



CONFIDENTIAL

OIL & GAS CONSERVATION DIVISION

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form Must Be Typed
Form must be Signed
All blanks must be Filled

OPERATOR: License # 34192
Name: SandRidge Exploration and Production LLC
Address 1: 123 ROBERT S. KERR AVE
Address 2:
City: OKLAHOMA CITY State: OK Zip: 73102 + 6406
Contact Person: Tiffany Golay
Phone: (405) 429-6543
CONTRACTOR: License # 34464
Name: Lariat Services, Inc.
Wellsite Geologist: Kathy Gentry
Purchaser: NCRA

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
Conv. to GSW

Plug Back: Plug Back Total Depth

Commingled Permit #:

Dual Completion Permit #:

SWD Permit #:

ENHR Permit #:

GSW Permit #:

11/28/2011 1/4/2012 1/6/2012
Spud Date or Date Reached TD Completion Date or Recompletion Date

API No. 15 - 15-033-21607-01-00

Spot Description:

NE NW NE NE Sec. 23 Twp. 31 S. R. 20 East West

165 Feet from North / South Line of Section

880 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

County: Comanche

Lease Name: VC Well #: 1-23H

Field Name: unnamed

Producing Formation: Mississippian

Elevation: Ground: 1996 Kelly Bushing: 1976

Total Depth: 9456 Plug Back Total Depth:

Amount of Surface Pipe Set and Cemented at: 857 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: 12440 ppm Fluid volume: 5940 bbls

Dewatering method used: Haul Off Pit

Location of fluid disposal if hauled offsite:

Operator Name: Triple C Soil Farming

Lease Name: Unknown License #: 99999

Quarter NW Sec. 27 Twp. 26 S. R. 18 East West

County: Woodward Permit #: 11-19185

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

Letter of Confidentiality Received

Date: 03/16/2012

Confidential Release Date:

Wireline Log Received

Geologist Report Received

UIC Distribution

ALT I II III Approved by: NAOMI JAMES Date: 03/19/2012

# **Sandridge Energy**

**Comanche County (KS27S)**

**Sec 23-T31S-R20W**

**VC 1-23H**

**Sidetrack #1**

**Survey: Sidetrack Surveys**

## **Standard Survey Report**

**04 January, 2012**

# Wolverine Directional, LLC

## Survey Report

Company: Sandridge Energy	Local Co-ordinate Reference: Well VC 1-23H	
Project: Comanche County (KS27S)	TVD Reference: WELL @ 0.0ft (Original Well Elev)	
Site: Sec 23-T31S-R20W	MD Reference: WELL @ 0.0ft (Original Well Elev)	
Well: VC 1-23H	North Reference: Grid	
Wellbore: Sidetrack #1	Survey Calculation Method: Minimum Curvature	
Design: Sidetrack #1	Database: EDM 2003.21 Single User Db	

Design: Sidetrack #1				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	181.72

Survey Program		Date 2012/01/04		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
888.0	9,456.0	Sidetrack Surveys (Sidetrack #1)	MWD	MWD - Standard

