

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

1099193

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 #			API No. 15	
Name:			Spot Description:	
Address 1:			Sec	TwpS. R
Address 2:			Feet	from $\ \square$ North / $\ \square$ South Line of Section
City: Sta	ate: Ziŗ	D:+	Feet	from East / West Line of Section
Contact Person:			Footages Calculated from Ne	arest Outside Section Corner:
Phone: ()			□ NE □ NW	□ SE □ SW
CONTRACTOR: License #			GPS Location: Lat:	, Long:
Name:				. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:			Datum: NAD27 NAD27	
Purchaser:			County:	
Designate Type of Completion:			Lease Name:	Well #:
New Well Re-	Entry	Workover	Field Name:	
	_		Producing Formation:	
☐ Oil ☐ WSW	SWD	SIOW	Elevation: Ground:	Kelly Bushing:
☐ Gas ☐ D&A ☐ OG	☐ ENHR ☐ GSW	☐ SIGW ☐ Temp. Abd.	Total Vertical Depth:	Plug Back Total Depth:
CM (Coal Bed Methane)	G3W	Terrip. Abd.	Amount of Surface Pipe Set a	and Cemented at: Feet
Cathodic Other (Core	Expl etc.)		Multiple Stage Cementing Co	
If Workover/Re-entry: Old Well Info				Feet
Operator:				nent circulated from:
Well Name:			, ,	w/sx cmt.
Original Comp. Date:			loot doparto.	W,
<u> </u>	_	NHR Conv. to SWD		
Deepening Re-perf. Plug Back	Conv. to GS		Drilling Fluid Management F (Data must be collected from the	
Commingled	Permit #:		Chloride content:	ppm Fluid volume: bbls
Dual Completion	Permit #:		Dewatering method used:	
SWD	Permit #:		Location of fluid disposal if ha	uled offsite:
ENHR	Permit #:		On a water Manage	
GSW	Permit #:			L'acces II
				License #:
Spud Date or Date Rea	ched TD	Completion Date or		TwpS. R
Recompletion Date		Recompletion Date	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:

Page Two



Operator Name:				Lease N	Name: _			Well #:		
Sec Twp	S. R	East	West	County	i					
INSTRUCTIONS: Shopen and closed, flow and flow rates if gas to	ing and shut-in pressu	ires, whet	her shut-in pre	ssure reacl	ned stati	c level, hydrosta	tic pressures, bott			
Final Radioactivity Log files must be submitte						gs must be ema	iled to kcc-well-lo	gs@kcc.ks.go	v. Digital ele	ectronic log
Drill Stem Tests Taken (Attach Additional S		Ye	s No		L		n (Top), Depth an			nple
Samples Sent to Geol	ogical Survey	Ye	s No		Nam	е		Тор	Dat	um
Cores Taken Electric Log Run		☐ Ye ☐ Ye								
List All E. Logs Run:										
			CASING	RECORD	Ne	w Used				
		Repor	t all strings set-c	conductor, su	rface, inte	ermediate, producti	on, etc.			
Purpose of String	Size Hole Drilled		Casing (In O.D.)	Weig Lbs./		Setting Depth	Type of Cement	# Sacks Used	Type and Addi	
			ADDITIONAL	CEMENTIN	IG / SQL	JEEZE RECORD				
Purpose:  Perforate  Protect Casing  Plug Back TD	Depth Top Bottom	Туре	of Cement	# Sacks	# Sacks Used Type and Percent Additives					
Plug Off Zone										
	ulic fracturing treatment or otal base fluid of the hydra ing treatment information	aulic fractu	J	,	U	? Yes	No (If No, ski	p questions 2 ar p question 3) out Page Three		)
Shots Per Foot			D - Bridge Plug ach Interval Perf				cture, Shot, Cement mount and Kind of Ma		d	Depth
TUBING RECORD:	Size:	Set At:		Packer At		Liner Run:				
TOBING NECOND.	Size.	Sel Al.		racket At		Liller Rull.	Yes No			
Date of First, Resumed	Production, SWD or ENH	IR.	Producing Meth	nod:	g	Gas Lift C	other (Explain)			
Estimated Production Per 24 Hours	Oil B	bls.	Gas	Mcf	Wate	er Bl	ols. G	as-Oil Ratio	(	Gravity
DISPOSITIO	ON OF GAS:		N	METHOD OF	COMPLE	ETION:		PRODUCTION	ON INTERVAL	<u>.</u>
Vented Sold			pen Hole	Perf.		Comp. Con	nmingled mit ACO-4)			
(If vented, Sub	omit ACO-18.)		ther (Specify)		(SUDMIK )	-00-0) (SUDI	IIII ACO-4)			

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Britt 3406 2-20H
Doc ID	1099193

## All Electric Logs Run

R1D1 Nuclear Final
R1D1 Resistivity Final
Mudlog
Boresight

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## Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8401-8770	4318 bbls of water, 36 bbls acid, 75M lbs sand, 4354 TLTR	
5	8034-8320	4669 bbls of water, 36 bbls acid, 75M lbs sand, 9325 TLTR	
5	7678-7965	4191 bbls of water, 36 bbls acid, 75M lbs sand, 13638 TLTR	
5	7323-7609	4336 bbls of water, 36 bbls acid, 75M lbs sand, 18083 TLTR	
5	6967-7254	4228 bbls of water, 36 bbls acid, 76M lbs sand, 22423 TLTR	
5	6612-6898	4217 bbls of water, 36 bbls acid, 75M lbs sand, 26742 TLTR	
5	6256-6543	4108 bbls of water, 36 bbls acid, 74M lbs sand, 30941 TLTR	
5	5901-6187	4291 bbls of water, 36 bbls acid, 75M lbs sand, 35327 TLTR	
5	5545-5832	4158 bbls of water, 36 bbls acid, 74M lbs sand, 39563 TLTR	
5	5190-5476	4835 bbls of water, 36 bbls acid, 75M lbs sand, 44467 TLTR	

