

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	Mai Oil Operations, Inc.
Well Name	Clasen 1
Doc ID	1295718

All Electric Logs Run

CDNL
DIL
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	Clasen 1
Doc ID	1295718

Tops

Name	Top	Datum
Anhydrite	688	+1151
Heebner	3021	-1182
Toronto	3042	-1203
Douglas	3052	-1213
Brown Lime	3132	-1293
Lansing	3145	-1306
Base Kansas City	3374	-1535
Arbuckle	3388	-1549

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
Clausen #1
SW-NW-NE (990'FNL & 2310' FEL)
Section 25-19s-13w
Barton County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)

Commenced: November 17, 2015

Completed: November 23, 2015

Elevation: 1839' K.B., 1837' D.F., 1831' G.L.

Casing program: Surface; 8 5/8" @ 686
Production, 5 1/2" @ 3475'

Sample: Samples saved and examined 2800' to the Rotary Total Depth.

Drilling time: One (1) foot drilling time recorded and kept 2800' to the Rotary Total Depth.

Measurements: All depths measured from the Kelly Bushing.

Drill Stem Tests: There were four (4) Drill Stem Tests ran by Trilobite Testing Co.

Electric Log: By Casedhole Solutions, Dual Induction, Compensated Density/Neutron Log, Micro and Sonic Logs.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	688	+1151
Base Anhydrite	706	+1133
Heebner	3021	-1182
Toronto	3042	-1203
Douglas	3052	-1213
Brown Lime	3132	-1293
Lansing	3145	-1306
Base Kansas City	3374	-1535
Arbuckle	3388	-1549
Rotary Total Depth	3475	-1636
Log Total Depth	3475	-1636

All tops and zones corrected to Electric Log Measurement

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

TOPEKA SECTION

2960-2980' Limestone, cream, tan, fine and medium crystalline, sucrosic in part, few fossiliferous, poor to fair inter-crystalline porosity, no shows.

TORONTO SECTION

3042-3051' Limestone, cream, tan finely crystalline, few granular and sucrosic, poor inter-crystalline porosity, no shows.

LANSING SECTION

3145-3152' Limestone, white, cream, gray, finely crystalline, oolitic, few fossiliferous, poor inter-crystalline porosity, golden brown stain, trace of free oil and good odor in fresh samples.

3170-3180' Limestone, cream, light gray, finely crystalline, few fossiliferous, poor visible porosity, brown stain, trace of free oil and good odor in fresh samples.

3182-3186' Limestone, cream, light gray, finely crystalline, few fossiliferous, oolitic, poor scattered porosity, trace black stain, no free oil and no odor in fresh samples

Drill Stem Test #1 3134-3189

Times: 30-45-45-60

Blow: Strong

**Recovery: 2172' gas in pipe
 120' heavily oil & gas cut mud
 (50% oil; 40% mud; 10% gas)**

**Pressures: ISIP 868 psi
 FSIP 841 psi
 IFP 65-46 psi
 FFP 53-70 psi
 HSH 1529-1502 psi**

3210-3217' Limestone, tan, light gray, finely crystalline, oolitic, poor scattered porosity, brown spotty stain, no free oil and faint odor in fresh samples.

3218-3226' Limestone, cream, white, finely crystalline, poorly developed pinpoint type porosity, dark brown stain, trace of free oil and faint odor in fresh samples.

3228-3240' Limestone, cream, tan, oolitic, oomoldic, chalky in part, good oomoldic porosity, dark brown stain, no free oil and no odor in fresh samples.

3240-3250' Limestone, cream, tan, oolitic, oomoldic, chalky, trace spotty stain, no free oil or odor in fresh samples.

3276-3280' Limestone, cream, tan, finely crystalline, oolitic, poor visible porosity, dark brown stain, trace of free oil and fair odor in fresh samples.

3294-3302' Limestone, cream, tan, finely crystalline, oolitic, poor to fair porosity, brown stain, show of free oil and fair odor in fresh samples.

- 3311-3322' Limestone, cream, tan, finely crystalline, oolitic, fair vuggy type porosity, brown stain, show of free oil, trace of gas bubbles and fair odor in fresh samples.
- 3343-3350' Limestone, cream, white, finely crystalline, oolitic, poor scattered finely vuggy type porosity, brown spotty stain, no free oil and faint odor in fresh samples.
- 3351-3363' Limestone, tan, light gray, finely crystalline, cherty in part, poor visible porosity, no shows.

Drill Stem Test #2 **3265-3365**

Times: 30-45-45-60

Blow: Strong

Recovery: 2690' gas in pipe
570' clean gassy oil

Pressures: ISIP 966 psi
FSIP 940 psi
IFP 82-157 psi
FFP 181-257 psi
HSH 1690-1628 psi

ARBUCKLE SECTION

- 3388-3399' Dolomite, white, medium crystalline, fair inter-crystalline porosity, golden brown stain, show of free oil and good odor in fresh samples.

Drill Stem Test #3 **3360-3399**

Times: 15-30-15-45

Blow: Strong

Recovery: 3050' gas in pipe
300' clean gassy oil

Pressures: ISIP 1139 psi
FSIP 1127 psi
IFP 991-1018 psi
FFP 1013-995 psi
HSH 1702-1574 psi

- 3399-3408' Dolomite, white, cream, fine to medium crystalline, fair vuggy type porosity, brown stain, good show of free oil and good odor in fresh samples.

Drill Stem Test #4 **3401-3408**

Times: 30-45-30-60

Blow: Strong

Recovery: 240' gassy oil cut muddy water
(10% gas; 30% oil; 40% water; 20% mud)
480' heavily cut muddy water
(40% oil; 40% water; 20% mud)
2100' water

Pressures: ISIP 1157 psi
FSIP 1157 psi
IFP 534-995 psi
FFP 1157-1161 psi
HSH 1682-1616 psi

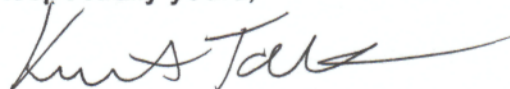
- 3408-3420' Dolomite, cream, white, fine to medium crystalline, poor to fair inter-crystalline porosity, dark brown stain, show of free oil and fair odor in fresh samples.
- 3420-3440' Dolomite, white, fair to medium crystalline, slightly cherty, poorly developed inter-crystalline type porosity, dark brown stain, no free oil and faint odor in fresh samples.
- 3440-3460' Dolomite, white/light gray, medium crystalline, chalky luster, dark brown stain, no free oil and faint odor in fresh samples.
- 3460-3475' Dolomite, white, fine and medium crystalline, poor scattered inter-crystalline porosity, dark brown stain, no free oil and faint odor in fresh samples.

Rotary Total Depth 3475
Log Total Depth 3475

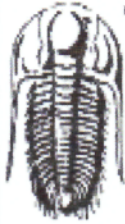
Recommendations:

The 5 1/2" production casing was set and cemented on Mai Oil Operations Inc., Clausen #1.

Respectfully yours,



Kurt Talbott
Petroleum Geologist



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operation
 8411 Preston Rd Ste 80
 Dallas TX 75225+5520
 ATTN: Kurt Talbott

25-19s-13w Barton,KS
Clasen #1
 Job Ticket: 62968 **DST#: 1**
 Test Start: 2015.11.21 @ 05:00:00

GENERAL INFORMATION:

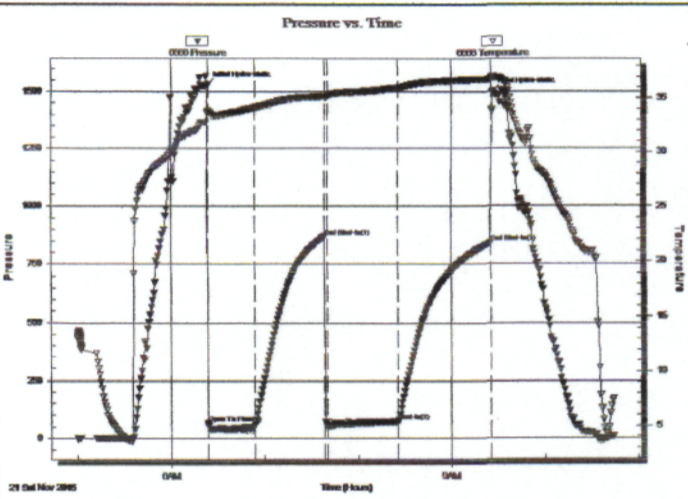
Formation: **LKC A -C**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 06:23:46
 Time Test Ended: 10:44:16
 Test Type: **Conventional Bottom Hole (Initial)**
 Tester: **Jared Scheck**
 Unit No: **55**
 Interval: **3134.00 ft (KB) To 3189.00 ft (KB) (TVD)**
 Total Depth: **3189.00 ft (KB) (TVD)**
 Hole Diameter: inchesHole Condition: **Fair**
 Reference Elevations: **1847.00 ft (KB)**
1839.00 ft (CF)
 KB to GR/CF: **8.00 ft**

Serial #: 6666

Inside

Press@RunDepth: **70.88 psig @ 3173.00 ft (KB)**
 Start Date: **2015.11.21** End Date: **2015.11.21**
 Start Time: **05:00:01** End Time: **10:44:16**
 Capacity: **8000.00 psig**
 Last Calib.: **2015.11.21**
 Time On Btrm: **2015.11.21 @ 06:23:16**
 Time Off Btrm: **2015.11.21 @ 09:25:46**

TEST COMMENT: FP-30 Minutes-BOB in 1 minute
 ISP-45 Minutes-No blow back
 FFP-45 Minutes-BOB in 30 sec
 FSIP-60 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg C)	Annotation
0	1529.94	33.71	Initial Hydro-static
1	65.65	33.87	Open To Flow (1)
31	46.95	34.11	Shut-In(1)
75	868.48	35.15	End Shut-In(1)
77	53.95	35.17	Open To Flow (2)
123	70.88	35.97	Shut-In(2)
182	841.56	36.77	End Shut-In(2)
183	1502.19	36.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GMO 10%gas 40%mud 50%oil	1.68
0.00	2712' gas in pipie	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operation	25-19s-13w Barton,KS
8411 Preston Rd Ste 80 Dallas TX 75225+5520	Clasen #1
ATTN: Kurt Talbott	Job Ticket: 62970 DST#: 3
	Test Start: 2015.11.22 @ 14:30:00

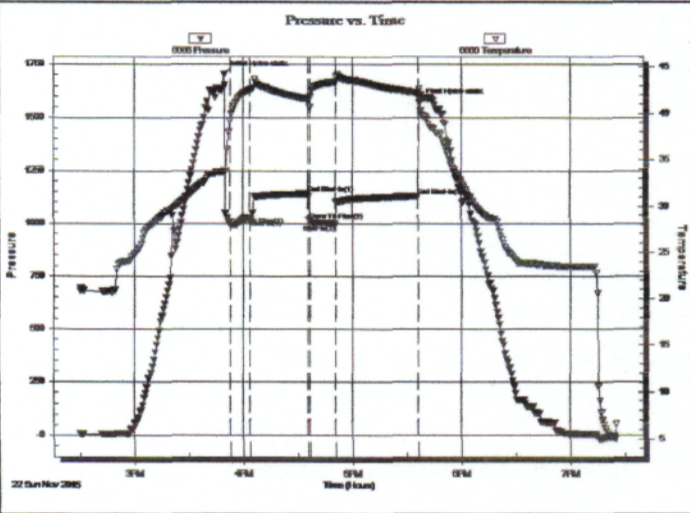
GENERAL INFORMATION:

Formation: Arbuckle	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Jared Scheck
Time Tool Opened: 15:52:31	Unit No: 55
Time Test Ended: 19:26:01	Reference Elevations: 1847.00 ft (KB)
Interval: 3360.00 ft (KB) To 3399.00 ft (KB) (TVD)	1839.00 ft (CF)
Total Depth: 3399.00 ft (KB) (TVD)	KB to GR/CF: 8.00 ft
Hole Diameter: inches Hole Condition: Fair	

Serial #: 6666 Inside

Press@RunDepth: 995.06 psig @ 3366.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2015.11.22 End Date: 2015.11.22	Last Calib.: 2015.11.22
Start Time: 14:30:01 End Time: 19:26:01	Time On Btm: 2015.11.22 @ 15:49:16
	Time Off Btm: 2015.11.22 @ 17:37:01

TEST COMMENT: FFP-15 Minutes-BOB in 10 sec oil to surface in 5 minutes
 ISIP-30 Minutes-Yes blow back
 FFP-15 Minutes-BOB in 1 minutes-- flowing oil
 FSIP-45 Minutes-Yes blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg C)	Annotation
0	1702.96	33.76	Initial Hydro-static
4	991.15	39.25	Open To Flow (1)
15	1018.14	42.58	Shut-In(1)
47	1139.62	41.55	End Shut-In(1)
48	1013.54	40.74	Open To Flow (2)
62	995.06	43.39	Shut-In(2)
107	1127.84	42.23	End Shut-In(2)
108	1574.58	41.10	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
300.00	gas 20% oil 80%	4.21
0.00	GO to surface	0.00

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. 1293

Date	11-17-15	Sec.	25	Twp.	19	Range	13	County	Barton	State	Ks	On Location		Finish	2:00 PM
------	----------	------	----	------	----	-------	----	--------	--------	-------	----	-------------	--	--------	---------

Lease Clasen Well No. 1 Location Great Bend, Ks - E on S6 Hwy to

Contractor	<u>Southwind #3</u>	Owner	<u>46th Ave</u>
Type Job		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.	
Hole Size	<u>12 1/4"</u>	T.D.	<u>686'</u>
Csg.	<u>8 5/8"</u>	Depth	<u>686'</u>
Tbg. Size		City	
Tool		State	
Cement Left in Csg.	<u>20'</u>	Shoe Joint	<u>20'</u>
Meas Line		Displace	<u>42 1/4 BLS</u>
			<u>1/4# Flt-seal</u>

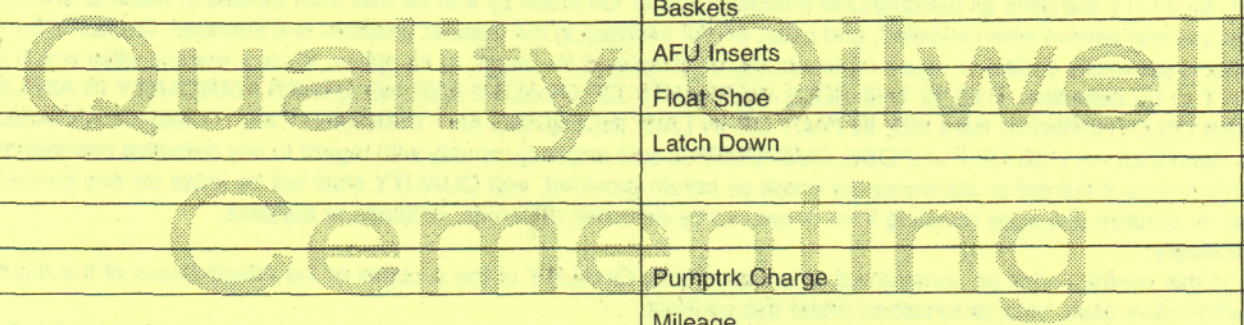
EQUIPMENT			Common
Pumptrk	<u>18</u>	No. Cementer Helper	<u>Travis</u>
Bulktrk	<u>4</u>	No. Driver	<u>Billy</u>
Bulktrk	<u>p.u.</u>	No. Driver	<u>Rick</u>
			<u>Doug</u>

JOB SERVICES & REMARKS			
Remarks:	<u>Cement did Circulate</u>		
Rat Hole			
Mouse Hole			
Centralizers			
Baskets			
D/V or Port Collar			

Handling	
Mileage	

FLOAT EQUIPMENT	
Guide Shoe	<u>Rubber plug</u>
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	
Mileage	

X Signature <u>B. Honner</u>	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. 1299

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-24-15	25	19	13	Barton	Ks		3:45 AM

Location: Great Bend, Ks - E to 40th Ave on 40th Ave

Lease	Clasen	Well No.	1	Owner	N. Valley, S/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	Production			Charge To	Maioil operations
Hole Size	7 7/8"	T.D.	3475'	Street	
Csg.	5 1/2" New 14 #	Depth	3474'	City	State
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool		Depth		Cement Amount Ordered	160 60/100 10% Salt 2% Gel 1/4# Flt = seal
Cement Left in Csg.	20.99'	Shoe Joint	20.99'	Meas Line	Displace H2O 84 1/4

EQUIPMENT

Pumptrk	5	No.	Cementer		
			Helper	Brett	
Bulktrk	3	No.	Driver	Nick	
			Driver	Rick	
Bulktrk	p.u.	No.	Driver		
			Driver		

JOB SERVICES & REMARKS

Remarks:		
Rat Hole		
Mouse Hole		
Centralizers	1-12	
Baskets	pipe on bottom break Circulation	
D/V or Port Collar	pump 1000 gal mud clear 48	
	plug ball hole at 3058 Hook to casing	
	r mix @ 130 psi cement shift	
	down with pump + line released plug	
	r displaced w/ 54 1/4 lbs. Released	
	held Lift pressure 600 #	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	12
Baskets	
AFU Inserts	
Float Shoe	1
Latch Down	1

Quality Oilwell Cementing

Pumptrk Charge	
Mileage	
	Tax
	Discount
	Total Charge

X Signature: Brett