KOLAR Document ID: 1798635

Kansas Corporation Commission Oil & Gas Conservation Division

Form U-7 August 2019

CASING MECHANICAL INTEGRITY TEST

Disposal: Enhanced Re	covery: KCC District N	0.:	API No.:		Permit No.:	
Operator License No.:	Name:		Se	c Twp	_ S. R	st West
Address 1:						e of Section
Address 2:				Feet from	East / West Lir	e of Section
City:	State: Zip:	+	Lease:	Ĺ	Well No.:	
	Phone:		County:			
Well Construction Details:	New well Existing w	ell with changes to cons	truction Existing we	ell with no changes	to construcion	
Maximum Authorized Injectio	on Pressure:	psi Maximum Injec	ction Rate:	bbl/d		
Condu	ctor Surface	Intermediate	Production	Liner		Tubing
Size:					Size:	
Set at:					Set at:	
Sacks of Cement:					Туре:	
Cement Top:						
. Cement Bottom:						
Packer Type:				_ Set at:		
DV Tool Port Colla	r Depth of: t	feet with sack	s of cement TD (and r	olug back):		feet depth
_	n:		, .	,	Perf. or Open Hole: _	•
-	or a Mechanical Casing patch				-	
GPS Location: Datum:		_	MIT Poor	son.	Date Acquired:	
· ·						
Time in Minute(s):	 -					
Pressures: Set up 1						
Set up 2						
·						
Set up 3						
Set up 3	or Casing - Tubing Annulus	System Pressure du	9		to load annulus:	
Set up 3 Tested: Casing Test Date:	or Casing - Tubing Annulus Using:	System Pressure du	9			
Set up 3 Tested: Casing Test Date: The zone tested for this well in	or Casing - Tubing Annulus Using: s between feet	System Pressure du	9			
Set up 3 Tested: Casing Test Date: The zone tested for this well in the test results were verified.	or Casing - Tubing Annulus Using: s between feet aby operator's representative:	System Pressure du			Company	's Equipment
Set up 3 Tested: Casing Test Date: The zone tested for this well is the test results were verified	or Casing - Tubing Annulus Using: s between feet	System Pressure du			Company	's Equipment
Set up 3 Tested: Casing Test Date: The zone tested for this well in the test results were verified.	or Casing - Tubing Annulus Using: s between feet aby operator's representative:	System Pressure du		Phone: (Company	's Equipment
Set up 3 Tested: Casing Test Date: The zone tested for this well in the test results were verified Name:	or Casing - Tubing Annulus Using: s between feet a by operator's representative:	and feet.	Title:	Phone: (Company	's Equipment
Set up 3 Tested: Casing Test Date: The zone tested for this well in the test results were verified Name: KCC Office Use Only	or Casing - Tubing Annulus Using: s between feet a by operator's representative: State Agent:	and feet.	Title:	Phone: (Company	's Equipment
Set up 3 Tested:	or Casing - Tubing Annulus Using: s between feet a by operator's representative: State Agent:	and feet.	Title:	Phone: (Company	's Equipment
Set up 3 Tested:	or Casing - Tubing Annulus Using: s between feet a by operator's representative: State Agent:	and feet.	Title:	Phone: (Company	's Equipment
Set up 3 Tested:	or Casing - Tubing Annulus Using: s between feet a by operator's representative: State Agent:	and feet.	Title:	Phone: (Company	's Equipment

Form	U7 - Casing Mechanical Integrity Test	
Operator	Ritchie Exploration, Inc.	
Well Name	SAUER A 5	
Doc ID	1798635	

Injection Zones

FormationName	Тор	Bottom
LANSING-KANSAS CITY	3883	3886
LANSING-KANSAS CITY	4002	4005
LANSING-KANSAS CITY	4041	4044



KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form U-1 November 2011 Form must be Typed Form must be Signed All blanks must be Filled

APPLICATION FOR INJECTION WELL

		l o	ormit Number: E-31,314			
sposal			Permit Number: E-31,314 API Number: 15-065-23930-00-02			
nhanced Recovery: Repressuring		1	Well Location			
✓ Waterflood		'		T. 09 S R 25 □ F √W		
Tertiary		-		Twp. <u>09</u> S. R. <u>25</u> ☐ E ✓ W		
September 01, 2014				feet from N / S Line of Section feet from E / W Line of Section		
ate: #34392		-				
perator License Number: #34392			GPS Location: Lat:			
perator:TexKan Exploration LLC	È		Datum: NAD27 NAD83 V Lease Description: SE/4 Sec. 2	vgs84 8-09s-25w		
ddress: P.O. Box H		l	_ease Description:	0 000 2011		
Plainville, Kansas 67663	\$		Lease Name: Sauer A	5		
			Lease Name: Sador A			
		1				
Bill Robinson			County: Graham			
ontact Person			Deepest Usable Water Dakota			
hone:785-688-4040			Formation: Dakota	360'		
mail:			Depth to Bottom of Formation:			
Surface Elevation: 2562 feet We Datum of top of injection formation: -1281	Il Total Depth: 4150		Well to be Drilled Plug Back Depth: 4138 feet			
Sturface Elevation: 2562 feet We Datum of top of injection formation: -1281 Injection Formation Description: Name Lansing-Kansas City	top /	O feet eference mean se bottom 4074	Plug Back Depth: 4138 feet ea level) perf / open hole Perforations at at	depth 3998 to 4002 fee to 5		
Surface Elevation: 2562 feet We Datum of top of injection formation: -1281 Injection Formation Description: Name Lansing-Kansas City List of Wells/Facilities Supplying Prod (attach additional sheets if necessary) Lease Operator (SEE ATTACHMENT)	top /	O feet eference mean se bottom 4074 Cother Fluids A	Plug Back Depth: 4138 feet ea level) perf / open hole Perforations at at	3998 to 4002 fee		
Surface Elevation: 2562 feet We Datum of top of injection formation: -1281 Injection Formation Description: Name Lansing-Kansas City List of Wells/Facilities Supplying Production additional sheets if necessary) Lease Operator	top / 3843 // Juced Saltwater or C	O feet eference mean see / bottom , 4074 / Other Fluids A	Plug Back Depth: 4138 feet perf / open hole Perforations at at at approved by the Conservation Lease/Facility Description	3998 to 4002 fee fee Division: Well ID & Spot Location ad Solids (if available)		
Jaurface Elevation: 2562 feet We platum of top of injection formation: -1281 injection Formation Description: Jame Lansing-Kansas City List of Wells/Facilities Supplying Production additional sheets if necessary) Lease Operator (SEE ATTACHMENT) 2. Producing Formation	top / 3843 / / / / / / / / / / / / / / / / / / /	O feet eference mean see bottom 4074 Other Fluids A ity Name	Plug Back Depth: 4138 feet perf / open hole Perforations at at at approved by the Conservation Lease/Facility Description	3998 to 4002 fee fee Division: Well ID & Spot Location fee fee fee fee fee fee fee fee fee fe		
Jauríace Elevation: 2562 feet We patum of top of injection formation: -1281 injection Formation Description: Jame Lansing-Kansas City List of Wells/Facilities Supplying Production additional sheets if necessary) Lease Operator (SEE ATTACHMENT) Producing Formation (SEE ATTACHMENT) 1. (SEE ATTACHMENT)	Total Depth:	O feet eference mean see / bottom , 4074 Other Fluids A eity Name	Plug Back Depth: 4138 feet perf / open hole Perforations at at at approved by the Conservation Lease/Facility Description	3998 to 4002 fee fee Division: Well ID & Spot Location ad Solids (if available)		
Jauriace Elevation: 2562 feet We platum of top of injection formation: -1281 injection Formation Description: Jame Lansing-Kansas City List of Wells/Facilities Supplying Production additional sheets if necessary) Lease Operator (SEE ATTACHMENT) 2. Producing Formation (SEE ATTACHMENT) 2. 3. Producing Formation (SEE ATTACHMENT)	1 Total Depth:	O feet eference mean se / bottom , 4074 Other Fluids A ety Name pth feet feet	Plug Back Depth: 4138 feet perf / open hole Perforations at at at approved by the Conservation Lease/Facility Description	3998 to 4002 fee fee Division: Well ID & Spot Location and Solids (if available)		
urface Elevation: 2562 feet We elatum of top of injection formation: -1281 Injection Formation Description: Itame Lansing-Kansas City List of Wells/Facilities Supplying Production additional sheets if necessary) Lease Operator (SEE ATTACHMENT) Producing Formation (SEE ATTACHMENT) 1. (SEE ATTACHMENT)	Total Depth:	O feet eference mean see / bottom , 4074 Other Fluids A ity Name pth feet feet	Plug Back Depth: 4138 feet perf / open hole Perforations at at approved by the Conservation L Lease/Facility Description Total Dissolve	3998 to 4002 fee fee Division: Well ID & Spot Location and Solids (if available)		

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Wells/Facilities Supplying Produced Saltwater or Other Fluids Approved by the Conservation on:

	Lease Operator	Lease/Facility Name	i)	Lease/Facility Description	on Well ID & Spot Location	on
		Sauer		SE/4 28-09s-25w	#1 A, NW SW SE/4	
1.	TexKan Exploration, LLC TexKan Exploration, LLC	Sauer		SE/4 28-09s-25w	A #2, C SE/4	
	TexKan Exploration, LLC	Sauer		SE/4 28-09s-25w	A #3, E/2 NW SE/4	
3.4.	Typloration LLC	Sauer		SE/4 28-09s-25w	A #7, SE NE SE/4	
6.						
7.						
8.						
	Producing Formation	Strata Depth		Total Dissol	ived Solids (if available)	
1.	Lansing-Kansas City	3984 to 3988	feet _	N/A		mg/l
2.	Lansing-Kansas City	3998 to 4004	feet	N/A		mg/l
3.	Lansing-Kansas City	4014 to 4020	feet	N/A		mg/l
4.	Lansing-Kansas City	to	feet	N/A		_mg/l
5.		to	feet .			_mg/l
6.		to	feet			_mg/l
7.	¥ 5	to	feet			_mg/l
ρ.		to	feet			_mg/l

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/mp	ation
M-mD	jeuon

✓ Tubing & Packer

Packerless

Tubingless

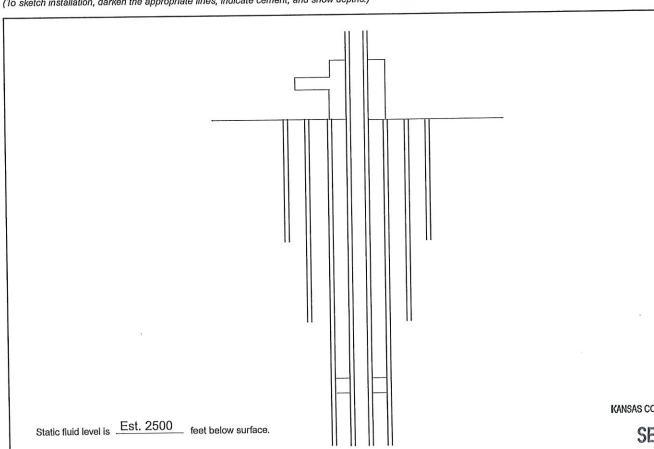
	Conductor	Surface	Intermediate	Production	Tubing
Size	7	8 5/8"		5 1/2"	2 3/8"
Setting Depth		255'		4138'	3965'
Amount of Cement		160 sks.		110 sks.	
Top of Cement		Surface		Est. 3590'	
Bottom of Cement		255'			

If Alternate II cementing	complete	the	following.
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Perforations / D.V. Tool at	2122 feet,	cemented to Surface	feet with	495 sx.
Tubing: Type Lined Stee	el		GradeJ-55	
Packer: Type Coated A	D-1		Depth _3965'	
Annulus Corrosion Inhibitor:	Type Treated Fresh		Concentration _	Manufacturer Recommendation
List Logs Enclosed: To be	submitted with ACO-1			

