

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](mailto: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	Lotus Operating Company, L.L.C.
Well Name	CHARLIE 2
Doc ID	1458169

All Electric Logs Run

Dual Induction
Neurton Density
Micro
Frac
Sonic



<b>Fracture Start Date/Time:</b>	<b>3/1/19 11:53</b>
<b>Fracture End Date/Time:</b>	<b>3/1/19 13:17</b>
<b>State:</b>	<b>Kansas</b>
<b>County:</b>	<b>Barber</b>
<b>API Number:</b>	<b>15-007-00322-0001</b>
<b>Operator Number:</b>	
<b>Well Name:</b>	<b>Charlie 2 OWWO</b>
<b>Federal Well:</b>	<b>No</b>
<b>Tribal Well:</b>	<b>No</b>
<b>Longitude:</b>	<b>-98.7098476</b>
<b>Latitude:</b>	<b>37.0121469</b>
<b>Long/Lat Projection:</b>	<b>NAD27</b>
<b>True Vertical Depth (TVD):</b>	<b>4,704'</b>
<b>Total Clean Fluid Volume* (gal):</b>	<b>335,412</b>

(e.g. XX-XXX-XXXXX-0000)



<i>Additive</i>
WATER
Sand
Plexcide P5
Plexcide P5
Plexsurf 580 ME
Plexsurf 580 ME
Plexsurf 580 ME
Plexsurf 580 ME
Plexsurf 580 ME
Plexgel 907L-EB
Plexgel 907L-EB
Plexslick 957
Plexgel XPA
Clayplex 650


***Ingredients Section:***

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)
Water	Operator	Carrier/Base Fluid	Water	7732-18-5
Sand	Superior Silica Sand	Proppant	Crystalline Silica in the form of quartz	14808-60-7
Plexcide P5	Chemplex	Biocide	Methanol	67-56-1
Plexcide P5	Chemplex	Biocide	Tributyl Tetradecyl Phosphonium Chloride	81741-28-8
Plexsurf 580 ME	Chemplex	Surfactant	Diathanolamone	111-42-2
Plexsurf 580 ME	Chemplex	Surfactant	Ethylene glycol monobutyl ether	111-76-2
Plexsurf 580 ME	Chemplex	Surfactant	Methanol	67-56-1
Plexsurf 580 ME	Chemplex	Surfactant	Oleamide Dielhanolamide	61790-66-7
Plexsurf 580 ME	Chemplex	Surfactant	D-limonene	5989-27-5







\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%  
All component information

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<i>Specific Gravity</i>	<i>Additive Quantity</i>	<i>Mass (lbs)</i>	
1.00	<b>335,412</b>	<b>2,799,013</b>	gal
2.65	<b>276,000</b>	<b>276,000</b>	lb
0.96	<b>35</b>	<b>280</b>	gal
0.96	<b>35</b>	<b>280</b>	gal
0.95	<b>85</b>	<b>674</b>	gal
0.95	<b>85</b>	<b>674</b>	gal
0.95	<b>85</b>	<b>674</b>	gal
0.95	<b>85</b>	<b>674</b>	gal
0.95	<b>85</b>	<b>674</b>	gal
1.02	<b>338</b>	<b>2,877</b>	gal
1.02	<b>338</b>	<b>2,877</b>	gal
1.02	<b>216</b>	<b>1,839</b>	gal
1.03	<b>79</b>	<b>679</b>	gal
1.15	<b>337</b>	<b>3,234</b>	gal
			gal
			gal
			gal

			gal
			gal
		<b>Total Slurry Mass (Lbs)</b> <i>3,090,449</i>	

<b>Maximum Ingredient Concentration in Additive (% by mass)**</b>	<b>Mass per Component (LBS)</b>	<b>Maximum Ingredient Concentration in HF Fluid (% by mass)**</b>	<b>Comments</b>	<b>Claimant Company</b>	<b>Claimant First Name</b>	<b>Claimant Last Name</b>
100.00%	<i>2,799,013</i>	<i>90.56979%</i>				
100.00%	<i>276,000</i>	<i>8.93074%</i>				
20.00%	<i>56</i>	<i>0.00181%</i>				
1.00%	<i>3</i>	<i>0.00009%</i>				
1.00%	<i>7</i>	<i>0.00022%</i>				
40.00%	<i>270</i>	<i>0.00872%</i>				
2.00%	<i>13</i>	<i>0.00044%</i>				
1.00%	<i>7</i>	<i>0.00022%</i>				
1.00%	<i>7</i>	<i>0.00022%</i>				





**HURRICANE SERVICES INC**

Remit To: Hurricane Services, Inc.  
250 N. Water, Suite 200  
Wichita, KS 67202  
316-303-9515

Customer:  
LOTUS OPERATING COMPANY, LLC  
100 S. MAIN, STE 420  
WICHITA, KS 67202

Invoice Date: 1/23/2019  
Invoice #: 0340212  
Lease Name: Charlie  
Well #: 2 (New)  
County: Barber

<b>Date/Description</b>	<b>HRS/QTY</b>	<b>Rate</b>	<b>Total</b>
ICT1739 Longstring	0.000	0.000	0.00
Pump truck 230	1.000	622.500	622.50
Cement Data Acquisition	1.000	207.500	207.50
5 1/2" LD Plug & Baffle	1.000	290.500	290.50
Type B basket shoe 5 1/2"	1.000	1,216.780	1,216.78
5 1/2" Turbolizers	5.000	66.400	332.00
Cement baskets 5 1/2"	1.000	249.000	249.00
Heavy Eq Mileage	50.000	3.320	166.00
Light Eq Mileage	25.000	1.660	41.50
Mud flush	500.000	1.536	767.75
ASC + Additives	288.000	19.090	5,497.92
Ton Mileage	392.000	1.245	488.04
Cement Pozmix 60/40	50.000	10.790	539.50

**Total** 10,418.99

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**

250 N. Water St., Suite #200  
Wichita, KS 67202



HURRICANE SERVICES INC

1-23-2019

Customer	Lotus Operating, CO	Lease & Well #	Charlie #2	Date	<del>11-23-13</del>
Service District	Medicine Lodge, Ks	County & State	Barber	Legals S/T/R	11-35-13
Job Type	<u>Production</u>	<input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No	Ticket #

LS

Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
28	Carl Balding	<input type="checkbox"/> Hard hat	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
230	Garett Mclemore	<input type="checkbox"/> H2S Monitor	<input type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
178-251	Ron Gilley	<input type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
	Keven Lesley	<input type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

Comments

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
C010	Cement Pump	ea	1.00	\$622.50
C035	Cement Data Acquisition	job	1.00	\$207.50
FE170	Latch down Plug and Baffle	ea	1.00	\$290.50
FE180	5 1/2" Type B Basket Shoe	ea	1.00	\$1,216.78
FE135	5 1/2 Turbolizers	ea	5.00	\$332.00
FE130	5 1/2" Cement Basket	ea	1.00	\$249.00
M010	Heavy Equipment Mileage	mi	60.00	\$166.00
M015	Light Equipment Mileage	mi	25.00	\$41.50
CP170	Mud Flush	gl	500.00	\$767.75
CP030	ASC + additives	sack	288.00	\$5,497.92
M020	Ton Mileage	tm	392.00	\$488.04
CP070	60/40/2 Pozmix	sack	50.00	\$539.50

Customer Section: On the following scale how would you rate Hurricane Services Inc.?		Net:	\$10,418.99
Based on this job, how likely is it you would recommend HSI to a colleague? <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <small>Unlikely    Feasibility / Likely</small>		Total Taxable	\$ -
		Tax Rate:	
State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.		Sale Tax:	\$ -
		Total:	\$ 10,418.99
HSI Representative: <u>Carl Balding</u>			

**TERMS:** Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

x Robin Brown CUSTOMER AUTHORIZATION SIGNATURE



**CEMENT TREATMENT REPORT**

Customer:	Lotus Operating, Co	Well:	Charlie #2	Ticket:	ICT1739
City, State:		County:	Barber	Date:	1/23/2019
Field Rep:	Robin Brown	S-T-R:	11-35-13	Service:	Medicine Lodge, Ks

Downhole Information	
Hole Size:	7 7/8"
Hole Depth:	5600'+
Casing Size:	5.5
Casing Depth:	5123
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	bbbls

Slurry	
Weight:	14.5 # / sx
Water / Sx:	7 2/9 gal / sx
Yield:	1 4/7 ft <sup>3</sup> / sx
Bbls / Ft.:	32.4
Depth:	ft
Volume:	bbbls
Excess:	25% %
Total Slurry:	80.52 bbbls
Total Sacks:	288 sx

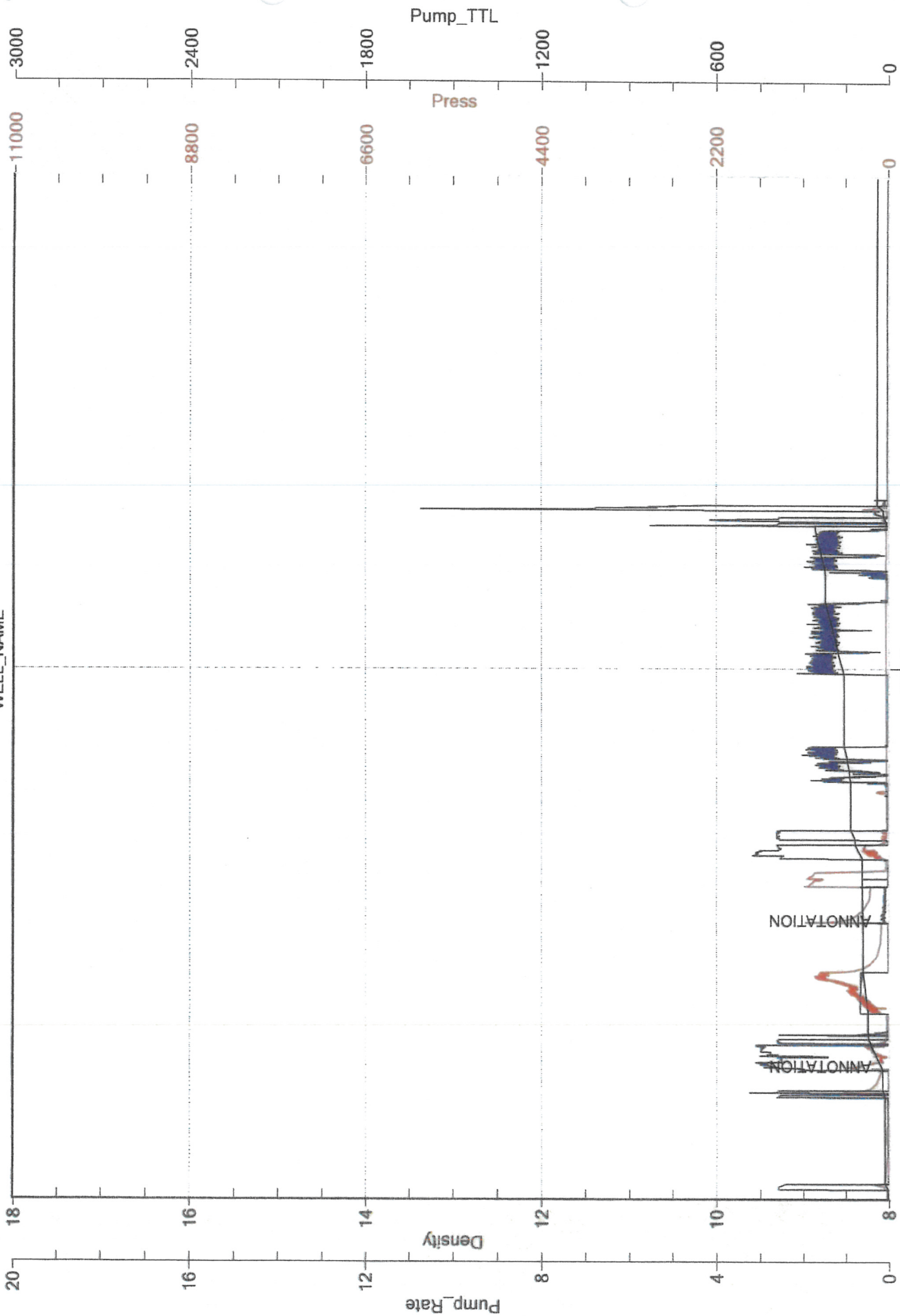
Cement Blend		
Product	%	#
Class A	100.0	
Gel	1.0	
fluidloss	0.5	
Metso		
KolSeal		5
PhenoSeal		0
Salt	10.0	
Gypseal	6.0	

Total 5

TIME	RATE	PSI	BBLs	REMARKS	TIME	RATE	PSI	BBLs	REMARKS
11:30 PM				on location					
12:00 AM				Have safety meeting + rig up					Rig up to cement
							100	12.00	start Mud Flush
3:15 AM				run 124 joints 5 1/2" 14 # casing			100	80.00	Start Cement
				with float equipment					Cement in Stop Pumps
6:00 AM				Pipe on bottom break circulation w/rig	10:am				switch valves + wash Pump + lines
				Drop ball for triplex shoe					switch valves + release plug
				Rig up cement head	0.4				start fresh water displacement
				Start mud pump to open shoe					steady rate + pressure
7:00 AM		1,500.0		casing pressure up to 1500 psi			44	50.00	Bbbls out cement turn shoe
				bleed off pressure + pressure again			100	72.00	Bbbls out see lift pressure
		1,800.0		psi increase to 1800 psi with out			300		Have steady rate + pressure increase
				shoe opening			800	115.00	slow rate
				rig up to cement pump to open shoe	10:30am		1000		land plug 1000 psi over lift
		2,500.0		increase psi to 2500 + hold pressure			0		release pressure + float held
				bleed off pressure + pressure again					Plug rat + mouse hole with 50 sx 60:40:4% gel
		2,500.0		pressure casing to 2500 psi					wash up + release from location
		2,500.0		hold pressure for 5 minutes					
				bleed off pressure + pressure again					
				reciprocate casing w/ rig					
				Start pumps on cement truck and					
9:00 AM		1,000.0		tool with 1000 psi					
				circulate 30 minutes with rig					
				Release from Location					

CREW		UNIT	SUMMARY		
Cementer:	Carl Balding	28.0	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Garett Mclemore	230.0	#DIV/0! bpm	##### psi	329.00 bbbls
Bulk #1:	Ron Gilley	176-251			
Bulk #2:	Keven Lesley				

CUSTOMER  
WELL\_NAME



356.5

Job Started On: 01/23/2019 @ 9:50:45 AM