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
888.0	0.10	5.30	888.0	0.8	0.1	-0.8	0.01	0.01	0.00
1,041.0	0.30	252.10	1,041.0	0.8	-0.3	-0.8	0.23	0.13	-73.99
1,517.0	0.20	339.30	1,517.0	1.2	-1.8	-1.1	0.07	-0.02	18.32
1,993.0	0.50	292.50	1,993.0	2.7	-4.0	-2.6	0.08	0.06	-9.83
2,469.0	0.50	326.30	2,469.0	5.3	-7.1	-5.1	0.06	0.00	7.10
2,945.0	0.30	19.20	2,945.0	8.2	-7.8	-7.9	0.08	-0.04	11.11
3,421.0	0.30	63.20	3,421.0	9.9	-6.3	-9.7	0.05	0.00	9.24
3,898.0	0.30	146.90	3,897.9	9.4	-4.5	-9.3	0.08	0.00	17.55
3,993.0	0.50	154.90	3,992.9	8.8	-4.2	-8.7	0.22	0.21	8.42
4,064.0	0.40	149.80	4,063.9	8.4	-3.9	-8.2	0.15	-0.14	-7.18
4,089.0	0.50	169.80	4,088.9	8.2	-3.9	-8.0	0.74	0.40	80.00
4,121.0	1.50	181.10	4,120.9	7.6	-3.8	-7.5	3.17	3.13	35.31
4,152.0	3.10	173.70	4,151.9	6.4	-3.8	-6.3	5.24	5.16	-23.87
4,184.0	4.70	171.30	4,183.8	4.2	-3.5	-4.1	5.02	5.00	-7.50
4,216.0	6.60	173.90	4,215.7	1.1	-3.1	-1.0	5.99	5.94	8.13
4,248.0	8.00	175.20	4,247.4	-3.0	-2.7	3.0	4.41	4.38	4.06
4,279.0	9.70	177.40	4,278.1	-7.7	-2.4	7.8	5.59	5.48	7.10
4,311.0	11.80	180.20	4,309.5	-13.7	-2.3	13.7	6.76	6.56	8.75
4,343.0	14.20	182.30	4,340.7	-20.9	-2.4	20.9	7.64	7.50	6.56
4,375.0	16.90	181.80	4,371.5	-29.4	-2.7	29.5	8.45	8.44	-1.56
4,407.0	19.30	182.10	4,401.9	-39.4	-3.1	39.5	7.51	7.50	0.94
4,438.0	21.40	181.90	4,431.0	-50.2	-3.5	50.2	6.78	6.77	-0.65
4,468.0	23.30	181.00	4,458.7	-61.6	-3.7	61.6	6.44	6.33	-3.00
4,500.0	25.40	180.90	4,487.9	-74.7	-4.0	74.8	6.56	6.56	-0.31
4,532.0	26.90	180.80	4,516.6	-88.9	-4.2	88.9	4.69	4.69	-0.31
4,564.0	27.90	180.90	4,545.0	-103.6	-4.4	103.7	3.13	3.13	0.31
4,596.0	29.60	181.70	4,573.1	-119.0	-4.7	119.1	5.45	5.31	2.50
4,627.0	32.40	182.10	4,599.6	-134.9	-5.3	135.0	9.06	9.03	1.29
4,659.0	34.30	181.70	4,626.4	-152.5	-5.9	152.6	5.98	5.94	-1.25
4,691.0	36.30	181.90	4,652.5	-171.0	-6.4	171.1	6.26	6.25	0.63
4,723.0	38.10	181.20	4,678.0	-190.3	-7.0	190.4	5.78	5.63	-2.19
4,755.0	39.90	181.40	4,702.8	-210.5	-7.4	210.6	5.64	5.63	0.63
4,786.0	41.80	181.50	4,726.3	-230.7	-7.9	230.9	6.13	6.13	0.32
4,818.0	44.90	181.00	4,749.5	-252.7	-8.4	252.8	9.75	9.69	-1.56
4,850.0	47.00	181.70	4,771.8	-275.7	-9.0	275.8	6.75	6.56	2.19
4,882.0	48.50	182.30	4,793.3	-299.3	-9.8	299.5	4.89	4.69	1.88
4,914.0	48.50	182.60	4,814.5	-323.3	-10.8	323.5	0.70	0.00	0.94
4,945.0	49.90	182.70	4,834.8	-346.7	-11.9	346.9	4.52	4.52	0.32

## Wolverine Directional, LLC

### Survey Report

**Company:** Sandridge Energy  
**Project:** Comanche County (KS27S)  
**Site:** Sec 23-T31S-R20W  
**Well:** VC 1-23H  
**Wellbore:** Sidetrack #1  
**Design:** Sidetrack #1

