Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1210240

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 # 34192
Name: SandRidge Exploration and Production LLC
Address 1: 123 ROBERT S. KERR AVE
Address 2:
City: OKLAHOMA CITY State: OK Zip: 73102 + 6406
Contact Person: Wanda Ledbetter
Phone: (405) 429-5500
CONTRACTOR: License # 34464
Name: Lariat Services, Inc. dba Chaparral Supply, Hondo Heavy Haul
Wellsite Geologist: Bob Wilcox
Purchaser: Gas = Atlas Oil = BS&W

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 #:

2/18/2014	3/15/2014	4/7/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-22023-01-00
Spot Description:
NE - SE - SW - SE Sec. 4 Twp. 35 S. R. 8 ☐ East ☑ West
350 Feet from ☐ North / ☑ South Line of Section
1340 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Harper
Lease Name: Bob 3508 Well #: 2-4H
Field Name:
Producing Formation: Mississippii
Elevation: Ground: 1249 Kelly Bushing: 1265
Total Vertical Depth: 5842 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 769 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: 13000 ppm Fluid volume: 5060 bbls
Dewatering method used: Evaporated
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: 06/17/2014
☑ **Confidential Release Date:** 06/16/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 06/18/2014

[redacted] 1210240

Operator Name: SandRidge Exploration and Production LLC Lease Name: Bob 3508 Well #: 2-4H

Sec. 4 Twp. 35 S. R. 8 ☐ East ☑ West County: Harper

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 ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Space Neutron
Array Induction Gamma Ray

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Base Heebner	3558	-2265
Swope	4417	-3069
Oswego	4611	-3203
Pawnee	4700	-3253
Cherokee	4837	-3318
Verdigris	4884	-3337
Miss Lime	5363	-3483

CASING RECORD ☑ New ☐ 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
Conductor	30	20	75	90	grout	10	see report
Surface	12.25	9.625	36	769	50/50 POZ Premium	380	see report
Intermediate	8.75	7	26	5830	50/50 POZ Premium	474	see report

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	Depth
Attached	Attached	Attached	Attached

TUBING RECORD: Size: 4.5 Set At: 9234 Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 4/18/2014

Producing Method: ☑ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	93	110	3200		

DISPOSITION OF GAS:
☐ Vented ☑ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:
5882-9138

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Bob 3508 2-4H
Doc ID	1210240

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	5882-5884		
5	5974-5976		
5	6056-6058		
5	6118-6120		
5	6168-6170		
5	6224-6226		
5	6278-6280		
5	6344-6346		
5	6434-6436		
5	6478-6480		
5	6567-6569		
5	6628-6630		
5	6693-6695		
5	6748-6750		
5	6792-6794		
5	6878-6888		
5	6942-6944		
5	7018-7020		
5	7078-7080		
5	71501-7152		
5	7216-7218		
5	7353-7355		
5	7406-7408		
5	7466-7468		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Bob 3508 2-4H
Doc ID	1210240

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	7545-7547		
5	7616-7618		
5	7694-7696		
5	7750-7752		
5	7816-7818		
5	7894-7896		
5	7960-7962		
5	8040-8042		
5	8084-8086		
5	8148-8150		
5	8204-8206		
5	8280-8282		
5	8350-8352		
5	8414-8416		
5	8454-8456		
5	8537-8539		
5	8605-8607		
5	8700-8702		
5	8772-8774		
5	8816-8818		
5	8891-8893		
5	8946-8948		
5	9012-9014		
5	9064-9066		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Bob 3508 2-4H
Doc ID	1210240

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	9136-9138		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Bob 3508 2-4H
Doc ID	1210240

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	30	20	75	90	grout	10	see report
Surface	12.25	9.625	36	769	50/50 POZ Premium	380	see report
Intermediate	8.75	7	26	5830	50/50 POZ Premium	474	see report

Sandridge Energy, INC.(mid-con.)

Archer
The well company

SANDRIDGE
THE POWER OF US

Project: Harper Co. (KS27S)
Site: Sec 04-T35S-R08W
Well: Bob 3508 2-4H/Job# 04692-431-22/Lariat 40
Plan: Plan 022414 A0 (Bob 3508 2-4H/Job# 04692-431-22/Lariat 40/Wellbore #1)

Projection to TD
9,234' MD &
4,765.8' TVD
4,600.5' N & 657.8' E
350' FNL & 657' FEL

WELL DETAILS: Bob 3508 2-4H/Job# 04692-431-22/Lariat 40

Ground Level: 1274.0

Northing	Easting	Latittude	Longitude
129735.10	2091420.10	37° 1' 21.149 N	98° 11' 12.785 W

