KOLAR Document ID: 1403137

Confiden	tiality 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 #		API No.:			
Name:		Spot Description:			
Address 1:					
Address 2:		Feet from North / South Line of Section			
City: State: Zip:	+	Feet from East / West Line of Section			
Contact Person:		Footages Calculated from Nearest Outside Section Corner:			
Phone: ()					
CONTRACTOR: License #		GPS Location: Lat:, Long:			
Name:		(e.g. xx.xxxx) (e.gxxx.xxxx)			
Wellsite Geologist:		Datum: NAD27 NAD83 WGS84			
Purchaser:		County:			
Designate Type of Completion:		Lease Name: Well #:			
New Well Re-Entry	Workover	Field Name:			
		Producing Formation:			
		Elevation: Ground: Kelly Bushing:			
		Total Vertical Depth: Plug Back Total Depth:			
CM (Coal Bed Methane)		Amount of Surface Pipe Set and Cemented at: Feet			
Cathodic Other (Core, Expl., etc.):		Multiple Stage Cementing Collar Used? Yes No			
If Workover/Re-entry: Old Well Info as follows:		If yes, show depth set: Feet			
Operator:		If Alternate II completion, cement circulated from:			
Well Name:		feet depth to:w/sx cmt.			
Original Comp. Date: Original Tot	al Depth:				
Deepening Re-perf. Conv. to EO	R Conv. to SWD	Drilling Fluid Management Plan			
Plug Back Liner Conv. to GS	W Conv. to Producer	(Data must be collected from the Reserve Pit)			
		Chloride content: ppm Fluid volume: bbls			
Commingled Permit #:		Dewatering method used:			
SWD Permit #:		Location of fluid disposal if hauled offsite:			
☐ EOR Permit #:					
GSW Permit #:		Operator Name:			
		Lease Name: License #:			
Spud Date or Date Reached TD	Completion Date or	Quarter Sec Twp S. R East West			
Recompletion Date	Recompletion Date	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:					

KOLAR Document ID: 1403137

Operator Name:	Lease Name: Well #:
Sec TwpS. R East 🗌 West	County:

Page Two

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		Y	′es 🗌 No	[og Formatio	n (Top), Depth a	and Datum	Sample
Samples Sent to Geolo	aical Survey		les No	1	Name	Э		Тор	Datum
Cores Taken Electric Log Run Geologist Report / Mud List All E. Logs Run:	Logs	□ Y □ Y □ Y	és ☐ No és ☐ No és ☐ No						
		Rep	CASING ort all strings set-c	RECORD] Ne	w Used	on, etc.		
Purpose of String	Size Hole Drilled	Siz	ze Casing et (In O.D.)	Weight Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
[1		ADDITIONAL	CEMENTING /	SQU	EEZE RECORD			
Purpose:	Depth Top Bottom	Туре	Type of Cement #		# Sacks Used		Type and Percent Additives		
Protect Casing Plug Back TD Plug Off Zone									
 Did you perform a hydra Does the volume of the Was the hydraulic fractu 	aulic fracturing treatme total base fluid of the uring treatment informa	ent on this v hydraulic fr ation submi	vell? acturing treatment tted to the chemic	exceed 350,000 al disclosure regi	gallo stry?	Nes Yes	 No (If No, s No (If No, s No (If No, f 	kip questions 2 ar kip question 3) ill out Page Three	nd 3) of the ACO-1)
Date of first Production/Inj Injection:	jection or Resumed Pr	oduction/	Producing Meth	iod:		Gas Lift 🗌 O	ther <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wate	er Bb	ls.	Gas-Oil Ratio	Gravity
DISPOSITION	N OF GAS:		N	IETHOD OF COMPLETION: PRODUCTION I		ON INTERVAL:			
Vented Sold (If vented, Subn	Used on Lease		Open Hole	_ Perf C <i>(S</i>	ually ubmit	Comp. Com ACO-5) (Subn	nit ACO-4)		
Shots Per Per Foot	foration Perfor Top Botte	ation om	Bridge Plug Type	Bridge Plug Set At		Acid,	Fracture, Shot, C (Amount and Ki	ementing Squeezend of Material Used)	Record
TUBING RECORD:	Size:	Set At:		Packer At:					

