



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1207513  
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: \_\_\_\_\_

1207513

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Charles 3306 1-33H
Doc ID	1207513

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	4800-4802		
5	4937-4939		
5	5026-5028		
5	5245-5247		
5	5307-5309		
5	5366-5368		
5	5420-5422		
5	5472-5474		
5	5522-5524		
5	5590-5592		
5	5672-5674		
5	5748-5750		
5	5848-5850		
5	5936-5938		
5	5990-5992		
5	6088-6090		
5	6155-6157		
5	6204-6206		
5	6300-6302		
5	6370-6372		
5	6462-6464		
5	6527-6529		
5	6593-6595		
5	6678-6680		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Charles 3306 1-33H
Doc ID	1207513

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	6740-6742		
5	6800-6802		
5	6866-6868		
5	6924-6926		
5	6998-7000		
5	7064-7066		
5	7138-7140		
5	7209-7211		
5	7285-7287		
5	7371-7373		
5	7447-7449		
5	7524-7526		
5	7576-7578		
5	7646-7648		
5	7714-7716		
5	7786-7788		
5	7850-7852		
5	7908-7910		
5	7976-7978		
5	8048-8050		
5	8134-8136		
5	8200-8202		
5	8254-8256		
5	8334-8336		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Charles 3306 1-33H
Doc ID	1207513

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8404-8405		
5	8487-8489		
5	8580-8582		
5	8667-8669		
5	8724-8726		



# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/9/2014
Job End Date:	3/11/2014
State:	Kansas
County:	Harper
API Number:	15-077-22005-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Charles 3306 1-33H
Longitude:	-97.96883000
Latitude:	37.12571000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,530
Total Base Water Volume (gal):	2,475,018
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	Operator	Carrier					
			Water	7732-18-5	100.00000	95.51296	
Sand, White, 40/70	Baker Hughes	Proppant					
			Crystalline Silica (Quartz)	14808-60-7	100.00000	3.52903	
HCl, 10.1 - 15%	Baker Hughes	Acidizing					
			Water	7732-18-5	85.00000	0.62755	SmartCare Product
			Hydrochloric Acid	7647-01-0	15.00000	0.11074	SmartCare Product
FRW-15A, tote	Baker Hughes	Friction Reducer					
			Contains non-hazardous ingredients that are shown in the non-MSDS section of this report.	NA	100.00000	0.07375	SmartCare Product
NE-900, tote	Baker Hughes	Non-emulsifier					
			Methanol	67-56-1	30.00000	0.01353	SmartCare Product
			Nonyl phenyl polyethylene glycol ether	9016-45-9	10.00000	0.00451	SmartCare Product
Scaletrol 7208, 330 gal tote	Baker Hughes	Scale Inhibitor					
			Ethylene Glycol	107-21-1	30.00000	0.00760	
Ferrotrol 300L (Totes)	Baker Hughes	Iron Control					
			Citric Acid	77-92-9	60.00000	0.00257	SmartCare Product
CI-27 (260 gal tote)	Baker Hughes	Corrosion Inhibitor					

			Methanol	67-56-1	60.00000	0.00045	
			Polyoxyalkylenes	Trade Secret	30.00000	0.00023	
			Thiourea Polymer	68527-49-1	30.00000	0.00023	
			Fatty Acids	Trade Secret	30.00000	0.00023	
			Propargyl Alcohol	107-19-7	10.00000	0.00008	
			Olefin	Trade Secret	5.00000	0.00004	
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		0.03822	
			Copolymer of Acrylamide and Sodium Acrylate	25987-30-8		0.02950	
			Hydrotreated Light Distillate	64742-47-8		0.02212	
			Copolymer	Trade Secret		0.01804	
			Nonyl Phenol Ethoxylate	127087-87-0		0.00369	
			Sorbitan Monooleate	1338-43-8		0.00369	
			Diethylene Glycol	111-46-6		0.00127	
			Sodium Chloride	7647-14-5		0.00000	
			Formaldehyde	50-00-0		0.00000	
			Calcium Chloride	10043-52-4			
			Potassium Chloride	7447-40-7			
			2-Propenoic, Polymer with Sodium Phosphinate, Sodium Salt	71050-62-9			
			Polyacrylate	Trade Secret			

