CORRECTION #1 [redacted]

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1318066

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 # 99975
Name: COMPANY SERVICING TOOLS
Wellsite Geologist: Bob Wilcox
Purchaser: Plains/Oil Targa/Gas

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 #:

4/21/2015	5/3/2015	5/21/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-22141-01-00
Spot Description:
NW NE NW NE Sec. 15 Twp. 34 S. R. 8 ☐ East ☑ West
305 Feet from ☑ North / ☐ South Line of Section
1853 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: Dusenbury 3408 Well #: 3-10H
Field Name: Wharton
Producing Formation: Mississippi
Elevation: Ground: 1387 Kelly Bushing: 1408
Total Vertical Depth: 4698 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 767 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: 22629 ppm Fluid volume: 8640 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: NEMAHA
Lease Name: unknown License #: 99999
Quarter SW Sec. 15 Twp. 24 S. R. 7 ☐ East ☑ West
County: Garfield, OK Permit #: 608693

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: 08/17/2015
☑ **Confidential Release Date:** 08/16/2017
☐ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 09/28/2016

CORRECTION #1
Page Two

1318066

Operator Name: SandRidge Exploration and Production LLC Lease Name: Dusenbury 3408 Well #: 3-10H

Sec. 15 Twp. 34 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:

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

Name	Top	Datum
Base Heebner	3495	
Cottage Grove	4109	
Oswego	4426	
Cherokee	4540	
Verdigris	4553	
Mississippi Unconformity	4692	

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	109	Grout	10	none
Surface	12.75	9.623	36	767	Class A Multi Density	395	see report
Intermediate	8.75	7	26	5346	Class A	285	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
1	5515-9820		

TUBING RECORD: Size: 4.5 Set At: 9837 Packer At: Liner Run: ☑ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 6/18/2015

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	380	700	2500		

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)* Frac Sleeve

PRODUCTION INTERVAL:
5515-9820

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Dusenbury 3408 3-10H
Doc ID	1318066

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	109	Grout	10	none
Surface	12.75	9.623	36	767	Class A Multi Density	395	see report
Intermediate	8.75	7	26	5346	Class A	285	see report

Summary of Changes

Lease Name and Number: Dusenbury 3408 3-10H

API/Permit #: 15-077-22141-01-00

Doc ID: 1318066

Correction Number: 1

Approved By: Karen Ritter

Field Name	Previous Value	New Value
Approved By	NAOMI JAMES	Karen Ritter
Approved Date	08/17/2015	09/28/2016
CasingSettingDepthPDF_1	90	109
Contractor License Number	34464	99975
Contractor Name	Lariat Services, Inc. dba Chaparral, Drilling, Fluids	COMPANY SERVICING TOOLS
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1259633	../../kcc/detail/operatorEditDetail.cfm?docID=1318066
Tubing Set At		9837
Tubing Size		4.5
Well Type	CB	OG

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1259633

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL

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, Drilling, Fluids
Wellsite Geologist: Bob Wilcox
Purchaser: Plains/Oil Targa/Gas

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 #:

4/21/2015	5/3/2015	5/21/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

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NW NE NW NE Sec. 15 Twp. 34 S. R. 8 ☐ East ☑ West
305 Feet from ☑ North / ☐ South Line of Section
1853 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: Dusenbury 3408 Well #: 3-10H
Field Name: Wharton
Producing Formation: Mississippi
Elevation: Ground: 1387 Kelly Bushing: 1408
Total Vertical Depth: 4698 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 767 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: 22629 ppm Fluid volume: 8640 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: NEMAHA
Lease Name: unknown License #: 99999
Quarter SW Sec. 15 Twp. 24 S. R. 7 ☐ East ☑ West
County: Garfield, OK Permit #: 608693

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: 08/17/2015
☐ **Confidential Release Date:**
☐ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ I ☐ II ☐ III **Approved by:** NAOMI JAMES **Date:** 08/17/2015

Operator Name: SandRidge Exploration and Production LLC Lease Name: Dusenbury 3408 Well #: 3-10H

Sec. 15 Twp. 34 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 *(Attach Additional Sheets)*	☐ Yes	☑ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☐ Yes	☑ No
Geologist Report / Mud Logs	☐ Yes	☐ No
List All E. Logs Run:		

