

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ 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: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

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: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Black Rock Resources, LLC
Well Name	WRIGHT 1-25
Doc ID	1401207

All Electric Logs Run

DIL
CDN
MICRO
SONIC

Form	ACO1 - Well Completion
Operator	Black Rock Resources, LLC
Well Name	WRIGHT 1-25
Doc ID	1401207

Tops

Name	Top	Datum
STONE CORAL	2541	668
TOPEKA	3656	-447
HEEBNER	3897	-688
LANSING	3943	-734
BKC	4260	-1051
PLEASANTON	4271	-1062
PAWNEE	4386	-1177
FT SCOTT	4450	-1241



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 567

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-9-17	25	12	37	Logan	KS		6:15 A.M.

Location *Wing 7w 160 1s*

Lease	Well No.	Owner	
<i>Wright</i>	<i>1-25</i>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Contractor	Type Job	Charge To	
<i>Southwind #8</i>	<i>Top Stage</i>	<i>Black Rock Resources</i>	
Hole Size	T.D.	Street	
<i>7 7/8</i>	<i>4823</i>		
Csg. Size	Depth	City	
<i>5 1/2</i>	<i>4819</i>	State	
Tbg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
<i>DV Tool</i>	<i>2519</i>	Cement Amount Ordered <i>440 80/20 QMDC 1/4#FB</i>	
Cement Left in Csg.	Shoe Joint		

Meas Line	Displace	Common
	<del>58</del> <i>58 1/2 csc</i>	<i>440 80/20 Qmbc</i>
<b>EQUIPMENT</b>		
Pumptrk	No.	Cement Helper
<i>16</i>		<i>raig</i>
Bulktrk	No.	Driver
<i>9</i>		<i>Rick</i>
Bulktrk	No.	Driver
<i>19</i>		<i>Jordan</i>
		Driver
		<i>Tony</i>

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole <i>395K</i>	Salt
Mouse Hole <i>155K</i>	Flowseal <i>110 #</i>
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
<i>Plug Ratable a mousehole</i>	Sand
<i>Cement 5 1/2 with 395K</i>	Handling <i>440</i>
<i>Displace Plug</i>	Mileage
<i>Plug landed @ 1500ft</i>	
<i>Cement Circulated!</i>	

**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	<i>2 stage Prod string Top Stage</i>
Mileage	<i>31</i>

X Signature *William L. L...*

Tax  
Discount  
Total Charge

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 566

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-9-17	25	12	37	Logan	KS		3:30 AM

Location Winona 7w 16000 13

Lease <u>Wright</u>	Well No. <u>1-25</u>	Owner
Contractor <u>Southwind #8 Bottom Stage</u>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <u>DJ JOB</u>		
Hole Size <u>7 7/8</u>	T.D. <u>4823</u>	Charge To <u>Black Rock Resources</u>
Csg. <u>5 1/2 15504 17#</u>	Depth <u>4819</u>	Street
Tbg. Size	Depth	City State
Tool <u>DJ Tool</u>	Depth <u>2519</u>	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. <u>27.95</u>	Shoe Joint <u>27.95</u>	Cement Amount Ordered <u>240 10% Salt 5% Gilsomite</u>
Meas Line	Displace <u>112BL</u>	<u>500 gal mud Clear &amp; 30BLKCL</u>

**EQUIPMENT**

Pumptrk <u>16</u>	No.	Cementer <u>Lea's</u>		Poz. Mix
		Helper <u>RICK</u>		
Bulktrk <u>19</u>	No.	Driver <u>Jerry</u>		Gel.
		Driver <u>Sordan</u>		
Bulktrk <u>29</u>	No.	Driver		Calcium

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole	Salt <u>21</u>
Mouse Hole	Flowseal
Centralizers	Kol-Seal <u>1200#</u>
Baskets	Mud CLR 48 <u>500 gal</u>
D/V or Port Collar	CFL-117 or CD110 CAF 38

5 1/2 gpd @ 4819 Baffle @ 4791.88  
Est Circulation Pump 500 gal mud Clear  
112BL KCL spacer  
Cement 5 1/2 with 225%K  
Clear lines & Displace plug.  
Displace with 54BL water & 2BLKCL  
54BL mud + 4BL water to land Plug  
Plug landed @ 200#  
Lit pressure 900#

**FLOAT EQUIPMENT**

Handling <u>261</u>	Guide
Mileage	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Pumptrk Charge <u>prod String</u>	<u>Bottom Stage</u>
Mileage <u>31</u>	

X Signature <u>William Jordan</u>	Tax
	Discount
	Total Charge



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**01**  
 2017

**DST #1**      **Formation: Topeka**      **Test Interval: 3648 - 3685'**      **Total Depth: 3685'**  
 Time On: 11:30 12/01      Time Off: 19:24 12/01  
 Time On Bottom: 14:12 12/01      Time Off Bottom: 17:12 12/01

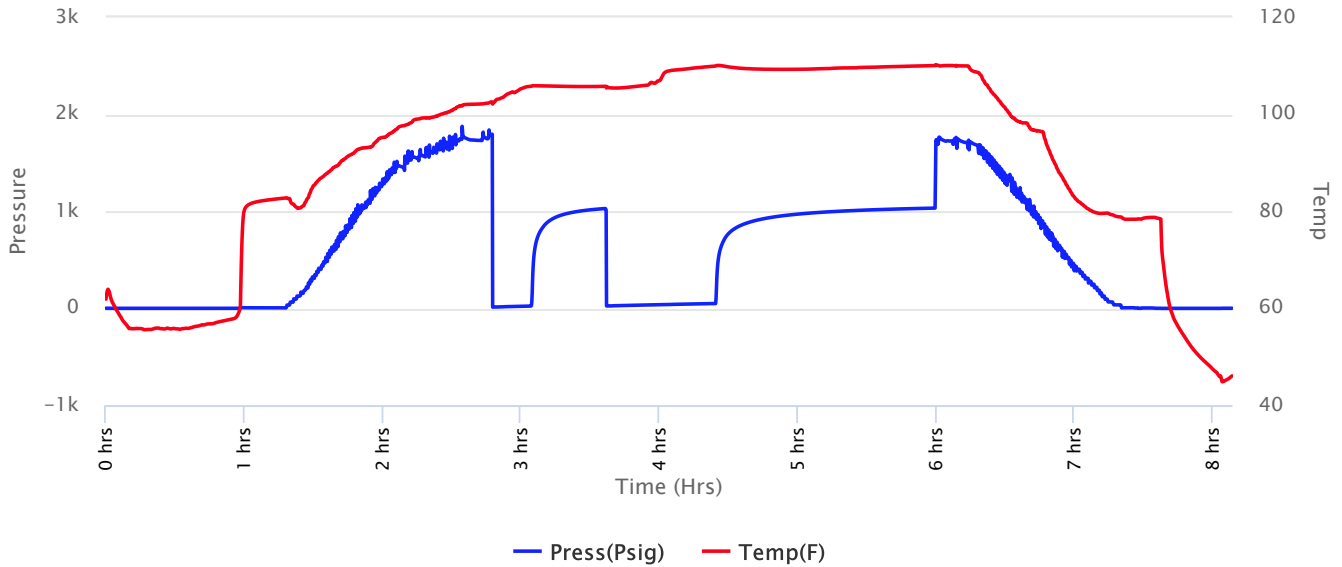
Electronic Volume Estimate:  
 76'