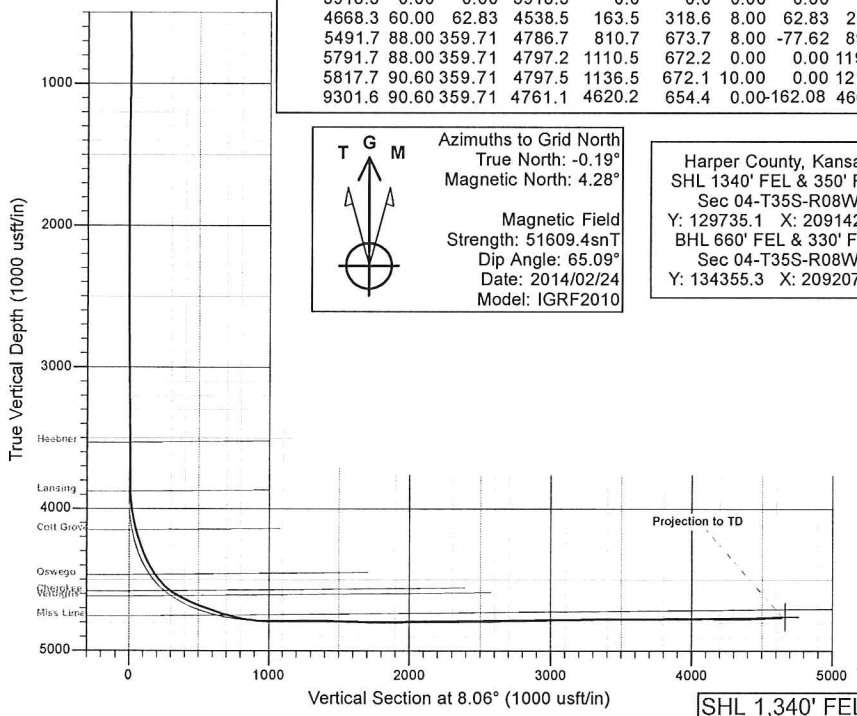
SECTION DETAILS

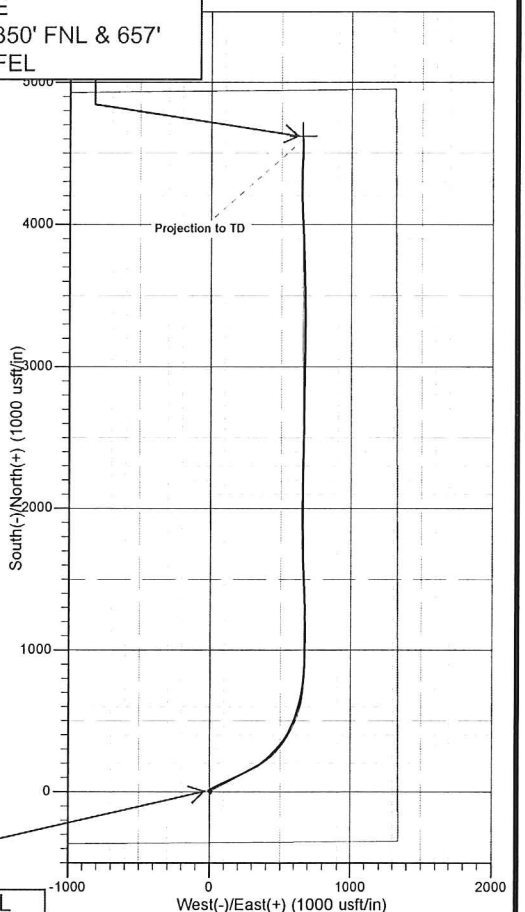
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
3918.3	0.00	0.00	3918.3	0.0	0.0	0.00	0.00	0.0
4668.3	60.00	62.83	4538.5	163.5	318.6	8.00	62.83	206.6
5491.7	88.00	359.71	4786.7	810.7	673.7	8.00	-77.62	897.2
5791.7	88.00	359.71	4797.2	1110.5	672.2	0.00	0.00	1193.8
5817.7	90.60	359.71	4797.5	1136.5	672.1	10.00	0.00	1219.5
9301.6	90.60	359.71	4761.1	4620.2	654.4	0.00	-162.08	4666.3

Azimuths to Grid North
True North: -0.19°
Magnetic North: 4.28°

Magnetic Field
Strength: 51609.4snT
Dip Angle: 65.09°
Date: 2014/02/24
Model: IGRF2010