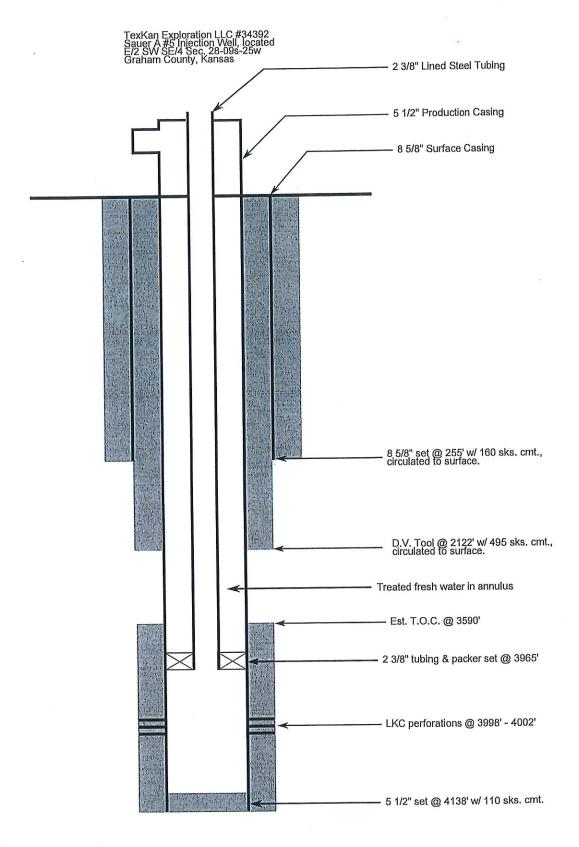
Well Sketch

(To sketch installation, darken the appropriate lines, indicate cement, and show depths.)



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CONSERVATION DIVISION WICHITA, KS



Static fluid level is Est. 2500 feet below surface

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CONSERVATION DIVISION WICHITA, KS

	E-31,314 New coell DOCKET # E-31,
CASING MECHANICAL INTEGRITY TEST	<u> </u>
Disposal Well Enhanced Recovery:	<u>E2 SW SF</u> , Sec <u>28</u> , T <u>09</u> S, R <u>25</u> E/W
Repressuring Through Flood Tertiary	Feet from South Section Line Feet from East Section Line
Date injection started	Lease <u>Sauer A</u> Well # <u>5</u> County <u>Graham</u>
	Operator License # 34392
Name & Address Box H	Contact Person Ton Berens KCC
Planville K5 67663	Phone 785 639 5727
Max. Auth. Injection PressPsi; Max Inj. Rate If Dual Completion – Injection above production Conductor Surface Size	Injection below production
	and plug back) 450 78 4138' ft. depth Set at 3850 Perf) or open hole Rev 4041 - 4044
Type MIT: Pressure: Radioactive Tra	cer Survey: Temperature Survey: 3883 - 3486
F Time: Start <u>D</u> Min. <u>IS</u> Min. <u>30</u> I E Pressures: <u>350</u> <u>350</u> L D	Min. Set up 1 System Pres. during test Set up 2 Annular Pres. during test
D A T Tested: Casing or Casing – Tubing An	Set up 3 Fluid loss during test bbls.
A The bottom of the tested zone in shut in with	lacker
Test Date 19-16-14 Using He	77 (15) (15) (15) (15) (15) (15) (15) (15)
The operator hereby certifies that the zone between _	
was the zone tested * Nom Deceme	
Signature	Title
	, Not Satisfactory
	Witness: YES NOASSED
REMARKS: New well 10-17-	15 Gilled operator, entire LKC permetted
Orgin. Conservation Div.: KDHE/	T: Dist. Office
	ant or a Mechanical Casing patch in the annular space? (Y/N)
GPS Lat 39 23513 GPS Long /	100.11356 (If YES please describe in REMARKS) KCC Form U-7