



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1153426
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: _____



1153426

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 1-16H
Doc ID	1153426

All Electric Logs Run

Prizm
Boresight
Induction
Nuclear
Mud Log
Gamma Ray

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Robb 3406 1-16H
Doc ID	1153426

Tops

Name	Top	Datum
Base Heebner	3226	
Lansing	3585	
Cottage Grove	3872	
Oswego Limestone	4201	
Cherokee Group	4325	
Verdigris Limestone	4356	
Mississippi Unconformity	4540	
Mississippi Limestone	4543	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Robb 3406 1-16H
Doc ID	1153426

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8692-8958	1500 gals 15% HCL, 5989 bbls Fresh Slickwater, Running TLTR= 6225 bbls	
5	8331-8593	1500 gals 15% HCL, 5500 bbls Fresh Slickwater, Running TLTR= 11878 bbls	
5	7964-8274	1500 gals 15% HCL, 5664 bbls Fresh Slickwater, Running TLTR= 17691 bbls	
5	7554-7872	1500 gals 15% HCL, 5547 bbls Fresh Slickwater, Running TLTR= 23370 bbls	
5	7174-7463	1500 gals 15% HCL, 5470 bbls Fresh Slickwater, Running TLTR= 28958 bbls	
5	6815-7113	1500 gals 15% HCL, 5465 bbls Fresh Slickwater, Running TLTR= 34548 bbls	
5	6473-6745	1500 gals 15% HCL, 5473 bbls Fresh Slickwater, Running TLTR= 40134 bbls	
5	6062-6341	1500 gals 15% HCL, 5536 bbls Fresh Slickwater, Running TLTR= 45779 bbls	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Robb 3406 1-16H
Doc ID	1153426

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	5634-5880	1500 gals 15% HCL, 5411 bbls Fresh Slickwater, Running TLTR= 51275 bbls	
5	5328-5580	1500 gals 15% HCL, 5842 bbls Fresh Slickwater, Running TLTR= 57197 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

July 29, 2013

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

Re: ACO1
API 15-077-21933-01-00
Robb 3406 1-16H
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.: 447
 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 1-16H
 RIG #: Unit 9
 Co/St: HARPER, KS

Tkt # WY-53-1 (10421) 06/29/2013-06/30/2013

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

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

9040.00
 4710.00
 10,250.00
 643.75
10,893.75

JOB SUMMARY			PROJECT NUMBER SOK 2882	TICKET DATE 07/13/13
COUNTY Harper	State Kansas	COMPANY Dridge Exploration & Produc	CUSTOMER REP Quincy Loven	
LEASE NAME Robb 3406	Well No. 1-16H	JOB TYPE Surface	EMPLOYEE NAME LOUIS ARNEU	

EMP NAME					
L. ARNEY		0			
N. COTTA					
M. QUINTANA					
K. JOHNSON					

Form. Name _____ Type: _____
Packer Type _____ Set At **0**
Bottom Hole Temp. **80** Pressure _____
Retainer Depth _____ Total Depth **650**

	Called Out	On Location	Job Started	Job Completed
Date	7/13/2013	7/13/2013	7/13/2013	7/13/2013
Time	0900	1530	2042	2230

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

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing		36#	9"		Surface	650	1,500
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			12 1/4"		Surface	650	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials			
Mud Type	WBM	Density	9 Lb/Gal
Disp. Fluid	Fresh Water	Density	8.33 Lb/Gal
Spacer type	resh Wate 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	
7/13	7.0	7/13	1.8	Surface
Total	7.0	Total	1.8	

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

Pressures	
MAX	1.500 PSI
AVG.	150
Average Rates in BPM	
MAX	6 BPM
AVG	4
Cement Left in Pipe	
Feet	46
Reason SHOE JOINT	

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	250	TEX Lite Premium Plus 65	(6% Gel) 2% Calcium Chloride - 1/4pps Cello-Flake - .5% C-41P	10.88	1.84	12.70
2	140	Premium Plus (Class C)	2% Calcium Chloride - 1/4pps Cello-Flake	6.32	1.32	14.80
3	*100	Premium Plus (Class C)	*2% Calcium Chloride on side to use if necessary	*6.32	*1.32	*14.8

Summary					
Preflush Breakdown	Type: _____	MAXIMUM	1,500 PSI	Preflush: BBI	10.00
	Lost Returns-N	NO/FULL		Load & Bkdn: Gal - BBI	N/A
	Actual TOC	SURFACE		Excess /Return BBI	53
Average	Bump Plug PSI:	1,120		Calc. TOC:	SURFACE
IS.P	5 Min.	10 Min	15 Min	Final Circ. PSI:	200
				Cement Slurry: BBI	115.0
				Total Volume BBI	172.00

CUSTOMER REPRESENTATIVE _____
SIGNATURE

JOB SUMMARY			PROJECT NUMBER SOK 2901	TICKET DATE 07/19/13
COUNTY Harper	State Kansas	COMPANY Sandridge Exploration & Production	CUSTOMER REP Dewayne Burt	
LEASE NAME Robb 3406	Well No. 1-16H	JOB TYPE Intermediate	EMPLOYEE NAME Daniel Wells	

EMP NAME					
Daniel Wells		0			
Scott Woods					
David Settlemier					
Frank Reeves					

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

Date	Called Out 7/19/2013	On Location 7/19/2013	Job Started 7/19/2013	Job Completed 7/19/2013
Time	1630	1800	2030	2200

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	Max. Allow
Casing	26#	7"		Surface		5,000
Liner						
Liner						
Tubing		0				
Drill Pipe						
Open Hole		8 3/4"		Surface	0	Shots/Ft.
Perforations						
Perforations						
Perforations						

Materials			
Mud Type	WBM	Density	9 Lb/Gal
Disp. Fluid	Fresh Water	Density	8.33 Lb/Gal
Spacer type	fresh Water	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	
7/19	4.0	7/19	1.5	Intermediate
Total	4.0	Total	1.5	

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

Pressures	
MAX	5,000 PSI
Avg	500
Average Rates in BPM	
MAX	8 BPM
AVG	5
Cement Left in Pipe	
Feet	91
Reason	SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	220	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
3	0	0		0	0.00	0.00

Summary			
Preflush	_____ Type: _____	Preflush:	BBI 15.00 Type: 10ppg Barite Spacer
Breakdown	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 197
	Actual TOC _____ 2.371	Calc. TOC:	2.371 Actual Disp. 197.00
Average	Bump Plug PSI: _____ 1,500	Final Circ. PSI:	800 Disp:Bbl 197.00
15 Min	5 Min _____ 10 Min _____ 15 Min _____	Cement Slurry:	BBI _____
		Total Volume	BBI 212.00

CUSTOMER REPRESENTATIVE *Dewayne Burt* SIGNATURE

JOB SUMMARY			PROJECT NUMBER SOK 2916	TICKET DATE 07/26/13
COUNTY Harper	State Kansas	COMPANY Bridge Exploration & Produc	CUSTOMER REP Dwayne Burt	
LEASE NAME Robb 3406	Well No. 1-16H	JOB TYPE Misc Pumping	EMPLOYEE NAME LOUIS ARNEY	

EMP NAME LOUIS ARNEY								
M. QUINTANA								
K. JOHNSON								
D. TEWELL								

Form. Name _____ Type: _____

Packer Type _____ Set At **0**

Bottom Hole Temp. **150** Pressure _____

Retainer Depth _____ Total Depth **0**

Date	Called Out 7/26/2013	On Location 7/26/2013	Job Started 7/26/2013	Job Completed 7/26/2013
Time	0900	1300	1455	1700

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#	4½"		Surface	0
Liner						1,500
Liner						
Tubing			3½"			
Drill Pipe						
Open Hole			6 1/8"		Surface	0
Perforations						Shots/Ft.
Perforations						
Perforations						

Materials			
	WBM	Density	Lb/Gal
Mud Type	Fresh Water	8.33	
Disp. Fluid	resh Wate	10	8.33
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		Operating Hours		Description of Job
Date	Hours	Date	Hours	
7/26	4.0	7/26	2.0	Misc Pumping
Total	4.0	Total	2.0	

Perfpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Other _____

Pressures	
MAX	1,500 PSI
AVG.	300
Average Rates in BPM	
MAX	6 BPM
AVG	3
Cement Left in Pipe	
Feet	0
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: _____	MAXIMUM	2,900	Preflush: BBI	Type: _____
	Lost Returns-N	NO/FULL		Load & Bkdn: Gal - BBI	N/A
	Actual TOC	0		Excess /Return BBI	
Average	Bump Plug PSI:			Calc. TOC:	0
ISIP _____ 5 Min.	10 Min _____	15 Min _____		Final Circ. PSI:	
				Cement Slurry: BBI	0.0
				Total Volume BBI	86.00

CUSTOMER REPRESENTATIVE *Dwayne Burt* SIGNATURE

Standard Wellpath Report
 Sandridge
 Sec 16 - 34S - 6W, Kansas
 Harper County
 Wellbore: Robb 3406 1-16H (Actual)

Wellbore

Name	Created	Last Revised
Robb 3406 1-16H (Actual)	2-Jul-2013	25-Jul-2013

Well

Name	Government ID	Last Revised
Robb 3406 1-16H		1-Jul-2013

Slot

Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Robb 3406 1-16H	156128.0000	2154257.0000	N37 5 39.2897	W97 58 16.1696	227.99S	1646.94W

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

--

Comments

<p>FINAL SURVEYS: MD 9080 is a projection to bit @ TD</p>
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Standard Wellpath Report
Sandridge
Sec 16 - 34S - 6W, Kansas
Harper County
Wellbore: Robb 3406 1-16H (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	2154257.00	156128.00
690.00	0.40	178.700	689.99	2.41S	0.05E	0.06	2.36	2154257.05	156125.59
876.00	0.60	140.800	875.99	3.81S	0.68E	0.20	3.87	2154257.68	156124.19
1060.00	0.70	150.000	1059.98	5.53S	1.86E	0.08	5.80	2154258.86	156122.47
1333.00	0.70	140.600	1332.96	8.26S	3.75E	0.04	8.88	2154260.75	156119.74
1809.00	0.20	253.700	1808.94	10.74S	4.80E	0.17	11.53	2154261.80	156117.26
2282.00	0.20	317.000	2281.94	10.37S	3.44E	0.04	10.87	2154260.44	156117.63
2757.00	0.50	37.700	2756.93	8.13S	4.14E	0.11	8.83	2154261.14	156119.87
3231.00	0.80	87.100	3230.91	6.32S	8.71E	0.13	8.06	2154265.71	156121.68
3708.00	0.40	208.000	3707.89	7.62S	11.26E	0.22	9.88	2154268.26	156120.38
3740.00	0.40	213.400	3739.89	7.82S	11.14E	0.12	10.04	2154268.14	156120.18
3772.00	0.10	191.500	3771.89	7.94S	11.08E	0.97	10.14	2154268.08	156120.06
3803.00	0.40	211.000	3802.89	8.06S	11.01E	0.99	10.25	2154268.01	156119.94
3835.00	0.60	166.600	3834.89	8.31S	11.00E	1.31	10.49	2154268.00	156119.69
3866.00	2.20	159.300	3865.88	9.03S	11.24E	5.18	11.25	2154268.24	156118.97
3898.00	4.50	155.900	3897.82	10.75S	11.97E	7.21	13.08	2154268.97	156117.25
3930.00	6.70	159.100	3929.67	13.64S	13.15E	6.94	16.16	2154270.15	156114.36
3962.00	9.30	162.100	3961.35	17.85S	14.61E	8.23	20.58	2154271.61	156110.15
3993.00	11.90	164.900	3991.82	23.32S	16.22E	8.55	26.27	2154273.22	156104.68
4025.00	14.70	166.000	4022.96	30.44S	18.06E	8.79	33.62	2154275.06	156097.56
4057.00	16.20	164.600	4053.80	38.69S	20.23E	4.83	42.14	2154277.23	156089.31
4088.00	18.00	166.700	4083.43	47.52S	22.48E	6.14	51.25	2154279.48	156080.48
4120.00	20.30	169.700	4113.66	57.79S	24.61E	7.82	61.74	2154281.61	156070.21
4152.00	22.00	170.100	4143.50	69.16S	26.63E	5.33	73.28	2154283.63	156058.84
4183.00	24.00	170.200	4172.04	81.09S	28.70E	6.45	85.38	2154285.70	156046.91
4215.00	26.00	169.200	4201.04	94.40S	31.12E	6.39	98.89	2154288.12	156033.60
4247.00	28.30	168.700	4229.51	108.73S	33.92E	7.22	113.49	2154290.93	156019.27
4279.00	30.40	168.600	4257.40	124.10S	37.01E	6.56	129.17	2154294.01	156003.89
4310.00	32.50	168.200	4283.85	139.95S	40.27E	6.81	145.34	2154297.27	155988.05
4342.00	34.80	168.400	4310.48	157.31S	43.86E	7.20	163.07	2154300.86	155970.69
4374.00	37.30	168.600	4336.35	175.76S	47.61E	7.82	181.90	2154304.61	155952.23
4405.00	40.00	168.500	4360.56	194.73S	51.46E	8.71	201.25	2154308.46	155933.26
4437.00	42.50	168.300	4384.62	215.40S	55.70E	7.82	222.35	2154312.70	155912.59
4469.00	45.20	168.500	4407.69	237.11S	60.16E	8.45	244.51	2154317.16	155890.88
4500.00	48.20	168.100	4428.95	259.20S	64.73E	9.72	267.07	2154321.73	155868.79
4532.00	51.40	168.300	4449.60	283.13S	69.73E	10.01	291.50	2154326.73	155844.86
4564.00	54.50	169.200	4468.88	308.17S	74.71E	9.94	317.03	2154331.71	155819.82
4595.00	57.90	169.400	4486.12	333.48S	79.49E	10.98	342.78	2154336.49	155794.51
4627.00	61.60	169.500	4502.24	360.65S	84.55E	11.57	370.40	2154341.55	155767.33
4659.00	65.20	169.200	4516.57	388.77S	89.84E	11.28	398.99	2154346.84	155739.22
4691.00	67.60	169.300	4529.38	417.57S	95.31E	7.51	428.30	2154352.31	155710.41
4722.00	70.20	169.400	4540.54	446.00S	100.65E	8.39	457.21	2154357.65	155681.99
4754.00	73.20	169.100	4550.58	475.84S	106.32E	9.42	487.57	2154363.32	155652.14
4785.00	76.00	167.900	4558.81	505.12S	112.28E	9.77	517.45	2154369.28	155622.86
4817.00	78.10	167.200	4565.98	535.57S	119.00E	6.90	548.63	2154376.00	155592.41
4848.00	80.30	167.200	4571.79	565.27S	125.75E	7.10	579.08	2154382.75	155562.71
4880.00	82.80	167.100	4576.50	596.12S	132.78E	7.82	610.73	2154389.79	155531.85
4911.00	84.40	167.200	4579.95	626.16S	139.64E	5.17	641.54	2154396.64	155501.82
4943.00	85.60	167.300	4582.74	657.25S	146.67E	3.76	673.42	2154403.68	155470.73
4975.00	87.10	167.600	4584.78	688.42S	153.61E	4.78	705.35	2154410.62	155439.55
5006.00	87.00	167.700	4586.37	718.66S	160.23E	0.46	736.31	2154417.24	155409.31
5038.00	86.90	167.700	4588.07	749.88S	167.04E	0.31	768.26	2154424.05	155378.09
5069.00	86.80	167.700	4589.78	780.13S	173.63E	0.32	799.22	2154430.64	155347.84
5101.00	86.30	167.600	4591.70	811.33S	180.47E	1.59	831.16	2154437.47	155316.64
5133.00	86.30	167.200	4593.77	842.49S	187.43E	1.25	863.09	2154444.44	155285.48
5164.00	86.30	167.000	4595.77	872.65S	194.34E	0.64	894.02	2154451.34	155255.32
5196.00	88.60	167.100	4597.19	903.80S	201.50E	7.19	925.99	2154458.51	155224.17
5227.00	89.30	167.400	4597.76	934.03S	208.34E	2.46	956.98	2154465.35	155193.93
5241.00	89.00	167.100	4597.97	947.69S	211.43E	3.03	970.98	2154468.44	155180.28
5307.00	89.10	168.100	4599.06	1012.14S	225.60E	1.52	1036.97	2154482.61	155115.83
5369.00	89.60	167.400	4599.77	1072.72S	238.76E	1.39	1098.97	2154495.76	155055.24
5461.00	89.60	167.400	4600.41	1162.50S	258.82E	==>	1190.97	2154515.83	154965.46
5523.00	89.00	167.300	4601.17	1222.99S	272.40E	0.98	1252.96	2154529.41	154904.96
5584.00	88.30	167.400	4602.60	1282.49S	285.76E	1.16	1313.94	2154542.77	154845.46
5676.00	90.00	167.000	4603.97	1372.19S	306.13E	1.90	1405.93	2154563.15	154755.76
5737.00	91.40	167.300	4603.22	1431.66S	319.70E	2.35	1466.92	2154576.71	154696.29
5829.00	91.90	165.700	4600.57	1521.08S	341.17E	1.82	1558.86	2154598.18	154606.87
5921.00	92.60	168.200	4596.96	1610.63S	361.92E	2.82	1650.78	2154618.94	154517.32
6014.00	92.60	167.700	4592.74	1701.48S	381.32E	0.54	1743.68	2154638.33	154426.46
6106.00	91.50	168.900	4589.45	1791.51S	399.96E	1.77	1835.61	2154656.98	154336.42
6167.00	91.60	169.600	4587.80	1851.42S	411.34E	1.16	1896.56	2154668.35	154276.51
6229.00	90.20	169.000	4586.83	1912.33S	422.85E	2.46	1958.52	2154679.86	154215.60

All data is in Feet unless otherwise stated
Coordinates are from Slot and TVD's are from Slot (Robb 3406 1-16H 0.00ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 167.520 degrees
Bottom hole distance is 4807.59 Feet on azimuth 167.04 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 25-Jul-2013

Standard Wellpath Report
Sandridge
Sec 16 - 34S - 6W, Kansas
Harper County
Wellbore: Robb 3406 1-16H (Actual)

Wellpath (Grid) Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Easting	Northing
6290.00	89.10	169.200	4587.20	1972.23S	434.38E	1.83	2019.50	2154691.40	154155.70
6381.00	88.60	168.000	4589.03	2061.41S	452.36E	1.43	2110.46	2154709.38	154066.51
6473.00	88.40	168.200	4591.43	2151.40S	471.33E	0.31	2202.42	2154728.34	153976.52
6564.00	90.20	169.300	4592.55	2240.64S	489.08E	2.32	2293.39	2154746.10	153887.27
6655.00	90.50	168.400	4591.99	2329.92S	506.67E	1.04	2384.36	2154763.69	153797.99
6750.00	90.90	167.800	4590.83	2422.87S	526.26E	0.76	2479.35	2154783.28	153705.04
6845.00	88.20	166.300	4591.58	2515.44S	547.55E	3.25	2574.33	2154804.57	153612.46
6939.00	89.10	166.300	4593.79	2606.74S	569.80E	0.96	2668.28	2154826.83	153521.16
7034.00	89.80	166.700	4594.70	2699.11S	591.98E	0.85	2763.26	2154849.00	153428.79
7129.00	89.80	165.300	4595.03	2791.29S	614.96E	1.47	2858.23	2154871.99	153336.61
7224.00	89.50	164.500	4595.61	2883.01S	639.71E	0.90	2953.13	2154896.73	153244.89
7319.00	90.50	165.800	4595.61	2974.83S	664.06E	1.73	3048.04	2154921.08	153153.06
7382.00	90.20	166.300	4595.23	3035.97S	679.24E	0.93	3111.02	2154936.27	153091.92
7445.00	91.20	167.600	4594.46	3097.34S	693.47E	2.60	3174.01	2154950.49	153030.55
7508.00	90.90	167.600	4593.31	3158.86S	706.99E	0.48	3237.00	2154964.02	152969.03
7603.00	90.70	167.200	4591.98	3251.56S	727.72E	0.47	3331.99	2154984.74	152876.32
7697.00	90.70	167.100	4590.83	3343.20S	748.62E	0.11	3425.98	2155005.65	152784.68
7792.00	91.20	166.600	4589.26	3435.69S	770.23E	0.74	3520.96	2155027.26	152692.18
7887.00	90.60	167.900	4587.76	3528.34S	791.19E	1.51	3615.94	2155048.22	152599.53
7981.00	88.10	168.300	4588.83	3620.30S	810.57E	2.69	3709.93	2155067.60	152507.56
8075.00	88.30	167.900	4591.78	3712.24S	829.95E	0.48	3803.87	2155086.98	152415.63
8169.00	88.70	167.700	4594.24	3804.08S	849.80E	0.48	3897.84	2155106.83	152323.78
8265.00	88.90	167.300	4596.25	3897.79S	870.58E	0.47	3993.82	2155127.61	152230.07
8359.00	89.80	167.700	4597.32	3989.55S	890.92E	1.05	4087.81	2155147.95	152138.30
8454.00	91.30	166.800	4596.41	4082.20S	911.89E	1.84	4182.80	2155168.92	152045.65
8549.00	91.00	166.600	4594.50	4174.64S	933.74E	0.38	4277.77	2155190.77	151953.21
8644.00	90.40	166.000	4593.34	4266.93S	956.23E	0.89	4372.74	2155213.27	151860.92
8740.00	91.40	164.600	4591.83	4359.77S	980.59E	1.79	4468.66	2155237.63	151768.07
8836.00	91.80	163.800	4589.15	4452.10S	1006.72E	0.93	4564.46	2155263.76	151675.73
8930.00	92.80	161.900	4585.38	4541.85S	1034.41E	2.28	4658.06	2155291.45	151585.99
9025.00	92.50	163.700	4580.99	4632.50S	1062.47E	1.92	4752.64	2155319.51	151495.33
9035.00	92.90	163.200	4580.52	4642.07S	1065.32E	6.40	4762.60	2155322.36	151485.76
9080.00	92.90	163.200	4578.24	4685.10S	1078.31E	==>	4807.41	2155335.35	151442.73

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Slot and TVD's are from Slot (Robb 3406 1-16H 0.00ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 167.520 degrees
Bottom hole distance is 4807.59 Feet on azimuth 167.04 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 25-Jul-2013

Standard Wellpath Report
Sandridge
Sec 16 - 34S - 6W, Kansas
Harper County
Wellbore: Robb 3406 1-16H (Actual)

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Slot and TVD's are from Slot (Robb 3406 1-16H 0.00ft above Mean Sea Level)
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Prepared by
Date Printed: 25-Jul-2013

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/29/2013
Job End Date:	8/31/2013
State:	Kansas
County:	Harper
API Number:	15-077-21933-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Robb 3406 1-16H
Longitude:	-97.97110000
Latitude:	37.09420000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,578
Total Base Water Volume (gal):	2,372,822
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
C102	Bosque Disposal Systems, LLC	Oxidizer					
			Chlorine Dioxide	10049-04-4	15.00000	100.00000	
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.							
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C10-C16, ethoxylated	68002-97-1	0.00542		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ethane-1,2-diol	107-21-1	0.00970		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Prop-2-yn-1-ol	107-19-7	0.00159		

HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Thiourea, polymer with formaldehyde and 1- phenylethanone	68527-49-1	0.00511		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Methanol	67-56-1	0.00846		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sodium erythorbate	6381-77-7	0.00535		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00489		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Acrylamide/ammonium acrylate copolymer	26100-47-0	0.21689		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			C14 alpha olefin ethoxylate	84133-50-6	0.00407		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Propan-2-ol	67-63-0	0.00098		

HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Potassium hydroxide	1310-58-3	0.00022		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ammonium chloride	12125-02-9	0.13555		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sorbitan monooleate	1338-43-8	0.02711		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ethanol, 2,2',2''-nitrilotris-, 1,1',1''-tris(dihydrogen phosphate), sodium salt	68171-29-9	0.07756		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Crystalline silica	14808-60-7	96.89560		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C14-15, ethoxylated (7EO)	68951-67-7	0.00238		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Polyethylene glycol monohexyl ether	31726-34-8	0.11152		

HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C12-C16, ethoxylated	68551-12-2	0.00407		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sorbitol Tetraoleate	61723-83-9	0.00813		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Distillates (petroleum), hydrotreated light	64742-47-8	0.28466		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Ethoxylated oleic acid	9004-96-0	0.02711		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			2-propenamid	79-06-1	0.00122		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alcohols, C12-C14, ethoxylated	68439-50-9	0.00407		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Sodium sulfocyanate	540-72-7	0.00705		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			2-Propenoic acid, ammonium salt	10604-69-0	0.00664		

HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Trisodium ortho phosphate	7601-54-9	0.03409		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Hydrogen chloride	7647-01-0	2.10161		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Alkenes, C>10 a-	64743-02-8	0.00106		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Fatty acids, tall-oil	61790-12-3	0.00621		
HCL 15, Slickwater	Schlumberger	Corrosion Inhibitor, Friction Reducer, Scale Inhibitor, Surfactant , Acid, Iron Control Agent, Propping Agent					
			Water (Including Mix Water Supplied by Client)*	NA			

* 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: 4721'
-97.971158 37.093043

Top Perf: 5328'
-97.970741 37.091487

Harper County

Section 16
34S 6W

Section 15
34S 6W

Bottom Perf: 8692'
-97.9683 37.082536

BHL: 9080'
-97.96789 37.081386

349' FSL

625' FEL

Section 21
34S 6W

Section 22
34S 6W



Actual Bottom-Hole Location of Robb 3406 1-16H
Harper County, Kansas
T&R: 34S 6W
Section: 16, 625' FEL & 349' FSL
-97.96789 37.081386

1 in = 667 ft

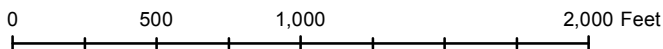


● Actual BH Location

* SandRidge Wells

--- Perf

□ Sections



Draftsman:

Aaron Birk

Draft Date: 10/21/2013

Drawing Name/Number:

Addendum_Robb 3406 1-16H.mxd

Coordinate System:

NAD 1927 State Plane
Kansas South FIPS: 1502