### KOLAR Document ID: 1506533

Confident	tiality Re	equested:
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	& I FASE
	III JIONI	- DESCRIF HOR		a 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.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:
Gas DH EOR	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
Commingled Permit #:	Dewatering method used:
Dual Completion Permit #:      SWD Permit #:	
SWD         Permit #:           EOR         Permit #:	Location of fluid disposal if hauled offsite:
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: 1506533

Operator Nam	ne:			Lease Name:	Well #:
Sec	Twp	S. 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	acate)	Y	′es 🗌 No			og Formatio	n (Top), Depth a	and Datum	Sample
Samples Sent to Geolo			⁄es 🗌 No	1	Name	Э		Тор	Datum
Cores Taken Electric Log Run Geologist Report / Mud List All E. Logs Run:		□ Y □ Y	Yes ☐ No Yes ☐ No Yes ☐ No						
		Rep	CASING ort all strings set-c		] Ne	w Used rmediate, productio	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
[			ADDITIONAL	CEMENTING /	SQU	EEZE RECORD			
Purpose:	Depth Top Bottom	Туре	e of Cement	# Sacks Use	d		Type and	Percent Additives	
Protect Casing Plug Back TD Plug Off Zone									
<ol> <li>Did you perform a hydra</li> <li>Does the volume of the</li> <li>Was the hydraulic fracture</li> </ol>	total base fluid of the	hydraulic fr	acturing treatment		-	☐ Yes ns? ☐ Yes ☐ Yes	No (If No, s	kip questions 2 ar kip question 3) ill out Page Three	
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
DISPOSITIO	N OF GAS:		Ν	IETHOD OF COM	MPLE	TION:		PRODUCTIC Top	DN INTERVAL: Bottom
Vented Sold (If vented, Subn	Used on Lease		Open Hole		-	·	nit ACO-4)	юр	Bollom
	foration Perform Top Botto		Bridge Plug Type	Bridge Plug Set At		Acid,		ementing Squeezend of Material Used)	
TUBING RECORD:	Size:	Set At:		Packer At:					

Form	ACO1 - Well Completion
Operator	Patterson Energy LLC
Well Name	ZEIGLER 1-35
Doc ID	1506533

## 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	235	Common	150	3%сс
Production	7.875	5.5	17	3748	Common	150	10% Salt

# QUALITY OILWELL CEMENTING, INC.

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Phone 785-483-1071 Cell 785-324-1041			1.D.# 20-2 ox 32 Rus	ssell, KS 67665	No	1615	Tim
Lease $Z_{C}$ (5), e.a. Well No. 1-35 Contractor V/-W DRLG R = #3 (108) Well No. 1-35 Denet The Job RADUCTIAN STRING (D-V2 STRE) The Job RADUCTIAN STRING (D-V2 STRE) The Job RADUCTIAN STRING (D-V2 STRE) To Quality Conversion of the converting equipment and furnish The Job RADUCTIAN STRING (D-V2 STRE) Conversion of the particular dependent assisted to rent converting to do work as listed. The Job RADUCTIAN STRING (D-V2 STRE) Conversion of the particular dependent assisted to rent converting to do work as listed. The Job RADUCTIAN STRING (D-V2 STRE) Conversion of the particular dependent of the set of the set of the particular dependent depen	•• • • •	Twp. Range		County	State	On Location		₩£ Œ/
Lease $Z_{i}CiGLOR = Under N_{i}CiGLOR = 1 + i Contractor W - W DRUG R_{i} = 1 + 3 (108)The use PRODUCTION STRING (D-V 2. STAPTo Quality Cilvel Correcting, Inc.To Quality Cilvel Correcting PATTERSON ENERGY (ILC.Generating ENERGY $	Date 11-3-19 35	10 0 21 W	GIRA	HAM	KANSAS	OLD TIME.	9:00	Am
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} $			Locatio	n Ens	S. TO Ca.		13N	
Contractor WW DRIGI Rig #3 (108) The Job Roduction STRING (D-V 2.57xc) The Job Roduction St	Lease Zeicher	Well No. 1-	_		<u></u>		<u></u>	
Type Job PARDUCTIAN STRING (DY. 2.57%)       Construction of the point of the state of the point	• •	1		To Quality O	ilwell Cementing, Inc			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				You are here cementer an	by requested to rent d helper to assist ow	cementing equipmer	it and furnish o work as list	ed.