Harper County, Kansas
SHL 1340' FEL & 350' FSL
Sec 04-T35S-R08W
Y: 129735.1 X: 2091420.1
BHL 660' FEL & 330' FNL
Sec 04-T35S-R08W
Y: 134355.3 X: 2092074.5





SHL 1,340' FEL & 350' FSL

Archer
Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	**Local Co-ordinate Reference:**	Well Bob 3508 2-4H/Job# 04692-431-22/Lariat 40
Project:	Harper Co. (KS27S)	**TVD Reference:**	WELL @ 1292.0usft (Original Well Elev)
Site:	Sec 04-T35S-R08W	**MD Reference:**	WELL @ 1292.0usft (Original Well Elev)
Well:	Bob 3508 2-4H/Job# 04692-431-22/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 Co. (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 04-T35S-R08W				
Site Position:		**Northing:**	129,735.09 usft	**Latitude:**	37° 1' 21.148 N
From:	Map	**Easting:**	2,091,420.10 usft	**Longitude:**	98° 11' 12.785 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.19 °

Well	Bob 3508 2-4H/Job# 04692-431-22/Lariat 40					
Well Position	**+N/-S**	0.0 usft	**Northing:**	129,735.10 usfl	**Latitude:**	37° 1' 21.149 N
	+E/-W	0.0 usft	**Easting:**	2,091,420.10 usfl	**Longitude:**	98° 11' 12.785 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usfl	**Ground Level:**	1,274.0 usfl

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	2014/02/24	4.47	65.09	51,609

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	8.06

Survey Program **Date** 2014/03/20

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
250.0	9,234.0	Archer MWD Survey (Wellbore #1)	MWD	MWD - Standard

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)**
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
250.0	0.30	75.60	250.0	0.2	0.6	0.3	0.12	0.12	0.00
First Single Shot MWD Survey									
500.0	1.08	75.60	500.0	0.9	3.5	1.4	0.31	0.31	0.00
745.0	1.79	75.60	744.9	2.4	9.5	3.7	0.29	0.29	0.00
800.0	0.62	75.60	799.9	2.7	10.6	4.2	2.13	-2.13	0.00
Last Single Shot MWD Survey									
874.0	0.10	75.60	873.9	2.8	11.1	4.4	0.70	-0.70	0.00
First Archer MWD Survey									
1,330.0	1.60	163.90	1,329.8	-3.2	13.2	-1.3	0.35	0.33	19.36

