

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)</i> <i>(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	RJM Company
Well Name	MORGENSTERN 4
Doc ID	1643192

#### Perforations

Shots Per Foot	Perforation Top	Perforation Bottom	BridgePlugType	BridgePlugSet At	Material Record
4	3122	3126			750 gallons, 15% acid
4	3164	3168			750 gallons, 15% acid
4	3186	3190			750 gallons, 15% acid
4	3199	3203			750 gallons, 15% acid
4	3250	3256			750 gallons, 15% acid
4	3270	3274			750 gallons, 15% acid
4	3288	3292			750 gallons, 15% acid
4	3314	3320			750 gallons, 15% acid



**STEVEN P. MURPHY, PG (KS LIC #228)**

**2501 ZARAH DRIVE**

**GREAT BEND, KS 67530**

**CELL: 620-639-3030**

**EMAIL: GEOMURPHY55@GMAIL.COM**

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

**Well Name: Morgenstern #4**  
**API: 15-009-26350-00-00**  
**Location: SW NW SE NW Sec 26-T17S-R13W**  
**License Number: 30458**  
**Spud Date: 4-22-2022**  
**Surface Coordinates: 1800' FNL & 1350' FWL**  
**Bottom Hole Coordinates: Vertical Well, no significant deviation**  
**Ground Elevation (ft): 1845'**  
**Logged Interval (ft): 2700' To: 3365'**  
**Formation: Pennsylvanian through Ordovician (Arbuckle)**  
**Type of Drilling Fluid: Chemical PAC (Andy's Mud)**

**Region: Kansas**  
**Drilling Completed: 4/28/2022**  
**K.B. Elevation (ft): 1855'**  
**Total Depth (ft): RTD - 3365' Log TD - 3365'**

Printed by MudLog from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

#### **OPERATOR**

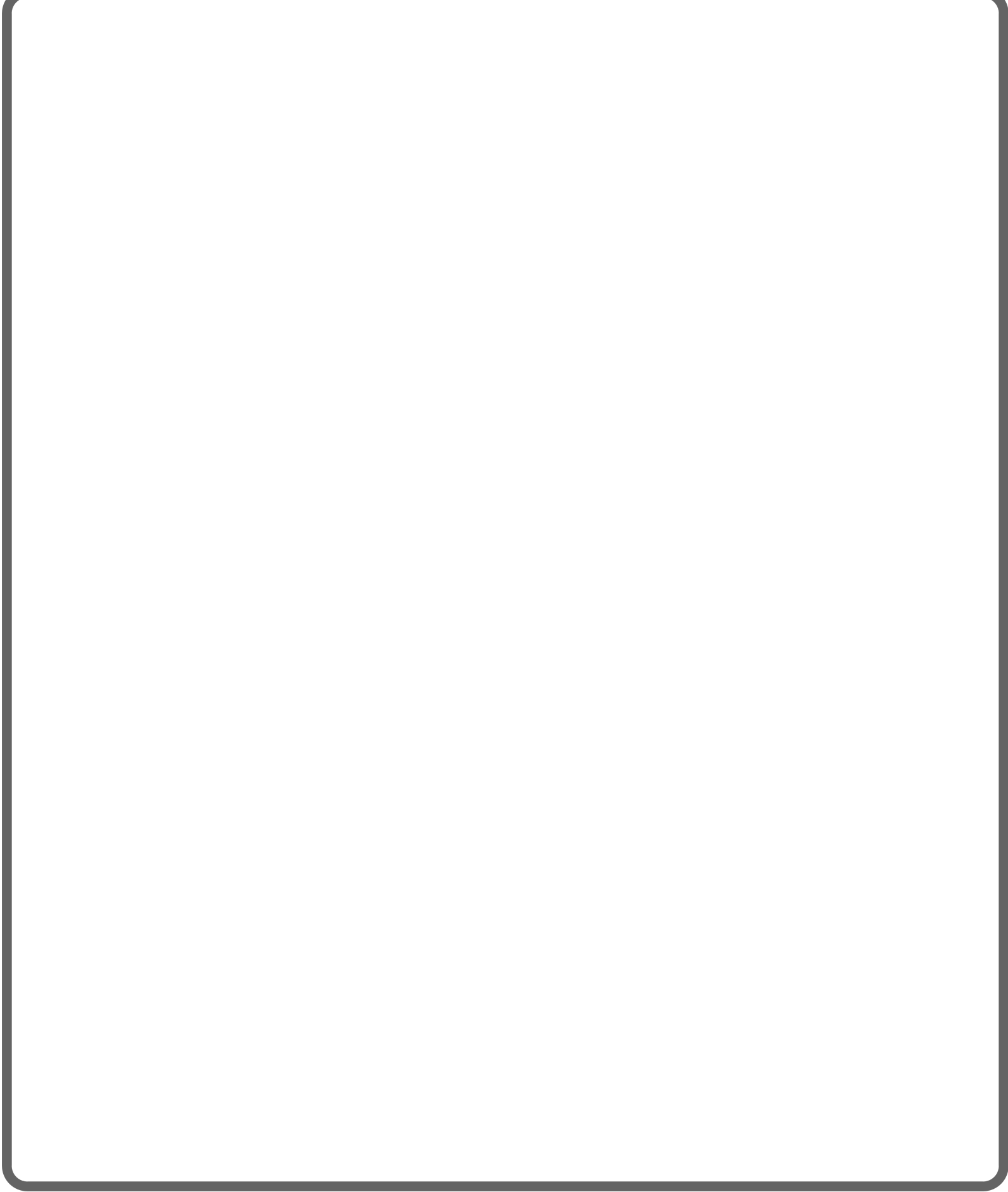
**Company: RJM Oil Co.**  
**Address: P.O. Box 256**  
**Clafin, KS 67525-0256**

