

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1244938
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	-----------------------------------------

API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1244938



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____	Producing Method: <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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------

JAMES C. MUSGROVE

Petroleum Geologist, LLC
212 Main Street
P.O. Box 215
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations
Hammeke B #5
NE-SW-NW-SE (1810' FSL & 2000' FEL)
Section 21-21s-12w
Stafford County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)
Commenced: February 6, 2015
Completed: February 12, 2015
Elevation: 1852' K.B., 1850' D.F., 1844' G.L.
Casing program: Surface; 8 5/8" @ 649'
Production, 5 1/2" @ 3698'
Sample: Samples saved and examined 2900' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2900' to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were three (3) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: By Nabors, Dual Induction, Compensated Density/Neutron Log and Micro Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	651	+1201
Base Anhydrite	671	+1181
Heebner	3117	-1265
Toronto	3137	-1285
Douglas	3150	-1278
Brown Lime	3251	-1399
Lansing	3263	-1411
Base Kansas City	3480	-1628
Viola	3490	-1638
Simpson Shale	3513	-1661
Arbuckle	3561	-1709
Rotary Total Depth	3700	-1848
Log Total Depth	3700	-1848

All tops and zones corrected to Electric Log Measurement

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA SECTION

2900-3116' No shows of oil and/or gas was noted in drilling of the Topeka Section (see attached samples log/geologist report)

TORONTO SECTION

3137-3148' Limestone, cream, finely crystalline, cherty in part, poorly developed porosity, black stain, no free oil and no odor in fresh samples.

LANSING SECTION

3263-3275' Limestone, cream, tan, finely crystalline, chalky, poor visible porosity, no shows.

3281-3293' Limestone, cream, finely crystalline, slightly cherty, poor porosity, no shows.

3301-3313' Limestone, cream, white, finely crystalline, cherty, poor porosity, questionable stain, no free oil and no odor in fresh samples.

3321-3326' Limestone, cream, fine and medium crystalline, cherty in part, poor visible porosity, no shows.

3330-3340' Limestone, as above, few oolitic, no shows, scattered porosity.

3344-3350' Limestone, cream, finely crystalline, chalky, scattered inter-crystalline porosity, trace stain, show of free oil and no odor in fresh samples.

3390-3400' Limestone, white, cream, finely crystalline, cherty, poor visible porosity, no shows.

3407-3414' Limestone, as above, chalky, dense.

3423-3428' Limestone, white/gray, cream, finely crystalline, oolitic, scattered porosity, good black stain, no free oil and no odor in fresh samples.

3441-3452' Limestone, white/cream, finely crystalline, chalky in part, no shows.

3461-3473' Limestone, white, cream; finely crystalline, chalky, trace gray/white chert, questionable edge staining, no free oil and no odor in fresh samples.

VIOLA SECTION

3490-3511' Chert, white/gray, boney, fresh, poor visible porosity, black stain, trace of free oil and no odor in fresh samples.

ARBUCKLE SECTION

3561-3571' Dolomite, tan, finely crystalline, sucrosic, scattered pinpoint porosity, brown stain, show of free oil and fair odor in fresh samples.

3571-3585' Dolomite, tan, cream, finely crystalline, few medium crystalline, sucrosic in part; golden brown stain, show of free oil and fair odor in fresh samples.

Drill Stem Test #1 **3505-3585**

Times: 30-30-45-45

Blow: Strong

Recovery: 122' oil cut mud
(30% oil, 70% mud)
126' oil & gas cut mud
(50% gas; 30% oil; 20% mud)
189' oil & gas cut mud
(60% gas; 30% oil; 10% mud)
63' heavily oil & gas cut mud
(55% gas; 40% oil; 5% mud)
63' oil & gas cut mud
(80% gas; 15% oil; 5% mud)

Pressures: ISIP 746 psi
FSIP 712 psi
IFP 226-174 psi
FFP 186-239 psi
HSH 1735-1687 psi

3585-3596' Dolomite, tan, cream, medium crystalline, good inter-crystalline to vuggy type porosity, good stain, good show of free oil and strong odor in fresh samples.

3556-3615' Dolomite, cream, white, fine and medium crystalline, good golden brown stain, good show of free oil and good odor in fresh samples.