SANDRIDGE
THE POWER OF US

Archer
Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	**Local Co-ordinate Reference:**	Well Bob 3508 2-4H/Job# 04692-431-22/Lariat 40
Project:	Harper Co. (KS27S)	**TVD Reference:**	WELL @ 1292.0usft (Original Well Elev)
Site:	Sec 04-T35S-R08W	**MD Reference:**	WELL @ 1292.0usft (Original Well Elev)
Well:	Bob 3508 2-4H/Job# 04692-431-22/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)
1,802.0	1.00	277.40	1,801.8	-9.0	11.0	-7.4	0.47	-0.13	24.05
2,275.0	1.10	288.00	2,274.7	-7.0	2.5	-6.6	0.05	0.02	2.24
2,750.0	1.10	338.40	2,749.6	-1.4	-3.5	-1.9	0.20	0.00	10.61
3,224.0	0.50	343.60	3,223.6	4.8	-5.7	4.0	0.13	-0.13	1.10
3,509.0	0.70	8.90	3,508.5	7.7	-5.8	6.8	0.11	0.07	8.88
3,604.0	0.70	3.60	3,603.5	8.9	-5.7	8.0	0.07	0.00	-5.58
3,700.0	0.50	295.30	3,699.5	9.6	-6.0	8.7	0.72	-0.21	-71.15
3,795.0	0.80	294.60	3,794.5	10.1	-7.0	9.0	0.32	0.32	-0.74
3,826.0	1.00	290.50	3,825.5	10.3	-7.5	9.1	0.68	0.65	-13.23
3,858.0	1.20	51.40	3,857.5	10.6	-7.5	9.4	5.99	0.63	377.81
3,890.0	4.40	69.80	3,889.5	11.2	-6.0	10.3	10.26	10.00	57.50
3,922.0	7.70	69.80	3,921.3	12.4	-2.9	11.9	10.31	10.31	0.00
3,953.0	10.80	65.50	3,951.9	14.3	1.7	14.4	10.24	10.00	-13.87
3,985.0	13.00	62.90	3,983.2	17.2	7.7	18.1	7.07	6.88	-8.13
4,016.0	14.80	62.30	4,013.3	20.6	14.3	22.4	5.82	5.81	-1.94
4,048.0	17.10	61.90	4,044.0	24.7	22.0	27.6	7.20	7.19	-1.25
4,079.0	19.70	62.20	4,073.5	29.3	30.7	33.3	8.39	8.39	0.97
4,110.0	21.40	62.30	4,102.5	34.4	40.3	39.7	5.49	5.48	0.32
4,143.0	22.30	62.00	4,133.1	40.1	51.2	46.9	2.75	2.73	-0.91
4,174.0	24.20	62.20	4,161.6	45.9	62.0	54.1	6.13	6.13	0.65
4,205.0	26.70	63.40	4,189.6	51.9	73.8	61.8	8.23	8.06	3.87
4,237.0	30.40	64.70	4,217.7	58.6	87.6	70.3	11.72	11.56	4.06
4,268.0	33.40	65.00	4,244.0	65.6	102.4	79.3	9.69	9.68	0.97
4,300.0	35.20	65.70	4,270.4	73.1	118.8	89.0	5.76	5.63	2.19
4,331.0	37.10	66.10	4,295.5	80.6	135.5	98.8	6.18	6.13	1.29
4,363.0	39.20	66.20	4,320.6	88.6	153.6	109.2	6.57	6.56	0.31
4,394.0	40.40	66.30	4,344.5	96.5	171.7	119.7	3.88	3.87	0.32
4,426.0	41.50	65.40	4,368.6	105.1	190.9	130.9	3.90	3.44	-2.81
4,458.0	42.80	64.20	4,392.3	114.3	210.3	142.6	4.78	4.06	-3.75
4,489.0	44.40	63.00	4,414.8	123.8	229.4	154.7	5.81	5.16	-3.87
4,521.0	46.50	62.60	4,437.2	134.2	249.7	167.9	6.62	6.56	-1.25
4,553.0	48.30	62.20	4,458.9	145.1	270.6	181.6	5.70	5.63	-1.25
4,585.0	50.80	62.00	4,479.7	156.5	292.1	195.9	7.83	7.81	-0.63
4,616.0	53.80	60.40	4,498.6	168.3	313.6	210.6	10.50	9.68	-5.16
4,648.0	55.80	58.70	4,517.1	181.6	336.1	226.9	7.61	6.25	-5.31
4,680.0	57.60	56.70	4,534.6	195.9	358.7	244.3	7.68	5.63	-6.25
4,711.0	58.90	53.80	4,550.9	210.9	380.4	262.2	8.99	4.19	-9.35
4,743.0	60.70	50.80	4,567.0	227.8	402.3	282.0	9.86	5.63	-9.38
4,774.0	62.50	48.30	4,581.8	245.5	423.0	302.4	9.17	5.81	-8.06
4,805.0	64.00	45.40	4,595.7	264.4	443.2	324.0	9.65	4.84	-9.35
4,837.0	64.70	43.00	4,609.6	285.1	463.3	347.3	7.11	2.19	-7.50
4,869.0	65.80	41.20	4,623.0	306.7	482.8	371.4	6.16	3.44	-5.63
4,900.0	66.80	38.60	4,635.5	328.5	501.0	395.5	8.33	3.23	-8.39