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## 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	Mid- Continent Conductor grout	10	none
Surface	12.25	9.63	36	700	Halliburton Extendac em and Swiftcem Systems	380	3% Calcium Chloride, .25 lbm Poly-E- Flake
Intermedia te	8.75	7	26	5143	Halliburton Econocem and Halcem Systems	310	.4% Halad(R)- 9, 2 lbm Kol-Seal, 2% Bentonite
Production Liner	6.12	4.5	11.6	8882	Hallibburto n Econocem System	490	.4% Halad(R)- 9, 10lbm Kol-Seal, 2% Bentonite, .25lbm Poly-E- Flake, .2% CFR-3, w/o Defoamer

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/

Sam Brownback, Governor

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

October 29, 2012

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

Re: ACO1 API 15-077-21879-01-00 Britt 3406 2-20H SE/4 Sec.20-34S-06W Harper 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

# Sandridge Energy Britt 3406 2-20H (Final)

Britt 3406 2-20H SL 310 FSL, 660 FEL Harper County, Kansas (Sandridge Energy) NAD27 / Grid

ence wellpath is Plan 1	
al depths are referenced to Unit 310 (KB)	Grid System NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet
depths are referenced to Unit 310 (KB)	North Reference Grid north
KB) to Mean Sea Level 1313 Net	Scale True distance
Level to Mud line (At Stot. Britt 3406 2-20H SL 310 FSL, 660 FEL) -1298 feet	Depths are in feet
es are in feet referenced to Slot	Created by broomeri on 10/16/2012

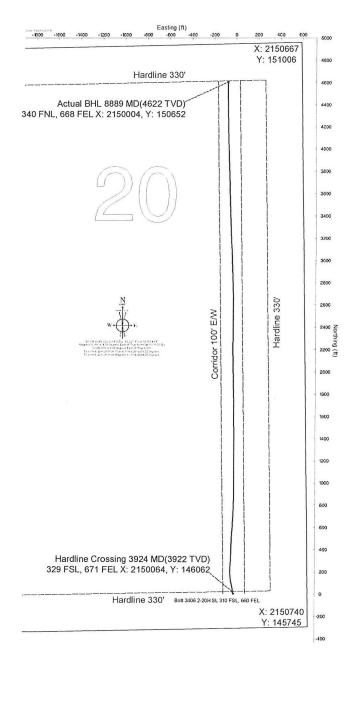


Actual BHL 8889 MD(4622 TVD) 4609' N, 72' W VS=4609'

2400

3000

Hardline Crossing 3924 MD(3922 TVD)329 FSL, 671 FEL X: 2150064, Y: 146062











Sandridge Britt 3406 2-20H\_Final Surveys. Page 1 of 5

REFER	ENCE WELLPATH IDENTIFICATION		
Operator	Sandridge Energy	Slot	Britt 3406 2-20H SL 310 FSL, 660 FEL
Area	Kansas	Well	Subject
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Britt 3406 2-20H Actual
Facility	Britt 3406 2-20H Sec. 20-34S-6W		

REPORT SETU	P INFORMATION		<b>建筑规模设施建筑。</b>
Projection System	NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet		
North Reference	Grid	Software System	WellArchitect 3.0.0
Convergence at slot	0.32° East	User	Broomarl
Scale	1.00005	Report Generated	10/30/2012 at 10:26:14 AM
Wellbore last revised	10-16-2012	Database/Source file	WA_OklahomaCity

WELLPATH LOCA	ATION					
	Local co	ordinates	Grid co	ordinates	Geographic	coordinates
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	2150076.00	146043.00	37°03'59.811"N	97°59'08.457"W
Facility Reference Pt		ii.	2150076.00	146043.00	37°03'59.811"N	97°59'08.457"W
Field Reference Pt			2132248.82	161602.28	37°06'34.560''N	98°02'47.460''W

WELLPATH DATU	M		
Calculation method	Minimum curvature	Unit 310 (KB) to Facility Vertical Datum	15.00ft
Horizontal Reference Pt	Slot	Unit 310 (KB) to Mean Sea Level	1313.00ft
Vertical Reference Pt	Unit 310 (KB)	Unit 310 (KB) to Mud Line at Slot (Britt 3406 2-20H SL 310 FSL, 660 FEL)	15.00ft
MD Reference Pt	Unit 310 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.19°





## Sandridge Britt 3406 2-20H\_Final Surveys.

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Facility	Britt 3406 2-20H Sec. 20-34S-6W		