Con Sta 17#CSG, Depth 3747 Street Top. Size \$76 Surface Depth 37.04 The above was done to satisfaction and supervision of owner agent or contractor. Cemeral Left in Coa 43 State State State Depth 4.3 Cemeral Amount Ordered [50 sx ] D[Salt SZgilSpelite Biolance State Amount Ordered [50 sx ] D[Salt SZgilSpelite EQUIPMENT Common /50 Pumplif 17 No. Cemeral Amount Ordered [50 sx ] D[Salt SZgilSpelite EQUIPMENT Common /50 Pumplif 17 No. Cemeral Amount Ordered [50 sx ] D[Salt SZgilSpelite EQUIPMENT Common /50 Pumplif 17 No. Cemeral Amount Ordered [50 sx ] D[Salt SZgilSpelite EQUIPMENT Common /50 Pumplif 17 No. Cemeral Amount Ordered [50 sx ] D[Salt SZgilSpelite EQUIPMENT Common /50 Pumplif 17 No. Cemeral Amount Ordered [50 sx ] D[Salt SZgilSpelite Buildark #3 No. Diver Calcum Common /50 Pumplif 17 No. Cemeral Amount Ordered [50 sx ] D[Salt SZgilSpelite Buildark #3 No. Diver Calcum Calcum Common /50 Buildark No. Diver Calcum	<b>A M</b>	JOAAA	>.	Charge D				
Ibg. Size       STAR SOPSICE       Dange 235'       City       State         Tool ATZH       Dis. Plug ASSAM       STO 4       The above was done to satisfaction and supervision of owner agent or contractor.         Cernent Lett in Cas 43'       Shoo Joint       43'       Cernent Amount Ordered [SO sx /DZ Sqlf. Signifte         Moas Line       Displace       BUE 4/RBL       Common /SC         Moas Line       Displace       Ble 4/RBL         Bulkirk       No. Commenter       Park 2         Pump BT 7       No. Commenter       Port Mix         Bulkirk       No. Diver       LAACE         Bulkirk       No. Diver       Catclum         JOB SERVICES & REMARKS       Hulls         Remarks:       Rot Arrive H 2a D       Salt /3         Rat Hole       Flowseal         Mouse Hole       Kok Seal /30 H         Certralizer 1 5 - 7 9 7 1       Mud CLR 48 500 G AL         Baskets Tube eff 5 - 4 H 13 (1570)       CFL-117 or CD110 CAF 38 100 BBL KC L         Soft A Seal / 7 0       Readeweel         Read to be for the seal of the seal o	csg. 5/2 17#CSG:	Depth 374	7'			<u>Cache y</u>		
Tool AT24 Diversion of owner agent or contractor.         Cernent Left In Cag 43' Shoe Joint 43' Cernent Amount Ordered 50 sx /02 Saft Stag is pair te         Magent Bio Joint 43' Cernent Amount Ordered 50 sx /02 Saft Stag is pair te         Magent Bio Joint 43' Cernent Amount Ordered 50 sx /02 Saft Stag is pair te         Provide Stag 4/Rgt         Commenter Displace Bio 4/Rgt         Provide Stag 4/Rgt         Buildett & 30 Differ	Tbg. Size 8 5/ Supsice	Depte 135-1				State		
Cement Left in Ceg. 43' Cement Armount Ordered 50 sx /02 saft 52 gilsput te Meas Line Displace 86 4/RBL Common /50 Pumptik 17 No. Commenter 2000 D.C. Pumptik 17 No. Commenter 2000 D.C. Pumptik 17 No. Commenter 2000 D.C. Bulktrik 3 No. Contenter 2000 D.C. Baskets 7 D.C. Baskets 7 D.C. Baskets 7 D.C. Baskets 2 D.C. DRop AFU Ball Mileage CiRcultar For 3/4 HR. 9 Rotatte. Pump 500 Q.C. MUD CLE - 10 pg. / KCI Guide Shoe Cleare 1. Jisto sx No2 4 52 D.C. Baskets 2 D.C. Baskets	Tool LATCH Div. Plug AS	Selfth 3701	+		s done to satisfaction a		r agent or contr	actor.