Company:	Sandridge Energy, INC.(mid-con.)	**Local Co-ordinate Reference:**	Well Bob 3508 2-4H/Job# 04692-431-22/Lariat 40
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Site:	Sec 04-T35S-R08W	**MD Reference:**	WELL @ 1292.0usft (Original Well Elev)
Well:	Bob 3508 2-4H/Job# 04692-431-22/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)
4,932.0	68.30	35.70	4,647.7	352.0	518.8	421.3	9.60	4.69	-9.06
4,963.0	69.10	33.20	4,658.9	375.9	535.2	447.2	7.94	2.58	-8.06
4,995.0	70.20	30.90	4,670.1	401.3	551.1	474.6	7.56	3.44	-7.19
5,026.0	70.10	28.20	4,680.6	426.6	565.5	501.7	8.20	-0.32	-8.71
5,057.0	70.50	25.50	4,691.1	452.7	578.7	529.4	8.30	1.29	-8.71
5,089.0	71.10	23.60	4,701.6	480.2	591.2	558.3	5.91	1.88	-5.94
5,120.0	72.10	22.20	4,711.4	507.3	602.7	586.8	5.36	3.23	-4.52
5,152.0	72.80	20.50	4,721.0	535.7	613.8	616.5	5.52	2.19	-5.31
5,183.0	73.10	18.80	4,730.1	563.6	623.7	645.5	5.33	0.97	-5.48
5,215.0	73.70	16.50	4,739.2	592.8	633.0	675.7	7.14	1.88	-7.19
5,246.0	73.70	14.40	4,747.9	621.5	641.0	705.2	6.50	0.00	-6.77
5,278.0	74.90	12.80	4,756.6	651.4	648.2	735.9	6.10	3.75	-5.00
5,309.0	76.30	11.00	4,764.3	680.8	654.4	765.8	7.21	4.52	-5.81
5,341.0	78.30	9.60	4,771.4	711.5	660.0	797.0	7.57	6.25	-4.38
5,372.0	80.50	7.70	4,777.1	741.6	664.5	827.5	9.31	7.10	-6.13
5,404.0	82.30	6.40	4,781.8	773.0	668.4	859.1	6.91	5.63	-4.06
5,435.0	84.20	5.30	4,785.5	803.7	671.6	889.9	7.07	6.13	-3.55
5,468.0	86.20	3.60	4,788.2	836.4	674.1	922.7	7.94	6.06	-5.15
5,499.0	87.50	1.80	4,789.9	867.4	675.6	953.5	7.16	4.19	-5.81
5,544.0	88.90	1.40	4,791.4	912.3	676.8	998.2	3.24	3.11	-0.89
5,594.0	90.20	1.50	4,791.8	962.3	678.1	1,047.9	2.61	2.60	0.20
5,639.0	91.30	1.50	4,791.2	1,007.3	679.3	1,092.6	2.44	2.44	0.00
5,689.0	92.00	1.40	4,789.7	1,057.2	680.5	1,142.2	1.41	1.40	-0.20
5,720.0	90.20	0.00	4,789.1	1,088.2	680.9	1,173.0	7.36	-5.81	-4.52
5,752.0	89.50	359.00	4,789.2	1,120.2	680.6	1,204.6	3.81	-2.19	-3.13
5,783.0	90.00	358.90	4,789.3	1,151.2	680.1	1,235.2	1.64	1.61	-0.32
5,877.0	90.80	358.30	4,788.7	1,245.2	677.8	1,327.9	1.06	0.85	-0.64
5,908.0	90.60	358.50	4,788.3	1,276.2	676.9	1,358.5	0.91	-0.65	0.65
6,001.0	87.60	358.30	4,789.8	1,369.1	674.3	1,450.2	3.23	-3.23	-0.22
6,092.0	88.10	358.40	4,793.2	1,460.0	671.7	1,539.8	0.56	0.55	0.11
6,183.0	88.30	357.80	4,796.0	1,550.9	668.7	1,629.4	0.69	0.22	-0.66
6,274.0	88.10	357.20	4,798.9	1,641.8	664.7	1,718.8	0.69	-0.22	-0.66
6,365.0	89.40	358.20	4,800.9	1,732.7	661.1	1,808.3	1.80	1.43	1.10
6,456.0	91.20	359.40	4,800.4	1,823.7	659.2	1,898.1	2.38	1.98	1.32
6,548.0	92.30	359.30	4,797.6	1,915.6	658.1	1,989.0	1.20	1.20	-0.11
6,639.0	90.10	0.90	4,795.7	2,006.6	658.3	2,079.1	2.99	-2.42	1.76
6,736.0	90.00	0.80	4,795.6	2,103.6	659.7	2,175.3	0.15	-0.10	-0.10
6,830.0	90.10	1.00	4,795.5	2,197.6	661.2	2,268.6	0.24	0.11	0.21
6,925.0	90.80	1.20	4,794.8	2,292.5	663.0	2,362.9	0.77	0.74	0.21
7,022.0	90.80	1.20	4,793.4	2,389.5	665.0	2,459.2	0.00	0.00	0.00
7,118.0	90.50	1.40	4,792.3	2,485.5	667.2	2,554.5	0.38	-0.31	0.21
7,212.0	90.90	0.90	4,791.2	2,579.5	669.1	2,647.8	0.68	0.43	-0.53