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

Name	Top	Datum
Base Heebner	3495	
Cottage Grove	4109	
Oswego	4426	
Cherokee	4540	
Verdigris	4553	
Mississippi Unconformity	4692	

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	109	Grout	10	none
Surface	12.75	9.623	36	767	Class A Multi Density	395	see report
Intermediate	8.75	7	26	5346	Class A	285	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	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☑ Yes ☐ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection: 6/18/2015

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	380	700	2500		

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)*

PRODUCTION INTERVAL:

Top	Bottom
5515-9820	

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
1					

TUBING RECORD: Size: 4.5 Set At: 9837 Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Dusenbury 3408 3-10H
Doc ID	1259633

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
1	5515-9820		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Dusenbury 3408 3-10H
Doc ID	1259633

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	none
Surface	12.75	9.623	36	767	Class A Multi Density	395	see report
Intermediate	8.75	7	26	5346	Class A	285	see report

ALLIED
OIL & GAS SERVICES, LLC

SandRidge Energy
Dusenbury 3408 3-10H
Harper County, Kansas

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well Dusenbury 3408 3-10H Surface Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 2500 psi. After a successful test we began the job by pumping 10 bbls of pre-flush spacer. We then mixed and pumped the following cements:

81 Bbls (245 sacks) of 13.2 ppg
Lead slurry: Class A AMD 1.85 Yield
2% CC
¼ # Flo-seal

32 Bbls (150 sacks) of 15.6 ppg
Tail Slurry: Class A 1.2 Yield
2% CC
¼ # Flo-seal

The top plug was then released and displaced with 55 of fresh water. The plug bumped and pressured up to 950 psi. Pressure was released and floats held.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

ALLIED
OIL & GAS SERVICES, LLC

SandRidge Energy
Dusenbury 3408 1-10H
Harper County, KS.

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you for the award of the provision of cementing products and services on the well Dusenbury 3408 1-10H intermediate casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 3000 psi. After a successful test we began the job by pumping 30 bbls of spacer. We then mixed and pumped the following cements:

59.84 Bbls (240 sacks) of 13.6 ppg Lead slurry:
50:50 Class A:Poz Blend – 1.4 Yield
2.0% Gel
0.4% FL-160
0.1% SA-51

21.02 Bbls (100 sacks) of 15.6 ppg Tail slurry:
Class A - 1.18 Yield
0.8% FL-160
0.2% CD-31

The top plug was then released and displaced with 200 Bbls of fresh water. The plug bumped and pressured up to 1100 psi. Pressure was released and floats held with 1 bbl back to the truck. Well maintained circulation throughout the job.

All real time data can be review in the chart section of the report.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

Sandridge Energy

DrillRight TECHNOLOGY, INC.

SECTION DETAILS

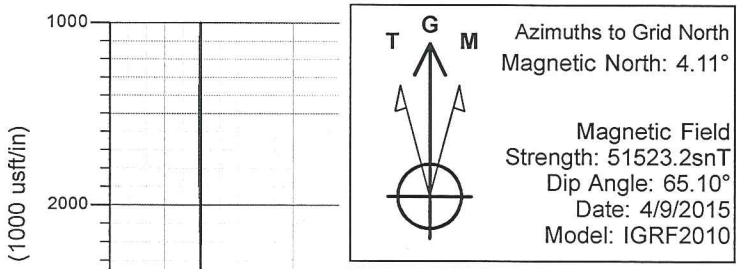
MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2585.0	21.70	100.00	2559.2	-35.3	199.9	2.00	100.00	-1.2	Start Build 0.00
4019.8	21.70	100.00	3892.4	-127.4	722.4	0.00	0.00	-4.2	Start DLS 8.00 TFO -110.84
4843.0	60.00	0.00	4555.3	244.5	891.3	8.00	-110.83	390.8	Start 200.0 hold at 4843.1 MD
5043.0	60.00	0.00	4655.3	417.8	891.3	0.00	0.00	561.5	Start DLS 10.00 TFO 0.00
5349.0	90.60	0.00	4732.0	710.2	891.4	10.00	-0.01	849.9	Start 4522.4 hold at 5349.1 MD
9871.5	90.60	0.00	4684.6	5232.4	891.5	0.00	75.08	5307.8	TD at 9871.5

