KOLAR Document ID: 1419241

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 #		API No.:				
Name:		Spot Description:				
Address 1:						
Address 2:		Feet from				
City: State:	Zip:+	Feet from _ East / _ West Line of Section				
Contact Person:		Footages Calculated from Nearest Outside Section Corner:				
Phone: ()		□NE □NW □SE □SW				
CONTRACTOR: License #		GPS Location: Lat:, Long:				
Name:		(e.g. xx.xxxxx) (e.gxxx.xxxxxx)				
Wellsite Geologist:		Datum: NAD27 NAD83 WGS84				
Purchaser:		County:				
Designate Type of Completion:		Lease Name: Well #:				
New Well Re-Entry	Workover	Field Name:				
	SWD	Producing Formation:				
	EOR	Elevation: Ground: Kelly Bushing:				
	GSW	Total Vertical Depth: Plug Back Total Depth:				
CM (Coal Bed Methane)	3311	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 for	ollows:	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 EOR Conv. to SWD	Drilling Fluid Management Plan				
☐ Plug Back ☐ Liner ☐ 0	Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)				
□ Occurring de d		Chloride content: ppm Fluid volume: bbls				
	nit #:	Dewatering method used:				
	nit #: nit #:	Location of fluid disposal if hauled offsite:				
	nit #:	Location of fluid disposal if flauled offsite.				
	nit #:	Operator Name:				
		Lease Name: License #:				
Spud Date or Date Reached	 ΓD Completion Date or	Quarter Sec TwpS. R				
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 Approved by: Date:					

KOLAR Document ID: 1419241

#### Page Two

Operator Name: _				Lease Name:			Well #:	
Sec Twp.	S. R.	E	ast West	County:				
	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,
Final Radioactivity files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log
Drill Stem Tests Ta			Yes No			on (Top), Depth ar		Sample
						Datum		
Cores Taken Electric Log Run			Yes No Yes No Yes No	Yes No				
		B	CASING eport all strings set-c		New Used	ion, etc.		
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD			
Purpose:		epth T Bottom	ype of Cement	# Sacks Used	Type and Percent Additives			
Perforate Protect Casi Plug Back T								
Plug Off Zor								
Did you perform a     Does the volume     Was the hydraulic	of the total base f	fluid of the hydrauli		_	=	No (If No, sk	ip questions 2 an ip question 3) out Page Three	,
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)		
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio	Gravity
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT
,	,			B.11 B1				
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record (Amount and Kind of Material Used)			
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:				
TODING RECORD:	. 3126.	Set	n.	i donei Al.				

Form	ACO1 - Well Completion			
Operator	Landmark Resources, Inc.			
Well Name	KOEHN 1-3			
Doc ID	1419241			

## All Electric Logs Run

Borehole Compensated Sonic Log
Microresistivity Log
Dual Comp Porosity Log
Dual Induction Log

Form	ACO1 - Well Completion			
Operator	andmark Resources, Inc.			
Well Name	KOEHN 1-3			
Doc ID	1419241			

## Tops

Name	Тор	Datum
Anhydrite	2522	759
B/Anhydrite	2542	739
Topeka	3744	-463
Heebner	3982	-701
Toronto	4000	-719
Lansing	4030	-749
С	4068	-787
D	4086	-805
E	4116	-835
F	4124	-843
G	4132	-851
Muncie Creek	4196	-915
Н	4206	-925
I	4243	-962
J	4266	-985
Stark Shale	4289	-1008
К	4304	-1023
L	4341	-1060
ВКС	4374	-1093
Marmaton	4436	-1155
Altamont	4461	-1180
Pawnee	4508	-1227
Myrick Station	4544	-1263
Fort Scott	4562	-1281

Form	ACO1 - Well Completion			
Operator	_andmark Resources, Inc.			
Well Name	KOEHN 1-3			
Doc ID	1419241			

## Tops

Name	Тор	Datum
Cherokee	4590	-1309
Johnson Zone	4639	-1358
Morrow Shale	4727	-1446
U Morrow Sd	4734	-1453
L Morrow Sd	4790	-1509
Missippian	4794	-1513

Form	ACO1 - Well Completion			
Operator	_andmark Resources, Inc.			
Well Name	KOEHN 1-3			
Doc ID	1419241			

## Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.25	8.625	23	274	Class A	3% CC, 2% gel

3613A Y Roau Madison, KS 66860 Ph: 620-437-2661 Fax: 620-437-2881

FED ID# MC ID#

48-1214033

165290

HURRICANE SERVICES INC

104 Prairie Plaza Parkway Garnett, KS 66032 Pb: 785 448 3100

Ph: 785-448-3100 Fax: 785-448-3102

Remit to: Hurricane Services, Inc.