SANDRIDGE
THE POWER OF US

Archer
Survey Report

Company:	Sandridge Energy, INC.(mid-con.)	**Local Co-ordinate Reference:**	Well Bob 3508 2-4H/Job# 04692-431-22/Lariat 40
Project:	Harper Co. (KS27S)	**TVD Reference:**	WELL @ 1292.0usft (Original Well Elev)
Site:	Sec 04-T35S-R08W	**MD Reference:**	WELL @ 1292.0usft (Original Well Elev)
Well:	Bob 3508 2-4H/Job# 04692-431-22/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)
7,308.0	92.00	0.70	4,788.8	2,675.4	670.4	2,743.0	1.16	1.15	-0.21
7,403.0	90.90	0.40	4,786.4	2,770.4	671.4	2,837.2	1.20	-1.16	-0.32
7,498.0	90.50	0.60	4,785.2	2,865.4	672.2	2,931.3	0.47	-0.42	0.21
7,592.0	91.00	1.10	4,784.0	2,959.3	673.6	3,024.6	0.75	0.53	0.53
7,687.0	90.50	0.50	4,782.7	3,054.3	674.9	3,118.8	0.82	-0.53	-0.63
7,782.0	91.60	0.70	4,781.0	3,149.3	675.9	3,213.0	1.18	1.16	0.21
7,876.0	91.60	0.40	4,778.4	3,243.3	676.8	3,306.1	0.32	0.00	-0.32
7,971.0	89.50	359.90	4,777.4	3,338.3	677.0	3,400.2	2.27	-2.21	-0.53
8,066.0	89.40	359.00	4,778.4	3,433.2	676.1	3,494.1	0.95	-0.11	-0.95
8,160.0	90.60	359.40	4,778.4	3,527.2	674.8	3,587.0	1.35	1.28	0.43
8,255.0	90.40	358.30	4,777.5	3,622.2	672.9	3,680.8	1.18	-0.21	-1.16
8,350.0	91.00	358.10	4,776.4	3,717.2	669.9	3,774.4	0.67	0.63	-0.21
8,445.0	90.90	357.90	4,774.8	3,812.1	666.6	3,867.9	0.24	-0.11	-0.21
8,540.0	89.70	357.90	4,774.3	3,907.0	663.1	3,961.4	1.26	-1.26	0.00
8,635.0	90.50	358.00	4,774.1	4,002.0	659.7	4,054.9	0.85	0.84	0.11
8,730.0	89.40	358.00	4,774.2	4,096.9	656.4	4,148.5	1.16	-1.16	0.00
8,824.0	89.50	357.80	4,775.1	4,190.8	653.0	4,241.0	0.24	0.11	-0.21
8,919.0	90.20	0.20	4,775.4	4,285.8	651.3	4,334.8	2.63	0.74	2.53
9,012.0	92.30	1.80	4,773.3	4,378.8	652.9	4,427.1	2.84	2.26	1.72
9,107.0	92.80	2.10	4,769.1	4,473.6	656.2	4,521.4	0.61	0.53	0.32
9,179.0	91.00	0.20	4,766.7	4,545.6	657.6	4,592.9	3.63	-2.50	-2.64
Last Archer MWD Survey									
9,234.0	91.00	0.20	4,765.8	4,600.5	657.8	4,647.3	0.00	0.00	0.00
Projection to TD - PBHL Bob 2-4H									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
250.0	250.0	0.2	0.6	First Single Shot MWD Survey
800.0	799.9	2.7	10.6	Last Single Shot MWD Survey
874.0	873.9	2.8	11.1	First Archer MWD Survey
9,179.0	4,766.7	4,545.6	657.6	Last Archer MWD Survey
9,234.0	4,765.8	4,600.5	657.8	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/29/2014
Job End Date:	3/31/2014
State:	Kansas
County:	Harper
API Number:	15-077-22023-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Bob 3508 2-4H
Longitude:	-98.18477000
Latitude:	37.03644000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,745
Total Base Water Volume (gal):	2,460,696
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	95.61269	
Sand, Brown (40/70)	Baker Hughes	Proppant					
			Crystalline Silica: Quartz (SiO2)	14808-60-7	100.00000	3.14919	
HCl, 10.1 - 15%	Baker Hughes	Acidizing					
			Water	7732-18-5	85.00000	0.63186	SmartCare Product
			Hydrochloric Acid	7647-01-0	15.00000	0.11150	SmartCare Product
Preferred Garnet RC 40/70	Baker Hughes	Proppant					
			Crystalline Silica (Quartz)	14808-60-7	100.00000	0.36471	
			Castor Oil	8001-79-4	5.00000	0.01824	
NE-900, tote	Baker Hughes	Non-emulsifier					
			Methanol	67-56-1	30.00000	0.01347	SmartCare Product
			Nonyl phenyl polyethylene glycol ether	9016-45-9	10.00000	0.00449	SmartCare Product
FRW-15DX	Baker Hughes	Friction Reducer					
			Anionic Water-Soluble Polymer	Trade Secret	100.00000	0.01600	
Scaletrol 7208, 330 gl tote	Baker Hughes	Scale Inhibitor					
			Ethylene Glycol	107-21-1	30.00000	0.00759	
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	0.00506	SmartCare Product
Ferrotrol 300L (Totes)	Baker Hughes	Iron Control					
			Citric Acid	77-92-9	60.00000	0.00259	SmartCare Product
CI-27 (260 gal tote)	Baker Hughes	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00046	
			Thiourea Polymer	68527-49-1	30.00000	0.00023	
			Polyoxyalkylenes	Trade Secret	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		0.03809	
			Copolymer	Trade Secret		0.01796	
			Copolymer of Acrylamide and Sodium Acrylate	25987-30-8		0.00202	
			Hydrotreated Light Distillate	64742-47-8		0.00152	
			Diethylene Glycol	111-46-6		0.00126	
			Sorbitan Monooleate	1338-43-8		0.00025	
			Nonyl Phenol Ethoxylate	127087-87-0		0.00025	
			Sodium Chloride	7647-14-5		0.00000	
			Formaldehyde	50-00-0		0.00000	
			Polyacrylate	Trade Secret			
			Calcium Chloride	10043-52-4			
			Potassium Chloride	7447-40-7			
			2-Propenoic, Polymer with Sodium Phosphinate, Sodium Salt	71050-62-9			