EQUIPMENTCommon /5 DPumplik 17No. ConstructGlevin (2000)Bulktrk #3No. DriverLARCEBulktrk #3No. DriverLARCEBulktrk No. DriverLARCEGel.Bulktrk No. DriverCalciumJOB SERVICES & REMARKSHullsRemarks:RoTATING H Q. DSalt /3Salt /3Rat HoleRowsealMouse HoleKok-Seal /30 HCentralizers 1, 5 + 5 + 5 + 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES & Kok-Seal /200 (7AL)Baskets Truge eff 5 + # 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES (Construction)Muse HoleKok-Seal /30 HContralizers 1, 5 + 5 + 5 + 5 + 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES (Construction)Muse HoleKok-Seal /30 HMuse HoleKok-Seal /200 (7AL)Baskets Truge eff 5 + # 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES (Construction)Muse HoleKok-Seal /200 (7AL)Baskets Truge eff 5 + # 13(1570)Circular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTPumpt SOOGAL MUD (La - 10 Rgu/ KC1)Gulde ShoeCenter (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTPumpt SOOGAL MUD (La - 10 Rgu/ KC1)Gulde ShoeCenter (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENT)Circular For R 3/4 HR + 4 Rot	Cement Left in Csg.43	Shoe Joint 43			•	x 10% salt "	52 Sikon	1,70
EQUIPMENTCommon /5 DPumplik 17No. ConstructGlevin (2000)Bulktrk #3No. DriverLARCEBulktrk #3No. DriverLARCEBulktrk No. DriverLARCEGel.Bulktrk No. DriverCalciumJOB SERVICES & REMARKSHullsRemarks:RoTATING H Q. DSalt /3Salt /3Rat HoleRowsealMouse HoleKok-Seal /30 HCentralizers 1, 5 + 5 + 5 + 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES & Kok-Seal /200 (7AL)Baskets Truge eff 5 + # 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES (Construction)Muse HoleKok-Seal /30 HContralizers 1, 5 + 5 + 5 + 5 + 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES (Construction)Muse HoleKok-Seal /30 HMuse HoleKok-Seal /200 (7AL)Baskets Truge eff 5 + # 13(1570)CFL-117 or CD110 CAF 38LOB SERVICES (Construction)Muse HoleKok-Seal /200 (7AL)Baskets Truge eff 5 + # 13(1570)Circular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTPumpt SOOGAL MUD (La - 10 Rgu/ KC1)Gulde ShoeCenter (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTPumpt SOOGAL MUD (La - 10 Rgu/ KC1)Gulde ShoeCenter (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENTCircular For R 3/4 HR + 4 Rotafe (FLOAT EQUIPMENT)Circular For R 3/4 HR + 4 Rot	Meas Line	Displace 864	BBL				1 dinstr	╩╘╌┎╴┶┷