**Local Co-ordinate Reference:** Well VC 1-23H  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

#### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,977.0	50.60	182.30	4,855.2	-371.3	-13.0	371.5	2.39	2.19	-1.25
5,011.0	50.50	182.60	4,876.8	-397.5	-14.1	397.8	0.74	-0.29	0.88
5,043.0	50.50	182.00	4,897.2	-422.2	-15.1	422.5	1.45	0.00	-1.88
5,074.0	50.40	182.40	4,916.9	-446.1	-16.0	446.4	1.05	-0.32	1.29
5,106.0	52.90	182.10	4,936.8	-471.2	-17.0	471.5	7.85	7.81	-0.94
5,138.0	56.50	182.40	4,955.3	-497.3	-18.0	497.6	11.28	11.25	0.94
5,170.0	59.90	182.70	4,972.1	-524.4	-19.2	524.8	10.65	10.63	0.94
5,201.0	62.60	182.50	4,987.0	-551.6	-20.4	551.9	8.73	8.71	-0.65
5,233.0	64.90	181.80	5,001.2	-580.3	-21.5	580.6	7.45	7.19	-2.19
5,265.0	67.00	181.80	5,014.2	-609.5	-22.4	609.9	6.56	6.56	0.00
5,297.0	69.30	181.10	5,026.1	-639.1	-23.2	639.6	7.47	7.19	-2.19
5,328.0	71.30	181.10	5,036.6	-668.3	-23.8	668.7	6.45	6.45	0.00
5,360.0	75.00	180.30	5,045.9	-698.9	-24.1	699.4	11.81	11.56	-2.50
5,392.0	78.20	180.50	5,053.3	-730.1	-24.3	730.5	10.02	10.00	0.63
5,423.0	81.10	181.10	5,058.8	-760.6	-24.8	761.0	9.55	9.35	1.94
5,513.0	85.20	181.60	5,069.6	-849.9	-26.9	850.3	4.59	4.56	0.56
5,544.0	84.80	181.10	5,072.3	-880.7	-27.6	881.2	2.06	-1.29	-1.61
5,576.0	86.40	181.00	5,074.7	-912.6	-28.2	913.1	5.01	5.00	-0.31
5,608.0	89.10	181.20	5,076.0	-944.6	-28.8	945.0	8.46	8.44	0.63
5,640.0	89.20	181.10	5,076.5	-976.6	-29.4	977.0	0.44	0.31	-0.31
5,672.0	88.80	181.10	5,077.0	-1,008.6	-30.1	1,009.0	1.25	-1.25	0.00
5,704.0	89.70	181.00	5,077.4	-1,040.6	-30.6	1,041.0	2.83	2.81	-0.31
5,736.0	91.00	180.90	5,077.2	-1,072.6	-31.2	1,073.0	4.07	4.06	-0.31
5,831.0	90.30	181.30	5,076.2	-1,167.6	-33.0	1,168.0	0.85	-0.74	0.42
5,927.0	90.20	180.90	5,075.7	-1,263.5	-34.8	1,264.0	0.43	-0.10	-0.42
6,023.0	89.00	181.80	5,076.4	-1,359.5	-37.1	1,360.0	1.56	-1.25	0.94
6,118.0	90.10	182.50	5,077.2	-1,454.4	-40.7	1,455.0	1.37	1.16	0.74
6,214.0	89.10	181.80	5,077.8	-1,550.4	-44.3	1,551.0	1.27	-1.04	-0.73
6,310.0	90.60	183.30	5,078.1	-1,646.3	-48.5	1,647.0	2.21	1.56	1.56
<b>Last OH Survey</b>									
6,382.0	86.80	181.90	5,079.7	-1,718.1	-51.8	1,718.9	5.62	-5.28	-1.94
<b>First ST#1 Survey</b>									
6,405.0	85.20	181.90	5,081.3	-1,741.1	-52.6	1,741.9	6.96	-6.96	0.00
6,436.0	85.40	180.80	5,083.9	-1,772.0	-53.3	1,772.8	3.59	0.65	-3.55
6,467.0	86.30	178.70	5,086.1	-1,802.9	-53.2	1,803.7	7.35	2.90	-6.77
6,498.0	88.00	177.90	5,087.6	-1,833.8	-52.2	1,834.6	6.06	5.48	-2.58
6,529.0	89.30	177.40	5,088.4	-1,864.8	-51.0	1,865.5	4.49	4.19	-1.61
6,560.0	88.60	178.00	5,088.9	-1,895.8	-49.7	1,896.4	2.97	-2.26	1.94
6,592.0	89.70	178.60	5,089.4	-1,927.7	-48.8	1,928.3	3.92	3.44	1.88
6,624.0	90.80	178.10	5,089.3	-1,959.7	-47.9	1,960.3	3.78	3.44	-1.56
6,655.0	92.20	178.10	5,088.5	-1,990.7	-46.8	1,991.2	4.52	4.52	0.00
6,686.0	91.40	178.40	5,087.5	-2,021.7	-45.9	2,022.1	2.76	-2.58	0.97
6,718.0	91.50	178.60	5,086.7	-2,053.7	-45.0	2,054.1	0.70	0.31	0.63
6,749.0	92.40	178.70	5,085.6	-2,084.6	-44.3	2,085.0	2.92	2.90	0.32
6,781.0	91.90	178.90	5,084.4	-2,116.6	-43.6	2,116.9	1.68	-1.56	0.63
6,813.0	92.40	178.90	5,083.2	-2,148.6	-43.0	2,148.9	1.56	1.56	0.00
6,845.0	92.80	178.90	5,081.8	-2,180.5	-42.4	2,180.8	1.25	1.25	0.00
6,877.0	90.90	179.70	5,080.7	-2,212.5	-42.0	2,212.8	6.44	-5.94	2.50
6,909.0	90.80	179.40	5,080.3	-2,244.5	-41.8	2,244.7	0.99	-0.31	-0.94
6,941.0	90.30	179.10	5,080.0	-2,276.5	-41.4	2,276.7	1.82	-1.56	-0.94
6,973.0	89.10	179.90	5,080.1	-2,308.5	-41.1	2,308.7	4.51	-3.75	2.50
7,005.0	89.20	178.70	5,080.6	-2,340.5	-40.7	2,340.7	3.76	0.31	-3.75
7,036.0	88.70	179.40	5,081.2	-2,371.5	-40.2	2,371.6	2.77	-1.61	2.26
7,068.0	88.10	180.90	5,082.1	-2,403.5	-40.3	2,403.6	5.05	-1.88	4.69

# Wolverine Directional, LLC

## Survey Report

**Company:** Sandridge Energy  
**Project:** Comanche County (KS27S)  
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**Wellbore:** Sidetrack #1  
**Design:** Sidetrack #1

**Local Co-ordinate Reference:** Well VC 1-23H  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,100.0	89.30	181.80	5,082.8	-2,435.4	-41.0	2,435.6	4.69	3.75	2.81
7,132.0	90.60	182.30	5,082.8	-2,467.4	-42.2	2,467.6	4.35	4.08	1.56
7,164.0	90.50	182.50	5,082.5	-2,499.4	-43.5	2,499.6	0.70	-0.31	0.63
7,196.0	90.60	182.70	5,082.2	-2,531.4	-44.9	2,531.6	0.70	0.31	0.63
7,222.0	90.50	182.60	5,082.0	-2,557.3	-46.1	2,557.6	0.54	-0.38	-0.38
7,254.0	90.60	182.40	5,081.6	-2,589.3	-47.5	2,589.6	0.70	0.31	-0.63
7,286.0	90.40	182.40	5,081.4	-2,621.3	-48.9	2,621.6	0.63	-0.63	0.00
7,381.0	90.20	182.00	5,080.9	-2,716.2	-52.5	2,716.6	0.47	-0.21	-0.42
7,477.0	90.20	182.20	5,080.5	-2,812.1	-56.0	2,812.5	0.21	0.00	0.21
7,572.0	90.10	181.80	5,080.3	-2,907.1	-59.4	2,907.5	0.43	-0.11	-0.42
7,668.0	90.10	181.00	5,080.1	-3,003.0	-61.7	3,003.5	0.83	0.00	-0.83
7,763.0	89.90	180.50	5,080.1	-3,098.0	-62.9	3,098.5	0.57	-0.21	-0.53
7,859.0	88.60	180.70	5,081.4	-3,194.0	-64.0	3,194.5	1.37	-1.35	0.21
7,955.0	90.20	181.40	5,082.4	-3,290.0	-65.7	3,290.5	1.82	1.67	0.73
8,050.0	89.00	181.40	5,083.0	-3,385.0	-68.0	3,385.5	1.26	-1.26	0.00
8,145.0	89.90	182.10	5,084.0	-3,479.9	-70.9	3,480.5	1.20	0.95	0.74
8,241.0	91.00	181.10	5,083.2	-3,575.9	-73.6	3,576.5	1.55	1.15	-1.04
8,337.0	89.70	180.80	5,082.6	-3,671.9	-75.2	3,672.5	1.39	-1.35	-0.31
8,432.0	91.10	182.50	5,082.0	-3,766.8	-77.9	3,767.4	2.32	1.47	1.79
8,528.0	89.20	181.80	5,081.7	-3,862.7	-81.5	3,863.4	2.11	-1.98	-0.73
8,624.0	91.20	182.80	5,081.4	-3,958.6	-85.4	3,959.4	2.33	2.08	1.04
8,719.0	91.50	181.90	5,079.1	-4,053.5	-89.3	4,054.4	1.00	0.32	-0.95
8,815.0	92.80	182.40	5,075.5	-4,149.4	-92.9	4,150.3	1.45	1.35	0.52
8,908.0	89.80	180.70	5,073.4	-4,242.3	-95.4	4,243.3	3.71	-3.23	-1.83
9,004.0	88.90	180.50	5,074.5	-4,338.3	-96.4	4,339.3	0.96	-0.94	-0.21
9,099.0	89.10	180.30	5,076.2	-4,433.3	-97.1	4,434.2	0.30	0.21	-0.21
9,195.0	88.60	179.50	5,078.1	-4,529.3	-96.9	4,530.1	0.98	-0.52	-0.83
9,291.0	89.00	179.60	5,080.1	-4,625.3	-96.1	4,626.1	0.43	0.42	0.10
9,386.0	88.20	179.80	5,082.4	-4,720.2	-95.7	4,721.0	0.87	-0.84	0.21
<b>Last ST#1 Survey</b>									
9,456.0	88.20	179.80	5,084.6	-4,790.2	-95.4	4,790.9	0.00	0.00	0.00
<b>Proj to TD - VC 1-23H PBHL</b>									

### Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,310.0	5,078.1	-1,646.3	-48.5	Last OH Survey
6,382.0	5,079.7	-1,718.1	-51.8	First ST#1 Survey
9,386.0	5,082.4	-4,720.2	-95.7	Last ST#1 Survey
9,456.0	5,084.6	-4,790.2	-95.4	Proj to TD

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

Section 14  
31S 20W

Section 13  
31S 20W

VC 1-23H

Miss Entry: 5220'  
-99.456727 37.335873

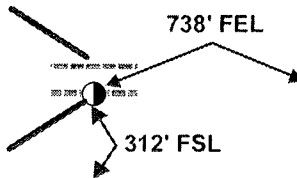
Top Perf: 5230'  
-99.456728 37.335848

Section 23  
31S 20W

Section 24  
31S 20W

Bottom Perf: 9365'  
-99.456838 37.324526

BHL: 9456'  
-99.4568340 37.324277



Section 26  
31S 20W

Section 25  
31S 20W



Actual Bottom-Hole Location of VC 1-23H  
Comanche County, Kansas  
T&R: 31S 20W  
Section: 23, 738' FEL & 312' FSL  
Long/Lat:: -99.456834 37.324277

1 in = 667 ft

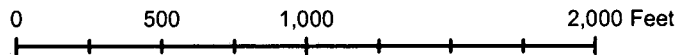


● Actual BH Location

\* SandRidge Wells

□ Perf

□ Sections



Draftsman:

Aaron Birk

Draft Date: 3/15/2012

Drawing Name/Number:

Addendum\_VC\_1-23H.mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502