Form	ACO1 - Well Completion
Operator	Colorado Interstate Gas Co., LLC
Well Name	NGPL AMA 423 LINES 2,3,4 4
Doc ID	1403137

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	16	10	8.782	20	Bentonite	34	None

KANSAS CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION**

WELL COMPLETION FORM

WELL	DESCRIPTION		
VVELL	DESCRIPTION	OF WELL O	X LEASE

OPERATOR: License #		API No. 15			
Name:		Spot Description:			
Address 1:					
Address 2:		Feet from Dorth / South Line of Section			
City:	State: Zip:+	Feet from East / West Line of Section			
Contact Person:		Footages Calculated from Nearest Outside Section Corner:			
Phone: ()					
CONTRACTOR: License #		GPS Location: Lat:, Long:			
Name:		(e.g. xx.xxxxx) (e.gxxx.xxxxx)			
Wellsite Geologist:		Datum: NAD27 NAD83 WGS84			
Purchaser:		County:			
Designate Type of Completion:		Lease Name: Well #:			
New Well	e-Entry Workover	Field Name:			
		Producing Formation:			
		Elevation: Ground: Kelly Bushing:			
	GSW Temp. Abd.	Total Vertical Depth: Plug Back Total Depth:			
CM (Coal Bed Methane)		Amount of Surface Pipe Set and Cemented at: Feet			
Cathodic Other (Co	ore, Expl., etc.):	Multiple Stage Cementing Collar Used?			
If Workover/Re-entry: Old Well I	nfo as follows:	If yes, show depth set: Feet			
Operator:		If Alternate II completion, cement circulated from:			
Well Name:		feet depth to:w/sx cmt.			
Original Comp. Date:	Original Total Depth:				
Deepening Re-perf	. Conv. to ENHR Conv. to SWD	Drilling Fluid Management Plan			
Plug Back	Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)			
	Dormit #	Chloride content: ppm Fluid volume: bbls			
	Permit #:	Dewatering method used:			
	Permit #:	Location of fluid disposal if hauled offsite			
	Permit #:				
GSW	Permit #:	Operator Name:			
		Lease Name: License #:			
Spud Date or Date Re	eached TD Completion Date or	Quarter Sec Twp S. R East West			
Recompletion Date	Recompletion Date	County: Permit #:			

INSTRUCTIONS: The original form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. If confidentiality is requested and approved, side two of this form will be held confidential for a period of 2 years. Rules 82-3-130, 82-3-106 and 82-3-107 apply. Drill Stem Test, Cement Tickets and Geological Well Report must be attached.

AFFIDAVIT	KCC Office Use ONLY
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	Confidentiality Requested
with and the statements herein are complete and correct to the best of my knowledge.	Confidential Release Date:
Signature:	Geologist Report Received
Title: Date:	UIC Distribution ALT I III Approved by: Date:

Page Two

Operator Nar	ne:			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 Yes No		L	Log Formation (Top), Depth and Datum			Sample	
Samples Sent to Geological Survey		Yes No	Nam	е		Тор	Datum
Cores Taken Electric Log Run		☐ Yes ☐ No ☐ Yes ☐ No					
List All E. Logs Run:							
		CASING Report all strings set-c	RECORD Ne	ew Used ermediate, producti	on, etc.		
Purpose of String Size Hole Drilled		Size Casing Weight Set (In O.D.) Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
		ADDITIONAL	CEMENTING / SQL	JEEZE RECORD	1	11	
Purpose: Perforate	Depth Top Bottom	Type of Cement	# Sacks Used		Type and Percent Additives		
Protect Casing Plug Back TD							
Plug Off Zone							
Did you perform a hydraulic fracturing treatment on this well? Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,00 Was the hydraulic fracturing treatment information submitted to the chemical disclosure re		ceed 350,000 gallons disclosure registry?	│ Yes │ ? │ Yes │ │ Yes │	No (If No, skip No (If No, skip No (If No, fill d	o questions 2 an o question 3) out Page Three (d 3) of the ACO-1)	
Shots Per Foot PERFORATION RECORD - I Specify Footage of Each		ON RECORD - Bridge Plugs Footage of Each Interval Perf	s Set/Type orated	Acid, Fra (Ar	cture, Shot, Cement mount and Kind of Mat	Squeeze Record	d Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: No Yes Date of First, Resumed Production, SWD or ENHR. Producing Method: Pumping Gas Lift Other (Explain) Flowing Bbls. Estimated Production Water Oil Bbls. Gas Mcf Gas-Oil Ratio Gravity Per 24 Hours DISPOSITION OF GAS: METHOD OF COMPLETION: PRODUCTION INTERVAL: Open Hole Perf. Dually Comp. Commingled Used on Lease Vented Sold (Submit ACO-5) (Submit ACO-4) (If vented, Submit ACO-18.) Other (Specify)