1st Open  
 Minutes: 15  
 3" at 15 min

1st Close  
 Minutes: 30  
 0" at 30 min

2nd Open  
 Minutes: 45  
 4.6" at 45 min

2nd Close  
 Minutes: 90  
 0" at 90 min







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**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
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 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
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**DATE**  
 December  
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 Time On: 11:30 12/01      Time Off: 19:24 12/01  
 Time On Bottom: 14:12 12/01      Time Off Bottom: 17:12 12/01

Recovered

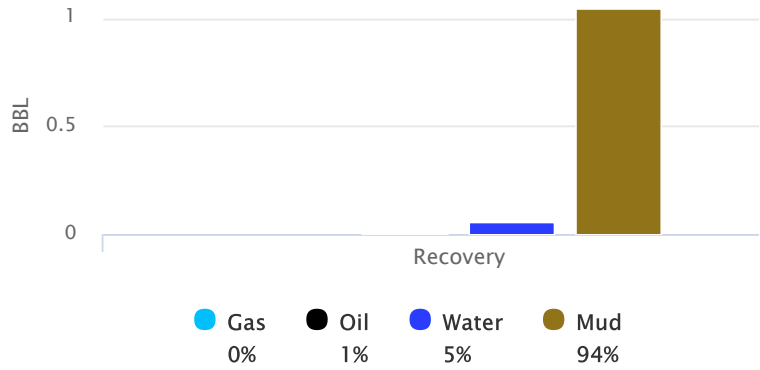
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
78	1.10994	SLOCSLWCM	0	1	5	94

Total Recovered: 78 ft  
 Total Barrels Recovered: 1.10994

**Reversed Out**  
 NO

Initial Hydrostatic Pressure	1731	PSI
Initial Flow	12 to 23	PSI
<b>Initial Closed in Pressure</b>	<b>1029</b>	<b>PSI</b>
Final Flow Pressure	24 to 49	PSI
<b>Final Closed in Pressure</b>	<b>1033</b>	<b>PSI</b>
Final Hydrostatic Pressure	1740	PSI
Temperature	111	°F
Pressure Change Initial Close / Final Close	0.0	%

**Recovery at a glance**





**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<p><b>DATE</b> December <b>01</b> 2017</p>
--

**DST #1      Formation: Topeka      Test Interval: 3648 -      Total Depth: 3685'**  
**3685'**

Time On: 11:30 12/01      Time Off: 19:24 12/01  
Time On Bottom: 14:12 12/01      Time Off Bottom: 17:12 12/01

**REMARKS:**

- 10. WSB. Built to 3 inches.
- 1C. NOBB
- 20. WSB. BUILT to 4 1/2 inches
- 2C. NOBB

TOOL Sample: 4% W. 96% M



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

<p><b>DATE</b>          December  <b>01</b>          2017</p>
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**DST #1**      **Formation: Topeka**      **Test Interval: 3648 - 3685'**      **Total Depth: 3685'**

Time On: 11:30 12/01      Time Off: 19:24 12/01  
 Time On Bottom: 14:12 12/01      Time Off Bottom: 17:12 12/01

**Down Hole Makeup**

<b>Heads Up:</b> 6.64 FT	<b>Packer 1:</b> 3642.5 FT
<b>Drill Pipe:</b> 3621.57 FT <i>ID-3 1/2</i>	<b>Packer 2:</b> 3648 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 3631.92 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 0 FT
<b>Test Tool:</b> 34.07 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 37	<b>Surface Choke:</b> 1"
<u><b>Anchor Makeup</b></u>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 3 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 0 FT	
<b>Drill Pipe: (in anchor):</b> 0 FT <i>ID-3 1/2</i>	
<b>Change Over:</b> 0 FT	
<b>Perforations: (below):</b> 33 FT <i>4 1/2-FH</i>	



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

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Inc - Rig 8  
Elevation: 3201 GL  
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Job Number: 87

<b>DATE</b> December <b>01</b> 2017
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Time On: 11:30 12/01      Time Off: 19:24 12/01  
Time On Bottom: 14:12 12/01      Time Off Bottom: 17:12 12/01

**Mud Properties**

**Mud Type:** Chem      **Weight:** 8.9      **Viscosity:** 50      **Filtrate:** 7.7      **Chlorides:** 5800 ppm



**Company: Black Rock Resources, LLC**  
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<b>DATE</b>
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<b>01</b>
2017

**DST #1      Formation: Topeka      Test Interval: 3648 - 3685'      Total Depth: 3685'**

Time On: 11:30 12/01      Time Off: 19:24 12/01  
 Time On Bottom: 14:12 12/01      Time Off Bottom: 17:12 12/01

**Gas Volume Report**

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
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Time	Orifice	PSI	MCF/D
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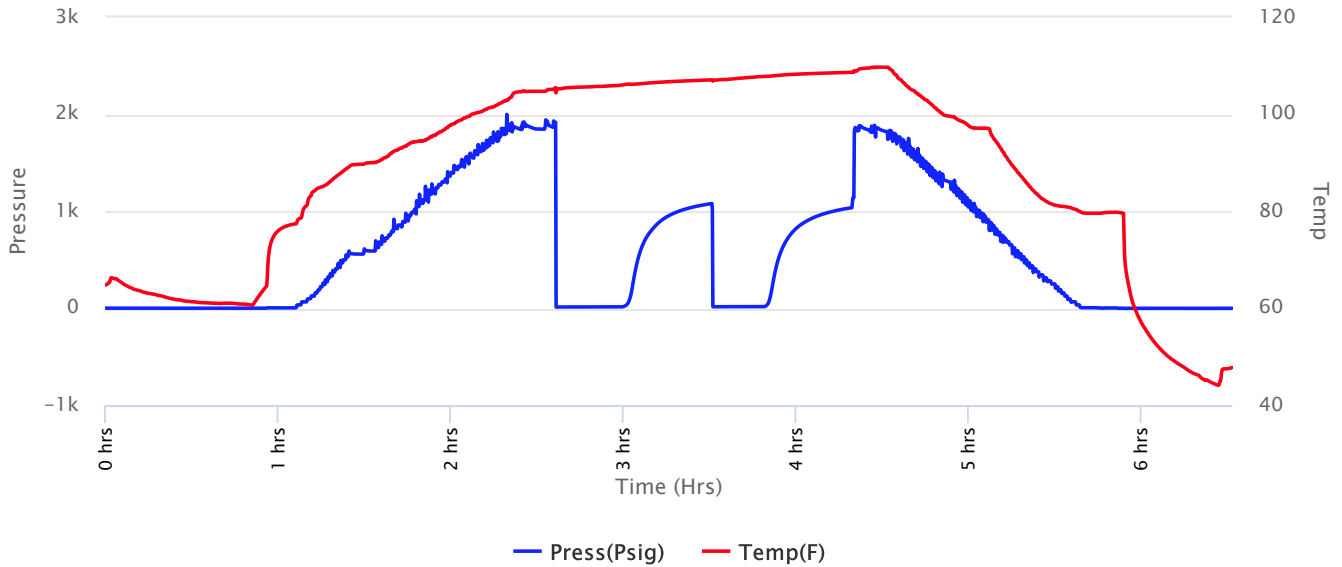
**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**02**  
 2017