Putper 17 Helper Day D L. Poz. Mix Bulkrik # 3 No. Driver C44CC Gel. Bulkrik # 3 No. Driver Gel. UDB SERVICES & REMARKS Hulls Remarks: Rotating H CaD Salt / 3 Rat Hole Hole Kol-Seal / 30 H Centralizers 7 5 7 9 11. Mud CLR 48 500 GAL Baskets Turke OF 52 # 13 (1570) CFL-117 or CD110 CAF 38 10 P.BL KCL Driver Port Collar Dy Taol CN # 52 37. Sand Ran S'S CSG. + Set @ 37 Handling/75 / 70 Recieved Ciper - Drop AFU Bail Mileage FLOAT EQUIPMENT Pump Son GAL MUD CLR - 10 BgL/ KCl Guide Shoe Cleanant U 1505 X DZ 452 Cleanant U 1		/ENT		Common /	50		1	
Bulkrik # 3 Driver Bulkrik No. Driver JOB SERVICES & REMARKS Hulls Remarks: RoTATING, H & aD Rat Hole Centralizers ##55799 #11 Mud CLR 48 500 CAL Centralizers ##5779 #11 Mud CLR 48 500 CAL Baskets Ture of 52 #13 (1570) CFL-117 or CD110 CAF 38 #08.BL KCL DV/ or Port Collar DV Tack CN # 52 37. Baskets Ture of 52 #13 (1570) CFL-117 or CD110 CAF 38 #08.BL KCL DV/ or Port Collar DV Tack CN # 52 37. Recieved Cipe: -DRop AFU Ball Mileage CiRculat For 3/4 HR. 9 Rotate Pump 500 GAL MUD CLR - 10 Bal/ KCl Guide Shoe Cement W 1570 x D2 \$52 Cisculat For 3/4 HR. 9 Rotate Circulat For 50 GAL MUD CLR - 10 Bal/ KCl Guide Shoe Cement W 1570 x D2 \$52 Circulate G Circulate Circulate State Had Shoe 1 Latch Down 1 Released Pressure 9 Dried - WP. Truck Linnit Clam P - 1 DRop OPENING Datt WP. Truck Linnit Clam P - 1 DRop OPENING Datt WP. Truck Linnit Clam P - 1 Balton Mud G Circulate APPROX Mud Hag G Circulate APPROX Mileage 25 May Hag G Circulate APPROX Mileage 25 THANKS' Discount	Pumptrk / Helper	GLENN DAV.D L	G7	Poz. Mix				
Bulktrk Deriver Calcium JOB SERVICES & REMARKS Hulls Remarks: RoTATING H Q. a.D Rat Hole Sat /3 Rat Hole Flowseal Mouse Hole KorSeal /30 H Centralizers 155 7 49 711 Baskets Turge of 52 #13 (1570) CFL-117 or CD110 CAF 38 20 9.82 KCL DW or Port Collar DV Taol CN # 52 877. Sard Now SS CSG. + SET @ 37 Handling /70 Recieved Cipc, DRop AFU Ball Mileage CiRcular For B/4 HR. & RoTate FLOAT EQUIPMENT 'Pump 500 GAL MUD CLR - 10 801 / KCl Guide Shoe Cleant W 1570 SX 102 \$52 Cigcl eced H2 - May + H2 Total S6/288 AFU Inserts H 2D BOOTTINGT PRESSURE Float Shoe / LAND Rothorn Aug 1500 H. Latch Down / Released PRESSURE 9 DRIED - UP. D-V TOCK-J DRop OPENING DaRT W/F. TRUCK Limit Clam P-1 Reform Row D Hag & CIRCULAR APPROX Mileage 27 MAUD Hag & CIRCULAR APPROX Mileage 27 GO MINUTES THANKS: DISCOUNT	Bulktrk # 3 Driver	LAnce		Gel.		······································		
Remarks:     Rot Atting Heap     Salt /3       Rat Hole     Flowseal       Mouse Hole     Kol-Seal 730 #       Centralizers 1557 #9 #1     Mud CLR 48 500 GAL       Baskets Turke of 52 #13 (1570)     CFL-117 or CD110 CAF 38 108 BL KCL       Dibror Port Collar     DV Tool AN # 52 87.       Sand     Raw 54 CSG. + SET @ 3?     