\* 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)



<b>JOB SUMMARY</b>			PROJECT NUMBER <b>SOK 3394</b>	TICKET DATE <b>02/08/14</b>
COUNTY <b>Harper</b>	State <b>Kansas</b>	COMPANY <b>Bridge Exploration &amp; Produc</b>	CUSTOMER REP <b>Ronnie Hagood</b>	
LEASE NAME <b>Charles 3306</b>	Well No. <b>1-33H</b>	JOB TYPE <b>Surface</b>	EMPLOYEE NAME <b>John Hall</b>	

EMP NAME	John Hall	0					
	Joseph Klemm						
	Roy Morris						
	Randal Irvin						

Form. Name \_\_\_\_\_ Type: \_\_\_\_\_  
Packer Type \_\_\_\_\_ Set At **0**  
Bottom Hole Temp. **80** Pressure \_\_\_\_\_  
Retainer Depth \_\_\_\_\_ Total Depth **700**

Date	Called Out <b>2/7/2014</b>	On Location <b>2/8/2014</b>	Job Started <b>2/8/2014</b>	Job Completed <b>2/8/2014</b>
Time	<b>1100pm</b>	<b>200pm</b>	<b>400pm</b>	<b>600pm</b>

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

Well Data						
	New/Used	Weight	Size	Grade	From	To
Casing		36#	9"		Surface	700
Liner						
Liner						
Tubing			0			
Drill Pipe						
Open Hole			12 1/4"		Surface	700
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
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	
2/7	1.0	2/8	2.0	Surface
2/8	18.0			
Total	19.0	Total	2.0	

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

Pressures		
MAX	1,500 PSI	AVG.
MAX	6 BPM	Average Rates in BPM
		AVG
		Cement Left in Pipe
Feet	45	Reason SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	210	TEX Lite Premium Plus 65	(6% Gel) 2% Calcium Chloride - 1/4pps Cello-Flake - .5% C-41P	11.11	2.01	12.40
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 _____	Lost Returns-# _____	Actual TOC _____	Bump Plug PSI: _____
Average ISIP	5 Min. _____	10 Min. _____	15 Min. _____	Final Circ. _____	Cement/Slurry _____
				Total Volume _____	BBI _____
					171.50
				Preflush: BBI	10.00
				Load & Bkdn: Gal - BBI	N/A
				Excess /Return BBI	53
				Calc. TOC: _____	SURFACE
				Final Circ. _____	450
				Cement/Slurry _____	108.9
				Total Volume _____	BBI _____
					171.50
				Type: Fresh Water	
				Pad:Bbl -Gal	N/A
				Calc. Disp Bbl	53
				Actual Disp.	52.60
				Disp:Bbl	52.60

CUSTOMER REPRESENTATIVE \_\_\_\_\_ SIGNATURE

*[Handwritten Signature]*  
D. W. WAIGHT





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

# TICKET

TICKET NUMBER: WY-226-1  
 TICKET DATE: 01/30/2014

**ELECTRONIC**

SANDRIDGE ENERGY  
 \*\*\*\*\* BILL IN ADP!! \*\*\*\*\*  
 123 ROBERT S KERR AVE  
 OKLAHOMA CITY, OK 73102-6406

YARD: WY WAYNOKA OK  
 LEASE: Charles 3306  
 WELL#: 1-33H  
 RIG #: Unit 9  
 Co/St: HARPER, KS

