Confidentiality Requested:

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION 1176039

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

## WELL COMPLETION FORM

WELL HISTO	)RY - DESCRI	PTION OF W	ELL & LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	
Address 2:	Feet from Dorth / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
	Elevation: Ground: Kelly Bushing:
Gas D&A ENHR SIGW	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used? Yes No
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
Deepening Re-perf. Conv. to ENHR Conv. to SWD	Drilling Fluid Management Plan
Plug Back Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
	Chloride content: ppm Fluid volume: bbls
Commingled Permit #:	Dewatering method used:
Dual Completion Permit #:	
SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR         Permit #:           OOW         Dermit #:	Operator Name:
GSW Permit #:	Lease Name: License #:
	Quarter Sec TwpS. R East West
Spud Date orDate Reached TDCompletion Date orRecompletion DateRecompletion 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 Approved by: Date:

## CORRECTION #1

1176039

Operator Nar	ne:			Lease Name:	_ Well #:
Sec	Twp	_S. R	East West	County:	

**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 Ye (Attach Additional Sheets)		Yes No	L	.og Formatic	on (Top), Depth an	h and Datum	
Samples Sent to Geo	,	Yes No	Nam	е		Тор	Datum
Cores Taken Electric Log Run		☐ Yes ☐ No ☐ Yes ☐ No					
List All E. Logs Run:							
		CASING Report all strings set-c	RECORD Ne		on, 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
		ADDITIONAL	CEMENTING / SQU	JEEZE RECORD			
Purpose: Perforate	Depth Top Bottom	Type of Cement	# Sacks Used		Type and Pe	ercent Additives	
Protect Casing Plug Back TD							
Plug Off Zone							
Does the volume of the t		n this well? aulic fracturing treatment ex submitted to the chemical o		☐ Yes [ ? ☐ Yes [ ☐ Yes [	No (If No, skip	o questions 2 an o question 3) out Page Three o	
Shots Per Foot		DN RECORD - Bridge Plug ootage of Each Interval Perl			cture, Shot, Cement mount and Kind of Mat		d Depth

Estimated Production Per 24 Hours	Oil Bb	ls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio	Gravity
		_						
DISPOSITION OF C	GAS:			METHOD	OF COMPLETION:		PRODUCTION IN	NTERVAL:
Vented Sold	Used on Lease		Open Hole	Perf.	Dually Comp. (Submit ACO-5)	Commingled (Submit ACO-4)		
(If vented, Submit ACC	D-18.)		Other (Specify	)				

Packer At:

Pumping

Producing Method:

Liner Run:

Gas Lift

No

Yes

Other (Explain)

TUBING RECORD:

Size:

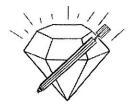
Date of First, Resumed Production, SWD or ENHR.

Set At:

Form	ACO1 - Well Completion
Operator	Nor-West Kansas Oil, L.L.C.
Well Name	Nightengale 2
Doc ID	1176039

# Tops

Name	Тор	Datum
Base of Anhydrite		+679
Heebner		-887
Lansing		-931
Stark Shale		-1223
Marmaton		-1380
Myrick Station		-1495
Fort Scott		-1513
Cherokee		-1537
Mississippian		-1771



### DIAMOND TESTING, LLC P.O. Box 157 HOISINGTON, KANSAS 67544 (620) 653-7550 • (800) 542-7313 NIGHTENGALE2DST1

Company Nor-West Kansas Oil, LLC	Lease & Well NoNightengal	e No. 2
Elevation3075 KB Formation_Lansing "L"	Effective Pay	
Date <u>11-16-13</u> Sec. <u>22</u> Twp. <u>17S</u> Range	0.4141	
Seen D. Deeniken	Diamond Representative	
Formation Test No1 Interval Tested from	4,344 ft. to 4,363 ft.	Total Depth4,363 <sub>ft</sub>
Packer Depth <sup>4,339</sup> ft. Size6 3/4 in.	Packer Depth	ft. Sizein.
Packer Depth		
Depth of Selective Zone Setft.		
Top Recorder Depth (Inside) 4,322 ft.	Recorder Number	0062 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,345 ft.	Recorder Number	<u> </u>
Below Straddle Recorder Depthft.	Recorder Number	Cappsi.
Drilling Contractor WW Drilling, LLC - Rig 8	Drill Collar Length	122 ft I.D. 2 1/4 in.
Mud TypeChemical Viscosity50	Weight Pipe Length	ft I.Din.
Weight 9.3 Water Loss 8.4 cc.	Drill Pipe Length	<u>4,189</u> ft I.D. <u>3 1/2</u> in.
Chlorides4,000_P.P.M.	Test Tool Length	33 ft Tool Size 3 1/2-IF in.
Jars: Make <u>Sterling</u> Serial Number <u>5</u>		19 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No	Surface Choke Size1 in	. Bottom Choke Size 5/8 in.
	Main Hole Size 7 7/8 ir	n. Tool Joint Size 4 1/2-XH in.
Blow: 1st Open: Surface blow increasing to 2 ins. No blow back during shut-	n.	
2nd Open: No blow increasing to 1 in. No blow back during shut-in.		
Recovered <sup>70</sup> ft. of <sup>drilling mud = .344400 bbls. (Grind out: 100%-r</sup>	nud)	
Recovered ft. of		
Recovered ft. of		
Recoveredft. of		
Recoveredft. of		
Recovered ft. of		
Remarks_Tool Sample Grind Out: Less than 1%-oil; More than	99%-mud	
Time Set Packer(s) 8:52 P.M. Time Started off Bottom	10:52 P.M. Maxim	um Temperature113°
Initial Hydrostatic Pressure(A)	2140 P.S.I.	
Initial Flow PeriodMinutes 30 (B)	<sup>8</sup> P.S.I. to (C)	<sup>36</sup> P.S.I

Initial Flow Period	Minutes	30	(B)	<sup>8</sup> P.S.I.	to (C)	<sup>36</sup> P.S.I.
Initial Closed In Period	Minutes	30	(D)	<sup>1271</sup> P.S.I.		
Final Flow Period	Minutes	30	(E)	<sup>37</sup> P.S.I	to (F)	61 <sub>P.S.I.</sub>
Final Closed In Period	Minutes	30	(G)	<sup>1270</sup> P.S.I.		
Final Hydrostatic Pressure			(H)	2140 P.S.I.		



# DIAMOND TESTING, LLC P.O. Box 157 HOISINGTON, KANSAS 67544 (620) 653-7550 • (800) 542-7313 NIGHTENGALE2DST2

Company Nor-West Kansas Oil, LLC	Lease & Well No. Nightengale	No. 2
Elevation 3075 KB Formation Pleasanton	Effective Pay	Ft. Ticket NoF202
Date <u>11-17-13</u> Sec. <u>22</u> Twp. <u>17S</u> Range_	34W County Scott	State Kansas
Test Approved By Sean P. Deenihan [	Diamond Representative	Jake Fahrenbruch
	4,395 <sub>ft.</sub> to 4,430 <sub>ft.</sub>	Total Depth4,430 ft
Packer Depth4,390 ft. Size6 3/4 in.	Packer Depth	ft. Sizein.
Packer Depth4,395 ft. Size6 3/4 in.	Packer Depth	ft. Sizein.
Depth of Selective Zone Setft.		
Top Recorder Depth (Inside) 4,373 ft.	Recorder Number	0062 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,396 ft.	Recorder Number	5951_Cap5,000_psi.
Below Straddle Recorder Depthft.	Recorder Number	Cappsi.
Drilling Contractor WW Drilling, LLC - Rig 8	Drill Collar Length	122 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 63	Weight Pipe Length	ft I.Din.
Weight 9.3 Water Loss 8.8 cc.	Drill Pipe Length	<u>4,240</u> ft I.D. <u>3 1/2</u> in.
Chlorides9,000_P.P.M.	Test Tool Length	33 ft Tool Size 3 1/2-IF in.
Jars: Make <u>Sterling</u> Serial Number <u>5</u>	Anchor Length	35 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No	Surface Choke Size 1 in.	Bottom Choke Size 5/8 in.
	Main Hole Size 7 7/8 in.	Tool Joint Size 4 1/2-XH in.
Blow: 1st Open: Surface blow increasing to 4 3/4 ins. No blow back during sh	nut-in.	
2nd Open: Surface blow increasing to 3 1/2 ins. No blow back during s	hut-in.	
Recovered <sup>40</sup> ft. of <sup>drilling mud = .457480 bbls. (Grind out: 100%-n</sup>	nud)	
Recovered <sup>110</sup> ft. of <sup>mud</sup> cut water with a trace of oil = .541200 bbls.		ud)
Recovered 150 ft. of TOTAL FLUID = .998680 bbls.		
Recoveredft. of		
Recovered ft. of		
Recovered ft. of		
Remarks Tool Sample Grind Out: 1%-oil; 90%-water; 9%-mud	(Chlorides: 21,000 Ppm PH: 9.0	RW: .28 @ 60°)
Time Set Packer(s) 11:42 A.M. Time Started off Bottom	2:12 P.M. Maximun	n Temperature 114°
Initial Hydrostatic Pressure(A)	2169 P.S.I.	

Initial Flow Period	Minutes	45	(B)	<sup>11</sup> P.S.I.	to (C)	72 <sub>P.S.I.</sub>
Initial Closed In Period	Minutes	30	(D)	1217 P.S.I.		
Final Flow Period	Minutes	45	(E)	<sup>74</sup> P.S.I	to (F)	<sup>95</sup> P.S.I.
Final Closed In Period	Minutes	30	(G)	1212 P.S.I.		
Final Hydrostatic Pressure			(H)	2167 P.S.I.		



### DIAMOND TESTING. LLC P.O. Box 157 HOISINGTON. (620) 653-7550 • (800) 542-7313 NIGHTENGALE2DST3

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KANS	AS	67544	
10001			

Company Nor-West Kansas Oil, LLC Lease & Well No. Nightengale No. 2 3075 KB Formation Marmaton Elevation F203 Effective Pav <sup>---</sup> Ft. Ticket No. 11-18-13 22 17S 34W Scott Date Kansas Sec. Twp. Range County State Sean P. Deenihan Jake Fahrenbruch Test Approved By **Diamond Representative** 3 4,416 ft. to \_\_\_\_ 4,494 ft Formation Test No. Interval Tested from 4,494 ft Total Depth 4,411 ft. 6 3/4 in. Packer Depth Size Packer Depth <sup>--</sup>ft. Size <sup>---</sup> in. 4,416 ft 6 3/4 in. Packer Depth Size <sup>--</sup>\_ft. Packer Depth Size <sup>--</sup> in. Depth of Selective Zone Set ft. 4,396 ft. Top Recorder Depth (Inside) 0062 5,000 psi Recorder Number Cap. 4,460 ft. 5951 5,000 <sub>psi.</sub> Bottom Recorder Depth (Outside) Recorder Number Cap. Below Straddle Recorder Depth ft. Recorder Number Cap. psi. Drilling Contractor WW Drilling, LLC - Rig 8 2 1/4 in. 122 ft I.D. Drill Collar Length Chemical 55 Mud Type -- ft I.D.\_\_\_ Viscosity <sup>--</sup> in. Weight Pipe Length 9.1 8.8 4,261 ft I.D.\_\_\_ 3 1/2 in Weight Water Loss CC. Drill Pipe Length 9.000 33 ft Tool Size 3 1/2-IF in Chlorides P.P.M. Test Tool Length Sterling Anchor Length 43' perf. w/ 35' drill pipe ft. Size 5 Jars: Make 4 1/2-FH in Serial Number No No Did Well Flow? 1 in. Reversed Out Surface Choke Size Bottom Choke Size 5/8 in 7 7/8 <sub>in.</sub> 4 1/2-XH in. Main Hole Size Tool Joint Size Blow: 1st Open: Surface blow increasing to 3 1/2 ins. No blow back during shut-in. 2nd Open: Surface blow increasing to 2 1/2 ins. No blow back during shut-in. 135 ft of slightly mud cut water = .785230 bbls. (Grind out: 95%-water; 5%-mud) Chlorides: 25,000 Ppm PH: 8.0 RW: .25 @ 52° Recovered Recovered ft. of ft. of Recovered Recovered ft. of ft. of Recovered Recovered ft. of Remarks 6:52 A.M. 8:52 A.M. Time Set Packer(s) 115° Time Started off Bottom Maximum Temperature 2166 P.S.I. Initial Hydrostatic Pressure.....(A) Initial Flow Period......Minutes 30 <sup>11</sup> P.S.I. to (C) <sup>50</sup> P.S.I. (B) 30 1235 P.S.I. nitial Closed In Period......Minutes (D) 30 <sup>52</sup> P.S.I to (F)\_\_\_\_ Final Flow Period......Minutes <sup>75</sup> P.S.I. (E) 30 1220 P.S.I. Final Closed In Period......Minutes (G) 2166 P.S.I. <sup>-</sup>inal Hydrostatic Pressure.....(H)



Final Flow Period......Minutes\_

Final Closed In Period......Minutes

Final Hydrostatic Pressure.....(H)

15

15

(E)

(G)\_

### DIAMOND TESTING, LLC P.O. Box 157 HOISINGTON, KANSAS 67544 (620) 653-7550 • (800) 542-7313 NIGHTENGALE2DST4

Company Nor-West Kansas Oil, LLC	Lease & Well No. Nightengale	No. 2
Elevation 3075 KB Formation Altamont	Effective Pay	
Date <u>11-18-13</u> Sec. <u>22</u> Twp. <u>17S</u> Range	34W County Scott	
Soon D. Doonihon	iamond Representative	
Formation Test No4 Interval Tested from	4,492 ft. to 4,522 ft.	Total Depth4,522 ft
Packer Depthft. Size6 3/4 in.	Packer Depth	ft. Sizein.
Packer Depth4,492 ft. Size 6 3/4 in.		ft. Size in.
Depth of Selective Zone Setft.		
Top Recorder Depth (Inside) 4,470 ft.	Recorder Number	0062 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,493 ft.	Recorder Number	<u> </u>
Below Straddle Recorder Depthft.	Recorder Number	Cappsi.
Drilling Contractor WW Drilling, LLC - Rig 8	Drill Collar Length	122 ft I.D. 2 1/4 in.
Mud TypeChemicalViscosity56	Weight Pipe Length	ft I.Din.
Weight 9.1 Water Loss 8.0 cc.	Drill Pipe Length	ft I.D 3 1/2 in.
Chlorides 9,000 P.P.M.	Test Tool Length	33 ft Tool Size 3 1/2-IF in.
Jars: Make <u>Sterling</u> Serial Number <u>5</u>		<sup>30</sup> ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No	Surface Choke Size <sup>1</sup> in.	Bottom Choke Size 5/8 in.
	Main Hole Size 77/8 in.	
Blow: 1st Open: Weak blow increasing to 1 in., then decreasing to 1/2 in. No	blow back during shut-in.	
2nd Open: No blow. No blow back during shut-in.		
Recovered1 ft. of drilling mud = .004920 bbls.		
Recoveredft. of		
Recovered ft. of		
Remarks		
7.57 D M		
Time Set Packer(s) 7:57 P.M. Time Started off Bottom		m Temperature106°
Initial Hydrostatic Pressure(A)		
nitial Flow PeriodMinutes30(B)	9 P.S.I. to (C)	<sup>10</sup> P.S.I.
nitial Closed In PeriodMinutes15(D)	<u> </u>	

<sup>9</sup> P.S.I	to (F)	<sup>10</sup> P.S.I.
10	Received an advances of	

12 P.S.I.

2220 P.S.I.



### DIAMOND TESTING, LLC P.O. Box 157 HOISINGTON, KANSAS 67544 (620) 653-7550 • (800) 542-7313 NIGHTENGALE2DST5

Page 1 of 2 Pages

Company Nor-West Kansas Oil, LLC	Lease & Well No. Nightengale No. 2
Elevation 3075 KB Formation Johnson	Effective PayFt. Ticket No. F205
Date <u>11-19-13</u> Sec. <u>22</u> Twp. 17S Range	
Soon B. Doonihan	Diamond RepresentativeJake Fahrenbruch
	4,665 ft. to 4,745 ft. Total Depth 4,745 ft
Packer Depth4,660 ft. Size6 3/4 in.	Packer Depthft. Sizein.
Packer Depth4,665 ft. Size6 3/4 in.	Packer Depthft_Sizein.
Depth of Selective Zone Setft.	
Top Recorder Depth (Inside) 4,643 ft.	Recorder Number 0062 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,669 ft.	Recorder Number5951_Cap5,000_psi.
Below Straddle Recorder Depthft.	Recorder Number Cappsi.
Drilling Contractor WW Drilling, LLC - Rig 8	Drill Collar Length122 ft I.D2 1/4 in
Mud TypeChemical Viscosity56	Weight Pipe Lengthft I.Din.
Weight 9.3 Water Loss 9.6 cc.	Drill Pipe Length 4,510 ft I.D 3 1/2 in.
ChloridesP.P.M.	Test Tool Length 33 ft Tool Size 3 1/2-IF in.
Jars: Make <u>Sterling</u> Serial Number <u>5</u>	Anchor Length <u>14' perf. w/ 66' drill pipe ft.</u> Size <u>4 1/2-FH</u> in.
Did Well Flow? No Reversed Out No	Surface Choke Size1in. Bottom Choke Size5/8 in.
	Main Hole Size7 7/8 in. Tool Joint Size4 1/2-XH in.
Blow: 1st Open: Surface blow increasing to 1 in. No blow back during shut-i	in.
2nd Open: No blow. No blow back during shut-in.	
Recovered <u>10</u> ft. of <u>drilling mud = .049200 bbls</u> .	
Recoveredft. of	
Recovered ft. of	
Recovered ft. of	
Recoveredft. of	
Recovered ft. of	
Remarks	
Time Set Packer(s)10:47 P.M. Time Started off Bottor	m_12:02 A.M. Maximum Temperature 110°
Initial Hydrostatic Pressure(A)	<u>2333</u> P.S.I.
Initial Flow PeriodMinutes 30 (B)	<u>12</u> P.S.I. to (C) <u>19</u> P.S.I.
Initial Closed In PeriodMinutes15(D)	478 P.S.I.

15

15

(E)

(G)

630 P.S.I.

2331 P.S.I.

Final Flow Period......Minutes\_

Final Closed In Period......Minutes

Final Hydrostatic Pressure.....(H)\_

21 P.S.I to (F) 23 P.S.I.

## Summary of Changes

Lease Name and Number: Nightengale 2 API/Permit #: 15-171-20997-00-00 Doc ID: 1176039 Correction Number: 1 Approved By: Deanna Garrison

Field Name	Previous Value	New Value
Approved Date	01/06/2014	01/07/2014

## Summary of Attachments

Lease Name and Number: Nightengale 2 API: 15-171-20997-00-00 Doc ID: 1176039 Correction Number: 1 Attachment Name

dst's