Drill Stem Test #2 **3587-3615**

Times: 30-30-45-60

Blow: Strong; gas to surface 23 mins into initial shut in, TSTM

Recovery: 882' clean gassy oil

Pressures: ISIP 924 psi
FSIP 939 psi
IFP 120-174 psi
FFP 192-332 psi
HSH 1720-1619 psi

3616-3635' Dolomite, white, finely crystalline, few medium crystalline, sucrosic in part, good inter-crystalline and vuggy type porosity, fair stain, good show of free oil and good odor in fresh samples.

Drill Stem Test #3 **3615-3637**

Times: 30-30-45-60

Blow: Strong, gas to surface on opening of final flow period, TSTM.

Recovery: 126' oil, trace of water
(90% oil, 10% mud)
252' heavily oil cut gassy water
(30% gas; 60% oil; 10% mud)
1638' heavily oil and gas cut water
(10% gas; 80% oil; 10% mud)
63' oil and gas cut water
(55% gas; 15% oil; 30% mud)
321' muddy water

Pressures: ISIP 947 psi
FSIP 976 psi
IFP 445-766 psi
FFP 798-945 psi
HSH 1749-1642 psi

3640-3660' Dolomite, cream, white, medium crystalline, good inter-crystalline porosity, fair brown stain, show of free oil and good odor in fresh samples.

3660-3680' Dolomite, as above, fair/good stain, show of free oil and strong odor in fresh samples.

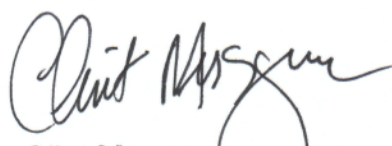
3680-3700' Dolomite, cream, tan, finely crystalline, fair to medium crystalline, fair inter-crystalline porosity, dark brown stain; show of free oil and good odor in fresh samples (free oil floating on top of the sample cups)

Rotary Total Depth 3700
Log Total Depth 3700

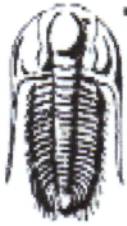
Recommendations:

The 5 1/2" production casing was set and cemented on Mai Oil Operation Inc., Hammeke B #5.

Respectfully yours,



Clint Musgrove
Petroleum Geologist



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Rd STE 800
 Dallas TX 75225-5520
 ATTN: Jim Musgrove

21-21s-12w Stafford,KS
Hammeke "B" #5
 Job Ticket: 61978 **DST#: 1**
 Test Start: 2015.02.10 @ 00:35:00

GENERAL INFORMATION:

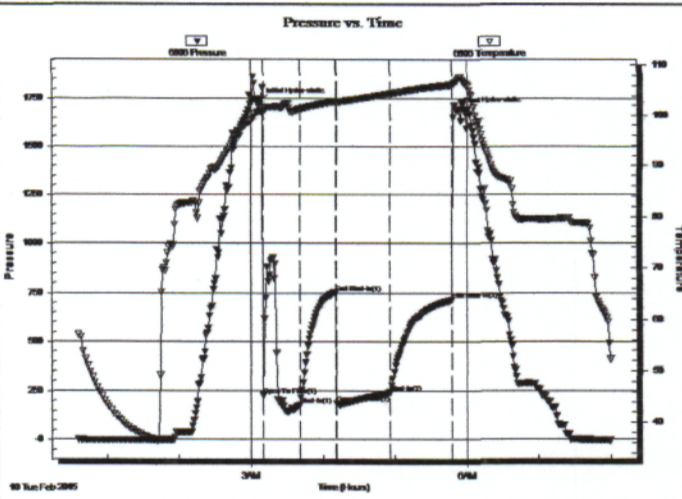
Formation: **Arbuckle**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 03:10:30
 Time Test Ended: 08:00:00
 Interval: **3505.00 ft (KB) To 3585.00 ft (KB) (TVD)**
 Total Depth: 3585.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: **Poor**
 Test Type: **Conventional Bottom Hole (Initial)**
 Tester: **Shane Konzern**
 Unit No: **56**
 Reference Elevations: 1852.00 ft (KB)
 1844.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6806

Inside

Press@RunDepth: 239.05 psig @ 3581.24 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.02.10 End Date: 2015.02.10 Last Calib.: 2015.02.10
 Start Time: 00:36:00 End Time: 08:00:00 Time On Btm: 2015.02.10 @ 03:07:30
 Time Off Btm: 2015.02.10 @ 05:52:30