	Inclination		(121 sta		North		rpolated/e	Grid North		
[ft]	[°]	[°]	[ft]	Sect [ft]	[ft]	[ft]	[US ft]			Comment
0.00	0.000	274.740	0.00	0.00	0.00	0.00	2150076.00	146043.00	0.00	
15.00	0.000	274.740	15.00	0.00	0.00	0.00	2150076.00	146043.00	0.00	
818.00	0.960	274.740	817.96	0.65	0.56	-6.70	2150069.30	146043.56	0.12	
910.00	0.830	275.560	909.95	0.80	0.68	-8.14	2150067.86	146043.68	0.14	
1001.00	0.690	278.190	1000.94	0.96	0.83	-9.33	2150066.67	146043.83	0.16	
1093.00	0.550	250.780	1092.94	0.90	0.76	-10.30	2150065.70	146043.76	0.35	
1185.00	0.260	237.790	1184.94	0.66	0.50	-10.89	2150065.11	146043.50	0.33	
1277.00	0.310	184.880	1276.93	0.30	0.14	-11.09	2150064.91	146043.14	0.28	
1369.00	0.340	147.650	1368.93	-0.18	-0.33	-10.97	2150065.03	146042.67	0.23	
1461.00	0.440	95.840	1460.93	-0.45	-0.60	-10.47	2150065.53	146042.40	0.38	
1557.00	0.230	90.550	1556.93	-0.50	-0.64	-9.91	2150066.09	146042.36	0.22	
1650.00	0.490	115.400	1649.93	-0.68	-0.81	-9.36	2150066.64	146042.19	0.32	
1742.00	0.660	115.690	1741.92	-1.09	-1.21	-8.53	2150067.47	146041.79	0.18	
1932.00	0.400	34.390	1931.92	-1.04	-1.14	-7.17	2150068.83	146041.86	0.38	
2027.00	0.450	43.270	2026.91	-0.50	-0.59	-6.73	2150069.27	146042.41	0.09	
2121.00	0.480	72.450	2120.91	-0.12	-0.21	-6.10	2150069.90	146042.79	0.25	
2217.00	0.430	121.580	2216.91	-0.20	-0.27	-5.41	2150070.59	146042.73	0.40	
2312.00	0.690	193.970	2311.91	-0.94	-1.02	-5.24	2150070.76	146041.98	0.73	
2407.00	0.500	154.090	2406.90	-1.87	-1.94	-5.20	2150070.80	146041.06	0.47	
2502.00	0.180	91.510	2501.90	-2.25	-2.32	-4.87	2150071.13	146040.68	0.47	
2597.00	0.230	110.010	2596.90		Committee Section		2150071.46		0.09	
2692.00	0.150	163.170	2691.90	-2.51			2150071.67		0.19	
2787.00	0.140	247.870	2786.90	-2.67		-4.40	2150071.60	146040.26	0.21	
2882.00	0.280	172.150	2881.90	1			2150071.53		0.30	
2977.00	0.470	171.450	2976.89				2150071.62		0.20	
3072.00			3071.89	Table Control of			2150071.71		0.23	
3167.00	0.310	322.280	3166.89				2150071.60		0.57	
3262.00			3261.89				2150070.89		0.56	
3357.00			3356.88		-2.83		2150069.74		0.07	
3453.00	THE RESERVE AND ADDRESS OF THE PARTY.						2150069.26		1.01	
3548.00		356.120		-2.05		Charles Company	2150069.38		0.26	
3643.00							2150069.12		0.54	
3738.00						-7.82	2150068.18	146040.65	0.55	
3770.00			3769.86				2150067.69		7.30	
3801.00		346.880		0.23	0.11		2150067.15		7.82	
3833.00		350.260	CASE ASSESSED A	3.54	3.41		2150066.50		7.89	
3865.00							2150065.77		7.53	
3896.00							2150065.00		5.66	
3924.00							2150064.26			Hardline Crossing 3924 MD(3922 TVD)329 FSL, 671 FEL X: 2150064, Y: 14
3928.00							2150064.15		2.72	
3960.00							2150063.24		3.35	
3992.00							2150062.19		3.65	
1023.00							2150060.84		8.88	
1055.00							2150059.01		10.30	
1086.00							2150056.78		10.47	





Sandridge Britt 3406 2-20H\_Final Surveys.

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REFER	ENCE WELLPATH IDENTIFICATION		
Operator	Sandridge Energy	Slot	Britt 3406 2-20H SL 310 FSL, 660 FEL
Area	Kansas	Well	Subject
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Britt 3406 2-20H Actual
Facility	Britt 3406 2-20H Sec. 20-34S-6W		

