Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1228580

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 # 32811
Name: OSAGE Resources, LLC
Address 1: 6209 N K61 HWY
Address 2:
City: HUTCHINSON State: KS Zip: 67502 + 8608
Contact Person: Jeff Dale
Phone: (620) 664-9622
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
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
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

8/10/2014	09/04/2014	09/04/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-24183-01-00
Spot Description:
NW SW SW NE Sec. 18 Twp. 33 S. R. 13 ☐ East ☑ West
2255 Feet from ☑ North / ☐ South Line of Section
2480 Feet from ☑ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Barber
Lease Name: Osage No. 3313 Well #: 18-04HC
Field Name:
Producing Formation: Mississippian
Elevation: Ground: 1874 Kelly Bushing: 1893
Total Vertical Depth: 4947 Plug Back Total Depth: 10163
Amount of Surface Pipe Set and Cemented at: 211 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: 5000 ppm Fluid volume: 800 bbls
Dewatering method used: Evaporated

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: 10/21/2014
☑ **Confidential Release Date:** 10/21/2016
☐ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 11/26/2014

[redacted] 1228580

Operator Name: OSAGE Resources, LLC Lease Name: Osage No. 3313 Well #: 18-04HC

Sec. 18 Twp. 33 S. R. 13 ☐ East ☑ West County: Barber

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 ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☐ Yes ☑ No

List All E. Logs Run:

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Stark	4599	-2706
Hushpuckney	4635	-2742
B/KC	4661	-2768
Mississippi	4739	-2846

CASING RECORD ☑ New ☐ 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
Surface	17.5	13.3750	48	208	CP100C	255	2% CaCl & 1/4# sx celloflake
Intermediate	8.75	7	26	5214	CP105 AA2	150	0.25% defoamer, 10% salt, 0.5% CFR, 0.
Production	6.125	4.5	11.6	10175	AA-2 50/50 Poz	400	2% gel, 0.35% defoamer, 10% salt, 0.75

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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 *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

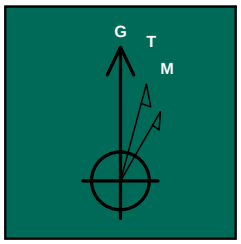
Form	ACO1 - Well Completion
Operator	OSAGE Resources, LLC
Well Name	Osage No. 3313 18-04HC
Doc ID	1228580

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	17.5	13.3750	48	208	CP100C	255	2% CaCl & 1/4# sx celloflake
Intermediate	8.75	7	26	5214	CP105 AA2	150	0.25% defoamer, 10% salt, 0.5% CFR, 0.3% FLA-322 & 1/4# sx celloflake
Production	6.125	4.5	11.6	10175	AA-2 50/50 Poz	400	2% gel, 0.35% defoamer, 10% salt, 0.75% CFR, 0.5% FLA-22 & 0.2% WCA-1

Osage Resources

WELLBORE: Lateral #1
PLAN: Design #4
GEODETIC SYSTEM: US State Plane 1983 DATUM: North American Datum 1983 ELLIPSOID: GRS 1980 ZONE: Kansas Southern Zone SYSTEM DATUM: Mean Sea Level
SURFACE HOLE COORDINATES LATITUDE: 37° 10' 28.596 N LONGITUDE: 98° 46' 34.266 W NORTHING (Y): 1497408.28 EASTING (X): 1231861.71 GROUND LEVEL: 1877.0 RIG FLOOR(KB): WELL @ 1896.0usft (Original Well Elev)
MAGNETIC FIELD: STRENGTH: 51619 DIP ANGLE: 65.14° MODEL: IGRF2010 DATE: 13-Jun-14 AZIMUTHS CORRECTED TO: Grid MWD - USE IF ABOVE IS GRID Magnetic North is 4.97° East of Grid North (Magnetic Convergence) MWD - USE IF ABOVE IS TRUE Magnetic North is 4.81° East of True North (Magnetic Declination)



Operator: Osage Resources, LLC
Location: Barber Co, Kansas (NAD-83)
Well Name: Osage #3313 18-04HC
Calmena Job# 14097

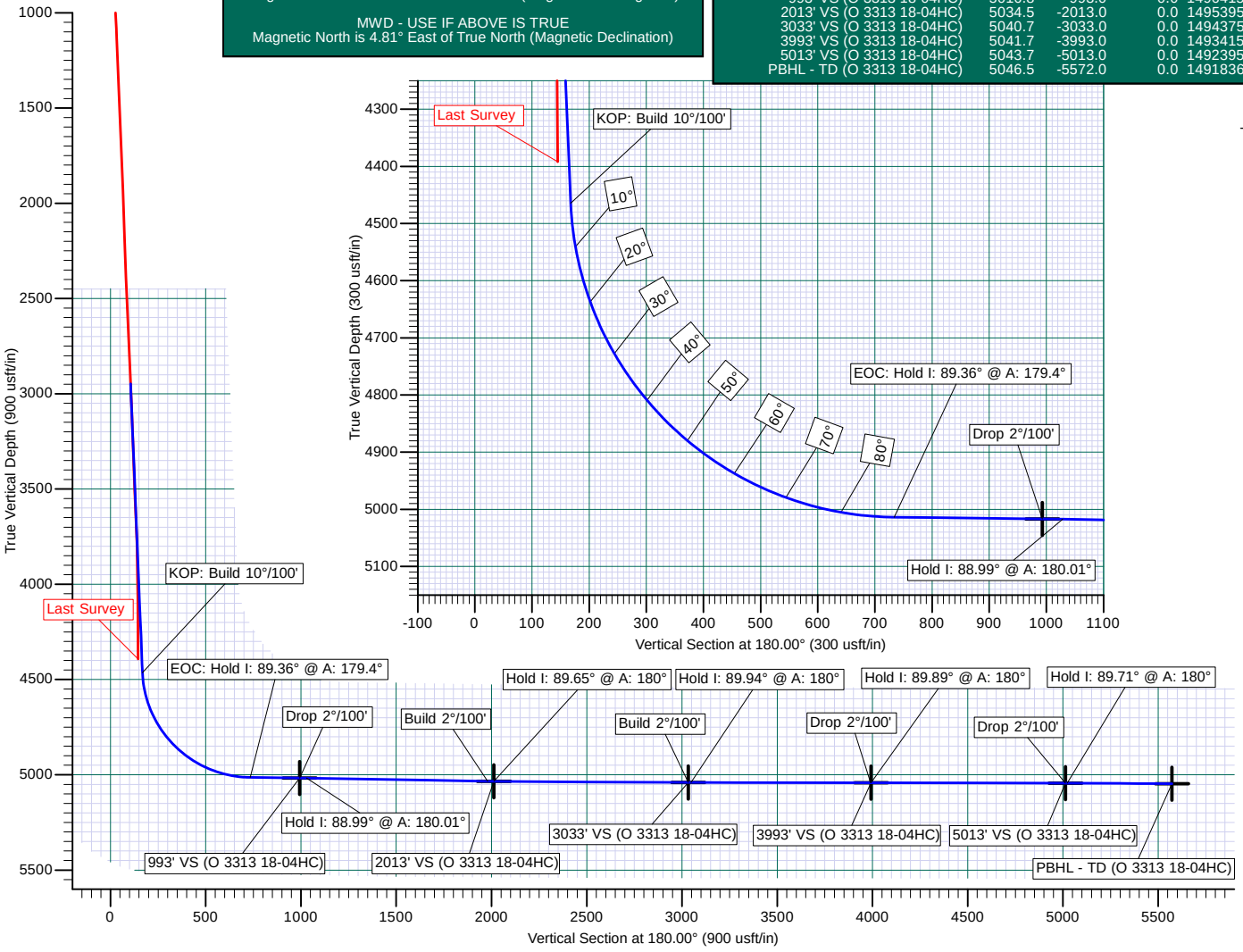
calmena ENERGY SERVICES

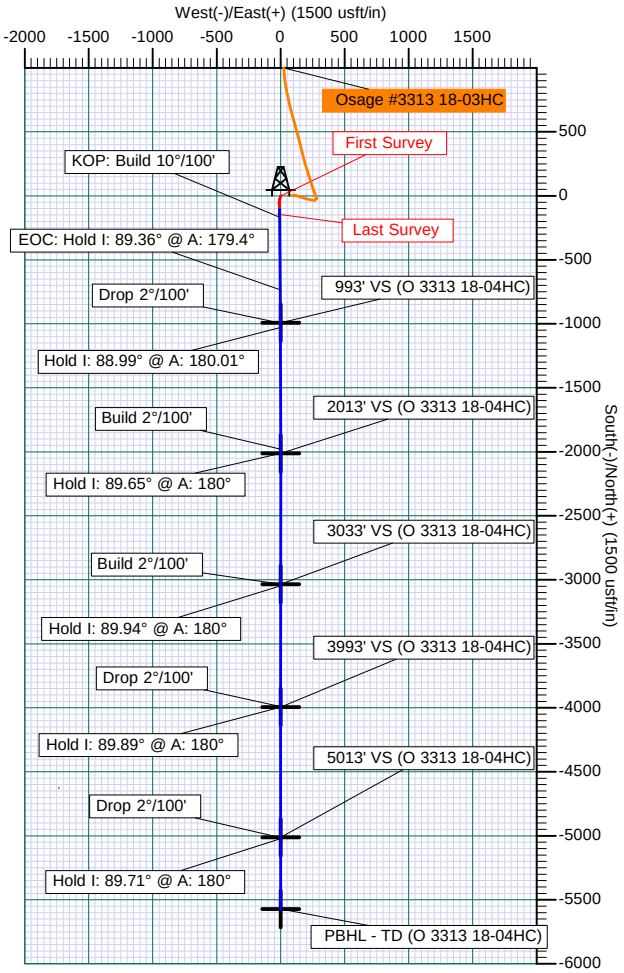
PLAN SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	2950.0	2.35	180.00	2947.8	-105.6	-8.4	0.00	0.00	105.6		
2	4467.9	2.35	180.00	4464.5	-167.8	-8.4	0.00	0.00	167.8		KOP: Build 10°/100'
3	5338.0	89.36	179.40	5013.9	-733.8	-2.7	10.00	-0.60	733.8		EOC: Hold I: 89.36° @ A: 179.4°
4	5597.2	89.36	179.40	5016.8	-993.0	0.0	0.00	0.00	993.0	993' VS (O 3313 18-04HC)	Drop 2°/100'
5	5632.8	88.99	180.01	5017.3	-1028.6	0.2	2.00	121.01	1028.6		Hold I: 88.99° @ A: 180.01°
6	6584.2	88.99	180.01	5034.1	-1979.8	0.0	0.00	0.00	1979.8		Build 2°/100'
7	6617.3	89.65	180.00	5034.5	-2013.0	0.0	2.00	-0.94	2013.0	2013' VS (O 3313 18-04HC)	Hold I: 89.65° @ A: 180°
8	7637.3	89.65	180.00	5040.7	-3033.0	0.0	0.00	0.00	3033.0	3033' VS (O 3313 18-04HC)	Build 2°/100'
9	7651.9	89.94	180.00	5040.8	-3047.5	0.0	2.00	0.00	3047.5		Hold I: 89.94° @ A: 180°
10	8594.6	89.94	180.00	5041.7	-3990.3	0.0	0.00	0.00	3990.3		Drop 2°/100'
11	8597.3	89.89	180.00	5041.7	-3993.0	0.0	2.00	180.00	3993.0	3993' VS (O 3313 18-04HC)	Hold I: 89.89° @ A: 180°
12	9617.3	89.89	180.00	5043.7	-5013.0	0.0	0.00	0.00	5013.0	5013' VS (O 3313 18-04HC)	Drop 2°/100'
13	9626.1	89.71	180.00	5043.7	-5021.8	0.0	2.00	180.00	5021.8		Hold I: 89.71° @ A: 180°
14	10176.3	89.71	180.00	5046.5	-5572.0	0.0	0.00	0.00	5572.0	PBHL - TD (O 3313 18-04HC)	

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
993' VS (O 3313 18-04HC)	5016.8	-993.0	0.0	1496415.28	1231861.71	37° 10' 18.778 N	98° 46' 34.230 W	Point
2013' VS (O 3313 18-04HC)	5034.5	-2013.0	0.0	1495395.28	1231861.71	37° 10' 8.694 N	98° 46' 34.192 W	Point
3033' VS (O 3313 18-04HC)	5040.7	-3033.0	0.0	1494375.28	1231861.71	37° 9' 58.609 N	98° 46' 34.155 W	Point
3993' VS (O 3313 18-04HC)	5041.7	-3993.0	0.0	1493415.28	1231861.71	37° 9' 49.118 N	98° 46' 34.120 W	Point
5013' VS (O 3313 18-04HC)	5043.7	-5013.0	0.0	1492395.28	1231861.71	37° 9' 39.033 N	98° 46' 34.083 W	Point
PBHL - TD (O 3313 18-04HC)	5046.5	-5572.0	0.0	1491836.28	1231861.71	37° 9' 33.506 N	98° 46' 34.062 W	Point





Company:	Osage Resources, LLC	**Local Co-ordinate Reference:**	Site Osage #3313 18-04HC
Project:	Barber Co, Kansas (NAD-83)	**TVD Reference:**	WELL @ 1896.0usft (Original Well Elev)
Site:	Osage #3313 18-04HC	**MD Reference:**	WELL @ 1896.0usft (Original Well Elev)
Well:	Osage #3313 18-04HC	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral #1	**Database:**	EDM 5000.1 Single User Db

Project Barber Co, Kansas (NAD-83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Kansas Southern Zone		

Site Osage #3313 18-04HC

Site Position:		**Northing:**	1,497,408.29 usft	**Latitude:**	37° 10' 28.596 N
From:	Lat/Long	**Easting:**	1,231,861.71 usft	**Longitude:**	98° 46' 34.266 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.17 °

Well Osage #3313 18-04HC

Well Position	**+N/-S**	0.0 usft	**Northing:**	1,497,408.29 usft	**Latitude:**	37° 10' 28.596 N
	+E/-W	0.0 usft	**Easting:**	1,231,861.71 usft	**Longitude:**	98° 46' 34.266 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	1,896.0 usft	**Ground Level:**	1,877.0 usft

Wellbore Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/13/2014	4.81	65.14	51,619

Design Lateral #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	180.00

Survey Program **Date** 8/16/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
233.0	4,395.0	Survey #1 (Lateral #1)	MWD	MWD - Calmena

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
233.0	1.00	192.00	233.0	-2.0	-0.4	2.0	0.43	0.43	0.00
First Survey									
294.0	1.00	199.30	294.0	-3.0	-0.7	3.0	0.21	0.00	11.97
351.0	1.20	202.60	351.0	-4.0	-1.1	4.0	0.37	0.35	5.79
439.0	1.20	203.30	438.9	-5.7	-1.8	5.7	0.02	0.00	0.80
526.0	1.50	194.30	525.9	-7.7	-2.5	7.7	0.42	0.34	-10.34
620.0	1.90	195.70	619.9	-10.4	-3.2	10.4	0.43	0.43	1.49
745.0	2.30	199.50	744.8	-14.7	-4.6	14.7	0.34	0.32	3.04
930.0	3.10	199.50	929.6	-22.9	-7.5	22.9	0.43	0.43	0.00
991.0	2.90	192.30	990.5	-26.0	-8.4	26.0	0.70	-0.33	-11.80

Company:	Osage Resources, LLC	**Local Co-ordinate Reference:**	Site Osage #3313 18-04HC
Project:	Barber Co, Kansas (NAD-83)	**TVD Reference:**	WELL @ 1896.0usft (Original Well Elev)
Site:	Osage #3313 18-04HC	**MD Reference:**	WELL @ 1896.0usft (Original Well Elev)
Well:	Osage #3313 18-04HC	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,084.0	3.00	196.20	1,083.4	-30.6	-9.6	30.6	0.24	0.11	4.19
1,176.0	2.00	187.50	1,175.3	-34.5	-10.4	34.5	1.16	-1.09	-9.46
1,268.0	2.10	184.70	1,267.2	-37.8	-10.8	37.8	0.15	0.11	-3.04
1,454.0	2.30	192.70	1,453.1	-44.8	-11.9	44.8	0.20	0.11	4.30
1,641.0	2.80	187.50	1,639.9	-53.0	-13.3	53.0	0.29	0.27	-2.78
1,798.0	2.40	174.30	1,796.8	-60.1	-13.5	60.1	0.46	-0.25	-8.41
2,016.0	1.90	162.30	2,014.6	-68.1	-11.9	68.1	0.31	-0.23	-5.50
2,202.0	2.00	170.50	2,200.5	-74.2	-10.5	74.2	0.16	0.05	4.41
2,390.0	2.50	172.20	2,388.3	-81.5	-9.4	81.5	0.27	0.27	0.90
2,576.0	2.60	176.20	2,574.2	-89.8	-8.5	89.8	0.11	0.05	2.15
2,762.0	2.40	181.20	2,760.0	-97.9	-8.3	97.9	0.16	-0.11	2.69
2,948.0	2.50	180.00	2,945.8	-105.8	-8.4	105.8	0.06	0.05	-0.65
3,135.0	2.30	177.20	3,132.7	-113.6	-8.2	113.6	0.12	-0.11	-1.50
3,320.0	1.90	185.50	3,317.5	-120.4	-8.3	120.4	0.27	-0.22	4.49
3,506.0	2.50	186.70	3,503.4	-127.5	-9.1	127.5	0.32	0.32	0.65
3,693.0	2.30	189.10	3,690.2	-135.3	-10.2	135.3	0.12	-0.11	1.28
3,880.0	1.20	191.40	3,877.1	-140.9	-11.2	140.9	0.59	-0.59	1.23
4,065.0	0.50	234.40	4,062.1	-143.2	-12.2	143.2	0.49	-0.38	23.24
4,395.0	0.50	234.40	4,392.1	-144.9	-14.5	144.9	0.00	0.00	0.00
Last Survey									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
233.0	233.0	-2.0	-0.4	First Survey
4,395.0	4,392.1	-144.9	-14.5	Last Survey

Checked By: _____ Approved By: _____ Date: _____

Daily Activity Report

Day 8 - 2014/08/17

Calmena Energy Services
v4.2.2674

FILE #: OK0014097
JOB TYPE: Horizontal
RIG & NO: Duke Drilling 6

WELL NAME: Osage 3313 18-04HC
COMPANY: Osage Resources LLC
SURFACE LOCATION: Barber County KS

SERVICE CO.: Calmena Energy Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Medicine Lodge-Boggs / Kansas / US

Company Man: Scott Higgins
DIR Supervisor: Chris Garvin, Shane Lewis
MWD Supervisor: Joe Newberry, Jeff Atwood

GROUND ELEV: 1877 ft
KB ELEV: 1896 ft
START DEPTH: 4415.0 ft
END DEPTH: 4415.0 ft
PROGRESS: 0.0 ft
AVG. ROP.: 0.0 ft/hr
DAILY COST: USD$9200.00
PREVIOUS COST: USD$85200.00
TOTAL COST: USD$94400.00

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:45	Handle Directional Tools	1.75	4415	3	20:00-20:30	Shallow Test Tools - test mwd & pumps	0.50	4415	4
01:45-18:00	Rig Repair	16.25	4415	4	20:30-21:30	POOH - See Comments - 11 Stands	1.00	4415	4
18:00-18:30	Handle Directional Tools - Stab MWD tool	0.50	4415	4	21:30-24:00	Rig Repair	2.50	4415	4
18:30-20:00	RIH - See Comments - 12 Stands	1.50	4415	4			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	0.00	**ORIENTING HRS:**	0.00	**ROTARY DRILL:**	0.00	**MOTOR HRS:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	0.00	**TRIP:**	2.50	**ROTARY DRILL:**	0.00
MOTOR REAM:	0.00			**OTHER:**	21.50	**DRILL HRS:**	0.00
CIRC:	0.00			**TOTAL HRS:**	24.00		

DRILLING PARAMETERS:

ROTARY TORQUE:		**STRING WEIGHT**	0 lbs
WOB SLIDING (HI):	0 lbf	**WOB ROTATE (HI):**	0 lbf
WOB SLIDING (LO):	0 lbf	**WOB ROTATE (LO):**	0 lbf
RPM (ROTARY):		**DRAG UP:**	0 lbf
RPM (MOTOR):		**DRAG DN:**	0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 3 **HOLE SIZE:** 8.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Calmena **STABILIZER:** No **SERIAL#:** 650-055 **MODEL:** 6750 **LOBE CFG.:** 6/7
SETTING: 2.3 ° **KICKPAD:** No **SIZE:** 6 1/2" (165mm) **MTR HRS THIS DAY:** 0 **MTR HRS TO DATE:** 7
MANFCT: JZ **BIT TYPE:** PDC Bit **TYPE:** PLd616D6 **NOZZLES:** 1.035 in² TFA
IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ? / ?

BHA: 4 **HOLE SIZE:** 8.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Calmena **STABILIZER:** No **SERIAL#:** 650-056 **MODEL:** 6750 **LOBE CFG.:** 6/7
SETTING: 2.3 ° **KICKPAD:** No **SIZE:** 6 1/2" (165mm) **MTR HRS THIS DAY:** 0 **MTR HRS TO DATE:** 0
MANFCT: JZ **BIT TYPE:** PDC Bit **TYPE:** PLd616D6 **NOZZLES:** 1.035 in² TFA
IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ? / ?

PUMP PARAMETERS

PRESSURE ON BTM: 0 **PRESSURE OFF BTM:** 0 **TOTAL FLOW RATE:** 0.00 gal/min

PUMP 1: **TYPE:** MP-10	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk
PUMP 2: **TYPE:** MP-10	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk
PUMP 3: **TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 35 sec/qt **WTR LOSS:** 10 cc/30min **PV:** 6 cP **YP:** 10 lb/100 ft² **pH:** 10
DENSITY: 9.2 lb/gal **GEL 0/10:** 8.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 5.7 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Swapped out motors then stood back BHA string while we waited on the rig to work on pumps. Rig pumps diagnosement: two 6" liners with one 5 1/2" liner in each pump. The pumps would run together before one of the liners were changed in each pump.P/U MWD and put in the string, RIH 11 stands to test the tool and the pumps. One of the pumps clutch went out while we was testing and they needed to change a clutch on one of the floor motors. POH 11 stands with the tool inside of the casing while they fixed these problems.

CUSTOMER SIGNATURE: _____

Daily Activity Report

Day 9 - 2014/08/18

Calmena Energy Services
v4.2.2674

FILE #: OK0014097
JOB TYPE: Horizontal
RIG & NO: Duke Drilling 6

WELL NAME: Osage 3313 18-04HC
COMPANY: Osage Resources LLC
SURFACE LOCATION: Barber County KS

SERVICE CO.: Calmena Energy Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Medicine Lodge-Boggs / Kansas / US

Company Man: Scott Higgins
DIR Supervisor: Chris Garvin, Shane Lewis
MWD Supervisor: Joe Newberry, Jeff Atwood

GROUND ELEV: 1877 ft
KB ELEV: 1896 ft
START DEPTH: 4415.0 ft
END DEPTH: 4415.0 ft
PROGRESS: 0.0 ft
AVG. ROP.: 0.0 ft/hr
DAILY COST: USD$0.00
PREVIOUS COST: USD$94400.00
TOTAL COST: USD$94400.00

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-06:00	Rig Repair	6.00	4415	4			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	0.00	**ORIENTING HRS:**	0.00	**ROTARY DRILL:**	0.00		
TIME DRILL:	0.00	**ROTATING HRS:**	0.00	**MOTOR HRS:**	0.00		
MOTOR REAM:	0.00			**TRIP:**	0.00		
CIRC:	0.00	**ROTARY DRILL:**	0.00	**OTHER:**	6.00		
MOTOR HRS:	0.00	**DRILL HRS:**	0.00	**TOTAL HRS:**	6.00		

DRILLING PARAMETERS:

ROTARY TORQUE:		**STRING WEIGHT**	0 lbs
WOB SLIDING (HI):	0 lbf	**WOB ROTATE (HI):**	0 lbf
WOB SLIDING (LO):	0 lbf	**WOB ROTATE (LO):**	0 lbf
RPM (ROTARY):		**DRAG UP:**	0 lbf
RPM (MOTOR):		**DRAG DN:**	0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 4
HOLE SIZE: 8.75 in
SECTION TYPE: Curve
SURVEY TYPE: Positive Pulse MWD
MANFCT.: Calmena
STABILIZER: No
SERIAL#: 650-056
MODEL: 6750
LOBE CFG.: 6/7
SETTING: 2.3 °
KICKPAD: No
SIZE: 6 1/2" (165mm)
MTR HRS THIS DAY: 0
MTR HRS TO DATE: 0
MANFCT: JZ
BIT TYPE: PDC Bit
TYPE: PLd616D6
NOZZLES: 1.035 in² TFA
IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ? / ?

PUMP PARAMETERS

PRESSURE ON BTM: 0
PRESSURE OFF BTM: 0
TOTAL FLOW RATE: 0.00 gal/min

PUMP 1:	**TYPE:**	MP-10	**EFF.:**	95.0%	**SPM:**	0.00	**LINER:**	0.00 in	**STROKE VOL.:** 0.0000 gal/stk
PUMP 2:	**TYPE:**	MP-10	**EFF.:**	95.0%	**SPM:**	0.00	**LINER:**	0.00 in	**STROKE VOL.:** 0.0000 gal/stk
PUMP 3:	**TYPE:**		**EFF.:**	100.0%	**SPM:**	0.00	**LINER:**	0.00 in	**STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem
VISC: 0 sec/qt
WTR LOSS: 0 cc/30min
PV: 0 cP
YP: 0 lb/100 ft²
pH: 0
DENSITY: 0 lb/gal
GEL 0/10: 0.00 lb/100 ft²
SAND: 0
SOLIDS: 0
OIL: 0
TEMP: 0 °F
LIQUID BASE: Water
LIQUID RATE: 0 gal/min
GAS TYPE:
GAS RATE: 0 cu ft/min

COMMENTS:

Waiting on Rig to fix a mud pump clutch and a floor motor clutch, Calmena BHA is inside casing.

CUSTOMER SIGNATURE: _____

Slide Sheet Report

BHA 2 - 2014/08/13 TO 2014/08/15

Calmena Energy Services
v4.2.2674

FILE #: OK0014097
JOB TYPE: Horizontal
RIG & NO: Duke Drilling 6

WELL NAME: Osage 3313 18-04HC
COMPANY: Osage Resources LLC
SURFACE LOCATION: Barber County KS

SERVICE CO.: Calmena Energy Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Medicine Lodge-Boggs / Kansas / USA

Company Man: Scott Higgins
DIR Supervisor: Chris Garvin, Shane Lewis
MWD Supervisor: Joe Newberry, Jeff Atwood

BHA NO: 2 **DATES RUN:** 2014/08/13 TO 2014/08/15 **SECTION:** Vertical **TOOLFACE OFFSET:** **SURVEY OFFSET:** 50
MOTOR SETTING: 1.50 **KICKPAD:** No **STABILIZER:** No **MODEL:** 6750 **SERIAL NO:** 675-001 **BHA SURVEY TYPE:** Positive Pulse MWD

(Distances are shown in feet.)

BIT		SURVEY				---------- ORIENTING ----------			---------- ROTATING ----------			SLIDE	BUR	BUR	
DEPTH	DRILLED	DEPTH	INC	AZM	TF	FROM	TO		FROM	TO		SEEN	/		COMMENTS
1912.00	154.00	1862.00	1.60	166.00		1912.00	1912.00	0.00	1912.00	2066.00	154.00	0.00	0.00	0.00	
2066.00	186.00	2016.00	1.90	162.30		2066.00	2066.00	0.00	2066.00	2252.00	186.00	0.00	0.00	0.19	
2252.00	188.00	2202.00	2.00	170.50		2252.00	2252.00	0.00	2252.00	2440.00	188.00	0.00	0.00	0.05	
2440.00	186.00	2390.00	2.50	172.20		2440.00	2440.00	0.00	2440.00	2626.00	186.00	0.00	0.00	0.27	
2626.00	186.00	2576.00	2.60	176.20		2626.00	2626.00	0.00	2626.00	2812.00	186.00	0.00	0.00	0.05	
2812.00	186.00	2762.00	2.40	181.20		2812.00	2812.00	0.00	2812.00	2998.00	186.00	0.00	0.00	-0.11	
2998.00	186.00	2948.00	2.50	180.00		2998.00	2998.00	0.00	2998.00	3184.00	186.00	0.00	0.00	0.05	
3184.00	186.00	3134.00	2.30	177.20		3184.00	3184.00	0.00	3184.00	3370.00	186.00	0.00	0.00	-0.11	
3370.00	186.00	3320.00	1.90	185.50		3370.00	3370.00	0.00	3370.00	3556.00	186.00	0.00	0.00	-0.22	
3556.00	187.00	3506.00	2.50	186.70		3556.00	3556.00	0.00	3556.00	3743.00	187.00	0.00	0.00	0.32	
3743.00	187.00	3693.00	2.30	189.10		3743.00	3743.00	0.00	3743.00	3930.00	187.00	0.00	0.00	-0.11	
3930.00	185.00	3880.00	1.20	191.40		3930.00	3930.00	0.00	3930.00	4115.00	185.00	0.00	0.00	-0.59	
4115.00	186.00	4065.00	0.50	234.40		4115.00	4115.00	0.00	4115.00	4301.00	186.00	0.00	0.00	-0.38	
4301.00	0.00	4251.00	0.00	0.00		4301.00	4301.00	0.00	4301.00	4301.00	0.00	0.00	0.00	-0.27	

Totals:	0.00	2389.00
Percentages:	0.0%	100.0%
Time:	0.00 hrs	42.50 hrs
Percentages:	0.0%	100.0%

BASIC energy services, L.P.

TREATMENT REPORT

Customer: OSage Resources LLC	Lease No.		Date: 9-5-2014		
Lease: OSage 3313	Well #: 18-04 HC				
Field Order #: 11057	Station: Pratt, KS	Casing: 4½	Depth: 5329	County: Barber	State: KS
Type Job: CNV/ 4½ Liner	Formation: TD-10,665'		Legal Description: 18-33-13		

PIPE DATA		PERFORATING DATA		FLUID USED
Casing Size: 4½	Tubing Size	Shots/Ft		Acid
Depth: 5329	Depth	From	To	Pre Pad
Volume: 82	Volume	From	To	Pad
Max Press	Max Press	From	To	Frac
Well Connection	Annulus Vol.	From	To	
Plug Depth: 5320	Packer Depth	From	To	Flush

TREATMENT RESUME		
RATE	PRESS	ISIP
Max		5 Min.
Min		10 Min.
Avg		15 Min.
HHP Used		Annulus Pressure
Gas Volume		Total Load

Customer Representative: Scott Hissins			Station Manager: Kevin Gorelay					Treater: Darin Franklin				
Service Units	27283	27463	19560	21010								
Driver Names	Darin	E.	Cobb	Cobb								

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
6:30pm					on location / Safety Meeting
					Run 5329' 4½ Casing
					2213 HW DP
					2771 4" DP
					400 sx 50/50 POZ 2% Gel 10% Salt
					.25% defoamer .75% CFR .5% FLA-322
					.2% WCG-1, 13.6 PPG, 1.51 yield, 7.25 water
	500		12	3	Pump 12 bbls mud Flush
	500		5	3	5 bbls water
	500		108	3	mix 400sk Cement
					Shut down & wash pump & lines, Release plug
	200		0	4	Start displacement
	1,000		15	4	
	800		35	2	Slow rate
	2,000		45	2	Sheer pin
	1200		47	4	Increase Rate
	700		115	2	~~Fn~~ Slow Rate
	1200		120	2	Bump plug
					Bleed off - Held
	3,200		2	2	~~Check Seat~~ Open Bypass
	800		7	3	Increase Rate

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BASIC energy services, L.P.

TREATMENT REPORT

Customer: OSAGE Resources LLC	Lease No.		Date: 9-5-2014		
Lease: OSAGE 3313	Well #: 18-04 HC				
Field Order #: 11097	Station: Pratt KS	Casing: 4½	Depth	County: Barber	State: KS
Type Job: CNW/ 4½ Liner		Formation: TD-10,665'		Legal Description: 18-33-13	

PIPE DATA		PERFORATING DATA		FLUID USED
Casing Size	Tubing Size	Shots/Ft		Acid
Depth	Depth	From	To	Pre Pad
Volume	Volume	From	To	Pad
Max Press	Max Press	From	To	Frac
Well Connection	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	Flush

TREATMENT RESUME		
RATE	PRESS	ISIP
Max		5 Min.
Min		10 Min.
Avg		15 Min.
HHP Used		Annulus Pressure
Gas Volume		Total Load

Customer Representative	Station Manager	Treater

Service Units	27263	27463	19960	21010								
Driver Names	Orin	Ed	Cobb	Cobb								

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
					Stings out
	500		2	2	Reverse out
	1,100		100	5	Increase Rate
					Shut down
					Job complete / Orin & Crew
					Thank you!!!

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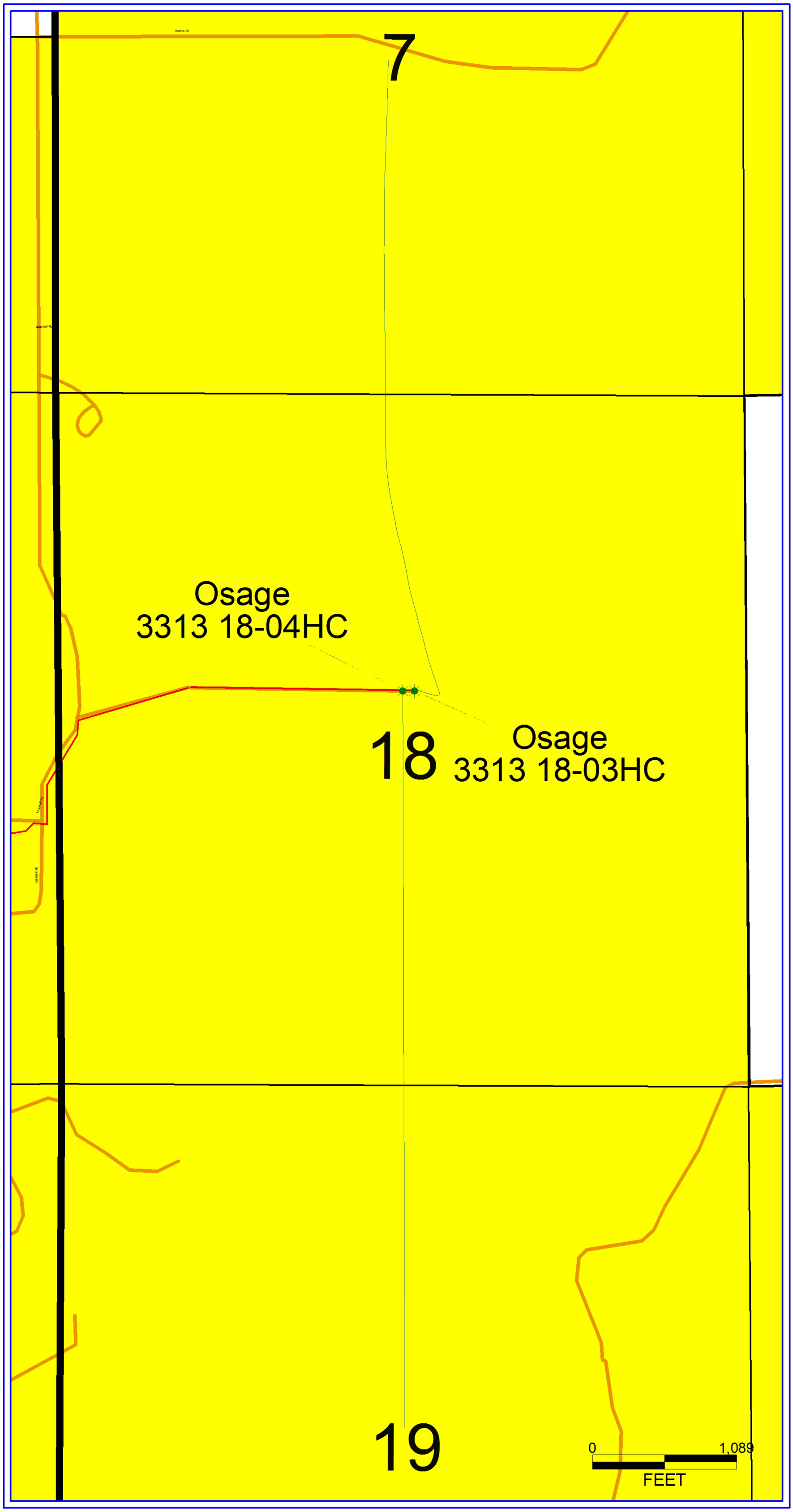

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