



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1204681
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: _____

1204681

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Young 3406 1-28H
Doc ID	1204681

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	5518-5520		
5	5618-5620		
5	5720-5722		
5	5910-5912		
5	6012-6014		
5	6112-6114		
5	6168-6170		
5	6230-6232		
5	6281-6283		
5	6332-6334		
5	6394-6396		
5	6460-6462		
5	6561-6563		
5	6628-6630		
5	6704-6706		
5	6769-6771		
5	6842-6844		
5	6888-6890		
5	6993-6995		
5	7075-7077		
5	7130-7132		
5	7207-7209		
5	7250-7252		
5	7306-7308		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Young 3406 1-28H
Doc ID	1204681

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	7362-7364		
5	7414-7416		
5	7468-7470		
5	7558-7560		
5	7625-7626		
5	7696-7698		
5	7748-7750		
5	7800-7802		
5	7890-7892		
5	7946-7948		
5	7991-7993		
5	8052-8054		
5	8115-8117		
5	8210-8212		
5	8267-8269		
5	8320-8322		
5	8398-8400		

JOB SUMMARY			PROJECT NUMBER SOK 3352	TICKET DATE 01/20/14
COUNTY Harper	State Oklahoma	COMPANY Bridge Exploration & Produc	CUSTOMER REP Vince Brown	
LEASE NAME Young 3406	Well No. 1-28H	JOB TYPE Surface	EMPLOYEE NAME John Hall	

EMP NAME	John Hall	0					
	Joseph Klemm						
	Roy Morris						
	Randall Irvin						

Form. Name _____ Type: _____
Packer Type _____ Set At 0
Bottom Hole Temp. 80 Pressure _____
Retainer Depth _____ Total Depth 700'

Date	Called Out 1/20/2014	On Location 1/20/2014	Job Started 1/20/2014	Job Completed 1/20/2014
Time	1130am	200pm	800pm	1000pm

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		36#	9 1/2"		Surface	700'	1,500
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			12 1/4"		Surface	700'	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 Water	BBL.	10	8.33
Spacer type		BBL.		
Acid Type		Gal.		%
Acid Type		Gal.		%
Surfactant		Gal.		ln
NE Agent		Gal.		ln
Fluid Loss		Gal/Lb		ln
Gelling Agent		Gal/Lb		ln
Fric. Red.		Gal/Lb		ln
MISC.		Gal/Lb		ln

Perfpac Balls _____ Qty. _____
Other _____
Other _____
Other _____
Other _____

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
1/20	8.0	1/20	2.0	Surface
Total	8.0	Total	2.0	

Pressures

MAX	2,000 PSI	AVG.
MAX	6 BPM	AVG
Feet	44	Reason SHOE JOINT

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	190	TEX Lite Premium Plus 65	(6% Gel) 2% Calcium Chloride - 1/2pps Cello-Flake - .5% C-41P	11.11	2.01	12.40
2	160	Premium Plus (Class C)	2% Calcium Chloride - 1/2pps Cello-Flake	6.32	1.32	14.80
3	*100	Premium Plus (Class C)	*2% Calcium Chloride on side to use if necessary	*6.32	*1.32	*14.8

Summary

Preflush Breakdown	Type: _____	MAXIMUM _____	Lost Returns-1 _____	Actual TOC _____	Bump Plug PSI: _____	5 Min. _____	10 Min _____	15 Min _____	Preflush: BBI _____	10.00 _____	Type: Fresh Water
		1,500 PSI	NO/FULL	SURFACE	450				Load & Bkdn: Gal - BBI _____	N/A	Pad:Bbl -Gal _____
									Excess /Return BBI _____	35	Calc. Disp Bbl _____
									Calc. TOC: _____	SURFACE	Actual Disp. _____
									Final Circ. PSI: _____		Disp:Bbl _____
									Cement Slurry BBI _____	105.6	
									Total Volume BBI _____	166.10	

CUSTOMER REPRESENTATIVE _____ SIGNATURE _____

JOB SUMMARY			PROJECT NUMBER SOK 3372	TICKET DATE 02/02/14
COUNTY Harper	State Kansas	COMPANY Sandridge Exploration & Production	CUSTOMER REP Vince Brown	
LEASE NAME Young 3406	Well No. 1-28H	JOB TYPE Intermediate	EMPLOYEE NAME Bryan Douglas	