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Log Commen
4118.00	26.680	347.860	4106.06	78.56	78.26	-22.02	2150053.98	146121.26	9.22	
4150.00	28.470	348.090	4134.43	93.09	92.75	-25.11	2150050.89	146135.75	5.60	
4181.00	27.610	348.780	4161.79	107.41	107.02	-28.03	2150047.97	146150.03	2.96	
4211.00	27.850	350.560	4188.34	121.17	120.75	-30.53	2150045.47	146163.76	2.87	
4249.00	30.190	352.720	4221.57	139.44	138.99	-33.20	2150042.80	146182.00	6.75	
4280.00	31.750	355.260	4248.15	155.33	154.85	-34.86	2150041.14	146197.86	6.56	
4312.00	34.190	357.590	4275.00	172.72	172.23	-35.94	2150040.06	146215.24	8.59	
4344.00	36.230	359.140	4301.14	191.16	190.67	-36.46	2150039.54	146233.68	6.96	
4375.00	38.540	0.840	4325.77	209.98	209.49	-36.45	2150039.55	146252.50	8.16	
4407.00	41.380	1.830	4350.30	230.52	230.03	-35.97	2150040.03	146273.04	9.09	
4438.00	44.500	3.100	4372.99	251.60	251.13	-35.05	2150040.95	146294.14	10.44	
4470.00	47.670	3.010	4395.18	274.59	274.14	-33.82	2150042.17	146317.16	9.91	
4515.00	50.620	3.200	4424.61	308.55	308.13	-31.98	2150044.02	146351.14	6.56	
4565.00	50.990	2.200	4456.21	347.22	346.83	-30.16	2150045.84	146389.85	1.72	
4610.00	50.930	1.760	4484.56	382.13	381.76	-28.95	2150047.05	146424.78	0.77	
4661.00	50.310	0.850	4516.91	421.53	421.17	-28.05	2150047.95	146464.19	1.84	
4692.00	51.260	1.310	4536.51	445.53	445.19	-27.60	2150048.40	146488.21	3.27	
4724.00	54.050	2.300	4555.92	470.94	470.61	-26.79	2150049.21	146513.63	9.06	
4756.00	57.010	3.010	4574.03	497.27	496.96	-25.57	2150050.43	146539.98	9.43	
4787.00	60.590	3.540	4590.09	523.71	523,43	-24.05	2150051.95	146566.45	11.64	
4819.00	63.860	4.000	4605.00	551.93	551.68	-22.19	2150053.81	146594.70	10.30	
4851.00	67.250	3.770	4618.24	580.96	580.74	-20.21	2150055.79	146623.76	10.61	
4882.00	70.100	3.440	4629.51	609.75	609.55	-18.40	2150057.60	146652.58	9.25	
4914.00	72.340	3.280	4639.81	639.97	639.80	-16.62	2150059.38	146682.82	7.02	
4946.00	74.140	3.480	4649.04	670.52	670.38	-14.82	2150061.18	146713.41	5.66	da had
4977.00	76.800	3.260	4656.82	700.45	700.34	-13.05	2150062.95	146743.37	8.61	
5009.00	79.580	2.960	4663.36	731.70	731.61	-11.35	2150064.65	146774.64	8.74	
5041.00	81.410	2.060	4668.65	763.20	763.14	-9.97	2150066.03	146806.17	6.36	
5072.00	84.680	1.750	4672.40	793.94	793.89	-8.95	2150067.05	146836.92	10.59	
5104.00	88.240	0.870	4674.38	825.85	825.81	-8.22	2150067.78	146868.85	11.46	
5165.00	89.810	0.550	4675.42	886.82	886.80	-7.46	2150068.54	146929.84	2.63	
5229.00	89.910	359.980	4675.57	950.80	950.80	-7.17	2150068.83	146993.84	0.90	
5323.00	89.660	0.500	4675.92	1044.79	1044.80	-6.77	2150069.22	147087.84	0.61	
5418.00	91.450	0.070	4675.00	1139.76	1139.79	-6.30	2150069.70	147182.84	1.94	
5513.00	91.970	359.860	4672.17	1234.71	1234.74	-6.36	2150069.64	147277.80	0.59	
5608.00	91.990	359.380	4668.89	1329.65	1329.68	-6.99	2150069.01	147372.74	0.51	
5702.00	91.940	359.870	4665.66	1423.59	1423.63	-7.60	2150068.39	147466.69	0.52	
5797.00	90.860	359.510	4663.34	1518.56	1518.60	-8.12	2150067.88	147561.66	1.20	
5892.00	88.910	359.640	4663.53	1613.55	1613.59	-8.82	2150067.18	147656.66	2.06	
5955.00	88.670	359.410	4664.86	1676.54	1676.57	-9.35	2150066.65	147719.64	0.53	
6019.00	88.420	358.700	4666.49	1740.52	1740.54	-10.40	2150065.60	147783.62	1.18	
6082.00	89.570	358.110	4667.59	1803.50	1803.51	-12.15	2150063.85	147846.58	2.05	
6145.00	89.140	358.660	4668.30	1866.49	1866.48	-13.93	2150062.07	147909.56	1.11	
6208.00	89.050	358.950	4669.30	1929.48	1929.46	-15.24	2150060.76	147972.54	0.48	
6272.00	89.780	358.510	4669.95	1993.47	1993.44	-16.66	2150059.34	148036.52	1.33	The State of





#### Sandridge Britt 3406 2-20H\_Final Surveys.

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REFERI	ENCE WELLPATH IDENTIFICATION		
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Facility	Britt 3406 2-20H Sec. 20-34S-6W		

	PATH D			, ,	N 41	L ro	CUE	C III II	DIC	T
MD [ft]	Inclination [°]	Azimuth [°]	[ft]	Vert Sect	[ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS 1°/100ft1	Log Comment
6366.00							2150057.48		1.68	
6461.00				-			2150056.57		0.62	
6556.00	90.560						2150057.03		1.30	
6651.00	91.390	0.420	4664.76	2372.38	2372.36	-17.89	2150058.11	148415.46	1.00	
6747.00	94.320	0.730	4659.98	2468.22	2468.23	-16.93	2150059.07	148511.33	3.07	
6810.00	93.010	359.420	4655.95	2531.08	2531.10	-16.85	2150059.15	148574.20	2.94	
6905.00	92.250	359.250	4651.60	2625.98	2625.99	-17.95	2150058.05	148669.10	0.82	
6968.00							2150057.08		0.94	
7031.00	90.370	358.560	4648.26	2751.93	2751.92	-20.26	2150055.73	148795.04	2.25	
7126.00	89,140	357.920	4648.67	2846.91	2846.87	-23.18	2150052.82	148889.99	1.46	
7189.00	88.800	357.800	4649.80	2909.88	2909.81	-25.53	2150050.46	148952.94	0.57	
7252.00	89.380	358.380	4650.80	2972.86	2972.77	-27.63	2150048.36	149015.90	1.30	
7316.00							2150046.03		1.56	
7411.00	90.150	357.130	4652.36	3131.79	3131.61	-34.47	2150041.53	149174.75	1.21	
7505.00	A PROPERTY OF THE PARTY OF THE	A CONTRACT OF THE PARTY OF				120000000000000000000000000000000000000	2150037.47		1.30	
7562.00							2150035.56		0.73	
7625.00							2150033.57		0.65	
7720.00							2150030.59		0.57	
7815.00							2150027.78		0.48	
7910.00		DISTRIBUTED IN	THE PARTY OF THE P	THE PROPERTY OF THE PARTY.	LANGE OF THE PARTY	SELECTION OF SELECTION	2150025.84	A CONTRACTOR OF THE PARTY OF TH	1.15	
8005.00						100000000000000000000000000000000000000	2150023.65	and the second second	1.75	
8100.00							2150020.44		0.10	
8195.00							2150017.63		0.51	
8289.00							2150014.55		1.12	
8384.00							2150011.30		1.05	
8479.00							2150008.86		0.52	
8574.00							2150007.14		0.58	
8668.00							2150005.64		0.37	
8762.00							2150004.31		1.56	
8845.00	The second secon	AND DESCRIPTION OF THE PARTY OF	The second secon		Manager Street Land Street	Andrew Control	2150003.90		1.67	
8889.00	92.770	359.990	4621.72	4609.14	4608.58	-72.10	2150003.90	150651.78	0.00	Actual BHL 8889 MD(4622 TVD)340 FNL, 668 FEL X: 2150004, Y: 150





