

CONFIDENTIAL

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

3/29/14

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

OPERATOR: License # 32811
Name: Osage Resources, L.L.C.
Address 1: 6209 N. State Rd 61
Address 2: _____
City: Hutchinson State: KS Zip: 67502 + 8608
Contact Person: Brooke C. Walter
Phone: (620) 860-2224
CONTRACTOR: License # 33132
Name: Dan D Drilling
Wellsite Geologist: Curtis Covey
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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

1/12/2012	2/2/2012	
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 007-23818-0100

Spot Description: _____

NE NE NE NW Sec. 23 Twp. 33 S. R. 15 East West

125 Feet from North / South Line of Section

2,345 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Barber

Lease Name: Osage No. Well #: 23-05H

Field Name: Aetna Gas Area

Producing Formation: Mississippian

Elevation: Ground: 1852 Kelly Bushing: 1867

Total Depth: 8061 Plug Back Total Depth: 8005'

Amount of Surface Pipe Set and Cemented at: 200 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 CONFIDENTIAL Sec. _____ Twp. _____ S. R. _____ East West

County: MAR 29 2014 Permit #: _____ **RECEIVED**

KCC

APR 03 2012

KCC WICHITA

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature: Brooke C. Walter

Title: Geological Technician Date: 3/29/12

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: 3-29-12 to 3-29-14
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: [Signature] Date: 4-16-12

Operator Name: Osage Resources, L.L.C. Lease Name: Osage No. Well #: 23-05H
 Sec. 23 Twp. 33 S. R. 15 East West County: Barber

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Density/Neutron, Induction, Sonic, Geo-Perf, Geo Report	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>Stark</td> <td>4608</td> <td>MSL</td> </tr> <tr> <td>BKC</td> <td>4731</td> <td>MSL</td> </tr> <tr> <td>Marmaton</td> <td>4787</td> <td>MSL</td> </tr> <tr> <td>Mississippian</td> <td>4963</td> <td>MSL</td> </tr> </table>	Name	Top	Datum	Stark	4608	MSL	BKC	4731	MSL	Marmaton	4787	MSL	Mississippian	4963	MSL
Name	Top	Datum														
Stark	4608	MSL														
BKC	4731	MSL														
Marmaton	4787	MSL														
Mississippian	4963	MSL														

CASING RECORD <input checked="" 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
Conductor Surface	26 17.5	20 13.375	907 54.5	41 200	4 yds grout A-Common	NA 575	NA 3% CaCl, 1/4 #/sx celloflake
Intermediate	8.75	7	26	5089	AA2	185	0.25% defoamer, 10% salt, 0.5% CFR, 0.8% FLA-322 & 1/2#sx celloflake
Production	6.125	4.5	11.6	8023	CP-100	30, 470	10% salt, 0.75% CFR, 0.25% defoamer, 0.1% WCA

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				

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

RECEIVED
APR 03 2012
KCC WICHITA

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
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 (Explain) _____	
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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	CONFIDENTIAL PRODUCTION INTERVAL: MAR 29 2014
---	---	---



Customer Danco Resources	Lease No.	Date 1-12-12
Lease Phase	Well # 23-05H	
Field Order # 5633	Station Pratt	Casing 13 3/8"
		Depth 220
Type Job C New 13 3/8" Conductor	Formation	Legal Description 23-33-15
		County Barber
		State KS

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME	
Casing Size 13 3/8"	Tubing Size	Shots/Ft	200x	Acid Cummins Friso	C/S	RATE	PRESS
Depth 220	Depth	From	To	Pre Pad 220 Vt Callstack	Max		ISIP
Volume 345	Volume	From	To	Pad 1.204-11 d	Min		10 Min.
Max Press 500	Max Press	From	To 220	Frac 220	Avg		15 Min.
Wall Connection	Annulus Vol.	From	To 375	SKS SKS Cover Annulus	HHP Used		Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush 33	Gas Volume		Total Load

Customer Representative Jeff Dale	Station Manager Dave Scott	Treater Steve O'Hara
Service Units 27283	27463	15833
21010	19831	19862
Driver Names Orlando	Melroy	Mitchell

