



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1139424  
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: \_\_\_\_\_



1139424

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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

<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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Thyme 3419 3-5H
Doc ID	1139424

All Electric Logs Run

Boresight
Resistivity
Porosity
Mudlog

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Thyme 3419 3-5H
Doc ID	1139424

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	9303-9559	1500 gal 15% HCL Acid, 6843 bbls Fresh Slickwater, 6975 TLTR	
5	8884-9178	1500 gal 15% HCL Acid, 6724 bbls Fresh Slickwater, 13305 TLTR	
5	8552-8816	1500 gal 15% HCL Acid, 6730 bbls Fresh Slickwater, 20158 TLTR	
5	8142-8497	1500 gal 15% HCL Acid, 6561 bbls Fresh Slickwater, 26824 TLTR	
5	7774-8092	1500 gal 15% HCL Acid, 6554 bbls Fresh Slickwater, 33459 TLTR	
5	7368-7702	1500 gal 15% HCL Acid, 6550 bbls Fresh Slickwater, 39665 TLTR	
5	7014-7289	1500 gal 15% HCL Acid, 6554 bbls Fresh Slickwater, 45719 TLTR	
5	6627-6956	1500 gal 15% HCL Acid, 6281 bbls Fresh Slickwater, 52052 TLTR	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Thyme 3419 3-5H
Doc ID	1139424

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	6280-6561	1500 gal 15% HCL Acid, 6337 bbls Fresh Slickwater, 58420 TLTR	
5	5902-6222	1500 gal 15% HCL Acid, 6580 bbls Fresh Slickwater, 64954 TLTR	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Thyme 3419 3-5H
Doc ID	1139424

### 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	130	Basin Services 10 sack grout	14	none
Surface	17.5	13.38	68	326	Halliburton Extendacem and Swiftcem Systems	340	3% Calcium Chloride, .25 lbm Poly-E- Flake
Intermediate 1	12.25	9.63	36	872	Halliburton Extendacem and Swiftcem Systems	350	3% Calcium Chloride, .25 lbm Poly-E- Flake
Intermediate 2	8.75	7	26	5865	Halliburton Econocem and Halcem Systems	250	.4% Halad(R)- 9, 2lbm Kol-Seal, 2% Bentonite

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

May 14, 2013

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

Re: ACO1  
API 15-033-21780-01-00  
Thyme 3419 3-5H  
NW/4 Sec.05-34S-19W  
Comanche County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Tiffany Golay



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

# INVOICE

INVOICE NO.: 159  
 INVOICE DATE: 06/17/2013

SANDRIDGE ENERGY  
 123 ROBERT S KERR AVE  
 OKLAHOMA CITY, OK 73102-6406

YARD: WY WAYNOKA OK  
 LEASE: Thyme  
 WELL#: 3419 3-5H  
 RIG #: Lariat 20  
 Co/St: COMANCHE, KS

Tkt # WY-7-1 04/20/2013

DESCRIPTION	FOOTAGE	QUANTITY	RATE	AMOUNT
4/20/2013 DRILLED 30" CONDUCTOR HOLE				
4/20/2013 20" CONDUCTOR PIPE (.250 WALL)				
4/20/2013 6' X 6' CELLAR TINHORN WITH PROTECTIVE RING				
4/20/2013 DRILL & INSTALL 6' X 6' CELLAR TINHORN				
4/20/2013 DRILLED 20" MOUSE HOLE (PER FOOT)				
4/20/2013 16" CONDUCTOR PIPE (.250 WALL)				
4/20/2013 MOBILIZATION OF EQUIPMENT & ROAD PERMITTING FEE				
4/20/2013 WELDING SERVICES FOR PIPE & LIDS				
4/20/2013 PROVIDED EQUIPMENT & LABOR TO ASSIST IN PUMPING CONCRETE				
4/20/2013 PROVIDED METAL LIDS (1 FOR CONDUCTOR & 2 FOR MOUSEHOLE PIPE)				
4/20/2013 14 YARDS OF 10 SACK GROUT				
4/20/2013 TAXABLE ITEMS				11,150.00
4/20/2013 BID + TAXABLE ITEMS				10,100.00

Sub Total: 21,250.00<sup>✓</sup>  
 Tax COMANCHE COUNTY (6.3 %): 702.45  
**PLEASE PAY THIS AMOUNT: \$ 21,952.45**