Mail to: KCC - Conservation Division, 266 N Main St, Ste 220, Wichita, KS 67202-1513

Page Three

HYDRAULIC FRACTURING FLUID PRODUCT COMPONENT INFORMATION DISCLOSURE

Last Fracture Date:	County:	_ API Number:
Operator Name:	Well Name and Number:	
Latitude:	Longitude:	_ Datum:
Production Type:	True Vertical Depth (TVD):	_ Total Base Fluid Volume (gal)*:

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Authorized Representative's Name, Address, and Phone Number

Ingredients shown above are subject to 29 CRF 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water. ** Information is based on the maximum potential for concentration and thus the total may be over 100%.									

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS).

WELL COMPLETION (FORM ACO-1)

Instructions

General Instructions.

- 1. The form must be typed.
- 2. All horizontal wellbore completions are required to attach the additional information with their ACO-1 as listed below in Section 11.

Section 0: Confidentiality.

 Confidentiality Requested. Mark the box to indicate if confidentiality is requested.

Section 1: Operator/Well Information.

- 1a. License #. Enter the operator's license number.
- 1b. **Name.** Enter the operator's full name as it appears on the operator's license.
- 1c. Address. Enter the operator's mailing address (street or PO Box).
- 1d. City/State/Zip. Enter the operator's city, state, and zip code.
- 1e. **Contact Person.** Enter the name of the individual who will be the operator's contact person, should Conservation Staff need to contact the operator about the Form. The contact person may be the operator or the operator's agent.
- 1f. **Phone.** Enter the phone number of the contact person listed in "1e" above.
- 1g. **Contractor License #.** Enter the Drilling Contractor's license number. The drilling contractor may be the operator or the operator's agent.
- Contractor Name. Enter the name of the drilling contractor as it appears on the drilling contractor's operator license.
- 1i. Wellsite Geologist. Enter the name of the wellsite geologist witnessing the completion work.
- 1j. **Purchaser.** Enter the name of the purchaser of the oil and/or gas produced from the subject well.
- 1k. **Designate Type of Completion.** Mark the appropriate box to indicate if it is a new well, re-entry, or workover. Also mark the appropriate box(es) to indicate the type of completion. Multiple boxes may be marked.
- 1L. Old Well Information. <u>Only complete this section if the subject</u> well is a workover or reentry.
 - 1l(1). **Operator.** Enter the name of the last operator of the subject wellbore, prior to workover or re-entry operations.
 - 1I(2). Well Name. Enter the name under which the subject well was last operated.
 - 1l(3). **Original Completion Date.** Enter the date on which the subject well was originally completed.
 - 1l(4). **Original Total Depth.** Enter the original total depth of the subject well.
 - 1I(5). Deepening, Re-perforate, Convert to Enhanced Recovery/ Saltwater Disposal/Gas Storage. Mark the appropriate box(es) to indicate whether, through workover/re-entry operations, the well has been deepened, re-perforated, and/or converted to an enhanced recovery or saltwater disposal well. Multiple boxes may be marked. For each box that is marked, enter the corresponding permit number to the right of the box.
- Spud Date or Recompletion Date. For new wells, enter the date on which the well was spud. Otherwise, enter the date on which current recompletion operations were commenced.
- 1n. Date Reached TD. Enter the date on which the operator reached total depth.
- 10. **Completion Date or Recompletion Date.** For new wells, enter the date on which the new well was completed. Otherwise, enter the date on which current recompletion operations were finished.
- API No. Enter the API Number. This number is subject to change. Staff will contact the operator if major changes are made to the subject well's API Number.
- Spot Location. Enter the geographic location of the subject well by ¼¼¼¼¼, Section, Township, and Range. Mark the appropriate box to indicate if the range is east or west of the Sixth Principal Meridian.
- 1r. Footage Location from Section Lines.
 - 1r(1). Enter the number of feet the subject well is located from the South or North section line. Circle which section line the measurement was taken from.

- 1r(2). Enter the number of feet the subject well is located from the East or West section line. Circle which section line the measurement was taken from.
- Footages Calculated From Nearest Outside Section Corner. Mark the appropriate box indicating the outside section corner nearest the location of the well.
 - 1s(1). Enter GPS latitude
 - 1s(2). Enter GPS Longitude
 - 1s(3). Enter Datum
- 1t. County. Enter the county in which the well is located.
- 1u. Lease Name/Well Number. Enter the name of the lease and the well number.
- Field Name. List the name of the field where the well is located. Field names are available from KGS at <u>http://www.kgs.ku.edu/Magellan/</u> <u>Field/index.html</u>, or Independent Oil & Gas Service at <u>http://www. iogsi.com</u>.
- 1w. **Producing Formation.** Enter the name of the geologic formation from which the well is producing.
- 1x. Elevation.
 - 1x(1). **Ground.** Enter the elevation in feet above sea level for the well's location.
 - 1x(2). **Kelly Bushing.** Enter the elevation in feet above sea level of the Kelly bushing during drilling operations.
- 1y. Total Vertical Depth. Enter the total vertical depth of the well.
- 1z. Plug Back Total Depth. Enter the total depth of the plug back in the well.
- 1aa. **Amount of Surface Pipe Set and Cemented.** Enter the depth to which surface pipe is set and cemented.

1bb. Multiple Stage Cementing Collar Used.

- 1bb(1). Mark the box to show if a multiple stage cementing collar was used to complete/recomplete the well.
- 1bb(2). If a multiple stage cementing collar was used, fill in the blank with the depth at which it was set.
- 1cc. Alternate II Completion. If the subject well is an Alternate II Completion, enter the depth to which cement was circulated and the number of sacks of cement used.

Section 2: Drilling Fluid Management Plan.

- 2a. **Chloride Content.** Enter the chloride content in parts per million of reserve pit fluids.
- 2b. Fluid Volume. Enter the volume in barrels of reserve pit fluids used.
- 2c. Dewatering Method Used. Enter the dewatering method used at
- the well during drilling operations. 2d. Location of Fluid Disposal if Hauled Offsite.
 - 2d(1). **Operator Name.** Enter the name of the operator who disposed of the drilling fluids.
 - 2d(2). Lease Name. Enter the name of the lease at which the drilling fluids were disposed.
 - 2d(3). License Number. Enter the license number of the operator who disposed of the drilling fluids.
 - 2d(4). **Geographic Location.** Enter the geographic location of the lease on which drilling fluids were disposed by ¹/₄, Section, Township, and Range. Mark the box to indicate if the Range is East or West of the Sixth Principal Meridian.
 - 2d(5). **County.** Enter the county in which the fluid disposal is located.
 - 2d(6). **Permit Number.** If the fluid will be hauled offsite and injected into an enhanced recovery or disposal well, enter the permit number under which the operator is authorized to conduct injection operations into the well.

Section 3: Verification.

- 3a. **Signature.** The operator or the operator's agent must sign the Well Completion Form.
- 3b. **Title.** The title, with respect to the operator, of the individual signing the form.
- 3c. Date. Enter the date on which the form is completed.

Section 4: Operator and Well Information.

- 4a. **Operator Name.** Enter the operator's full name as it appears on the operator's license.
- 4b. Lease Name/Well Number. Enter the lease name and well number for the well.
- 4c. **Geographic Location.** Enter the location of the well by Section, Township, and Range, and mark the box to indicate if the Range is East or West of the Sixth Principal Meridian.
- 4d. County. Enter the name of the county in which the well is located.

Section 5: Logs, Samples, and Test Reporting.

- Drill Stem Tests. Mark the box to indicate whether drill stem tests were taken. If drill stem tests were taken, additional sheets must be attached to the ACO-1.
- 5b. Samples Sent to Geological Survey. Mark the box to indicate if geologic samples were sent to KGS.
- 5c. Cores Taken. Mark the box to indicate if cores were taken.
- Electric Log Run. Mark the box to indicate if electric log(s) were run on the subject well.
- 5e. List All Electric Logs Run. If electric logs were run on the subject well, list all of the electric logs conducted.
- 5f. Formation (Top), Depth, and Datum. Mark the appropriate "Log" or "Sample" box, or both boxes, to indicate whether the formation information is derived from a driller's log or geologic samples. Enter the name of each penetrated producing or storage formation, the formation top, and the datum of the formation top. The formation datum is the distance from the formation top to the mean sea level. It may be a positive or a negative number.

Section 6: Casing Record.

- 6a. **New or Used.** Mark the box to indicate if the well's casing is new or had been previously used.
- 6b. **Casing Strings Used.** For each separate string of casing used, enter the following information:
 - 6b(1). Purpose of String. The purpose of the casing string.
 - 6b(2). **Size Hole Drilled.** The size of hole drilled for the casing string.
 - 6b(3). Size Casing Set. The outside diameter of the casing.
 - 6b(4). Weight. The weight of the casing set, expressed in pounds per foot.
 - 6b(5). **Setting Depth.** The depth to which the casing string is set.
 - 6b(6). **Type of Cement.** The type of cement used to set the casing string.
 - 6b(7). **# Sacks Used.** The number of sacks of cement used to set the casing string.
 - 6b(8). **Type and Percent Additives.** The type and percent additives to the cement used to set the casing string.

Section 7: Additional Cementing/Squeeze Record.

- 7a. **Purpose.** Mark the blank(s) indicating the purpose of the additional cementing/squeeze. Mark all that apply.
- 7b. **Depth Top Bottom.** Enter the depth of the additional cementing from top to bottom.
- 7c. **Type of Cement.** Enter the type of cement used for the additional cementing.
- Number of Sacks Used. Enter the number of sacks used for the additional cementing.
- Type and Percent Additives. Enter the type and percent of additives to the additional cementing.
- 7f. **Three Hydraulic Fracturing Questions.** Mark the appropriate box for each question.

Section 8: Perforation, Acid, Fracture, Shot, and Cement Squeeze Record.

For each set of perforations in the well, enter the following information:

- 8a. **Shots per foot.** Enter the number of perforations per foot.
- 8b. Perforation Record Bridge Plugs Set/Type & Specific Footage of Each Interval Perforated. Enter the type of bridge plugs, the depth the bridge plugs are set for each interval perforated, and the depth of each perforated interval.
- 8c. Acid, Fracture, Shot, Cement Squeeze Record. Enter the amount and kind of material used for any acid, fracture, or shot treatment, and any cement squeeze at each perforation interval.

8d. **Depth.** Enter the depth of the acid, fracture, shot, or cement squeeze at each perforation interval.

Section 9: Miscellaneous.

9a. Tubing Record.

- 9a(1). **Size.** Enter the size of tubing set in the subject well.
- 9a(2). Set at. Enter the depth at which the tubing is set in the subject well.
- 9a(3). **Packer at.** Enter the depth at which the tubing packer is set in the subject well.
- 9b. Liner Run. Mark the appropriate box to indicate if a liner is in the subject well.
- 9c. Date of First or Resumed Production, SWD, or ENHR. For newly completed wells, enter the date of first production, saltwater disposal, or enhanced recovery operations. For workovers or re-entries, enter the date of resumed production, saltwater disposal, or enhanced recovery operations.
- 9d. **Producing Method.** Mark the appropriate box to indicate by which method the subject well is producing: flowing, pumping, gas lift, or other. If the "other" box is marked, write in a brief explanation of the producing method.
- 9e. Estimated Production Per 24 Hours. Enter the following information regarding the estimated production from the subject well over a 24-hour period:
 - 9e(1). **Oil Bbls.** Enter the estimated number of barrels oil produced from the subject well in a 24-hour period.
 - 9e(2). **Gas Mcf.** Enter the estimated amount of gas produced from the subject well in a 24-hour period, expressed in thousands of cubic feet.
 - 9e(3). Water Bbls. Enter the estimated number of barrels water produced from the subject well in a 24-hour period.
 - 9e(4). **Gas-Oil Ratio.** Enter the gas-oil ratio for production from the subject well.
 - 9e(5). **Gravity.** The API gravity (density) of produced oil, measured in degrees.
 - 9e(6). Disposition of Gas. Mark the appropriate box to indicate the disposition of any gas produced from the subject well as vented, sold, or used on lease. If the gas is vented, you must submit an ACO-18 with the ACO-1.
 - 9e(7). **Method of Completion; Production Interval.** Mark the appropriate box to indicate if the production interval in the subject well is open hole, perforated, dually completed, commingled, or other. If the "other" box is marked, specify the method of completion in the blank provided. If the subject well is producing from commingled zones, you must file an ACO-4 form. If the subject well is dually completed, you must file an ACO-5 form.
 - 9e(8). **Production Interval.** Enter the footages where the wellbore is perforated.

Section 10: Hydraulic Fracturing Fluid Product Component Information Disclosure

Section 10 must be completed if Question 3 in Section 7(f) was marked "No". In other words, Section 10 must be completed for each hydraulic fracturing treatment using more than 350,000 gallons of base fluid, if the operator has not submitted all of the required information to FracFocus. "Hydraulic fracturing treatment" means all stages in a well completion utilizing hydraulic fracturing fluid.

- 10a. Last Fracture Date. Enter the date on which the operator concluded fracturing at the well.
- 10b. County. Enter the county where the well is located.
- 10c. **API Number.** Enter the API number of the well.
- 10d. **Operator Name.** Enter the operator's full name as it appears on the operator's license.
- Well Name and Number. Enter the well name and well number.Latitude. Enter the GPS latitude for the well.
- 10g. Longitude. Enter the GPS longitude for the well.
- 10h. **Datum.** Provide the horizontal reference datum used with the GPS reading (NAD 27, NAD 83, WGS 84).
- 10i. **Production Type.** Describe the type of completion, as listed in section 1k on the first page of the ACO-1.
- 10j. **True Vertical Depth (TVD).** Enter the true vertical depth of the well.

- 10k. **Total Base Fluid Volume (gal).** Enter the volume in gallons the total base fluid used.
- 10I. Hydraulic Fracturing Fluid Composition.

10l(1) through 10l(8) must be provided for each base fluid, proppant, and chemical constituent used in each hydraulic fracturing treatment, unless it is the incidental result of a chemical process or a naturally occurring material that becomes part of the fluid during the hydraulic fracturing treatment. Fluids/proppants/chemical constituents subject to 29 CRF 1910.1200(i) appear on material safety data sheets (MSDS), and must be listed at the top of the page. All other fluids/proppants/chemical constituents must be listed at the bottom.

- 10I(1). **Trade Name.** Enter the trade name for each fluid/ proppant/chemical constituent.
- 10I(2). **Supplier.** Enter the supplier name for each fluid/proppant/ chemical constituent.
- 10l(3). **Purpose.** Enter the purpose of each fluid/proppant/ chemical constituent.
- 10l(4). **Ingredients.** Enter the ingredients of each fluid/proppant/ chemical constituent. If the ingredients are a trade secret, enter "Trade Secret" in this section.
- 10I(5). Chemical Abstract Service Number (CAS #). Enter the CAS # for the fluid/proppant/chemical constituent.
- 10I(6). Maximum Ingredient Concentration in Additive (% by mass). Enter the maximum concentration, as part of the additive, by percent mass, of each proppant/ chemical constituent. That is, exclude the base fluid from the percent mass calculation. Enter "N/A" for the base fluid. Enter a percentage in this column for each other proppant/constituent.
- 10I(7). Maximum Ingredient Concentration in HF Fluid (% by mass). Enter the maximum concentration, as part of the hydraulic fracturing fluid, of each fluid/proppant/ chemical constituent. In other words, include the base fluid in the percent mass calculation. Enter a percentage for the base fluid, and also for each proppant and other constituent.
- 10I(8). Authorized Representative's Name, Address, and Phone Number. For any fluid/proppant/chemical constituent labeled a "Trade Secret" in 10L(4), list the name, authorized representative, mailing address, and phone number of the party claiming the trade secret. If the fluid/proppant/chemical constituent is not a trade secret, this section may be left blank.
- Non-MSDS Data. For non-MSDS fluids/proppants/constituents, enter the data for 10l(1) through 10l(8) here.

Section 11: Information to attach to the ACO-1 for Mississippi horizontal wellbores

- 1. Attach a directional survey indicating the final path of the horizontal wellbore.
- 2. Attach a plat map depicting the well as it is drilled.
 - a. For horizontal wellbores completed open hole, the plat must depict the surface location, the point at which the wellbore encounters the producing formation (depth and distance from the nearest lease or unit boundary line), any isolation packers and the terminus of the wellbore (depth and distance from the nearest lease or unit boundary line). The lease and unit boundaries must be clearly depicted. Include GPS latitude and longitude readings for each point and specify which GPS planar projection was used to determine any footages listed on the map.
 - b. For cased horizontal wellbores, upload a plat that shows the well as it is drilled, including the surface location, the point the wellbore enters the producing formation (depth and distance from the nearest lease or unit boundary line), the location of the first perforation (depth and distance from the nearest lease or unit boundary line), the location of the last perforation (depth and distance from the nearest lease or unit boundary line), and the terminus of the wellbore (depth and distance from the nearest lease or unit boundary line), and the terminus of the wellbore (depth and distance from the nearest lease or unit boundary line). The lease and unit boundaries must be clearly depicted. Include GPS latitude and

longitude readings for each point and specify which GPS planar projection was used to determine any footages listed on the map.

 All operators must certify that the information contained on the plat depicting the well as drilled is accurate. Also, all operators must retain the well's completion information depicting how the wellbore was perforated for the life of the well and make it available upon Commission request.

KANSAS CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION**

WELL COMPLETION FORM

WELL HISTORY	- DESCR	RIPTION OF	WELL &	LEASE

OPERATOR: License #1a	API No. 151p
Name:1b	Spot Description: 1q
Address 1: 1c	<u>1q</u> Sec. <u>1q</u> Twp. <u>1q</u> S. R. <u>1q</u> East West
Address 2: 1c	Feet from North / South Line of Section
City:1d State:1dZip:1d+1d	1r (2) Feet from East / West Line of Section
Contact Person:1e	Footages Calculated from Nearest Outside Section Corner:
Phone: (<u>1f</u>)1f	1s NE NW SE SW
CONTRACTOR: License #1g	GPS Location: Lat:1s (1), Long:1s (2)
Name: 1h	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:1i	Datum: NAD27 NAD83 WGS84 IS (3)
Purchaser:1j	County:1t
Designate Type of Completion: 1k	Lease Name: <u>1u</u> Well #: <u>1u</u>
New Well Re-Entry Workover	Field Name: <u>1v</u>
	Producing Formation: <u>1w</u>
	Elevation: Ground: <u>1x (1)</u> Kelly Bushing: <u>1x (2)</u>
OG GSW Temp. Abd.	Total Vertical Depth: Plug Back Total Depth:1z
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at:1aa Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used? Yes No 1bb (1)
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: 1bb (2) Feet
Operator:1I (1)	If Alternate II completion, cement circulated from: 1cc
Well Name:11 (2)	feet depth to: <u>1cc</u> w/ <u>1cc</u> sx cmt.
Original Comp. Date:1 (3) Original Total Depth:1 (4)	
Deepening Re-perf. Conv. to ENHR Conv. to SWD	Drilling Fluid Management Plan
Plug Back Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
11 (5)	Chloride content: <u>2a</u> ppm Fluid volume: <u>2b</u> bbls
Commingled Permit #:	Dewatering method used:2c
Dual Completion Permit #:	
	Location of fluid disposal if nauled offsite.
GSW Permit #	Operator Name: 2d (1)
	Lease Name:2d (2) License #:2d (3)
1m 1n 10	Quarter <u>2d (4)</u> Sec. <u>2d (4)</u> Twp. <u>2d (4)</u> S. R. <u>2d (4)</u> East West
Recompletion Date Reached TD Recompletion Date of Recompletion Date	County:2d (5) Permit #:2d (6)

INSTRUCTIONS: The original form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. If confidentiality is requested and approved, side two of this form will be held confidential for a period of 2 years. Rules 82-3-130, 82-3-106 and 82-3-107 apply. Drill Stem Test, Cement Tickets and Geological Well Report must be attached.