**DST #2**      **Formation: Oread**      **Test Interval: 3843 - 3873'**      **Total Depth: 3909'**  
 Time On: 13:13 12/02      Time Off: 19:33 12/02  
 Time On Bottom: 15:44 12/02      Time Off Bottom: 17:14 12/02

Electronic Volume Estimate: 11'	<u>1st Open</u> Minutes: 15 .9" at 15 min	<u>1st Close</u> Minutes: 30 0" at 30 min	<u>2nd Open</u> Minutes: 15 .1" at 15 min	<u>2nd Close</u> Minutes: 30 0" at 30 min
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**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**02**  
 2017

**DST #2**      **Formation: Oread**      **Test Interval: 3843 - 3873'**      **Total Depth: 3909'**  
 Time On: 13:13 12/02      Time Off: 19:33 12/02  
 Time On Bottom: 15:44 12/02      Time Off Bottom: 17:14 12/02

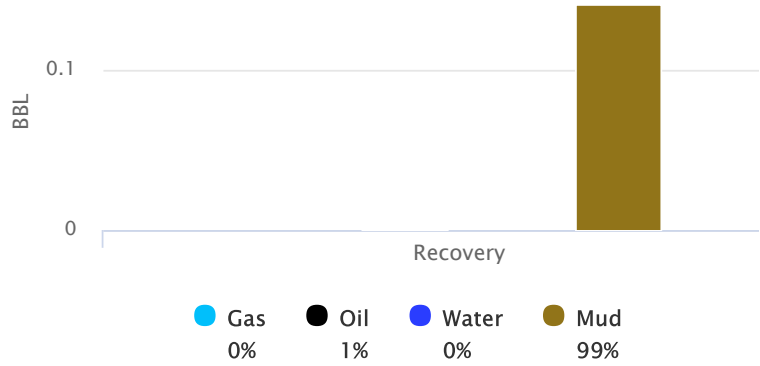
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
10	0.1423	SLOCM	0	1	0	99

Total Recovered: 10 ft  
 Total Barrels Recovered: 0.1423

Reversed Out  
 NO

**Recovery at a glance**



Initial Hydrostatic Pressure	1850	PSI
Initial Flow	12 to 15	PSI
<b>Initial Closed in Pressure</b>	<b>1077</b>	<b>PSI</b>
Final Flow Pressure	16 to 17	PSI
<b>Final Closed in Pressure</b>	<b>1036</b>	<b>PSI</b>
Final Hydrostatic Pressure	1858	PSI
Temperature	109	°F
Pressure Change Initial Close / Final Close	3.8	%



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 Field Name: Wildcat  
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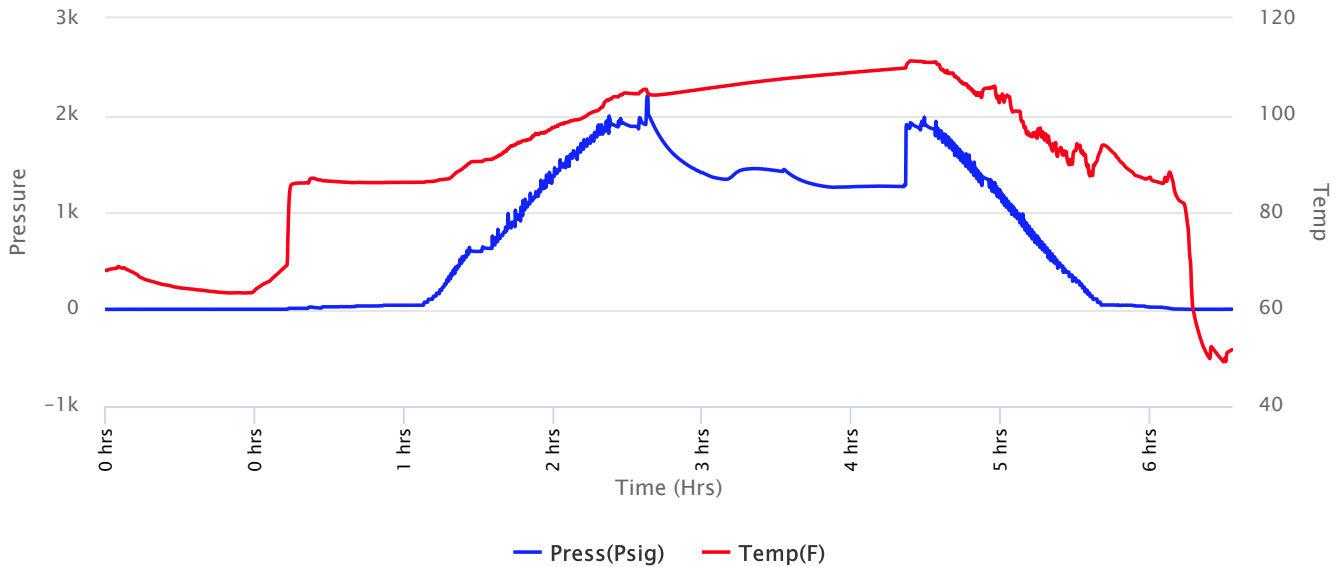
**DST #2**      **Formation: Oread**      **Test Interval: 3843 - 3873'**      **Total Depth: 3909'**  
 Time On: 13:13 12/02      Time Off: 19:33 12/02  
 Time On Bottom: 15:44 12/02      Time Off Bottom: 17:14 12/02

**REMARKS:**

- 1O. WSB. Built to 3/4 of an Inch
- 1C. NOBB
- 2O. NO Blow/ Built to WSB
- 2C. NOBB

Tool Sample: 1% O 99% M

**Below Straddle Recorder**







**Company: Black Rock Resources, LLC**  
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 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

<p><b>DATE</b>          December  <b>02</b>          2017</p>
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**DST #2**      **Formation: Oread**      **Test Interval: 3843 - 3873'**      **Total Depth: 3909'**

Time On: 13:13 12/02      Time Off: 19:33 12/02  
 Time On Bottom: 15:44 12/02      Time Off Bottom: 17:14 12/02

**Down Hole Makeup**

<b>Heads Up:</b> 4.7 FT	<b>Packer 1:</b> 3838 FT
<b>Drill Pipe:</b> 3815.13 FT <i>ID-3 1/2</i>	<b>Packer 2:</b> 3843 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Packer 3:</b> 3873 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Top Recorder:</b> 3827.42 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Bottom Recorder:</b> 3845 FT
<b>Total Anchor:</b> 30	<b>Below Straddle Recorder:</b> 3907 FT
	<b>Well Bore Size:</b> 7 7/8
	<b>Surface Choke:</b> 1"
	<b>Bottom Choke:</b> 5/8"