#### **GEOLOGIST**

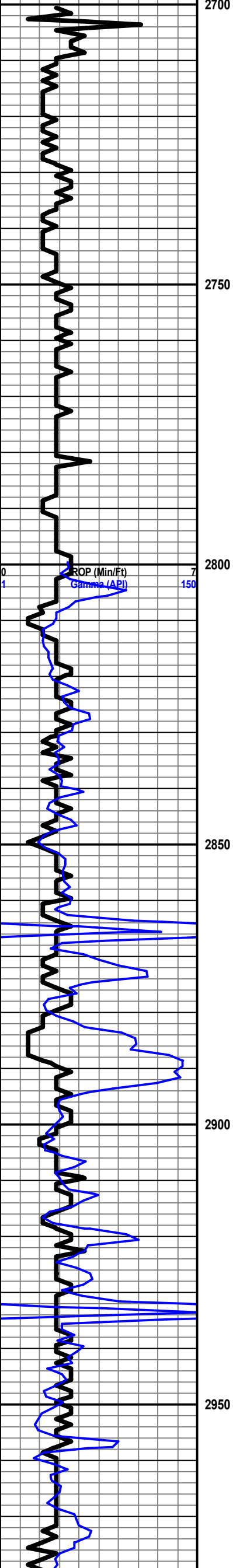
**Name: Steven P. Murphy, PG (KS license #228)**  
**Company: Consulting Petroleum Geologist**  
**Address: 2501 Zarah Drive**  
**Great Bend, KS 67530**

#### **REMARKS**

**MIRU Southwind Drilling Rig #1 on 4/22/22. Set 8 5/8 surface casing @ 353', survey @ 354'-3/4 deg. Displaced from 2619'-2666' (Andy's Mud)**







LS: wht-tan-gry, vfxln, v foss,

SH & Sltst: gry-gm

SH & Sltst: blk-gry

LS: tan-bm, vfxln v.foss wsh as above

LS: as above

LS: as above

LS & SH: as above

LS: & SH: as above

LS: bm-gry, vfxln, foss

LS: tan-gry, vfxln, sl foss

LS: wht-tan-gry, vfxln, sl chalky

LS: as above

LS: as above

SH: blk, carb

LS: tan-bm-gry, vfxln, sl foss, sl chalky

-LS: wht-bm, vfxln, foss, sl chalky

SH; blk-gry, sandy

LS: wht-bm, vfxln, foss, sl chalky

LS: tan-bm-gry, vfxln, foss, sl chalky  
w/blk-gry shale

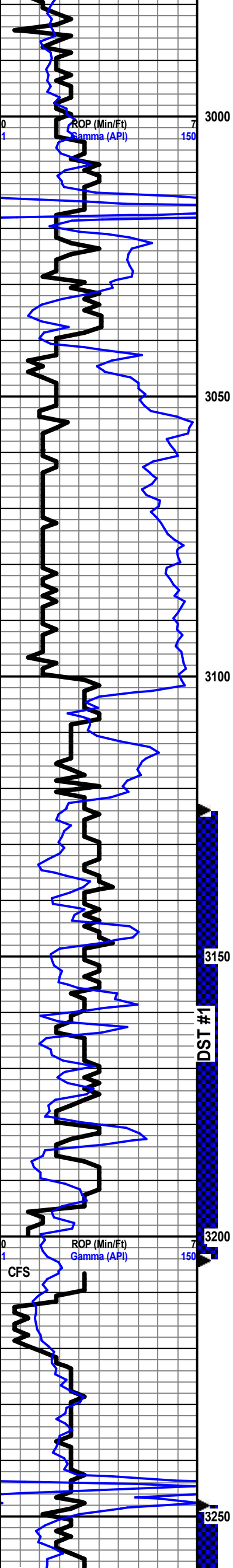
SH; blk-gry-gm

LS: as above

LS: wht-bm-gry, vfxln, foss

LS: tan-bm-gry, vfxln, foss, sl chalky  
w/blk-gry shale





LS: wht-tan-gry, vfxln, foss, minor cht, chalky

LS: gry-bm-wht, vfxln, cherty

LS: bm-gry-wht, vfxln, sl foss, mottled, minor cht

SH: blk, carb

**HEEBNER 3014 (-1159)**

SH: gry-gm-blk

LS: wht-gry, foss, vfxln, sl chalky, minor cht

**DOUGLAS 3042 (-1187)**

SH: gry-gm-red, silty

SH: as above

SH: as above

**BROWN LIME 3104 (-1249)**

LS: dk bm, vfxln, tite

**LANSING 3122(-1267)**

LS: cm-tan, fxl, rare fr ppt-vug por, mostly tite, ssfo, fr odor

LS: wht-tan, fxl, sl foss, sl chalky, tite, NS

LS: cm-gry, fxl, ool in pt, mostly tite, rare ppt por, ssfo on brk, str odor

LS: cm-tan, fxl, tite, sl chalky, NS

LS: wht-tan-gry, mostly tite, rare ool w/ppt por, vssfo on brk, fr odor

LS: cm-tan, fxl, sl chalky, ool, fr ppt por, ssfo on brk, str odor

LS: cm-tan, ool, vuggy por in pt, ssfo, fr odor

LS: cm-tan, oolic, fr oolic por, NS

LS: as above w/bm-gry, foss, vfxln, tite, sl chalky, NS

**MUNCIE CRK 3244 (1289)**

SH: blk-gry-gm

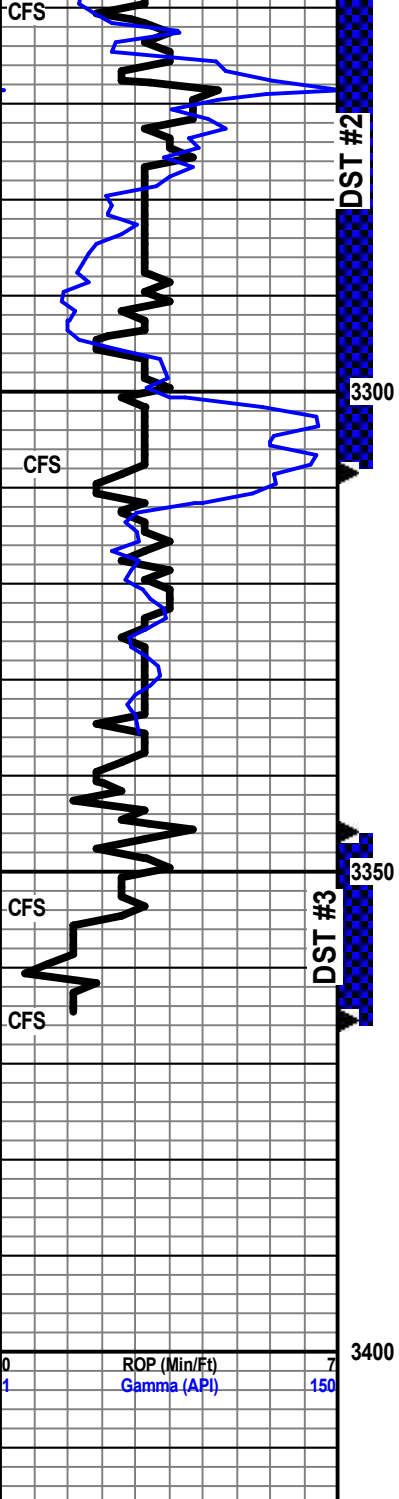
LS: wht-tan, oolic, fr inter-ool por, ssfo, sl odor

DST #1 3124-3206 (A-F)  
45:45:45 |  
1st open - BB 3 min, GTS in 33.5 min |  
Return - Surface blow  
2nd open - BOB 4 min  
Return - BOB in 9.5 min  
Recovery: 2166' G, 850' SLMCHGCO (36%G, 57%O, 7%M)  
190' SLGCO (19%G, 81%O)  
Total recovery: 3206' (45.6 bbls)  
IHP: 1512 FHP: 1502  
IFP: 68-249  
ISIP: 717  
FFP: 270-383  
FSIP: 665  
BHT: 103 F

Strap - 4' long  
(Correction made to geolograph)

Survey - 1 deg

DST #2 3248-3308 (LKC H-K)  
45:45:45



LS: wht-bm-gry, vfxln, tite, NS

LS: tan, oolic, mostly tite, rare fr vug por, ssfo, fr odor

LS: bm-gry, foss, sl chalky, tite, NS

LS: wht-tan-gry, vfxln, tite, NS

LS: wht-tan, oolic, fr-gd ppt/vug por, ssfo, gsy, fr odor (cherty)