* 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)

JOB SUMMARY

PROJECT NUMBER	TICKET DATE
SOK 3458	03/01/14

COUNTY	State	COMPANY	CUSTOMER REP
Harper	Kansas	dridge Exploration & Produc	Larry Strong

LEASE NAME	Well No.	JOB TYPE	EMPLOYEE NAME
Bob 3508	2-4H	Surface	marcos quintana

EMP NAME							
Marcos Quintana		0					
Wallace Berry							
David Thomas							
nate c							

Form. Name _____ Type: _____

Packer Type _____ Set At 0

Bottom Hole Temp. 80 Pressure _____

Retainer Depth _____ Total Depth 800

	Called Out	On Location	Job Started	Job Completed
Date	2/28/201RR	3/1/2014	3/1/2014	3/1/2014
Time	2200	0030	0325	0435

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	Max. Allow
Casing		36#	9⅝"	Surface	800	1,500
Liner					1D	
Liner						
Tubing			0			
Drill Pipe						
Open Hole			12¼"	Surface	800	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	

Perfpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Other _____

Hours On Location

Date	Hours
3/1	4.0
Total	4.0

Operating Hours

Date	Hours
3/1	2.0
Total	2.0

Description of Job

Surface

Pressures

MAX 1,500 PSI AVG. 200

Average Rates in BPM

MAX 6 BPM AVG 5

Cement Left in Pipe

Feet 45 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 - ¼pps Cello-Flake - .5% C-41P	11.11	2.01	12.40
2	130	Premium Plus (Class C)	2% Calcium Chloride - ¼pps 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		Type:		Preflush:	BBl	10.00	Type: Fresh Water
Breakdown		MAXIMUM	1,500 PSI	Load & Bkdn:	Gal - BBl	N/A	Pad:Bbl -Gal N/A
		Lost Returns-N	NO/FULL	Excess /Return	BBl	40	Calc.Disp Bbl 56
		Actual TOC	SURFACE	Calc. TOC:		SURFACE	Actual Disp. 56.00
Average		Bump Plug PSI:	800	Final Circ.	PSI:	300	Disp:Bbl
ISIP _____	5 Min. _____	10 Min _____	15 Min _____	Cement Slurry:	BBl	120.1	
				Total Volume	BBl	186.06	

CUSTOMER REPRESENTATIVE _____ Larry Strong

SIGNATURE

JOB SUMMARY

PROJECT NUMBER	TICKET DATE
SOK 3488	03/10/14

COUNTY	State	COMPANY	CUSTOMER REP
Harper	Kansas	Sandridge Exploration & Production	Jackie Kennedy

LEASE NAME	Well No.	JOB TYPE	EMPLOYEE NAME
Bob 3508	2-4H	Intermediate	John Hall

EMP NAME

John Hall		Barry					
0.00							
Roy Morris							
Randall Irvin							

Form. Name _____ Type: _____

Packer Type _____ Set At 0

Bottom Hole Temp. 155 Pressure _____

Retainer Depth _____ Total Depth 5817

	Called Out	On Location	Job Started	Job Completed
Date	3/9/2014	3/9/2014	3/10/2014	3/10/2014
Time	900pm	1100pm	530am	700am

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	Max. Allow
Casing		26#	7"		Surface		5,000
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			8¾"		Surface	5,817	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type	WBM	Density	9	Lb/Gal	
Disp. Fluid	Fresh Water	Density	8.33	Lb/Gal	
Spacer type	GEL	BBL.	30		10.00
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 _____

Other _____

Hours On Location

Date	Hours
3/9	1.0
3/10	7.0
Total	8.0

Operating Hours

Date	Hours
3/10	2.5
Total	2.5

Description of Job

Intermediate

Pressures

MAX 5,000 PSI AVG.