**Anchor Makeup**

**Packer Sub:** 1 FT

**Perforations: (top):** 0 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):** 29 FT  
*4 1/2-FH*

**STRADDLE**

**Straddle Packer(s):** 1 FT

**Change Over:** .5 FT

**Drill Pipe:** 31.2 FT  
*ID-3 1/2"*

**Change Over:** .5 FT

**Perforations (in tail pipe):** 3 FT  
*4 1/2-FH*



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>02</b> 2017
--

**DST #2      Formation: Oread      Test Interval: 3843 - 3873'      Total Depth: 3909'**

Time On: 13:13 12/02      Time Off: 19:33 12/02  
Time On Bottom: 15:44 12/02      Time Off Bottom: 17:14 12/02

**Mud Properties**

**Mud Type:** Chem      **Weight:** 9.1      **Viscosity:** 46      **Filtrate:** 8.2      **Chlorides:** 7900 ppm



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

<p><b>DATE</b>          December  <b>02</b>          2017</p>
---

**DST #2**      **Formation: Oread**      **Test Interval: 3843 - 3873'**      **Total Depth: 3909'**

Time On: 13:13 12/02      Time Off: 19:33 12/02  
 Time On Bottom: 15:44 12/02      Time Off Bottom: 17:14 12/02

**Gas Volume Report**

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
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Time	Orifice	PSI	MCF/D
------	---------	-----	-------



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**03**  
 2017

**DST #3 Formation: Lans C/D Test Interval: 3982 - 4028' Total Depth: 4028'**

Time On: 09:12 12/03 Time Off: 16:08 12/03  
 Time On Bottom: 11:24 12/03 Time Off Bottom: 13:39 12/03

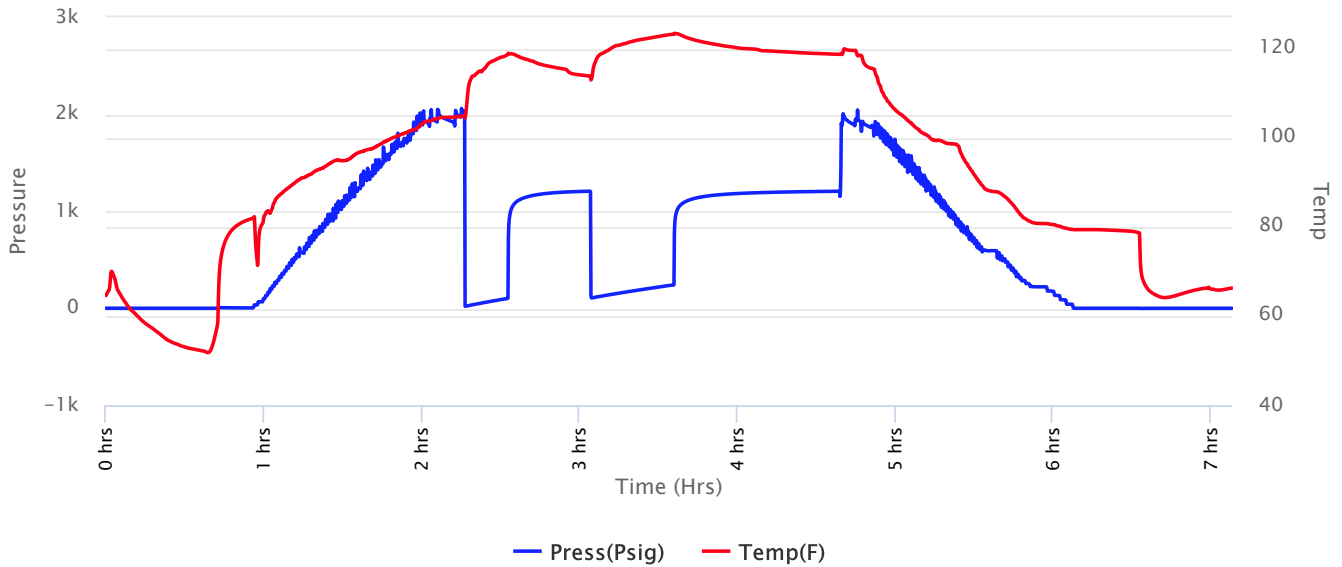
Electronic Volume Estimate:  
 470'

1st Open  
 Minutes: 15  
 16" at 15 min

1st Close  
 Minutes: 30  
 .5" at 30 min

2nd Open  
 Minutes: 30  
 27.1" at 30 min

2nd Close  
 Minutes: 60  
 .5" at 60 min





**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**03**  
 2017

**DST #3 Formation: Lans C/D Test Interval: 3982 - 4028' Total Depth: 4028'**

Time On: 09:12 12/03 Time Off: 16:08 12/03  
 Time On Bottom: 11:24 12/03 Time Off Bottom: 13:39 12/03

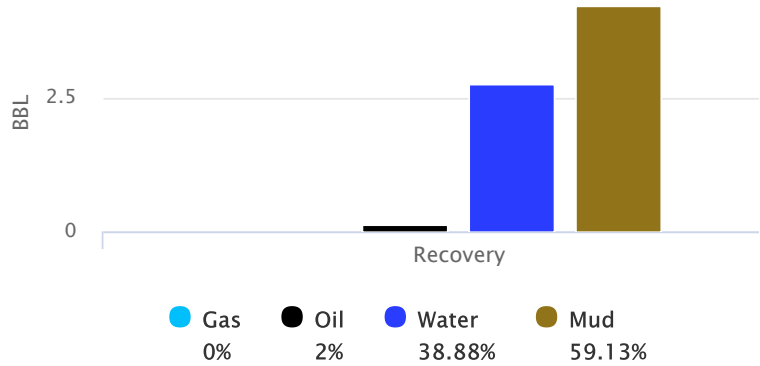
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
63	0.89649	SLOCSLWCM	0	2	10	88
441	6.27543	SLOCHWCM	0	2	43	55

Total Recovered: 504 ft  
 Total Barrels Recovered: 7.17192

Reversed Out  
 NO

**Recovery at a glance**



Initial Hydrostatic Pressure	1918	PSI
Initial Flow	21 to 103	PSI
<b>Initial Closed in Pressure</b>	<b>1204</b>	<b>PSI</b>
Final Flow Pressure	107 to 242	PSI
<b>Final Closed in Pressure</b>	<b>1207</b>	<b>PSI</b>
Final Hydrostatic Pressure	1955	PSI
Temperature	124	°F
Pressure Change Initial Close / Final Close	0.0	%



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>03</b> 2017
--

**DST #3      Formation: Lans C/D      Test Interval: 3982 -      Total Depth: 4028'**  
**4028'**

Time On: 09:12 12/03      Time Off: 16:08 12/03  
Time On Bottom: 11:24 12/03      Time Off Bottom: 13:39 12/03

**REMARKS:**

- 1O. 1/4' blow. BOB in 10 1/2 mins
- 1C. 1/2 BB
- 2O. 1/4' Blow. BOB in 12 1/2 mins.
- 2C. 1/4 BB

Tool Sample: 3% O 52% W 35% M

Ph: 8

RW: .41 @ 54 degrees F

Chlorides: 18000 ppm



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

<p><b>DATE</b>          December  <b>03</b>          2017</p>
---

**DST #3      Formation: Lans C/D      Test Interval: 3982 - 4028'      Total Depth: 4028'**

Time On: 09:12 12/03      Time Off: 16:08 12/03  
 Time On Bottom: 11:24 12/03      Time Off Bottom: 13:39 12/03

**Down Hole Makeup**

<b>Heads Up:</b> 23.66 FT	<b>Packer 1:</b> 3977 FT
<b>Drill Pipe:</b> 3973.09 FT <i>ID-3 1/2</i>	<b>Packer 2:</b> 3982 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 3966.42 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 4020 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 46	<b>Surface Choke:</b> 1"
<u><b>Anchor Makeup</b></u>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 3 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 1 FT	
<b>Drill Pipe: (in anchor):</b> 31.5 FT <i>ID-3 1/2</i>	
<b>Change Over:</b> .5 FT	
<b>Perforations: (below):</b> 9 FT <i>4 1/2-FH</i>	



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>03</b> 2017
--

**DST #3      Formation: Lans C/D      Test Interval: 3982 -      Total Depth: 4028'**  
**4028'**

Time On: 09:12 12/03      Time Off: 16:08 12/03  
Time On Bottom: 11:24 12/03      Time Off Bottom: 13:39 12/03

**Mud Properties**

**Mud Type:** Chem      **Weight:** 9.2      **Viscosity:** 49      **Filtrate:** 9.8      **Chlorides:** 9550 ppm





**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>03</b> 2017
--

**DST #3    Formation: Lans C/D    Test Interval: 3982 -    Total Depth: 4028'**  
**4028'**

Time On: 09:12 12/03                      Time Off: 16:08 12/03  
Time On Bottom: 11:24 12/03    Time Off Bottom: 13:39 12/03

**Gas Volume Report**

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**03**  
 2017

**DST #3 Formation: Lans C/D Test Interval: 3982 - 4028' Total Depth: 4028'**

Time On: 09:12 12/03 Time Off: 16:08 12/03  
 Time On Bottom: 11:24 12/03 Time Off Bottom: 13:39 12/03

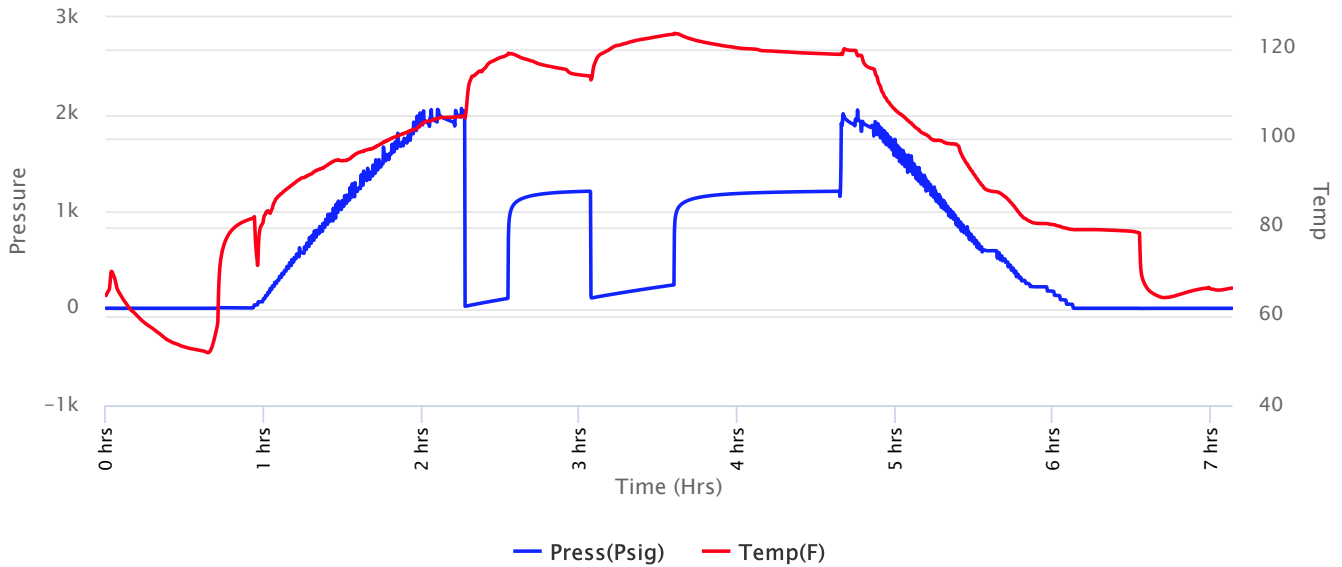
Electronic Volume Estimate:  
 470'

1st Open  
 Minutes: 15  
 16" at 15 min

1st Close  
 Minutes: 30  
 .5" at 30 min

2nd Open  
 Minutes: 30  
 27.1" at 30 min

2nd Close  
 Minutes: 60  
 .5" at 60 min





**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**03**  
 2017

**DST #3 Formation: Lans C/D Test Interval: 3982 - 4028' Total Depth: 4028'**

Time On: 09:12 12/03 Time Off: 16:08 12/03  
 Time On Bottom: 11:24 12/03 Time Off Bottom: 13:39 12/03

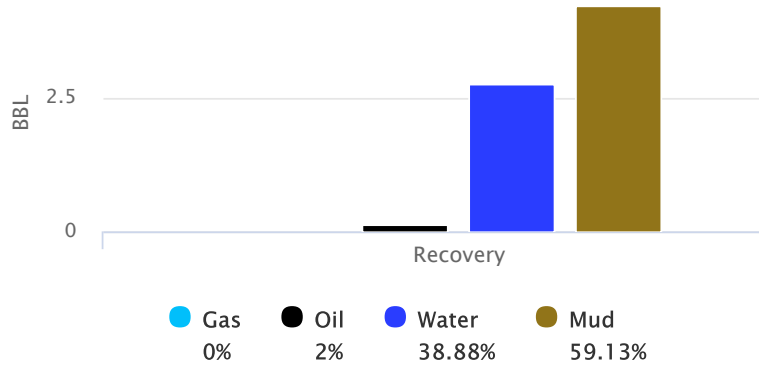
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
63	0.89649	SLOCSLWCM	0	2	10	88
441	6.27543	SLOCHWCM	0	2	43	55

Total Recovered: 504 ft  
 Total Barrels Recovered: 7.17192

Reversed Out  
 NO

**Recovery at a glance**



Initial Hydrostatic Pressure	1918	PSI
Initial Flow	21 to 103	PSI
<b>Initial Closed in Pressure</b>	<b>1204</b>	<b>PSI</b>
Final Flow Pressure	107 to 242	PSI
<b>Final Closed in Pressure</b>	<b>1207</b>	<b>PSI</b>
Final Hydrostatic Pressure	1955	PSI
Temperature	124	°F
Pressure Change Initial Close / Final Close	0.0	%



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>03</b> 2017
--

**DST #3      Formation: Lans C/D      Test Interval: 3982 -      Total Depth: 4028'**  
**4028'**

Time On: 09:12 12/03      Time Off: 16:08 12/03  
Time On Bottom: 11:24 12/03      Time Off Bottom: 13:39 12/03

**REMARKS:**

- 1O. 1/4' blow. BOB in 10 1/2 mins
- 1C. 1/2 BB
- 2O. 1/4' Blow. BOB in 12 1/2 mins.
- 2C. 1/4 BB

Tool Sample: 3% O 52% W 35% M

Ph: 8

RW: .41 @ 54 degrees F

Chlorides: 18000 ppm



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

<p><b>DATE</b>          December  <b>03</b>          2017</p>
---

**DST #3      Formation: Lans C/D      Test Interval: 3982 - 4028'      Total Depth: 4028'**

Time On: 09:12 12/03      Time Off: 16:08 12/03  
 Time On Bottom: 11:24 12/03      Time Off Bottom: 13:39 12/03

**Down Hole Makeup**

<b>Heads Up:</b> 23.66 FT	<b>Packer 1:</b> 3977 FT
<b>Drill Pipe:</b> 3973.09 FT <i>ID-3 1/2</i>	<b>Packer 2:</b> 3982 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 3966.42 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 4020 FT
<b>Test Tool:</b> 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 46	<b>Surface Choke:</b> 1"
<u><b>Anchor Makeup</b></u>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 3 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 1 FT	
<b>Drill Pipe: (in anchor):</b> 31.5 FT <i>ID-3 1/2</i>	
<b>Change Over:</b> .5 FT	
<b>Perforations: (below):</b> 9 FT <i>4 1/2-FH</i>	



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>03</b> 2017
--

**DST #3      Formation: Lans C/D      Test Interval: 3982 -      Total Depth: 4028'**  
**4028'**

Time On: 09:12 12/03      Time Off: 16:08 12/03  
Time On Bottom: 11:24 12/03      Time Off Bottom: 13:39 12/03

**Mud Properties**

**Mud Type:** Chem      **Weight:** 9.2      **Viscosity:** 49      **Filtrate:** 9.8      **Chlorides:** 9550 ppm



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>03</b> 2017
--

**DST #3    Formation: Lans C/D    Test Interval: 3982 -    Total Depth: 4028'**  
**4028'**

Time On: 09:12 12/03                      Time Off: 16:08 12/03  
Time On Bottom: 11:24 12/03    Time Off Bottom: 13:39 12/03

**Gas Volume Report**

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
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Time	Orifice	PSI	MCF/D
------	---------	-----	-------



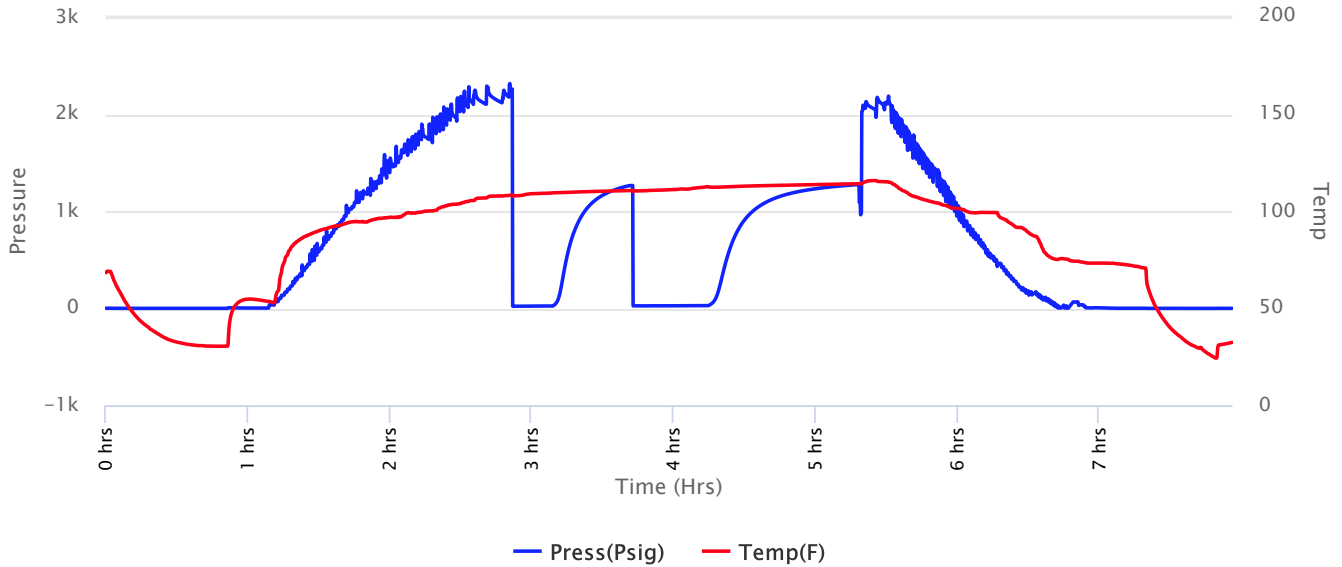
**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**04**  
 2017

**DST #4**      **Formation: Pleasanton**      **Test Interval: 4275 - 4318'**      **Total Depth: 4318'**  
 Time On: 19:32 12/04      Time Off: 03:15 12/05  
 Time On Bottom: 22:19 12/04      Time Off Bottom: 00:34 12/05

Electronic Volume Estimate: 18'	<u>1st Open</u> Minutes: 15 1" at 15 min	<u>1st Close</u> Minutes: 30 0" at 30 min	<u>2nd Open</u> Minutes: 30 .5" at 30 min	<u>2nd Close</u> Minutes: 60 0" at 60 min
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**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

**DATE**  
 December  
**04**  
 2017

**DST #4**      **Formation: Pleasanton**      **Test Interval: 4275 - 4318'**      **Total Depth: 4318'**  
 Time On: 19:32 12/04      Time Off: 03:15 12/05  
 Time On Bottom: 22:19 12/04      Time Off Bottom: 00:34 12/05

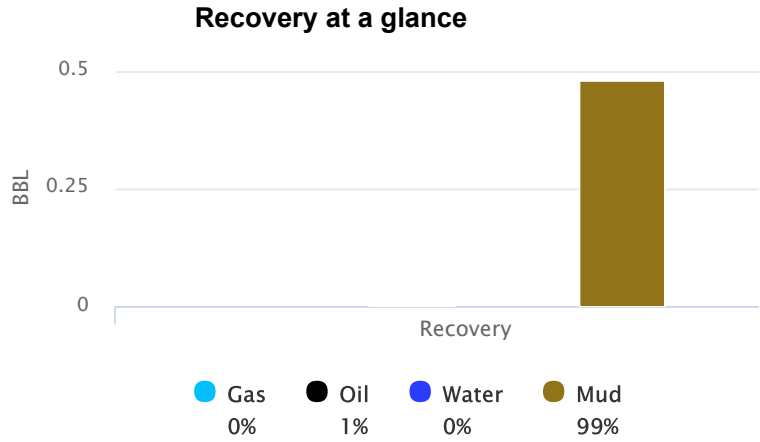
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
34	0.48382	SLOCM	0	1	0	99

Total Recovered: 34 ft  
 Total Barrels Recovered: 0.48382

**Reversed Out**  
 NO

Initial Hydrostatic Pressure	2121	PSI
Initial Flow	21 to 24	PSI
<b>Initial Closed in Pressure</b>	<b>1265</b>	<b>PSI</b>
Final Flow Pressure	25 to 28	PSI
<b>Final Closed in Pressure</b>	<b>1276</b>	<b>PSI</b>
Final Hydrostatic Pressure	2095	PSI
Temperature	115	°F
Pressure Change Initial Close / Final Close	0.0	%





**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>04</b> 2017
--

<b>DST #4</b>	<b>Formation:</b> Pleasanton	<b>Test Interval: 4275 - 4318'</b>	<b>Total Depth: 4318'</b>
	Time On: 19:32 12/04	Time Off: 03:15 12/05	
	Time On Bottom: 22:19 12/04	Time Off Bottom: 00:34 12/05	

**REMARKS:**

- 1O. WSB. Built to 1 inch in 15 mins.
- 1C. NOBB
- 2O. WSB. Built to 1/2 in 30 mins.
- 2C. NOBB

Tool Sample: 1% O. 99% M



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

<p><b>DATE</b>          December  <b>04</b>          2017</p>
---

**DST #4**      **Formation: Pleasanton**      **Test Interval: 4275 - 4318'**      **Total Depth: 4318'**

Time On: 19:32 12/04      Time Off: 03:15 12/05  
 Time On Bottom: 22:19 12/04      Time Off Bottom: 00:34 12/05

**Down Hole Makeup**

<b>Heads Up:</b> 17.4 FT	<b>Packer 1:</b> 4269.5 FT
<b>Drill Pipe:</b> 4259.33 FT <i>ID-3 1/2</i>	<b>Packer 2:</b> 4275 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 4258.92 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 0 FT
<b>Test Tool:</b> 34.07 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	<b>Well Bore Size:</b> 7 7/8
<b>Total Anchor:</b> 43	<b>Surface Choke:</b> 1"
<u><b>Anchor Makeup</b></u>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 3 FT <i>4 1/2-FH</i>	
<b>Change Over:</b> 0 FT	
<b>Drill Pipe: (in anchor):</b> 0 FT <i>ID-3 1/2</i>	
<b>Change Over:</b> 0 FT	
<b>Perforations: (below):</b> 39 FT <i>4 1/2-FH</i>	



**Company: Black Rock  
Resources, LLC  
Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
County: LOGAN  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 8  
Elevation: 3201 GL  
Field Name: Wildcat  
Pool: WILDCAT  
Job Number: 87

<b>DATE</b> December <b>04</b> 2017
--

**DST #4**      **Formation:**  
Pleasanton      **Test Interval: 4275 -**      **Total Depth: 4318'**  
4318'

Time On: 19:32 12/04      Time Off: 03:15 12/05  
Time On Bottom: 22:19 12/04      Time Off Bottom: 00:34 12/05

**Mud Properties**

**Mud Type:** Chem      **Weight:** 9.1      **Viscosity:** 52      **Filtrate:** 8.9      **Chlorides:** 8750 ppm



**Company: Black Rock Resources, LLC**  
**Lease: Wright #1-25**

SEC: 25 TWN: 12S RNG: 37W  
 County: LOGAN  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 8  
 Elevation: 3201 GL  
 Field Name: Wildcat  
 Pool: WILDCAT  
 Job Number: 87

<b>DATE</b> December <b>04</b> 2017
--

**DST #4**      **Formation: Pleasanton**      **Test Interval: 4275 - 4318'**      **Total Depth: 4318'**

Time On: 19:32 12/04      Time Off: 03:15 12/05  
 Time On Bottom: 22:19 12/04      Time Off Bottom: 00:34 12/05

**Gas Volume Report**

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

## Scale 1:240 (5"=100') Imperial Measured Depth Log

**Well Name:** Wright 1-25  
**API:** 15-109-21529  
**Location:** NE NE NE Section 25 of 12S 37W  
**License Number:** 3531A  
**Spud Date:** 11/27/2017  
**Surface Coordinates:** 330' FNL & 382' FEL  
**Region:** Logan County  
**Drilling Completed:** 12/8/2017

**Bottom Hole Coordinates:** Same as surface coordinates  
**Ground Elevation (ft):** 3199' **K.B. Elevation (ft):** 3209'  
**Logged Interval (ft):** 3200' **To:** 4823' **Total Depth (ft):** 4823'  
**Formation:** Mississippian  
**Type of Drilling Fluid:** Chemical Drispac (Twister Mud)  
 Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

### OPERATOR

**Company:** Black Rock Resources, LLC  
**Address:** 1029 E. 7th ST.  
 P.O. BOX 553  
 RUSSEL, KS 67665

### GEOLOGIST

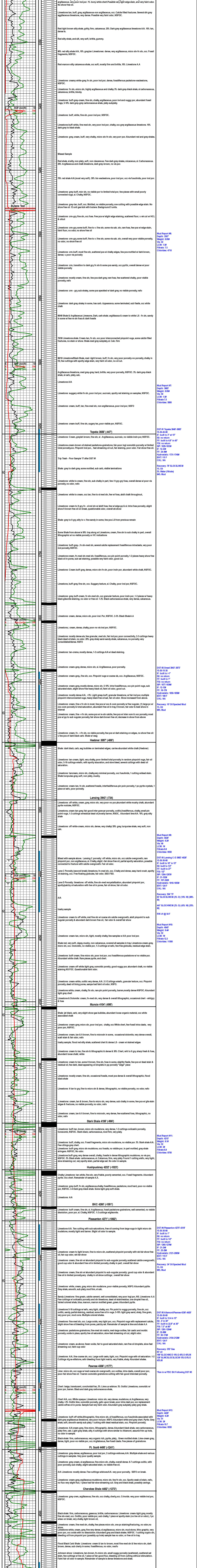
**Name:** Chad Counts & Eli J. Felts  
**Company:** MG Oil, Inc. / Gravity Oil, LLC  
**Address:** Chad Counts  
 MG Oil, Inc.  
 PO BOX 162

### Remarks

The Wright 1-25 was located via 3D seismic survey. Structurally, the well ran much lower than expected from the seismic prognosis. However, the Lansing-Kansas City thinned up to 9', resulting in slightly higher Marmaton-Mississippian tops as seen above. Several shows were encountered throughout the Topeka to Johnson Limestone. Based upon the positive drill stem test in the Altamont Formation of the Marmaton Group, positive log calculations, and numerous sample shows, all parties agreed to run 5 1/2" casing and complete the well.

**Recommended Primary Perforations:**  
 Altamont: 4362'-4366' / 4370'-4374'  
 Pleasanton: 4270'-4278'  
**Before abandonment test shows in: Topeka, Plattsmouth, Toronto, LKC.**

**Best Regards,**  
 Chad Counts & Eli J. Felts



Formation	Depth (ft)	Remarks	Engineering Data
Topoka 3656' (-447')	3580 - 3656	Limestone: Cream, greyish brown, fine sh, sil. Argillaceous, susroci, no visible in situ por., NSFOC.	Mud Report #7: Depth: 3657 Weight: 8.58 Vis: 42 LCM: 1.58 Filtrate: 7.5 Chlorides: 4840
Stark Shale 4195' (886')	4188 - 4195	Limestone: buff, tan, fine sh, sil. Argillaceous, susroci, no visible in situ por., NSFOC.	Mud Report #11: Depth: 4195 Weight: 8.58 Vis: 42 LCM: 2.08 Filtrate: 6.75 Chlorides: 8750
Stark Shale 4195' (886')	4188 - 4195	Limestone: buff, tan, fine sh, sil. Argillaceous, susroci, no visible in situ por., NSFOC.	Mud Report #11: Depth: 4195 Weight: 8.58 Vis: 42 LCM: 2.08 Filtrate: 6.75 Chlorides: 8750
Stark Shale 4195' (886')	4188 - 4195	Limestone: buff, tan, fine sh, sil. Argillaceous, susroci, no visible in situ por., NSFOC.	Mud Report #11: Depth: 4195 Weight: 8.58 Vis: 42 LCM: 2.08 Filtrate: 6.75 Chlorides: 8750
Morrow 4604' (-1395')	4575 - 4604	Limestone: cream, tan & brown, fine to micro sh, very dense, sil. argillaceous, cherty, chert, NSFOC. Chert: bone white, translucent, conchoidal frac. Shales A/A.	Mud Report #14: Depth: 4604 Weight: 8.18 Vis: 42 LCM: 2.08 Filtrate: 10.2 Chlorides: 8450
Morrow 4604' (-1395')	4575 - 4604	Limestone: cream, tan & brown, fine to micro sh, very dense, sil. argillaceous, cherty, chert, NSFOC. Chert: bone white, translucent, conchoidal frac. Shales A/A.	Mud Report #14: Depth: 4604 Weight: 8.18 Vis: 42 LCM: 2.08 Filtrate: 10.2 Chlorides: 8450
Morrow 4604' (-1395')	4575 - 4604	Limestone: cream, tan & brown, fine to micro sh, very dense, sil. argillaceous, cherty, chert, NSFOC. Chert: bone white, translucent, conchoidal frac. Shales A/A.	Mud Report #14: Depth: 4604 Weight: 8.18 Vis: 42 LCM: 2.08 Filtrate: 10.2 Chlorides: 8450
Morrow 4604' (-1395')	4575 - 4604	Limestone: cream, tan & brown, fine to micro sh, very dense, sil. argillaceous, cherty, chert, NSFOC. Chert: bone white, translucent, conchoidal frac. Shales A/A.	Mud Report #14: Depth: 4604 Weight: 8.18 Vis: 42 LCM: 2.08 Filtrate: 10.2 Chlorides: 8450

\*Run in FDC BH Following DST #11



**QUALITY OILWELL CEMENTING, INC.**  
 PO Box 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665  
 PHONE: 785-324-1041 FAX: 785-483-1087  
 EMAIL: cementing@ruraltel.net

Entered

Date: 11/28/2017  
 Invoice # 553

P.O.#:  
 Due Date: 12/28/2017  
 Division: Russell

# Invoice

*Paid  
 Ch.# 2874  
 12/21/17*

Contact:

Address/Job Location:

*Black Rock Resources*

Reference:  
 WRIGHT 1-25 SEC 25-12-37

Description of Work:  
 SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 601.97	No				
Common-Class A	180	\$ 2,501.78	Yes				
Calcium Chloride	8	\$ 302.27	Yes				
POZ Mix-Standard	45	\$ 212.53	Yes				
Bulk Truck Matl-Material Service Charge	237	\$ 159.90	No				
Pump Truck Mileage-Job to Nearest Camp	31	\$ 94.12	No				
Premium Gel (Bentonite)	4	\$ 78.27	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	31	\$ 73.20	No				

**Invoice Terms:**

Net 30

SubTotal: \$ 4,024.04  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (100.60)

SubTotal for Taxable Items: \$ 3,017.47  
 SubTotal for Non-Taxable Items: \$ 905.97

8.00% Logan County Sales Tax

Total: \$ 3,923.44  
 Tax: \$ 241.40  
**Amount Due: \$ 4,164.84**  
**Applied Payments:**  
**Balance Due: \$ 4,164.84**

**Thank You For Your Business!**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 553

Date	11-28-17	Sec.	25	Twp.	12	Range	37	County	Logan	State	KS	On Location		Finish	12:45 A.M.
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Location *Winona Twp 160 Rd 1/2 Winto*

Lease	<i>Wright</i>	Well No.	1-25	Owner	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Contractor	<del>Wright</del> <i>Southwick #18</i>				
Type Job	<i>Surface</i>				
Hole Size	<i>12 1/4</i>	T.D.	<i>335</i>	Charge To	<i>Black Rock Resources</i>
Csg.	<i>8 5/8</i>	Depth	<i>334</i>	Street	
Tbg. Size		Depth		City	State
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	<i>10</i>	Shoe Joint		Cement Amount Ordered	<i>225 8/20 3-11 2/6FL</i>
Meas Line		Displace	<i>20BL</i>		

**EQUIPMENT**

Pumptrk	<i>20</i>	No.		Cementer	<i>Craig</i>	Common	<i>180</i>
				Helper		Poz. Mix	<i>45</i>
Bulktrk		No.		Driver	<i>Traus</i>	Gel.	<i>4</i>
Bulktrk	<i>9</i>	No.		Driver	<i>Davis</i>	Calcium	<i>8</i>

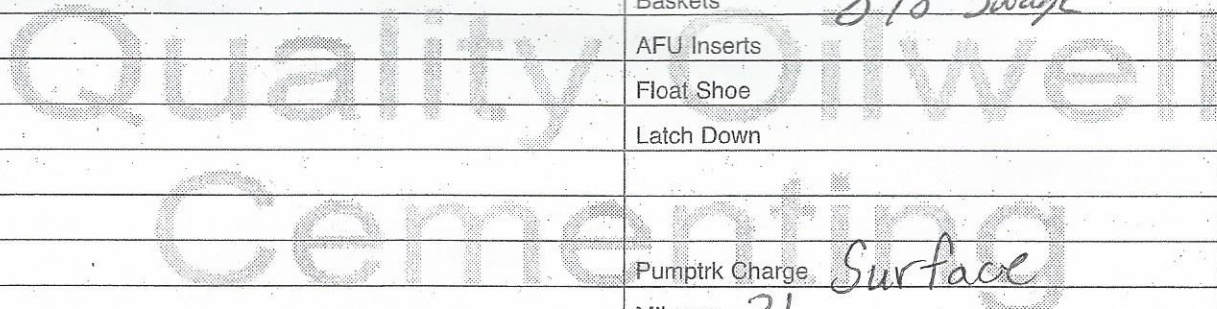
**JOB SERVICES & REMARKS**

Remarks:		Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
<i>8 5/8 on bottom. Est. Circulation.</i>		Sand	
<i>Mix 225 SK &amp; Displace</i>		Handling	<i>237</i>
		Mileage	

*Cement Circulated!*

**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer	
Baskets	<i>8 5/8 Swaye</i>
AFU Inserts	
Float Shoe	
Latch Down	



Pumptrk Charge	<i>Surface</i>
Mileage	<i>31</i>

X Signature <i>William S. ...</i>	Tax	
	Discount	
	Total Charge	