Handling ## 70       Recieved Cipc DRop AFCU Ball     Mileage       CiRculat For 70 R     B/4 HR. 9 Rotate     FLOAT EQUIPMENT       Pamp 500 GAL MUD CLR - 10 BBL / KCI     Guide Shoe       Clear + Wistors Koz     Salt / 2       DisplaceD H2 - Mud - H2 Total 86 // BB AFU Inserts       H2D Poot #Lift 7 PRESSURE .       HAD Pothom Rug@ 1500 #.       DisplaceD PRESSURE 9 Die - DP.       Dr. D OPENING DART W/F TRUC Limit Clam F - 1       BeleaseD PRESSURE 9 DIE - DP.       De Boo #L. Hook - up TO       Pumptr Charge pro 2 String Strage       Mar D Hook - up TO       Pumptr Charge pro 2 String Strage       Mar D Hag & Circulate APPROX Mileage # 34       Cominitions - THONKS:				Calcium				
Hat Hole       Flowseal         Mouse Hole       Kol-Seal 730 #         Centralizers 7, 5, 5, 5, 4, 13 (1570)       CFL-117 or CD110 CAF 38 & & & & & & & & & & & & & & & & & &	JOB SERVICES	& REMARKS		Hulls				
Hat Hole       Flowseal         Mouse Hole       Kol-Seal 730 #         Centralizers 7, 5, 5, 5, 4, 13 (1570)       CFL-117 or CD110 CAF 38 & & & & & & & & & & & & & & & & & &	Remarks: ROTATING	Heat		Salt /3			-	<u> </u>
Centralizers 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Rat Hole	×		Flowseal			1	
Baskets TURE OF 52 # 13 (1570) CFL-117 or CD110 CAF 38 10 BBL KCL DWD POR Collar DV Tech ON # \$237. Sand Ren 55 CSG. + SET @ 37 Handling / 70 Rec ieves Cipc DROP AFU Ball Mileage CiRCULAT FOR 3/4 HR. & Rotate FLOAT EQUIPMENT Jump 500 GAL MUD CLR - 10 BBL / KCI Guide Shoe Cement W 150 SX 102 + 52 Clack - Live - Release Slime Plug Baskets 2 Displeced HS- Mas - HS Total 86/200 AFU Inserts HSD 800 # Lift 7 PRESSURE, Float Shoe - 1 LAND Bottom Aug & 1500 # Latch Down - 1 Released PRESSURE & DRIED - UP. D-V TOOL - 1 DROP OPENING DART W/F- TRUCK Linnit Clam F-1 B from BED H. HOOK - UP TO PUMPTIC AFGE STORE SIGNE Mad Hog & CIRCULATE APPROX Mileage 25 37 GO MIXIUTES = THENKS! No Hog & CIRCULATE APPROX Mileage 25 37 Tax Discount	Mouse Hole	*		Kol-Seal 7	50 #			
Divor Port Collar DV Tack an # 52 57. Sand Ren 55 CSG, + Set @ 37 Handling, 859/70 Recieved Cipe, -Drop AFU Ball Mileage Circulat For 3/44R. 9 Rotate FLOAT EQUIPMENT fump 500 GALMUD CLR - 10 BBL/ KCI Guide Shoe Comment of 150 5X 102 + 52 Clear Line - Release Slime Plug Baskets 2 Displeced HS-med HS Total 86/48 AFU Inserts HD 800 this T PRESSURE, Float Shoe 1 LAND Bottom Aug 2 1500 th, Latch Down 1 Released PRESSURE 9 DRIED-DP. D-V TOOL-1 DROP OPENING DORT W/F TRUCK Linnit Clamp -1. Bottom Deco th, HOOX-up TO Mad Hog & Circulate APPROX Mileage 25 27 Mad Hog & Circulate APPROX Mileage 25 27 Mad Hog & Circulate APPROX Mileage 25 27 No Biscount	Centralizers 35 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	······		Mud CLR 48	500 GA	PL .		