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MAY 1 2013

HALLIBURTON

## Cementing Job Summary

REGULATORY DEPT

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2994736	Quote #:	Sales Order #: 900391095
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep:	
Well Name: Thyme 3419	Well #: 3-5H	API/UWI #: 15-033-21780	
Field:	City (SAP): COLDWATER	County/Parish: Comanche	State: Kansas
Legal Description: Section 5 Township 34S Range 19W			
Contractor: LARIAT		Rig/Platform Name/Num: 20	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FRENCH, JEREMY		Srcv Supervisor: RODRIGUEZ, EDGAR MBU ID Emp #: 442125	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BERUMEN, EDUARDO	8	267804	RAMIREZ, JORGE M.	8	498481	RODRIGUEZ, EDGAR Alejandro	8	442125

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
4/27/2013	8	3						

TOTAL *Total is the sum of each column separately*

## Job

## Job Times

Formation Name	Date	Time	Time Zone
Formation Depth (MD) Top Bottom	Called Out	27 - Apr - 2013	02:00 CST
Form Type BHST	On Location	27 - Apr - 2013	07:30 CST
Job depth MD 330. ft Job Depth TVD 330. ft	Job Started	27 - Apr - 2013	13:37 CST
Water Depth Wk Ht Above Floor 6. ft	Job Completed	27 - Apr - 2013	14:26 CST
Perforation Depth (MD) From To	Departed Loc	27 - Apr - 2013	16:00 CST

## Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
17.5" Open Hole				17.5					330.		
13.375" Water String	Unknown		13.375	12.415	68.	BTC	N-80		330.		

Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG, TOP, 13 3/8, HWE, 11.79 MIN/12.72	1	EA		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	13 3/8	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	13 3/8	1	HES
Stage Tool										Centralizers			

## Miscellaneous Materials

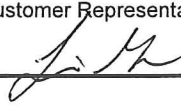
Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

## Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	

# HALLIBURTON

# Cementing Job Summary

1	Fresh Water		10.00	bbl	8.33	.0	.0	.0	
2	Lead Cement	EXTENDACEM (TM) SYSTEM (452981)	210.0	sacks	12.4	2.11	11.57		11.57
	3 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	11.571 Gal	FRESH WATER							
3	Tail Cement	SWIFTCEM (TM) SYSTEM (452990)	130.0	sacks	15.6	1.2	5.32		5.32
	2 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.319 Gal	FRESH WATER							
4	Displacement		44.00	bbl	8.33	.0	.0	.0	
<b>Calculated Values</b>		<b>Pressures</b>			<b>Volumes</b>				
Displacement	44	Shut In: Instant		Lost Returns		Cement Slurry	107	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	50	Actual Displacement	44	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	161
<b>Rates</b>									
Circulating	5	Mixing	5	Displacement	5	Avg. Job	5		
Cement Left In Pipe	Amount	39.65 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
<b>The Information Stated Herein Is Correct</b>				Customer Representative Signature					
									



RECEIVED

HALLIBURTON

MAY 1 2013

## Cementing Job Summary

REGULATORY DEPT  
SANDRIDGE ENERGY

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2994736	Quote #:	Sales Order #: 900398701
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep: Mueller, Justin	
Well Name: Thyme 3419	Well #: 3-5H	API/UWI #: 15-033-21780	
Field:	City (SAP): COLDWATER	County/Parish: Comanche	State: Kansas
Legal Description: Section 5 Township 34S Range 19W			
Contractor: LARIAT		Rig/Platform Name/Num: 20	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FRENCH, JEREMY		Srvc Supervisor: AGUILERA, FABIAN	MBU ID Emp #: 442123

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
AGUILERA, FABIAN J	9	442123	ESTRADA, JOSE Corral	9	541275	MENDOZA, VICTOR	9	442596
NASH, ANDREW Mark	9	536983						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
4/28/2013	9	1						

TOTAL Total is the sum of each column separately

## Job

## Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					28 - Apr - 2013	00:00	CST
Form Type			BHST	On Location	28 - Apr - 2013	00:00	CST
Job depth MD	877. ft		Job Depth TVD	877. ft	Job Started	28 - Apr - 2013	18:26
Water Depth			Wk Ht Above Floor	5. ft	Job Completed	28 - Apr - 2013	19:33
Perforation Depth (MD)	From		To		Departed Loc	28 - Apr - 2013	22:00

## Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
12.25" Open Hole				12.25				330.	900.		
13.375" Water String	Unknown		13.375	12.415	68.	BTC	N-80	.	330.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	900.		

Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG, TOP, 9 5/8, HWE, 8.16 MIN/9.06 MA	1	EA		

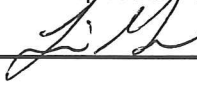
## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

## Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

## Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Fresh Water		10.00	bbl	8.33	.0	.0	.0		
2	Lead Cement	EXTENDACEM (TM) SYSTEM (452981)	225.0	sacks	12.4	2.11	11.61		11.61	
	3 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)								
	0.25 lbm	POLY-E-FLAKE (101216940)								
	11.609 Gal	FRESH WATER								
3	Tail Cement	SWIFTCEM (TM) SYSTEM (452990)	125.0	sacks	15.6	1.2	5.32		5.32	
	2 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)								
	0.125 lbm	POLY-E-FLAKE (101216940)								
	5.319 Gal	FRESH WATER								
4	Displacement		64.00	bbl	8.33	.0	.0	.0		
Calculated Values			Pressures			Volumes				
Displacement	64 BBL	Shut In: Instant		Lost Returns	NO	Cement Slurry	112 BBL	Pad		
Top Of Cement	SURFACE	5 Min		Cement Returns	54 BBL	Actual Displacement	64 BBL	Treatment		
Frac Gradient		15 Min		Spacers	10 BBL	Load and Breakdown		Total Job		
Rates										
Circulating	5	Mixing	5	Displacement	6	Avg. Job				
Cement Left In Pipe	Amount	42 ft	Reason	Shoe Joint						
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID			
The Information Stated Herein Is Correct				Customer Representative Signature						
										



REGULATORY DEPT  
SANDRIDGE ENERGY

The Road to Excellence Starts with Safety

Sold To #: 305021		Ship To #: 2994736		Quote #:		Sales Order #: 900417308	
Customer: SANDRIDGE ENERGY INC EBUSINESS				Customer Rep: ..., Louise			
Well Name: Thyme 3419			Well #: 3-5H		API/UWI #: 15-033-21780		
Field:		City (SAP): COLDWATER		County/Parish: Comanche		State: Kansas	
Legal Description: Section 5 Township 34S Range 19W							
Contractor: Lariat			Rig/Platform Name/Num: 20				
Job Purpose: Cement Intermediate Casing							
Well Type: Development Well				Job Type: Cement Intermediate Casing			
Sales Person: FRENCH, JEREMY			Srvc Supervisor: AGUILERA, FABIAN		MBU ID Emp #: 442123		

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
AGUILERA, FABIAN	12	442123	BERUMEN, EDUARDO	12	267804	NASH, ANDREW Mark	12	536983

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
5/6/2013	12	1						
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name	Formation Depth (MD) Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Wk Ht Above Floor	Perforation Depth (MD) From	To	Date	Time	Time Zone
			BHST	5865. ft	5415. ft		5. ft			05 - May - 2013	23:00	CST
										06 - May - 2013	05:00	CST
										06 - May - 2013	12:59	CST
										06 - May - 2013	14:06	CST
										06 - May - 2013	16:30	CST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
8.75" Open Hole				8.75				900.	5826.		
7" Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5826.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	900.		

Tools and Accessories

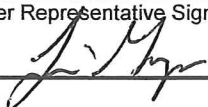
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Rig Supplied Gel Water		30.00	bbl	8.33	.0	.0	.0		
2	Lead Cement	ECONOCEM (TM) SYSTEM (452992)	150.0	sacks	13.6	1.53	7.24		7.24	
	0.4 %	HALAD(R)-9, 50 LB (100001617)								
	2 lbm	KOL-SEAL, BULK (100064233)								
	2 %	BENTONITE, BULK (100003682)								
	7.24 Gal	FRESH WATER								
3	Tail Cement	HALCEM (TM) SYSTEM (452986)	100.0	sacks	15.6	1.19	5.08		5.08	
	0.4 %	HALAD(R)-9, 50 LB (100001617)								
	2 lbm	KOL-SEAL, BULK (100064233)								
	5.076 Gal	FRESH WATER								
4	Displacement		221.00	bbl	8.33	.0	.0	.0		
Calculated Values			Pressures			Volumes				
Displacement	221 BBL	Shut In: Instant		Lost Returns	NO	Cement Slurry	62 BBL	Pad		
Top Of Cement	3663 FT.	5 Min		Cement Returns	NO	Actual Displacement	221 BBL	Treatment		
Frac Gradient		15 Min		Spacers	30 BBL	Load and Breakdown		Total Job		
Rates										
Circulating	5		Mixing	5		Displacement	7		Avg. Job	6
Cement Left In Pipe	Amount	84 ft	Reason	Shoe Joint						
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID			
The Information Stated Herein Is Correct				Customer Representative Signature						
										

# **Sandridge Energy, INC.(mid-con.)**

**Comanche County (KS27S)**

**Sec 05-T34S-R19W**

**Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20**

**Wellbore #1**

**Design: Wellbore #1**

## **Standard Survey Report**

**14 May, 2013**

# Archer Survey Report

<b>Company:</b>	Sandridge Energy, INC.(mid-con.)	<b>Local Co-ordinate Reference:</b>	Well Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20
<b>Project:</b>	Comanche County (KS27S)	<b>TVD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Site:</b>	Sec 05-T34S-R19W	<b>MD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Well:</b>	Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b> Comanche County (KS27S), KS South			
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Kansas South 1502		

<b>Site</b> Sec 05-T34S-R19W			
<b>Site Position:</b>		<b>Northing:</b>	161,087.00 usft
<b>From:</b>	Map	<b>Easting:</b>	1,733,061.00 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	37° 6' 19.690 N
		<b>Longitude:</b>	99° 24' 55.075 W
		<b>Grid Convergence:</b>	-0.56 °

<b>Well</b> Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20			
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b> 166,116.00 usft
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b> 1,735,054.00 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	37° 7' 9.603 N
		<b>Longitude:</b>	99° 24' 31.080 W
		<b>Ground Level:</b>	1,878.0 usft

<b>Wellbore</b> Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2013/04/17	5.35	65.07	51,674

<b>Design</b> Wellbore #1					
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	180.15	

<b>Survey Program</b> Date 2013/05/14					
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
969.0	9,630.0	Archer MWD Survey (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
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	
969.0	0.70	191.80	969.0	-5.8	-1.2	5.8	0.07	0.07	0.00	
<b>First Archer MWD Survey</b>										
1,213.0	0.50	123.50	1,213.0	-7.8	-0.6	7.8	0.28	-0.08	-27.99	
1,712.0	1.50	87.60	1,711.9	-8.8	7.7	8.7	0.23	0.20	-7.19	
2,187.0	0.70	95.10	2,186.8	-8.8	16.8	8.7	0.17	-0.17	1.58	
2,662.0	0.60	27.30	2,661.8	-6.8	20.8	6.8	0.15	-0.02	-14.27	
3,136.0	0.80	340.70	3,135.7	-1.5	20.9	1.4	0.12	0.04	-9.83	
3,611.0	1.00	323.90	3,610.7	5.0	17.4	-5.0	0.07	0.04	-3.54	
4,086.0	0.70	263.80	4,085.6	8.0	12.0	-8.1	0.19	-0.06	-12.65	



