

State: Kansas Drilling Contractor: Southwind Drilling,

SEC: 7 TWN: 22S RNG: 13W

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

County: STAFFORD

Pool: Infield

Job Number: 331

Operation: Test Complete

> DATE April

14

2019

**DST #1** 

Formation: L/KC "[&]"

Test Interval: 3570 -

Total Depth: 3614'

3614"

Time On: 15:38 04/14

Time Off: 23:50 04/14

Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

Electronic Volume Estimate:

67'

1st Open Minutes: 15 Current Reading: 4.5" at 15 min Max Reading: 4.5"

0" at 30 min Max Reading: 0"

1st Close

Minutes: 30

Current Reading:

2nd Open Minutes: 60 Current Reading:

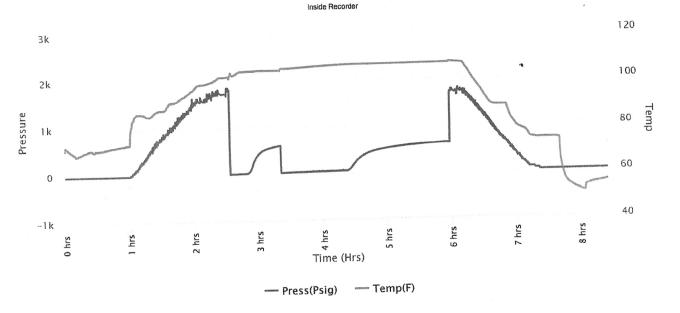
2.5" at 60 min

Max Reading: 2.7"

2nd Close Minutes: 90 Current Reading: 0" at 90 min

Max Reading: 0"







Operation: Test Complete SEC: 7 TWN: 22S RNG: 13W

County: STAFFORD

State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

DATE April 14 2019

**DST #1** 

Formation: L/KC "I&J"

Test Interval: 3570 -

Total Depth: 3614'

3614

Time On: 15:38 04/14

Time Off: 23:50 04/14

Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

Recovered

Foot	BBLS
47	0.66881
16	0.22768
63	0.89649

Description of Fluid
G
SLWCOCM
SLOCHWCM

Gas %	<u>Oil %</u>	Water %	Mud %
100	0	0	0
0	25	10	65
0	3	37	60

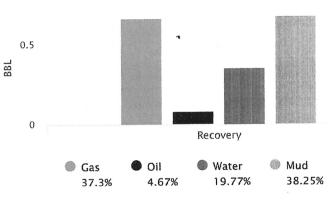
Total Recovered: 126 ft

Total Barrels Recovered: 1.79298

Reversed	Out
Reversed NO	

Initial Hydrostatic Pressure	1721	PSI
Initial Flow	14 to 25	PSI
Initial Closed in Pressure	599	PSI
Final Flow Pressure	25 to 51	PSI
Final Closed in Pressure	614	PSI
Final Hydrostatic Pressure	1729	PSI
Temperature	107	°F
Pressure Change Initial	0.0	%
Close / Final Close		

### Recovery at a glance



GIP cubic foot volume: 3.75503



County: STAFFORD State: Kansas Drilling Contractor: Southwind Drilling, Inc - Rig 3

020. / 1WN. ZZS RNG: 13W

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

Operation: Test Complete

> DATE April 14 2019

DST #1 Formation: L/KC "I&J"

Test Interval: 3570 -

Total Depth: 3614'

3614'

Time On: 15:38 04/14

Time Off: 23:50 04/14

Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

#### **BUCKET MEASUREMENT:**

1st Open: 1/2 in. blow building to 4 1/2 ins. in 15 mins.

1st Close: No blow back.

2nd Open: 1/4 in. blow building to 2 3/4 ins. in 60 mins.

2nd Close: No blow back.

#### REMARKS:

Tool Sample: 0% Gas 0% Oil 97% Water 3% Mud

Ph: 7

Measured RW: .34 @ 50 degrees °F

RW at Formation Temp: 0.17 @ 107 °F

Chlorides: 42,000 ppm



DEU 1 TWW 225 HMG 13W County: STAFFORD State: Kansas Drilling Contractor: Southwind Drilling. Inc - Ria 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

Operation: Test Complete

> DATE April

14 2019 **DST #1** 

Formation: L/KC "I&J"

Test Interval: 3570 -

Total Depth: 3614'

3614"

Time On: 15:38 04/14

Time Off: 23:50 04/14

Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

#### **Down Hole Makeup**

Heads Up:

8.9200000000002 FT

Packer 1:

3564.73 FT

Drill Pipe:

3546.08 FT

Packer 2:

3569.73 FT

ID-3 1/2

Top Recorder:

3554.15 FT

Weight Pipe:

FT

**Bottom Recorder:** 

3607 FT

ID-2 7/8

Collars:

0 FT

Well Bore Size:

77/8

5/8"

ID-2 1/4

33.57 FT

Surface Choke:

**Bottom Choke:** 

Test Tool: ID-3 1/2-FH

Jars

Safety Joint

Total Anchor:

44.27

**Anchor Makeup** 

Packer Sub:

1FT

Perforations: (top):

2 FT

4 1/2-FH

Change Over:

.5 FT

Drill Pipe: (in anchor):

31.77 FT

ID-3 1/2

Change Over:

1 FT

Perforations: (below):

8 FT

4 1/2-FH



Operation:
Test Complete

Drilling Contractor Sou Int - Rig 3 Elevation: 1917 GL Feld Name: Curtis Ext. Pool: Infield Job Number: 331

**DATE**April **14**2019

DST #1 Formation: L/KC "I&J"

Test Interval: 3570 -

Total Depth: 3614'

3614"

Time On: 15:38 04/14

Time Off: 23:50 04/14

Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

#### **Mud Properties**

Mud Type: Chemical

Weight: 9.5

Viscosity: 52

Filtrate: 11.2

Chlorides: 8,500 ppm



SEC: 7 TWN: 22S RNG: 13W

County: STAFFORD

State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

Operation:

Test Complete

DST #2

Formation: L/KC "K"

Test Interval: 3615 -

Total Depth: 3650'

3650'

April

**15** 2019

Time On: 06:56 04/15

Time Off: 13:58 04/15

Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

Electronic Volume Estimate:

31'

1st Open Minutes: 15 Current Reading:

1" at 15 min

Max Reading: 1"

1st Close Minutes: 30 Current Reading: 0" at 30 min

2.3" at 30 min

Max Reading: 2.3"

2nd Open

Minutes: 30

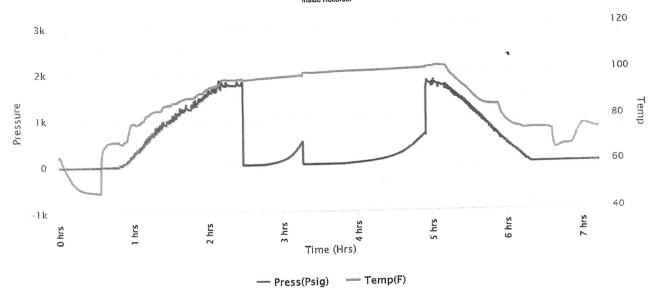
Current Reading:

2nd Close Minutes: 60 Current Reading:

0" at 60 min

Max Reading: 0"

Max Reading: 0"





Operation:

Test Complete

## Company: Bird Dog Oil, LLC Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

DATE April 15 2019

Formation: L/KC "K" **DST #2** 

Test Interval: 3615 -

Total Depth: 3650'

0

Recovery at a glance

3650'

Time On: 06:56 04/15

Time Off: 13:58 04/15

Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

0

0.2

1.0 옆

Foot **BBLS** 15 0.21345

Description of Fluid SLOCM

<u>Oil %</u> Water % Gas % 10

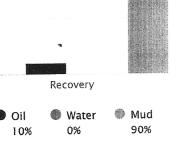
Total Recovered: 15 ft

Total Barrels Recovered: 0.21345

Reversed Out NO

Initial Hydrostatic Pressure	1742	PSI
Initial Flow	12 to 14	PSI
Initial Closed in Pressure	514	PSI
Final Flow Pressure	14 to 17	PSI
Final Closed in Pressure	644	PSI
Final Hydrostatic Pressure	1743	PSI
Temperature	102	°F
Pressure Change Initial	0.0	%
Close / Final Close		

0		Enclosive of the Section
	Gas	
	0%	



Mud %

90

GIP cubic foot volume: 0



Operation:

Test Complete

# Company: Bird Dog Oil, LLC Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W

County: STAFFORD

State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

DATE
April
15
2019

DST #2 Formation: L/KC "K"

Test Interval: 3615 -

Total Depth: 3650'

3650'

Time On: 06:56 04/15

Time Off: 13:58 04/15

Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

#### BUCKET MEASUREMENT:

1st Open: Weak, surface blow building to 1 in. in 15 mins.

1st Close: No blow back.

2nd Open: 1 in. blow building to 2 1/4 ins. in 30 mins.

2nd Close: No blow back.

REMARKS:

Tool Sample: 0% Gas 40% Oil 0% Water 60% Mud



Operation: Test Complete SEC 7 TWN: 22S RNG: 13W

Country: STAFFORD

Drilling Contractor: Southwind Drilling,

Inc - Ria 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield

Job Number: 331

DATE April

15 2019 **DST #2** 

Formation: L/KC "K"

Test Interval: 3615 -

Total Depth: 3650'

3650"

Time On: 06:56 04/15

Time Off: 13:58 04/15

Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

#### **Down Hole Makeup**

Heads Up:

27.17 FT

Packer 1:

3610 FT

Drill Pipe:

3609.6 FT

Packer 2:

3615 FT

ID-3 1/2

Top Recorder:

3599.42 FT

0 FT

33.57 FT

Weight Pipe: ID-2 7/8 FT

**Bottom Recorder:** 

3619 FT

Collars:

Well Bore Size:

**Bottom Choke:** 

7 7/8

5/8"

ID-2 1/4

Surface Choke:

Test Tool: ID-3 1/2-FH

Jars

Safety Joint

Total Anchor:

Anchor Makeup

Packer Sub:

1FT

Perforations: (top):

2 FT

4 1/2-FH

Change Over:

0 FT

Drill Pipe: (in anchor):

0 FT

ID-3 1/2

Change Over:

0 FT

Perforations: (below):

32 FT

4 1/2-FH

Hibbert-Gates No. 1-7

TEST NO.

LEASE AND WELL NO.

AND CITA MAN DITE



Operation:
Test Complete

SEC 17 MAY ZES RING 13/M Country STAFFORD

Sale Karses

Drilling Contractor Southwind Drilling

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

DATE

April

**15** 2019

Formation: L/KC "K"

Test Interval: 3615 -

Total Depth: 3650'

3650'

Time On: 06:56 04/15

Time Off: 13:58 04/15

Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

### **Mud Properties**

Mud Type: Chemical

Weight: 9.3

**DST #2** 

Viscosity: 57

Filtrate: 9.2

Chlorides: 7,500 ppm



Operation: Test Complete SEC: 7 TWN: 22S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

DATE

April 16

2019

DST #3 Formation: Viola

Test Interval: 3712 -

Total Depth: 3777'

3777'

Time On: 02:53 04/16

Time Off: 08:52 04/16

Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

Electronic Volume Estimate:

8'

1st Open Minutes: 15 Current Reading: .8" at 15 min Max Reading: .8" 1st Close Minutes: 30 Current Reading: 0" at 30 min

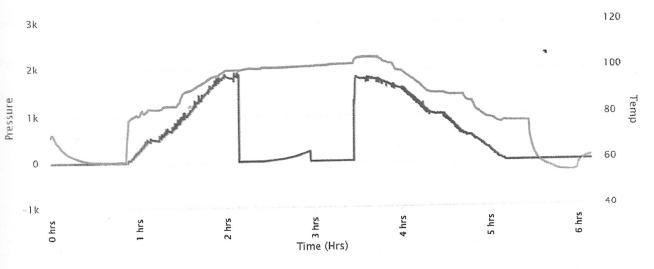
Current Reading: 0" at 20 min Max Reading: 0"

2nd Open

Minutes: 20

2nd Close
Minutes: 0
Current Reading:
0" at 0 min
Max Reading: 0"

Max Reading: 0"



— Press(Psig) — Temp(F)



SEC: 7 TWN: 22S RNG: 13W

County: STAFFORD

State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

Operation: Test Complete

DATE	
April	
16	
2019	

**DST #3** 

Formation: Viola

Test Interval: 3712 -

Total Depth: 3777'

3777'

Time On: 02:53 04/16

Time Off: 08:52 04/16

Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

Recovered
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**BBLS** Foot 0.1423 10

Description of Fluid SLOCM

Gas % 0

Oil % 1

Water % 0

Mud % 99

Recovery at a glance

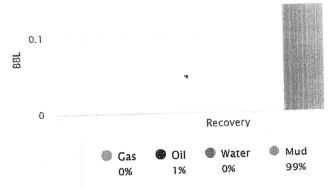
Total Recovered: 10 ft

Total Barrels Recovered: 0.1423

Reve	ersed	Out
	ersed NO	

Initial Hydrostatic Pressure	1791	PSI
Initial Flow	13 to 16	PSI
Initial Closed in Pressure	236	PSI
Final Flow Pressure	17 to 18	PSI
Final Closed in Pressure	0	PSI
Final Hydrostatic Pressure	1793	PSI
Temperature	102	°F
Pressure Change Initial	0.0	%
Class / Final Class		

GIP cubic foot volume: 0 Close / Final Close





SEC: 7 TWN: 225 RMG: 13W County: STAFFORD State: Kansas Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1917 GL Field Name: Curtis Ext

Pool: Infield Job Number: 331

Operation: Test Complete

DATE

April

16 2019 **DST #3** 

Formation: Viola

Test Interval: 3712 -

Total Depth: 3777'

3777'

Time On: 02:53 04/16

Time Off: 08:52 04/16

Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

**BUCKET MEASUREMENT:** 

1st Open: Weak, surface building to 3/4 in. in 30 mins.

1st Close: No blow back. 2nd Open: No blow.

2nd Close: No blow back.

**REMARKS:** 

Pulled tool 10 mins. into 2nd Open due to lack of blow.

Tool Sample: 0% Gas 1% Oil 0% Water 99% Mud



State: Kansas Drilling Contractor: Southwind Drilling,

SEC: 7 TWN: 225 RMG: 13W

Inc - Rig 3

Elevation: 1917 GL Field Name: Curtis Ext

County: STAFFORD

Pool: Infield Job Number: 331

Operation: Test Complete

DATE

April 16 2019

DST#3 Formation: Viola

Test Interval: 3712 -

Total Depth: 3777'

3777'

Time Off: 08:52 04/16 Time On: 02:53 04/16

Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

#### **Down Hole Makeup**

Heads Up:

25.67 FT

Packer 1:

3706.88 FT

Drill Pipe:

3704.98 FT

Packer 2:

3711.88 FT

ID-3 1/2

Top Recorder:

3696.3 FT

Weight Pipe: ID-2 7/8 FT

**Bottom Recorder:** 

3749 FT

0 FT

Well Bore Size:

7 7/8

1%

5/8"

Collars:

Surface Choke:

ID-2 1/4 Test Tool:

33.57 FT

**Bottom Choke:** 

ID-3 1/2-FH

Jars

Safety Joint

**Total Anchor:** 

65.12

Anchor Makeup

Packer Sub:

1 FT

Perforations: (top):

2 FT

4 1/2-FH

Change Over:

1FT

Drill Pipe: (in anchor):

31.12 FT

ID-3 1/2

Change Over:

1FT

Perforations: (below):

29 FT

4 1/2-FH



Drilling Contractor: Southwind Drilling, Inc - Rig 3 Elevation: 1917 GL Field Name: Curtis Ext Pool: Infield Job Number: 331

County STAFFORD State: Kansas

Operation:
Test Complete

**DATE**April **16**2019

DST #3 Formation: Viola

Test Interval: 3712 -

Total Depth: 3777'

JEC 7 TANK 225 PING 13M

3777'

Time On: 02:53 04/16

Time Off: 08:52 04/16

Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

#### **Mud Properties**

Mud Type: Chemical

Weight: 9.3

Viscosity: 57

Filtrate: 9.2

Chlorides: 7,500 ppm