Divor Port Collar DV Tool CN # 52.57. Sand Ren 55 CSG. + SET @ 37 Handling / 57 / 70 Ren ieuzo Cipe Drop AFU Ball Circulat For 3/4 HR. & Rotate FLOAT EQUIPMENT Jump 500 GAL MUD CLR - 10 BBL / KC1 Guide Shoe Cement wistors No2 +52 Clear - Live - Release Slime Plug Baskets 2 Displaced HS-mad-H. Total 86/488 AFU Inserts H2D 800 this T PRESSURE. Float Shoe 1 LAND Bottom Rug@ 1500 the Lach Down 1 Released PRESSURE 9 DRIED-UP. D-V Tool-1 DROP OPENING DART W/F. TRUCK Limit Clamp - 1. B. Hom DROP d Circulate APPROX Mileage 25 27 Mad Hag d Circulate APPROX Mileage 27 Mad Hag d Circulate APPROX Mileage 27 Tax Discount	Baskets TURE OF 52	#13 (157	0)	CFL-117 or C	D110 CAF 38	OBBL KCL		
Recieved Ciper - Drop AFU Ball Mileage Circulat FOR 3/4HR. & Rotate FLOAT EQUIPMENT fump 500 GAL MUD CLR - 10 BBL/KCI Guide Shoe Cement Wistors 102 + 52 Clear-Line - Release Slime Plue Baskets 2 Displaced H-2-mad-H-2 Total 86/488 AFU Inserts HAD 800 HL/2 T PRESSURE, Float Shoe"/ LAND Pottom Rug@ 1500 H. Latch Down"/ Released PRESSURE & DRIED-UP. D~V TOOL-I DROP OPENING Dart W/P-TRUCK Limit ClamP-1. Boffom BED Hook-up TO Pumptrk Charge Pro String Stage Mad Hog & Circulate APPROX. Mileage 25 24 Tax THANKS: Discount	DN or Port Collar DV Tool	ON # 523	T.	Sand		· ·		
Rectiles (1, 20, -1/20, APC)       Mileage         Circulat For 3/4 HR. & Rotate       FLOAT EQUIPMENT         Pump 500 GAL MUD CLR - 10 BBL/KC1       Guide Shoe         Cement W 150 sx 102 & 52       Oventralizer 6         Clear - Live - Release Slime Plud Baskets 2       DisplaceD H2 - map - H2° Total 86/488 AFU Inserts         DisplaceD H2 - map - H2° Total 86/488 AFU Inserts       Float Shoe*/         HD Bottom Aug@ 1500#       Latch Down*/         LAND Rottom Aug@ 1500#       Latch Down*/         Place Pressure 9 Dried-UP. D~V Tool-1       Defining for Model String for S	Ren 55 CSG. +	Set @ 37		Handling	50 170			
LIRCHITT POR JEAN R. STRATC. PUMP 500 GAL MUD CLR - 10 BBL/ KCI Guide Shoe Cement wisses No2 + 52 Clear - Line - Release Slime Plug Baskets 2 Displaced H2 - Map - H2 Total 86/28 AFU Inserts HD 800 this T PRESSURE . HAD Bottom Aug@ 1500 the Latch Down / Released PRESSURE 9 DRied - UP. D~V Tool - 1 DROP OPENING DART W/P-TRUK Linnit Clam P-1. Bottom Released PRESSURE 9 DRied - UP. D~V Tool - 1 DROP OPENING DART W/P-TRUK Linnit Clam P-1. Bottom Released the Hook - up TO NoD Hag. & Circulate APPROX. Mileage 25 27 Mad Hag. & Circulate APPROX. Mileage 25 27 Tax Discount	Recieved Cipe, - DROP	AFU Ball		Mileage				
Cement W 1505× 62 +52 Clack-Line - Release Slime Plug Baskets 2 Displaced H2-mad -H2 Total 864 BB AFU Inserts HDD BOOTTHIST PRESSURE: Float Shoe"/ LAND Bottom Rug@ 1500# Latch Down"/ Released PRESSURE 9 DRIED-UP. D~V TOOL-1 DROP OPENING DORT W/P-TRUCK LIMIT ClamP-1. B-HOM BOO #F. HOOX-UP TO PUMptrk Charge Pro2 String Stage MUD Hog & CIRCULATE APPROX. Mileage 25 27 Tax CO MIXIUTES: Discount	CIRCULAT FOR 3/4	HR. 9 Rotat	Le		FLOAT EQUIPM	ENT	37 17	
