



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1220439
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: _____

1220439

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Oliver 3306 3-14H
Doc ID	1220439

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
	frac point system used- no wireline perforating necessary	1500 gals 15% HCL Acid, 3020 bbls Fresh Slickwater, Running TLTR 3020	8893
		1500 gals 15% HCL Acid, 2794 bbls Fresh Slickwater, Running TLTR 5814 bbls	8726
		1500 gals 15% HCL Acid, 2787 bbls Fresh Slickwater, Running TLTR 8601 bbls	8560
		1500 gals 15% HCL Acid, 2853 bbls Fresh Slickwater, Running TLTR 11454 bbls	8392
		1500 gals 15% HCL Acid, 2877 bbls Fresh Slickwater, Running TLTR 14331 bbls	8226
		1500 gals 15% HCL Acid, 2932 bbls Fresh Slickwater, Running TLTR 20216 bbls	7888
		1500 gals 15% HCL Acid, 2895 bbls Fresh Slickwater, Running TLTR 23111 bbls	7717
		1500 gals 15% HCL Acid, 3131 bbls Fresh Slickwater, Running TLTR 26242 bbls	7558

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Oliver 3306 3-14H
Doc ID	1220439

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
		1500 gals 15% HCL Acid, 3047 bbls Fresh Slickwater, Running TLTR 29289 bbls	7391
		1500 gals 15% HCL Acid, 3194 bbls Fresh Slickwater, Running TLTR 32483 bbls	7223
		1500 gals 15% HCL Acid, 3198 bbls Fresh Slickwater, Running TLTR 35681 bbls	7058
		1500 gals 15% HCL Acid, 3259 bbls Fresh Slickwater, Running TLTR 38940 bbls	6895
		1500 gals 15% HCL Acid, 2929 bbls Fresh Slickwater, Running TLTR 41869 bbls	6733
		1500 gals 15% HCL Acid, 2961 bbls Fresh Slickwater, Running TLTR 44830 bbls	6566
		1500 gals 15% HCL Acid, 2908 bbls Fresh Slickwater, Running TLTR 44830 bbls	6394
		1500 gals 15% HCL Acid, 2826 bbls Fresh Slickwater, Running TLTR 50564 bbls	6225

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Oliver 3306 3-14H
Doc ID	1220439

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
		1500 gals 15% HCL Acid, 2764 bbls Fresh Slickwater, Running TLTR 53328 bbls	6056
		1500 gals 15% HCL Acid, 2065 bbls Fresh Slickwater, Running TLTR 55393 bbls	5889
		1500 gals 15% HCL Acid, 4753 bbls Fresh Slickwater, Running TLTR 60146 bbls	5505



INVOICE

DATE	INVOICE #
5/15/2014	4785

BILL TO
SANDRIDGE ENERGY, INC. ATTN: PURCHASING MANAGER 123 ROBERT S. KERR AVENUE OKLAHOMA CITY, OK 73102

REMIT TO
EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 73802

COUNTY	STARTING D...	WORK ORDER	RIG NUMBER	LEASE NAME	Terms
HARPER, KS	5/14/2014	3593	LARIAT 40	OLIVER 3306 3-14H	Due on rec...

Description	
DRILLED 60' OF 30" CONDUCTOR HOLE DRILLED 6' OF 76" HOLE FURNISHED AND SET 6' X 6' TINHORN CELLAR FURNISHED 60' OF 20" CONDUCTOR PIPE FURNISHED MUD, WATER, AND TRUCKING FURNISHED WELDER AND MATERIALS FURNISHED 6 YARDS OF 10 SACK GROUT FOR CONDUCTOR HOLE FURNISHED 4 YARDS OF 10 SACK GROUT FOR MOUSE HOLE FURNISHED GROUT PUMP DRILL MOUSE HOLE FURNISHED 80' OF 14" CONDUCTOR PIPE TOTAL BID \$17,000.00	
Sales Tax (6.15%)	\$125.58

