0.0 usft	Easting: 2,098,135.00 usft	Longitude: 98° 9' 49.290 W
Position Uncertainty 0.0 usft	Wellhead Elevation: 0.0 usft	Ground Level: 1,320.0 usft

Wellbore Wellbore #1					
Magnetics	Model Name IGRF2010	Sample Date 4/24/2015	Declination (°) 4.30	Dip Angle (°) 65.07	Field Strength (nT) 51,504

Design Wellbore #1				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	1.94

Survey Program	Date 5/20/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
875.0	14,325.0	DRT MWD Surveys (Wellbore #1)	MWD	MWD - Standard

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
875.0	0.30	207.90	875.0	-2.0	-1.1	-2.1	0.03	0.03	0.00	
First Drillright MWD Survey										
1,349.0	0.60	10.50	1,349.0	-0.7	-1.2	-0.7	0.19	0.06	34.30	
1,823.0	1.10	355.70	1,822.9	6.3	-1.1	6.3	0.11	0.11	-3.12	
2,296.0	0.40	13.40	2,295.9	12.4	-1.0	12.4	0.15	-0.15	3.74	
2,391.0	0.50	17.50	2,390.9	13.1	-0.8	13.1	0.11	0.11	4.32	
2,486.0	3.30	94.90	2,485.8	13.3	2.0	13.4	3.40	2.95	81.47	
2,580.0	5.40	89.40	2,579.6	13.1	9.1	13.4	2.28	2.23	-5.85	
2,673.0	8.00	96.50	2,671.9	12.4	19.9	13.1	2.93	2.80	7.63	
2,767.0	10.90	94.30	2,764.6	11.0	35.3	12.2	3.11	3.09	-2.34	

Survey Report

Company:	Sandridge Energy	Local Co-ordinate Reference:	Well Schnackenberg 3408 1-23H14
Project:	Harper County (NAD-27)	TVD Reference:	KB @ 1339.0usft
Site:	Sec 23-T34S-R08W	MD Reference:	KB @ 1339.0usft
Well:	Schnackenberg 3408 1-23H14	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,862.0	13.10	92.70	2,857.6	9.9	55.0	11.7	2.34	2.32	-1.68	
2,957.0	12.60	91.70	2,950.2	9.0	76.1	11.6	0.58	-0.53	-1.05	
3,051.0	11.00	91.20	3,042.2	8.5	95.3	11.8	1.71	-1.70	-0.53	
3,146.0	12.20	92.40	3,135.2	7.9	114.4	11.8	1.29	1.26	1.26	
3,241.0	11.20	91.50	3,228.3	7.3	133.7	11.8	1.07	-1.05	-0.95	
3,335.0	13.10	90.10	3,320.2	7.0	153.5	12.2	2.05	2.02	-1.49	
3,430.0	11.60	89.80	3,413.0	7.0	173.8	12.9	1.58	-1.58	-0.32	
3,524.0	12.00	92.60	3,505.0	6.6	193.0	13.1	0.74	0.43	2.98	
3,619.0	10.40	92.90	3,598.2	5.7	211.4	12.9	1.69	-1.68	0.32	
3,714.0	11.70	97.10	3,691.4	4.1	229.5	11.9	1.61	1.37	4.42	