250 N. Water, Suite 200 Wichita, KS 67202

Customer:

LANDMARK RESOURCES INC

4900 WOODWAY DR

SUITE 880

HOUSTON, TX 77056

NEW

Invoice Date:
Invoice #:
Lease Name:
Well #:

County:

8/9/2018 0039385 KOEHN 1-3 WICHITA

HRS/QTY	Rate	Total	
0.000	0.000	0.00	
140.000	2.763	386.75	
70.000	1.275	89.25	
811.000	1.105	896.16	
1.000	807.500	807.50	
300.000	10.923	3,276.75	
888.000	0.255	226.44	
75.000	1.827	137.06	
1.000	91.800	91.80	
	0.000 140.000 70.000 811.000 1.000 300.000 888.000 75.000	0.000       0.000         140.000       2.763         70.000       1.275         811.000       1.105         1.000       807.500         300.000       10.923         888.000       0.255         75.000       1.827	

RECEIVED AUG 22 ENTO

AUG 2 2 2018

P/.

#3570

| Japan receipt. Intervoices in

 Net Invoice
 5,911.71

 Sales Tax
 281.03

 Total
 6,192.74

All invoices are due upon receipt. Interest at the rate of 1 1/2% per month may be charged on all invoices not paid within 30 days from date of invoice.

WE APPRECIATE YOUR BUSINESS!



Customer	Landmark	Resources	Lease & Well #	Koehn 1-3	1			Date		8/9/201	8
Service District	Oakl	ey,KS	County & State	Wichita ks	Legals S/T/R	3/16	/1936	Job#			
Job Type	PTA	□ PROD	□ INJ	□ SWD	New Well?	■ YES	□ No	Ticket#			ICT12
Equipment #	Driver			Job Safe	ty Analysis - A Discus	sion of Hazards	s & Safety Pr	ocedures			
63/250	Lupe	■ Hard hat		■ Gloves		□ Lockout/Tag	out	□ Warning Signs	& Flagging		
230	Paul	H2S Monitor		■ Eye Protection	on	Required Per		□ Fall Protection	33 3		
26	Dane	■ Safety Footwe	ar	□ Respiratory	Protection	■ Slip/Trip/Fall	Hazards	■ Specific Job Se	quence/Expe	ectations	;
	Cody	FRC/Protective	e Clothing	□ Additional C	hemical/Acid PPE	■ Overhead Ha	zards	■ Muster Point/N	Medical Local	tions	
		Hearing Prote	ction	□ Fire Extingui	sher	□ Additional co	oncerns or iss	ues noted below			
						nments					
Product/ Service		All content and	chemicals delivered	rum me Oakiey	'vo service cellier			<del>denjara sa sa</del>			
Code		Des	cription		Unit of Measure	Quantity				Net	Amoun
001	Heavy Equip. One \	Nay			mi	140.00				\$3	386.75
002	Light Equip. One W	/ay			mi	70.00				\$	89.25
003	Ton Mileage - One	way			mi	811.00					396.16
019	Cement Pump				ea	1.00				\$8	307.50
2010	60/40 Pozmix Ceme	ent			sack	300.00				\$3,	276.75
2016	Bentonite Gel				lb	888.00				\$2	226.44
2020	FLO-Seal				lb	75.00				\$1	37.06
P057	Wooden 8 5/8"				ea	1.00				\$	91.80
		***									
			***				ļ				
		-						<del> </del>			
							<u> </u>				
				·							
Custo	ner Section: On th	e following scale	how would you rate F	lurricane Servic	es Inc ?		L	<b></b>	N-4	T	ec 044 :
FIGURE 1		- July Joelle	months (our rate)			Total Taxable	\$ -	Tax Rate:	Net:		\$5,911.
Bas	-0.000000000000000000000000000000000000	w likely is it you	would recommend	HSI to a collea	gue?	State tax laws ded used on new well Services relies on	em certain prod s to be sales ta the customer p	ducts and services x exempt. Hurricane provided well	Sale Tax:	\$	
	Resty 1 2	3 4 5	6 7 8	9 10	Extremely Likely	and/or products a		ermination if services		s	5,911.7
Ur					. N				Total:	1 3	0.011.1

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 ½% 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 royalties and stated price adjustments. Actual targes may vary depending upon time, equipment, and material utilimately 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 quarantees the diffusion 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 Juan Suoce