TEST COMMENT: FFP 30 Minutes. BOB in 12 minutes.
 ISI 30 Minutes. 1"blow back.
 FFP 45 Minutes. BOB in 6 minutes.
 FSI 45 3"blow back. Gas to surface 20 minutes into shut in.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1737.52	100.80	Initial Hydro-static
3	226.59	100.96	Open To Flow (1)
33	174.90	101.28	Shut-In(1)
63	746.30	102.77	End Shut-In(1)
64	186.74	102.75	Open To Flow (2)
109	239.05	104.37	Shut-In(2)
160	712.90	106.09	End Shut-In(2)
165	1687.45	107.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
127.00	OCM 30% oil, 70% mud	1.78
126.00	GMCO 50% gas, 30% oil, 20% mud	1.77
189.00	VGMCO 60% gas, 30% oil, 10% mud	2.65
63.00	VGSMCO 55% gas, 40% oil, 5% mud	0.88
63.00	VGMCO 80% gas, 15% oil, 5% mud	0.88

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Rd STE 800
 Dallas TX 75225-5520
 ATTN: Jim Musgrove

21-21s-12w Stafford,KS
Hammeke "B" #5
 Job Ticket: 61980 **DST#: 3**
 Test Start: 2015.02.11 @ 02:35:00

GENERAL INFORMATION:

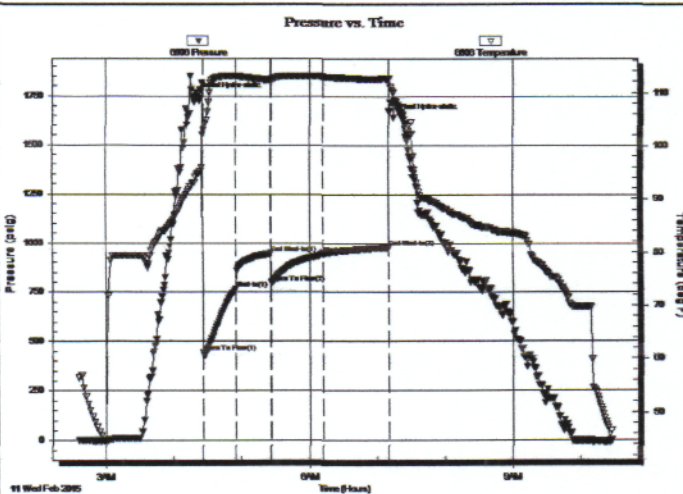
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:25:30
 Time Test Ended: 10:26:30
 Interval: **3615.00 ft (KB) To 3637.00 ft (KB) (TVD)**
 Total Depth: 3637.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane Konzern
 Unit No: 56
 Reference Elevations: 1852.00 ft (KB)
 1844.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6806

Inside

Press@RunDepth: 945.29 psig @ 3633.00 ft (KB)
 Start Date: 2015.02.11 End Date: 2015.02.11
 Start Time: 02:36:00 End Time: 10:26:30
 Capacity: 8000.00 psig
 Last Calib.: 2015.02.11
 Time On Btm: 2015.02.11 @ 04:20:30
 Time Off Btm: 2015.02.11 @ 07:14:30

TEST COMMENT: IFP 30 Minutes. BOB in 20 seconds.
 ISI 30 Minutes. BOB in 15 minutes.
 FFP 45 Minutes. BOB in 40 seconds. GTS
 FSI 60 Minutes. BOB in 25 minutes.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1749.19	94.45	Initial Hydro-static
5	445.70	101.92	Open To Flow (1)
34	766.56	113.00	Shut-In(1)
65	947.26	112.30	End Shut-In(1)
66	798.23	112.37	Open To Flow (2)
111	945.29	112.86	Shut-In(2)
170	976.74	112.50	End Shut-In(2)
174	1642.42	109.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	WO 10% water, 90% oil	1.77
252.00	GWO 30% gas, 10% water, 60% oil	3.53
1638.00	GWO 10% gas, 10% water, 80% oil	22.98
63.00	VGOW 55% gas, 15% oil, 30% water	0.88
126.00	MW 5% mud, 95% water	1.77
189.00	100% water	2.65

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

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. 1210

Date	2-6-15	Sec.	21	Twp.	21	Range	12	County	Stafford	State	KS	On Location		Finish	7:30pm
								Location							
								Great Bend 11.5 1200 6E 6000 1/2-1							

Lease	Hammeker B	Well No.	5	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	Southwind #3				Charge To	Mo: 21
Type Job	Surface					
Hole Size	12 1/4	T.D.	649			
Csg.	8 5/8	Depth	649			
Tbg. Size		Depth				
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
Cement Left in Csg.	40'	Shoe Joint		Cement Amount Ordered	400 60/10 3/16 2/16 1/2 1/2	
Meas Line		Displace	38 3/4 BCL			