WELL DETAILS: Dusenbury 3408 3-10H

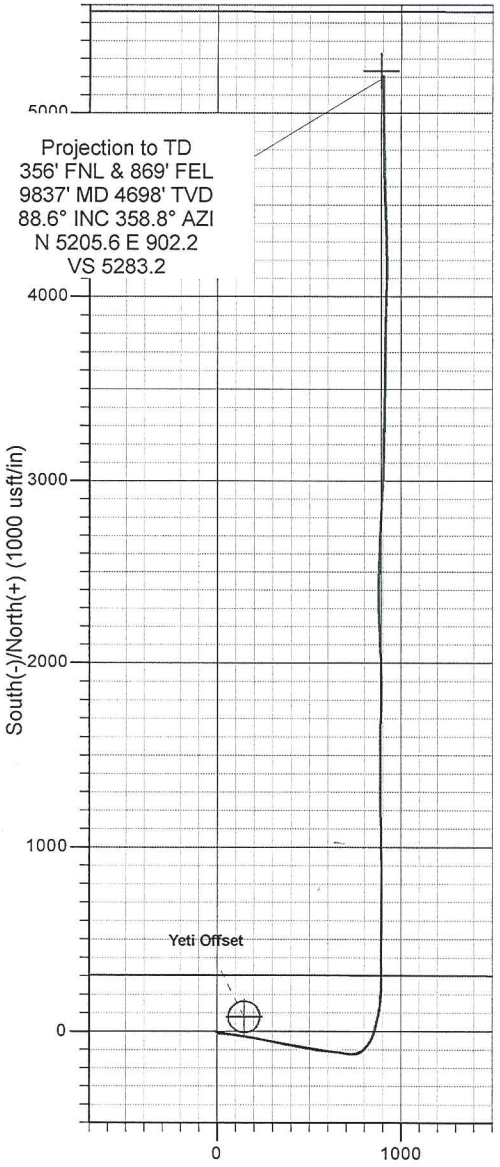
Ground Level: 1387.0

Northing	Easting	Latitude	Longitude
155471.20	2095738.10	37° 5' 35.455 N	98° 10' 18.427 W

Project: Harper County (NAD-27)
Site: Sec 15-T34S-R08W
Well: Dusenbury 3408 3-10H
Plan: Plan 040915 A0 (Dusenbury 3408 3-10H)



Target Line: 4-15-15
4740' KBTVD @ 0' VS
90.6° @ 9.67 AZI Plane



SandRidge ENERGY

DrillRight TECHNOLOGY, INC.

Survey Report

DRT Job # : DR1504019

Company:	Sandridge
Well Name:	Dusenbury 3408 3-10H
Legals:	Sec: 15 Township: 34S Range: 08W
County/State:	Harper KS
Rig Name:	Lariat 20

Customer Rep	Position
Eric Beemer	Engineer

Directional Driller	MWD Operator
Scott Graham	Jerry Wilkins
John Sartori	Charlie Minyard