**CUSTOMER AUTHORIZATION SIGNATURE** 



Customer	Landmark Re	sources			Date:	8/9/2016		Ticket #:		
Field Rep	Juan							News-Lawrence		
Address	4900 Woodwa	ay Drive STE	880							
City, State	Housto	on,TX		2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 -	1					
County, Zip	770	56								
F	ield Order No.:				Open Hole:			Perf Do	eptiis (ft)	Perfs
	Well-Name:	Koel	ın 1-3		Casing Depth:					
	Location:	Wich	ita ks		Casing Size:					
	Formation:				Orill pipe depth					
T	ype of Service:	Cen	nent		Drill pipe size					
	Well Type:	0	) II		Liner Depth:					
	Age of Well:	N	vve		Liner Size:					
	Packer Type:				Liner Top:					
	Packer Depth:				Liner Bottom:					
	Treatment Via:	Cen	nent		Total Depth:					
									Total Perfs	0
									AND THE RESERVE OF THE PROPERTY OF THE PROPERT	
	INJECTIO		PRES	SURE ANNULUS				PROP (lbs)	HCL (gls)	FLUID (bbls)
6:30 AM	FLUID	N2/CO2	STP	AMMOLOS	Arrive on location	REMARKS	<u>IVANAGORIA ESTA</u>	(ina)	(gis)	(DDIS)
6:35 AM	<del> </del>		Actual Participation of the State of the Sta		Safety meeting		and the first of the second second	<del>                                     </del>		
6:40 AM	1				Rig up		***************************************	<b>†</b>		
9:00 AM	2.0		250.0		Pump water ahead				<del>                                     </del>	10.00
9:00 AM	3.5		275.0			pozmix 4% gel .25 pheno	1 43 vield @2550			8.25
9:08 AM	3.5		200.0		Displace	pozinik 41a ger 120 prieno	nat yana @2000	<del>                                     </del>		36.00
9:12 AM	3.0		200.0		Rig pulls up to 1620			<u> </u>	<del>                                     </del>	
9:38 AM	2.0		275.0		Pump water ahead				1	10.00
9:40 AM	3.5	************	200.0		Mix 80 sks	<del>*************************************</del>		<b></b>		13.00
9:45 AM	3.5		190.0		Displace			†		23.00
9:53 AM	0.0		100.0		Rig pulls up to 720					
10:25 AM	3.5		200.0		Mix 50 sks					8.25
10:30 AM	3.5		180.0		Displace		makenany are no process asset		1	10.00
10:37 AM	- 32		700.0		Rig pulls to 300	And the second second second second	**************************************	1		
10:55 AM	3.5		200.0	The second section of the second	Mix 60 sks	a de la composition		<u> </u>		8.25
11:00 AM	3.5		190.0		Displace	*****				4.00
11:03 AM	3.0		150.0		Rig comes out of he	ole		<del>                                     </del>		
11:03 AM	3.0		50.0			s at 60. 30sks for RH 20s	ks for MH	1		
11,10 AW	J 3.0				1 ab brad min so of		TOTAL:	<del>                                     </del>	<del>                                     </del>	130.75

	SUMM	ARY	
Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
3.5	3.2	275.0	200.9

PRODUCTS USED

Pumped 300 sacks 60/40 poz with 4% gel, 1/4#/sk flo

Dane Retzloff Treater:

Customer: Person School



**HURRICANE SERVICES INC** Ticket #: ICT1276 INJECTION RATE FLUID N2/CO2 PRESSURE ANNULUS FLUID PROP TIME REMARKS (lbs) (gls) (bbls) 11:30 AM Wash up equipment 11:45 AM Rig down 12:00 PM Depart location Thank you for using Hurricane!

Activity provided on this page is calculated in the summary and totals on page 1

3613A Y Road Madison, KS 66860 Ph: 620-437-2661 Fax: 620-437-2881

FED ID# 48-1214033 MC ID# 165290

**HURRICANE SERVICES INC** 

104 Prairie Plaza Parkway Garnett, KS 66032

Ph: 785-448-3100 Fax: 785-448-3102

Remit to: Hurricane Services, Inc. 250 N. Water, Suite 200 Wichita, KS 67202

Customer:

LANDMARK RESOURCES INC 4900 WOODWAY DR

SUITE 880

HOUSTON, TX 77056

RECEIVED

Invoice Date: Invoice #: Lease Name:

8/1/2018 0039301 KOEHN (NEW) 1-3

Well #: County:

WICHITA

110001011, 17. 17000	000	County.		
Date/Description	HRS/QTY	Rate	Total	
ICT1254 Surface (new well)	0.000	0.000	0.00	
Heavy Eq mileage	120.000	2.763	331.50	
Light Eq Mileage	60.000	1.275	76.50	
Ton Mileage one way	534.330	1.105	590.43	
Cement pump #231	1.000	807.500	807.50	
Cement Class A	180.000	13.813	2,486.25	
Bentonite Gel	339.000	0.255	86.45	
Calcium Chloride	58.000	7.445	431.80	
FLO Seal	45.000	1.828	82.24	

AUG 2 2 2018 45 35 70 11,085.41

4,892.67 **Total** 

All invoices are due upon receipt. Interest at the rate of 1 1/2% per month may be charged on all invoices not paid within 30 days from date of invoice.