3,810.0	12.90	82.60	3,785.2	4.3	249.8	12.7	3.44	1.25	-15.10	
3,905.0	12.80	75.70	3,877.8	8.3	270.6	17.4	1.62	-0.11	-7.26	
3,936.0	13.50	67.70	3,908.0	10.5	277.2	19.8	6.28	2.26	-25.81	
3,968.0	14.70	57.80	3,939.1	14.1	284.1	23.7	8.40	3.75	-30.94	
3,999.0	16.40	49.40	3,968.9	19.0	290.8	28.8	9.09	5.48	-27.10	
4,031.0	16.70	39.80	3,999.6	25.5	297.1	35.5	8.59	0.94	-30.00	
4,063.0	17.40	33.50	4,030.2	33.0	302.7	43.2	6.17	2.19	-19.69	
4,094.0	19.00	29.40	4,059.7	41.3	307.8	51.6	6.61	5.16	-13.23	
4,125.0	20.00	24.00	4,088.9	50.5	312.4	61.0	6.65	3.23	-17.42	
4,157.0	20.70	18.90	4,118.9	60.9	316.5	71.5	5.96	2.19	-15.94	
4,188.0	22.10	15.00	4,147.8	71.7	319.7	82.4	6.44	4.52	-12.58	
4,220.0	24.90	14.70	4,177.1	84.0	323.0	94.9	8.76	8.75	-0.94	
4,252.0	27.90	15.40	4,205.8	97.7	326.7	108.7	9.43	9.38	2.19	
4,283.0	29.90	14.10	4,232.9	112.2	330.5	123.3	6.76	6.45	-4.19	
4,315.0	32.20	11.10	4,260.3	128.3	334.1	139.5	8.66	7.19	-9.38	
4,347.0	33.70	8.90	4,287.2	145.5	337.1	156.8	6.00	4.69	-6.88	
4,379.0	35.70	7.00	4,313.5	163.5	339.6	174.9	7.10	6.25	-5.94	
4,411.0	37.80	5.30	4,339.1	182.5	341.7	194.0	7.29	6.56	-5.31	
4,442.0	40.10	4.00	4,363.2	202.0	343.2	213.5	7.87	7.42	-4.19	
4,474.0	42.40	3.10	4,387.3	223.0	344.6	234.5	7.42	7.19	-2.81	
4,506.0	44.60	2.30	4,410.5	245.0	345.6	256.6	7.09	6.88	-2.50	
4,537.0	46.40	1.70	4,432.2	267.1	346.4	278.7	5.97	5.81	-1.94	
4,569.0	48.30	1.70	4,453.9	290.6	347.1	302.2	5.94	5.94	0.00	
4,600.0	50.50	0.70	4,474.1	314.2	347.5	325.7	7.51	7.10	-3.23	
4,631.0	52.50	359.60	4,493.4	338.4	347.6	350.0	7.02	6.45	-3.55	
4,663.0	54.30	359.30	4,512.4	364.1	347.4	375.7	5.68	5.63	-0.94	
4,694.0	56.10	359.30	4,530.1	389.6	347.0	401.1	5.81	5.81	0.00	
4,757.0	60.30	0.30	4,563.3	443.1	346.9	454.6	6.80	6.67	1.59	
4,851.0	60.30	359.60	4,609.9	524.8	346.8	536.2	0.65	0.00	-0.74	
4,946.0	58.70	358.30	4,658.1	606.6	345.3	617.9	2.06	-1.68	-1.37	
4,978.0	60.20	358.10	4,674.4	634.1	344.4	645.4	4.72	4.69	-0.63	
5,010.0	62.70	359.20	4,689.7	662.2	343.8	673.5	8.38	7.81	3.44	
5,041.0	66.90	359.80	4,702.9	690.3	343.5	701.5	13.66	13.55	1.94	

Survey Report

Company:	Sandridge Energy	Local Co-ordinate Reference:	Well Schnackenberg 3408 1-23H14
Project:	Harper County (NAD-27)	TVD Reference:	KB @ 1339.0usft
Site:	Sec 23-T34S-R08W	MD Reference:	KB @ 1339.0usft
Well:	Schnackenberg 3408 1-23H14	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,073.0	67.90	1.60	4,715.2	719.8	343.9	731.0	6.06	3.13	5.63	
5,104.0	69.30	2.50	4,726.5	748.7	344.9	759.9	5.26	4.52	2.90	
5,133.0	72.50	2.60	4,736.0	776.0	346.2	787.3	11.04	11.03	0.34	
5,165.0	75.80	2.20	4,744.7	806.8	347.4	818.1	10.38	10.31	-1.25	
5,199.0	79.50	0.70	4,752.0	840.0	348.3	851.3	11.70	10.88	-4.41	
5,227.0	81.80	0.50	4,756.5	867.6	348.6	878.9	8.24	8.21	-0.71	
5,316.0	90.80	359.60	4,762.3	956.3	348.6	967.6	10.16	10.11	-1.01	
5,379.0	91.20	0.50	4,761.2	1,019.3	348.7	1,030.5	1.56	0.63	1.43	
5,472.0	91.90	358.90	4,758.6	1,112.3	348.2	1,123.4	1.88	0.75	-1.72	
5,566.0	91.30	359.90	4,756.0	1,206.2	347.2	1,217.3	1.24	-0.64	1.06	
5,660.0	90.50	1.40	4,754.5	1,300.2	348.3	1,311.2	1.81	-0.85	1.60	
5,753.0	89.50	1.10	4,754.5	1,393.2	350.3	1,404.2	1.12	-1.08	-0.32	
5,847.0	91.30	2.20	4,753.9	1,487.1	353.0	1,498.2	2.24	1.91	1.17	
5,940.0	90.50	0.70	4,752.4	1,580.1	355.4	1,591.2	1.83	-0.86	-1.61	
6,033.0	89.50	0.00	4,752.4	1,673.1	355.9	1,684.2	1.31	-1.08	-0.75	
6,127.0	90.30	359.90	4,752.6	1,767.1	355.9	1,778.1	0.86	0.85	-0.11	
6,221.0	89.40	359.80	4,752.8	1,861.1	355.6	1,872.0	0.96	-0.96	-0.11	
6,316.0	89.90	0.10	4,753.4	1,956.1	355.5	1,967.0	0.61	0.53	0.32	
6,411.0	88.80	359.80	4,754.5	2,051.1	355.5	2,061.9	1.20	-1.16	-0.32	
6,506.0	90.00	359.70	4,755.5	2,146.1	355.0	2,156.8	1.27	1.26	-0.11	
6,601.0	90.30	359.90	4,755.2	2,241.1	354.7	2,251.8	0.38	0.32	0.21	
6,695.0	90.70	359.80	4,754.4	2,335.1	354.5	2,345.7	0.44	0.43	-0.11	
6,790.0	89.80	359.70	4,754.0	2,430.1	354.0	2,440.6	0.95	-0.95	-0.11	
6,885.0	89.70	359.40	4,754.4	2,525.1	353.3	2,535.6	0.33	-0.11	-0.32	
6,980.0	90.20	358.10	4,754.5	2,620.0	351.2	2,630.4	1.47	0.53	-1.37	
7,075.0	90.70	357.10	4,753.8	2,714.9	347.3	2,725.1	1.18	0.53	-1.05	
7,169.0	91.60	358.20	4,751.9	2,808.8	343.4	2,818.8	1.51	0.96	1.17	
7,264.0	92.00	357.30	4,748.9	2,903.7	339.7	2,913.5	1.04	0.42	-0.95	
7,359.0	91.70	358.60	4,745.8	2,998.6	336.3	3,008.3	1.40	-0.32	1.37	
7,453.0	91.20	358.70	4,743.4	3,092.6	334.1	3,102.1	0.54	-0.53	0.11	
7,547.0	91.30	358.80	4,741.4	3,186.5	332.0	3,195.9	0.15	0.11	0.11	
7,642.0	91.70	358.40	4,738.9	3,281.5	329.7	3,290.7	0.60	0.42	-0.42	
7,737.0	89.00	359.70	4,738.3	3,376.4	328.1	3,385.6	3.15	-2.84	1.37	
7,831.0	88.90	359.80	4,740.0	3,470.4	327.7	3,479.5	0.15	-0.11	0.11	
7,926.0	89.40	359.50	4,741.5	3,565.4	327.1	3,574.4	0.61	0.53	-0.32	
8,021.0	90.50	359.30	4,741.5	3,660.4	326.1	3,669.3	1.18	1.16	-0.21	
8,115.0	91.50	0.50	4,739.9	3,754.4	326.0	3,763.2	1.66	1.06	1.28	
8,210.0	91.60	0.30	4,737.3	3,849.3	326.6	3,858.2	0.24	0.11	-0.21	
8,304.0	91.80	1.00	4,734.5	3,943.3	327.7	3,952.1	0.77	0.21	0.74	
8,399.0	92.00	1.10	4,731.4	4,038.2	329.4	4,047.0	0.24	0.21	0.11	
8,424.0	92.30	0.90	4,730.5	4,063.2	329.9	4,072.0	1.44	1.20	-0.80	
8,519.0	90.50	1.40	4,728.1	4,158.1	331.8	4,167.0	1.97	-1.89	0.53	
8,614.0	89.30	0.40	4,728.3	4,253.1	333.3	4,262.0	1.64	-1.26	-1.05	

Survey Report

Company:	Sandridge Energy	Local Co-ordinate Reference:	Well Schnackenberg 3408 1-23H14
Project:	Harper County (NAD-27)	TVD Reference:	KB @ 1339.0usft
Site:	Sec 23-T34S-R08W	MD Reference:	KB @ 1339.0usft
Well:	Schnackenberg 3408 1-23H14	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,709.0	89.50	359.80	4,729.3	4,348.1	333.4	4,356.9	0.67	0.21	-0.63	
8,804.0	89.70	359.10	4,730.0	4,443.1	332.5	4,451.8	0.77	0.21	-0.74	
8,898.0	90.00	359.10	4,730.2	4,537.1	331.0	4,545.7	0.32	0.32	0.00	
8,993.0	90.70	359.40	4,729.6	4,632.1	329.8	4,640.6	0.80	0.74	0.32	
9,088.0	91.70	0.10	4,727.6	4,727.1	329.4	4,735.5	1.28	1.05	0.74	
9,183.0	90.20	0.00	4,726.1	4,822.1	329.5	4,830.4	1.58	-1.58	-0.11	
9,278.0	90.30	0.00	4,725.6	4,917.1	329.5	4,925.4	0.11	0.11	0.00	
9,373.0	91.60	1.10	4,724.1	5,012.0	330.4	5,020.3	1.79	1.37	1.16	
9,468.0	90.30	1.60	4,722.5	5,107.0	332.6	5,115.3	1.47	-1.37	0.53	
9,562.0	90.60	1.40	4,721.8	5,201.0	335.1	5,209.3	0.38	0.32	-0.21	
9,657.0	89.80	0.70	4,721.4	5,295.9	336.8	5,304.3	1.12	-0.84	-0.74	
9,752.0	90.60	1.50	4,721.1	5,390.9	338.6	5,399.3	1.19	0.84	0.84	
9,847.0	90.60	0.60	4,720.1	5,485.9	340.4	5,494.3	0.95	0.00	-0.95	
9,941.0	88.80	0.60	4,720.6	5,579.9	341.4	5,588.2	1.91	-1.91	0.00	
10,036.0	89.80	0.60	4,721.7	5,674.9	342.4	5,683.2	1.05	1.05	0.00	
10,130.0	88.40	1.20	4,723.2	5,768.8	343.8	5,777.2	1.62	-1.49	0.64	
10,224.0	88.60	0.40	4,725.7	5,862.8	345.2	5,871.1	0.88	0.21	-0.85	
10,319.0	89.00	1.00	4,727.7	5,957.8	346.3	5,966.1	0.76	0.42	0.63	
10,414.0	88.90	0.00	4,729.4	6,052.8	347.1	6,061.0	1.06	-0.11	-1.05	
10,508.0	91.20	358.90	4,729.3	6,146.7	346.2	6,154.9	2.71	2.45	-1.17	
10,603.0	92.40	359.20	4,726.3	6,241.7	344.7	6,249.8	1.30	1.26	0.32	
10,697.0	90.60	358.00	4,723.9	6,335.6	342.4	6,343.6	2.30	-1.91	-1.28	
10,792.0	89.50	357.80	4,723.8	6,430.6	338.9	6,438.3	1.18	-1.16	-0.21	
10,887.0	92.30	357.80	4,722.3	6,525.5	335.2	6,533.1	2.95	2.95	0.00	
10,981.0	91.50	357.00	4,719.2	6,619.3	331.0	6,626.7	1.20	-0.85	-0.85	
11,076.0	92.10	357.40	4,716.2	6,714.2	326.3	6,721.3	0.76	0.63	0.42	
11,171.0	92.70	356.60	4,712.2	6,808.9	321.4	6,815.9	1.05	0.63	-0.84	
11,266.0	91.60	358.80	4,708.7	6,903.8	317.6	6,910.6	2.59	-1.16	2.32	
11,360.0	92.70	0.20	4,705.1	6,997.7	316.7	7,004.4	1.89	1.17	1.49	
11,386.0	92.90	0.00	4,703.9	7,023.7	316.8	7,030.4	1.09	0.77	-0.77	
11,481.0	90.50	359.90	4,701.1	7,118.6	316.7	7,125.3	2.53	-2.53	-0.11	
11,576.0	89.00	359.50	4,701.5	7,213.6	316.2	7,220.2	1.63	-1.58	-0.42	
11,670.0	89.00	0.20	4,703.1	7,307.6	316.0	7,314.1	0.74	0.00	0.74	
11,765.0	89.40	359.20	4,704.4	7,402.6	315.5	7,409.0	1.13	0.42	-1.05	
11,860.0	89.80	359.40	4,705.1	7,497.6	314.3	7,503.9	0.47	0.42	0.21	
11,954.0	90.50	359.90	4,704.9	7,591.6	313.7	7,597.9	0.92	0.74	0.53	
12,049.0	90.50	1.70	4,704.0	7,686.6	315.1	7,692.8	1.89	0.00	1.89	
12,144.0	90.80	0.70	4,702.9	7,781.5	317.0	7,787.8	1.10	0.32	-1.05	
12,239.0	90.70	0.30	4,701.7	7,876.5	317.9	7,882.8	0.43	-0.11	-0.42	
12,334.0	91.20	359.90	4,700.1	7,971.5	318.0	7,977.7	0.67	0.53	-0.42	
12,429.0	90.30	0.20	4,698.9	8,066.5	318.1	8,072.7	1.00	-0.95	0.32	
12,523.0	89.70	0.20	4,698.9	8,160.5	318.5	8,166.6	0.64	-0.64	0.00	
12,618.0	89.40	0.40	4,699.6	8,255.5	319.0	8,261.6	0.38	-0.32	0.21	
12,713.0	89.00	359.90	4,701.0	8,350.5	319.2	8,356.5	0.67	-0.42	-0.53	

Survey Report

Company:	Sandridge Energy	Local Co-ordinate Reference:	Well Schnackenberg 3408 1-23H14
Project:	Harper County (NAD-27)	TVD Reference:	KB @ 1339.0usft
Site:	Sec 23-T34S-R08W	MD Reference:	KB @ 1339.0usft
Well:	Schnackenberg 3408 1-23H14	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,808.0	89.60	359.60	4,702.1	8,445.5	318.8	8,451.4	0.71	0.63	-0.32	
12,903.0	89.30	359.40	4,703.0	8,540.5	318.0	8,546.3	0.38	-0.32	-0.21	
12,998.0	90.10	359.80	4,703.5	8,635.5	317.3	8,641.3	0.94	0.84	0.42	
13,093.0	91.80	359.90	4,702.0	8,730.5	317.0	8,736.2	1.79	1.79	0.11	
13,188.0	91.80	0.30	4,699.0	8,825.4	317.2	8,831.1	0.42	0.00	0.42	
13,283.0	90.70	359.20	4,696.9	8,920.4	316.8	8,926.0	1.64	-1.16	-1.16	
13,378.0	91.60	0.00	4,695.0	9,015.4	316.1	9,020.9	1.27	0.95	0.84	
13,473.0	91.70	0.00	4,692.3	9,110.3	316.1	9,115.8	0.11	0.11	0.00	
13,568.0	90.20	1.50	4,690.7	9,205.3	317.4	9,210.8	2.23	-1.58	1.58	
13,663.0	90.60	0.80	4,690.0	9,300.3	319.3	9,305.7	0.85	0.42	-0.74	
13,757.0	91.70	1.10	4,688.1	9,394.2	320.8	9,399.7	1.21	1.17	0.32	
13,852.0	91.40	1.20	4,685.6	9,489.2	322.7	9,494.7	0.33	-0.32	0.11	
13,947.0	90.90	0.90	4,683.7	9,584.1	324.5	9,589.6	0.61	-0.53	-0.32	
14,043.0	91.20	0.80	4,681.9	9,680.1	325.9	9,685.6	0.33	0.31	-0.10	
14,138.0	91.70	0.20	4,679.5	9,775.1	326.7	9,780.5	0.82	0.53	-0.63	
14,233.0	91.10	0.70	4,677.2	9,870.1	327.5	9,875.5	0.82	-0.63	0.53	
14,270.0	91.10	0.70	4,676.5	9,907.0	327.9	9,912.5	0.00	0.00	0.00	
Last Drillright MWD Survey										
14,325.0	91.10	0.70	4,675.4	9,962.0	328.6	9,967.4	0.00	0.00	0.00	
Projection to TD - PBHL Schnackenberg 1-23H14										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
875.0	875.0	-2.0	-1.1	First Drillright MWD Survey
14,270.0	4,676.5	9,907.0	327.9	Last Drillright MWD Survey
14,325.0	4,675.4	9,962.0	328.6	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

JOB SUMMARY			PROJECT NUMBER SOK 5079	TICKET DATE 05/08/15
COUNTY Harper	State Kansas	COMPANY Sandridge Exploration & Production	CUSTOMER REP 0	
LEASE NAME Schnackenberg 3408	Well No. 1-23H14	JOB TYPE Intermediate	EMPLOYEE NAME Mike Hall	

EMP NAME	0				
Mike Hall					
Cheryl Newton					
Joe Colonnese					
Donnie Brown					

Form. Name _____ Type: _____
Packer Type _____ Set At **0**
Bottom Hole Temp. **155** Pressure _____
Retainer Depth _____ Total Depth **5,229'**

Date	Called Out 5/8/2015	On Location 5/8/2015	Job Started 5/8/2015	Job Completed 5/8/2015
Time		0900	1400	1600

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

New/Used		Weight	Size	Grade	From	To	Max. Allow
Casing		26#	7"		Surface		5,000
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			8 3/4"		Surface	5,229'	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials			
Mud Type	WBM	Density	9 Lb/Gal
Disp. Fluid	Fresh Water	Density	8.33 Lb/Gal
Spacer type	Gel	BBL.	30
Spacer type		BBL.	8.60
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	
5/8	7.0	5/8	1.0	Intermediate
Total	7.0	Total	1.0	

Perfpac Balls _____ Qty. _____
Other _____
Other _____
Other _____
Other _____

Pressures			
MAX	5,000 PSI	AVG.	500
Average Rates in BPM			
MAX	8 BPM	AVG	4.5
Cement Left in Pipe			
Feet	50'	Reason	SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	190	50/50 POZ PREMIUM	4% Gel - 0.2% FL-17 - 0.1% C-51 - 0.3% C-20 - 0.1% C-37 - 0.2% X-Air	6.93	1.43	13.60
2	100	Premium	0.2% FL-17 - 0.1% C-51 - 0.15% C-20 - 0.2% X-Air	5.19	1.19	15.60
3	0	0		0	0.00	0.00

Summary					
Preflush Breakdown	_____	Type: _____	Preflush: BBI	30.00	Type: Gel Spacer
	MAXIMUM	5,000 PSI	Load & Bkdn: Gal - BBI	N/A	Pad:Bbl -Gal N/A
	Lost Returns-N	NO/FULL	Excess /Return BBI	N/A	Calc.Disp Bbl 193
	Actual TOC	2,722	Calc. TOC:	2,722	Actual Disp. 193.00
Average	Bump Plug PSI:	1,500	Final Circ. PSI:	950	Disp:Bbl 193.00
ISP	5 Min.	10 Min.	Cement Slurry BBI	69.0	
		15 Min.	Total Volume BBI	292.00	

CUSTOMER REPRESENTATIVE  SIGNATURE _____

JOB SUMMARY			PROJECT NUMBER SOK 5067	TICKET DATE 05/03/15
COUNTY Harper	State Kansas	COMPANY Dridge Exploration & Produc	CUSTOMER REP 0	
LEASE NAME Schnackenberg 3408	Well No. 1-23H14	JOB TYPE Surface	EMPLOYEE NAME Joseph Klemm	

EMP NAME					
Joseph Klemm		0			
Cody Bonitz					
Blake Hayworth					
David Settlemier					

Form. Name _____ Type: _____
 Packer Type _____ Set At _____ 0
 Bottom Hole Temp. 80 Pressure _____
 Retainer Depth _____ Total Depth 778

Date	Called Out 5/3/2015	On Location 5/3/2015	Job Started 5/3/2015	Job Completed 5/4/2015
Time	1300	1530	1830	0000

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
Casing		36#	9 5/8"		Surface	778
Liner						
Liner						
Tubing			0			
Drill Pipe						
Open Hole			12 1/4"		Surface	778
Perforations						Shots/Ft.
Perforations						
Perforations						

Materials			
	WBM	Density	Lb/Gal
Disp. Fluid	Fresh Water	Density	8.33
Spacer type	Fresh Water	BBL.	10
Spacer type		BBL.	8.33
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	
5/3	8.5	5/4	5.5	Surface
Total	8.5	Total	5.5	

Pressures			
MAX	2000 psi	AVG.	180
Average Rates in BPM			
MAX	5 BPM	AVG	4.5
Cement Left in Pipe			
Feet	46	Reason	SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	230	TEX Lite Premium Plus 65	(6% Gel) 2% Calcium Chloride - 1/4pps Cello-Flake - 0.2% X-Air	11.11	2.01	12.40
2	160	Premium Plus (Class C)	2% Calcium Chloride - 1/4pps Cello-Flake	6.32	1.32	14.80
3	0	0		0.00	0.00	0.00

Summary					
Preflush Breakdown	Type: _____	MAXIMUM _____	2000 PSI	Preflush: BBI _____	10.00
	Lost Returns: _____	NO/FULL _____		Load & Bkdn: Gal - BBI _____	N/A
	Actual TOC _____	SURFACE _____		Excess /Return BBI _____	65
Average	Bump Plug PSI: _____	850		Calc. TOC: _____	SURFACE
ISIP _____ 5 Min.	10 Min _____	15 Min _____		Final Circ. PSI: _____	300
				Cement Slurry BBI _____	119.9
				Total Volume BBI _____	186.90

CUSTOMER REPRESENTATIVE _____

 SIGNATURE