

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	Mull Drilling Company, Inc.
Well Name	WHIRLWIND 1-21
Doc ID	1466823

All Electric Logs Run

CDL/CNL/PE
DIL
MEL
SONIC

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	WHIRLWIND 1-21
Doc ID	1466823

Tops

Name	Top	Datum
Anhydrite	2652	+ 1190
B/Anhydrite	2678	+ 1164
Heebner	4094	- 252
Lansing	4114	- 272
Stark	4445	- 603
Ft. Scott	4719	- 877
Cherokee	4732	- 890
Morrow	5022	- 1180
Mississippian	5112	- 1270



CEMENT TREATMENT REPORT

Customer: Mull Drilling	Well: Whirlwind 1-21	Ticket: ICT1892
City, State: Tribune,KS	County: Greeley,KS	Date: 4/3/2019
Field Rep:	S-T-R: 21-17S-42W	Service: Surface

Hole Size:	12.25"
Hole Depth:	427'
Casing Size:	8.625
Casing Depth:	427'
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	26

Weight:	14.8 # / sx
Water / Sx:	6 5/7 gal / sx
Yield:	1 2/5 ft ³ / sx
Bbls / Ft.:	
Depth:	427' ft
Volume:	bbls
Excess:	100% %
Total Slurry:	62.7 bbls
Total Sacks:	250 sx

Product	%	#
Class A		23500
Gel	2.0	470
CaCl	3.0	705
Metso		
KolSeal		
PhenoSeal		
Salt		
Total		24,675

TIME	RATE	PSI	BBLs	REMARKS	TIME	RATE	PSI	BBLs	REMARKS
8:30pm				arrival					
8:35pm				safety meeting					
8:40pm				rig up					
1:45am				run in casing					
3am				circ casing					
3:40am	5.0	200.0	88.7	cement & displace					
4am				shut in					
				cement did circ					
4:15am				wash up and rig down equip					
4:45am				depart					

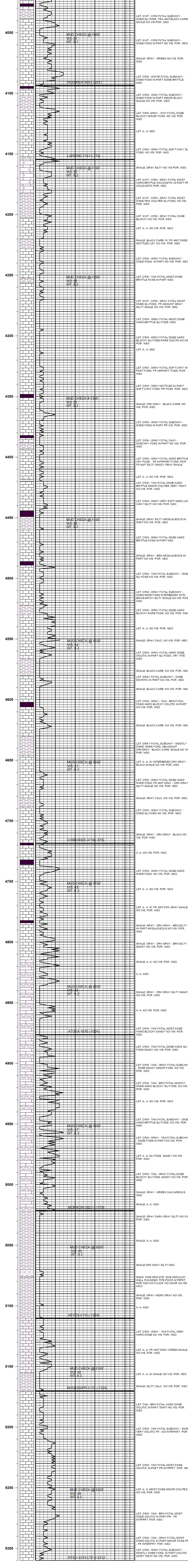
CREW		UNIT		SUMMARY		
Cementer:	Miles Shaw			Average Rate	Average Pressure	Total Fluid
Pump Operator:	Paul Williams		231.0	5 bpm	200.00 psi	88.70 bbls
Bulk #1:	Kale Ochs		242.0			
Bulk #2:						

KEVIN L. KESSLER

CONSULTING PETROLEUM GEOLOGIST

(316) 522 - 7338

OPERATOR : MULL DRILLING CO. INC.				ELEVATION		
LEASE : WHIRLWIND		WELL # : 1 - 21		KB: 3842'		
LOCATION : 1486' FNL & 1470' FWL						
SEC : 21		TWP : 17S		RGE : 42W		
COUNTY : GREELEY		STATE : KANSAS				
CONTRACTOR: DUKE DRILLING RIG # 2				CASING RECORD:		
COMM: 04 - 03 - 2019		COMP: 04 - 10 - 2019		SURFACE:		
RTD: 5310'		LTD: 5312'		8 5/8" @ 427'		
GEOLOGICAL SUPERVISION FROM: 4000'				PRODUCTION:		
SAMPLES SAVED FROM: 4000'				NONE		
FORMATION:	TOP	LOG	DATUM	TOP	SAMPLE	
					DATUM	
					COMP.	
HEEBNER	4093	- 251		4093	- 251	- 24
LANSING	4154	- 312		4154	- 312	- 17
CHEROKEE	4718	- 876		4718	- 876	- 28
ATOKA	4876	- 1034		4876	- 1034	- 25
MORROW	5021	- 1179		5021	- 1179	- 28
KEYES	5510	- 1268		5510	- 1268	- 29
MISSISSIPPI	5170	- 1328		5170	- 1328	- 29
REFERENCE WELL FOR STRUCTURAL COMPARISON:						ELECTRICAL SURVEYS:
MULL DRLG. #1-16 HAUGEN UNIT 16-17S-42W GREELEY CO. KS.						DIL
						CNL/CDL
						MICRO
						SONIC



COMMENTS

DUE TO LACK OF SHOWS OF OIL THIS WELL WAS PLUGGED AND ABANDONED

KEVIN L. KESSLER