TOTAL	\$17,125.58
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JOB SUMMARY			PROJECT NUMBER SOK 3765	TICKET DATE 05/26/14
COUNTY Harper	State Kansas	COMPANY Bridge Exploration & Produc	CUSTOMER REP Audie Miller	
LEASE NAME Oliver 3306	Well No. 3-14H	JOB TYPE Surface	EMPLOYEE NAME John Hall	

EMP NAME John Hall	0				
Joseph Klemm					
Randall Irvin					
0.00					

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

Date	Called Out 5/26/2014	On Location 5/26/2014	Job Started 5/26/2014	Job Completed 5/26/2014
Time	730am	1000am	200pm	330pm

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 1/4"		Surface	632
Liner						1,500
Liner						
Tubing			0			
Drill Pipe						
Open Hole			12 1/4"		Surface	627
Perforations						Shots/Ft.
Perforations						
Perforations						

Materials			
Mud Type	WBM	Density	9 Lb/Gal
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
Perfpac Balls		Qty.	
Other			
Other			
Other			
Other			

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
5/26	5.0	5/26	1.0	Surface
Total	5.0	Total	1.0	

Pressures	
MAX	2,000 PSI
AVG	
Average Rates in BPM	
MAX	6 BPM
AVG	
Cement Left in Pipe	
Feet	46
Reason	SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	160	TEX Lite Premium Plus 65	(6% Gel) 2% Calcium Chloride - 1/4pps Cello-Flake - .4% C-41P	11.11	2.01	12.40
2	165	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: _____	NO/FULL		Load & Bkdn: Gal - BBI	N/A
	Actual TOC	SURFACE		Excess /Return BBI	40
Average	Bump Plug PSI:	800		Calc. TOC:	SURFACE
IS: F	5 Min.	10 Min.	15 Min.	Final Circ. PSI:	200
				Cement Slurry BBI	95.9
				Total Volume BBI	151.10

CUSTOMER REPRESENTATIVE _____ SIGNATURE _____

JOB SUMMARY			PROJECT NUMBER SOK 3793	TICKET DATE 06/02/14
COUNTY Harper	STATE Kansas	COMPANY Sandridge Exploration & Production	CUSTOMER REP Jackie Kennedy	
LEASE NAME Oliver 3306	Well No. 3-14H	JOB TYPE Intermediate	EMPLOYEE NAME Arthur Setzer	

EMP NAME	0						
Arthur Setzer							
Jared Green							
Cody Bonitz							
Don Brown							

Form. Name _____ Type: _____

Packer Type _____ Set At _____ 0 _____

Bottom Hole Temp. _____ 155 _____ Pressure _____

Retainer Depth _____ Total Depth _____ 5,558'

Date	Called Out 6/1/2014	On Location 6/2/2014	Job Started 6/2/2014	Job Completed 6/2/2014
Time	2000	0300	1500	1800

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float V ₂	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data							
	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing		26#	7"		Surface		5,000
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			8 1/4"		Surface	5,558'	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials			
Mud Type	WBM	Density	Lb/Gal
Disp. Fluid	Fresh Water	8.33	
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	
6/2	15.0	6/2	3.0	Intermediate
Total	15.0	Total	3.0	

Perpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Pressures	
MAX 5,000 PSI	AVG. 3100
MAX 8 BPM	Average Rates in BPM
	AVG 8
Feet 42	Cement Left in Pipe
	Reason SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	255	50/50 POZ PREMIUM	4% Gel - 0.2% FL-17 - 0.1% C-51 - 0.2% C-20 - 0.1% C-37 - 0.4% C-41P	6.93	1.43	13.60
2	120	Premium	0.2% FL-17 - 0.1% C-51 - 0.1% C-20 - 0.4% C-41P	5.19	1.19	15.60
3	0	0		0	0.00	0.00

Summary					
Preflush Breakdown	10	Type: Caustic	Preflush: BBI	30.00	Type: Gel Spacer
		MAXIMUM	Load & Bkdn: Gal - BBI	N/A	Pad:Bbl -Gal
		Lost Returns-1	Excess /Return BBI	N/A	Calc. Disp Bbl
		Actual TOC	Calc. TOC:	3,182	Actual Disp.
Average		Bump Plug PSI:	Final Circ. PSI:	3,100	Disp:Bbl
ISIP	5 Min.	10 Min.	Cement Slurry BBI	90.0	210.00
		15 Min.	Total Volume BBI	330.00	

CUSTOMER REPRESENTATIVE *Jackie Kennedy* SIGNATURE



Sandridge Energy, INC.(mid-con.)