EMP NAME					
Bryan Douglas					
Rocky Anthis					
Flo Helkena					
Randall Irvin					

Form. Name _____ Type: _____
 Packer Type _____ Set At **3,544**
 Bottom Hole Temp. **155** Pressure _____
 Retainer Depth _____ Total Depth **5849**

Date	Called Out 2/1/2014	On Location 2/2/2014	Job Started 2/2/2014	Job Completed 2/2/2014
Time	2300	0100	0800	1100

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		26#	7"		Surface		5,000
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			8 1/2"		Surface	5,874	Shots/Ft.
Perforations							
Perforations							

Materials

Mud Type	WBM	Density	9	Lb/Gal
Disp. Fluid	Fresh Water	Density	8.33	Lb/Gal
Spacer type	3el Space	BBL.	30	9.20
Spacer type	BBL.			
Acid Type	Gal.		%	
Acid Type	Gal.		%	
Surfactant	Gal.		In	
NE Agent	Gal.		In	
Fluid Loss	Gal/Lb		In	
Gelling Agent	Gal/Lb		In	
Fric. Red.	Gal/Lb		In	
MISC.	Gal/Lb		In	

Perfpac Balls _____ Qty. _____
 Other _____
 Other _____
 Other _____
 Other _____

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
2/2	10.0	2/2	3.0	Intermediate
Total	10.0	Total	3.0	

Pressures

MAX	5,000 PSI	AVG.	500
Average Rates in BPM			
MAX	8 BPM	AVG	6
Cement Left in Pipe			
Feet	84	Reason	SHOE JOINT

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	310	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

Summary

Preflush	30	Type:	Gel Spacer	Preflush:	BBI	30.00	Type:	Gel Spacer
Breakdown		MAXIMUM	5,000 PSI	Load & Bkdn:	Gal - BBI	N/A	Pad:Bbl -Gal	N/A
		Lost Returns-N	NO/FULL	Excess /Return	BBI	N/A	Calc. Disp Bbl	223
		Actual TOC	3,620	Calc. TOC:		3,620	Actual Disp.	222.66
Average		Bump Plug PSI:	1,500	Final Circ.	PSI:	1,000	Disp:Bbl	222.66
ISIP	5 Min.	10 Min.	15 Min.	Cement Slurry:	BBI	100.1		
				Total Volume	BBI	352.80		

CUSTOMER REPRESENTATIVE _____ SIGNATURE *J.P. Brown*

Mid-Continent Conductor, LLC

P.O. Box 1570
Woodward, OK 73802
Phone: (580)254-5400
Fax: (580)254-3242

Invoice

Date	Invoice #
1/14/2014	2378

Bill To
SandRidge Energy, Inc. Attn: Purchasing Mgr. 123 Robert S. Kerr Avenue Oklahoma City, OK. 73102

Ordered By	Terms	Date of Service	Lease Name/Legal Desc.	Drilling Rig
Parker Waldrige	Net 30	1/15/2014	Young 3406 1-28H, Harper Cnty, KS	Latshaw 27

Item	Quantity	Description
Conductor Hole	90	Drilled 90 ft. conductor hole
20" Pipe	90	Furnished 90 ft. of 20 inch conductor pipe
Mouse Hole	10	Drilled 10 ft. mouse hole
Mouse Hole	75	Drilled 75 ft. mouse hole
16" Pipe	85	Furnished 85 ft. of 16 inch mouse hole pipe
Cellar Hole	1	Drilled 6 X 6 cellar hole
6' X 6' Tinhorn	1	Furnished and set 6 X 6 tinhorn
Mud and Water	1	Furnished mud and water
Transport Truck - Conductor	1	Transport mud and water to location
Grout & Trucking	10	Furnished grout and trucking to location
Grout Pump	1	Furnished grout pump
Fence Panels	1	Furnished safety netting around conductor holes
Welder & Materials	1	Furnished welder and materials
Dirt Removal	1	Furnished labor and equipment for dirt removal
Cover Plate	1	Furnished cover plates
Permits	1	Permits
		Subtotal \$17,340.00
		Sales Tax (0.0%) \$0.00
		Total \$17,340.00

Company: Sandridge
Well Name: Young 3406 1-28H
Legals: Sec: 27 Township: 34S
 Range: 6W
County/State: Harper County KS
Rig Name: Latshaw 27

Customer Rep	Position	Directional Driller	MWD Operator
		Jon Ferguson	Jason Sylve
		Clark Summers	Chris Cooper

Young 3406 1-28H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
TieInPoint	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Survey	769.00	0.30	44.60	769.00	1.43	1.41	-1.70	0.04	0.04	5.80	44.60	2.01
Survey	951.00	0.20	251.70	951.00	1.67	1.45	-1.94	0.27	0.05	84.01	40.97	2.21
Survey	1407.00	0.20	73.40	1407.00	1.65	1.46	-1.92	0.09	0.00	39.10	41.50	2.20
Survey	1880.00	0.20	95.80	1880.00	1.80	3.07	-2.42	0.02	0.00	4.74	59.62	3.56
Survey	2355.00	0.10	336.70	2355.00	2.10	3.73	-2.85	0.06	0.02	25.07	60.62	4.28
Survey	2735.00	0.10	279.20	2735.00	2.46	3.27	-3.10	0.03	0.00	15.13	53.05	4.09
Survey	3210.00	0.10	114.10	3210.00	2.36	3.24	-3.00	0.04	0.00	34.76	53.93	4.01
Survey	3495.00	0.40	10.00	3495.00	3.24	3.64	-3.94	0.15	0.11	36.53	48.33	4.87
Survey	3654.00	1.50	240.60	3653.98	2.76	1.92	-3.11	1.12	0.69	81.38	34.82	3.36
Survey	3685.00	3.30	251.40	3684.96	2.28	0.72	-2.38	5.96	5.81	34.84	17.53	2.39
Survey	3717.00	5.30	263.60	3716.86	1.82	-1.62	-1.43	6.84	6.25	38.13	318.33	2.44
Survey	3748.00	8.00	265.90	3747.65	1.51	-5.19	-0.36	8.75	8.71	7.42	286.22	5.41
Survey	3780.00	10.40	268.40	3779.24	1.27	-10.30	0.96	7.60	7.50	7.81	277.03	10.38
Survey	3812.00	12.50	268.60	3810.60	1.10	-16.65	2.49	6.56	6.56	0.62	273.78	16.69
Survey	3843.00	14.60	268.00	3840.74	0.89	-23.91	4.25	6.79	6.77	1.94	272.13	23.93
Survey	3875.00	16.40	269.00	3871.57	0.67	-32.46	6.29	5.69	5.63	3.13	271.18	32.47
Survey	3906.00	18.20	269.20	3901.17	0.52	-41.68	8.41	5.81	5.81	0.65	270.71	41.68
Survey	3938.00	19.80	269.90	3931.42	0.44	-52.09	10.72	5.05	5.00	2.19	270.48	52.09
Survey	3970.00	21.60	273.20	3961.35	0.76	-63.39	12.83	6.70	5.62	10.31	270.69	63.39
Survey	4002.00	24.10	274.50	3990.84	1.60	-75.79	14.66	7.97	7.81	4.06	271.21	75.81
Survey	4034.00	27.70	272.90	4019.62	2.49	-89.73	16.77	11.46	11.25	5.00	271.59	89.76
Survey	4065.00	30.50	272.00	4046.71	3.13	-104.79	19.37	9.14	9.03	2.90	271.71	104.84
Survey	4097.00	33.30	271.30	4073.87	3.61	-121.70	22.52	8.83	8.75	2.19	271.70	121.75
Survey	4128.00	36.50	270.60	4099.29	3.90	-139.43	26.04	10.40	10.32	2.26	271.60	139.48
Survey	4160.00	39.60	269.30	4124.49	3.88	-159.15	30.28	10.01	9.69	4.06	271.40	159.20
Survey	4192.00	42.50	268.00	4148.62	3.37	-180.16	35.27	9.45	9.06	4.06	271.07	180.19
Survey	4223.00	45.60	268.60	4170.89	2.74	-201.70	40.50	10.09	10.00	1.94	270.78	201.72
Survey	4255.00	48.40	269.00	4192.71	2.25	-225.10	45.99	8.80	8.75	1.25	270.57	225.11
Survey	4286.00	51.50	268.70	4212.66	1.77	-248.82	51.53	10.03	10.00	0.97	270.41	248.83
Survey	4318.00	53.90	267.20	4232.05	0.86	-274.25	57.86	8.38	7.50	4.69	270.18	274.25
Survey	4349.00	55.80	265.70	4249.89	-0.71	-299.55	64.81	7.29	6.13	4.84	269.86	299.55
Survey	4381.00	57.70	265.00	4267.44	-2.89	-326.22	72.65	6.21	5.94	2.19	269.49	326.23
Survey	4412.00	59.60	265.00	4283.57	-5.20	-352.59	80.55	6.13	6.13	0.00	269.16	352.63
Survey	4444.00	60.30	265.30	4299.59	-7.54	-380.19	88.75	2.33	2.19	0.94	268.86	380.26
Survey	4475.00	60.20	265.10	4314.98	-9.79	-407.01	96.68	0.65	0.32	0.65	268.62	407.13
Survey	4507.00	60.40	264.50	4330.83	-12.31	-434.69	105.07	1.74	0.62	1.88	268.38	434.86
Survey	4538.00	60.40	263.60	4346.14	-15.10	-461.50	113.54	2.52	0.00	2.90	268.13	461.75
Survey	4570.00	62.30	263.80	4361.48	-18.18	-489.41	122.52	5.96	5.94	0.62	267.87	489.75
Survey	4602.00	62.80	261.70	4376.23	-21.77	-517.58	132.06	6.03	1.56	6.56	267.59	518.04
Survey	4633.00	62.50	258.60	4390.47	-26.48	-544.70	142.46	8.93	0.97	10.00	267.22	545.34
Survey	4664.00	62.80	255.10	4404.72	-32.74	-571.51	154.31	10.07	0.97	11.29	266.72	572.45

Young 3406 1-28H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	4696.00	63.50	252.00	4419.18	-40.83	-598.89	168.08	8.92	2.19	9.69	266.10	600.28
Survey	4727.00	64.90	248.70	4432.67	-50.21	-625.16	182.86	10.59	4.52	10.65	265.41	627.17
Survey	4759.00	66.00	245.20	4445.97	-61.61	-651.94	199.73	10.53	3.44	10.94	264.60	654.84
Survey	4791.00	66.20	241.80	4458.94	-74.66	-678.12	218.08	9.73	0.63	10.63	263.72	682.22
Survey	4823.00	66.40	238.10	4471.81	-89.33	-703.48	237.84	10.61	0.63	11.56	262.76	709.13
Survey	4854.00	67.10	234.80	4484.05	-105.07	-727.21	258.30	10.04	2.26	10.65	261.78	734.76
Survey	4886.00	67.90	231.40	4496.30	-122.82	-750.85	280.70	10.13	2.50	10.63	260.71	760.83
Survey	4917.00	68.00	228.40	4507.94	-141.33	-772.82	303.48	8.98	0.32	9.68	259.64	785.64
Survey	4949.00	68.10	225.10	4519.90	-161.66	-794.44	327.97	9.57	0.31	10.31	258.50	810.72
Survey	4981.00	69.00	221.90	4531.60	-183.26	-814.94	353.45	9.72	2.81	10.00	257.33	835.29
Survey	5012.00	69.80	219.40	4542.51	-205.28	-833.84	379.01	7.98	2.58	8.06	256.17	858.74
Survey	5043.00	70.60	217.80	4553.01	-228.07	-852.04	405.17	5.50	2.58	5.16	255.01	882.04
Survey	5075.00	71.70	214.90	4563.35	-252.46	-869.99	432.83	9.24	3.44	9.06	253.82	905.88
Survey	5106.00	72.80	212.30	4572.80	-277.05	-886.32	460.35	8.74	3.55	8.39	252.64	928.61
Survey	5138.00	74.00	209.20	4581.94	-303.40	-901.99	489.44	10.01	3.75	9.69	251.41	951.65
Survey	5170.00	74.50	205.60	4590.63	-330.74	-916.16	519.18	10.94	1.56	11.25	250.15	974.03
Survey	5201.00	74.40	202.40	4598.94	-358.02	-928.31	548.43	9.95	0.32	10.32	248.91	994.96
Survey	5233.00	75.00	199.20	4607.39	-386.87	-939.26	578.95	9.83	1.88	10.00	247.61	1015.81
Survey	5264.00	77.20	197.00	4614.84	-415.47	-948.61	608.89	9.89	7.10	7.10	246.35	1035.60
Survey	5296.00	78.90	197.10	4621.47	-445.40	-957.79	640.09	5.32	5.31	0.31	245.06	1056.29
Survey	5327.00	79.40	196.20	4627.30	-474.57	-966.51	670.46	3.28	1.61	2.90	243.85	1076.74
Survey	5359.00	79.70	193.70	4633.11	-504.97	-974.63	701.89	7.74	0.94	7.81	242.61	1097.68
Survey	5391.00	79.90	192.90	4638.78	-535.62	-981.88	733.38	2.54	0.63	2.50	241.39	1118.47
Survey	5423.00	81.40	191.60	4643.98	-566.47	-988.58	764.95	6.17	4.69	4.06	240.19	1139.38
Survey	5454.00	82.80	189.60	4648.24	-596.65	-994.23	795.64	7.82	4.52	6.45	239.03	1159.52
Survey	5487.00	84.60	187.40	4651.86	-629.09	-999.08	828.37	8.58	5.45	6.67	237.80	1180.64
Survey	5518.00	86.10	185.00	4654.37	-659.80	-1002.41	859.08	9.11	4.84	7.74	236.65	1200.07
Survey	5550.00	87.50	183.40	4656.16	-691.66	-1004.75	890.70	6.64	4.38	5.00	235.46	1219.80
Survey	5581.00	89.20	181.80	4657.05	-722.62	-1006.15	921.24	7.53	5.48	5.16	234.31	1238.76
Survey	5676.00	89.30	180.80	4658.29	-817.59	-1008.31	1014.47	1.06	0.11	1.05	230.96	1298.13
Survey	5771.00	88.80	179.90	4659.87	-912.57	-1008.89	1107.37	1.08	0.53	0.95	227.87	1360.38
Survey	5878.00	89.10	179.10	4661.83	-1019.55	-1007.96	1211.68	0.80	0.28	0.75	224.67	1433.69
Survey	5934.00	90.10	179.00	4662.22	-1075.54	-1007.03	1266.17	1.79	1.79	0.18	223.12	1473.40
Survey	6029.00	87.50	176.60	4664.21	-1170.43	-1003.39	1358.08	3.72	2.74	2.53	220.61	1541.65
Survey	6124.00	88.90	178.90	4667.19	-1265.30	-999.66	1449.95	2.83	1.47	2.42	218.31	1612.55
Survey	6218.00	91.20	181.80	4667.11	-1359.28	-1000.24	1541.88	3.94	2.45	3.09	216.35	1687.64
Survey	6313.00	91.10	181.60	4665.21	-1454.22	-1003.06	1635.22	0.24	0.11	0.21	214.60	1766.60
Survey	6408.00	90.20	179.70	4664.13	-1549.20	-1004.14	1728.23	2.21	0.95	2.00	212.95	1846.16
Survey	6503.00	89.60	179.00	4664.30	-1644.19	-1003.06	1820.79	0.97	0.63	0.74	211.39	1926.00
Survey	6598.00	88.60	178.90	4665.79	-1739.16	-1001.32	1913.19	1.06	1.05	0.11	209.93	2006.82
Survey	6692.00	88.90	181.90	4667.84	-1833.12	-1001.98	2005.11	3.21	0.32	3.19	208.66	2089.09
Survey	6786.00	91.10	181.00	4667.84	-1927.08	-1004.36	2097.40	2.53	2.34	0.96	207.53	2173.10
Survey	6880.00	91.00	179.90	4666.12	-2021.06	-1005.10	2189.36	1.17	0.11	1.17	206.44	2257.19
Survey	6975.00	90.40	179.30	4664.96	-2116.05	-1004.43	2282.01	0.89	0.63	0.63	205.39	2342.34
Survey	7070.00	90.30	178.60	4664.38	-2211.03	-1002.69	2374.41	0.74	0.11	0.74	204.39	2427.76
Survey	7164.00	88.90	177.90	4665.04	-2304.98	-999.82	2465.57	1.67	1.49	0.74	203.45	2512.48
Survey	7259.00	89.30	178.10	4666.53	-2399.91	-996.50	2557.59	0.47	0.42	0.21	202.55	2598.57
Survey	7353.00	89.60	179.10	4667.43	-2493.88	-994.20	2648.89	1.11	0.32	1.06	201.73	2684.75

Young 3406 1-28H Surveys

Type	M Depth	Incl.	Azimuth	TVD	North	East	V Section	Dogleg	B Rate	T Rate	Clos Azi	Clos Dist
Survey	7448.00	89.40	180.80	4668.26	-2588.87	-994.12	2741.66	1.80	0.21	1.79	201.01	2773.18
Survey	7543.00	89.90	181.20	4668.84	-2683.85	-995.78	2834.79	0.67	0.53	0.42	200.36	2862.63
Survey	7637.00	89.10	180.80	4669.66	-2777.83	-997.42	2926.95	0.95	0.85	0.43	199.75	2951.47
Survey	7732.00	90.50	183.10	4669.99	-2872.77	-1000.65	3020.38	2.83	1.47	2.42	199.20	3042.06
Survey	7827.00	85.80	177.30	4673.06	-2967.65	-1000.99	3113.13	7.85	4.95	6.11	198.64	3131.92
Survey	7979.00	89.50	180.00	4679.29	-3119.44	-997.42	3260.64	3.01	2.43	1.78	197.73	3275.02
Survey	8073.00	91.10	180.80	4678.80	-3213.43	-998.08	3352.59	1.90	1.70	0.85	197.25	3364.86
Survey	8168.00	90.70	181.60	4677.31	-3308.40	-1000.07	3445.79	0.94	0.42	0.84	196.82	3456.25
Survey	8200.00	90.90	181.40	4676.86	-3340.39	-1000.91	3477.21	0.88	0.63	0.62	196.68	3487.12
Survey	8263.00	91.00	181.90	4675.82	-3403.35	-1002.72	3539.10	0.81	0.16	0.79	196.42	3547.99
Survey	8359.00	90.30	181.40	4674.73	-3499.30	-1005.48	3633.42	0.90	0.73	0.52	196.03	3640.89
Survey	8453.00	90.40	181.40	4674.16	-3593.27	-1007.78	3725.70	0.11	0.11	0.00	195.67	3731.92
Survey	8548.00	93.30	183.70	4671.09	-3688.11	-1012.00	3819.25	3.90	3.05	2.42	195.34	3824.43
Survey	8642.00	89.20	180.50	4669.04	-3781.99	-1015.44	3911.69	5.53	4.36	3.40	195.03	3915.94
PrjCalcPnt	8689	89.2	180.5	4669.70	-3828.98	-1015.85	3957.68	0	0	0	194.86	3961.45

Sandridge

Location: Kansas Installation: Harper County
 Field: Sec 27 - 34S - 6W Well: Young 3406 1-28H

Installation Data

Name	Latitude	Longitude	Northing	Easting
Harper County	N37 3 57.49	W97 57 55.11	145842.00	2156022.00

Coordinate System: Kansas State Planes, Southern Zone

Slot Data

Name	North [ft]	East [ft]	Latitude	Longitude	Northing	Easting
Young 3406 1-28H	-344.99 N	403.98 E	N37 3 54.06	W97 57 50.15	145497.00	2156426.00

Elevation Data

Slot - Mean Sea Level [ft]	Mean Sea Level - Mudline/Ground level [ft]	Slot - Mudline/Ground level [ft]
0.00	0.00	0.00

WELL PROFILE DATA

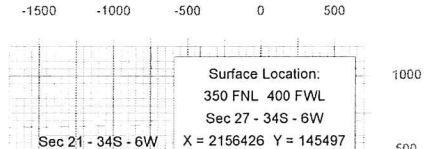
Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
KOP	3678.50	0.00	0.00	3678.50	0.00	0.00	0.00	-0.00
End of Build	4458.67	62.41	269.89	4313.28	-0.71	-384.54	8.00	83.01
End of Hold	4458.83	62.41	269.89	4313.20	-0.71	-384.39	0.00	82.98
Target Young 3406 1-28	5571.08	88.00	180.00	4663.56	-705.00	-1007.96	8.00	904.42
Target Young 3406 1-28	5771.08	88.00	180.00	4670.54	-904.88	-1007.96	0.00	1059.66
Target Young 3406 1-28	5795.43	89.95	180.00	4670.98	-929.45	-1007.96	8.00	1123.66
End of Drop	5800.58	89.74	180.00	4670.99	-934.60	-1007.96	4.00	1128.69
Target Target Line	8538.99	89.74	180.00	4683.31	-3672.98	-1007.96	0.00	3803.61
T.D. & Target Young 340	9465.81	90.16	180.00	4684.11	-4599.80	-1007.96	0.04	4708.94

TARGET DATA

MD	Inc	Azi	TVD	North	East	Name	Position
5571.08	88.00	180.00	4663.56	-705.00	-1007.96	Young 3406 1-28H - 83*	2155418.00 East: 144791.97 North
5771.08	88.00	180.00	4670.54	-904.88	-1007.96	Young 3406 1-28H - End 83*	2155418.00 East: 144592.08 North
5795.43	89.95	180.00	4670.98	-929.45	-1007.96	Young 3406 1-28H - LP	2155418.00 East: 144567.51 North
8538.99	89.74	180.00	4683.31	-3672.98	-1007.96	Target line	2155418.00 East: 141823.86 North
9465.81	90.16	180.00	4684.11	-4599.80	-1007.96	Young 3406 1-28H - BHL	2155418.00 East: 140897.00 North

Scale 1 inch = 1000 ft

East (feet) ->



Target Line: 02-09-14

Target: 4680 KBTVD @ 0 VS

89.95° @ 192.36 Azimuth Plane

Created by: admin

Date plotted: 13-Feb-2014

Plot reference is Young 3406 1-28H (P1m)

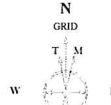
Ref well path is Young 3406 1-28H (PWP#1)

Coordinates are in feet reference Young 3406 1-28H

True Vertical Depths are reference Young 3406 1-28H

Measured Depths are reference Slot

Plot North is aligned to GRID North



13-Jan-2014

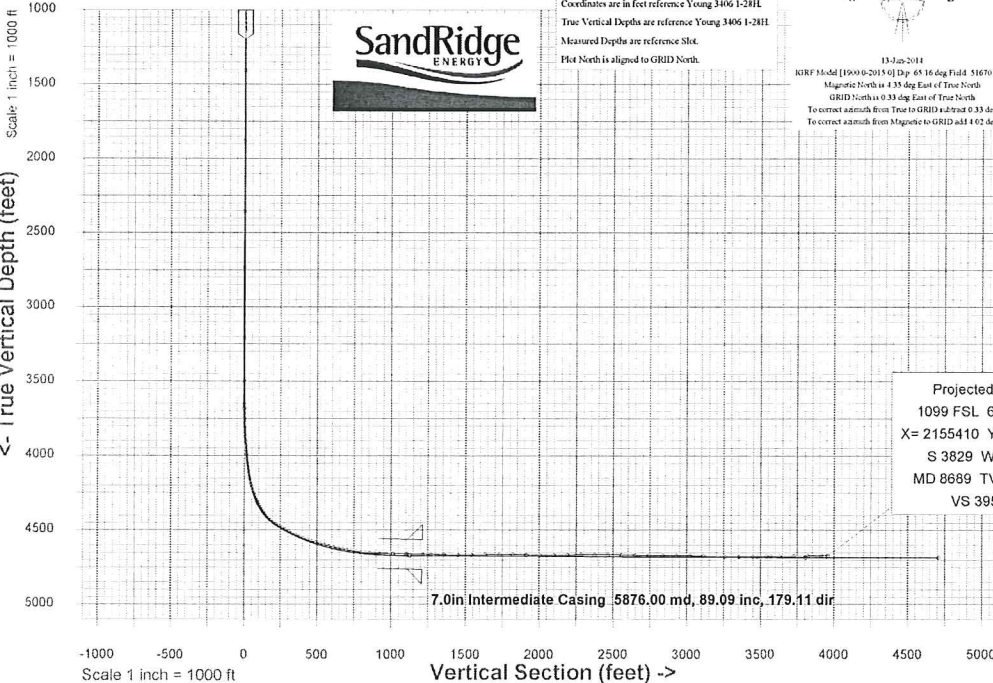
KREF Model [10000-2015 0] Dip: 65.16 deg Field: 51670 1 nT

Magnetic North is 4.35 deg East of True North

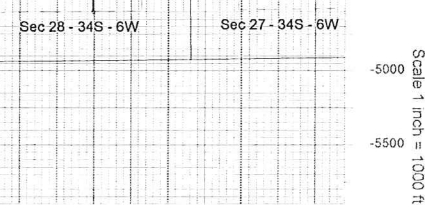
GRID North is 0.33 deg East of True North

To correct azimuth from True to GRID add 0.33 deg

To correct azimuth from Magnetic to GRID add 4.02 deg



Projected BHL
 1099 FSL 658 FEL
 X=2155410 Y= 141668
 S 3829 W 1016
 MD 8669 TVD 4670
 VS 3958



<- North(feet)

Scale 1 inch = 1000 ft

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/29/2014
Job End Date:	3/30/2014
State:	Kansas
County:	Harper
API Number:	15-077-22010-01-00
Operator Name:	SandRidge Energy
Well Name and Number:	Young 3406 1-28H
Longitude:	-97.96390000
Latitude:	37.06501000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	4,670
Total Base Water Volume (gal):	2,119,026
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	Well Operator	Carrier/Base Fluid	Water	7732-18-5	100.00000	95.86052	None
40/70 Premium Preferred Sand	Cimarron Acid	Proppant, Scouring, Fill	Crystalline Silica (quartz)	14808-60-7	100.00000	2.84623	None
15% Unihibited HCl Acid	Cimarron Acid	Etching, Dissolving, Cleaning	Water	7732-18-5	85.00000	0.62004	None
			Hydrochloric Acid	7647-01-0	15.00000	0.10942	None
			Water	7732-18-5	24.00000	0.00014	None
			Methanol	67-56-1	9.00000	0.00005	None
			Tar Bases-quinoline derivs-benzyl chloride/quaternized	72480-70-7	8.40000	0.00005	None
			Ethoxylated Nonylphenol	68412-54-4	8.40000	0.00005	None
			Isopropyl Alcohol	67-63-0	8.40000	0.00005	None
			2-Butoxyethanol	111-76-2	8.40000	0.00005	None
			Ethylene Glycol	107-21-1	8.40000	0.00005	None
			Cinnamaldehyde	104-55-2	8.40000	0.00005	None
			N-Dimethylformamide	68-12-2	8.40000	0.00005	None
			Triethyl Phosphate	78-40-0	8.40000	0.00005	None

40/70 Resin Coated Sand	Cimarron Acid	Proppant, Scouring					
			Crystalline Silica (quartz)	14808-60-7	97.00000	0.42506	None
Iron Control, Sodium Erythorbate	Cimarron Acid	Iron Control					
			Water	7732-18-5	55.50000	0.02585	None
			Methanol	67-56-1	12.70000	0.00593	None
			Poly(ethylene Oxide)	25322-68-3	9.10000	0.00424	None
			Nonylphenal Polyethylene Glycol Ether	127087-87-0	9.10000	0.00424	None
			Dinanylphenyl Polyoxyethylene	201602-88-2	9.10000	0.00424	None
			Isopropanol	67-63-0	4.60000	0.00212	None
			Sodium Erythorbate	6381-77-7	100.00000	0.00024	None
			Water	7732-18-5	54.50000	0.00019	None
			Isopropanol	67-63-0	13.60000	0.00005	None
			Polyglycol Ethers	52624-57-4	13.60000	0.00005	None
			Methanol	67-56-1	9.00000	0.00003	None
			Glycol Ether EB	111-76-2	9.00000	0.00003	None
FR-986, Cationic Friction Reducer	Cimarron Acid	Friction Reducer					
			Water	7732-18-5	50.00000	0.00473	None
			Petroleum Hydrotreated Light Distillate	64742-47-8	2.50000	0.00171	None
			Hydrochloric Acid	7647-01-0	16.80000	0.00159	None
			Phosphoric Acid	7664-38-2	16.80000	0.00159	None
			Ethylene Glycol	107-21-1	12.70000	0.00120	None
			Methanol	67-56-1	3.60000	0.00034	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.

* 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)