EQUIPMENT

Pumptrk	18	No.	Cementer		Common
			Helper		
Bulktrk		No.	Driver	Craig	Poz. Mix
			Driver		Gel.
Bulktrk	21	No.	Driver	Chad	Calcium
			Driver		

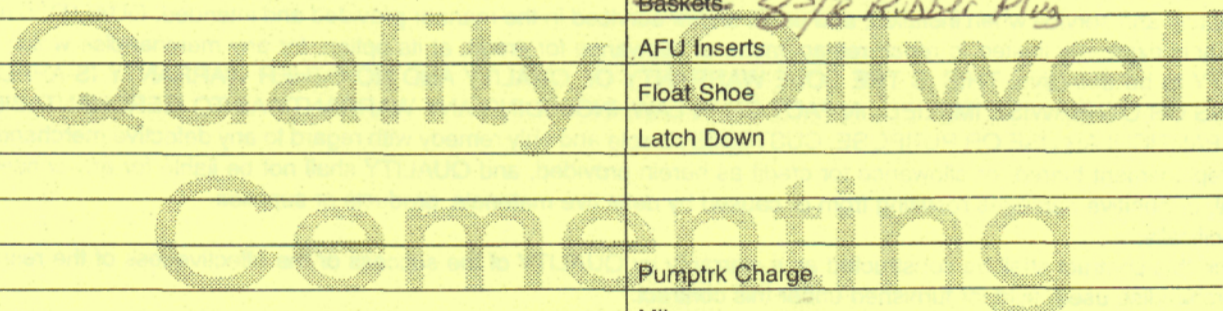
JOB SERVICES & REMARKS

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	

8-5/8 on bottom. Est. Circulation
mix 4000psi. Displace Plug
Cement Circulated

FLOAT EQUIPMENT

		Guide Shoe	
		Centralizer	
		Baskets	8-5/8 Rubber Plug
		AFU Inserts	
		Float Shoe	
		Latch Down	



		Pumptrk Charge	
		Mileage	
			Tax
			Discount
			Total Charge
X	Signature	Jay Klein	

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. 1129

Date	2-12-15	Sec.	21	Twp.	21	Range	12	County	Stafford	State	Ks	On Location		Finish	6:15 AM
------	---------	------	----	------	----	-------	----	--------	----------	-------	----	-------------	--	--------	---------

Lease *Hammeke B* Location *Great Bend Ks - 115 to 170 Rd, 6E to*

Well No. *5* Owner *60 Rd, 1/2 N W Into*

Contractor *Southwind 3* 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 *Longstring* Charge To *Main oil operations*

Hole Size *7 7/8"* T.D. *3700'* Street

Csg. *5 3/8" New 14H* Depth *3698'* City State

Tbg. Size Depth The above was done to satisfaction and supervision of owner agent or contractor.

Tool Depth Cement Amount Ordered *160 60/40 10% Salt 2% Gel*

Cement Left in Csg. *20.15'* Shoe Joint *20.15'* Cement Amount Ordered *160 60/40 10% Salt 2% Gel*

Meas Line Displace *89 3/4 BLS* *1/4" Flo-seal - 1000 Gal Mud Clear 48*

EQUIPMENT

Pumptrk <i>16</i>	No.	Cementer		Common
		Helper	<i>Billy</i>	Poz. Mix
Bulktrk <i>15</i>	No.	Driver	<i>Tyler</i>	Gel.
		Driver	<i>Rock</i>	Calcium

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers <i>1-11 13-14</i>	Kol-Seal
Baskets <i>Pipe on bottom break Circulation</i>	Mud CLR 48
D/V or Port Collar <i>pump 1000 gal mud clear 48</i>	CFL-117 or CD110 CAF 38
<i>plug Ratholes w/ 30% Hack to 5 1/2"</i>	Sand
<i>Carry + mix 130s Cement</i>	Handling
<i>Shut down wash pump + lines</i>	Mileage

FLOAT EQUIPMENT

<i>Released plug + displaced w/ 8 1/2" of H2O</i>	Guide Shoe
<i>Released + held</i>	Centralizer <input checked="" type="checkbox"/> <i>turbo's 13</i>
<i>Lift pressure 500 #</i>	Baskets
<i>Land plug to 1600 #</i>	AFU Inserts
	Float Shoe
	Latch Down

	Pumptrk Charge
	Mileage

	Tax
	Discount
	Total Charge

X Signature *Burt [unclear]*