SH: blk-gm-gry-red

LS: crm-bm, vfxln, tite, sl chalky, NS

LS: as above

SH: blk-gry-gm-red

DOL: tan, fxl, mostly tite, ssfo, fr odor

DOL: tan, fr-gd sucr/med rhomb por, fsfo, str odor

**ARBUCKLE 3355 (-1500)**

1st open-BOB 2 min, return BOB 7.25 min  
 2nd open-BOB 8 min, return BOB 15 min  
 Recovery: 990' G, 336' SLGCO (16%G, 84%O),  
 190' SLGCSLMCO (4%G, 88%O, 8%M)  
 Total Recovery - 1515', 21.6 bbls  
 IHP: 1597 FHP: 1587  
 IFP: 24-104 ISIP: 540  
 FFP: 107-167 FSIP: 483  
 BHT: 104 F

DST #3 3345-3365 (Arbuckle)  
 45:45:45:60  
 1st open BOB 9.5 min, no BB  
 2nd open BOB 16 min, no BB  
 Recovery: 30' SLMCSLWCSL GCO (16%G,  
 66%O, 12%W, 6%M),  
 250' SLGCSLMCHOCW (10%G, 39%O,  
 40%W, 11%M),  
 380' SLOC SLGCSLMCW (5%G, 3%O 87%W,  
 5%M)  
 Total Recovery - 660', 9.4 bbls  
 IHP: 1621 FHP: 1613  
 IFP: 21-177 ISIP: 1041  
 FFP: 178-298 FSIP: 1002  
 BHT: 109 F

ROP (Min/Ft)	7
Gamma (API)	150

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

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

No. **2812**

Date **4-28-22** Sec. **26** Twp. **17** Range **13** County **Barton** State **Ks** On Location \_\_\_\_\_ Finish **2:45 PM**

Lease **Morgenstern** Well No. **4** Location **Hoisington - 2E, 1 1/2 N, E15** Owner \_\_\_\_\_

Contractor **Southwind #1** To Quality Oilwell Cementing, Inc.  
Type Job **Longstring** You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size **7 7/8"** T.D. **3365'** Charge To **RSM Company**  
Csg. **5 1/2" 15#** Depth **~~3300~~ 3355'** 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. **10'** Shoe Joint **10'** Cement Amount Ordered **180 Com 10% Salt 5% Gilsont**  
Meas Line \_\_\_\_\_ Displace **79 1/2 BLS** **500 gal mud clear 48**

**EQUIPMENT**

Pumptrk <b>16</b> No. _____	Cementer <b>David</b>	Common <b>180</b>
Bulktrk <b>14</b> No. _____	Helper _____	Poz. Mix _____
Bulktrk <b>p.u.</b> No. _____	Driver <b>Doug</b>	Gel. _____
	Driver <b>Rick</b>	Calcium _____

**JOB SERVICES & REMARKS**

Remarks: \_\_\_\_\_  
Rat Hole **15 SX** Flowseal \_\_\_\_\_  
Mouse Hole **30 SX** Kol-Seal **750 #**  
Centralizers **1-9** Mud CLR 48 **500 gal**  
Baskets **3+6** CFL-117 or CD110 CAF/38 \_\_\_\_\_  
D/V or Port Collar \_\_\_\_\_ Sand \_\_\_\_\_  
Pipe on bottom break Handling **191**  
Circulation pump mud clear. Mileage \_\_\_\_\_

**FLOAT EQUIPMENT**

Plug Rat + Mouse holes. Cement **5 1/2" w/ 145 SX. Shut down** Guide Shoe \_\_\_\_\_  
wash pump + lines. Displaced **plug w/ 79 1/2 BLS.** Centralizer **9**  
Released Baskets **2**  
AFU Inserts \_\_\_\_\_  
Lift pressure **700 #** Float Shoe **1**  
Latch Down **1**  
Land plug to **1500 #** Rotating head \_\_\_\_\_

Pumptrk Charge **prod string**  
Mileage **15**

Signature **Frank J. Lane** Tax \_\_\_\_\_  
Discount \_\_\_\_\_  
Total Charge \_\_\_\_\_

*Thanks*

## GENERAL TERMS AND CONDITIONS

**DEFINITIONS:** In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

– **TERMS:** Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

– **ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limit to, a reasonable sum as and attorney's fees.

– **PRICES AND TAXES:** All merchandise listed in "QUALITY'S" current price schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.

– **TOWING CHARGES:** QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.

– **PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.

– **DEADHAUL CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charges as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

– **SERVICE CONDITIONS AND LIABILITIES:** 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

**WARRANTIES:** 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071

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

No. **2807**

Cell 785-324-1041

Date	4-22-02	Sec.	26	Twp.	17	Range	13	County	Barton	State	Ks	On Location		Finish	9:00 PM
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Lease **Morgenstern** Well No. **#4** Owner **E/Intro**  
 Location **Hoisington - 2E to Blacktop - 1/2N**

Contractor **Southwind #1** To Quality Oilwell Cementing, Inc.  
 Type Job **Surface** You are hereby requested to rent cementing equipment and furnish  
 cementer and helper to assist owner or contractor to do work as listed.

Hole Size **12 1/4"** T.D. **354'** Charge To **RJM - Company**  
 Csg. **8 5/8"** Depth **353'** Street

Tbg. Size Depth City State  
 Tool Depth  
 Cement Left in Csg. **15'** Shoe Joint **15'** Cement Amount Ordered **180 60/46 4%cc 2%Gel**

Meas Line Displace **21 1/2 BS**

EQUIPMENT				
Pumptrk	16	No.	Cementer Helper <b>Nick</b>	Common <b>145</b>
Bulktrk	14	No.	Driver <b>Doug Caleb</b>	Poz. Mix <b>35</b>
Bulktrk	p.u.	No.	Driver <b>Rick</b>	Gel. <b>3</b>
			Driver	Calcium <b>7</b>

JOB SERVICES & REMARKS		
Remarks:	<b>Cement did Circulate</b>	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
		Sand
		Handling <b>190</b>
		Mileage

FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge **Surface**  
 Mileage **15**

Signature **Frank J. Rowe** Tax  
 Discount  
 Total Charge

*Thanks*

## GENERAL TERMS AND CONDITIONS

**DEFINITIONS:** In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

– **TERMS:** Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

– **ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limit to, a reasonable sum as and attorney's fees.

– **PRICES AND TAXES:** All merchandise listed in "QUALITY'S" current price shall schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.

– **TOWING CHARGES:** QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.

– **PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.

– **DEADHAUL CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charges as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

– **SERVICE CONDITIONS AND LIABILITIES:** 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

**WARRANTIES:** 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.



# Company: RJM Oil Company, Inc

## Lease: Morgenstern #4

SEC: 26 TWN: 17S RNG: 13W  
County: BARTON  
State: Kansas  
Drilling Contractor: Southwind Drilling, Inc - Rig 1  
Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery & pressures

**DATE**  
April  
**27**  
2022

**DST #2**    **Formation: L/KC "H-K"**    **Test Interval: 3248 - 3308'**    **Total Depth: 3308'**  
Time On: 02:33 04/27    Time Off: 09:16 04/27  
Time On Bottom: 04:11 04/27    Time Off Bottom: 07:11 04/27

Electronic Volume Estimate:  
1584'

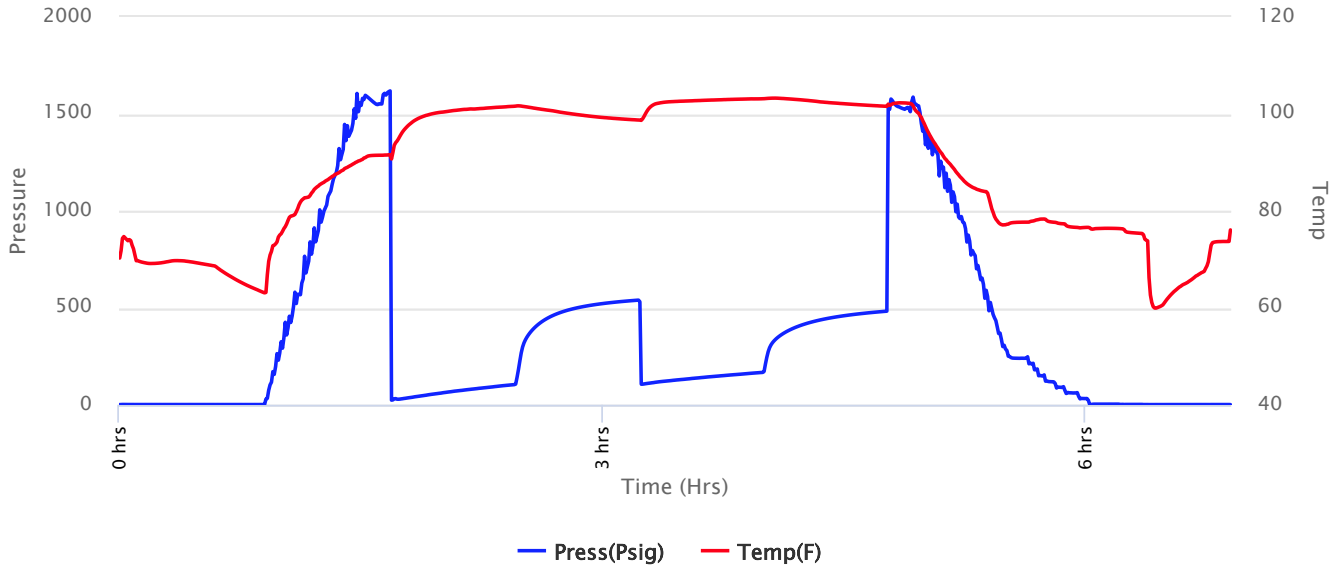
1st Open  
Minutes: 45  
Current Reading:  
139.2" at 45 min  
Max Reading: 139.2"

1st Close  
Minutes: 45  
Current Reading:  
7.6" at 45 min  
Max Reading: 7.6"

2nd Open  
Minutes: 45  
Current Reading:  
55.1" at 45 min  
Max Reading: 55.1"

2nd Close  
Minutes: 45  
Current Reading:  
15.0" at 45 min  
Max Reading: 15.0"

Inside Recorder





# Company: RJM Oil Company, Inc

## Lease: Morgenstern #4

SEC: 26 TWN: 17S RNG: 13W  
County: BARTON  
State: Kansas  
Drilling Contractor: Southwind Drilling, Inc - Rig 1  
Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery & pressures

**DATE**  
April  
**27**  
2022

**DST #2**      **Formation: L/KC "H-K"**      **Test Interval: 3248 - 3308'**      **Total Depth: 3308'**  
Time On: 02:33 04/27      Time Off: 09:16 04/27  
Time On Bottom: 04:11 04/27      Time Off Bottom: 07:11 04/27

### Recovered

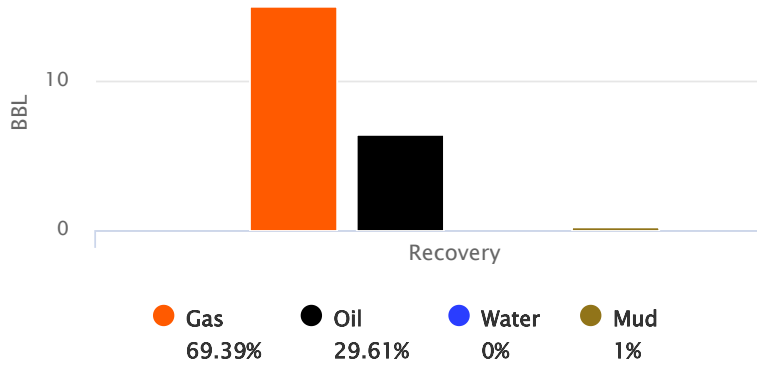
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
990	14.0877	G	100	0	0	0
335	4.76705	SLGCO	16	84	0	0
190	2.7037	SLGCSLMCO	4	88	0	8

Total Recovered: 1515 ft  
Total Barrels Recovered: 21.55845

Reversed Out  
NO

Initial Hydrostatic Pressure	1597	PSI
Initial Flow	24 to 104	PSI
<b>Initial Closed in Pressure</b>	<b>540</b>	<b>PSI</b>
Final Flow Pressure	107 to 167	PSI
<b>Final Closed in Pressure</b>	<b>483</b>	<b>PSI</b>
Final Hydrostatic Pressure	1587	PSI
Temperature	104	°F
Pressure Change Initial Close / Final Close	10.6	%

### Recovery at a glance



GIP cubic foot volume: 83.98492





# Company: RJM Oil Company, Inc

## Lease: Morgenstern #4

SEC: 26 TWN: 17S RNG: 13W  
County: BARTON  
State: Kansas  
Drilling Contractor: Southwind Drilling, Inc - Rig 1  
Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery & pressures

**DATE**  
April  
**27**  
2022

**DST #2      Formation: L/KC "H-K"      Test Interval: 3248 - 3308'      Total Depth: 3308'**  
Time On: 02:33 04/27      Time Off: 09:16 04/27  
Time On Bottom: 04:11 04/27      Time Off Bottom: 07:11 04/27

**BUCKET MEASUREMENT:**

1st Open: 2" blow building to BOB 2 min.

1st Close: 7 1/4" BB

2nd Open: Surface blow building to BOB 8 min.

2nd Close: BOB Blow Back

**REMARKS:**

The blow back on the second shut-in hit BOB 15 min after we bled line off (20 min).

Tool Sample: 11% Gas 74% Oil 0% Water 15% Mud

Gravity: 36.7 @ 60 °F



# Company: RJM Oil Company, Inc

## Lease: Morgenstern #4

SEC: 26 TWN: 17S RNG: 13W  
County: BARTON  
State: Kansas  
Drilling Contractor: Southwind Drilling, Inc - Rig 1  
Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery & pressures

**DATE**  
April  
**27**  
2022

**DST #2**      **Formation: L/KC "H-K"**      **Test Interval: 3248 - 3308'**      **Total Depth: 3308'**  
Time On: 02:33 04/27      Time Off: 09:16 04/27  
Time On Bottom: 04:11 04/27      Time Off Bottom: 07:11 04/27

### Down Hole Makeup

<b>Heads Up:</b> 19.38 FT	<b>Packer 1:</b> 3243.18 FT
<b>Drill Pipe:</b> 3234.99 FT <i>ID-3 1/2</i>	<b>Packer 2:</b> 3248.18 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 3232.6 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 3287 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> 59.82	<b>Surface Choke:</b> 1"
<b><u>Anchor Makeup</u></b>	<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> 31.82 FT <i>ID-3 1/2</i>	
<b>Change Over:</b> 1 FT	
<b>Perforations: (below):</b> 22 FT <i>4 1/2-FH</i>	





# Company: RJM Oil Company, Inc

## Lease: Morgenstern #4

SEC: 26 TWN: 17S RNG: 13W  
County: BARTON  
State: Kansas  
Drilling Contractor: Southwind Drilling, Inc - Rig 1  
Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery & pressures

**DATE**  
April  
**27**  
2022

DST #2      Formation: L/KC "H-K"  
Test Interval: 3248 - 3308'  
Total Depth: 3308'  
Time On: 02:33 04/27      Time Off: 09:16 04/27  
Time On Bottom: 04:11 04/27      Time Off Bottom: 07:11 04/27

### Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



# Company: RJM Oil Company, Inc

## Lease: Morgenstern #4

SEC: 26 TWN: 17S RNG: 13W  
County: BARTON  
State: Kansas  
Drilling Contractor: Southwind Drilling, Inc - Rig 1  
Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery & pressures

**DATE**  
April  
**27**  
2022

**DST #3    Formation: Arbuckle    Test Interval: 3345 - 3365'    Total Depth: 3365'**

Time On: 17:54 04/27    Time Off: 01:21 04/28  
Time On Bottom: 19:32 04/27    Time Off Bottom: 22:47 04/27

Electronic Volume Estimate:  
673'

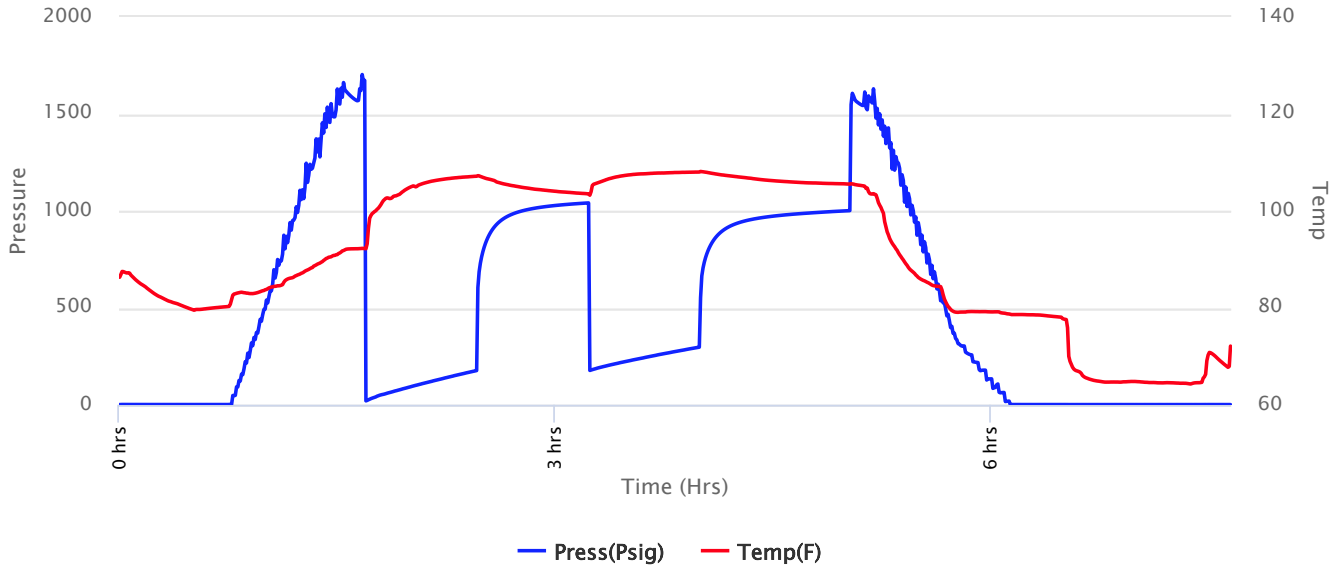
1st Open  
Minutes: 45  
Current Reading:  
47.0" at 45 min  
Max Reading: 47.0"

1st Close  
Minutes: 45  
Current Reading:  
0" at 45 min  
Max Reading: 0"

2nd Open  
Minutes: 45  
Current Reading:  
34.0" at 45 min  
Max Reading: 34.0"

2nd Close  
Minutes: 45  
Current Reading:  
0" at 45 min  
Max Reading: 0"

Inside Recorder





**Company: RJM Oil Company, Inc**

**Lease: Morgenstern #4**

SEC: 26 TWN: 17S RNG: 13W  
 County: BARTON  
 State: Kansas  
 Drilling Contractor: Southwind Drilling, Inc - Rig 1  
 Elevation: 1845 GL  
 Field Name: Boger  
 Pool: Infield  
 Job Number: 566  
 API #: 15-009-26350

**Operation:**  
 Uploading recovery & pressures

**DATE**  
 April  
**27**  
 2022

**DST #3 Formation: Arbuckle Test Interval: 3345 - 3365' Total Depth: 3365'**

Time On: 17:54 04/27 Time Off: 01:21 04/28  
 Time On Bottom: 19:32 04/27 Time Off Bottom: 22:47 04/27