Average Rates in BPM

MAX 8 BPM AVG

Cement Left in Pipe

Feet 96 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	100	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	0.00

Summary

Preflush		Type:		Preflush:	BBl	30.00	Type: Gel Spacer
Breakdown		MAXIMUM	5,000 PSI	Load & Bkdn:	Gal - BBl	N/A	Pad:Bbl -Gal N/A
		Lost Returns-N	NO/FULL	Excess /Return	BBl	N/A	Calc.Disp Bbl 220
		Actual TOC	2,765	Calc. TOC:		2,765	Actual Disp. 219.60
Average		Bump Plug PSI:	1,800	Final Circ.	PSI:	1,300	Disp:Bbl 219.60
ISIP _____	5 Min. _____	10 Min _____	15 Min _____	Cement Slurry	BBl	86.0	
				Total Volume	BBl	335.60	

CUSTOMER REPRESENTATIVE _____ SIGNATURE

JOB SUMMARY

PROJECT NUMBER	TICKET DATE
SOK 3518	03/17/14

COUNTY	State	COMPANY	CUSTOMER REP
Harper	Kansas	dridge Exploration & Produc	Jackie Kennedy

LEASE NAME	Well No.	JOB TYPE	EMPLOYEE NAME
Bob 3508	2-4H	Misc Pumping	John Hall

EMP NAME							
John Hall		0					
Joseph Klemm							
Roy Morris							
0.00							

Form. Name _____ Type: _____

Packer Type _____ Set At 0

Bottom Hole Temp. 150 Pressure _____

Retainer Depth _____ Total Depth 9039

	Called Out	On Location	Job Started	Job Completed
Date	3/17/2014	3/17/2014	3/17/2014	3/17/2014
Time	100am	300am	700am	900am

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	Max. Allow
Casing		11.6#	4½"	Surface	9,039	1,500
Liner						
Liner						
Tubing			4"			
Drill Pipe						
Open Hole			6 1/8"	Surface	9,039	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 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	

Perfpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Other _____

Hours On Location

Date	Hours
3/17	6.0
Total	6.0

Operating Hours

Date	Hours
3/17	2.0
Total	2.0

Description of Job

Misc Pumping

Pressures

MAX 1,500 PSI AVG.

Average Rates in BPM

MAX 6 BPM AVG

Cement Left in Pipe

Feet Reason SHOE JOINT

Cement Data

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

Summary

Preflush		Type:		Preflush:	BBl		Type: 0
Breakdown		MAXIMUM	1,500 PSI	Load & Bkdn:	Gal - BBl	N/A	Pad:Bbl -Gal N/A
		Lost Returns-N	NO/FULL	Excess /Return	BBl		Calc.Disp Bbl 80
		Actual TOC	SURFACE	Calc. TOC:		SURFACE	Actual Disp. 80.00
Average		Bump Plug PSI:		Final Circ.	PSI:		Disp:Bbl 80.00
ISIP	5 Min.	10 Min	15 Min	Cement Slurry	BBl		
				Total Volume	BBl		

CUSTOMER REPRESENTATIVE _____ SIGNATURE _____

Job well Done

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

TICKET

TICKET NUMBER: WY-231-1
TICKET DATE: 02/19/2014

ELECTRONIC

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

YARD: WY WAYNOKA OK
LEASE: Bob 3508
WELL#: 2-4H
RIG #: Unit 9
Co/St: HARPER, KS

DESCRIPTION	QUANTITY	RATE	AMOUNT
2/18-19/2014 DRILLED 30" CONDUCTOR HOLE			
2/18-19/2014 20" CONDUCTOR PIPE (.250 WALL)			
2/18-19/2014 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING			
2/18-19/2014 DRILL & INSTALL 6' X 6' CELLAR TINHORN			
2/18-19/2014 DRILLED 20" MOUSE HOLE (PER FOOT)			
2/18-19/2014 16" CONDUCTOR PIPE (.250 WALL)			
2/18-19/2014 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE			
2/18-19/2014 WELDING SERVICES FOR PIPE & LIDS			
2/18-19/2014 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE			
2/18-19/2014 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE)			
2/18-19/2014 13 YDS OF 10 SACK GROUT			
2/18-19/2014 TAXABLE ITEMS			5,280.00
2/18-19/2014 BID - TAXABLE ITEMS			11,970.00

Sub Total:	17,250.00
Tax HARPER COUNTY (6.15 %):	324.72
TICKET TOTAL:	$ 17,574.72

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

Approved Signature _____