Harper County (KS27S)

Sec 14-T33S-R06W

Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40

Wellbore #1

Design: Wellbore #1

Standard Survey Report

23 June, 2014

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40
Project:	Harper County (KS27S)	TVD Reference:	WELL @ 1304.0usft (Original Well Elev)
Site:	Sec 14-T33S-R06W	MD Reference:	WELL @ 1304.0usft (Original Well Elev)
Well:	Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Harper County (KS27S)		
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 14-T33S-R06W				
Site Position:	Northing:	183,029.97 usft	Latitude:	37° 10' 4.684 N	
From:	Map	Easting:	2,164,336.00 usft	Longitude:	97° 56' 9.770 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40					
Well Position	+N/-S	0.0 usft	Northing:	183,033.99 usft	Latitude:	37° 10' 4.715 N
	+E/-W	0.0 usft	Easting:	2,164,486.00 usft	Longitude:	97° 56' 7.916 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	1,286.0 usft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2014/05/19	4.28	65.23	51,679

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	9.15	

Survey Program	Date	2014/06/23			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
250.0	9,075.0	Archer 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	
250.0	0.58	169.60	250.0	-1.2	0.2	-1.2	0.23	0.23	0.00	
First Single Shot Survey										
460.0	0.80	169.60	460.0	-3.7	0.7	-3.6	0.10	0.10	0.00	
694.0	0.60	169.60	694.0	-6.5	1.2	-6.3	0.09	-0.09	0.00	
First Archer MWD Survey										
968.0	0.70	177.10	967.9	-9.6	1.5	-9.3	0.05	0.04	2.74	
1,425.0	0.60	253.00	1,424.9	-13.1	-0.6	-13.0	0.18	-0.02	16.61	
1,899.0	0.30	229.80	1,898.9	-14.6	-3.9	-15.1	0.07	-0.06	-4.89	
2,374.0	0.50	334.50	2,373.9	-13.6	-5.8	-14.3	0.14	0.04	22.04	

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40
Project:	Harper County (KS27S)	TVD Reference:	WELL @ 1304.0usft (Original Well Elev)
Site:	Sec 14-T33S-R06W	MD Reference:	WELL @ 1304.0usft (Original Well Elev)
Well:	Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40	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)	
2,849.0	0.50	357.10	2,848.9	-9.6	-6.8	-10.6	0.04	0.00	4.76	
3,323.0	0.70	353.30	3,322.9	-4.7	-7.2	-5.8	0.04	0.04	-0.80	
3,355.0	0.70	339.10	3,354.9	-4.3	-7.3	-5.4	0.54	0.00	-44.38	
3,387.0	1.70	61.60	3,386.8	-3.9	-6.9	-5.0	5.47	3.13	257.81	
3,418.0	4.00	58.60	3,417.8	-3.1	-5.6	-4.0	7.43	7.42	-9.68	
3,450.0	6.70	62.20	3,449.7	-1.7	-3.0	-2.1	8.50	8.44	11.25	
3,482.0	9.60	65.30	3,481.3	0.3	1.1	0.5	9.16	9.06	9.69	
3,513.0	12.40	67.00	3,511.8	2.7	6.5	3.7	9.09	9.03	5.48	
3,545.0	15.10	71.60	3,542.8	5.4	13.6	7.4	9.10	8.44	14.38	
3,576.0	17.80	73.30	3,572.6	8.0	22.0	11.4	8.85	8.71	5.48	
3,608.0	20.20	75.20	3,602.8	10.8	32.0	15.8	7.74	7.50	5.94	
3,640.0	21.80	77.10	3,632.7	13.5	43.1	20.2	5.43	5.00	5.94	
3,672.0	22.90	77.90	3,662.3	16.2	55.0	24.7	3.57	3.44	2.50	
3,703.0	24.00	78.30	3,690.7	18.7	67.1	29.1	3.59	3.55	1.29	
3,734.0	26.40	76.40	3,718.8	21.6	79.9	34.1	8.17	7.74	-6.13	
3,766.0	29.30	74.10	3,747.1	25.4	94.4	40.1	9.66	9.06	-7.19	
3,797.0	31.90	73.70	3,773.8	29.8	109.6	46.9	8.41	8.39	-1.29	
3,829.0	34.50	74.90	3,800.5	34.6	126.4	54.2	8.38	8.13	3.75	
3,861.0	36.50	75.80	3,826.6	39.2	144.4	61.7	6.46	6.25	2.81	
3,893.0	38.90	76.00	3,851.9	44.0	163.4	69.4	7.51	7.50	0.63	
3,924.0	40.80	75.50	3,875.7	48.9	182.6	77.3	6.22	6.13	-1.61	
3,955.0	42.30	74.80	3,898.9	54.2	202.5	85.7	5.07	4.84	-2.26	
3,987.0	42.90	74.20	3,922.5	60.0	223.4	94.7	2.26	1.88	-1.88	
4,020.0	44.30	73.80	3,946.4	66.2	245.3	104.4	4.32	4.24	-1.21	
4,051.0	46.40	72.50	3,968.1	72.6	266.4	114.0	7.40	6.77	-4.19	
4,083.0	48.70	72.00	3,989.7	79.8	288.8	124.7	7.28	7.19	-1.56	
4,116.0	50.50	71.60	4,011.1	87.7	312.7	136.3	5.53	5.45	-1.21	
4,147.0	52.70	70.00	4,030.4	95.7	335.7	147.8	8.17	7.10	-5.16	
4,178.0	54.90	67.30	4,048.7	104.8	358.9	160.5	9.99	7.10	-8.71	
4,210.0	56.40	64.70	4,066.7	115.5	383.1	175.0	8.18	4.69	-8.13	
4,241.0	58.20	60.90	4,083.5	127.5	406.3	190.4	11.84	5.81	-12.26	
4,274.0	58.90	57.20	4,100.7	141.9	430.4	208.6	9.80	2.12	-11.21	
4,306.0	60.10	54.20	4,117.0	157.5	453.2	227.5	8.91	3.75	-9.38	
4,337.0	61.30	52.20	4,132.1	173.7	474.8	246.9	6.83	3.87	-6.45	
4,369.0	62.90	50.30	4,147.1	191.4	496.9	267.9	7.25	5.00	-5.94	
4,400.0	63.50	48.90	4,161.1	209.3	517.9	289.0	4.47	1.94	-4.52	
4,432.0	65.00	46.80	4,175.0	228.7	539.3	311.5	7.54	4.69	-6.56	
4,463.0	66.10	44.90	4,187.8	248.3	559.5	334.1	6.61	3.55	-6.13	
4,495.0	66.90	42.40	4,200.6	269.5	579.8	358.3	7.59	2.50	-7.81	
4,527.0	67.60	40.00	4,213.0	291.7	599.2	383.3	7.25	2.19	-7.50	
4,558.0	68.20	37.60	4,224.6	314.1	617.2	408.2	7.43	1.94	-7.74	
4,590.0	68.00	36.50	4,236.6	337.8	635.1	434.5	3.25	-0.63	-3.44	

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40
Project:	Harper County (KS27S)	TVD Reference:	WELL @ 1304.0usft (Original Well Elev)
Site:	Sec 14-T33S-R06W	MD Reference:	WELL @ 1304.0usft (Original Well Elev)
Well:	Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40	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)
4,622.0	67.60	36.40	4,248.6	361.7	652.7	460.8	1.28	-1.25	-0.31
4,654.0	67.60	34.30	4,260.8	385.8	669.8	487.4	6.07	0.00	-6.56
4,685.0	68.30	32.20	4,272.5	409.8	685.6	513.6	6.67	2.26	-6.77
4,717.0	69.00	30.00	4,284.1	435.3	701.0	541.2	6.77	2.19	-6.88
4,748.0	69.90	28.50	4,295.0	460.7	715.2	568.5	5.38	2.90	-4.84
4,780.0	70.50	25.60	4,305.9	487.5	728.8	597.1	8.73	1.88	-9.06
4,812.0	71.60	22.20	4,316.3	515.1	741.1	626.4	10.62	3.44	-10.63
4,844.0	73.40	19.50	4,325.9	543.7	752.0	656.3	9.82	5.63	-8.44
4,876.0	74.60	17.10	4,334.7	572.9	761.6	686.6	8.13	3.75	-7.50
4,908.0	75.60	15.00	4,342.9	602.6	770.2	717.3	7.07	3.13	-6.56
4,939.0	77.00	12.60	4,350.3	631.8	777.3	747.3	8.77	4.52	-7.74
4,971.0	78.30	10.30	4,357.1	662.5	783.6	778.6	8.11	4.06	-7.19
5,002.0	79.30	8.10	4,363.1	692.5	788.4	809.0	7.67	3.23	-7.10
5,033.0	80.70	5.90	4,368.5	722.8	792.1	839.5	8.32	4.52	-7.10
5,078.0	83.60	1.60	4,374.7	767.2	795.0	883.9	11.45	6.44	-9.56
5,129.0	84.90	0.20	4,379.8	818.0	795.8	934.1	3.74	2.55	-2.75
5,174.0	85.20	0.00	4,383.7	862.8	795.9	978.3	0.80	0.67	-0.44
5,223.0	86.40	1.20	4,387.2	911.7	796.4	1,026.7	3.46	2.45	2.45
5,268.0	87.20	1.40	4,389.8	956.6	797.4	1,071.2	1.83	1.78	0.44
5,318.0	88.10	1.90	4,391.8	1,006.5	798.9	1,120.7	2.06	1.80	1.00
5,369.0	85.70	1.30	4,394.6	1,057.4	800.3	1,171.2	4.85	-4.71	-1.18
5,418.0	85.70	0.80	4,398.2	1,106.3	801.2	1,219.6	1.02	0.00	-1.02
5,458.0	84.30	358.00	4,401.7	1,146.1	800.8	1,258.8	7.80	-3.50	-7.00
5,497.0	84.70	357.30	4,405.5	1,184.9	799.2	1,296.9	2.06	1.03	-1.79
5,600.0	86.20	357.60	4,413.6	1,287.5	794.6	1,397.4	1.48	1.46	0.29
5,692.0	87.10	357.10	4,419.0	1,379.2	790.4	1,487.3	1.12	0.98	-0.54
5,783.0	88.50	356.50	4,422.5	1,470.0	785.3	1,576.1	1.67	1.54	-0.66
5,875.0	89.30	357.30	4,424.3	1,561.9	780.3	1,666.0	1.23	0.87	0.87
5,966.0	89.50	358.20	4,425.2	1,652.8	776.8	1,755.2	1.01	0.22	0.99
6,057.0	90.10	0.30	4,425.5	1,743.8	775.6	1,844.9	2.40	0.66	2.31
6,149.0	91.20	0.40	4,424.5	1,835.8	776.1	1,935.8	1.20	1.20	0.11
6,241.0	92.00	358.90	4,421.9	1,927.7	775.6	2,026.5	1.85	0.87	-1.63
6,333.0	90.90	359.90	4,419.6	2,019.7	774.6	2,117.1	1.62	-1.20	1.09
6,425.0	90.30	0.90	4,418.6	2,111.7	775.2	2,208.1	1.27	-0.65	1.09
6,515.0	88.90	1.40	4,419.3	2,201.6	777.1	2,297.2	1.65	-1.56	0.56
6,606.0	88.20	0.70	4,421.6	2,292.6	778.7	2,387.2	1.09	-0.77	-0.77
6,699.0	88.30	0.70	4,424.4	2,385.6	779.9	2,479.2	0.11	0.11	0.00
6,791.0	87.80	0.40	4,427.5	2,477.5	780.7	2,570.1	0.63	-0.54	-0.33
6,882.0	88.50	359.70	4,430.5	2,568.4	780.8	2,659.9	1.09	0.77	-0.77
6,972.0	89.80	359.90	4,431.8	2,658.4	780.5	2,748.7	1.46	1.44	0.22
7,066.0	88.70	359.80	4,433.0	2,752.4	780.3	2,841.5	1.18	-1.17	-0.11
7,111.0	89.32	359.61	4,433.8	2,797.4	780.0	2,885.8	1.43	1.37	-0.42
Nulik w/150' Radius									

Company:	Sandridge Energy, INC.(mid-con.)	Local Co-ordinate Reference:	Well Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40
Project:	Harper County (KS27S)	TVD Reference:	WELL @ 1304.0usft (Original Well Elev)
Site:	Sec 14-T33S-R06W	MD Reference:	WELL @ 1304.0usft (Original Well Elev)
Well:	Oliver 3306 3-14H/Job # 04824-431-22/Lariat 40	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)
7,161.0	90.00	359.40	4,434.1	2,847.4	779.6	2,935.1	1.43	1.37	-0.42
7,255.0	91.00	359.40	4,433.3	2,941.4	778.6	3,027.8	1.06	1.06	0.00
7,349.0	90.90	359.40	4,431.7	3,035.4	777.6	3,120.4	0.11	-0.11	0.00
7,444.0	89.80	359.60	4,431.2	3,130.4	776.8	3,214.1	1.18	-1.16	0.21
7,538.0	89.40	359.10	4,431.8	3,224.4	775.7	3,306.7	0.68	-0.43	-0.53
7,633.0	88.80	358.80	4,433.3	3,319.3	774.0	3,400.2	0.71	-0.63	-0.32
7,728.0	89.40	358.40	4,434.8	3,414.3	771.7	3,493.5	0.76	0.63	-0.42
7,823.0	90.90	358.60	4,434.6	3,509.3	769.2	3,586.9	1.59	1.58	0.21
7,917.0	89.80	0.40	4,434.0	3,603.3	768.4	3,679.6	2.24	-1.17	1.91
8,012.0	88.90	0.50	4,435.1	3,698.2	769.1	3,773.5	0.95	-0.95	0.11
8,107.0	89.90	0.50	4,436.1	3,793.2	769.9	3,867.4	1.05	1.05	0.00
8,203.0	89.70	0.20	4,436.4	3,889.2	770.5	3,962.3	0.38	-0.21	-0.31
8,298.0	88.70	0.00	4,437.7	3,984.2	770.7	4,056.1	1.07	-1.05	-0.21
8,393.0	90.40	0.30	4,438.5	4,079.2	770.9	4,149.9	1.82	1.79	0.32
8,488.0	91.20	0.40	4,437.1	4,174.2	771.5	4,243.8	0.85	0.84	0.11
8,583.0	91.20	0.20	4,435.1	4,269.2	772.0	4,337.6	0.21	0.00	-0.21
8,678.0	91.30	359.50	4,433.1	4,364.2	771.8	4,431.3	0.74	0.11	-0.74
8,772.0	92.60	359.70	4,429.9	4,458.1	771.1	4,524.0	1.40	1.38	0.21
8,866.0	94.70	0.00	4,423.9	4,551.9	770.9	4,616.6	2.26	2.23	0.32
8,960.0	93.40	359.50	4,417.3	4,645.7	770.5	4,709.1	1.48	-1.38	-0.53
9,016.0	93.80	358.90	4,413.7	4,701.5	769.7	4,764.1	1.29	0.71	-1.07
Last Archer MWD Survey									
9,075.0	93.80	358.90	4,409.8	4,760.4	768.5	4,822.0	0.00	0.00	0.00
Projection to TD - PBHL Oliver 3-14H									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
250.0	250.0	-1.2	0.2	First Single Shot Survey	
694.0	694.0	-6.5	1.2	First Archer MWD Survey	
9,016.0	4,413.7	4,701.5	769.7	Last Archer MWD Survey	
9,075.0	4,409.8	4,760.4	768.5	Projection to TD	

Checked By: _____	Approved By: _____	Date: _____
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Section 11
33S 6W

348' FNL

1093' FEL

BHL: 9075'
-97.933539 37.180985

Bottom Perf: 8893'
-97.933516 37.180419

Section 14
33S 6W

Harper County

Top Perf: 5505'
-97.933180 37.171264

Miss Entry: 5468'
-97.933172 37.171158

OLIVER 3306 1-14H
IRON HORSE SWD 3306 1-14

OLIVER 3306 2-14H OLIVER 3306 3-14H



Actual Bottom-Hole Location of Oliver 3306 3-14H
T&R: 33S 6W
Section: 14, 1093' FEL & 348' FNL
-97.933539 37.180985

1 in = 667 ft

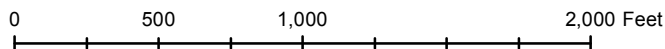


● Actual BH Location

* SandRidge Wells

--- Perf

□ Sections



Draftsman:

Dory Deines

Draft Date: 8/26/2014

Drawing Name/Number:

Addendum_Oliver 3306 3-14H.mxd

Coordinate System:

NAD 1927 State Plane
Kansas South FIPS: 1502

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/21/2014
Job End Date:	6/22/2014
State:	Kansas
County:	Harper
API Number:	15-077-22047-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Oliver 3306 3-14H
Longitude:	-97.93552941
Latitude:	37.16797577
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,410
Total Base Water Volume (gal):	2,531,802
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	94.05160	None
Sand (Proppant)	Archer	Proppant					
			Silica Substrate	NA	100.00000	4.65622	None
DiKlor	Sabre Energy Services	Oxidizer					
			Water	7732-18-5	99.90000	0.27907	
			Chlorine Dioxide	10069-04-4	0.40000	0.00030	
Hydrochloric Acid (15%)	Archer	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.09050	None
			NONYL PHENOL, 4 MOL	104-40-5	10.00000	0.00444	None
			Methyl Alcohol	67-56-1	80.00000	0.00074	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00014	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.00000	0.00164	None
			Citric Acid	77-92-9	30.00000	0.00099	None
Chemflush	Archer	Enviro-Friendly Chemical Flush					
			Hydrotreated Petroleum Distillate	64742-47-8	99.00000	0.00135	None

		Alcohol Ethoxylate Surfactants	NA	10.00000	0.00014	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		0.04274	
		WATER	7732-18-5		0.02665	
		Aliphatic Hydrocarbon	64742-47-8		0.02137	
		Anionic Polymer	N/A		0.02137	
		TRADE SECRET	N/A		0.01777	
		Water	7732-18-5		0.00854	
		METHANOL	67-56-1		0.00444	
		ISOPROPANOL	67-63-0		0.00444	
		Polyol Ester	N/A		0.00356	
		Oxyalkylated Alcohol	68002-97-1		0.00356	
		Acrylic Polymer	28205-96-1		0.00142	
		Sodium Salt of Phosphate Ester	68131-72-6		0.00142	
		Water	7732-18-5		0.00115	
		Polyglycol Ester	N/A		0.00071	
		Alcohol Ethoxylate Surfactants	N/A		0.00014	
		n-olefins	N/A		0.00007	
		Tetrasodium Ethylenediaminetetraacetate	64-02-8		0.00007	
		Propargyl Alcohol	107-19-7		0.00006	
		Surfactant	N/A			
		Cinnamic Aldehyde	104-55-2			
		Acetic Acid	64-19-7			
		Buffer	N/A			
		Water	7732-18-5			

* 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)