## Sandridge Britt 3406 2-20H\_Final Surveys.

Page 5 of 5

REFER	ENCE WELLPATH IDENTIFICATION		
Operator	Sandridge Energy	Slot	Britt 3406 2-20H SL 310 FSL, 660 FEL
Area	Kansas	Well	Subject
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Britt 3406 2-20H Actual
Facility	Britt 3406 2-20H Sec. 20-34S-6W		

TARGETS							<u> </u>		
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BHL 330' FNL, 660' FEL		4628.56	4618.80	-65.00	2150011.00	150662.00	37°04'45.482"N	97°59'08.944"W	point

WELLI	PATH C	COMPOSITION - Ref Wellbore: Britt 340	06 2-20H Actual Ref Wellpath; AWP - Fin	al
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment	Wellbore
[ft]	[ft]			
15.00	8845.00	NaviTrak (Standard)	INTEQ MWD	Britt 3406 2-20H Actual
8845.00	8889.00	Blind Drilling (std)	Projection to bit	Britt 3406 2-20H Actual

# Mid-Continent Conductor, LC

Invoice

Date	Invoice #
10/8/2012	1515

Drilling Rig

P.O. Box 1570

Woodward, OK 73802

Phone: (580)254-5400 Fax: (580)254-3242

Ordered By

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

Terms

	Bobby Jopling	Net 45		10/8/2012	Britt 3406 2-20H, Harper Cnty., KS	Unit 310
	Item	Quantity			Description	
20" P Mous 16" P Cella 6' X ( Mud, Grou Grou Weld Dirt I	luctor Hole Pipe se Hole Pipe r Hole 6' Tinhorn and Water , Water, & Trucking t & Trucking t Pump ler & Materials Removal r Plate	Quantity	90 80 80 1 1 1 10 1 1	Drilled 80 ft. mo Furnished 80 ft. o Drilled 6x6 cella Furnished and se Furnished mud a Transport mud a	iductor hole. of 20 inch conductor pipe. use hole. of 16 inch mouse hole pipe. r hole. tt 6x6 tinhorn. nd water. nd water to location. ds of grout and trucking to location. pump r and materials. for dirt removal.	83
					Subtotal	\$17,800.00

Date of Service

Lease Name/Legal Desc.

Sales Tax (0.0%)

\$17,800.00 **Total** 

\$0.00

## Cementing Job Summary

The Road to Excellence Starts with Safety Sales Order #: 9898883 Sold To #: 305021 **Ship To #**: 2958415 Quote #: **Customer: SANDRIDGE ENERGY INC EBUSINESS** Customer Rep: Webster, John API/UWI #: 15-077-21879 Well Name: Britt 3406 Well #: 2-20H County/Parish: Harper State: Kansas Field: City (SAP): UNKNOWN Legal Description: Section 20 Township 34S Range 6W Contractor: Unit Drilling \* Rig/Platform Name/Num: Unit 310 Job Purpose: Cement Surface Casing Well Type: Development Well Job Type: Cement Surface Casing Sales Person: NGUYEN, VINH Srvc Supervisor: UNDERWOOD, BILLY MBU ID Emp #: 159068 Job Personnel Emp# **HES Emp Name** Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# **HES Emp Name** Exp Hrs PROVINES, TYLER 5.5 523867 CRAWFORD. 5.5 480612 NEAL, MICHAEL 5.5 483780 ANDREW B Edward Wesley UNDERWOOD. 159068 5.5 **BILLY Dale** Equipment HES Unit# Distance-1 way **HES Unit#** Distance-1 way **HES Unit#** Distance-1 way **HES Unit#** Distance-1 way 100 mile 10825967 11288856 11706678 12003765 100 mile 100 mile 100 mile NA 100 mile Job Hours Date On Location Operating Date On Location Operating Date On Location Operating Hours Hours Hours Hours Hours Hours 10-18-12 5.5 TOTAL Total is the sum of each column separately Job **Job Times Formation Name** Date Time Time Zone 17 - Oct - 2012 Formation Depth (MD) Top Bottom Called Out 23:15 CST Form Type BHST On Location 18 - Oct - 2012 04:00 CST Job depth MD 700. ft Job Depth TVD Job Started 18 - Oct - 2012 08:00 CST Water Depth Wk Ht Above Floor 08:50 CST Job Completed 18 - Oct - 2012 Perforation Depth (MD) From 18 - Oct - 2012 09:30 CST То Departed Loc Well Data Description New / Max Size ID Weight Thread Grade Top MD **Bottom** Top **Bottom** Used pressure lbm/ft MD TVD TVD in in ft psig ft ft ft 12.25" Open Hole 12.25 80. 430. 12.25" Open 12.25 430. 700. Hole-Lower 9.625" Surface Unknow 9.625 8.921 36. LTC J-55 700 Casing Preset Conductor Unknow 20. 19.124 94. 80. **Tools and Accessories** Type Size Qty Make Depth Type Size Qtv Make Depth Make Type Size Qty **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 Acid Type Qty Conc % Conc Treatment Fld Conc Inhibitor Sand Type Size Conc Qty