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
12:00 PM					On location - Safety meeting
					Run 5 Jts 13 3/8" 48" C/S
					Casing on BATTN
					Back set @ 65'
	300		0	6	mix 200x
	300		43	6	mix 200x
6:30	300		33	3	Start Down - No Return
					mix 200x
	0		21	3	Start Down - No Return
7:15					Tapped cement @ 35'
7:30 PM			24		Called back 5' to more cement
					Drop 8 bags Halls. Mix 100x
					Drop 4 bags Halls
1:30 AM			12		mix 50x SKS. Drop 4 Halls
			12		mix 50x SKS. Call back for cement
					Drop 8 bags Halls
5:15 AM			11		mix 50x SKS. cement 7' surface
					Stop Drop
			6		mix 25x Halls
5:45 AM					Cement stage / Infill
6:10 AM					Wait 15 min. work pump & check
					Job complete

CONFIDENTIAL
MAR 29 2014

RECEIVED
APR 03 2012
KCC WICHITA

Customer OSAGE Resources	Lease No.	Date 7-21-12	
Lease LRAIL	Well # 23-0511		
Field Order # 2264	Station P-1	Casing 7" 70'	Depth 5073
Type Job (C...) 7' L.S.	Formation	County Zachary	State TX
		Legal Description 23-0511	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 7" 70'	Tubing Size	Shots/Ft 185		Acid AA2		RATE	PRESS	ISIP
Depth 5073	Depth	From	To	Pre Pad (1.4750)	Max			5 Min.
Volume 1947	Volume	From	To	Pad	Min			10 Min.
Max Press 2000	Max Press	From	To	Frac	Avg			15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth 5073	Packer Depth	From	To	Flush 193	Gas Volume			Total Load

Customer Representative	Station Manager D... ..	Treater S... ..
Service Units 0728, 0746, 1723, 1726		
Driver Names L... .. P... ..		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
7:00					Water - 5 min
					134 7-7" 2050
					5 min
					10 min
1:00	200		12	5%	10 min
1:05	200		5	5%	10 min
1:10	200		47	5%	10 min
					12 min
11:20	2		0	7	10 min
11:25	300		108	6	10 min
11:30	200		125	7	10 min
11:00	1700		173	4	10 min

CONFIDENTIAL

MAR 29 2014

KCC

RECEIVED

APR 03 2012

KCC WICHITA

BASIC

energy services, L.P.

TREATMENT REPORT

Customer Osage Resources, LLC	Lease No.	Date 2-5-12
Lease Osage	Well # 23-05H	
Field Order # 5784	Station Pratt, Kansas	Casing 4 1/2 11.6 lb.
Type Job C.N.W. - Longstring	Formation	Depth 2050 ft.
		County Barber
		State Kansas
		Legal Description 23-325-15W

PIPE DATA		PERFORATING DATA		CEMENT USED		TREATMENT RESUME	
Casing Size	Tubing Size	Shots/Ft	30 sac	Rate	100 gal.	Pressure	750 C.F.R.
Depth	Depth	From	To	Max	258 Def	Water Control	5 Min
Volume	Volume	From	To	Min	13 lb / Gal.	1.8	10 Min.
Max Press	Max Press	From	To	Avg	70 sac	Same Additives	15 Min.
Well Connection	Annulus Vol.	From	To	HHP Used	15.6 lb / Gal.	5.43	Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush	83 Bbl.	28 HCL	Total Load

Customer Representative Jeff Dale	Station Manager David Scott	Treater Clarence R. Messich
---	---------------------------------------	---------------------------------------

Service Units	37,216	19,903	19,905	19,831	19,862	19,832	21,010
Driver Names	Messich	Mattal	McCaskey	Young			

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1:45					Trucks on location and hold safety meeting.
3:30					Dan D Drilling start to run casing.
3:30					Casing in well. Circulate for 1 1/2 hours.
5:18	3100				Shut in well and Pressure Test.
				6	Start mud Flush.
			12	6	Start Fresh water Spacer.
			17	5	Start mixing 30 sac
			27	5	Start mixing 70 sac
	-0-		87 131		stop pumping. Shut in well. Wash pump and lines.
					Weatherford released plug. Open Well.
5:55	100			6	Start sugar water Displacement.
			10	6	Start 28 HCL Displacement
6:22	800		83		Plug down. Release pressure. No returns
					Burst Disc Pump 10 Bbl 28 HCL Water.
					Wash up pump truck
					Job Complete
					Thank You.
					Clarence, Mike, Jeffery, Steve

CONFIDENTIAL

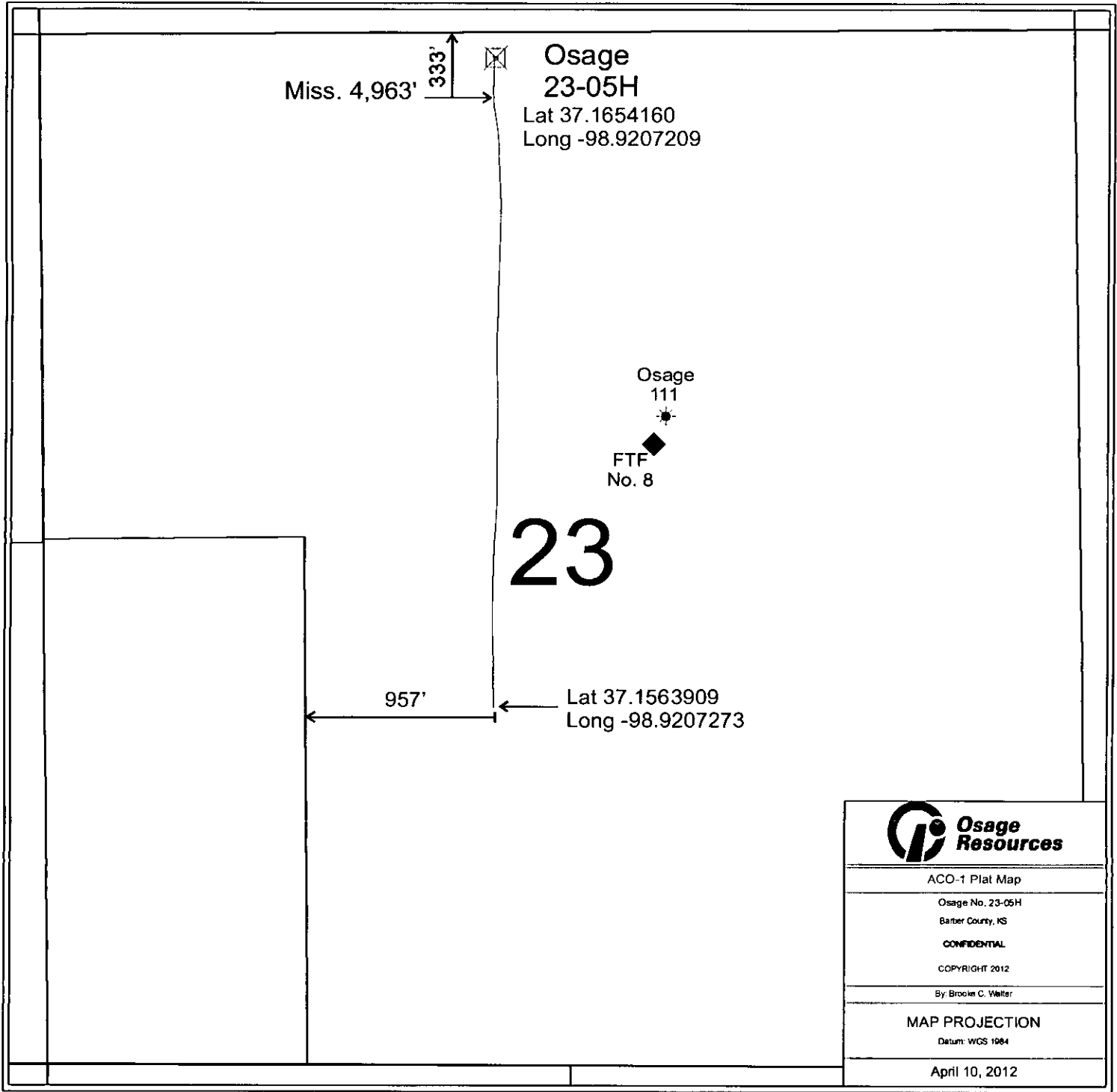
MAR 29 2014


KCC



RECEIVED

APR 03 2012


KCC WICHITA




Miss. 4,963' 333'  **Osage 23-05H**
 Lat 37.1654160
 Long -98.9207209

Osage 111


FTF No. 8

23

957'  Lat 37.1563909
 Long -98.9207273

 Osage Resources
ACO-1 Plat Map
Osage No. 23-05H Barber County, KS
CONFIDENTIAL
COPYRIGHT 2012
By Brooke C. Walter
MAP PROJECTION Datum: WGS 1984
April 10, 2012

CONFIDENTIAL
 MAR 29 2014
 KCC

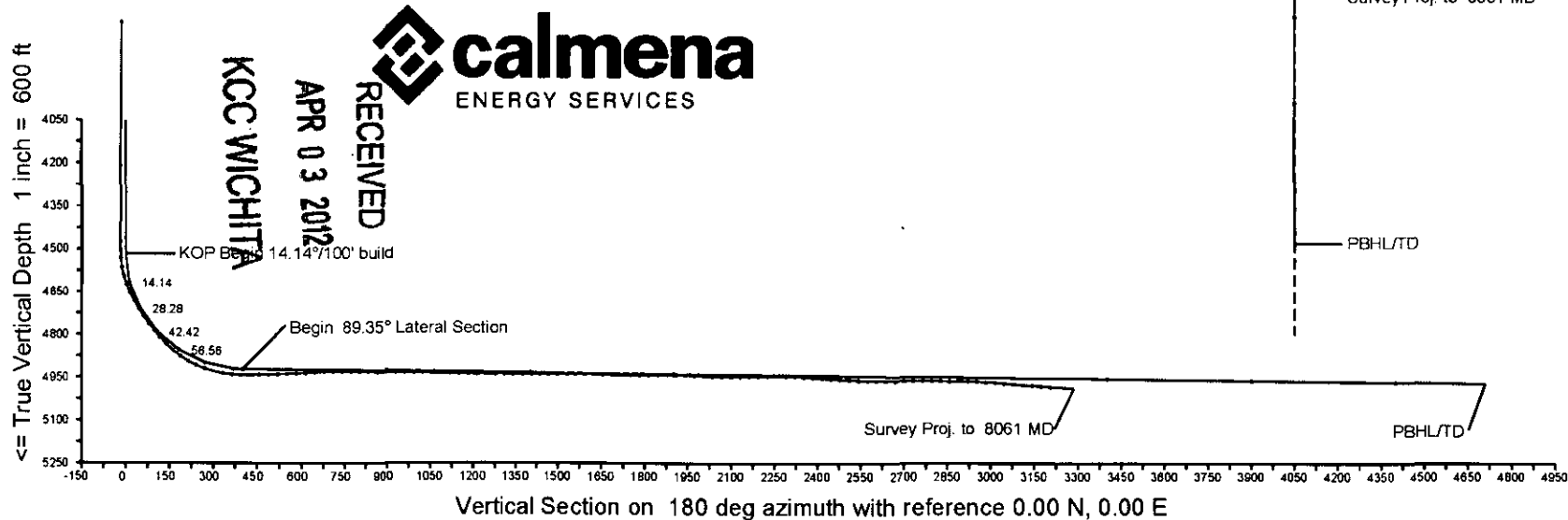
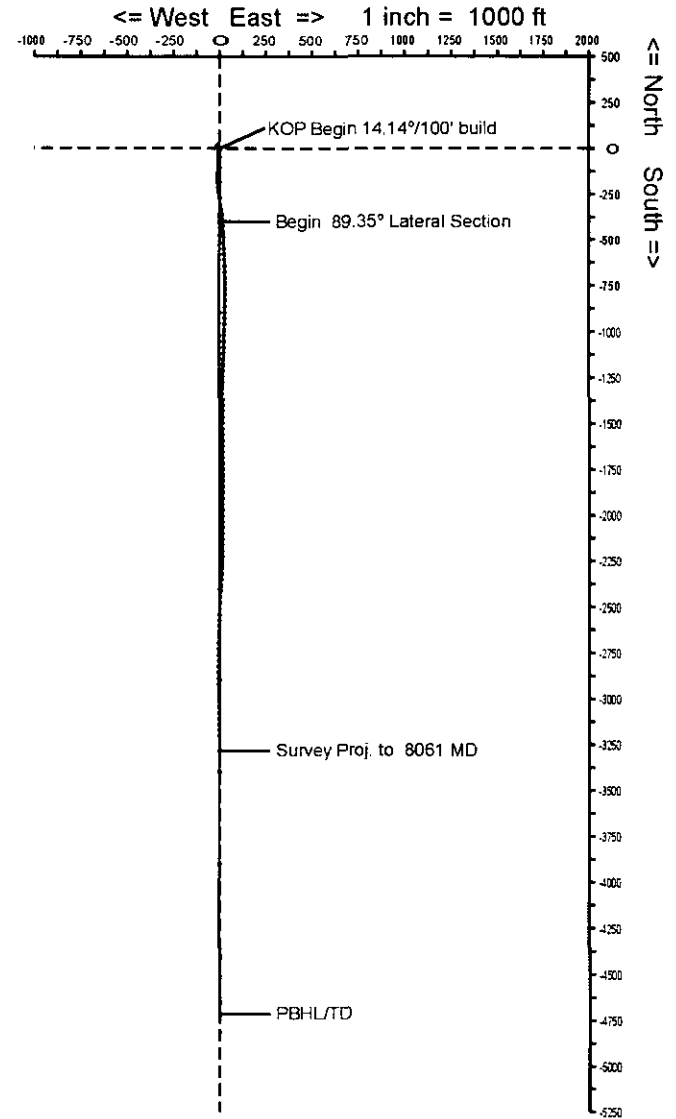
RECEIVED
 APR 11 2012
 KCC WICHITA



Osage 23-05H
Barber County, Kansas

WELL PROFILE DATA rev5							
MD	Inc.	Azi.	TVD	N/S	E/W	DLS	Comment
4518	0.00	180.00	4518	0	0	0.00	KOP Begin 14.14°/100' build
5150	89.35	180.00	4923	-401	0	14.14	Begin 89.35° Lateral Section
9466	89.35	180.00	4972	-4716	0	0.00	PBHL/TD

WELL PROFILE DATA svys							
MD	Inc.	Azi.	TVD	N/S	E/W	DLS	Comment
8061	86.00	178.20	4990	-3285	1	0.00	Survey Proj. to 8061 MD



CONFIDENTIAL
 MAR 29 2014
 KCC

RECEIVED
 APR 03 2012
 KCC WICHITA



Calmena Energy Services

Company: Osage Resources
 Well: Osage 23-05H
 Location: Barber County, Kansas

Date: 9-Feb-2012
 Surveys
 Page 1
 Job# : 6283

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	NI-S (feet)	EI-W (feet)	DLS (deg/100')	VS @ 180.00° Az (feet)	Comments
Surface Location								Azimuths corrected to Grid North NAD83 Ks South
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5.00	0.00	0.00	5.00	0.00	0.00	0.01	0.00	
1189.00	0.50	278.60	1188.99	0.77	-5.11	0.04	-0.77	
1692.00	0.50	248.70	1691.97	0.30	-9.32	0.05	-0.30	
2196.00	0.50	316.10	2195.95	1.09	-12.90	0.11	-1.09	
2690.00	0.50	319.50	2699.93	4.35	-15.85	0.01	-4.35	
3205.00	0.80	5.20	3204.90	9.53	-16.96	0.11	-9.53	
3709.00	0.40	36.60	3708.88	14.45	-15.59	0.10	-14.45	
4200.00	0.60	52.90	4209.86	17.44	-12.46	0.05	-17.44	
4475.00	0.70	50.30	4474.84	19.31	-10.11	0.04	-19.31	
4503.00	0.30	102.50	4502.84	19.40	-9.90	2.03	-19.40	
4534.00	3.90	175.10	4533.81	18.33	-9.73	12.33	-18.33	
4566.00	10.30	172.60	4565.55	14.41	-9.27	20.02	-14.41	
4597.00	15.80	173.50	4595.74	7.46	-8.44	17.75	-7.46	
4629.00	20.30	176.20	4626.16	-2.41	-7.58	14.30	2.41	
4661.00	24.30	178.40	4655.76	-14.54	-7.02	12.77	14.54	
4692.00	27.70	179.90	4683.62	-28.12	-6.83	11.17	28.12	
4724.00	31.30	180.40	4711.46	-43.88	-6.88	11.28	43.88	
4755.00	33.40	181.70	4737.65	-60.46	-7.19	7.14	60.46	
4786.00	35.40	183.20	4763.23	-77.96	-7.94	7.01	77.96	
4818.00	38.20	184.10	4788.85	-97.09	-9.17	8.91	97.09	
4849.00	41.50	184.50	4812.65	-116.89	-10.66	10.68	116.89	
4881.00	45.10	184.10	4835.93	-138.77	-12.30	11.28	138.77	
4912.00	49.00	180.30	4857.05	-161.43	-13.15	15.45	161.43	
4944.00	53.60	176.50	4877.06	-186.38	-12.42	17.10	186.38	
4976.00	59.00	174.90	4894.81	-212.92	-10.42	17.38	212.92	
4997.00	64.70	173.50	4909.43	-240.10	-7.65	18.81	240.10	
5009.00	70.70	172.30	4921.57	-269.46	-3.98	19.07	269.46	
5055.00	80.90	171.00	4937.74	-332.68	5.31	15.57	332.68	
5087.00	84.70	173.40	4941.75	-364.13	9.62	14.01	364.13	

MAR 29 2012

KCC

RECEIVED

APR 03 2012

KCC WICHITA

Calmena Energy Services

Date: 9-Feb-2012
 Surveys
 Page 2
 Job# : 6283

Company: Osage Resources
 Well: Osage 23-05H
 Location: Barber County, Kansas

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 180.00° Az (feet)	Comments
5166.00	88.60	175.20	4943.44	-392.93	12.49	14.81	392.93	
5198.00	91.30	177.30	4943.47	-424.85	14.58	10.69	424.85	
5229.00	91.50	177.40	4942.71	-455.81	16.02	0.72	455.81	
5261.00	91.30	177.00	4941.93	-487.76	17.58	1.40	487.76	
5292.00	92.20	177.80	4940.98	-518.72	18.98	3.88	518.72	
5324.00	92.60	177.60	4939.64	-550.66	20.27	1.40	550.66	
5355.00	92.50	177.70	4938.26	-581.61	21.54	0.46	581.61	
5387.00	93.20	177.10	4936.67	-613.53	22.99	2.88	613.53	
5419.00	93.60	177.00	4934.78	-645.43	24.63	1.29	645.43	
5451.00	92.70	177.20	4933.02	-677.34	26.25	2.88	677.34	
5482.00	90.70	178.00	4932.10	-708.30	27.55	6.95	708.30	
5514.00	89.70	180.00	4931.99	-740.29	28.10	6.99	740.29	
5546.00	89.70	180.70	4932.15	-772.29	27.91	2.19	772.29	
5577.00	89.70	180.50	4932.32	-803.29	27.58	0.65	803.29	
5608.00	88.60	181.10	4932.78	-834.28	27.15	4.04	834.28	
5640.00	88.60	181.20	4933.56	-866.27	26.51	0.31	866.27	
5671.00	89.30	181.50	4934.13	-897.25	25.78	2.46	897.25	
5703.00	89.90	181.70	4934.35	-929.24	24.89	1.98	929.24	
5735.00	90.30	181.70	4934.29	-961.23	23.94	1.25	961.23	
5767.00	89.60	181.40	4934.32	-993.21	23.07	2.38	993.21	
5798.00	88.60	181.20	4934.81	-1024.20	22.37	3.29	1024.20	
5830.00	88.60	181.60	4935.59	-1056.18	21.59	1.25	1056.18	
5861.00	88.80	181.70	4936.29	-1087.16	20.69	0.72	1087.16	
5893.00	88.90	181.90	4936.94	-1119.14	19.69	0.70	1119.14	
5925.00	88.70	181.90	4937.61	-1151.12	18.63	0.63	1151.12	
5956.00	88.60	181.70	4938.34	-1182.09	17.65	0.72	1182.09	
5988.00	88.80	181.80	4939.06	-1214.07	16.68	0.70	1214.07	
6020.00	89.50	182.10	4939.54	-1246.05	15.59	2.38	1246.05	
6051.00	89.30	181.90	4939.86	-1277.03	14.51	0.91	1277.03	
6083.00	89.60	181.70	4940.17	-1309.01	13.50	1.13	1309.01	

MAR 29 2014

CONFIDENTIAL

KCC

KCC WICHITA

APR 03 2012

RECEIVED

Calmena Energy Services

Date: 9-Feb-2012
 Surveys
 Page 3
 Job# : 6283

Company: Osage Resources
 Well: Osage 23-05H
 Location: Barber County, Kansas

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 180.00° Az (feet)	Comments
6114.00	89.80	181.70	4940.33	-1339.99	12.58	0.65	1339.99	
6146.00	90.10	181.70	4940.36	-1371.98	11.63	0.94	1371.98	
6177.00	90.10	181.20	4940.30	-1402.97	10.85	1.61	1402.97	
6209.00	89.60	180.70	4940.39	-1434.97	10.32	2.21	1434.97	
6241.00	89.60	180.50	4940.61	-1466.96	9.98	0.62	1466.96	
6272.00	90.30	179.80	4940.64	-1497.96	9.90	3.19	1497.96	
6304.00	91.10	179.50	4940.25	-1529.96	10.10	2.67	1529.96	
6336.00	90.40	179.20	4939.83	-1561.95	10.46	2.38	1561.95	
6367.00	90.20	178.90	4939.67	-1592.95	10.97	1.16	1592.95	
6399.00	89.40	178.40	4939.78	-1624.94	11.73	2.95	1624.94	
6430.00	88.40	178.80	4940.37	-1655.92	12.48	3.47	1655.92	
6462.00	88.70	179.00	4941.18	-1687.91	13.10	1.13	1687.91	
6493.00	88.70	179.20	4941.89	-1718.90	13.59	0.65	1718.90	
6525.00	88.70	179.40	4942.61	-1750.89	13.98	0.62	1750.89	
6557.00	89.60	179.00	4943.09	-1782.88	14.42	3.08	1782.88	
6588.00	91.50	180.00	4942.79	-1813.87	14.69	6.93	1813.87	
6620.00	91.20	180.60	4942.04	-1845.87	14.53	2.10	1845.87	
6651.00	89.60	180.70	4941.82	-1876.86	14.17	5.17	1876.86	
6683.00	88.30	181.00	4942.41	-1908.85	13.70	4.17	1908.85	
6715.00	88.00	181.10	4943.44	-1940.83	13.11	0.99	1940.83	
6747.00	88.10	180.60	4944.53	-1972.81	12.64	1.59	1972.81	
6779.00	86.80	180.00	4945.95	-2004.77	12.47	4.47	2004.77	
6810.00	87.40	180.10	4947.52	-2035.73	12.45	1.96	2035.73	
6842.00	90.30	179.80	4948.16	-2067.72	12.47	9.11	2067.72	
6874.00	89.90	179.60	4948.11	-2099.72	12.64	1.40	2099.72	
6906.00	89.90	179.40	4948.16	-2131.72	12.92	0.63	2131.72	
6937.00	89.90	180.30	4948.22	-2162.72	13.00	2.90	2162.72	
6969.00	91.10	181.30	4947.94	-2194.72	12.55	4.88	2194.72	
7000.00	90.10	181.00	4947.61	-2225.71	11.93	3.37	2225.71	
7031.00	89.50	182.10	4947.72	-2256.70	11.09	4.04	2256.70	

KCC
 MAR 7 9 2014
 CONFIDENTIAL

KCC MICHITA
 APR 03 2012
 RECEIVED

Calmena Energy Services

Date: 9-Feb-2012
 Surveys
 Page 4
 Job# : 6283

Company: Osage Resources
 Well: Osage 23-05H
 Location: Barber County, Kansas

KCC

MAR 29 2012

DEPTH (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 180.00° Az (feet)	Comments
7063.00	89.10	182.30	4948.11	-2288.67	9.87	1.40	2288.67	
7085.00	88.00	182.70	4948.92	-2320.63	8.47	3.66	2320.63	
7126.00	86.10	183.30	4950.52	-2351.54	6.85	6.43	2351.54	
7158.00	85.60	183.30	4952.83	-2383.41	5.01	1.56	2383.41	
7190.00	85.90	183.20	4955.20	-2415.27	3.20	0.99	2415.27	
7221.00	87.00	182.80	4957.12	-2446.17	1.58	3.77	2446.17	
7253.00	87.50	182.90	4958.66	-2478.09	0.00	1.59	2478.09	
7285.00	87.80	182.90	4959.97	-2510.02	-1.62	0.94	2510.02	
7317.00	88.20	181.80	4961.09	-2541.97	-2.93	3.66	2541.97	
7348.00	88.20	181.10	4962.06	-2572.95	-3.72	2.26	2572.95	
7379.00	88.90	180.40	4962.85	-2603.94	-4.12	3.19	2603.94	
7411.00	90.10	180.40	4963.12	-2635.93	-4.35	3.75	2635.93	
7443.00	90.60	181.40	4962.93	-2667.93	-4.85	3.49	2667.93	
7474.00	90.90	181.40	4962.52	-2698.92	-5.61	0.97	2698.92	
7506.00	90.50	181.40	4962.13	-2730.90	-6.39	1.25	2730.90	
7538.00	89.90	180.70	4962.02	-2762.90	-6.97	2.88	2762.90	
7569.00	88.80	180.10	4962.37	-2793.90	-7.19	4.04	2793.90	
7601.00	88.90	179.70	4963.01	-2825.89	-7.14	1.29	2825.89	
7633.00	89.60	179.50	4963.43	-2857.88	-6.91	2.28	2857.88	
7664.00	89.60	179.00	4963.65	-2888.88	-6.51	1.61	2888.88	
7696.00	88.50	178.70	4964.18	-2920.87	-5.86	3.56	2920.87	
7728.00	87.00	178.70	4965.44	-2952.84	-5.14	4.69	2952.84	
7759.00	85.70	178.60	4967.41	-2983.76	-4.41	4.21	2983.76	
7791.00	85.70	179.60	4969.81	-3015.67	-3.91	3.12	3015.67	
7822.00	85.80	180.10	4972.11	-3046.58	-3.83	1.64	3046.58	
7854.00	85.20	179.80	4974.62	-3078.49	-3.80	2.10	3078.49	
7885.00	85.00	179.60	4977.27	-3109.37	-3.64	0.91	3109.37	
7917.00	85.20	178.90	4980.00	-3141.25	-3.22	2.27	3141.25	
7949.00	85.70	178.60	4982.54	-3173.14	-2.53	1.82	3173.14	
7980.00	86.00	178.20	4984.78	-3204.05	-1.66	1.61	3204.05	

KCC MICHITA

APR 03 2012

RECEIVED

Calmena Energy Services

Date: 9-Feb-2012

Surveys

Page 5

Job# : 6283

Company: Osage Resources

Well: Osage 23-05H

Location: Barber County, Kansas

KCC

MAR 29 2014

CONFIDENTIAL

ID (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 180.00° Az (feet)	Comments
8651.00	86.00	178.20	4990.43	-3284.81	0.88	0.00	3284.81	Survey Proj

RECEIVED

APR 03 2012

KCC WICHITA