Dusenbury 3-10H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
TieInPoint	0	0	0	0	0	0	0	0	0	0	0	0
Survey	796	0.6	181.7	795.99	-4.17	-0.12	-4.13	0.08	0.08	22.4	181.65	4.17
Survey	1070	0.4	156.2	1069.98	-6.48	0.22	-6.35	0.11	0.07	9.31	178.06	6.48
Survey	1344	0.7	161.4	1343.97	-8.94	1.14	-8.62	0.11	0.11	1.9	172.73	9.01
Survey	1435	0.3	137	1434.96	-9.64	1.48	-9.25	0.49	0.44	26.81	171.27	9.75
Survey	1526	2.5	103.2	1525.93	-10.27	3.57	-9.52	2.48	2.42	37.14	160.83	10.87
Survey	1618	4.7	100.6	1617.74	-11.42	9.23	-9.71	2.4	2.39	2.83	141.05	14.68
Survey	1709	6.6	93.4	1708.3	-12.42	18.12	-9.2	2.22	2.09	7.91	124.43	21.97
Survey	1800	8.2	91.3	1798.53	-12.87	29.83	-7.68	1.78	1.76	2.31	113.34	32.49
Survey	1891	9.6	93.5	1888.43	-13.48	43.89	-5.92	1.58	1.54	2.42	107.07	45.91
Survey	1983	10	94.7	1979.09	-14.6	59.51	-4.4	0.49	0.43	1.3	103.78	61.27
Survey	2074	11.3	98.1	2068.52	-16.51	76.21	-3.47	1.59	1.43	3.74	102.22	77.98
Survey	2165	12.4	98.4	2157.58	-19.19	94.71	-3.01	1.21	1.21	0.33	101.45	96.63
Survey	2257	13.8	99.1	2247.18	-22.37	115.32	-2.68	1.53	1.52	0.76	100.98	117.47
Survey	2348	15.4	98	2335.24	-25.77	138	-2.22	1.78	1.76	1.21	100.58	140.39
Survey	2439	16.7	100.1	2422.69	-29.74	162.84	-1.96	1.56	1.43	2.31	100.35	165.53
Survey	2531	16.7	99.2	2510.81	-34.17	188.9	-1.95	0.28	0	0.98	100.25	191.97
Survey	2622	19.5	101.3	2597.3	-39.24	216.71	-2.28	3.16	3.08	2.31	100.26	220.23
Survey	2713	20.8	101.7	2682.73	-45.49	247.43	-3.28	1.44	1.43	0.44	100.42	251.58
Survey	2804	22	101.9	2767.45	-52.28	279.93	-4.52	1.32	1.32	0.22	100.58	284.77
Survey	2896	24.8	102.7	2851.88	-60.08	315.62	-6.21	3.06	3.04	0.87	100.78	321.29
Survey	2987	24.5	101.5	2934.58	-68.03	352.73	-7.81	0.64	0.33	1.32	100.92	359.23
Survey	3078	22.4	100.4	3018.06	-74.93	388.28	-8.64	2.36	2.31	1.21	100.92	395.44
Survey	3170	20.2	98.7	3103.77	-80.49	421.22	-8.59	2.48	2.39	1.85	100.82	428.84
Survey	3261	19.2	100.4	3189.44	-85.57	451.47	-8.52	1.27	1.1	1.87	100.73	459.51
Survey	3352	19.2	102.5	3275.38	-91.51	480.8	-9.45	0.76	0	2.31	100.78	489.43
Survey	3444	21.2	102.3	3361.72	-98.33	511.83	-10.96	2.17	2.17	0.22	100.87	521.19
Survey	3535	20.8	96.5	3446.68	-103.66	543.97	-10.81	2.33	0.44	6.37	100.79	553.76
Survey	3626	22	95.6	3531.41	-107.15	576.98	-8.71	1.37	1.32	0.99	100.52	586.84
Survey	3718	22.9	95.3	3616.44	-110.49	611.96	-6.13	0.99	0.98	0.33	100.23	621.85
Survey	3808	19.5	96.9	3700.33	-113.91	644.32	-4.06	3.83	3.78	1.78	100.03	654.31
Survey	3900	20.7	100.2	3786.73	-118.64	675.56	-3.48	1.79	1.3	3.59	99.96	685.9
Survey	3930	19.5	98.5	3814.9	-120.32	685.74	-3.42	4.45	4	5.67	99.95	696.22
Survey	3960	20	99.8	3843.14	-121.93	695.74	-3.33	2.22	1.67	4.33	99.94	706.34
Survey	3991	21.8	99.2	3872.1	-123.75	706.65	-3.29	5.85	5.81	1.94	99.93	717.4
Survey	4021	23.7	95.3	3899.76	-125.2	718.15	-2.79	8.08	6.33	13	99.89	728.98
Survey	4052	23.9	88.6	3928.13	-125.62	730.64	-1.11	8.74	0.65	21.61	99.76	741.36
Survey	4082	23.5	80.9	3955.61	-124.53	742.62	1.98	10.4	1.33	25.67	99.52	752.99
Survey	4112	22.7	73.4	3983.21	-121.93	754.08	6.47	10.16	2.67	25	99.18	763.87
Survey	4142	21.8	66.9	4010.98	-118.09	764.75	12.05	8.73	3	21.67	98.78	773.81
Survey	4173	21.4	60	4039.81	-113	774.95	18.78	8.29	1.29	22.26	98.3	783.15
Survey	4203	21	52.8	4067.78	-107.01	783.97	26.2	8.78	1.33	24	97.77	791.24
Survey	4234	20.8	48.8	4096.75	-100.03	792.53	34.52	4.65	0.65	12.9	97.19	798.82
Survey	4264	22.7	47.9	4124.61	-92.64	800.84	43.2	6.43	6.33	3	96.6	806.18
Survey	4294	25.1	44.7	4152.04	-84.23	809.61	52.96	9.09	8	10.67	95.94	813.98
Survey	4325	27.1	39.5	4179.88	-74.11	818.73	64.47	9.8	6.45	16.77	95.17	822.08
Survey	4355	28.8	34.8	4206.38	-62.9	827.2	76.94	9.27	5.67	15.67	94.35	829.59
Survey	4386	29.7	29.4	4233.43	-50.07	835.23	90.94	8.99	2.9	17.42	93.43	836.73
Survey	4416	30.1	25	4259.44	-36.78	842.06	105.19	7.43	1.33	14.67	92.5	842.86
Survey	4447	30.7	20.6	4286.18	-22.33	848.13	120.45	7.44	1.94	14.19	91.51	848.42
Survey	4477	32.6	18	4311.72	-7.47	853.33	135.97	7.8	6.33	8.67	90.5	853.36
Survey	4508	34.2	16	4337.6	8.85	858.31	152.9	6.26	5.16	6.45	89.41	858.36
Survey	4539	36.3	15.2	4362.92	26.08	863.12	170.69	6.94	6.77	2.58	88.27	863.51
Survey	4571	38.7	14.2	4388.3	44.92	868.05	190.09	7.74	7.5	3.13	87.04	869.21
Survey	4602	41.3	12.1	4412.05	64.33	872.58	209.99	9.45	8.39	6.77	85.78	874.95
Survey	4632	44.7	10.8	4433.99	84.38	876.63	230.43	11.71	11.33	4.33	84.5	880.68
Survey	4663	48.2	9.8	4455.34	106.48	880.64	252.89	11.53	11.29	3.23	83.11	887.05
Survey	4693	51.2	9	4474.74	129.05	884.37	275.77	10.2	10	2.67	81.7	893.74
Survey	4724	53.9	7.6	4493.59	153.4	887.92	300.37	9.42	8.71	4.52	80.2	901.07
Survey	4754	55.7	4.4	4510.89	177.77	890.48	324.82	10.58	6	10.67	78.71	908.05
Survey	4784	57.9	2	4527.31	202.83	891.87	349.76	9.93	7.33	8	77.19	914.64
Survey	4815	60.1	359.7	4543.28	229.4	892.26	376.02	9.53	7.1	7.42	75.58	921.28
Survey	4906	61.1	359.6	4587.95	308.68	891.78	454.09	1.1	1.1	0.11	70.91	943.69
Survey	4967	60.1	359.4	4617.9	361.82	891.31	506.4	1.66	1.64	0.33	67.91	961.95

Dusenbury 3-10H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	4997	60	359.4	4632.87	387.81	891.04	531.97	0.33	0.33	0	66.48	971.78
Survey	5028	59.6	359.6	4648.47	414.6	890.81	558.34	1.41	1.29	0.65	65.04	982.57
Survey	5058	61.2	1	4663.29	440.69	890.95	584.08	6.7	5.33	4.67	63.68	993.98
Survey	5088	64.2	1.8	4677.05	467.34	891.6	610.46	10.28	10	2.67	62.34	1006.66
Survey	5119	67.8	1.8	4689.65	495.64	892.49	638.51	11.61	11.61	0	60.95	1020.88
Survey	5149	71.4	2.1	4700.11	523.74	893.45	666.37	12.04	12	1	59.62	1035.64
Survey	5179	74.6	2.2	4708.88	552.4	894.53	694.81	10.67	10.67	0.33	58.3	1051.35
Survey	5210	77.5	1.5	4716.35	582.47	895.5	724.61	9.61	9.35	2.26	56.96	1068.27
Survey	5241	80.1	0.4	4722.37	612.87	896	754.67	9.08	8.39	3.55	55.63	1085.55
Survey	5271	83.1	0.1	4726.76	642.54	896.13	783.94	10.05	10	1	54.36	1102.68
Survey	5318	88.4	359.9	4730.24	689.4	896.13	830.13	11.28	11.28	0.43	52.43	1130.63
Survey	5400	91.1	359	4730.6	771.39	895.34	910.82	3.47	3.29	1.1	49.25	1181.81
Survey	5494	91.6	359.8	4728.38	865.35	894.36	1003.28	1	0.53	0.85	45.94	1244.47
Survey	5589	92.3	0.4	4725.15	960.29	894.53	1096.9	0.97	0.74	0.63	42.97	1312.38
Survey	5684	89.4	358.8	4723.74	1055.27	893.86	1190.42	3.49	3.05	1.68	40.27	1382.96
Survey	5778	89.1	358.5	4724.97	1149.24	891.65	1282.68	0.45	0.32	0.32	37.81	1454.58
Survey	5872	91.2	359	4724.72	1243.21	889.6	1374.97	2.3	2.23	0.53	35.59	1528.71
Survey	5964	91.8	359.4	4722.31	1335.17	888.32	1465.41	0.78	0.65	0.43	33.64	1603.68
Survey	6056	89.4	0	4721.35	1427.16	887.83	1556.01	2.69	2.61	0.65	31.89	1680.78
Survey	6148	89.2	0.1	4722.47	1519.15	887.91	1646.71	0.24	0.22	0.11	30.31	1759.6
Survey	6241	90.7	0.2	4722.55	1612.15	888.15	1738.43	1.62	1.61	0.11	28.85	1840.61
Survey	6332	92.5	2.2	4720.01	1703.08	890.06	1828.39	2.96	1.98	2.2	27.59	1921.64
Survey	6425	90.5	1.2	4717.58	1796	892.82	1920.45	2.4	2.15	1.08	26.43	2005.68
Survey	6518	90.8	0	4716.52	1888.99	893.79	2012.28	1.33	0.32	1.29	25.32	2089.77
Survey	6611	89.9	358.7	4715.95	1981.98	892.74	2103.78	1.7	0.97	1.4	24.25	2173.76
Survey	6703	89.7	358.1	4716.27	2073.94	890.17	2194	0.69	0.22	0.65	23.23	2256.91
Survey	6796	90.3	356.5	4716.27	2166.83	885.79	2284.83	1.84	0.65	1.72	22.23	2340.89
Survey	6887	90.9	356.8	4715.32	2257.67	880.47	2373.49	0.74	0.66	0.33	21.31	2423.28
Survey	6979	91.6	0.4	4713.31	2349.61	878.22	2463.74	3.99	0.76	3.91	20.49	2508.37
Survey	7072	92.7	1.6	4709.82	2442.53	879.84	2555.62	1.75	1.18	1.29	19.81	2596.16
Survey	7164	91.7	2.7	4706.29	2534.39	883.29	2646.75	1.62	1.09	1.2	19.21	2683.9
Survey	7256	90.9	1.9	4704.2	2626.29	886.98	2737.96	1.23	0.87	0.87	18.66	2772.03
Survey	7351	89.9	1.8	4703.54	2721.24	890.05	2832.08	1.06	1.05	0.11	18.11	2863.1
Survey	7446	90.5	2.6	4703.21	2816.17	893.7	2926.27	1.05	0.63	0.84	17.61	2954.57
Survey	7540	89.6	3.6	4703.13	2910.03	898.78	3019.65	1.43	0.96	1.06	17.16	3045.67
Survey	7635	88.9	1.9	4704.37	3004.91	903.34	3113.95	1.94	0.74	1.79	16.73	3137.76
Survey	7730	89.2	1.6	4705.95	3099.85	906.24	3208.03	0.45	0.32	0.32	16.3	3229.6
Survey	7824	90.5	1.3	4706.19	3193.82	908.62	3301.06	1.42	1.38	0.32	15.88	3320.55
Survey	7919	91.7	0.8	4704.37	3288.78	910.36	3394.97	1.37	1.26	0.53	15.47	3412.45
Survey	8013	91.9	1.4	4701.42	3382.72	912.16	3487.88	0.67	0.21	0.64	15.09	3503.55
Survey	8107	91.4	1	4698.71	3476.66	914.13	3580.81	0.68	0.53	0.43	14.73	3594.83
Survey	8201	89.5	0.4	4697.97	3570.65	915.28	3673.66	2.12	2.02	0.64	14.38	3686.09
Survey	8295	90.2	0.6	4698.22	3664.64	916.1	3766.45	0.77	0.74	0.21	14.04	3777.41
Survey	8390	90.4	0.4	4697.72	3759.63	916.93	3860.23	0.3	0.21	0.21	13.71	3869.83
Survey	8485	90.7	1	4696.81	3854.62	918.09	3954.07	0.71	0.32	0.63	13.4	3962.45
Survey	8579	91.1	1.1	4695.33	3948.6	919.81	4047	0.44	0.43	0.11	13.11	4054.32
Survey	8674	91.1	1.8	4693.51	4043.55	922.21	4141	0.74	0	0.74	12.85	4147.38
Survey	8768	92.3	0.4	4690.72	4137.49	924.02	4233.91	1.96	1.28	1.49	12.59	4239.41
Survey	8863	92.6	0.5	4686.66	4232.4	924.77	4327.6	0.33	0.32	0.11	12.33	4332.25
Survey	8957	90.8	357.6	4683.87	4326.33	923.21	4419.93	3.63	1.91	3.09	12.05	4423.74
Survey	9052	89.5	357.9	4683.62	4421.25	919.48	4512.88	1.4	1.37	0.32	11.75	4515.85
Survey	9146	89.7	358	4684.28	4515.19	916.12	4604.92	0.24	0.21	0.11	11.47	4607.19
Survey	9241	91.1	358	4683.61	4610.13	912.8	4697.95	1.47	1.47	0	11.2	4699.63
Survey	9335	91.3	359.3	4681.64	4704.08	910.59	4790.2	1.4	0.21	1.38	10.96	4791.4
Survey	9430	89.1	359.5	4681.31	4799.07	909.6	4883.67	2.33	2.32	0.21	10.73	4884.51
Survey	9524	86.8	358.7	4684.67	4892.99	908.12	4976.01	2.59	2.45	0.85	10.51	4976.55
Survey	9619	86.8	359	4689.97	4987.82	906.22	5069.17	0.32	0	0.32	10.3	5069.48
Survey	9713	87.8	359.1	4694.4	5081.7	904.66	5161.46	1.07	1.06	0.11	10.09	5161.6
Survey	9788	88.6	358.8	4696.75	5156.65	903.29	5235.11	1.14	1.07	0.4	9.94	5235.17
PrjCalcPnt	9837	88.6	358.8	4697.95	5205.62	902.26	5283.22	0	0	0	9.83	5283.24

Dusenbury 3408 3-10H Perforations and Shot Density

Stage Nbr	Date	Type	Top Depth	Top Depth (TVD)	Bottom Depth	Bottom Depth (TVD)	Zone	Shot Density	String Perforated
20	May 17, 2015	Frac Sleeve	5,515	4,728	5,517	4,728	Miss Lime - Upper	1	Production Liner
19	May 17, 2015	Frac Sleeve	5,756	4,725	5,758	4,725	Miss Lime - Upper	1	Production Liner
18	May 17, 2015	Frac Sleeve	5,985	4,722	5,987	4,722	Miss Lime - Upper	1	Production Liner
17	May 17, 2015	Frac Sleeve	6,180	4,723	6,182	4,723	Miss Lime - Upper	1	Production Liner
16	May 17, 2015	Frac Sleeve	6,421	4,718	6,423	4,718	Miss Lime - Upper	1	Production Liner
15	May 17, 2015	Frac Sleeve	6,660	4,716	6,662	4,716	Miss Lime - Upper	1	Production Liner
14	May 17, 2015	Frac Sleeve	6,844	4,716	6,846	4,716	Miss Lime - Upper	1	Production Liner
13	May 17, 2015	Frac Sleeve	7,084	4,709	7,086	4,709	Miss Lime - Upper	1	Production Liner
12	May 17, 2015	Frac Sleeve	7,317	4,704	7,319	4,704	Miss Lime - Upper	1	Production Liner
11	May 17, 2015	Frac Sleeve	7,549	4,703	7,551	4,703	Miss Lime - Upper	1	Production Liner
10	May 17, 2015	Frac Sleeve	7,785	4,706	7,787	4,706	Miss Lime - Upper	1	Production Liner
9	May 17, 2015	Frac Sleeve	7,979	4,703	7,981	4,703	Miss Lime - Upper	1	Production Liner
8	May 17, 2015	Frac Sleeve	8,208	4,698	8,210	4,698	Miss Lime - Upper	1	Production Liner
7	May 17, 2015	Frac Sleeve	8,450	4,697	8,452	4,697	Miss Lime - Upper	1	Production Liner
6	May 17, 2015	Frac Sleeve	8,684	4,693	8,686	4,693	Miss Lime - Upper	1	Production Liner
5	May 17, 2015	Frac Sleeve	8,919	4,685	8,921	4,685	Miss Lime - Upper	1	Production Liner
4	May 17, 2015	Frac Sleeve	9,158	4,684	9,160	4,684	Miss Lime - Upper	1	Production Liner
3	May 17, 2015	Frac Sleeve	9,348	4,681	9,350	4,681	Miss Lime - Upper	1	Production Liner
2	May 17, 2015	Frac Sleeve	9,587	4,688	9,589	4,688	Miss Lime - Upper	1	Production Liner
1	May 17, 2015	P-Sleeve	9,818	4,697	9,820	4,698	Miss Lime - Upper	1	Production Liner

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/17/2015
Job End Date:	5/18/2015
State:	Kansas
County:	Harper
API Number:	15-077-22141-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Dusenbury 3408 3-10H
Longitude:	-98.17178500
Latitude:	37.09318200
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,698
Total Base Water Volume (gal):	1,921,118
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	94.78337	None
Sand (Proppant)	Archer	Proppant					
			Silica Substrate	NA	100.00000	4.90018	None
Hydrochloric Acid (15%)	Archer	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.03961	None
			Methyl Alcohol	67-56-1	80.00000	0.00033	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00006	None
			NONYL PHENOL, 4 MOL	104-40-5	10.00000	0.00002	None
Chemflush	Archer	Enviro-Friendly Chemical Flush					
			Hydrotreated Petroleum Distillate	64742-47-8	99.00000	0.00386	None
			Alcohol Ethoxylate Surfactants	NA	10.00000	0.00039	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.00000	0.00073	None
			Citric Acid	77-92-9	30.00000	0.00044	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		0.02136	
			Aliphatic Hydrocarbon	64742-47-8		0.01068	
			Anionic Polymer	N/A		0.01068	
			Water	7732-18-5		0.00971	
			Oxyalkylated Alcohol	68002-97-1		0.00178	
			Polyol Ester	N/A		0.00178	
			Sodium Salt of Phosphate Ester	68131-72-6		0.00162	
			Acrylic Polymer	28205-96-1		0.00162	
			Water	7732-18-5		0.00051	
			Polyglycol Ester	N/A		0.00036	
			WATER	7732-18-5		0.00015	
			TRADE SECRET	N/A		0.00010	
			Alcohol Ethoxylate Surfactants	N/A		0.00006	
			Tetrasodium Ethylenediaminetetraacetate	64-02-8		0.00004	
			n-olefins	N/A		0.00003	
			Propargyl Alcohol	107-19-7		0.00002	
			METHANOL	67-56-1		0.00002	
			ISOPROPANOL	67-63-0		0.00002	
			Acetic Acid	64-19-7			
			Buffer	N/A			
			Water	7732-18-5			
			Surfactant	N/A			
			Cinnamic Aldehyde	104-55-2			

* 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)