# Archer Survey Report

<b>Company:</b>	Sandridge Energy, INC.(mid-con.)	<b>Local Co-ordinate Reference:</b>	Well Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20
<b>Project:</b>	Comanche County (KS27S)	<b>TVD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Site:</b>	Sec 05-T34S-R19W	<b>MD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Well:</b>	Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
4,435.0	0.60	282.90	4,434.6	8.2	8.1	-8.2	0.07	-0.03	5.47
4,467.0	0.40	285.10	4,466.6	8.3	7.9	-8.3	0.63	-0.63	6.88
4,499.0	2.20	181.60	4,498.6	7.7	7.7	-7.7	7.27	5.63	-323.44
4,531.0	4.20	172.00	4,530.6	5.9	7.9	-5.9	6.45	6.25	-30.00
4,562.0	6.40	170.40	4,561.4	3.1	8.3	-3.1	7.11	7.10	-5.16
4,594.0	9.20	172.10	4,593.1	-1.2	9.0	1.2	8.78	8.75	5.31
4,626.0	12.40	178.40	4,624.6	-7.2	9.4	7.2	10.64	10.00	19.69
4,657.0	14.40	181.00	4,654.7	-14.4	9.4	14.3	6.74	6.45	8.39
4,689.0	15.70	179.30	4,685.6	-22.7	9.4	22.6	4.29	4.06	-5.31
4,721.0	17.60	179.30	4,716.3	-31.8	9.5	31.8	5.94	5.94	0.00
4,752.0	18.60	179.80	4,745.7	-41.5	9.6	41.4	3.26	3.23	1.61
4,784.0	19.80	179.80	4,775.9	-52.0	9.7	52.0	3.75	3.75	0.00
4,816.0	21.90	178.80	4,805.9	-63.4	9.8	63.4	6.66	6.56	-3.13
4,847.0	25.80	180.00	4,834.2	-75.9	9.9	75.9	12.68	12.58	3.87
4,879.0	27.80	182.90	4,862.8	-90.3	9.5	90.3	7.47	6.25	9.06
4,911.0	29.60	182.70	4,890.8	-105.7	8.8	105.7	5.63	5.63	-0.63
4,942.0	31.50	181.90	4,917.5	-121.4	8.2	121.4	6.27	6.13	-2.58
4,974.0	34.60	180.00	4,944.3	-138.9	7.9	138.8	10.21	9.69	-5.94
5,006.0	37.20	180.30	4,970.3	-157.6	7.8	157.6	8.14	8.13	0.94
5,037.0	38.70	180.80	4,994.7	-176.7	7.6	176.7	4.94	4.84	1.61
5,069.0	40.50	180.70	5,019.4	-197.1	7.4	197.1	5.63	5.63	-0.31
5,101.0	42.80	181.00	5,043.3	-218.3	7.1	218.3	7.21	7.19	0.94
5,132.0	44.90	181.20	5,065.6	-239.8	6.7	239.8	6.79	6.77	0.65
5,164.0	47.20	181.30	5,087.8	-262.8	6.1	262.8	7.19	7.19	0.31
5,196.0	49.40	180.50	5,109.1	-286.7	5.8	286.7	7.12	6.88	-2.50
5,227.0	50.20	180.40	5,129.1	-310.4	5.6	310.4	2.59	2.58	-0.32
5,259.0	50.10	180.00	5,149.6	-335.0	5.5	335.0	1.01	-0.31	-1.25
5,291.0	49.80	179.80	5,170.2	-359.5	5.5	359.5	1.05	-0.94	-0.63
5,322.0	49.10	179.50	5,190.4	-383.0	5.7	383.0	2.37	-2.26	-0.97
5,354.0	48.50	179.60	5,211.5	-407.1	5.9	407.1	1.89	-1.88	0.31
5,386.0	47.70	179.10	5,232.8	-430.9	6.1	430.9	2.76	-2.50	-1.56
5,417.0	49.70	178.50	5,253.3	-454.2	6.6	454.2	6.61	6.45	-1.94
5,449.0	53.30	178.50	5,273.2	-479.2	7.3	479.2	11.25	11.25	0.00
5,481.0	56.30	179.10	5,291.6	-505.4	7.8	505.4	9.50	9.38	1.88
5,512.0	57.40	181.10	5,308.6	-531.3	7.8	531.3	6.46	3.55	6.45
5,544.0	58.80	181.90	5,325.5	-558.5	7.1	558.5	4.86	4.38	2.50
5,576.0	61.40	182.30	5,341.5	-586.2	6.1	586.2	8.20	8.13	1.25
5,607.0	64.30	182.40	5,355.6	-613.8	4.9	613.7	9.36	9.35	0.32
5,639.0	67.10	182.80	5,368.8	-642.9	3.6	642.9	8.82	8.75	1.25
5,671.0	68.80	182.50	5,380.8	-672.5	2.2	672.5	5.38	5.31	-0.94
5,702.0	72.10	182.00	5,391.2	-701.7	1.1	701.7	10.75	10.65	-1.61
5,734.0	76.50	181.70	5,399.8	-732.5	0.1	732.5	13.78	13.75	-0.94

# Archer Survey Report

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<b>Project:</b>	Comanche County (KS27S)	<b>TVD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Site:</b>	Sec 05-T34S-R19W	<b>MD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Well:</b>	Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
5,766.0	80.40	181.30	5,406.2	-763.8	-0.7	763.8	12.25	12.19	-1.25	
5,797.0	83.90	180.50	5,410.5	-794.5	-1.2	794.5	11.58	11.29	-2.58	
5,829.0	87.40	179.50	5,412.9	-826.4	-1.2	826.4	11.37	10.94	-3.13	
5,906.0	87.70	179.00	5,416.2	-903.3	-0.2	903.3	0.76	0.39	-0.65	
5,937.0	87.60	179.50	5,417.4	-934.3	0.2	934.3	1.64	-0.32	1.61	
5,967.0	89.10	179.10	5,418.3	-964.3	0.6	964.3	5.17	5.00	-1.33	
5,998.0	90.40	179.10	5,418.4	-995.3	1.1	995.3	4.19	4.19	0.00	
6,028.0	90.90	178.80	5,418.1	-1,025.3	1.6	1,025.3	1.94	1.67	-1.00	
6,059.0	91.30	179.10	5,417.5	-1,056.3	2.2	1,056.3	1.61	1.29	0.97	
6,089.0	90.80	179.70	5,417.0	-1,086.3	2.5	1,086.3	2.60	-1.67	2.00	
6,120.0	90.30	180.20	5,416.7	-1,117.3	2.5	1,117.3	2.28	-1.61	1.61	
6,150.0	90.20	180.70	5,416.5	-1,147.3	2.3	1,147.3	1.70	-0.33	1.67	
6,181.0	89.50	181.10	5,416.6	-1,178.3	1.8	1,178.3	2.60	-2.26	1.29	
6,212.0	88.90	180.70	5,417.0	-1,209.3	1.3	1,209.3	2.33	-1.94	-1.29	
6,244.0	88.70	181.00	5,417.7	-1,241.3	0.8	1,241.2	1.13	-0.63	0.94	
6,276.0	88.80	180.70	5,418.4	-1,273.2	0.4	1,273.2	0.99	0.31	-0.94	
6,371.0	89.20	181.20	5,420.1	-1,368.2	-1.2	1,368.2	0.67	0.42	0.53	
6,466.0	89.60	181.00	5,421.1	-1,463.2	-3.0	1,463.2	0.47	0.42	-0.21	
6,561.0	90.00	181.60	5,421.4	-1,558.2	-5.2	1,558.2	0.76	0.42	0.63	
6,656.0	88.90	181.80	5,422.3	-1,653.1	-8.0	1,653.1	1.18	-1.16	0.21	
6,750.0	89.70	180.70	5,423.5	-1,747.1	-10.1	1,747.1	1.45	0.85	-1.17	
6,845.0	89.80	180.50	5,423.9	-1,842.1	-11.1	1,842.1	0.24	0.11	-0.21	
6,940.0	87.30	179.60	5,426.3	-1,937.0	-11.1	1,937.1	2.80	-2.63	-0.95	
7,035.0	88.60	179.80	5,429.7	-2,032.0	-10.6	2,032.0	1.38	1.37	0.21	
7,130.0	89.30	180.20	5,431.4	-2,127.0	-10.6	2,127.0	0.85	0.74	0.42	
7,225.0	88.90	180.20	5,432.9	-2,221.9	-11.0	2,222.0	0.42	-0.42	0.00	
7,320.0	89.10	180.40	5,434.6	-2,316.9	-11.5	2,317.0	0.30	0.21	0.21	
7,415.0	88.20	180.70	5,436.8	-2,411.9	-12.4	2,411.9	1.00	-0.95	0.32	
7,510.0	88.60	180.50	5,439.5	-2,506.9	-13.4	2,506.9	0.47	0.42	-0.21	
7,605.0	90.30	180.80	5,440.4	-2,601.8	-14.5	2,601.9	1.82	1.79	0.32	
7,700.0	89.60	180.50	5,440.4	-2,696.8	-15.5	2,696.9	0.80	-0.74	-0.32	
7,794.0	89.50	180.00	5,441.2	-2,790.8	-15.9	2,790.9	0.54	-0.11	-0.53	
7,889.0	88.00	180.20	5,443.3	-2,885.8	-16.1	2,885.8	1.59	-1.58	0.21	
7,984.0	86.20	179.90	5,448.1	-2,980.7	-16.2	2,980.7	1.92	-1.89	-0.32	
8,079.0	86.40	179.60	5,454.2	-3,075.5	-15.8	3,075.5	0.38	0.21	-0.32	
8,174.0	87.50	180.50	5,459.3	-3,170.3	-15.9	3,170.4	1.50	1.16	0.95	
8,269.0	88.70	180.30	5,462.4	-3,265.3	-16.5	3,265.3	1.28	1.26	-0.21	
8,364.0	89.40	180.70	5,464.0	-3,360.3	-17.4	3,360.3	0.85	0.74	0.42	
8,459.0	90.10	179.80	5,464.4	-3,455.3	-17.8	3,455.3	1.20	0.74	-0.95	
8,554.0	90.80	178.60	5,463.6	-3,550.3	-16.4	3,550.3	1.46	0.74	-1.26	
8,649.0	92.40	178.70	5,461.0	-3,645.2	-14.2	3,645.2	1.69	1.68	0.11	
8,744.0	92.20	179.60	5,457.2	-3,740.1	-12.8	3,740.1	0.97	-0.21	0.95	
8,839.0	92.40	179.40	5,453.4	-3,835.0	-12.0	3,835.0	0.30	0.21	-0.21	