PANEL THE PARE	<b>-</b>		COLUMN TWO IS NOT THE OWNER.	-						
Customer	Landmark	Resources	Lease & Well #	#1-3 Koehn	I.			Date		8/1/2018
Service District	Oakie	ey,KS	County & State	Wichita, KS	Legals S/T/R	3/16	6/1936	Job#		
Job Type	Surface	□ PROD	□ INJ	□ SWD	New Well?	■ YES	□ No	Ticket #		ICT1254
Equipment #	Driver			Job Safet	y Analysis - A Discu	ssion of Hazard	s & Safety P	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN		101120
163/250	TRAVIS	□ Hard hat		□ Gloves		□ Lockout/Tag		□ Warning Sign	s & Flagging	
231	Quintin	H2S Monitor		□ Eye Protection	n	□ Required Pe		□ Fall Protectio		
	RILL	□ Safety Footwear		Respiratory Pr	rotection	□ Slip/Trip/Fal		□ Specific Job S		ectations
		□ FRC/Protective C	Clothing	□ Additional Ch	emical/Acid PPE	□ Overhead H		□ Muster Point,		
		□ Hearing Protecti	on	□ Fire Extinguish	her			ues noted below	Tribulation cocc	110113
					Co	mments				
		All chemicals and	cement came from	the Oakley,KS s	service center.					
Product/ Service Code	WANT.	Descr	iption		Unit of Measure	e Quantity				Not Amount
C001	Heavy Equip. One W	- Andrews			mì	120.00				Net Amount
C002	Light Equip. One Wa				mi	50,00		<del> </del>	+	\$331.50
C003	Ton Mileage - One v				mi	534.33	<del> </del>	1	<del></del>	\$76.50
C019	Cement Pump	***************************************			ea	1.00			+	\$590.43
CP006	Regular - Class A Co	ement			sack	180.00			<del> </del>	\$807.50
CP016	Bentonite Gel				lb	339.00		<u> </u>	<del> </del>	\$2,486.25 \$86.45
CP017	Calcium - Chloride				lb	508.00		<b>†</b>	<b> </b>	\$431.80
CP020	FLO-Seal				lb	45.00		1		\$82.24
								1	1	\$62.24
									1	
									1	
							11		<u> </u>	
									1	
	The second secon									
		erene (a								
			-							
			-						Excession of the	
Custor	mer Section: On the	following scale hov	would you rate H	urricane Services	s Inc.?				Net:	\$4,892.67
	ad an Abla fall to	W. 1 . 1 . 1				Total Taxable	\$ -	Tax Rate:		><
	ed on this job, how		uld recommend H			Services relies on	to be sales tax the customer p to make a dete	exempt Hurricane	Sale Tax:	\$ - \$ 4,892.67
						HSI Represe	ntative;	Bill Spauld		4,002.07

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 ½% 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 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 Juan Prov

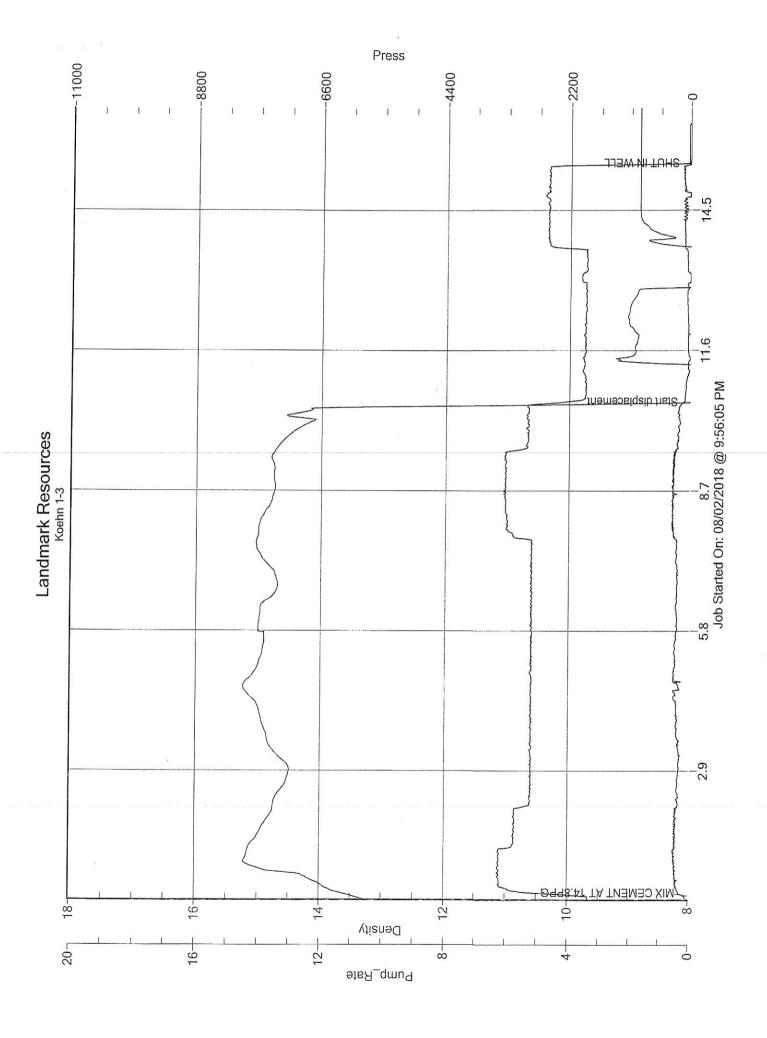
**CUSTOMER AUTHORIZATION SIGNATURE** 



CONTRACTOR OF	I manada a sala m			-	CAMP CONTRA		<del></del>	- 14.00		
Customer		esources			Date:	8/1/2018		Ticket #;	ICT	1254
Field Rep	Juan Tinoco		****	****						
Address:	100 s Main S	t, STE 605								
City, State:	Witci	a,KS								
County, Zip:	672	02								
			·							
Fi	ield Order No.:				Open Hole:	12.25		Perf De	pths (ft)	Perfs -
	Well Name:	#1-3	Koehn		Casing Depth:	259.84				
	Location				Casing Size:	8 5/8"				
	Formation:				Tubing Depth:					
Ту	pe of Service:		nent		Tubing Size:					
	Well Type: Age of Well:		Dil		Liner Depth:					
	Packer Type:	е	w ,		Liner Size: Liner Top:	10	_			
	Packer Depth:				Liner Bottom:			ļ		
	reatment Via:				Total Depth:	259.84				
						20004			Total Perfs	0
										-
AND DESCRIPTIONS	INJECTIO			SURE			VENTON.	PROP	HCL	FLUID
TIME E-4E DM	FLUID	N2/CO2	STP	ANNULUS		REMARKS		(lbs)	(gls)	(bbls)
5:45 PM 5:65 PM				Mineral Automotive and a second	Arrive on location	field ton				
9:00 PM					Make contact with Safety meeting	iteld rep.		<del> </del>		
9:15 PM					Rig up equipment		······································			
9:30 PM	3.0		25.0		Break circulation					5.00
9:40 PM	3.0		50.0		Mix and pump 180	sacks at 14.8ppg (1.41 yie	ld)			45.00
10:00 PM	3.0		50.0		Begin Displacemen	nt				
10:15 PM			100.0		End displacement	shut in well				16.00
10:20 PM					good cement circu	lated to surface				
10:40 PM					Wash up equipmer	t				
10:45 PM					Rig down					
11:00 PM					Depart location					
					And the second s		TOTAL:			66.00
	sangras income	CLIBER	IADV		New York	ODUCTS HEED	E-SA			
2		SUMM Avg Fl. Rate	Max PSI	Avg PSI		RODUCTS USED _	<u> </u>			
	3.0	3.0	100.0	56.3						
					18	0 sacks Class A w/ 3%	cc.2% gel and	0.25#/sk flo sea	.	
					<u> </u>		, - io goi, and			

Treater: Bill Spaulding

Customer: Juan Tinoco





Prepared For: Landmark Resources, LLC

4900 Woodway Dr. Ste 880 Houston TX 77056

ATTN: Terri Mcleod

### Koehn #1-3

## 3-16s-36w Wichita,KS

Start Date: 2018.08.06 @ 12:10:00 End Date: 2018.08.06 @ 19:35:45 Job Ticket #: 64410 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



Landmark Resources, LLC

3-16s-36w Wichita,KS

4900 Woodw ay Dr. Ste 880

Koehn #1-3 Job Ticket: 64410

DST#: 1

Houston TX 77056

Test Start: 2018.08.06 @ 12:10:00

ATTN: Terri Mcleod

GENERAL INFORMATION:

Formation: LKC H-I

Total Depth:

Deviated: Test Type: Conventional Bottom Hole (Initial) No Whipstock: ft (KB)

Time Tool Opened: 14:37:15 Tester: **Bradley Walter** 78

Time Test Ended: 19:35:45 Unit No:

Interval: 4179.00 ft (KB) To 4260.00 ft (KB) (TVD) Reference Elevations: 3281.00 ft (KB)

4260.00 ft (KB) (TVD) 3270.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8522 Inside

Press@RunDepth: 4180.00 ft (KB) Capacity: 199.59 psig @ 8000.00 psig

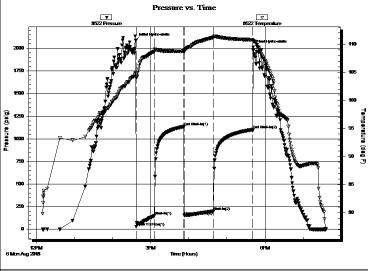
Start Date: 2018.08.06 End Date: 2018.08.06 Last Calib.: 2018.08.06 Start Time: 12:10:05 End Time: 19:35:44 Time On Btm: 2018.08.06 @ 14:36:45

> Time Off Btm: 2018.08.06 @ 17:41:30

> > PRESSURE SUMMARY

TEST COMMENT: IF: 8 1/2" blow.

ISI: No return FF: 10" blow. FSI: No return.



	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	2091.68	104.89	Initial Hydro-static
	1	28.92	103.99	Open To Flow (1)
	30	148.04	108.79	Shut-In(1)
	76	1134.94	108.79	End Shut-In(1)
	77	151.40	108.71	Open To Flow (2)
	122	199.59	111.23	Shut-In(2)
,	184	1101.36	110.81	End Shut-In(2)
,	185	2013.44	110.58	Final Hydro-static

#### Recovery

Length (ft)	Description	Volume (bbl)		
410.00	0 somcw 1o 10m 89w			

Gas Rat	es	
Choke (inches)	Drocoure (poig)	Coo Boto (Mof/d)

Trilobite Testing, Inc. Ref. No: 64410 Printed: 2018.08.10 @ 13:49:19



Landmark Resources, LLC

3-16s-36w Wichita,KS

4900 Woodway Dr. Ste 880

Houston TX 77056

ATTN: Terri Mcleod

Koehn #1-3

Tester:

Job Ticket: 64410 **DST#:1** 

Test Start: 2018.08.06 @ 12:10:00

#### **GENERAL INFORMATION:**

Formation: LKC H-I

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:37:15
Time Test Ended: 19:35:45

Interval:

4179.00 ft (KB) To 4260.00 ft (KB) (TVD)

Total Depth: 4260.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)

**Bradley Walter** 

Unit No: 78

Reference Elevations: 3281.00 ft (KB)

3270.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8319 Outside

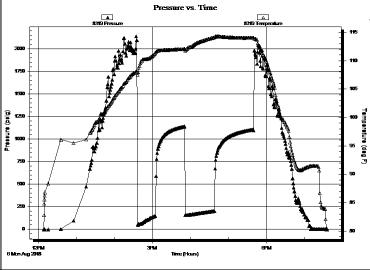
 Press@RunDepth:
 psig @ 4180.00 ft (KB)
 Capacity:
 8000.00 psig

Start Date: 2018.08.06 End Date: 2018.08.06 Last Calib.: 2018.08.06

Start Time: 12:09:05 End Time: 19:35:14 Time On Btm: Time Off Btm:

TEST COMMENT: IF: 8 1/2" blow .

ISI: No return. FF: 10" blow . FSI: No return.



PRESSURE S	UMMARY
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1	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
_				
į				
Temperature (deg F)				
6				
J				

#### Recovery

Description	Volume (bbl)
somcw 1o 10m 89w	3.24
	·

#### Gas Rates

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

Trilobite Testing, Inc Ref. No: 64410 Printed: 2018.08.10 @ 13:49:19



**TOOL DIAGRAM** 

Landmark Resources, LLC

3-16s-36w Wichita, KS

4900 Woodw ay Dr. Ste 880 Houston TX 77056

Koehn #1-3

Job Ticket: 64410

DST#: 1

0.00 ft

ATTN: Terri Mcleod

Test Start: 2018.08.06 @ 12:10:00

**Tool Information** 

Drill Pipe: Heavy Wt. Pipe: Length: Drill Collar:

Length: 3900.00 ft Diameter: Length:

2

0.00 ft Diameter: 276.00 ft Diameter: 3.80 inches Volume: 54.71 bbl 0.00 inches Volume: 2.25 inches Volume:

Total Volume:

0.00 bbl 1.36 bbl 56.07 bbl Tool Weight: 2500.00 lb Weight set on Packer: 25000.00 lb Weight to Pull Loose: 83000.00 lb Tool Chased

String Weight: Initial 68000.00 lb Final 70000.00 lb

Drill Pipe Above KB: 24.00 ft Depth to Top Packer: 4179.00 ft

Depth to Bottom Packer: ft Interval between Packers: 81.00 ft Tool Length: 108.00 ft

Number of Packers:

Tool Comments:

Diameter: 6.75 inches

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4153.00		
Shut In Tool	5.00			4158.00		
Hydraulic tool	5.00			4163.00		
Jars	5.00			4168.00		
Safety Joint	2.00			4170.00		
Packer	5.00			4175.00	27.00	Bottom Of Top Packer
Packer	4.00			4179.00		
Stubb	1.00			4180.00		
Recorder	0.00	8522	Inside	4180.00		
Recorder	0.00	8319	Outside	4180.00		
Perforations	12.00			4192.00		
Change Over Sub	1.00			4193.00		
Drill Pipe	63.00			4256.00		
Change Over Sub	1.00			4257.00		
Bullnose	3.00			4260.00	81.00	Bottom Packers & Anchor

**Total Tool Length:** 108.00

Trilobite Testing, Inc Ref. No: 64410 Printed: 2018.08.10 @ 13:49:19



**FLUID SUMMARY** 

Landmark Resources, LLC

3-16s-36w Wichita, KS

4900 Woodw ay Dr. Ste 880

Houston TX 77056

Koehn #1-3

Job Ticket: 64410

DST#: 1

ATTN: Terri Mcleod

Test Start: 2018.08.06 @ 12:10:00

#### **Mud and Cushion Information**

Mud Type: Gel Chem Cushion Type: Oil API: 0 deg API

Viscosity: 56.00 sec/qt Cushion Volume: bbl

Water Loss: 7.98 in<sup>3</sup> Gas Cushion Type:

Resistivity: ohm.m Gas Cushion Pressure: psig

Salinity: 4400.00 ppm Filter Cake: 1.00 inches

### **Recovery Information**

#### Recovery Table

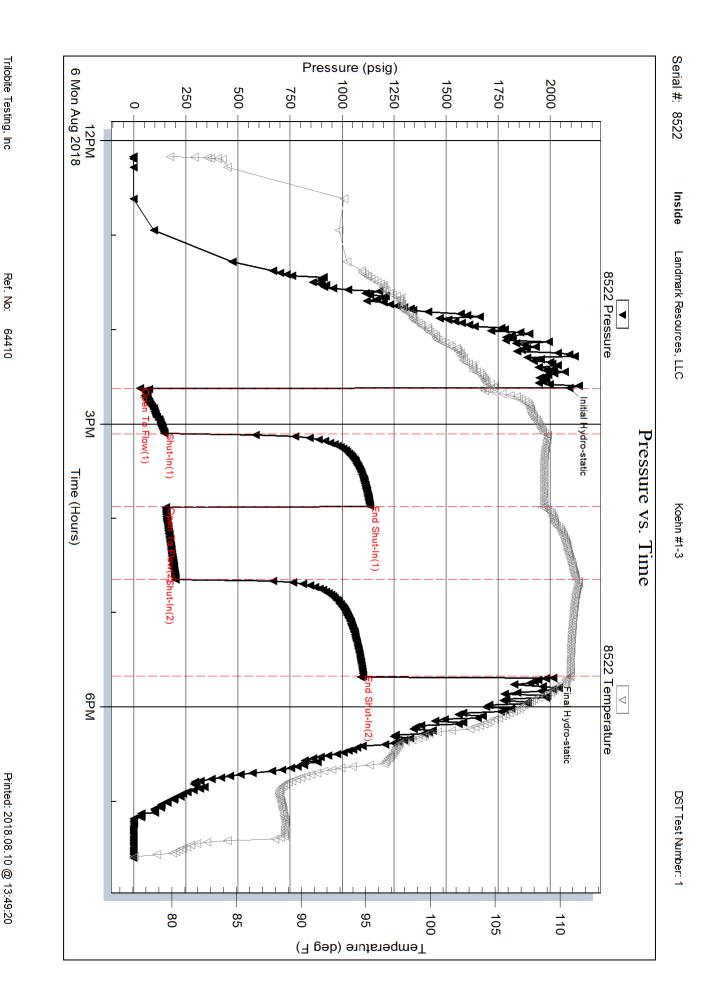
Length ft	Description	Volume bbl
410.00	somcw 1o 10m 89w	3.237

Total Length: 410.00 ft Total Volume: 3.237 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

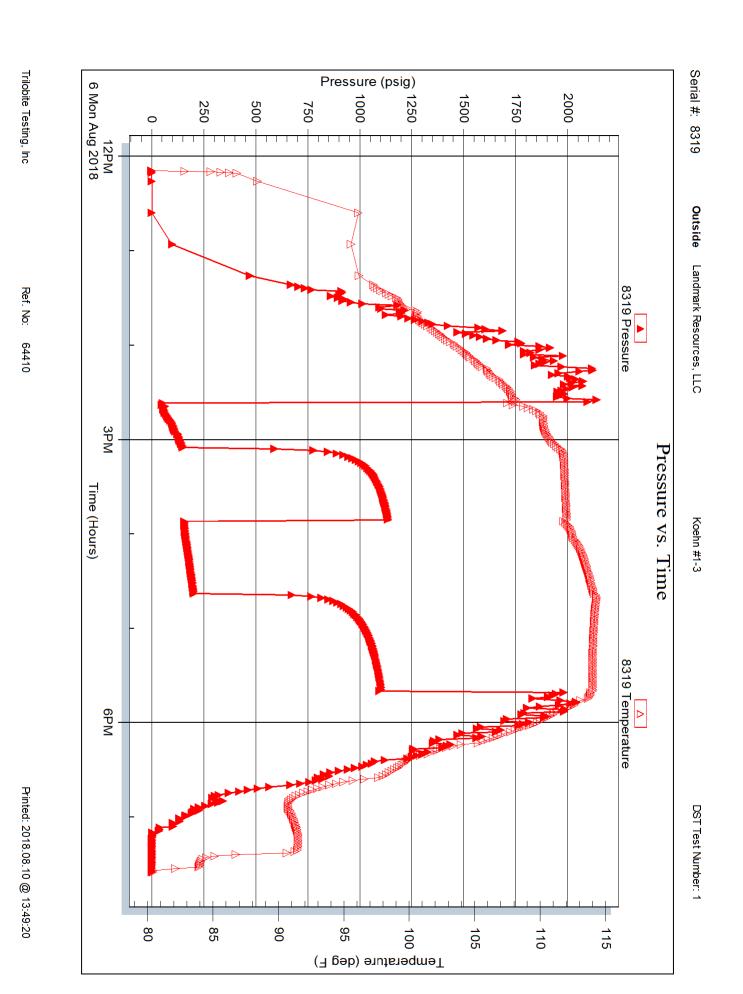
Laboratory Name: Laboratory Location: Recovery Comments: rw is .141 @ 87f = 40000ppm

Trilobite Testing, Inc Ref. No: 64410 Printed: 2018.08.10 @ 13:49:19



Trilobite Testing, Inc

Ref. No:





## **Test Ticket**

NO. 64410

1515 Commerce Parkway • Hays, Kansas 67601

Well Name & No. Koehn #1-3	Test No	Date 8/06/2018
Company Landmark Resources	LLC Elevation 32	281 KB 3270 GL
Address 4960 Woodway Rd 3	te 880 Houston, Tx	77056
Co. Rep/Geo. Terry Mclad	Rig_ Mort	n +21
- /	_ Rge. <u></u>	hita State Ks
Interval Tested 8 4179-4260	Zone Tested LtC H-I	
Anchor Length81	Drill Pipe Run3900	Mud Wt. 9,2
Top Packer Depth 4174	Drill Collars Run 276	,
Bottom Packer Depth 4179	Wt. Pipe Run	WL 8.0
Total Depth 47.60	Chlorides 4460ppm S	ystem LCM
Blow Description IF 82" blow,		
ISI No return.		
FF 10 blow.		
FSI No return.		
Rec 410 Feet of SOMCW	%gas	%oil 89 %water 10 %muc
Rec Feet of	%gas	%oil %water %mud
Rec Feet of	%gas	%oil %water %mud
Rec Feet of	%gas	%oil %water %mud
Rec Feet of	%gas	%oil %water %muc
Rec Total 410 BHT 111	Gravity API RW _ 141 @	87 °F Chlorides 40,000 ppm
(A) Initial Hydrostatic 2092	Test 1150	T-On Location 1000
(B) First Initial Flow 29	Jars	T-Started
(C) First Final Flow 148	Safety Joint75	T-Open 1440
(D) Initial Shut-In 1134	Circ Sub A/C	T-Pulled 1740
(E) Second Initial Flow	Hourly Standby	T-Out
(F) Second Final Flow 200	Mileage XZ 80 RT 160	Comments
(G) Final Shut-In	☐ Sampler	P/U Tool @ 1030
(H) Final Hydrostatic 2013	☐ Straddle	D. Ruinad Shala Basicas
	☐ Shale Packer	Ruined Shale Packer
Initial Open30	☐ Extra Packer	Ruined Packer
Initial Shut-In 45	□ Extra Recorder	□ Extra Copies Sub Total800
Final Flow 45	☐ Day Standby1.5d 3h	Total 2435
Final Shut-In 60	□ Accessibility	MP/DST Disc't
	Sub Total 1635	1 m
Approved By	Our Representative	1//
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