



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1155169
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: _____



1155169

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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> <i>(Submit ACO-4)</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	Robb 3406 2-16H
Doc ID	1155169

All Electric Logs Run

Prizm
Porosity
Resistivity
Mud Log
Boresight

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Robb 3406 2-16H
Doc ID	1155169

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8694-8908	36 bbls 15% HCL Acid, 5166 bbls Fresh Slickwater, Running TLTR 6457 bbls	
5	8365-8642	36 bbls 15% HCL Acid, 5666 bbls Fresh Slickwater, Running TLTR 10617 bbls	
5	7999-8288	36 bbls 15% HCL Acid, 5690 bbls Fresh Slickwater, Running TLTR 15702 bbls	
5	7647-7931	36 bbls 15% HCL Acid, 5629 bbls Fresh Slickwater, Running TLTR 20693 bbls	
5	7261-7569	36 bbls 15% HCL Acid, 5681 bbls Fresh Slickwater, Running TLTR 25775 bbls	
5	6843-7162	36 bbls 15% HCL Acid, 5475 bbls Fresh Slickwater, Running TLTR 30834 bbls	
5	6526-6771	36 bbls 15% HCL Acid, 5610 bbls Fresh Slickwater, Running TLTR 35782 bbls	
5	6232-6484	36 bbls 15% HCL Acid, 5635 bbls Fresh Slickwater, Running TLTR 40752 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Robb 3406 2-16H
Doc ID	1155169

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	5825-6098	36 bbls 15% HCL Acid, 5611 bbls Fresh Slickwater, Running TLTR 45775 bbls	
5	5404-5777	36 bbls 15% HCL Acid, 5504 bbls Fresh Slickwater, Running TLTR 50640 bbls	

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
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

August 14, 2013

Tiffany Golay
SandRidge Exploration and Production LLC
123 ROBERT S. KERR AVE
OKLAHOMA CITY, OK 73102-6406

Re: ACO1
API 15-077-21932-01-00
Robb 3406 2-16H
NE/4 Sec.16-34S-06W
Harper 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,
Tiffany Golay



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

INVOICE

INVOICE NO.: 448
 INVOICE DATE: 08/15/2013

SANDRIDGE ENERGY
 123 ROBERT S KERR AVE
 OKLAHOMA CITY, OK 73102-6406

YARD: WY WAYNOKA OK
 LEASE: Robb
 WELL#: 3406 2-16H
 RIG #: Unit 9
 Co/St: HARPER, KS

Tkt # WY-54-1 (10420) 06/29/2013

DESCRIPTION	FOOTAGE	QUANTITY	RATE	AMOUNT
6/29/2013 DRILLED 30" CONDUCTOR HOLE				
6/29/2013 20" CONDUCTOR PIPE (.250 WALL)				
6/29/2013 DRILL & INSTALL 6' X 6' CELLAR TINHORN				
6/29/2013 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING				
6/29/2013 DRILLED 20" MOUSE HOLE (PER FOOT)				
6/29/2013 16" CONDUCTOR PIPE (.250 WALL)				
6/29/2013 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE				
6/29/2013 WELDING SERVICES FOR PIPE & LIDS				
6/29/2013 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE				
6/29/2013 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE)				
6/29/2013 9 YARDS 10 SACK GROUT				
6/29/2013 TAXABLE ITEMS				7350.00
6/29/2013 BID + TAXABLE ITEMS				7410.00

Sub Total:
 Tax HARPER COUNTY (6.3 %):
 PLEASE PAY THIS AMOUNT:

7350.00
 7410.00
 10,250.00
 641.92
 10,491.92

JOB SUMMARY			PROJECT NUMBER SOK 2920	TICKET DATE 07/29/13
COUNTY Harper	State Kansas	COMPANY Bridge Exploration & Produc	CUSTOMER REP Dwayne Burt	
LEASE NAME Robb 3406	Well No. 2-16H	JOB TYPE Surface	EMPLOYEE NAME Daniel Wells	

EMP NAME					
Daniel Wells		0			
Scott Woods					
David Settlemier					
0.00					

Form. Name _____ Type: _____

Packer Type _____ Set At **0**

Bottom Hole Temp. **80** Pressure _____

Retainer Depth _____ Total Depth **650**

Date	Called Out	On Location	Job Started	Job Completed
	7/29/2013	7/29/2013	7/29/2013	7/29/2013
Time	1500	1730	1845	1945

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		36#	9 5/8"		Surface	650
Liner						1,500
Liner						
Tubing			0			
Drill Pipe						
Open Hole			12 1/4"		Surface	650
Perforations						Shots/Ft.
Perforations						
Perforations						

Materials			
Mud Type	WBM	Density	Lb/Gal
Disp. Fluid	Fresh Water	8.33	
Spacer type	Fresh Water BBL.	10	8.33
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		Operating Hours		Description of Job
Date	Hours	Date	Hours	
7/29	3.0	7/29	1.0	Surface
Total	3.0	Total	1.0	

Perpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Other _____

Pressures		
MAX	1,500 PSI	AVG. 120
Average Rates in BPM		
MAX	6 BPM	AVG 5
Cement Left in Pipe		
Feet	46.89'	Reason SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	250	EX Lite Premium Plus 65	(6% Gel) 2% Calcium Chloride - 1/2pps Cello-Flake - .5% C-41P	10.88	1.84	12.70
2	140	Premium Plus (Class C)	2% Calcium Chloride - 1/2pps Cello-Flake	6.32	1.32	14.80

Summary					
Preflush Breakdown	Type: _____	MAXIMUM 1,500 PSI	Preflush: BBI 10.00	Type: Fresh Water	
	Lost Returns-N	NO/FULL	Load & Bkdn: Gal - BBI N/A	Pad: Bbl - Gal N/A	
	Actual TOC	SURFACE	Excess /Return BBI 30	Calc. Disp Bbl 47	
Average	Bump Plug PSI: 1,500	SURFACE	Calc. TOC: SURFACE	Actual Disp. 47.00	
is: P _____ 5 Min. _____	10 Min _____	15 Min _____	Final Circ. PSI: 200	Disp: Bbl 47.00	
			Cement Slurry: BBI 114.8		
			Total Volume BBI 171.80		

CUSTOMER REPRESENTATIVE _____

Dwayne Burt
SIGNATURE

JOB SUMMARY			PROJECT NUMBER SOK 2940	TICKET DATE 08/04/13
COUNTY Harper	State Kansas	COMPANY Sandridge Exploration & Production	CUSTOMER REP Quincy Lovey	
LEASE NAME Robb 3406	Well No. 2-16H	JOB TYPE Intermediate	EMPLOYEE NAME Daniel Wells	

EMP NAME Daniel Wells	Brett Armer				
Scott Woods					
David Settlemier					
Flo Helkena					

Form. Name _____ Type: _____

Packer Type _____ Set At **0**

Bottom Hole Temp. **155** Pressure _____

Retainer Depth _____ Total Depth **0**

	Called Out	On Location	Job Started	Job Completed
Date	8/4/2013	8/4/2013	8/4/2013	8/4/2013
Time	1200	1600	2000	2110

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	Max. Allow
Casing		26#	7"		Surface	5412'	5,000
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole			8 1/2"		Surface	5,430'	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials			
Mud Type	WBM	Density	g Lb/Gal
Disp. Fluid	Fresh Water	Density	8.33
Spacer type	resh Water	BBL.	20
Spacer type	Caustic	BBL.	10
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 _____

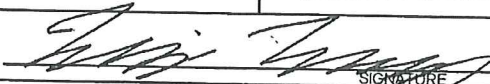
Other _____

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
8/4	5.0	8/4	1.1	Intermediate
Total	5.0	Total	1.1	

Pressures			
MAX	5,000 PSI	AVG	250
Average Rates in BPM			
MAX	8 BPM	AVG	5
Cement Left in Pipe			
Feet	53	Reason	SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	225	50/50 POZ PREMIUM	4% Gel - 0.4% FL-17 - 0.2% C-51 - 0.1% C-20 - 0.1% C-37 - 0.5% C-41P	6.77	1.44	13.60
2	100	Premium	0.4% FL-17 - 0.1% C-51 - 0.1% C-20 - 0.4% C-41P	5.20	1.18	15.60

Summary					
Preflush Breakdown	Type: _____	MAXIMUM	5,000 PSI	Preflush: BBI	15.00
	Lost Returns-N	NO/FULL		Load & Bkdn: Gal - BBI	N/A
	Actual TOC	2.489		Excess /Return BBI	N/A
Average is: F	Bump Plug PSI:	1,500		Calc. TOC:	2.489
5 Min.	10 Min	15 Min		Final Circ. PSI:	850
				Cement Slurry: BBI	78.7
				Total Volume BBI	298.42

CUSTOMER REPRESENTATIVE  SIGNATURE

JOB SUMMARY			PROJECT NUMBER SOK 2952	TICKET DATE 08/12/13
COUNTY Harper	State Kansas	COMPANY Bridge Exploration & Produc	CUSTOMER REP Quincy Loven	
LEASE NAME Robb 3406	Well No. 2-16H	JOB TYPE Misc Pumping	EMPLOYEE NAME NATHAN COTTA	

EMP NAME	NATHAN COTTA	0			
	VONTREY W				
	DUSTIN O				
	0.00				

Form. Name _____ Type: _____
 Packer Type _____ Set At 0
 Bottom Hole Temp. 150 Pressure _____
 Retainer Depth _____ Total Depth 9039

Date	Called Out	On Location	Job Started	Job Completed
	8.12.13	8.12.13	8.12.13	8.12.13
Time	200	700	914	1100

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
Casing		11.6#	4 1/2"		Surface	9,039
Liner						1,500
Liner						
Tubing			4"			
Drill Pipe						
Open Hole			6 1/8"		Surface	9,039
Perforations						Shots/Ft.
Perforations						
Perforations						

Materials			
	WBM	Density	Lb/Gal
Mud Type		9	
Disp. Fluid	Fresh Water	Density 8.33	Lb/Gal
Spacer type	Fresh Water BBL.	10	8.33
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		Operating Hours		Description of Job
Date	Hours	Date	Hours	
8.12.13	4.0	8.12.13	2.0	Misc Pumping
Total	4.0	Total	2.0	

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

Pressures			
MAX	4000	AVG	1000
Average Rates in BPM			
MAX	3.5 BPM	AVG	3.5
Cement Left in Pipe			
Feet	Reason SHOE JOINT		

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	0	0		0	0.00	0.00
2	0	0		0	0.00	0.00
3	0	0		0	0.00	0.00

Summary			
Preflush Breakdown	Type: _____	Preflush: BBI _____	Type: 0
	MAXIMUM 4,000	Load & Bkdn: Gal - BBI N/A	Pad:Bbl -Gal N/A
	Lost Returns-N NO/FULL	Excess /Return BBI _____	Calc. Disp Bbl 106
	Actual TOC _____	Calc. TOC: _____	Actual Disp. 106.00
Average	Bump Plug PSI: _____	Final Circ. PSI: _____	Disp:Bbl 106.00
	5 Min. _____ 10 Min. _____ 15 Min. _____	Cement Slurry: BBI _____	
		Total Volume BBI 106.00	

CUSTOMER REPRESENTATIVE  SIGNATURE

Standard Wellpath Report
 Sandridge
 Sec 16 - 34S - 6W, Kansas
 Harper County
 Wellbore: Robb 3406 2-16H (Actual)

Wellbore

Name	Created	Last Revised
Robb 3406 2-16H (Actual)	24-Jul-2013	12-Aug-2013

Well

Name	Government ID	Last Revised
Robb 3406 2-16H		24-Jul-2013

Slot

Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Robb 3406 2-16H	156128.0000	2154237.0000	N37 5 39.2908	W97 58 16.4164	227.99S	1666.94W

Installation

Name	Easting	Northing	Coord System Name	North Alignment
Harper County	2155904.0000	156356.0001	KS-S on NORTH AMERICAN DATUM 1927 datum	Grid

Field

Name	Easting	Northing	Coord System Name	North Alignment
Sec 16 - 34S - 6W	2155904.0000	156356.0001	KS-S on NORTH AMERICAN DATUM 1927 datum	Grid

Created By

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Comments

<p>FINAL SURVEYS: 9039 is a projection to bit @ TD</p>

Standard Wellpath Report
Sandridge
Sec 16 - 34S - 6W, Kansas
Harper County
Wellbore: Robb 3406 2-16H (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	2154237.00	156128.00
689.00	0.30	35.300	689.00	1.47N	1.04E	0.04	-1.53	2154238.04	156129.47
782.00	0.80	19.200	781.99	2.28N	1.40E	0.56	-2.36	2154238.40	156130.28
875.00	0.30	338.000	874.99	3.12N	1.52E	0.65	-3.20	2154238.52	156131.12
1061.00	0.60	19.600	1060.98	4.49N	1.66E	0.23	-4.58	2154238.66	156132.49
1243.00	0.10	264.600	1242.98	5.37N	1.82E	0.36	-5.47	2154238.82	156133.37
1709.00	0.10	22.300	1708.98	5.71N	1.57E	0.04	-5.79	2154238.57	156133.71
1899.00	0.40	233.700	1898.98	5.47N	1.10E	0.26	-5.53	2154238.10	156133.47
2373.00	0.70	292.000	2372.96	5.58N	2.92W	0.13	-5.41	2154234.08	156133.58
2846.00	0.70	15.700	2845.93	9.44N	4.81W	0.20	-9.17	2154232.19	156137.44
3321.00	0.70	44.700	3320.90	14.30N	1.99W	0.07	-14.17	2154235.01	156142.30
3784.00	0.40	184.400	3783.89	14.70N	0.12W	0.22	-14.67	2154236.88	156142.70
3828.00	1.00	172.400	3827.89	14.16N	0.08W	1.40	-14.14	2154236.92	156142.16
3859.00	2.60	195.200	3858.87	13.22N	0.23W	5.56	-13.18	2154236.77	156141.22
3891.00	4.60	199.100	3890.81	11.30N	0.84W	6.29	-11.24	2154236.16	156139.30
3922.00	6.50	200.900	3921.66	8.49N	1.87W	6.15	-8.38	2154235.13	156136.49
3954.00	8.30	203.800	3953.39	4.68N	3.45W	5.74	-4.49	2154233.55	156132.68
3985.00	10.70	202.800	3983.96	0.02S	5.47W	7.76	0.31	2154231.53	156127.98
4017.00	13.20	200.000	4015.27	6.19S	7.87W	8.02	6.61	2154229.13	156121.81
4049.00	15.20	200.400	4046.29	13.56S	10.58W	6.26	14.11	2154226.42	156114.44
4081.00	17.00	203.200	4077.03	21.79S	13.89W	6.12	22.51	2154223.11	156106.21
4112.00	18.70	205.000	4106.54	30.46S	17.78W	5.76	31.38	2154219.22	156097.54
4144.00	21.20	205.200	4136.62	40.34S	22.41W	7.82	41.50	2154214.59	156087.65
4176.00	24.70	204.800	4166.08	51.65S	27.68W	10.95	53.08	2154209.32	156076.35
4208.00	28.00	203.700	4194.75	64.60S	33.50W	10.42	66.33	2154203.50	156063.39
4240.00	31.30	204.300	4222.56	79.06S	39.94W	10.35	81.11	2154197.05	156048.94
4271.00	34.20	203.800	4248.63	94.38S	46.77W	9.40	96.77	2154190.22	156033.62
4303.00	36.20	204.100	4274.77	111.23S	54.26W	6.27	114.01	2154182.73	156016.76
4334.00	39.00	204.300	4299.33	128.48S	62.02W	9.04	131.66	2154174.98	155999.51
4366.00	41.60	204.000	4323.74	147.37S	70.48W	8.15	150.97	2154166.51	155980.63
4397.00	44.00	202.700	4346.48	166.70S	78.83W	8.25	170.74	2154158.17	155961.29
4429.00	47.10	201.800	4368.89	187.85S	87.47W	9.89	192.32	2154149.53	155940.15
4461.00	49.60	201.000	4390.15	210.11S	96.19W	8.03	215.02	2154140.81	155917.89
4492.00	51.30	202.500	4409.89	232.31S	105.05W	6.63	237.66	2154131.95	155895.69
4524.00	53.30	203.700	4429.46	255.59S	114.99W	6.92	261.46	2154122.01	155872.40
4555.00	55.50	204.700	4447.50	278.58S	125.32W	7.57	284.97	2154111.67	155849.41
4586.00	58.10	204.400	4464.48	302.17S	136.10W	8.43	309.11	2154100.90	155825.82
4618.00	60.90	204.000	4480.72	327.32S	147.40W	8.82	334.84	2154089.60	155800.67
4649.00	63.70	202.800	4495.13	352.51S	158.29W	9.66	360.58	2154078.70	155775.48
4681.00	66.50	201.400	4508.60	379.40S	169.21W	9.61	388.02	2154067.79	155748.59
4713.00	69.60	200.800	4520.56	407.09S	179.89W	9.84	416.25	2154057.10	155720.90
4744.00	71.90	199.900	4530.78	434.52S	190.06W	7.91	444.20	2154046.93	155693.46
4776.00	74.20	197.600	4540.11	463.51S	199.90W	9.95	473.67	2154037.09	155664.48
4807.00	77.20	196.000	4547.76	492.26S	208.58W	10.89	502.86	2154028.42	155635.72
4839.00	79.60	194.600	4554.20	522.49S	216.85W	8.64	533.49	2154020.15	155605.49
4870.00	80.70	193.100	4559.50	552.15S	224.16W	5.94	563.50	2154012.84	155575.83
4902.00	81.10	190.700	4564.56	583.06S	230.67W	7.51	594.72	2154006.32	155544.92
4934.00	81.80	187.800	4569.32	614.29S	235.76W	9.22	626.18	2154001.23	155513.69
4966.00	82.60	186.000	4573.67	645.76S	239.56W	6.11	657.82	2153997.43	155482.21
4998.00	83.20	184.400	4577.62	677.39S	242.44W	5.30	689.55	2153994.55	155450.59
5029.00	83.40	183.700	4581.24	708.10S	244.62W	2.33	720.33	2153992.37	155419.88
5061.00	83.40	183.800	4584.92	739.82S	246.70W	0.31	752.12	2153990.30	155388.15
5092.00	86.30	183.000	4587.70	770.64S	248.53W	9.70	782.99	2153988.46	155357.34
5124.00	87.00	183.300	4589.57	802.53S	250.28W	2.38	814.93	2153986.71	155325.44
5155.00	87.20	183.200	4591.14	833.44S	252.04W	0.72	845.89	2153984.95	155294.53
5187.00	87.30	183.200	4592.67	865.36S	253.82W	0.31	877.86	2153983.17	155262.61
5219.00	87.50	183.200	4594.12	897.27S	255.61W	0.62	909.82	2153981.39	155230.69
5250.00	87.70	183.300	4595.42	928.20S	257.36W	0.72	940.80	2153979.63	155199.77
5282.00	87.50	183.100	4596.76	960.12S	259.15W	0.88	972.77	2153977.84	155167.85
5313.00	87.60	182.800	4598.09	991.05S	260.74W	1.02	1003.74	2153976.25	155136.92
5345.00	89.90	182.500	4598.79	1023.00S	262.22W	7.25	1035.73	2153974.77	155104.96
5382.00	90.20	182.100	4598.75	1059.97S	263.70W	1.35	1072.73	2153973.29	155067.99
5452.00	91.00	182.300	4598.02	1129.92S	266.39W	1.18	1142.71	2153970.60	154998.04
5514.00	92.20	182.400	4596.29	1191.84S	268.93W	1.94	1204.68	2153968.06	154936.12
5576.00	93.10	181.900	4593.42	1253.73S	271.26W	1.66	1266.61	2153965.73	154874.22
5637.00	93.00	180.900	4590.18	1314.63S	272.74W	1.65	1327.49	2153964.25	154813.33
5729.00	91.00	180.300	4586.97	1406.56S	273.71W	2.27	1419.34	2153963.28	154721.39
5821.00	90.20	179.800	4586.00	1498.55S	273.79W	1.03	1511.20	2153963.20	154629.39
5913.00	89.60	179.700	4586.16	1590.55S	273.39W	0.66	1603.05	2153963.61	154537.39
6005.00	89.20	178.900	4587.13	1682.54S	272.26W	0.97	1694.84	2153964.73	154445.40
6098.00	90.10	178.600	4587.69	1775.51S	270.23W	1.02	1787.56	2153966.76	154352.42
6191.00	89.70	178.500	4587.86	1868.48S	267.88W	0.44	1880.27	2153969.11	154259.45

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Bottom hole distance is 4721.72 Feet on azimuth 183.04 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 12-Aug-2013

Standard Wellpath Report
Sandridge
Sec 16 - 34S - 6W, Kansas
Harper County
Wellbore: Robb 3406 2-16H (Actual)

Wellpath (Grid) Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Easting	Northing
6283.00	90.20	178.900	4587.94	1960.46S	265.79W	0.70	1972.00	2153971.20	154167.47
6377.00	89.60	179.600	4588.10	2054.45S	264.56W	0.98	2065.78	2153972.43	154073.48
6468.00	89.20	179.500	4589.05	2145.44S	263.85W	0.45	2156.60	2153973.14	153982.48
6559.00	90.40	179.700	4589.37	2236.44S	263.21W	1.34	2247.43	2153973.78	153891.48
6650.00	90.20	179.800	4588.90	2327.44S	262.81W	0.25	2338.27	2153974.18	153800.48
6741.00	89.20	179.700	4589.37	2418.43S	262.42W	1.10	2429.11	2153974.57	153709.48
6834.00	90.40	178.900	4589.70	2511.42S	261.28W	1.55	2521.90	2153975.71	153616.49
6930.00	90.00	179.200	4589.36	2607.41S	259.69W	0.52	2617.66	2153977.30	153520.50
7027.00	90.80	179.800	4588.68	2704.40S	258.84W	1.03	2714.46	2153978.15	153423.50
7122.00	90.70	179.800	4587.44	2799.39S	258.51W	0.11	2809.30	2153978.48	153328.51
7186.00	89.50	178.500	4587.33	2863.38S	257.56W	2.76	2873.14	2153979.43	153264.51
7249.00	88.60	178.800	4588.37	2926.36S	256.08W	1.51	2935.94	2153980.91	153201.54
7281.00	88.80	179.200	4589.10	2958.34S	255.52W	1.40	2967.85	2153981.47	153169.55
7313.00	90.00	179.700	4589.43	2990.34S	255.21W	4.06	2999.78	2153981.78	153137.55
7408.00	87.30	178.800	4591.67	3085.29S	253.97W	3.00	3094.53	2153983.02	153042.59
7503.00	88.00	177.800	4595.57	3180.17S	251.15W	1.28	3189.11	2153985.84	152947.71
7597.00	88.70	178.400	4598.27	3274.08S	248.04W	0.98	3282.72	2153988.95	152853.80
7692.00	90.50	178.800	4598.94	3369.04S	245.72W	1.94	3377.41	2153991.27	152758.83
7787.00	90.00	179.100	4598.52	3464.03S	243.98W	0.61	3472.16	2153993.01	152663.85
7883.00	90.20	179.400	4598.36	3560.02S	242.72W	0.38	3567.94	2153994.27	152567.85
7978.00	89.80	180.000	4598.36	3655.02S	242.22W	0.76	3662.78	2153994.77	152472.85
8073.00	89.00	180.500	4599.35	3750.01S	242.64W	0.99	3757.65	2153994.35	152377.85
8168.00	91.80	180.200	4598.69	3845.00S	243.22W	2.96	3852.53	2153993.77	152282.86
8263.00	89.40	177.800	4597.69	3939.96S	241.56W	3.57	3947.27	2153995.43	152187.89
8358.00	90.10	177.300	4598.11	4034.87S	237.50W	0.91	4041.82	2153999.49	152092.98
8454.00	93.80	179.600	4594.84	4130.76S	234.90W	4.54	4137.42	2154002.09	151997.09
8549.00	94.40	182.200	4588.05	4225.50S	236.39W	2.80	4232.10	2154000.60	151902.35
8644.00	90.00	182.300	4584.40	4320.33S	240.12W	4.63	4326.99	2153996.88	151807.51
8676.00	89.70	182.200	4584.48	4352.30S	241.37W	0.99	4358.99	2153995.62	151775.54
8739.00	90.10	182.000	4584.59	4415.26S	243.68W	0.71	4421.98	2153993.31	151712.58
8835.00	87.90	181.600	4586.27	4511.19S	246.70W	2.33	4517.93	2153990.30	151616.64
8929.00	88.20	181.200	4589.47	4605.11S	248.99W	0.53	4611.84	2153988.00	151522.72
8993.00	88.60	180.800	4591.26	4669.08S	250.11W	0.88	4675.77	2153986.88	151458.75
9039.00	88.60	180.800	4592.38	4715.06S	250.75W	==>	4721.72	2153986.24	151412.77

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/18/2013
Job End Date:	9/21/2013
State:	Kansas
County:	Harper
API Number:	15-077-21932-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Robb 3406 2-16H
Longitude:	-97.97122540
Latitude:	37.09424588
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,592
Total Base Water Volume (gal):	2,368,044
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	Company 1	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	95.00479	None
Sand (Proppant)	Company 2	Proppant					
			Silica Substrate	NA	100.00000	3.63657	None
DiKlor	Sabre Energy Services	Oxidizer					
			Chlorine Dioxide	10069-04-4	0.40000	0.27630	
			Water	7732-18-5	99.90000	0.27630	
Hydrochloric Acid (15%)	Company 2	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.09981	None
			NONYL PHENOL, 4 MOL	104-40-5	10.00000	0.00448	None
			Methyl Alcohol	67-56-1	80.00000	0.00080	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00015	None
Chemflush	Archer	Enviro-Friendly Chemical Flush					
			Acrylamide modified copolymer	NA	60.00000	0.00676	None
			Aliphatic hydrocarbon	64742-47-8	30.00000	0.00338	None
			Oxyalkylated Alcohol	NA	5.00000	0.00056	None
			Ammonium chloride	12125-02-9	5.00000	0.00056	None

			Hydrotreated Petroleum Distillate	64742-47-8	99.00000	0.00041	None
			Alcohol Ethoxylate Surfactants	NA	10.00000	0.00004	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.00000	0.00178	None
			Citric Acid	77-92-9	30.00000	0.00107	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.							
		Other Chemicals					
			Water	7732-18-5		0.04775	
			WATER	7732-18-5		0.02689	
			Aliphatic Hydrocarbon	64742-47-8		0.02388	
			Anionic Polymer	N/A		0.02388	
			TRADE SECRET	N/A		0.01793	
			Water	7732-18-5		0.01014	
			METHANOL	67-56-1		0.00448	
			ISOPROPANOL	67-63-0		0.00448	
			Polyol Ester	N/A		0.00398	
			Oxyalkylated Alcohol	68002-97-1		0.00398	
			Water	7732-18-5		0.00338	
			Sodium Salt of Phosphate Ester	68131-72-6		0.00169	
			Acrylic Polymer	28205-96-1		0.00169	
			Water	7732-18-5		0.00124	
			Polyglycol Ester	N/A		0.00080	
			Alkanolamide	N/A		0.00056	
			Polyol Ester	N/A		0.00056	
			Alcohol Ethoxylate Surfactants	N/A		0.00015	
			Alkanolamine	111-42-2		0.00011	
			Ammonium salt	7783-18-8		0.00011	
			Surfactant	N/A		0.00011	
			Oxyalkylated fatty Acid Derivative	N/A		0.00011	
			n-olefins	N/A		0.00008	
			Tetrasodium Ethylenediaminetetraacetate	64-02-8		0.00008	
			Propargyl Alcohol	107-19-7		0.00006	
			Buffer	N/A			
			Surfactant	N/A			

* 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)

Section 9
34S 6W

Section 10
34S 6W

GARLOW 1-16H ROBB 3406 2-16H ROBB 3406 1-16H



Miss Entry: 4808'
-97.972288 37.09292

Top Perf: 5404'
-97.972488 37.091362

Harper County

Section 16
34S 6W

Section 15
34S 6W

Bottom Perf: 8694'
-97.972475 37.08232

BHL: 9039'
-97.972514 37.081324

345' FSL

1975' FEL

Section 21
34S 6W

Section 22
34S 6W



Actual Bottom-Hole Location of Robb 3406 2-16H
Harper County, Kansas
T&R: 34S 6W
Section: 16, 1975' FEL & 345' FSL
-97.972514 37.081324

1 in = 667 ft



● Actual BH Location

* SandRidge Wells

--- Perf

□ Sections

0 500 1,000 2,000 Feet

Draftsman:

Aaron Birk

Draft Date: 10/21/2013

Drawing Name/Number:

Addendum_Robb 3406 2-16H.mxd

Coordinate System:

NAD 1927 State Plane
Kansas South FIPS: 1502