KOLAR Document ID: 1371308

Confiden	tiality Requeste	ed:
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	- DESCRIPT	FII &	I FASE
	Instont			LLASL

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.xxxxx)		
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?		
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 Total Depth:			
Deepening Re-perf. Conv. to EOR Conv. to SWD	Drilling Fluid Management Plan		
Plug Back Liner Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)		
	Chloride content: ppm Fluid volume: bbls		
Comminged Permit #	Dewatering method used:		
SWD Permit #:	Location of fluid disposal if bauled offsite:		
EOR Permit #:			
GSW Permit #:	Operator Name:		
	Lease Name: License #:		
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. 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: 1371308

Operator Name:	Lease Name: V	Nell #:
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 (Attach Additional Sh	eets)	Y	es 🗌 No			og Formatio	n (Top), Depth	and Datum	Sample
Samples Sent to Geolog	nical Survey		és 🗌 No	Ν	lame	e		Тор	Datum
Cores Taken Electric Log Run Geologist Report / Mud List All E. Logs Run:	Logs		ies No ies No ies No						
		Repo	CASING I	RECORD] Ne	w Used rmediate, productio	on, etc.		
Purpose of String	Size Hole Drilled	Siz Se	ze Casing tt (In O.D.)	Weight Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING /	SQU	EEZE RECORD			
Purpose: Perforate	Depth Top Bottom	Туре	e 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 is Was the hydraulic fractu 	ulic fracturing treatme total base fluid of the h ring treatment informa	nt on this w hydraulic fra tion submit	vell? acturing treatment tted to the chemica	exceed 350,000 al disclosure regis	gallo stry?	Yes Yes Yes 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)
Injection:			Flowing	Pumping		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	I OF GAS:		M	ETHOD OF COM	IPLE	TION:		PRODUCTIO	ON INTERVAL:
Vented Sold Used on Lease Open Hole Perl (If vented, Submit ACO-18.)		Perf. D	ually <i>ıbmit</i>	Comp. Com ACO-5) (Subn	mingled	Тор	Bottom		
Shots Per Perforation Perforation Bridge Plug Bridge Pl Foot Top Bottom Type Set At		Bridge Plug Set At		Acid,	Fracture, Shot, C (Amount and Ki	ementing Squeeze	Record		
	Size:	Set At:		Packer At:					

Form	ACO1 - Well Completion
Operator	Edison Operating Company LLC
Well Name	CURTIS UNRUH 1-5
Doc ID	1371308

All Electric Logs Run

Dual Induction	
CDNL	
Micro	
Sonic	

Form	ACO1 - Well Completion
Operator	Edison Operating Company LLC
Well Name	CURTIS UNRUH 1-5
Doc ID	1371308

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	17.25	13.375	48	326	3% cc 1/4 cell flake	350	60/40 Poz
Production	7.875	5.5	17	5617	AA-2	190	n/a



INVOICE NUMBER						
1 of 1	1007020	1718	10/03/2017			
PAGE	CUST NO	YARD #	INVOICE DATE			

92534366

	Pratt	(620)	672-1201
B I L	EDISON OPERATING 8100 E 22ND ST WICHITA	G COMPANY N	LLC
Ţ	KS US 67226		
ō	ATTN:	DAVID WI	THROW

J O	LEASE NAME LOCATION
в	COUNTY
S	STATE
1	

Curtis Unruh 1-5

Comanche

KS

JOB DESCRIPTION Cement-New Well Casing/Pi

т Е JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE	ORDER NO.		TE	RMS	DUE 1	DATE
41059713	19570				Net -	30 days	11/02	/2017
For Service Date	s: 09/29/2017	to 09/29/2017	QTY	U of M	UNIT	PRICE	INVOICE	AMOUNT
0041059713								
171814534L Cem Cement Surface C	nent-New Well Casi Casing	ng/Pi 09/29/2017						
Premium Plus Cen Celloflake	nent		350.00 88.00	EA EA		8.97 2.04	1	3,139.50
Calcium Chloride			658.00	EA		0.58		381.64
"Unit Mileage Chg Heavy Equipment	ı (PU, cars one wa Mileage	/)"	50.00 100.00	MI MI		2.48 4.13		124.00 413.00
Proppant & Bulk [Del. Chgs., per ton	mil	823.00	EA		1.38		1,135.74
Blending & Mixing Plug Container Uti	Service Charge	.*	350.00	BAG FA		0.77 137.50	1	269.50 137.50
Depth Charge; 0-5	500'	SUN B) . 1.00	EA		550.00		550.00
"Service Supervise	or, first 8 hrs on la	·	1.00	EA		96.25	1	96.25
	کر,	FON						
	CEME	9208						
	10/01)						
PLEASE REMIT	то:	SEND OTHER CORRES	PONDENCE TO	D:			1	- 405 5-
BASIC ENERGY	SERVICES, LP	BASIC ENERGY SERV	VICES, LP		SUB TO	TAL TAX	(6,426.65 0.00
DALLAS, TX 752	84-1903	FORT WORTH, TX 76	5102	INV	OICE TO	TAL	(5,426.65

BASIC
ENELLOY SERVICES

1700 S. Country Estates Raod Liberal, KS 67901 PH (620)-624-2277FAX (620) 624-2280

TTMH-45

SERVICE ORDER - 1718-14534 L

			TIMIK	Date:	9/29/2017
Well Name: Curtis Llorub f	¥1_5			Location:	
County - State:	FI-0	-		0,31,18 PPC #	
Comanche, K	5			IRSTO	- This
Type Of Service		06		Customer's Order #:	1.1.1.1
Z42 - Cement	Surface Cas	ing	1007020		
	Customer:	Edison Op	erating		
	Address:	8100 E 22	nd Street N		
		Wichita K	67226		
As a conservation, in default in payment of i collection costs and at Basic Energy Services PURPOSE OR OTHE Habitry, branch of wm Gervices, option, to the	Customers account is customers account is torney fees. These is a provide the set of the AWISE WHICH EXTE anty or otherwise) and a allowance to the Ca	in at apress to pu r such data, Cust mu and condition mu and condition to the products, a DD BEYOND T DD BEYOND T Sing out of the sa sing out of the sa sing out of the sa	U bisk Exhing Services in accord with the rates and terms stated in Basic Energy Services current pictor lists. Wrokes are psychio N mer agrees to pay inferent thread and deduct at 10% per annum. In the event list becomes necessary to employ an attorney to enforce a shaft be growned by the twen of the data where services are performed or equipment or materials are humished. Second materials and half the same are bree from deficies in workmanship. THERE ARE NO WARRANTIES, DRESS OR INPLU SES STATED IN THE AMEDIATELY PRECEDING SENTENCE. Basic Energy Services, basing and Custome's exclusive remody is a or use of any products, supplies, or materials upon their ratem to Basic Energy Services, to expressly limited to the replacement of a the cost of such Rems. In no event shall Basic Energy Services be Rable for special, indirect, punitive or consequential damages.	ET 30 (GEE 102) site del of Involos I. e collection of mild account, Customer I ED, MERCHANTABLITY,FITHASE any cause action (whether is confir any cause action (whether is confir uch products, supplies or materials or , r	Jpon Cusiomer's sgrees to psy all lite R A PARTICULAR sci, fort, product al Basic Energy
CODE	QTY	UOM	DESCRIPTION	PRICE	TOTAL
CL110	350	Sk	Premium Plus Cement	16.30	5705.00
CC102	88	Lb ,	Zellofiake	3.70	325.60
CC109	658	Lb	Calcium Chloride	1.05	690.90
E100	50	MI	Unit Mileage Charge-Pickups, Small Vans & Cars (one way)	4.50	225.00
E101	100	Mi	Heavy Equipment Mileage	7.50	750.00
E113	823	Tn/Mi	Proppant and Bulk Delivery Charges, per ton mile	2.50	2057.50
CE200	1	4 Hrs	Depth Charge; 0-500'	1000.00	1000.00
CE240	350	Sk	Blending & Mixing Service Charge	1.40	490.00
GE504		Job	Plug Container Utilization Charge	250.00	250.00
S003		Ea	Service Supervisor, first 8 hrs on loc.	175.00	175.00
					121
	_				
	_				
	_				
		_			
	1				
				Book Total:	\$11,669.00
				Taxes:	
		_		Disc. Price:	\$6,426.65
				YES	NO
PUMP TRUCK NU	MBER: 3	<u>8119-19570</u>	THIS JOB WAS SATISFACTORILY COMPLETED		
	1.1		OPERATION OF EQUIPMENT WAS AT ISFACTORY		
DRIVER:	JUL P		PERFORMANCE OF PERSONEL WARTSATASFACTORY		
111					
	5		VI tatt		
	GIC ENERGY S	ERVICES	CUSTOMER OR HI	S AGENT	/
X	1			T	D
Custome	Comments or	Concerns:		~	1
				11	11
				ar	2h



PRESSURE PUMPING Job Log

ж.

1	1					the second s	the second s					
Gustome	n E	dison Operatii	ng		Coment Pump N	38119-1	19570 7 HRS	Operator TRK No.	78939			
Addres	≈ 8100 E 22n	d Street N	_		Ticket	#1 1718	3-14534 L	Bulk TRK No.	14354-37724			
City, State, Zi	Wichita Ks	67226			Job Typ	9:	Z42 - C	ement Surface	Casing			
Service Distric	ti				Well Typ	e)		OIL				
Well Name and No	. C	urtis Unruh #1	-5		Well Locatio	nı 5,31,	18 Gount	Comanche	State:	Ks		
Туре	of Cmt	Sacks			Additives			Truck Lo	aded On			
PREMI	JM PLUS	350		2	2%CaCl, 1/4#POL	(FLAKE	1435	4-37724	Front	Back		
									Front	Back		
1000	172-11-						Front					
Lead	adu	Weight #1 Gal.		Ft/SK	Water Re	quirements	CU. FT.	Man	Hours / Person	nel		
	au.	14.0		.34		.33	469	Man Hours:	45			
Time	T	Volume	Du	mag	Brad			W OF Men on Job:	3			
(am/pm)	(BPM)	(BBLS)	T	C	Tubing	Casing	- '	rescription of Opera	ition and Materials			
19:30					Tabilg	Cabing		NLOC SAFT				
5:47						800	<u> </u>	TEST (INFS			
5:50 AM	5					110		START MIXIN	IG @ 14.8#			
6:10 AM	4.5	84		60 START DISPLACEMEN								
6:23 AM		46			HUT IN WELL							
								E PSI				
								JOB COM	PLETE			
			-				THAN	K YOU FOR YO	OUR BUSINES	SIIII		
									_			
			_	\rightarrow								
			_									
			-	\rightarrow								
Size Hole	17 1/2	Denth			25		TYPE					
Size & Wt. Csg.	13 3/8 48#	Depth	313	08	New / Lined		Packer	T	Donth			
tbg.	8 5/8 24#	Depth	14		NDING .IOINT		Retainer		Depth			
Top Plugs	1	Type /		f			Perfs		CIBP			
	1	N II	T	>		Basic Represe	ntative:	1.10	HAD HINZ			
Customer Sign	ustomer Signature: X				>	Basic Signatur	e:	ZAA				
						Date of Service	e:	9/29/2017)			



EDISON OPERATING CURTIS UNRUH 1-5



		1/									
		Γ	PAGE	0	CUST N	O	YARD #	INVOICE DATE			
	ERVICES		1 of 1	1	100702	0	1718	10/13/2017			
			INVOICE NUMBER								
						9254	43933				
Pratt B EDISON OPERA I 8100 E 22ND L WICHITA KS US 67 o ATTN:	572-1201 J o JLC B I I HROW	LEASE LOCATI COUNTY STATE JOB DE JOB CO	NAME ON SCRI: NTAC	PTION T	Cur Com KS Cem	tis Unruh anche ent-New We	1-5 ell Casing/Pi				
ЈОВ #	EQUIPMENT #	PURCHAS	E ORDER	NO.			TERMS	DUE DATE			
41062111	19843					Net	- 30 days	11/12/2017			
			QTY		U of M	נאט	T PRICE	INVOICE AMOUNT			
For Service Dates	: 10/10/2017 to	10/10/2017									

For Service Dates: 10/10/2017 to 10/10/2017 0041062111 171815511A Cement-New Well Casing/Pi 10/10/2017 Cement-5 1/2" Long String AA2 Cement 5/b" 60/40 POZ C-41P Salt FLA-322 Gilsonite Cement Gel "Auto Fill Float Shoe 5 1/2"" (Blue)" "Latch Down Plug & Baffle, 5 1/2"" (Blu 100 EA 198.00 1100 EA 198.00 "Turbolizer, 5 1/2"" (Blue)" "Turbolizer, 5 1/2"" (Blue)" "Turbolizer, 5 1/2"" (Blue)" "Unit Mileage Chg (PU, cars one way)" Heavy Equipment Mileage 50.000 51. 0000 1000 EA 0010 10010 EA 002 5000 EA 0010 1020 EA 1020 EA 1020 EA 1020 EA 1020 EA		QTX	M U OI	UNIT PRICE	INVOICE AMOUNT
0041062111 171815511A Cement-New Well Casing/Pi 10/10/2017 Cement-5 1/2" Long String A2 Cement 60/40 POZ C-41P Salt 958.00 EA 958.00 EA 0.28 2000 EA 60/40 POZ C-41P Salt 958.00 EA 0.28 2000 EA 61/60 EA 2000 EA 61/2" (Blue)" 1.00 EA "Auto Fill Float Shoe 5 1/2"" (Blue)" 1.00 EA "Latch Down Plug & Baffle, 5 1/2"" (Blu 1.00 EA 1.00 EA <t< th=""><th>For Service Dates: 10/10/2017 to 10/10/2017</th><th></th><th></th><th></th><th></th></t<>	For Service Dates: 10/10/2017 to 10/10/2017				
171815511A Cement-New Well Casing/Pi 10/10/2017 Cement-5 1/2" Long String AA2 Cement 5/k" 60/40 POZ 5/k" C-41P 5/k" Salt 958.00 EA 6.60 C-41P 45.00 EA 2.20 Salt 958.00 EA 0.28 FLA-322 6/k" 950.00 EA 4.13 Gilsonite 950.00 EA 0.37 5 Cement Gel 84.00 EA 0.14 1 "Auto Fill Float Shoe 5 1/2"" (Blue)" 1.00 EA 198.00 1 "Latch Down Plug & Baffle, 5 1/2"" (Blue)" 1.00 EA 220.00 2 "Turbolizer, 5 1/2"" (Blue)" 1.00 EA 198.50 1 "Turbolizer, 5 1/2"" (Blue)" 1.00 EA 60.50 6 Mud Flush 500.00 EA 0.83 4 Claymax KCL Substitute 7.00 EA 19.25 1 "Unit Mileage Chg (PU, cars one way)" 50.00 MI 2.48 1 Heavy Equipment Mileage 100.00 EA 159.69 7 Depth Charge; 5001-6000' 1.00 EA 1,584.00 1,5 <t< td=""><td>0041062111</td><td></td><td></td><td></td><td></td></t<>	0041062111				
PLEASE REMIT TO: SEND OTHER CORRESPONDENCE TO:	171815511A Cement-New Well Casing/Pi 10/10/2017 Cement-5 1/2" Long String AA2 Cement 60/40 POZ C-41P Salt FLA-322 Gilsonite Cement Gel "Auto Fill Float Shoe 5 1/2"" (Blue)" "Latch Down Plug & Baffle, 5 1/2"" (Blu "5 1/2"" Basket (Blue)" "Turbolizer, 5 1/2"" (Blue)" Mud Flush Claymax KCL Substitute "Unit Mileage Chg (PU, cars one way)" Heavy Equipment Mileage 553Prop & Bulk Del.Chgs.per ton mil Depth Charge; 5001-6000' Blending & Mixing Service Charge Plug Container Util. Chg. "Service Supervisor, first 8 hrs on loc.	190.00 50.00 45.00 958.00 90.00 950.00 1.00 1.00 500.00 7.00 50.00 1.00 1.00 1.00 1.00 1.00 1.00	EA EA EA EA EA EA EA EA EA BAG EA EA	9.35 6.60 2.20 0.28 4.13 0.37 0.14 198.00 220.00 159.50 60.50 0.83 19.25 2.48 4.13 759.69 1,584.00 0.77 137.50 96.25	1,776.50 330.00 99.00 263.45 371.26 350.07 11.55 198.00 220.00 159.50 605.00 412.50 134.75 123.75 412.50 759.69 1,584.00 184.80 137.50 96.25
PLEASE REMIT TO: SEND OTHER CORRESPONDENCE TO: SUB TOTAL 8,23	PLEASE REMIT TO: SEND OTHER CORRESP	CONDENCE TO		SUB TOTAL	8,230.06
BASIC ENERGY SERVICES, LP BASIC ENERGY SERVICES, LP PO BOX 841903 801 CHERRY ST. STE 2100 TAX	BASIC ENERGY SERVICES, LP BASIC ENERGY SERVI PO BOX 841903 801 CHERRY ST. STF	CES,LP 2100		TAX	0.00
DALLAS, TX 75284-1903 FORT WORTH, TX 76102 INVOICE TOTAL 8,23	DALLAS, TX 75284-1903 FORT WORTH, TX 761	.02	INVO	DICE TOTAL	8,230.06



10244 NE Hwy. 61 P.O. Box 8613 Pratt, Kansas 67124 Phone 620-672-1201

FIELD SERVICE TICKET 1718 15511 A

	DATE TICKET NO						
JOB U-10-17 DISTRICT PLATT	NEW OLD PROD INJ WDW CUSTOMER WELL WELL						
CUSTOMER EDISON OPPLATING COMPANY	LEASE CUTTIS UNTYA WELL NO. (-						
ADDRESS	COUNTY COMPACE STATE K						
CITY STATE	SERVICE CREW MATTAL REGEAR COBR						
AUTHORIZED BY	JOB TYPE: 2-42 51/2" LOAS STAINY						
EQUIPMENT# HRS EQUIPMENT# HRS E	QUIPMENT# HRS TRUCK CALLED 10 - 9-17 PM GTU						
1989521	ARRIVED AT JOB						
	START OPERATION AM U: 38						
19862 x .5	FINISH OPERATION						
	RELEASED AM 6.45						
	MILES FROM STATION TO WELL 5						

27

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract must be signed before the job is continenced of merchandise is delivered). products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICE	ES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUN	т
CPIUS	AA-2 CMT		54	190 -		3,230	00
CP103	GULAU PUZ		SKI	50 -		600	07
(CIUF	(-41 P		15	45		180	00
<< 111	SAIT		15	958-		479	00
CC 129	FIA - 322		15	90	17	675	00
((20)	Silsunite		15	950 -	1	636	50
CC 200	cmī sei		16	84 -		21	00
CF 1251	ANTO FILL FLOAT Sho	5 h	Put	1	a	360	05
CF 607	IATCH DOWN PING + bakfip		en	1		400	6.0
66 1901	BASKEr		27	1 -		290	0)
CK- 1651	turbulien		PA	10	~~	1100	00
< < 151	Mud Fluish		5 ~ 1	50021	÷	750	U)
6704	CIAYMAN	541	7 ~		245	00	
ELUD	P. U. Mile	ni	50 1		275	00	
EIVI	havy el. miles	7	ry,	(00		120	00
E113	PIDP + bulk del		TM	551		1,581	2)
(e206	derig chaise 5001- 6000)	44-	()		5,880	\mathcal{O}
(6 5 4 0	Bland trix		54	240 1		136	32
60504	Plug (SATAjner		ナック	1 1		250	01
5003	Superviso		C1	1 -2 -2	SUB TOTAL	1.15	0.2
CHE	EMICAL / ACID DATA:					14,963	75
3		SERVICE & EQUIPM	IENT	%TAX C	DN \$		1
		MATERIALS	_	%TAX C	DN \$	V	
<u></u>	<u></u>				TOTAL	\$730	06
. Alter		×152			SWC	9,230	
11		A BARRA			1	0	
SERVICE	THE ABOVE N	MATERIAL AND SERVI	CEIVER	BY F K	uley 1	MAN	2
ner negentativ	C TEVGE MATINE ORDERED BY	COSTONER AND RE	WELL ON		CONTRACTOR OR	AGENT)	5
FIELD SERVICE C	DRDER NO.	(

CLOUD LITHO - Ablene, TX



10244 NE Hwy. 61 P.O. Box 8613 Pratt, Kansas 67124 Phone 620-672-1201

FIELD SERVICE TICKET 1718 **15511** A

TIOKET NO

AD OT INVESTIGATION OF	1.2.1	a defendent als la participation		DATE HORETNO.								
DATE OF JOB	1.7				NEW OLD PROD INJ WDW CUSTOMER WELL WELL							
CUSTOMER	CUSTOMER					LEASE WELL NO.						
ADDRESS			COUNTY STATE									
CITY		STATE		SERVICE CREW ANALTAL ANGLASS CONT								
AUTHORIZED BY			JOB TYPE: 7 - 47 Star Gary Stars									
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQL	JIPMENT#	HRS	TRUCK CALLED					
1.1.2.4.1X							ARRIVED AT JOB	2				
La martine data	7.5.1				1.1.1.1.1.1	1	START OPERATION	л л				
19862 x	15		4 ×1 ×14	1.1. C.	Alter Alter A	1 1 1 2	FINISH OPERATION	1				
							RELEASED					
							MILES FROM STATION TO WELL	0				

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED:

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUN	г
CRION	All C LIGH	5×	190 -	10 July 10 10 10 10 10 10 10 10 10 10 10 10 10	3,230	40
Grades	Calue Par	150	- 15-se -		600	02
CC 1421	8-04 1	15	Style .	/	150	01
CC 111	SALL PENE 15	16	958-		479	07
26 129	Fix 320 G2	15	40.	/	675	02
11 23	Sitsmin	15	954 .		636	25
100 \$ was	CONF 30	15.	84 -		21	22
66 1281	A STY FULL PODE SHE STY	100	- 1		360	3
Ch 607	- My house Ping & batter	the second	. T	to many	420	0.0
E 1961	69.20	19-11	1 -		290	$\langle Q_{ij} \rangle$
26 72 6 QU	patients he say we pre- 1 - 1 - 1 - 1		1 IN L		11100	02
66181	Arad Auss	35	5 40 0	A Shine had	- 750	00
6708	ETHY MAN	5.29	7 -		245	02
CASH -	P. V. Collins and State	Prop		R	20	00
Card	heavy de com	Play	1.1	A Company of	120	00
E et)	Prove the book of the	1.50	6 13 W		1.581	20
64 8 36	doith Charge Subd Charles The	S. Hoge	1		2,880	21
6 - 24	Stand Stand Stand	1. 2.5	24-1-1		336	22
2 C C 4 140	Contraction of the contraction o	1 7 - 13	164	9	1000 6 3 4 3	01
	Contraction and the second sec		1 1 1	SUB TOTAL	115	0.1
CHE	MICAL / ACID DATA:	1.11			14,91.3	25
- AL	SERVICE &	EQUIPMENT	%TA:	X ON \$	1 PARA SALA	
Succession of the	MATERIALS	de la factoria	%TA	X ON \$	V	
				TOTAL	8731	al
a second				an	9 2 30	

FIELD SERVICE ORDER NO.

1 2-1

REPRESENTATIVE

SERVICE

CLOUD LITHO Abilene TX

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:



TREATMENT REPORT

Customer	son of) / M	ATING	COM	PALE	ase No.			= 10			Date	10		, -	7			
Lease	ris un	ru	4		W	ell #		1-5					10-1	0-1		(
Field Order #	Station	n	Pig	11				Casing	5 1/2 Dep	thK	13	Count	COMM	Anche		State	Hj		
Type Job Z	-42	5	1/2 "	Lo	29	57	ing		Formatic	n L	24	54	3.94 Lega	l Descriptio	n	3158	18h		
PIPE	E DATA		PERF	ORAT	ATING DATA FLUID USED							TREATMEN	IT RESU	ME					
Casing Size	Tubing Siz	ze	Shots/F	t			Actor	19	U SKS	A1	1-2 F	RATE PRESS ISIP							
Depth 619	Depthy-6		From		То		Pre Pad 5% SyP. 10 Max 5					τ	25 11	rs 5,Min	รับท	as r			
Volume, 5	Volume		From		То		Pad	. 5 -	2. 6-14:	n Mi	055	5	PPS SI	15 10,Mi	n.				
Max Press	Max Press	s	From		То		Frac	-50	SKI 6	A	19 yu	Po	2 4	»₀ 3 ⁵ .Mi	n.				
Well Connectio	n Annulus V	/ol.	From		То					H	HP Used			Annu	us P	ressure			
Plug Depth	Packer De	əpth	From		То		Flush	129	.5	Ga	as Volum	e		Total	Load				
Customer Rep	resentative	1	SAM	0-1		Station	Manag	ger hv	estern	1Au	r	Trea	ater MA	TTPI					
Service Units	8335)		1			1984	-13		70959	1	9862								
Driver Names	MATIAL			12-1	< 5	raw			10	ß	B								
Time	Casing Pressure	Tt Pre	ubing essure	Bbls.	Pump	bed	R	ate					Service Log						
10.50			1		1		1		Onlu	On location / SAFrey Recting									
12:35			1						run	5	1/2	1	7" csns	hue	57.				
			1)		BAIR-	-10	ON	3	7410	US ON	, 7	1	1112		
			$(\square$		/)	15,	14	,19	20	151	22					
3:20							((95115 ON LYTTOM										
3 30)		·/		2	-	1)	HOUR TO ISAG BILLY CITE U							W.	Reg		
4.58	300		(20		4		PUMP 20 bbl Kel WARN										
4:44	300)		12			1	Pump Guo gat. Mun Flush										
441	300	-	1	1)	1	4	, 21	run	1P	35	51	WATE	2					
4.48	350		1	L	16		5	8 \	mix		190	54		(ò				
4.51		1)		4)	WAS	h	FURM	2 4 . 1	LINC /	11/01		1149			
5.01	200		/	0		_	6	>)1/	141	Pless	()	ULDI	in a contract	~ '				
5.1.7) 5-)	2.0		2 3	, 	SLUX		(4)	W 73	2						
5 21	1000)	+ 2	9 (121	40	Jare	. 10	6010	AND	1	bel	1		
	(,)		$\left(- \right)$	10	1 •)	-	1		Plu	4	141	-4	<u>, , , , , , , , , , , , , , , , , , , </u>	hale	1	1100			
)						6:10	, 	Tian	Thruch TAR							
5:30			(The	1410	010	D No	it hold	+ STA	1+1	0 4 0	CUME BA		
)						Shur I	N W	(c1)	_	1700	(Jan	1 PI	cte			
	-								WASIUD	PV	1+1+++	(Fr)	- /	THAN	nu	Kar	а I		
)						Pyinpen	5	plots +	LAI	man My	the H	, L	cul-	5		
5:35	1,500				5				PIN , C	0 / 0	540 L	67,	Shutin	Well	P-	2 <u>Cu</u>	1)/commer		
10244	NE Hiw	ay (61 • P	О. В	0x 8	613 •	Prat	t, KS e	67124-86	13	(620)	672	2-1201 • F	ax (620)) 6	72-53	383		

ĥ,

Taylor Printing, Inc. 620-672-3656

1



DRILL STEM TEST REPORT

Prepared For:

Edison Operating Company LLC

8100 e.22nd St N.bldg 1900 Wichita,Kansas 67226

ATTN: Adam K<ennedly

Curtis Unruh #1-5

5-31S-18W Commanche

 Start Date:
 2017.10.07 @ 12:26:00

 End Date:
 2017.10.07 @ 00:00:00

 Job Ticket #:
 01197
 DST #:
 1

Eagle Testers 1309 Patton Road Great Bend, Kansas 67530 620-791-7394 Edison Operating Company LLC

	DRILL STEM TES	T REP	ORT				
	Edison Operating Company LLC		5-319	S-18W C	ommanc	he	
	8100 e.22nd St N.bldg 1900		Curti	is Unruh	#1-5		
Great Band Kanas	Wichita, Kansas 67226		Job Ti	icket: 0119	97	DST#:1	
	ATTN: Adam K <ennedly< td=""><td></td><td>Test S</td><td>Start: 2017</td><td>7.10.07 @ 1</td><td>2:26:00</td><td></td></ennedly<>		Test S	Start: 2017	7.10.07 @ 1	2:26:00	
GENERAL INFORMATION:							
Formation:MississippiDeviated:NoWhipstock:Time Tool Opened:02:52:00Time Test Ended:00:00:00	ft (KB)		Test T Tester Unit N	Гуре: Co r: Ge lo: 1	nventional I ene Budig1	Bottom Hole (Initial)
Interval: 50552.0 ft (KB) To 51	00.00 ft (KB) (TVD)		Refere	ence Eleva	ations:	2160.00 ft	(KB)
Iotal Depth:5100.00 ft (KB) (I'Hole Diameter:7.88 inchesHole	VD) e Condition: Fair			KB to (GR/CF:	2150.00 ft 10.00 ft	(CF)
Serial #: 9119 Inside Press@RunDepth: 859.33 psig Start Date: 2017.10.07 Start Time: 12:26:00	Ø 5095.28 ft (KB)End Date:End Time:	2017.10.07 20:12:00	Capacity: Last Calib.: Time On Bti Time Off Bt	: tm: 20 tm: 20	2(17.10.07 @ 17.10.07 @	5000.00 ps 017.10.07 0 14:53:00 0 17:50:00	sig
TEST COMMENT: 1st Opening 10 1st Shut-In 45 2nd Opening 30 2nd shut-In 90	Minutes w eak blow built to 2 inche Minutes no blow back Minutes w eak blow built to 3 inche Minutes no blow back	s s					
Pressure vs. 7 919Ressure	Sime 9119 Temperature	Time	PRE		SUMMA	RY	
		(Min.)	(psig) ((deg F)	Annotation		
	110	0	2615.13 76.99	117.12 lr 116.44 C	nitial Hydro- Open To Flo	static w (1)	
		11 54	73.86 833.04	116.34 S	Shut-In(1) and Shut-In(1)	
		55	77.19	117.32	Open To Flo	w (2)	
		86 176	81.42 859.33	118.63 S 119.68 E	Shut-In(2) End Shut-In(2)	
	autority; 30	177	2478.56	120.27 F	inal Hydro-	static	
	75						
3PM 7 Sat Oct 2017 Time (Hous)	1954						
Recovery				Gas	Rates		
Length (ft) Description 50.00 Drilling Mind	Volume (bbl)			Choke (inch	nes) Pressure	(psig) Gas Ra	ate (Mcf/d)
	0.70						
	· · · · · · · · · · · · · · · · · · ·						

	DRILL STEM TES	T REP	ORT			
	Edison Operating Company LLC		5-31S-1	8W Commai	nche	
	8100 e.22nd St N.bldg 1900		Curtis I	Jnruh #1-5		
Great Band, Kanzas	Wichita,Kansas 67226		Job Ticke	t: 01197	DST#:1	
	ATTN: Adam K <ennedly< td=""><td></td><td>Test Star</td><td>t: 2017.10.07 @</td><td>0 12:26:00</td></ennedly<>		Test Star	t: 2017.10.07 @	0 12:26:00	
GENERAL INFORMATION:	•					
Formation:MississippiDeviated:NoWhipstock:Time Tool Opened:02:52:00Time Test Ended:00:00:00	ft (KB)		Test Typ Tester: Unit No:	e: Conventiona Gene Budig 1	al Bottom Hole (Initial) 1	
Interval: 50552.0 ft (KB) To 5	100.00 ft (KB) (TVD)		Reference	e Elevations:	2160.00 ft (KB)	
Iotal Depth:5100.00 ft (KB) (IHole Diameter:7.88 inchesHol	VD) e Condition: Fair			KB to GR/CF:	2150.00 ft (CF) 10.00 ft	
Serial #: 9139OutsidePress@RunDepth:870.31 psigStart Date:2017.10.07Start Time:12:26:00TEST COMMENT:1st Opening 101st Shut-In452nd Opening 30	 Ø 5095.28 ft (KB) End Date: End Time: Minutes w eak blow built to 2 inche Minutes no blow back Minutes w eak blow built to 3 inche 	2017.10.07 20:12:00 s s	Capacity: Last Calib.: Time On Btm: Time Off Btm:	2017.10.07 2017.10.07	5000.00 psig 2017.10.07 @ 14:53:00 @ 17:49:30	
2nd shut-ln 90	Minutes no blow back					
Pressure vs. 7	Sime		PRES	SURE SUMM	ARY	
2000 200 2000 2	9(3) Temperature 1(3) Temperature 1(5) Tempera	Time (Min.) 0 10 55 55 86 176 177	Pressure (psig) Tel (de 2626.57 2626.57 11' 76.50 11' 72.16 11' 835.96 11' 77.42 11' 82.66 11' 870.31 11' 2505.48 12'	mp Annotation g F) 7.22 Initial Hydr 7.33 Open To F 7.69 Shut-In(1) 8.54 End Shut-I 8.71 Open To F 9.25 Shut-In(2) 9.94 End Shut-I 0.15 Final Hydro	on o-static Row (1) n(1) Row (2) n(2) o-static	
Recovery			Gas Rates			
Length (ft) Description	Volume (bbl)		C	hoke (inches) Pressu	ure (psig) Gas Rate (Mcf/d)	
50.00 Drilling Mud						

			DRIL	L STEM TEST	REPOR	Г	TOOL DIAGRAM
And Book Kings		Edison C	perating Company LLC		5-31S-18W Commanche		
		8100 e.2	2nd St N.bldg 1900		Curtis Unruh #1-5		
		Wichita,ł	Kansas 67226		Job Ticket: 01197	DST#:1	
			ATTN:	Adam K <ennedly< td=""><td></td><td>Test Start: 2017.10.07 @</td><td>2 12:26:00</td></ennedly<>		Test Start: 2017.10.07 @	2 12:26:00
Tool Information	on		•				
Drill Pipe:	Length:	5038.00 ft	Diameter:	3.80 inches Volume:	70.67 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches Volume:	0.00 bbl	Weight to Pull Loose:	100000.0 lb
	/D .	10.00 (1		Total Volume:	70.67 bbl	Tool Chased	0.00 ft
	<в:	16.00 ft				String Weight: Initial	60000.00 lb
Depth to Top Pac	ker:	5052.00 ft				Final	60000.00 lb
Depth to Bottom	Packer:	ft					
Interval betw een	Packers:	48.28 ft					
Tool Length:		78.28 ft					
Number of Packe	ers:	2	Diameter:	6.75 inches			
Tool Comments:							
Tool Description	on	Le	ngth (ft)	Serial No. Position	Depth (ft) Ac	cum. Lengths	

					g	
Shut In Tool	5.00			5027.00		
Hydraulic tool	5.00			5032.00		
Jars	5.00			5037.00		
Safety Joint	5.00			5042.00		
Packer	5.00			5047.00	30.00	Bottom Of Top Packer
Packer	5.00		Fluid	5052.00		
Change Over Sub	0.75			5052.75		
Drill Pipe	31.78			5084.53		
Change Over Sub	0.75		Inside	5085.28		
Anchor	10.00			5095.28		
Recorder	0.00	9119	Inside	5095.28		
Recorder	0.00	9139	Outside	5095.28		
Bullnose	5.00			5100.28	48.28	Bottom Packers & Anchor

Total Tool Length: 78.28

	DRILL STEM TEST REPORT		FLUID SUMMARY		
	Edison Operating Company LLC	5-31S-18W Commanche			
	8100 e.22nd St N.bldg 1900	Curtis Unro	uh #1-5		
Groat Bond Rancas	Wichita,Kansas 67226	Job Ticket: 01197		DST#:1	
	ATTN: Adam K <ennedly< td=""><td>Test Start: 20</td><td colspan="2">26:00</td></ennedly<>	Test Start: 20	26:00		
Mud and Cushion Information					
Mud Type: Gel Chem	Cushion Type:		Oil A PI:	deg API	
Mud Weight: 9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm	
Viscosity: 57.00 sec/qt	Cushion Volume:	bbl			
Water Loss: 9.60 in ³	Gas Cushion Type:				
Resistivity: ohm.m	Gas Cushion Pressure:	psig			
Salinity: 60009.00 ppm					
Filter Cake: 1.00 inches					
Recovery Information					
	Recovery Table				
Leng	th Description	Volume bbl			
	50.00 Drilling Mud	0.701			
Total Length:	50.00 ft Total Volume: 0.701 bbl				

Num Gas Bombs:

Laboratory Location:

0

Serial #:

Num Fluid Samples: 0 Laboratory Name: Recovery Comments:



Ref. No: 01197

Eagle Testers





Ref. No: 01197

Eagle Testers



Outside Edison Operating Company LLC

Curtis Uhruh #1-5

DST Test Number: 1

				PERATIN	G COMPAN	YLLC										
E	Wi Surface Bottom License S Drilling Co Surface Coo Bottom Hole Coo Ground I K.B. I	ell Name: Location: API: Number: pud Date: Region: ompleted: ordinates: elevation: Elevation:	Curtis Unruh #1-5 Sec. 5 - T31S - F 15-033-21779-00 34434 9/29/2017 Comanche Count 10/8/2017 1445' FNL & 2199 2150.00ft 2150.00ft	1:240 mipe 5 18W -00 ty 9' FWL	riai T T	īme: īme:	12:00 AM 8:00 PM	M 1								
	Logged Toi F Drilling F	a Interval: tal Depth: ormation: luid Type:	3500.00ft 5620.00ft Mississippian Chemical/Fresh \	Water Gel		10:	5624.001	π								
	Contact (Contact Pl W	Company: Address: Geologist: hone Nbr: ell Name: Location: API: Pool:	OF Edison Operating 8100 E. 22nd St. Building 1900 Wichita, KS 672 David Withrow 316.613.1544 Curtis Unruh #1-5 Sec. 5 - T31S - F 15-033-21779-00	PERATOR Company North 26 5 18W -00	LLC	Field:										
		State:	Kansas	GGED BY	Cou	intry:	USA									
	(Company:	Edison Operating	operating c	ompany _{lle} LLC											
	PI	Address:	8100 E. 22nd St. Building 1900 Wichita, KS 672 316.650.9677	North 26			A dama T	Kanada								
	LC	bgged By:	Geologist R	EMARKS	Na	ame:	Adam I.	Kennedy								
Respi Adan Petro	ectfully sub n T. Kenner deum Geole	rmitted, dy ogist														
			GENERA Servi	L INFORM	ATION											
Dri	illing Contractor: Tool Pusher: Daylight Driller: Evening Driller: Morning Driller: Gas Detector: Engineer:	Southwind E Bill Sanders Doug Rober Andrew Del Carlos Marti Bluestem Er Keith Reavis 5048	Drilling - Rig #8 ts gadillo nez nvironmental s		Log Te	Drilli Er gging C E Lo sting C	ng Fluid: M ngineers: E ompany: E Engineer: J ogs Ran: E ompany: E Tester: C	Mud-Co/Servi Brad Bortz Eli Wireline Jason C. DUCP MICRO Eagle Testers Gene Budig	ce Mud Inc.) SON DI							
	Operational By:	3000'					100.01. 0	and a production	Deviation SurveyPipe StrapDepthSurveyDepthPipe Strap327'0No StrapNo Strap							
	Operational By: Deviation Depth 327' 2252	3000' 1 Survey S	Survey 0 /4 deg		D No	epth Strap	Pipe S	etrap Pipe No S	Strap Strap							
C	Operational By: Deviation 327' 2252 5100' 5624'	3000' Survey 3.	Survey 0 /4 deg 1 deg 1 deg	Bit Record	D No	epth Strap	Pipe S	Strap Pipe No S	Strap Strap							
E 5 5 8 1 2 3	Operational By: Deviation 327' 2252 5100' 5624' Size 17 7/8 7 7/8 7 7/8 7 7/8	3000' n Survey 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Survey 0 /4 deg 1 deg 1 deg 1 deg Type Se	Bit Record rial Number	D No Depth In 0 313 5100	epth Strap	Pipe S 	Strap Pipe No 5 Feet 313 4787 524	Strap Strap Hours 8 109.75 30							
Bit # 1 2 3 an 8 joints rculated, by	Operational By: Deviation 327' 2252 5100' 5624' Size 17 7/8 7 7/8 7 7/8 7 7/8 9 8asic, (ticket #1	3000' n Survey S 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,	Survey 0 0 /4 deg 1 1 deg 1	Bit Record prial Number rface Casing sed 350 sack 29.17.	Depth In 0 313 5100 ss of premium	epth Strap Dep E	Pipe S Pipe S 213 5100 5624 290cc, 1/4#	Strap Pipe No S Feet 313 4787 524 # poly flake, c	Strap Strap Hours 8 109.75 30 ement							
E E E Bit # 1 2 3 Ian 8 joints irculated, by Ian 130 join 0 sacks mo	Operational By: Deviation 327' 2252 5100' 5624' Size 17 7/8 7 7/8 7 7/8 9 7 7/8 9 8asic, (ticket #1 1ts of new 17#, 5 pusehole, cement	3000' n Survey 3 3 3 3 3 3 3 3 3 3 3 3 3	Survey 0 /4 deg 1 de	Bit Record erial Number rface Casing sed 350 sack 29.17. luction Casir 190 sacks o complete @	Depth In 0 313 5100 (s of premium) (s of premium) (f AA2, 50 sac	epth Strap	Pipe S 290cc, 1/4#	Feet 313 4787 524 # poly flake, c	Strap Strap Hours 8 109.75 30 ement s rathole							
E Bit # 1 2 3 Ran 8 joints irculated, by Ran 130 join 0 sacks mo	Operational By: Deviation 2252 5100' 5624' Size 17 7/8 7 7/8 7 7/8 new 13 3/8" casi y Basic, (ticket #1 15 of new 17#, 5 pusehole, cement	3000' n Survey S 3 3 3 3 3 3 3 3 3 3 3 3	Survey 0 /4 deg 1 de	Bit Record rial Number rface Casing sed 350 sack 29.17. Juction Casir 190 sacks of the complete @	Depth In 0 313 5100 ss of premium of AA2, 50 sac 0 5:30 am 10.	epth Strap	Pipe S	Feet 313 4787 524 # poly flake, c	Strap Strap Strap Hours 8 109.75 30 ement s rathole							
E Bit # 1 2 3 Ran 8 joints irculated, by Ran 130 join 0 sacks mo 0 sacks mo	Operational By: Deviation 327' 2252 5100' 5624' 17 7/8 7 7/8 7 7/8 9 Basic, (ticket #1 1ts of new 17#, 5 pusehole, cement	3000' Survey S S S S S S S S S S S S S	Survey 0 /4 deg 1 de	Bit Record rial Number rface Casing sed 350 sack 29.17. Auction Casir 190 sacks of complete @ RILLING RE Previous (a. Geologis	Depth In 0 313 5100 ss of premium of AA2, 50 sac 5:30 am 10.	epth Strap	Pipe S	Pipe No 5 Feet 313 4787 524 # poly flake, c	Strap St							
E E E E E E E E E E E E E E E E E E E	Operational By: Deviation 327' 2252 5100' 5624' 17 7/8 7 7/8 7 7/8 9 Basic, (ticket #1 11s of new 17#, 5 pusehole, cement 0700 Hrs Depth 4178'	3000' n Survey S 3 3 3 3 3 3 3 3 3 3 3 3 3	Survey 0 0 //4 deg 1 deg 1 313' set @ 326'. Us 1 down @ 0630 hrs 9.1 1 Prod 1 tally @ 5619', used 1 (Ticket #15511), job 1 A connections Topek 1 Irilling ahead throug 1 RPM: 70 PP: 1150 6.51 CMC: \$8,984.	A Geologis A Geologis	Depth In 0 313 5100 s of premium of AA2, 50 sac 5:30 am 10. 5:30 am 10.	epth Strap	Pipe S	Strap Pipe No S Feet 313 4787 524 # poly flake, c 6 gel, 30 sack	Strap Strap Strap Strap Strap Strap							
E E Bit # 1 2 3 an 8 joints rculated, by an 130 join 0 sacks mo 0 sacks mo 10.4.17	Operational By: Deviation 327' 2252 5100' 5624' 17 7/8 7 7/8 7 7/8 9 Basic, (ticket #' 100 1010	3000' n Survey S 3 3 3 3 3 3 3 3 3 3 3 3 3	Survey 0 /4 deg 1 1 deg <	Bit Record rial Number rface Casing sed 350 sack 29.17. Auction Casir 190 sacks of complete @ RILLING RE Previous (a. Geologis h Heebner, I) 71 as, Lansing.) 42	Depth In 0 313 5100 ss of premium of AA2, 50 sac 5:30 am 10. 5:30 am 10.	epth Strap	Pipe S	Strap Pipe No S Feet 313 4787 524 # poly flake, c 6 gel, 30 sack	Strap Strap							
E E Bit # 1 2 3 an 8 joints rculated, by an 130 join 0 sacks mo 0 sacks mo 10.4.17 10.5.17 10.6.17	Operational By: Deviation 327' 2252 5100' 5624' 17 7/8 7 7/8 7 7/8 9 Basic, (ticket #1 its of new 17#, 5 pusehole, cement 10700 Hrs Depth 4178' 4640' 5025'	3000' n Survey 3 3 3 3 3 3 3 3 3 3 3 3 3	Survey 0 /4 deg 1 1 deg 1 313' set @ 326'. Us 1 down @ 0630 hrs 9.3 1 1 deg 5619', used (Ticket #15511), job 1 A connections Topek 1 Inling ahead throug 1 RPM: 70 PP: 1000 1 A connections Dougl 1 RPM: 80 PP: 1000 1 A connections Lansin 1 Currently short trip 1000 761 CMC \$13,103.1 1	Bit Record rial Number rface Casing sed 350 sack 29.17. Auction Casir 190 sacks of complete (c) RILLING RE Previous (a. Geologis h Heebner, I 71 as, Lansing. (a. Geologis h Heebner, I 71 as, Lansing. (b) 71 as, Lansing. (c) 17.	Depth In 0 313 5100 ss of premium of AA2, 50 sac 5:30 am 10. 5:30 am 10. 5:30 am 10. 5:30 am 10. 5:30 am 10.	epth Strap	Pipe S Pipe S 313 5100 5624 290cc, 1/4# 40 poz, 4% ions on location ling and conservation kee. Dowr	Feet 313 4787 524 # poly flake, c 6 gel, 30 sack	Strap Strap							
E Bit # 1 2 3 an 8 joints irculated, by an 130 join 0 sacks mo 0 sacks mo 10.4.17 10.5.17 10.6.17 10.7.17	Operational By: Deviation 327' 2252 5100' 5624' 5624' 77/8 77/8 77/8 77/8 77/8 new 13 3/8" casi 9 pasic, (ticket #' 10 ts of new 17#, 5 5 ousehole, cement 4178' 4640' 5025' 5100' 5100'	3000' n Survey 3 3 3 3 3 3 3 3 3 3 3 3 3	Survey 0 0 //4 deg 1 deg 1 313' set @ 326'. Us 1 down @ 0630 hrs 9.3 1 1 down @ 0630 hrs 9.3 1 1 down @ 0630 hrs 9.3 1 6 connections Topek 1 rilling ahead throug RPM: 70 PP: 1150 6.51 CMC: \$9,341, 9 1 6 connections Dougl 1 . RPM: 80 PP: 1000 6.71 CMC: \$9,341, 9 1 4 connections Lansir 1 . Currently short trip RPM: 80 PP: 1000 761 CMC \$13,103.1 4 connections Cherc	Bit Record rial Number rial Number riace Casing sed 350 sack 29.17. Auction Casir 190 sacks of complete (c) RILLING RE Previous (a. Geologis b) 71 as, Lansing.) 71 as, Lansing.) 42 ng "J" throug ping 40+ sta) 17. okee through ight delay du) 1.64	Depth In 0 313 5100 ss of premium of AA2, 50 sac 2 5:30 am 10. 5:30 am 10. 5:30 am 10. 5:30 am 10. 5:30 am 10.	epth Strap	Pipe S Pipe S 313 5100 5624 290cc, 1/4# 40 poz, 4% 40 poz, 4% ions on locatio ling and co kee. Dowr ppi in prep. y, 5100'. S n thunders	Strap Pipe No S Strap Pipe No S Strap Pipe Strap Strap Strap No S Shows warrant torm, conduc	Strap St							
<u>E</u> Bit # 1 2 3 an 8 joints irculated, by an 130 join 0 sacks mo 0 sacks mo 10.4.17 10.5.17 10.6.17 10.7.17	Operational By: Deviation 327' 2252 5100' 5624' 17 7/8 7 7/8 7 7/8 9 Basic, (ticket #' is of new 17#, 5 busehole, cement 0700 Hrs Depth 4178' 4640' 5025' 5100' 5225 5100' 5450'	3000' n Survey 3 3 3 3 3 3 3 3 3 3 3 3 3	Jurvey Jurvey 0 //4 deg 1 deg I I connections for pek I connections I congl . RPM: 80 PP: 1000 6.71 CMC: \$8,984. I connections Lansir . Currently short trip RPM: 80 PP: 1000 761 CMC \$13,103.1 I connections Cherce hole for DST #1. SI with bit, prepare to a RPM: 80 PP: 1200 761 CMC \$13,703.1 I connections Cherce hole for DST #1. SI with bit, prepare to a	Bit Record rial Number rface Casing Sed 350 sack 29.17. Auction Casin 190 sacks of complete (e) RILLING RE Previous (a. Geologis h Heebner, I 71 as, Lansing. (b) 71 as, Lansing. (c) 71 as, Lansing. (c) 72 hg "J" throug ping 40+ sta (c) 73 hee through ight delay du drill ahead. (c) 368.07	Depth In 0 313 5100 ss of premium ig of AA2, 50 sac 2 5:30 am 10. 5:30 am 10.	epth Strap	Pipe S Pipe S 313 5100 5624 290cc, 1/4# 40 poz, 4% 40 poz, 4% ions r on locatio ling and co kee. Dowr ppi in prep- y, 5100'. S n thunders head throug	Strap Pipe No S Strap Pipe No S Strap Feet 313 4787 524 Foly flake, c Set of the set of	Strap Strap							



IP:		chalky matrix, scattered poor interxIn porosity, pyritic, no shows noted.	
		Limestone: cream tan, micro to finexln, fossiliferous oolitic, dense chalky matrix, abundant bone white chert, sharp fresh, poor visible porosity, no shows	
		noted.	
- - -		Muncie Creek 4586 (-2426)	
		Limestone: cream tan, micro to finexln, trace fossils, scattered secondary xln in matrix, scattered poor to fair interxln porosity, cherty, no shows or odor noted.	0 Total Gas (units)
			0 C2 (unit\$) 0 C3 (unit\$) 6 C4 (unit\$)
		Limestone: cream tan, tossiliterous oolitic oomoldic, micro to finexin, good scattered interxin vuggy porosity, scattered 2ndary rexin, no shows assoc with porosity, no odor.	
, 		Limestone: cream tan brown, micro to finexln, fossiliferous oolitic, scattered poor to fair interxln porosity, good secondary rexln, no shows or odor noted.	Mud Co Mud Check 4655' 0800 hrs 10.5.17
-			Wt: 9.4 Vis: 52 pH: 9.5 WI: 12.4 Chlr: 7000 LCM: 1#
; 		Limestone: cream tan, micro to finexln, fossiliferous oolitic, trace oomoldic, scattered fair to good interxln oomoldic porosity, vuggy trace secondary xln, no show assoc with porosity.	
		Limestone: cream tan light brown, micro to finexIn, fossiliferous oolitic, scattered oomoldic matrix, dense recemented, poor visible porosity, no shows.	
		Shale: gray green black, dense blocky waxy pyritic.	
			Shale kick
		Limestone: cream tan light brown, microxln, fossiliferous oolitic, dense recemented matrix, very poor visible porosity, scattered dead black stain, faint odor, no other shows noted.	
j			
		Limestone: gray light brown, micro to finexIn, fossiliferous, dense chalky matrix, very poor visible porosity, no shows noted.	
		Hughnuckness 4740 / 0700	
		<u>пизприскпеу 4/40 (-2580)</u>	
		Shale: black gray green, dense blocky carbonaceous, with abundant limestones as above.	Shale kick
		Shales as above, with abundant gray silty shales.	
		Limestone: cream gray tan, micro to finexIn, trace fossils, chalky, soft to dense	
		matrix, cherty, poor visible porosity, no shows noted.	
T T			
		Limestones as above, with increasing chert: bone white, sharp fresh.	
			shale kick
		Shale: gray grading to black, dense blocky micaceous, carbonaceous, pyritic.	0 Tota Gas (units) 0 C2 (units)
			0 C3 (uvits) 0 C4 (uvits)
		Limestone: cream tan light brown, microxin, trace tossils, dense hard recemented matrix, scattered white chert, no snows noted.	
		Limestone: white cream tan, micro to finexIn, oolitic, dense matrix, with scattered secondary rexIn, scattered poor to fair interxIn porosity, no shows or odor noted.	
		Shale: brown gray green, dense blocky, trace pyrite, abundant micas, scattered limestones as above	
-		Mormoton 5954 (2604)	
		<u>Marmaton 5054 (-2094)</u>	
		Limestone: cream tan brown, micro to finexln, trace fossils, dense xln matrix, very poor visible porosity, no shows noted.	
		Shale: black gray, dense blocky carbonaceous.	
		<u>Altamont</u> Limestone: cream tan brown, micro to fine xln, fossiliferous colitic, scattered	
¢		abundant shales as above.	50u kick
		Limestane: white cream tan, micro to finevin, fossiliferous, chalky dones matrix	
		scattered poor to fair interxIn porosity, cherty, no shows or odor noted.	
		Shale: gray green, blocky to waxy fissle, pyritic.	
		Linestone: cream tan reddish, lithographic to microxln, mostly barren, chalky to dense matrix, very poor visible porosity, no shows or odor noted.	
		Limestone: cream tan white, micro xin, trace fossils mostly broken bach, trace	
		calcite nodules, dense xln matrix, no shows or odor noted.	shale kick
		Cherokee Shale 4986 (-2826)	
		Sinale, gray black, defiese IISSIIe carbonaceous, silty.	
		Shale: gray green, blocky fissile, with abundant limestones as above.	Null Co Mud Check 5025' 0800 hrs Tot 10.6.17 Wt: 9 1 Vis: 57
			0 pH: 11.0 WI: 9/6 0 Chir: 6,000 LCM: 6#
		Limestone: cream light brown, micro to finexln, fossiliferous oolitic, dense xln matrix, scattered poor interxln porosity, no shows or odor noted.	
		Shale: gray black, dense blocky fissle, pyritic.	shale kick
		Limestone as shales as above, interbedded, no shows.	
		Mississinni 5048 (-2888)	
	*	Limestone: cream tan brown, micro to finexln, trace oolitic, dense to soft xln matrix, scattered poor to fair interxln porosity, trace gas bubbles when broken	K K
	T	faint odor faint fl under lamp, 90% + limestone.	
	*	cfs @ 5079' Limestone: cream tan brown as above with increasing dolomite:	
	*	white cream brown, micro to fine xln, trace oolites, poor to fair dolomite development, scattered poor to fair interxin porosity, fair show gas when under lamp and broken, few pieces good show free oil, increase when broken, faint order duit valuer if	100u kick
		ouor, uuri yellow II.	7 37
Z	*	cfs @ 5100' Dolomite: white cream light brown micro to finovia fossiliferous	
Ē		porosity, good show free oil / gas in porosity, increase when broken, faint odor, excellent milky white cut and fluorescence.	
Z			Mud Co Mud Check
	0	Dolomite: cream tan, micro to finexIn, trace oolites, dense xIn matrix, poor to fair dolomite development, scattered poor to fair interxIn porosity, scattered sucrosic, scattered poor to fair show free oil when under lamp spotty light	10.7.17 Wt: 9.2 Vis: 44 pH: 10.5 WI: 10.5
Ę		brown stain, dull yellow fl, pale white cut, faint odor.	Chlr: 6,000 LCM: 5#

dST 1.jpg

cfs @ 5473'

	DRILL STEM TES	T REP	ORT			
	Edison Operating Company LLC		5-31S-	18W Commanche		
<u> 3 lesters</u>	8100 e.22nd St N.bldg 1900		Curtis Unruh #1-5			
Great Bouds Kaneas	Wichita,Kansas 67226		Job Ticket: 01197 DST#:1			
	ATTN: Adam K <ennedly< td=""><td></td><td>Test Sta</td><td>rt: 2017.10.07 @ 12:26:00</td></ennedly<>		Test Sta	rt: 2017.10.07 @ 12:26:00		
GENERAL INFORMATION:						
Formation:MississippiDeviated:NoWhipstock:Time Tool Opened:02:52:00Time Test Ended:00:00:00	ft (KB)		Test Typ Tester: Unit No:	be: Conventional Bottom Hole (Initial) Gene Budig1 1		
Interval: 50552.0 ft (KB) To 51	100.00 ft (KB) (TVD)		Referen	ce Elevations: 2160.00 ft (KB)		
Hole Diameter: 7.88 inchesHole	vD) e Condition: Fair			2150.00 ft (CF) KB to GR/CF: 10.00 ft		
Serial #: 9119InsidePress@RunDepth:859.33 psigStart Date:2017.10.07Start Time:12:26:00TEST COMMENT:1st Opening 101st Shut-In452nd Opening 302nd Opening 302nd shut-In90	 © 5095.28 ft (KB) End Date: End Time: Minutes w eak blow built to 2 inche Minutes no blow back Minutes w eak blow built to 3 inche Minutes no blow back 	2017.10.07 20:12:00 s s	Capacity: Last Calib.: Time On Btm: Time Off Btm:	5000.00 psig 2017.10.07 2017.10.07 @ 14:53:00 2017.10.07 @ 17:50:00		
Pressure vs. 7	Time		PRES			
	9719 Tempondaro 9719 Tempondaro 9719 Tempondaro 971 Tempondaro 972 Tempondaro 973 Tempond	Time (Min.) 0 1 11 55 86 176 177	Pressure Tree (psig) (de 2615.13 11 76.99 11 73.86 11 833.04 11 77.19 11 81.42 11 859.33 11 2478.56 12	Annotation ag F) 7.12 Initial Hydro-static 16.44 Open To Flow (1) 16.34 Shut-In(1) 17.43 End Shut-In(1) 17.32 Open To Flow (2) 18.63 Shut-In(2) 19.68 End Shut-In(2) 20.27 Final Hydro-static		
Becoppy				Gas Batos		
Length (ft) Description	Choke (inches) Pressure (psig) Gas Rate (Mcf/d)					
50.00 Drilling Mud	0.70		·	· · · · · · · · · · · · · · · · · · ·		
Eagle Testers	Ref. No: 01197		Pri	inted: 2017.10.07 @ 08:27:09		