	Fluid Data	
Stage/Plug #: 1		

Summit Version: 7.20.130 T

# Cementing Job Summary

Fluid	Stag	де Туре		Fluid N	ame	4.11	Qty	Qty	Mixing	Yield	Mix Fl		1	tal Mix
#								uom	Density Ibm/gal	ft3/sk	Gal/s	k bbl/mi	n Flui	d Gal/sk
1	Fresh	Water					10.00	bbl	8.33	.0	.0	.0		
2	hallib standa	_	EXTENI	DACEM (TM) \$	SYSTEM (4	52981	190.0	sacks	12.4	2.12	11.6	3	1	11.68
	3 %	0	CALCIU	M CHLORIDE	, PELLET, 5	50 LB	(101509387	<b>'</b> )						
	0.25	bm	POLY-E	-FLAKE (1012	16940)									
	11.676	Gal	FRESH	WATER										
3	Stand	ard	SWIFTC	EM (TM) SYS	TEM (4529	90)	190.0	sacks	15.6	1.2	5.32			5.32
	2 %	0	CALCIU	M CHLORIDE	, PELLET, 5	50 LB	(101509387	<u>'</u> )						
	0.125	lbm	POLY-E	-FLAKE (1012	16940)									
	5.319	Gal	FRESH	WATER										
4	Displa	cement					51.00	bbl	8.33	.0	.0	.0		
Ca	alculate	ed Values		Pressur	es				V	olumes				
Displa	cement	51	Shu	t In: Instant		Lost	Returns		Cement S	lurry	71	/40 Pad		
Top O	f Cemei	nt	5 M	in		Cem	ent Returns	50	Actual Di	splacem	ent 5	1 Treat	ment	
Frac G	radient		15 N	/lin		Spac	ers	10	Load and	Breakdo	wn	Total	Job	172
	575.05						Rates					Magazi A.S		
Circu	lating	5		Mixing	5.5	5	Displac	cement	5.5	5	Avg	Job	5	5.5
Cem	ent Lef	t In Pipe	Amoun	t 40 ft Rea	son Shoe	Joint						-		
Frac I	Ring#1	1@	ID	Frac ring # 2	@ 1	D	Frac Rin	g # 3 @	10	)	Frac Ri	ng # 4 @		ID
Tł	ne Info	rmation	Stated	Herein Is C	Correct	Cust	omer Represe	entative S	Signature					

Summit Version: 7.20.130

Thursday, October 18, 2012 09:04:00

## Cementing Job Log

The Road to Excellence Starts with Safety

		Excellented ocal to mich of	aroty
<b>Sold To #:</b> 305021	hip To #: 2958415	Quote #:	Sales Order #: 9898883
Customer: SANDRIDGE ENERG	Y INC EBUSINESS	Customer Rep: V	Vebster, John
Well Name: Britt 3406	Well	#: 2-20H	API/UWI #: 15-077-21879
Field: City (	SAP): UNKNOWN	County/Parish: Harper	State: Kansas
Legal Description: Section 20 T	ownship 34S Range	6W	
Lat: N 0 deg. OR N 0 deg. 0 min.	0 secs.	Long: E 0 deg. C	OR E 0 deg. 0 min. 0 secs.
Contractor: Unit Drilling *	Rig/Platforr	n Name/Num: Unit 310	
Job Purpose: Cement Surface C	asing		Ticket Amount:
Well Type: Development Well	Job Type: 0	Cement Surface Casing	
Sales Person: NGUYEN, VINH			LY <b>MBU ID Emp #:</b> 159068

Activity Description	Date/Time	Cht	Rate bbl/ min	Volume bbl			ssure sig	Comments
		#		Stage	Total	Tubing	Casing	
Call Out	10/17/2012 23:15							
Safety Meeting - Service Center or other Site	10/18/2012 01:25							
Depart from Service Center or Other Site	10/18/2012 01:30							
Arrive at Location from Service Center	10/18/2012 04:00							assess location/riggingup casers
Standby - Other - see comments	10/18/2012 04:30							can't set up till pipe racks and casers are moved
Safety Meeting - Pre Rig-Up	10/18/2012 06:30							on bottom/circulating/rig down casers
Rig-Up Equipment	10/18/2012 07:00							
Rig-Up Completed	10/18/2012 07:30							
Safety Meeting - Pre Job	10/18/2012 07:45							rig up head
Test Lines	10/18/2012 08:02						2000. 0	
Pump Water	10/18/2012 08:07		5	10			95.0	fresh water
Pump Lead Cement	10/18/2012 08:12		6	71			165.0	12.4# Extendacem
Pump Tail Cement	10/18/2012 08:24		5	40			225.0	15.6# Halcem
Drop Plug	10/18/2012 08:32							
Pump Displacement	10/18/2012 08:34		6	51			200.0	fresh water
Pump Displacement	10/18/2012 08:43		3.5				260.0	
Bump Plug	10/18/2012 08:45						900.0	50bbls cement returns

Sold To #: 305021

Ship To #:2958415

Quote #:

Sales Order #:

9898883

SUMMIT Version: 7.20.130

Thursday, October 18, 2012 09:04:00

# Cementing Job Log

Activity Description	Date/Time	Cht	Rate bbl/ min	Volume bbl			sure sig	Comments
		#		Stage	Total	Tubing	Casing	
Check Floats	10/18/2012 08:47							holding/ 1/2bbl back
End Job	10/18/2012 08:50							rigdown meeting
Rig-Down Equipment	10/18/2012 08:55							
Rig-Down Completed	10/18/2012 09:25							journey management
Depart Location for Service Center or Other Site	10/18/2012 09:30							

Sold To #: 305021

Ship To #:2958415

Quote #:

Sales Order #:

9898883

SUMMIT Version: 7.20.130

Thursday, October 18, 2012 09:04:00

## Cementing Job Summary

The Road to Excellence Starts with Safety Sold To #: 305021 **Ship To #**: 2958415 Quote #: Sales Order #: 9907440 Customer: SANDRIDGE ENERGY INC EBUSINESS Customer Rep: Webster, John Well Name: Britt 3406 Well #: 2-20H API/UWI #: 15-077-21879 Field: County/Parish: Harper City (SAP): ANTHONY State: Kansas Legal Description: Section 20 Township 34S Range 6W Contractor: UNIT Rig/Platform Name/Num: 310 Job Purpose: Cement Intermediate Casing Well Type: Development Well Job Type: Cement Intermediate Casing Sales Person: NGUYEN, VINH Srvc Supervisor: GILREATH, JAMES MBU ID Emp #: 493907 Job Personnel **HES Emp Name** Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# DAVIS, TROY Robert 498798 GILREATH, JAMES P 493907 KIRKLAND, LARRY 5.0 286162 Don Equipment HES Unit # | Distance-1 way HES Unit # HES Unit # Distance-1 way Distance-1 way HES Unit # Distance-1 way **Job Hours** Date On Location Operating Date On Location Operating Date On Location Operating Hours Hours Hours Hours Hours Hours 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 24 - Oct - 2012 15:30 CST Form Type BHST On Location 24 - Oct - 2012 20:00 CST 5149. m Job depth MD Job Depth TVD 5149. m Job Started 24 - Oct - 2012 22:11 CST Water Depth Wk Ht Above Floor 5. m Job Completed 24 - Oct - 2012 23:22 CST Perforation Depth (MD) From 25 - Oct - 2012 To Departed Loc 01:00 CST Well Data Description New / Top MD Max Size ID Weight **Thread** Grade **Bottom Bottom** Top Used pressure mm mm kg/m MD **TVD TVD** m MPa m m m 8.75" Open Hole 8.75 700. 5107 7" Intermediate Unknow 7. 26. LTC 6.276 P-110 5107. Casing

9.625" Surfa Casing	ce	Unknov n	V	9.6	8.	921	36.		LTC		J-55	•		700.			
							Tools a	nd Acc	cessorie	S							
Type	Size	Qty	Make	Depth	Ту	ре	Size	Qty	Make	Depth	Type		Size	,	Qty	Ma	ake
Guide Shoe					Packer	r				•	Top Plug		7		1	HE	ES
Float Shoe					Bridge	Plug					Bottom Plu	ıg					
Float Collar					Retain	er					SSR plug s	et					
Insert Float											Plug Conta	iner	7		1	HE	ES
Stage Tool											Centralizer	S					
						N	liscella	neous	Materia	Is				ng tantak		reference.	
Gelling Agt			Coi	nc		Surfac	tant		Con	ıc	Acid Type			Qty		Conc	%
Treatment FI	d		Coi	nc		nhibit	or		Con	ıc	Sand Type			Size		Qty	

			Fluid Data						
Sta	ge/Plug #: 1								Section 1
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density	Yield m3/sk	Mix Fluid m3/	Rate m3/min	Total Mix Fluid m3/
			5-4-1		kg/m3		tonne		tonne

Summit Version: 7.3.0045

Thursday, October 25, 2012 00:01:00

# Cementing Job Summary

1	Rig Supp Gel Space					30.00	bbl	8.33	.0	)	.0	.0		
2	50/50 POZ STANDARI	D ( w/	ECONOCEM (TM) S	YSTEM (452	992)	120.0	sacks	13.6	1.5	54	7.36			7.36
	2% extra g	el)	HALAD(R)-9, 50 LB (	100001617)										
	2 lbm		KOL-SEAL, BULK (10								-			
-	2 %	-	BENTONITE, BULK (											
	7.356 Gal		FRESH WATER	100000002)										
3	Premium		HALCEM (TM) SYST	EM (452986)	)	190.0	sacks	15.6	1.1	9	5.08		T	5.08
	0.4 %	HALAD(R)-9, 50 LB (		,			1							
	2 lbm		KOL-SEAL, BULK (10											
	5.076 Gal		FRESH WATER											
4	Displacen	nent				192.00	bbl	8.33	.0		.0	.0		
(	Calculated \	Values	Pressu	res					Volum	ies				
Disp	lacement	192	Shut In: Instant		Lost Re	eturns		Cement	Slurry		73	Pad		
Гор (	Of Cement	320	1 5 Min		Cemen	t Returns	0	Actual Displacement		192	Treat	ment		
rac	Gradient		15 Min		Spacer	s	30	Load and Breakdown			Total	Job		
					R	ates					e d'ares			
Circ	ulating		Mixing			Displac	cement				Avg. Jo	ob		
	ment Left In		Amount 91.1 ft Re	ason Shoe	Joint									
Frac	Ring # 1 @		ID Frac ring # 2	2 @	D	Frac Rin	g # 3 @		ID	Fra	c Ring	#4@		ID
1	he Inform	ation	Stated Herein Is	Correct	Custom	er Repres	entative S	Signature		ı				

Summit Version: 7.3.0045

Thursday, October 25, 2012 00:01:00

## Cementing Job Summary

The Road to Excellence Starts with Safety Sold To #: 305021 **Ship To #**: 2958415 Quote #: Sales Order #: 9924580 Customer: SANDRIDGE ENERGY INC EBUSINESS Customer Rep: Webster, John Well Name: Britt 3406 Well #: 2-20H API/UWI #: 15-077-21879 City (SAP): ANTHONY Field: County/Parish: Harper State: Kansas Legal Description: Section 20 Township 34S Range 6W Contractor: Unit Drilling \* Rig/Platform Name/Num: Unit 310 Job Purpose: Cement Production Liner Well Type: Development Well Job Type: Cement Production Liner Sales Person: NGUYEN, VINH Srvc Supervisor: WADE, STEPHEN MBU ID Emp #: 490458 Job Personnel **HES Emp Name** Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# **HES Emp Name** Exp Hrs Emp# FINDLEY, GARED A 4.0 520137 KIRKLAND, LARRY 4.0 286162 WADE, STEPHEN 490458 8.0 Don Bruce WIFA, HENRY 8.0 491916 Neniebari Equipment HES Unit# Distance-1 way HES Unit # Distance-1 way HES Unit # Distance-1 way HES Unit# Distance-1 way 11138994 100 mile 11149169 100 mile 11804860 100 mile 11897022 100 mile 12003765 100 mile 100 mile NA NA 100 mile **Job Hours** Date On Location Operating Date On Location Operating Date On Location Operating Hours Hours Hours Hours Hours Hours 10/29/2012 2.5 10/30/2012 7 TOTAL Total is the sum of each column separately Job **Job Times** Formation Name Date Time Time Zone Formation Depth (MD) Top Bottom 29 - Oct - 2012 Called Out 13:00 CST Form Type BHST 132 degF 29 - Oct - 2012 17:00 CST On Location Job depth MD 8889. ft Job Depth TVD 4700. ft 29 - Oct - 2012 21:25 Job Started CST Water Depth Wk Ht Above Floor 15. ft Job Completed 29 - Oct - 2012 23:13 CST Perforation Depth (MD) From То Departed Loc 30 - Oct - 2012 01:00 CST **Well Data** Description New / Max Size ID Weight Thread Grade Top MD **Bottom** Top Bottom Used pressure in lbm/ft MD **TVD TVD** in ft psig ft ft ft 6.125" Open Hole 6.125 5107. 8905. 4.5" Production Unknow 4.5 LTC 11.6 4. N-80 4700. 8905. Liner 7" Intermediate Unknow 7. 6.276 26. LTC P-110 5107. Casing n 4" Drill Pipe Unknow 4. 3.34 14. Unknown 4700. n **Tools and Accessories** Type Size Qty Make Depth Type Size Make Depth Qty 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

	Fluid Data	
Stage/Plug #: 1		

Conc

Conc

Acid Type

Sand Type

%

Conc

Qtv

Qty

Size

Surfactant

Inhibitor

Summit Version: 7.3.0045

Conc

Conc

**Gelling Agt** 

Treatment Fld

# Cementing Job Summary

Fluid #	Stag	е Туре	ic .	Fluid N	ame		Qty	Qty uom	Mixing Density Ibm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Rig Su Gel Spa	pplied cer					30.00	bbl	8.5	.0	.0	.0	
	50/50 I STAND 2% extr	ARD (w/	ECONO	OCEM (TM) SY	STEM (452	992)	490.0	sacks	13.6	1.57	6.8		6.8
	0.4 %		HALAD	(R)-9, 50 LB (1	00001617)								
	10 lbi	n	KOL-SI	EAL, BULK (100	0064233)				7000				
	2 %		BENTO	NITE, BULK (1	00003682)								
	0.25 lb	om		E-FLAKE (1012									
	0.2 %	o o	CFR-3,	W/O DEFOAM	ER, 50 LB	SK (100	003653)					*************	
	6.797	Gal		I WATER	•			-					
3	Displa	cement					115.00	bbl	8.33	.0	.0	.0	
Ca	alculate	d Values	1994 P.A	Pressure	es	22475			V	olumes			
	cement	108		ut In: Instant		Lost R	eturns		Cement S		137	Pad	
Top O	f Cemen	t 471				Cemen	t Returns		Actual Di				ent
Frac G	radient		15	Min		Spacer	'S		Load and			Total J	ob
Country Country						F	Rates		4 12 4 5				Section of the section
Circu	lating	5		Mixing	5		Displac	ement	5		Avg. Jo	b	5
Cem	ent Left	In Pipe	Amoun	t 84 ft Reas	son Shoe	Joint			-				
Frac I	Ring #1	@	ID	Frac ring # 2	@ 1	D	Frac Ring	g # 3 @	ID	F	rac Ring	# 4 @	ID
Th	e Info	rmation	Stated	l Herein Is C	orrect	Custon	ner Represe	ntative S	ignature	•			