Recovered

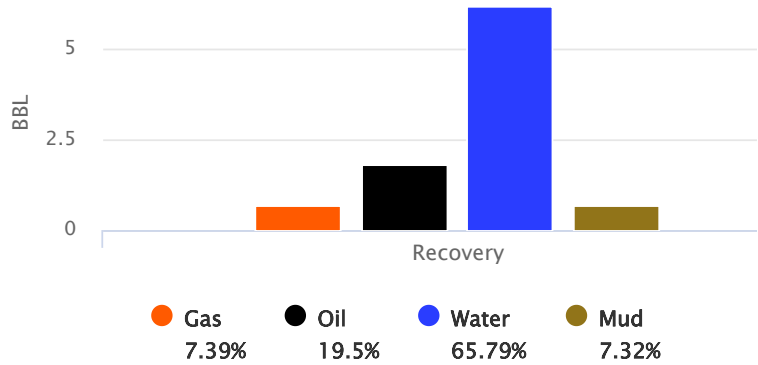
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
30	0.4269	SLMCSLWCSLGCO	16	66	12	6
250	3.5575	SLGCSLMCHOCW	10	39	40	11
380	5.4074	SLOCSLGC SLMCW	5	3	87	5

Total Recovered: 660 ft  
 Total Barrels Recovered: 9.3918

Reversed Out  
 NO

Initial Hydrostatic Pressure	1621	PSI
Initial Flow	21 to 177	PSI
<b>Initial Closed in Pressure</b>	<b>1041</b>	<b>PSI</b>
Final Flow Pressure	178 to 298	PSI
<b>Final Closed in Pressure</b>	<b>1002</b>	<b>PSI</b>
Final Hydrostatic Pressure	1613	PSI
Temperature	109	°F
Pressure Change Initial Close / Final Close	3.8	%

**Recovery at a glance**



GIP cubic foot volume: 3.89884



**Company: RJM Oil Company,  
Inc**

**Lease: Morgenstern #4**

SEC: 26 TWN: 17S RNG: 13W  
County: BARTON  
State: Kansas  
Drilling Contractor: Southwind Drilling,  
Inc - Rig 1  
Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
April  
**27**  
2022

**DST #3      Formation: Arbuckle      Test Interval: 3345 -      Total Depth: 3365'**  
**3365'**  
Time On: 17:54 04/27      Time Off: 01:21 04/28  
Time On Bottom: 19:32 04/27      Time Off Bottom: 22:47 04/27

**BUCKET MEASUREMENT:**

1st Open: Surface blow building to BOB 9 1/2 min.  
1st Close: No BB  
2nd Open: Surface blow building to BOB 16 min.  
2nd Close: No BB

**REMARKS:**

Tool Sample: 0% Gas 27% Oil 71% Water 2% Mud  
Ph: 7.0  
Measured RW: .49 @ 64 degrees °F  
RW at Formation Temp: 0.3 @ 109 °F  
Chlorides: 11,000 ppm



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Elevation: 1845 GL  
Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

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**DATE**  
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**27**  
2022

**DST #3      Formation: Arbuckle      Test Interval: 3345 - 3365'      Total Depth: 3365'**  
Time On: 17:54 04/27      Time Off: 01:21 04/28  
Time On Bottom: 19:32 04/27      Time Off Bottom: 22:47 04/27

### Down Hole Makeup

<b>Heads Up:</b> 17.6 FT	<b>Packer 1:</b> 3340 FT
<b>Drill Pipe:</b> 3330.03 FT <i>ID-3 1/2</i>	<b>Packer 2:</b> 3345 FT
<b>Weight Pipe:</b> 0 FT <i>ID-2 7/8</i>	<b>Top Recorder:</b> 3329.42 FT
<b>Collars:</b> 0 FT <i>ID-2 1/4</i>	<b>Bottom Recorder:</b> 3347 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> 20	<b>Surface Choke:</b> 1"
<b><u>Anchor Makeup</u></b>	<b>Bottom Choke:</b> 5/8"
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> 0 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> 19 FT <i>4 1/2-FH</i>	





**Company: RJM Oil Company,  
Inc**

**Lease: Morgenstern #4**

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Inc - Rig 1  
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Field Name: Boger  
Pool: Infield  
Job Number: 566  
API #: 15-009-26350

**Operation:**  
Uploading recovery &  
pressures

**DATE**  
April  
**27**  
2022

**DST #3      Formation: Arbuckle      Test Interval: 3345 -      Total Depth: 3365'**  
**3365'**

Time On: 17:54 04/27      Time Off: 01:21 04/28  
Time On Bottom: 19:32 04/27      Time Off Bottom: 22:47 04/27

**Mud Properties**

**Mud Type:** Chemical      **Weight:** 9.1      **Viscosity:** 65      **Filtrate:** 9.2      **Chlorides:** 5,500 ppm



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Time On: 17:54 04/27      Time Off: 01:21 04/28  
Time On Bottom: 19:32 04/27      Time Off Bottom: 22:47 04/27

### Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D