		AFFIDAVIT		KCC Office Use ONLY
I am the affiant regulations prom with and the stat	and I hereby certi nulgated to regulati ements herein are	fy that all requireme e the oil and gas indu complete and correc	Confidentiality Requested Date: Confidential Release Date: Wireline Log Received	
Signature:		3a		Geologist Report Received
Title:	3b	Date:	3c	UIC Distribution ALT I II Approved by: Date:

Page Two

Operator Name:	4a		Lease Name:	4b	_ Well #:
Sec Twp	4c S. R. 4c	East West	County:	4d	

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 (Attach Additional She	Yes	No	5a	🗌 Lo	g Formatio	on (Top), Depth an	d Datum	Sample				
Samples Sent to Geolog	jical Survey	Yes	No	5b	Name			Тор	Datum			
Cores Taken Electric Log Run	res Taken ctric Log Run			5c 5d		54						
List All E. Logs Run:							JI					
	5e											
	CASING RECORD New Used 6a Report all strings set-conductor, surface, intermediate, production, etc.											
Purpose of String	Size Hole Drilled	Size C Set (In	asing O.D.)	Weig Lbs. /	ght / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives			
6b (1)	6b (2)	6b	(3)	6b ((4)	6b (5)	6b (6)	6b (7)	6b (8)			

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: 7a	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protect Casing Plug Back TD	7b	7c	7d	7e
Plug Off Zone				

Yes

7f 1. Did you perform a hydraulic fracturing treatment on this well? 2. Do 1050.000

2.	Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?	Yes
2	Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?	Voc

No (If No, skip questions 2 and 3) No (If No, skip question 3)

> Depth 8d

3. Was the hydraulic fra	acturing tr	eatment information	n submit	ted to the chemical disclos	ure registry?	Yes	No (1	f No, fill out Page Three of the	ə ACO-1)
Shots Per Foot		PERFORATION Specify Fo	I RECOF	RD - Bridge Plugs Set/Typ Each Interval Perforated)e	Acid,	Fracture, Shot, (Amount and Ki	Cement Squeeze Record nd of Material Used)	Depth
8a			8	b				8c	8d
TUBING RECORD:	Si 9a	ze: (1)	Set At: 9a (2	Packe	r At: (3)	Liner Run:	Yes	No 9b	
Date of First, Resumed	d Product <mark>9c</mark>	ion, SWD or ENH	۶.	Producing Method:	ping	Gas Lift	9d Other <i>(Explai</i> i	n)	
Estimated Production Per 24 Hours		Oil Bb 9e (1)	ls.	Gas Mcf <mark>9e (2)</mark>	Wate	er 9e (3)	Bbls.	Gas-Oil Ratio <mark>9e (4)</mark>	Gravity 9e (5)
DISPOSIT	ION OF (GAS: 9e (6) Used on Lease 0-18.)		METHOD Open Hole Perf.	OF COMPLE	Comp. (9e (7) Commingled Submit ACO-4)	PRODUCTION IN 9e (8)	ITERVAL:

Mail to: KCC - Conservation Division, 266 N Main St, Ste 220, Wichita, KS 67202-1513

Page Three

HYDRAULIC FRACTURING FLUID PRODUCT COMPONENT INFORMATION DISCLOSURE

Last Fracture Date:	10a	County:	10b	API Number:	10c
Operator Name:	10d		Well Name and Number:	10e	
Latitude:	10f	_ Longitude:	10g	Datum:	10h
Production Type:	10i	_ True Vertical Depth (TVD):	10j	Total Base Fluid Volume (gal)*:	10k

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Authorized Representative's Name, Address, and Phone Number
101 (1)	101 (2)	101 (3)	10l (4)	101 (5)	10I (6)	10I (7)	10I (8)

Ingredients shown above are subject to 29 CRF 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water. ** Information is based on the maximum potential for concentration and thus the total may be over 100%.										

10m

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS).