

# KANSAS CORPORATION COMMISSION RIGINAL OIL & GAS CONSERVATION DIVISION

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

Form ACO-1 September 1999 Form Must Be Typed

> CONSERVATION DIVISION WICHITA, KS

Form Must 11/03/10

Operator: License # 32294		API No. 15 - 121-28664-0000
Name: OSBORN ENERGY, LLC		County: Miami
Address: 24850 FARLEY		<u>SW_NE_Sw_Sec16Twp16SR25</u>
City/State/Zip: BUCYRUS, KS 66013		1650 feet from N (circle one) Line of Section
Purchaser: AKAWA NATURAL GAS, LLC		3630 feet from (E) / W (circle one) Line of Section
Operator Contact Person: Curstin Hamblin		Footages Calculated from Nearest Outside Section Corner:
Phone: (_913) _533-9900		(circle one) NE (SE) NW SW
Contractor: Name: OSBORN ENERGY, LLC		Lease Name: Deco, Inc Well #: 4-16
License: 32294		Field Name: Louisburg
Wellsite Geologist: Curstin Hamblin		Producing Formation: MARMATON AND CHEROKEE
Designate Type of Completion:		Elevation: Ground: 1042 Kelly Bushing:
✓ New Well Re-Entry	_ Workover	Total Depth: 550 Plug Back Total Depth:
Oil SWD SIOW	1	Amount of Surface Pipe Set and Cemented at 20 Feet
✓ Gas ENHR SIGW	· ·	Multiple Stage Cementing Collar Used?
Dry Other (Core, WSW, Exp		If yes, show depth setFeet
If Workover/Re-entry: Old Well Info as follows		If Alternate II completion, cement circulated from 0
Operator:		feet depth to 416 w/ 73 sx cmt.
Well Name:		
Original Comp. Date: Original	Total Depth:	Drilling Fluid Management Plan AHTI NJ 1-23-09 (Data must be collected from the Reserve Pit)
Deepening Re-perf		Chloride contentppm Fluid volumebbls
Plug Back F		Dewatering method used
• .		·
•		Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No.	•	Operator Name:
		Lease Name: License No.:
10/2/2008 10/6/2008 Spud Date or Date Reached TD	10/29/2008 Completion Date or	Quarter Sec TwpS. R 🗌 East 🗌 West
Recompletion Date	Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spu Information of side two of this form will be he 107 for confidentiality in excess of 12 months	ud date, recompletion, workover o eld confidential for a period of 12 m s). One copy of all wireline logs and	e Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. In the street of t
All requirements of the statutes, rules and requirements of the statutes, rules and requirements are complete and correct to the best of		the oil and gas industry have been fully complied with and the statements
Signature: Cuttu Haube	y S	KCC Office Use ONLY
	_ Date: <u>11 - 3 - 08</u>	Letter of Confidentiality Received
Subscribed and sworn to before me this <b>3</b> 12	day of November	If Denied, Yes Date:
_		Wireline Log Received
20 05 - M 12		Geologist Report Received
Notary Public:	Jane Brewer	UIC Distribution RECEIVEL
Date Commission Expires:	Notary Public	KANSAS CORPORATION COMMISSION
	State of Kansas My Commission Expires 3	NOV 0 5 2008

#### Side Two

Operator Name: OSBC	ORN ENERGY, LL	С		_ Lease	e Name:	Deco, Inc		_ Well #: 4-16	3
Sec. 16 Twp. 16			West	Count	County: Miami				
NSTRUCTIONS: Sho ested, time tool open a emperature, fluid reco dectric Wireline Logs	and closed, flowing very, and flow rate	g and shut-i s if gas to s	n pressures, wh surface test, alor	nether s ng with	hut-in pre	ssure reached	static level, hydro	static pressur	ests giving interval es, bottom hole ed. Attach copy of all
orill Stem Tests Taken	heets)	☐ Ye	s 🗸 No			og Format	tion (Top), Depth a	nd Datum	Sample
Samples Sent to Geolo	•	☐ Ye	s 🗹 No		Nam	е		Тор	Datum
Cores Taken Electric Log Run (Submit Copy)		☐ Ye ☐ Ye							
ist All E. Logs Run:									
		Report	CASING RI		Ne Surface, inte		ction, etc.		
Purpose of String	Size Hole Drilled	Size	Casing (in O.D.)	We	eight . / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
SURFACE	12 1/4"	8 5/8"				20'	PORTLAND	6	WATER
PRODUCTION	7 7/8"	5 1/2"				416	50/50 poz	73	gel
			ADDITIONAL C	EMENIT	ING / SOI	IEEZE RECOR	D		
Purpose:	Depth Top Bottom	Туре	of Cement		s Used			Percent Additives	S
Shots Per Foot	PERFORATI Specify	ON RECORI	O - Bridge Plugs ach Interval Perfo	Set/Type rated	•		acture, Shot, Cemen Amount and Kind of M.		rd Depth
TUBING RECORD	Size	Set At		Packer	At	Liner Run	✓ Yes No		
Date of First, Resumerd	Production, SWD or I	Enhr.	Producing Metho	od	Flowing	g 📝 Pumi	oing Gas Li	ft Oth	ner (Explain)
Estimated Production Per 24 Hours	Oil	Bbis.	Gas M	lcf	Wate	ər	Bbls. (	Gas-Oil Ratio	Gravity
Disposition of Gas	METHOD OF	COMPLETIO	N			Production Inte	erval		
Vented Sold	Used on Lease		✓ Open Hole  Other (Specify)	Per	rf. 🔲 [	Dually Comp.	Commingled _	KAN	RECEIVED ISAS CORPORATION CON

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#### Geological Report

#### Deco, Inc # 4-16

1650 FSL, 3630 FEL Section 16-T16-R25E Miami Co., Kansas API# 15-121-28664-0000

Elevation: 1042' GL

Drilling Contractor: Osborn Energy, L.L.C (Lic. # 32294)

Spud: 10/2/2008

Production Bore Hole: 7 7/8"

Rotary Total Depth: 550' on 10/6/2008

Drilling Fluid: air

Surface Csg.: 8 5/8" casing, 12 4" hole Production Csg.: 5 4" set at 416.37'

Geologist: Curstin Hamblin

Driller: Brian Schwab

Formation	Driller Log Tops	Datum
	,	
Stark Shale	135-137 <b>′</b>	907 <b>′</b>
Hushpuckney Shale	162-165 <b>'</b>	880 <b>′</b>
Base Kansas City	178 <b>′</b>	864 <b>′</b>
Knobtown Sand	202-206 <b>′</b>	840′
Carbonaceous Zone in Tacket Fr	m. No call	
"Big Lake" Sand	No Call	
South Mound Zone	326-328 <b>′</b>	716 <b>′</b>
Hepler (Wayside) Sand	No call	
"Upper" Mulberry Zone	No call	
Mulberry Zone	No call	
Weiser Sand	No call	
Myrick Station	414-417'	628 <b>′</b>
Anna Shale (Lexington Coal Zon	ne) 418-420'	624 <b>′</b>
Peru Sand	No call	
Summit Shale Zone	455-458 <b>′</b>	587 <b>′</b>
Mulky Coal/Shale Zone	477-481'	565 <b>′</b>
Squirrel Sand	490 <b>′</b>	552 <b>′</b>
Bevier	541 <b>'</b>	501 <b>′</b>
Croweburg	550-? <b>'</b>	492′
Rotary Total Depth	550 <b>′</b>	492′

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Drilling at 101.5' in the Kansas City on 10/3/2008 at 12:00pm Background Gas (BG) 20 units

### Drilling with water, hit water above 100', but not as much as we did on Deco 2 \*\*\* Add .5 to all of these depths

102-111: LS: dk grey, some crinoid stems

112-121: LS: grey, white CG of 120 units over BG 122-131: LS: white/grey

**STARK FORMATION** Geologist called @ 135-137', Chromatograph was rebooting due to low voltage

#### \*\*GAS TEST @ 141', 0 MCF, too small to measure \*\*

136: SH: black, no gas in the samples

132-141: LS: white/grey, SH: black, some grey

CG of 1600 units over BG

142-151: LS: white/grey, 100%

Gas kick of 886.4 units around 155'

152-161: LS: white/grey, some quartz, some quartz inclusions/crystals, SS: grey, large grained, I don't see a lot of sand, but the water is gritty, like it was all broke up when it came out. I saw is from 152-160, 161 was shale. The sand layer must have been really small. According to the chromatograph, there is no way this open flow came from the Hushpuckney. The kick was around 155ish, it was all limestone!

\*\*GAS TEST @ 161', 54 MCF, 54 MCF open flow, 54 MCF total\*\*

HUSHPUCKNEY SHALE Geologist called @ 162-165', gas kick of 220 units over BG
\*\*GAS TEST @ 181', 0-MCF, 49 MCF open flow, 54 MCF total\*\*

165: SH: black, no coal, NO gas in the samples

162-171: SH: limey, grey, black

172-181: LS: grey, SH: grey, gummy, sandy

CG of 1592 over BG

182-191: SH: grey almost green, gummy, sandy, SS: grey, fine grained

192-201: SS: dk grey, fine grained, some pyrite

Knobtown Sand, Geologist called @ 202', gas kick of 100 units

#### \*\*GAS TEST @ 221', 0 MCF, 49 MCF open flow, 54 MCF Total\*\*

202-211: SS: grey, medium grained, about 5' thick 212-221: SS: grey, fine grained, gummy

CG of 1600 units

222-231: SS: dk grey, fine grained, some pyrite

232-241: SH: grey, gummy, sandy, SS: dk grey, limey

242-251: SS: dk grey, limey, fine grained

252-261: SS: dk grey, limey, fine grained

CG 1600 over BG

262-271: SS: grey, fine grained, crinoid stems, gummy

272-281: SS: grey, fine grained, some is gummy

282-291: SS: grey/brown (282-287) medium to large grained, SH: grey/green

292-301: SS: lt grey, fine grained

CG 1080 over BG

302-311: SS: grey, fine grained

312-321: SS: grey, fine grained

Gas kick of 70 units at 314

## \*\*GAS TEST @ 321', 21 MCF, 70 MCF open flow, 75 MCF Total\*\* CG of 1648 units

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l really don't know where this gas came from. The u-tube initially read 49 mcf
bpen flow, but the longer I held it up there, the mcf kept rising and finally
leveled at 70 mcf open flow. I was doing this test to make sure that I got an
accurate read when we went through the south mound.
SOUTH MOUND ZONE Geologist called @ 326-328', gas kick of 360 units over BG
**GAS TEST @ 341', 3 MCF, 73 MCF open flow, 78 MCF Total**
327: good to very good gas in the samples!, as good as the Lexington on deco
322-331: SH: grey, sandy, black
332-341: SH: grey, gummy
342-351: SS: grey, very fine grained, gummy
352-361: SS: grey, very fine grained, gummy
CG of 1360 units
362-371: LS: 368-371, white/peach, 362-367: SH: grey, gummy
371-381: SH: grey/green, sandy, LS: brown
Gas kick of 280 units at 386
382-391: LS: sandy, tan, SH: grey
392-401: SS: dk grey, well cemented, medium to large grained, some brown, medium
to large grained, SH: grey, sandy, gummy
**GAS TEST @401', 0 MCF, 69 MCF Open flow, 78 MCF Total**
Stopped drilling at 401' on 10/3/2008 at 5:00pm
Started drilling at 402' on 10/6/2008 at 8:10am
**GAS TEST @401', 0 MCF, 35 MCF open flow, 78 MCF Total**
402-411: SH: grey, sandy, lots of pyrite
LEXINGTON COAL ZONE Geologist called @ 418-420', gas kick of 1304 units over BG
**GAS TEST @421', 127 MCF, 162 MCF open flow, 205 MCF Total**
420: SH: black, lots of coal, good gas in the samples, some grey coal and lots
of pyrite
***The Lexington was only 2.5 feet thick. The last .5-1 foot was mostly coal
*** It is hard to tell if the Lexington is making water because there is a lot
of water coming in from up hole
412-421: LS: brown, SH: grey, gummy
Gas kick of 140 units at 412'
422-431: SS: grey, limey, 426-431: LS, lt grey
432-441: SH: grey, gummy
**GAS TEST @441', 0 MCF, 132 MCF open flow, 205 MCF Total **
I adjusted the air flow on the chromatograph from .2 to 1.0
442-451: LS: lt grey
SUMMIT SHALE ZONE Geologist called @ 455-458', gas kick of 105 units over BG
**GAS TEST @461', 30 MCF, 162 open flow, 235 MCF Total **
456: SH; black, okay gas in the samples
452-461: SH: black, grey, no coal, LS: lt grey, some
462-471: SH: grey
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MULKY COAL/SHALE ZONE Geologist called @477-481', gas kick of 450 units over BG \*\*GAS TEST @481', 39-47 MCF, surging, 201-209 open flow, 274-282 MCF Total \*\*

478: Poor gas in the samples 481: SH: black, lots of coal, very little gas in the samples, some of the coal had good gas

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#### Picked up some water

472-481: SH: black, some coal, some pyritic growth, some grey

SQUIRREL SAND Geologist called @490'

482-491: SS: grey/white, very fine grained, SS: brown, medium grained, SH: grey, limey

492-501: SS: brown, medium to large grained

# \*\*GAS TEST @501', 0-9 MCF, 209-218 Open flow, 282-291 MCF Total \*\* Mulky gas still

502-511: SS: brown, large grained, slight odor

512-521: SS: brown, large grained 522-531: SS: brown, large grained 532-541: SS: brown, large grained

541: some black shale/coal

542-550: SS: brown, large grained, some coal, some shale

Gas kick of 600 units at 543'- I don't believe this is accurate because the chromatograph was not stable. It kept surging from a high number to a very negative number.

Picked up a lot of water all of the sudden. It showed at 546' and we think it came from the squirrel

550': coal, & Black shale, poor gas in the samples

Total Rotary Depth, 550 on 10/6/2008

#### \*\*GAS TEST @550', open flow surging between 209-256 MCF \*\*

Summary:

Stark: 0 MCF
Dodds Creek SS: 54 MCF
Hushpuckney: 0 MCF
Knobtown Sand: 0 MCF

21 MCF- somewhere between knobtown and south mound

South Mound: 3 MCF Lexington: 127 MCF Summit: 30 MCF Mulky: 48-56

Total: 283-291 MCF- some water is making the test surge

#### Comparison of wells around the area

Deco	4	Deco	2	Deco	3-16	Harr	is 1
1042		1037		1035			1015
Top	Datum	Top	datum	top	datum	top	datum
135	907	138	899				
162	880	165	872	172	863	169	846
178	864	185	852	190	845	184	831
202	840	~207	830				
326	716	329	708	337	698	347	668
418	624	421	616	429	606	424	591
455	587	461	576	468	567	468	547
477	565	486	551	492	543	488	527
	1042 Top 135 162 178 202 326 418 455	Top Datum  135 907 162 880 178 864 202 840 326 716 418 624 455 587	1042 1037 Top Datum Top  135 907 138 162 880 165 178 864 185 202 840 ~207 326 716 329 418 624 421 455 587 461	1042 Top Datum Top datum  135 907 138 899 162 880 165 872 178 864 185 852 202 840 ~207 830 326 716 329 708 418 624 421 616 455 587 461 576	1042 1037 1035 Top Datum Top datum top  135 907 138 899 162 880 165 872 172 178 864 185 852 190 202 840 ~207 830 326 716 329 708 337 418 624 421 616 429 455 587 461 576 468	1042 1037 1035 Top Datum Top datum top datum  135 907 138 899 162 880 165 872 172 863 178 864 185 852 190 845 202 840 ~207 830 326 716 329 708 337 698 418 624 421 616 429 606 455 587 461 576 468 567	1042         1037         1035           Top         Datum         Top         datum         top         datum         top           135         907         138         899         162         880         165         872         172         863         169         178         864         185         852         190         845         184         202         840         ~207         830         337         698         347         418         624         421         616         429         606         424         455         587         461         576         468         567         468

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TICKET NUMBE	R 19799
LOCATION_O	ttawa
FOREMAN A	lan Maler

O Box 884, Cha 20-431-9210 or	nute, KS 66720	FIELD TICKET & TRE	aimeni kep	OKI		
	000 407 0070	CEME	MT			
		CEME WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
-29.08	6073 Deca		16	1.6	23	M;
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Sborn	Energy		TRUCK#	DRIVER	TRUCK #	DRIVER
ULING ADDRES	s ,		316	Stlan M		ļ
24850	Jarley_		368	131/2		
<b>7</b>	STATE	ZIP CODE	503	Gerias		ļ
Ducycu	5 155	66013	420	<u> </u>		<u> </u>
B TYPE F	li. A A		тн <u>430</u> З/4"	CASING SIZE & W		2
SING DEPTH_				CEMENT LEFT In	OTHER	<del> </del>
URRY WEIGHT		/OL WATER ga EMENT PSI MIX PSI	IV8K	1 7		*
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VICE I	ar a roll	4.53			~~~	
				1	MAN	
				ean,	10 caga	<u> </u>
CODE	QUANITY or UNITS	DESCRIPTION	of SERVICES or Pl	RODUCT	UNIT PRICE	TOTAL
5401	f				B	
		PUMP CHARGE				
740G		PUMP CHARGE MILEAGE				9250
5402	430'		actace			925.0
5402 5402 5407A	430' Vanin	MILEAGE	suct as e			
5402 5402 5407A	430' Vanin	MILEAGE  Gusins	costage Casu			925.0
5402 5402 5407A	430' Vanin	MILEAGE CUSing ton mile	suct as e			925.0
[18]3	430' Vanin 1795y	MILEAGE  Casing to the mile	custage Cagre			925.0
[18]3	1795x 735x	MILEAGE CUSing ton mile	as ve			925.0
5402 5402 5407A 11813	5.0	MILEAGE  GUSINS  TON MILE	as ve			925.0 157.5 30.43 711.75
[18]3	5.0	MILEAGE  GUSINS  TON MILE	as ve	Snib		925.0
[1813]	5.0	MILEAGE  GUSINS  TON MILE	2	Sub		925.0 157.5 30.43 711.75
[1813]	5.0	MILEAGE  GUSING  TON MILE  GUS  50/50 por	RECEIVER			925.0 157.5 30.43 711.75
[1813]	5.0	MILEAGE  GUSING  TON MILE  GUS  50/50 por	RECEIVE :	HOISSION		925.0 157.5 30.43 711.75
11813	5.0	MILEAGE  GUSING  TON MILE  GUS  50/50 por	RECEIVER	HOISSION		925.0 157.5 30.43 711.75
[1813]	5.0	MILEAGE  GUSING  TON MILE  GUS  50/50 por	RECEIVE : AS CORPORATION CO	DMMISSION		925.0 157.5 30.43 711.75
11813	5.0	MILEAGE  GUSING  TON MILE  GUS  50/50 por	RECEIVE :	DMMISSION		925.0 157.5 30.43 711.75
[1813]	5.0	MILEAGE  GUSING  TON MILE  GUS  50/50 por	RECEIVE : AS CORPORATION CO  NUV U 5 200  CONSERVATION DIVI	DMMISSION		925.0 157.5 30.43 711,75
11813	73.5.4	MILEAGE  Casins  Tun mile  Sel  50/50 por	RECEIVE : AS CORPORATION CO  NUV U 5 200  CONSERVATION DIVI WICHITA, KS	MMISSION:  SION	SALES TAX ESTIMATED	925.0 157.5 30.43 711.75 1824.6
11813	73.5.4	MILEAGE  GUSING  TON MILE  GUS  50/50 por	RECEIVE : AS CORPORATION CO  NUV U 5 200  CONSERVATION DIVI WICHITA, KS	MMISSION:  SION		925.0 157.5 30.43 711.75 1824.6