# Archer Survey Report

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<b>Project:</b>	Comanche County (KS27S)	<b>TVD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Site:</b>	Sec 05-T34S-R19W	<b>MD Reference:</b>	WELL @ 1898.0usft (Original Well Elev)
<b>Well:</b>	Thyme 3119 3-5H/ Job # 04209-431-22/Lariat 20	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
8,934.0	91.40	179.80	5,450.2	-3,930.0	-11.3	3,930.0	1.13	-1.05	0.42	
9,029.0	90.90	181.10	5,448.3	-4,024.9	-12.1	4,025.0	1.47	-0.53	1.37	
9,124.0	91.60	181.60	5,446.2	-4,119.9	-14.3	4,119.9	0.91	0.74	0.53	
9,219.0	91.30	182.70	5,443.8	-4,214.8	-17.9	4,214.8	1.20	-0.32	1.16	
9,314.0	89.50	182.70	5,443.2	-4,309.7	-22.3	4,309.7	1.89	-1.89	0.00	
9,409.0	89.30	183.00	5,444.2	-4,404.6	-27.0	4,404.6	0.38	-0.21	0.32	
9,504.0	89.80	183.30	5,444.9	-4,499.4	-32.3	4,499.5	0.61	0.53	0.32	
9,580.0	89.90	183.20	5,445.1	-4,575.3	-36.6	4,575.4	0.19	0.13	-0.13	
<b>Last Archer MWD Survey</b>										
9,630.0	89.90	183.20	5,445.2	-4,625.2	-39.4	4,625.3	0.00	0.00	0.00	
<b>Projection to TD - PBHL Thyme 3-5H</b>										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
969.0	969.0	-5.8	-1.2	First Archer MWD Survey	
9,580.0	5,445.1	-4,575.3	-36.6	Last Archer MWD Survey	
9,630.0	5,445.2	-4,625.2	-39.4	Projection to TD	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/1/2013
Job End Date:	7/2/2013
State:	Kansas
County:	Comanche
API Number:	15-033-21780-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Thyme 3419 3-5H
Longitude:	-99.40863100
Latitude:	37.11933400
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	5,464
Total Base Water Volume (gal):	2,756,872
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	96.33756	
40/70 White	FTSI	Proppant					
			40/70 White	14808-60-7	100.00000	2.95428	
Hydrochloric Acid (HCl)	FTSI	Acid					
			Water	7732-18-5	85.00000	0.49629	
			Hydrogen Chloride	7647-01-0	15.00000	0.08758	
FRW-200	FTSI	Friction reducer					
			Water	7732-18-5	48.00000	0.02479	
			Copolymer of acrylamide and sodium acrylate	25987-30-8	33.00000	0.01705	
			Petroleum distillate hydrotreated light	64742-47-8	26.00000	0.01343	
			Acrylamide P/W acrylic acid, ammonium salt	26100-47-0	25.00000	0.01291	
			Ammonium Chloride	12125-02-9	12.00000	0.00620	
			Surfactant	Proprietary	7.00000	0.00362	
			Alcohols (C12-C14), ethoxylated	68439-50-9	4.00000	0.00207	
			Alcohols (C12-C16), ethoxylated	68551-12-2	4.00000	0.00207	
			Alcohols (C10-C16), ethoxylated	68002-97-1	4.00000	0.00207	

			Sorbitan Monooleate	1338-43-8	3.00000	0.00155
			Polyethylene glycol monooleate	9004-96-0	3.00000	0.00155
			Sorbitol Tetraoleate	61723-83-9	2.00000	0.00103
			Proprietary Component	Proprietary	1.50000	0.00077
			Alkyloxypolyethyleneoxyethanol	84133-50-6	1.00000	0.00052
			Ammonium Acrylate	10604-69-0	0.50000	0.00026
			Acrylamide	79-06-1	0.10000	0.00005
NE-100	FTSI	Non-emulsifier				
			Water	7732-18-5	90.00000	0.04323
			2-Butoxyethanol	111-76-2	10.00000	0.00480
			2-Propanol	67-63-0	10.00000	0.00480
			Dodecylbenzenesulfonic acid	27176-87-0	5.00000	0.00240
			Benzene, C10-16 Alkyl Derivatives	68648-87-3	0.04200	0.00002
			Unsulphonated Matter	3rd Party Proprietary	0.02800	0.00001
			Sulfuric Acid	7664-93-9	0.01400	0.00001
			Sulfur Dioxide	7446-09-5	0.00140	0.00000
CS-250 SI	FTSI	Scale Inhibitor				
			Water	7732-18-5	81.00000	0.00868
			Sodium Polyacrylate	9003-04-7	10.00000	0.00107
			Ethylene glycol	107-21-1	10.00000	0.00107
			Sodium chloride	7647-14-5	6.00000	0.00064
BIO-150	FTSI	Biocide				
			Gluteral	111-30-8	50.00000	0.00547
			Water	7732-18-5	50.00000	0.00547
			Methanol	67-56-1	0.50000	0.00005
CI-150	FTSI	Acid Corrosion Inhibitor				
			Ethylene Glycol	107-21-1	30.00000	0.00052
			Organic amine resin salt	Proprietary	30.00000	0.00052
			Isopropanol	67-63-0	30.00000	0.00052
			Aromatic aldehyde	Proprietary	10.00000	0.00017
			Alkylene Oxide Block Polymer	Proprietary	10.00000	0.00017
			Quaternary ammonium compound	Proprietary	10.00000	0.00017
			Dimethylformamide	68-12-2	10.00000	0.00017
			Water	7732-18-5	5.00000	0.00009
			Diethylene glycol	111-46-6	1.00000	0.00002
			Fatty Acid Salt	Proprietary	0.10000	0.00000
			Aliphatic alcohol	Proprietary	0.10000	0.00000
			Fatty Acid	Proprietary	0.10000	0.00000
FE-100L	FTSI	Iron control				
			Water	7732-18-5	60.00000	0.00074
			Citric acid	77-92-9	55.00000	0.00068

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.

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

Section 32  
33S 19W

Section 33  
33S 19W

RACHEL 3319 2-33H RACHEL 3319 1-33H

PEPPER 3419 3-4H

PEPPER 3419 4-4H

THYME 3419 3-5H

THYME 3419 2-5H

THYME 3419 1-5H

Miss Entry: 5472'  
-99.400122 37.11845

Top Perf: 5902'  
-99.400079 37.118233

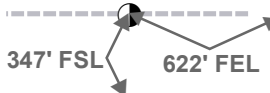
Section 5  
34S 19W

Comanche County

Section 4  
34S 19W

Bottom Perf: 9303'  
-99.399809 37.107759

BHL: 9630'  
-99.39981 37.106548



Section 8  
34S 19W

Section 9  
34S 19W



Actual Bottom-Hole Location of Thyme 3419 3-5H  
Comanche County, Kansas  
T&R: 34S 19W  
Section: 5, 622' FEL & 347' FSL  
-99.39981 37.106548

1 in = 785 ft

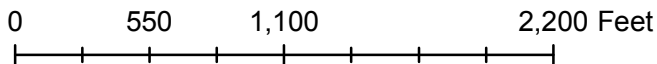


● Actual BH Location

\* SandRidge Wells

--- Perf

□ Sections



Draftsman:

Aaron Birk

Draft Date: 8/12/2013

Drawing Name/Number:

Addendum\_Thyme 3419 3-5H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502

## Remarks

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Tiffany Golay 07/25/013 10:28 am	Conductor weight= 106.5 lbs/ft
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Tiffany Golay 07/25/013 10:17 am	Well was completed using and open hole packer system; no liner was cemented
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Tiffany Golay 08/07/013 02:18 pm	Additional Fluid Mgmt Info: 1500 bbls hauled to Weinett Disposal LLC, Sec 1079 Block 43, Lipscomb, TX; 35 bbls hauled to Gray Mud Disposal, 15-24S-7W, Garfield, OK; 3060 bbls hauled to Guard, Inc. 23-22N-13W, Major, OK
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