Clack-Line - Release Slime Plud Baskets 2 Displaced HS-Mad - HS Total 86/488 AFU Inserts HD BOOTHINGT PRESSURE: Float Shoe"/ LAND Bottom Aug@ 1500# Latch Down"/ Released PRESSURE & DRIED-UP. D~V TOOL-I DROP OPENING DORT W/P-TRUCK Limit Clamp-1. Bottom BEOD #F. HOOX-UP TO PUMptrk Charge pro 2 String Stage MOD Hog & CIRCULATE APPROX. Mileage 25 37 Tax CO MIXIUTES = THOMYS' Discount	PUMP 500 GALMUD'C	1R - 10 BBL/	KC1	Guide Shoe	in the second			
Displaced H-S-MOD-H-C Total 864 BB AFU Inserts HOD 800 #Lift PRessure, Float Shoe"/ LAND Pottom Aug@ 1500 #, Latch Down"/ Released PRESSURE 9 DRIED-UP. D-V TOOL-I DROP OPENING DORT W/P-TRUCK LIMIT CLAMP-1. Bottom BEOD #, HOOK-UP TO PUMptrk Charge pro 2 String Stage MOD HOG & CIRCULATE APPROX Mileage 25 37 Tax Discount	Cement w 1505x 102	\$5%		Centralizer	2			
HOD 800 #Lift PRESSURE, Float Shoe"/ LAND Bottom Aug@ 1500 #_ Latch Down"/ Released PRESSURE & DRIED-UP. D~V TOOL-1 DROP OPENING DORT W/P-TRUCK LINIT CLAMP-1. B-HOM @ 800 #. HOOK-UPTO PUMptrk Charge prod String Stage MOD HOG & CIRCULATE APPROX. Mileage 25 37 CO MIXIUTES: THANKS: Discount	Clear-Line-Rele	ese Slime P	lud	Baskets 2	2	· · · · · · · · · · · · · · · · · · ·		
LAND Pottom Aug@ 1500# Latch Down"/ Released PRESSORE & DRIED-UP. D~V TOOL- DROP OPENING DART W/P-TRUCK LIMIT CLAMP-1. Bottom 2 800 #. HOOK-UP TO PUMptrk Charge pro2 String Stage MUD HOG & CIRCULATE APPROX. Mileage 25 37 GO MIXIUTES: X 0 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Displaced H-S-mon.	H- Total SI	6/2884	AFU Inserts				
Released PRESSURE & DRIED-UP. D-V TOOL-I DROP OPENING DORTW/P-TRUCK LINIT CLAMP-1. Bottom BOO #. HOOX-UP TO PUMptrk Charge prodistring stage MUD HOG & CIRCULATE APPROX Mileage 25 37 GO MIXIUTES: X 02	HOD 800 thift P	Ressure		Float Shoe *	<u>1</u>	al la dara da <sub>a</sub>		
DROP OPENING DORTW/P-TRUCK LIMIT CLAMP-1. Bottom BEOD #F. HOOX-UPTO PUMptrk Charge pro2 String Stage MUD HOG & CIRCULATE APPROX. Mileage 35 37 GO MIXIUTES: X Discount	LAND Pottom Augo	@ 1500#		Latch Down	/			
D 800 #, HOOX-UP TO Pumptrk Charge pro2 String Stage MUD HOG & CIRCULATE APPROX Mileage 35 37 GO MIXIUTES: X 02 X 02	Released PRESSURE	9-DRieD-U	<u> </u>	<u>D-V 7</u>	001-1	·····		· . 
Mul Hog & Circultate Approx. Mileage 35 34       GO mixiutes:       THANKS:	DROP OPENING	DORTW/P-	TRUCK	LIMÍT	Clamp-	1. R	from	
CO MIXIUTES : THANK'S Discount	(D'800 # - He	ok-up 40	1	Pumptrk Cha	rge prods	Fring St	Fage	
X B = I Discount	MOD Hog & Cit	Culte APH	ROX	Mileage	5127		/	
X	60 mixiutes:				o- ¥	Tax		
Signature Aven Weaverlay Total Charge	v	THOMES				Discount		
	Signature Ave Wegner	Lay				Total Charge		·

WEARS .

# QUALITY OILWELL CEMENTING, INC.

· · · · · · · · · · · · · · · · · · ·	Federa	al Tax 1.D.# 20	D-2886107	-	
Phone 785-483-1071 Cell 785-324-1041	Home Office	P.O. Box 32 F	Russell, KS 67665	No.	1616 _ <u>7:45 Ne</u> c
Date 11-3-19 Sec. 35	Twp. Range 105 21 w	GRAHAM	n Kansas	On Location	Finish Tim 10:45 Am
Lease ZEIGLER Contractor W-W DRLG	Well No. 1-3 Rigt (108)		IS 5-76 C	O, Line !	5WZN
Type Job PRODUCTION STR	ing (2-STAge	Dy You are h cementer Charge	and helper to assist own	er or contractor to d	o work as listed.
Hole Size 77/8 Csg. 51/2 17#	T.D. <u>375</u> Depth <u>374</u>	7 Street	ATTERSON	ENERG	<u>sy LLC,</u>
Tbg. Size Tool DV - Tool @	Depth	City		State	7
Cement Left in Csg.	Depth 1570 Shoe Joint	Cement A	was done to satisfaction an mount Ordered 3505		31 ++-
Meas Line EQUIPM	Displace 36 2/ ENT	BBL Common	350 % QN		
Pumptrk 17 No. Cementer Helper Bulktrk 21 No. Driver Driver	BAUID L Phike P	Poz. Mix Gel.			
Bulktrk No. Driver Driver JOB SERVICES (		Calcium			· · ·
Remarks:		Hulls Salt			
Rat Hole <u>30 SX</u> Mouse Hole		Flowseal Kol-Seal	87#		
Centralizers Baskets		Mud CLR		·····	· · · · · · · · · · · · · · · · · · ·
DAV or Port Colla 01570	CIRC. 1 HK	x) Sand	or CD110 CAF 38		
Cement Bathole	TAGE WI 30 SX	Handling Mileage	350	i en el e El en el e	
Mixed APPRox 32	5 sx cement (	325)	FLOAT EQUIPME	NT	
d Cement Dip 1 To Surface,	CircuLATE (weigH- BACK	Guide Sh			
- Pisplaces 3613 BB	Koott To	Baskets	ts a ta esta da esta d		
Close DU Tool	L. (Herg)	Float Sho	e	and and a second se The second se The second se The second sec	
				<u>ر</u> 7	20
THANK	15	Pumptrk ( Mileage	Charge procl	tring 5	luge_
			<u> у и с</u>	Tax Discount	
Signature Aven Weenship	9			Total Charge	

QUALI	TY OILM	FILL C	EMENT 2886107	ING, IN	<b>C.</b>		
Phone 785-483-1071 Cell 785-324-1041	Home Office	P.O. Box 32 Ru	ussell, KS 67665	No.	1822		
Date 11-6-19 35	Twp. Range	County Caraham	State K-S	On Location	Finish		
				1 3 32/10	12 P.		
ease Zeialer		Location Paleo	S CHLACS	W 390RD 1/21	Rinto		
	Well No. 2 -		Oilwell Cementing, Inc	•			
Contractor (WW) 108		You are her	reby requested to rent	cementing equipmen	t and furnish		
Vpe Job Sarfad		Charge	nd helper to assist ow	ner or contractor to d	o work as listed.		
lole Size 1719	T.D. 240	To 1	attlisen 2n	erg/			
<u>sg. 878</u>	Depth 239	Street					
bg. Size	Depth	City		State			
	Depth		as done to satisfaction a		agent or contractor.		
ement Left in Csg.	Shoe Joint	Cement Arr	ount Ordered 1.50	8/20 3/.cc.	21. CRL		
leas Line	Displace / 4 //2/	32	· · ·	• · · · ·	a		
	MENT	Common	120	· · · ·			
umptrk / Helper		Poz. Mix	<u>3@</u>	·			
ulktrk Driver		Gel.	3				
iktrk 9 No. Driver Ten	y ha	Calcium &	5	1			
JOB SERVICES	& REMARKS	Hulls					
emarks:		Salt					
at Hole		Flowseal		· · · · · ·			
ouse Hole		Kol-Seal	•				
entralizers			Mud CLR 48				
askets					• •		
V or Port Collar	tanta tan		CFL-117 or CD110 CAF 38 Sand				
\$510 a harrow F	37 Crevitoren.		Handling 15 9				
O 10 M DETEM. R.	en franziski se grada		57				
MUX 15016 X Disp	lace	Mileage	rin ha an an Arrien an Arrien Arrien an Arrien an A	an Anna Anna Anna Anna Anna Anna Anna A			
- