

1176039

Operator Name: _____ 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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input 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

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				

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 <i>(Amount and Kind of Material Used)</i>	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)* _____

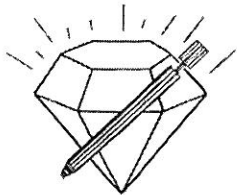
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Nor-West Kansas Oil, L.L.C.
Well Name	Nightengale 2
Doc ID	1176039

Tops

Name	Top	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 No. Nightengale No. 2
Elevation 3075 KB Formation Lansing "L" Effective Pay Ft. Ticket No. F201
Date 11-16-13 Sec. 22 Twp. 17S Range 34W County Scott State Kansas
Test Approved By Sean P. Deenihan Diamond Representative Jake Fahrenbruch

Formation Test No. 1 Interval Tested from 4,344 ft. to 4,363 ft. Total Depth 4,363 ft.
Packer Depth 4,339 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 4,344 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,322 ft. Recorder Number 0062 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,345 ft. Recorder Number 5951 Cap. 5,000 psi.
Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

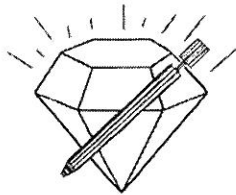
Drilling Contractor WW Drilling, LLC - Rig 8 Drill Collar Length 122 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 50 Weight Pipe Length ft I.D. in.
Weight 9.3 Water Loss 8.4 cc. Drill Pipe Length 4,189 ft I.D. 3 1/2 in.
Chlorides 4,000 P.P.M. Test Tool Length 33 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number 5 Anchor Length 19 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 2 ins. No blow back during shut-in.
2nd Open: No blow increasing to 1 in. No blow back during shut-in.

Recovered 70 ft. of drilling mud = .344400 bbls. (Grind out: 100%-mud)
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. 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. Maximum Temperature 113°
Initial Hydrostatic Pressure.....(A) 2140 P.S.I.
Initial Flow Period.....Minutes 30 (B) 8 P.S.I. to (C) 36 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 1271 P.S.I.
Final Flow Period.....Minutes 30 (E) 37 P.S.I. to (F) 61 P.S.I.
Final Closed In Period.....Minutes 30 (G) 1270 P.S.I.
Final Hydrostatic Pressure.....(H) 2140 P.S.I.



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NIGHTENGALE2DST2

Company Nor-West Kansas Oil, LLC Lease & Well No. Nightengale No. 2
Elevation 3075 KB Formation Pleasanton Effective Pay Ft. Ticket No. F202
Date 11-17-13 Sec. 22 Twp. 17S Range 34W County Scott State Kansas
Test Approved By Sean P. Deenihan Diamond Representative Jake Fahrenbruch

Formation Test No. 2 Interval Tested from 4,395 ft. to 4,430 ft. Total Depth 4,430 ft.
Packer Depth 4,390 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 4,395 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,373 ft. Recorder Number 0062 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,396 ft. Recorder Number 5951 Cap. 5,000 psi.
Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

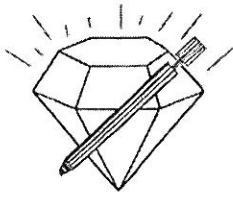
Drilling Contractor WW Drilling, LLC - Rig 8 Drill Collar Length 122 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 63 Weight Pipe Length ft I.D. in.
Weight 9.3 Water Loss 8.8 cc. Drill Pipe Length 4,240 ft I.D. 3 1/2 in.
Chlorides 9,000 P.P.M. Test Tool Length 33 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number 5 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 shut-in.
2nd Open: Surface blow increasing to 3 1/2 ins. No blow back during shut-in.

Recovered 40 ft. of drilling mud = .457480 bbls. (Grind out: 100%-mud)
Recovered 110 ft. of mud cut water with a trace of oil = .541200 bbls. (Grind out: Trace-oil; 85%-water; 15%-mud)
Recovered 150 ft. of TOTAL FLUID = .998680 bbls.
Recovered ft. 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. Maximum Temperature 114°
Initial Hydrostatic Pressure.....(A) 2169 P.S.I.
Initial Flow Period.....Minutes 45 (B) 11 P.S.I. to (C) 72 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 1217 P.S.I.
Final Flow Period.....Minutes 45 (E) 74 P.S.I. to (F) 95 P.S.I.
Final Closed In Period.....Minutes 30 (G) 1212 P.S.I.
Final Hydrostatic Pressure.....(H) 2167 P.S.I.



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 NIGHTENGALE2DST3

Company Nor-West Kansas Oil, LLC Lease & Well No. Nightengale No. 2
 Elevation 3075 KB Formation Marmaton Effective Pay Ft. Ticket No. F203
 Date 11-18-13 Sec. 22 Twp. 17S Range 34W County Scott State Kansas
 Test Approved By Sean P. Deenihan Diamond Representative Jake Fahrenbruch

Formation Test No. 3 Interval Tested from 4,416 ft. to 4,494 ft. Total Depth 4,494 ft.
 Packer Depth 4,411 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Packer Depth 4,416 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,396 ft. Recorder Number 0062 Cap. 5,000 psi.
 Bottom Recorder Depth (Outside) 4,460 ft. Recorder Number 5951 Cap. 5,000 psi.
 Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

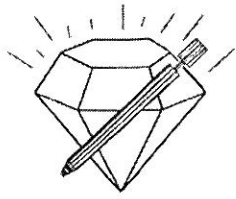
Drilling Contractor WW Drilling, LLC - Rig 8 Drill Collar Length 122 ft I.D. 2 1/4 in.
 Mud Type Chemical Viscosity 55 Weight Pipe Length ft I.D. in.
 Weight 9.1 Water Loss 8.8 cc. Drill Pipe Length 4,261 ft I.D. 3 1/2 in.
 Chlorides 9,000 P.P.M. Test Tool Length 33 ft Tool Size 3 1/2-IF in.
 Jars: Make Sterling Serial Number 5 Anchor Length 43' perf. w/ 35' drill pipe 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 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.

Recovered 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 ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks

Time Set Packer(s) 6:52 A.M. Time Started off Bottom 8:52 A.M. Maximum Temperature 115°
 Initial Hydrostatic Pressure.....(A) 2166 P.S.I.
 Initial Flow Period.....Minutes 30 (B) 11 P.S.I. to (C) 50 P.S.I.
 Initial Closed In Period.....Minutes 30 (D) 1235 P.S.I.
 Final Flow Period.....Minutes 30 (E) 52 P.S.I. to (F) 75 P.S.I.
 Final Closed In Period.....Minutes 30 (G) 1220 P.S.I.
 Final Hydrostatic Pressure.....(H) 2166 P.S.I.



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 NIGHTENGALE2DST4

Company Nor-West Kansas Oil, LLC Lease & Well No. Nightengale No. 2
 Elevation 3075 KB Formation Altamont Effective Pay Ft. Ticket No. F204
 Date 11-18-13 Sec. 22 Twp. 17S Range 34W County Scott State Kansas
 Test Approved By Sean P. Deenihan Diamond Representative Jake Fahrenbruch

Formation Test No. 4 Interval Tested from 4,492 ft. to 4,522 ft. Total Depth 4,522 ft.
 Packer Depth 4,487 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Packer Depth 4,492 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,470 ft. Recorder Number 0062 Cap. 5,000 psi.
 Bottom Recorder Depth (Outside) 4,493 ft. Recorder Number 5951 Cap. 5,000 psi.
 Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor WW Drilling, LLC - Rig 8 Drill Collar Length 122 ft I.D. 2 1/4 in.
 Mud Type Chemical Viscosity 56 Weight Pipe Length ft I.D. in.
 Weight 9.1 Water Loss 8.0 cc. Drill Pipe Length 4,337 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 Sterling Serial Number 5 Anchor Length 30 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.

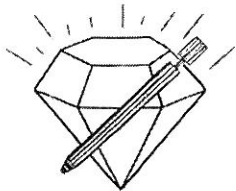
Blow: 1st Open: Weak blow increasing to 1 in., then decreasing to 1/2 in. No blow back during shut-in.

2nd Open: No blow. No blow back during shut-in.

Recovered 1 ft. of drilling mud = .004920 bbls.
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks

Time Set Packer(s) 7:57 P.M. Time Started off Bottom 9:12 P.M. Maximum Temperature 106°
 Initial Hydrostatic Pressure.....(A) 2222 P.S.I.
 Initial Flow Period.....Minutes 30 (B) 9 P.S.I. to (C) 10 P.S.I.
 Initial Closed In Period.....Minutes 15 (D) 11 P.S.I.
 Final Flow Period.....Minutes 15 (E) 9 P.S.I. to (F) 10 P.S.I.
 Final Closed In Period.....Minutes 15 (G) 12 P.S.I.
 Final Hydrostatic Pressure.....(H) 2220 P.S.I.



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 NIGHTENGALE2DST5

Company Nor-West Kansas Oil, LLC Lease & Well No. Nightengale No. 2
 Elevation 3075 KB Formation Johnson Effective Pay Ft. Ticket No. F205
 Date 11-19-13 Sec. 22 Twp. 17S Range 34W County Scott State Kansas
 Test Approved By Sean P. Deenihan Diamond Representative Jake Fahrenbruch

Formation Test No. 5 Interval Tested from 4,665 ft. to 4,745 ft. Total Depth 4,745 ft.
 Packer Depth 4,660 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Packer Depth 4,665 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,643 ft. Recorder Number 0062 Cap. 5,000 psi.
 Bottom Recorder Depth (Outside) 4,669 ft. Recorder Number 5951 Cap. 5,000 psi.
 Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor WW Drilling, LLC - Rig 8 Drill Collar Length 122 ft I.D. 2 1/4 in.
 Mud Type Chemical Viscosity 56 Weight Pipe Length ft I.D. in.
 Weight 9.3 Water Loss 9.6 cc. Drill Pipe Length 4,510 ft I.D. 3 1/2 in.
 Chlorides 11,000 P.P.M. Test Tool Length 33 ft Tool Size 3 1/2-IF in.
 Jars: Make Sterling Serial Number 5 Anchor Length 14' perf. w/ 66' drill pipe 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 1 in. No blow back during shut-in.
 2nd Open: No blow. No blow back during shut-in.

Recovered 10 ft. of drilling mud = .049200 bbls.
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks

Time Set Packer(s) 10:47 P.M. Time Started off Bottom 12:02 A.M. Maximum Temperature 110°
 Initial Hydrostatic Pressure.....(A) 2333 P.S.I.
 Initial Flow Period.....Minutes 30 (B) 12 P.S.I. to (C) 19 P.S.I.
 Initial Closed In Period.....Minutes 15 (D) 478 P.S.I.
 Final Flow Period.....Minutes 15 (E) 21 P.S.I. to (F) 23 P.S.I.
 Final Closed In Period.....Minutes 15 (G) 630 P.S.I.
 Final Hydrostatic Pressure.....(H) 2331 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