DESCRIPTION	QUANTITY	RATE	AMOUNT
1/28-30/2014 DRILLED 30" CONDUCTOR HOLE			
1/28-30/2014 20" CONDUCTOR PIPE (.250 WALL)			
1/28-30/2014 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING			
1/28-30/2014 DRILL & INSTALL 6' X 6' CELLAR TINHORN			
1/28-30/2014 DRILLED 20" MOUSE HOLE (PER FOOT)			
1/28-30/2014 16" CONDUCTOR PIPE (.250 WALL)			
1/28-30/2014 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE			
1/28-30/2014 WELDING SERVICES FOR PIPE & LIDS			
1/28-30/2014 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE			
1/28-30/2014 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE)			
1/28-30/2014 12 YDS OF 10 SACK GROUT			
1/28-30/2014 TAXABLE ITEMS			4,620.00
1/28-30/2014 BID - TAXABLE ITEMS			11,630.00
		Sub Total:	16,250.00
		Tax HARPER COUNTY (6.15 %):	284.13
		TICKET TOTAL:	<u>\$ 16,534.13</u>

I, the undersigned, acknowledge the acceptance of the above listed goods and/or services.

Approved Signature \_\_\_\_\_

**Company:** Sandridge  
**Well Name:** Charles 3306 1-33H  
**Legals:** Sec: 33 Township: 33S  
 Range: 6W  
**County/State:** Harper County KS  
**Rig Name:** Unit 9

Customer Rep	Position
Don Waight	Company Man

Directional Driller
Bill Wright
John Sartori

MWD Operator
Jerry Wilkins

## Charles 3306 1-33H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
TieInPoint	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Survey	751.00	0.10	347.90	751.00	0.64	-0.14	-0.65	0.01	0.01	1.61	347.66	0.66
Survey	965.00	0.40	207.50	965.00	0.16	-0.52	-0.20	0.22	0.14	65.61	287.10	0.54
Survey	1150.00	0.50	199.00	1149.99	-1.18	-1.08	1.09	0.06	0.05	4.59	222.47	1.60
Survey	1243.00	3.10	107.70	1242.94	-2.33	1.18	2.42	3.39	2.80	98.17	153.14	2.61
Survey	1335.00	5.50	95.70	1334.68	-3.52	7.94	4.17	2.77	2.61	13.04	113.91	8.69
Survey	1426.00	5.30	89.50	1425.27	-3.92	16.48	5.29	0.68	0.22	6.81	103.38	16.94
Survey	1520.00	5.10	92.30	1518.88	-4.05	25.00	6.13	0.34	0.21	2.98	99.20	25.33
Survey	1615.00	5.40	88.70	1613.48	-4.12	33.68	6.92	0.47	0.32	3.79	96.97	33.93
Survey	1710.00	5.60	88.50	1708.05	-3.90	42.79	7.47	0.21	0.21	0.21	95.21	42.97
Survey	1804.00	4.80	82.90	1801.66	-3.29	51.28	7.57	1.01	0.85	5.96	93.67	51.39
Survey	1867.00	5.50	77.60	1864.41	-2.32	56.84	7.07	1.34	1.11	8.41	92.34	56.89
Survey	1931.00	6.30	87.20	1928.07	-1.49	63.35	6.79	1.98	1.25	15.00	91.35	63.37
Survey	1994.00	6.50	89.00	1990.68	-1.26	70.36	7.14	0.45	0.32	2.86	91.03	70.37
Survey	2089.00	6.10	86.80	2085.11	-0.88	80.78	7.64	0.49	0.42	2.32	90.62	80.78
Survey	2185.00	5.80	90.10	2180.59	-0.61	90.72	8.20	0.47	0.31	3.44	90.39	90.72
Survey	2280.00	5.20	85.50	2275.15	-0.28	99.81	8.63	0.78	0.63	4.84	90.16	99.81
Survey	2374.00	6.20	91.10	2368.69	-0.04	109.13	9.17	1.22	1.06	5.96	90.02	109.13
Survey	2468.00	5.90	88.40	2462.17	0.00	119.03	9.96	0.44	0.32	2.87	0	119.03
Survey	2563.00	5.50	85.60	2556.70	0.49	128.45	10.26	0.51	0.42	2.95	89.78	128.45
Survey	2660.00	6.50	93.30	2653.17	0.53	138.57	11.07	1.32	1.03	7.94	89.78	138.57
Survey	2755.00	5.30	92.40	2747.66	0.03	148.32	12.38	1.27	1.26	0.95	89.99	148.32
Survey	2850.00	5.60	88.10	2842.23	0.00	157.34	13.17	0.53	0.32	4.53	0	157.34
Survey	2944.00	6.40	96.70	2935.72	-0.46	167.13	14.44	1.28	0.85	9.15	90.16	167.13
Survey	3039.00	5.80	91.20	3030.18	-1.18	177.19	16.00	0.88	0.63	5.79	90.38	177.19
Survey	3135.00	5.90	95.70	3125.68	-1.77	186.94	17.41	0.49	0.10	4.69	90.54	186.95
Survey	3230.00	5.50	92.80	3220.21	-2.48	196.35	18.90	0.52	0.42	3.05	90.72	196.37
Survey	3325.00	5.70	91.90	3314.76	-2.86	205.61	20.05	0.23	0.21	0.95	90.80	205.63
Survey	3420.00	5.80	87.40	3409.28	-2.79	215.12	20.78	0.49	0.11	4.74	90.74	215.14
Survey	3452.00	6.00	89.20	3441.11	-2.69	218.41	20.96	0.85	0.62	5.62	90.71	218.43
Survey	3514.00	5.70	92.40	3502.79	-2.78	224.72	21.57	0.71	0.48	5.16	90.71	224.74
Survey	3610.00	5.30	89.60	3598.35	-2.95	233.92	22.51	0.50	0.42	2.92	90.72	233.94
Survey	3705.00	6.20	86.70	3692.87	-2.62	243.43	22.98	1.00	0.95	3.05	90.62	243.44
Survey	3737.00	6.00	85.10	3724.69	-2.38	246.82	23.03	0.82	0.63	5.00	90.55	246.83
Survey	3800.00	5.90	95.40	3787.35	-2.40	253.33	23.59	1.70	0.16	16.35	90.54	253.34
Survey	3831.00	7.70	108.90	3818.13	-3.22	256.88	24.70	7.73	5.81	43.55	90.72	256.90
Survey	3863.00	9.70	120.10	3849.76	-5.27	261.24	27.11	8.16	6.25	35.00	91.16	261.29
Survey	3894.00	11.80	129.80	3880.22	-8.61	265.93	30.83	8.92	6.77	31.29	91.85	266.07
Survey	3926.00	14.40	137.80	3911.39	-13.65	271.12	36.29	9.89	8.13	25.00	92.88	271.46
Survey	3958.00	16.10	146.80	3942.26	-20.31	276.23	43.35	9.09	5.31	28.13	94.21	276.98
Survey	3989.00	17.40	155.10	3971.95	-28.12	280.53	51.50	8.77	4.19	26.77	95.72	281.94

## Charles 3306 1-33H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	4021.00	18.90	159.20	4002.36	-37.30	284.39	60.97	6.15	4.69	12.81	97.47	286.83
Survey	4052.00	21.00	162.60	4031.50	-47.30	287.83	71.22	7.74	6.77	10.97	99.33	291.69
Survey	4084.00	23.20	165.50	4061.15	-58.87	291.13	83.02	7.67	6.88	9.06	101.43	297.02
Survey	4115.00	24.90	167.00	4089.46	-71.14	294.13	95.50	5.83	5.48	4.84	103.60	302.61
Survey	4147.00	27.30	168.20	4118.20	-84.89	297.15	109.46	7.68	7.50	3.75	105.94	309.04
Survey	4179.00	29.50	169.60	4146.35	-99.83	300.07	124.59	7.18	6.87	4.37	108.40	316.24
Survey	4211.00	32.20	170.40	4173.82	-115.99	302.91	140.93	8.53	8.44	2.50	110.95	324.36
Survey	4243.00	35.00	171.60	4200.47	-133.47	305.68	158.58	8.99	8.75	3.75	113.59	333.55
Survey	4274.00	37.10	172.60	4225.53	-151.54	308.18	176.80	7.03	6.77	3.23	116.18	343.42
Survey	4307.00	40.10	173.20	4251.32	-171.97	310.72	197.37	9.16	9.09	1.82	118.96	355.13
Survey	4338.00	42.30	174.00	4274.64	-192.26	312.99	217.78	7.30	7.10	2.58	121.56	367.32
Survey	4370.00	45.10	174.40	4297.78	-214.26	315.22	239.89	8.79	8.75	1.25	124.20	381.14
Survey	4402.00	47.50	174.70	4319.88	-237.28	317.42	263.01	7.53	7.50	0.94	126.78	396.30
Survey	4433.00	49.40	175.40	4340.44	-260.40	319.42	286.22	6.36	6.13	2.26	129.19	412.11
Survey	4465.00	51.60	176.10	4360.80	-285.02	321.25	310.90	7.08	6.88	2.19	131.58	429.46
Survey	4496.00	54.50	176.30	4379.43	-309.74	322.89	335.67	9.37	9.35	0.65	133.81	447.43
Survey	4528.00	57.40	176.30	4397.35	-336.19	324.60	362.17	9.06	9.06	0.00	136.00	467.32
Survey	4559.00	60.50	176.50	4413.33	-362.69	326.27	388.72	10.02	10.00	0.65	138.03	487.85
Survey	4591.00	63.20	175.80	4428.43	-390.84	328.16	416.93	8.66	8.44	2.19	139.98	510.34
Survey	4623.00	65.80	175.50	4442.20	-419.64	330.35	445.81	8.17	8.13	0.94	141.79	534.07
Survey	4654.00	68.90	175.30	4454.14	-448.15	332.65	474.41	10.02	10.00	0.65	143.41	558.12
Survey	4686.00	70.90	176.80	4465.14	-478.13	334.72	504.46	7.64	6.25	4.69	145.01	583.65
Survey	4717.00	73.40	177.60	4474.64	-507.60	336.16	533.95	8.43	8.06	2.58	146.49	608.82
Survey	4749.00	75.50	177.80	4483.22	-538.40	337.39	564.74	6.59	6.56	0.63	147.93	635.38
Survey	4781.00	78.90	178.40	4490.31	-569.58	338.43	595.90	10.78	10.63	1.87	149.28	662.54
Survey	4813.00	82.40	179.00	4495.50	-601.15	339.14	627.42	11.09	10.94	1.88	150.57	690.22
Survey	4845.00	85.40	179.80	4498.90	-632.96	339.47	659.15	9.70	9.37	2.50	151.79	718.25
Survey	4876.00	87.30	180.10	4500.87	-663.90	339.50	689.98	6.20	6.13	0.97	152.92	745.67
Survey	4908.00	88.60	179.70	4502.02	-695.87	339.56	721.84	4.25	4.06	1.25	153.99	774.30
Survey	4940.00	89.00	179.60	4502.69	-727.87	339.75	753.75	1.29	1.25	0.31	154.98	803.26
Survey	4971.00	88.90	179.40	4503.26	-758.86	340.02	784.65	0.72	0.32	0.65	155.86	831.55
Survey	5003.00	88.60	179.30	4503.95	-790.85	340.38	816.56	0.99	0.94	0.31	156.71	860.99
Survey	5034.00	89.00	179.30	4504.60	-821.84	340.76	847.47	1.29	1.29	0.00	157.48	889.68
Survey	5066.00	89.60	179.10	4504.99	-853.84	341.21	879.40	1.98	1.87	0.62	158.22	919.49
Survey	5098.00	89.70	179.20	4505.19	-885.83	341.68	911.31	0.44	0.31	0.31	158.91	949.44
Survey	5129.00	90.00	179.40	4505.27	-916.83	342.06	942.24	1.16	0.97	0.65	159.54	978.56
Survey	5180.00	90.20	179.20	4505.18	-967.82	342.69	993.10	0.55	0.39	0.39	160.50	1026.70
Survey	5237.00	89.70	178.60	4505.23	-1024.81	343.78	1049.98	1.37	0.88	1.05	161.46	1080.93
Survey	5268.00	90.90	179.30	4505.07	-1055.80	344.35	1080.91	4.48	3.87	2.26	161.94	1110.54
Survey	5360.00	88.90	179.80	4505.23	-1147.80	345.07	1172.65	2.24	2.17	0.54	163.27	1198.55
Survey	5452.00	88.30	177.70	4507.48	-1239.74	347.08	1264.43	2.37	0.65	2.28	164.36	1287.41
Survey	5514.00	90.40	179.10	4508.18	-1301.71	348.81	1326.33	4.07	3.39	2.26	165.00	1347.63
Survey	5574.00	88.60	178.80	4508.70	-1361.70	349.91	1386.20	3.04	3.00	0.50	165.59	1405.94
Survey	5605.00	87.60	178.80	4509.73	-1392.68	350.56	1417.13	3.23	3.23	0.00	165.87	1436.12
Survey	5667.00	86.70	179.40	4512.81	-1454.59	351.53	1478.90	1.74	1.45	0.97	166.41	1496.46
Survey	5728.00	87.90	178.70	4515.68	-1515.51	352.54	1539.69	2.28	1.97	1.15	166.90	1555.97
Survey	5821.00	88.10	178.30	4518.93	-1608.42	354.97	1632.48	0.48	0.22	0.43	167.55	1647.12
Survey	5883.00	91.00	177.90	4519.41	-1670.38	357.03	1694.40	4.72	4.68	0.65	167.94	1708.11

## Charles 3306 1-33H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	5944.00	90.00	178.00	4518.88	-1731.34	359.21	1755.33	1.65	1.64	0.16	168.28	1768.21
Survey	6005.00	89.10	177.40	4519.36	-1792.29	361.66	1816.27	1.77	1.48	0.98	168.59	1828.41
Survey	6066.00	89.20	177.20	4520.26	-1853.22	364.53	1877.22	0.37	0.16	0.33	168.87	1888.73
Survey	6128.00	89.40	177.90	4521.02	-1915.15	367.18	1939.16	1.17	0.32	1.13	169.15	1950.03
Survey	6189.00	89.40	178.30	4521.66	-1976.11	369.20	2000.07	0.66	0.00	0.66	169.42	2010.30
Survey	6281.00	89.70	177.40	4522.38	-2068.04	372.65	2091.97	1.03	0.33	0.98	169.79	2101.35
Survey	6374.00	89.70	177.90	4522.87	-2160.96	376.46	2184.88	0.54	0.00	0.54	170.12	2193.51
Survey	6405.00	90.20	178.70	4522.89	-2191.95	377.38	2215.84	3.04	1.61	2.58	170.23	2224.20
Survey	6467.00	90.30	178.60	4522.62	-2253.93	378.84	2277.73	0.23	0.16	0.16	170.46	2285.55
Survey	6559.00	90.10	177.70	4522.30	-2345.88	381.81	2369.60	1.00	0.22	0.98	170.76	2376.75
Survey	6650.00	91.50	178.40	4521.03	-2436.82	384.91	2460.48	1.72	1.54	0.77	171.02	2467.03
Survey	6682.00	89.60	178.20	4520.72	-2468.80	385.86	2492.43	5.97	5.94	0.62	171.12	2498.77
Survey	6745.00	91.10	178.80	4520.34	-2531.78	387.51	2555.33	2.56	2.38	0.95	171.30	2561.26
Survey	6777.00	87.20	177.60	4520.81	-2563.75	388.51	2587.27	12.75	12.19	3.75	171.38	2593.02
Survey	6840.00	89.80	179.10	4522.46	-2626.70	390.32	2650.15	4.76	4.13	2.38	171.55	2655.54
Survey	6872.00	89.70	179.20	4522.60	-2658.69	390.80	2682.07	0.44	0.31	0.31	171.64	2687.26
Survey	6927.00	91.20	179.00	4522.17	-2713.68	391.66	2736.94	2.75	2.73	0.36	171.79	2741.80
Survey	6960.00	92.10	179.20	4521.22	-2746.66	392.18	2769.84	2.79	2.73	0.61	171.87	2774.52
Survey	7023.00	91.10	180.40	4519.46	-2809.63	392.40	2832.61	2.48	1.59	1.90	172.05	2836.90
Survey	7051.00	91.60	180.80	4518.80	-2837.62	392.11	2860.48	2.29	1.79	1.43	172.13	2864.58
Survey	7118.00	90.10	180.60	4517.81	-2904.61	391.29	2927.17	2.26	2.24	0.30	172.33	2930.85
Survey	7150.00	90.40	180.60	4517.67	-2936.60	390.95	2959.01	0.94	0.94	0.00	172.42	2962.51
Survey	7246.00	89.90	181.40	4517.42	-3032.58	389.27	3054.52	0.98	0.52	0.83	172.69	3057.46
Survey	7309.00	90.60	180.40	4517.15	-3095.57	388.28	3117.20	1.94	1.11	1.59	172.85	3119.83
Survey	7373.00	89.70	179.70	4516.98	-3159.57	388.22	3180.97	1.78	1.41	1.09	173.00	3183.33
Survey	7436.00	90.10	179.50	4517.09	-3222.57	388.66	3243.79	0.71	0.63	0.32	173.12	3245.92
Survey	7531.00	90.80	178.70	4516.35	-3317.55	390.16	3338.56	1.12	0.74	0.84	173.29	3340.41
Survey	7625.00	89.50	178.30	4516.10	-3411.52	392.62	3432.41	1.45	1.38	0.43	173.43	3434.04
Survey	7688.00	89.20	179.10	4516.82	-3474.49	394.05	3495.28	1.36	0.48	1.27	173.53	3496.76
Survey	7720.00	88.90	179.20	4517.35	-3506.49	394.52	3527.20	0.99	0.94	0.31	173.58	3528.61
Survey	7752.00	88.50	179.30	4518.08	-3538.48	394.94	3559.12	1.29	1.25	0.31	173.63	3560.45
Survey	7815.00	88.30	179.30	4519.84	-3601.45	395.71	3621.93	0.32	0.32	0.00	173.73	3623.12
Survey	7909.00	88.20	179.20	4522.71	-3695.40	396.94	3715.65	0.15	0.11	0.11	173.87	3716.66
Survey	8004.00	87.50	180.00	4526.27	-3790.33	397.60	3810.31	1.12	0.74	0.84	174.01	3811.13
Survey	8099.00	87.20	180.60	4530.66	-3885.23	397.10	3904.83	0.71	0.32	0.63	174.16	3905.47
Survey	8194.00	87.70	180.70	4534.89	-3980.13	396.02	3999.31	0.54	0.53	0.11	174.32	3999.78
Survey	8289.00	88.50	180.70	4538.04	-4075.07	394.86	4093.82	0.84	0.84	0.00	174.47	4094.16
Survey	8383.00	89.10	181.30	4540.01	-4169.03	393.22	4187.31	0.90	0.64	0.64	174.61	4187.53
PrjCalcPnt	8809	89.1	181.3	4546.70	-4594.87	383.56	4610.85	0	0	0	175.23	4610.85

Section 28  
33S 6W

Section 27  
33S 6W

CHARLES 3306 2-33H

CHARLES 3306 3-28H

ASTORIA SWD 3306 1-34 LEE 3306 2-34H

RAWLINGS SWD 3306 1-33

CHARLES 3306 1-33H

LEE 3306 1-34H

Top Perf: 4721'  
-97.968426 37.136048

Miss Entry: 4800'  
-97.968409 37.135794

Harper County

Section 33  
33S 6W

Section 34  
33S 6W

Bottom Perf: 8724'  
-97.967967 37.125466

BHL: 8809'  
-97.967968 37.124936

463' FSL 540' FEL

Section 4  
34S 6W

Section 3  
34S 6W



Actual Bottom-Hole Location of Charles 3306 1-33H  
T&R: 33S 6W  
Section: 33, 533' FEL & 410' FSL  
-97.967968 37.124936

1

< Actual BH Location

| SandRidge Wells

--- Perf

□ Sections

0 500 1,000 2,000 Feet

Draftsman:

Aaron Birk

Draft Date: 5/30/2014

Drawing Name/Number:

Addendum\_Charles 3306 1-33H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502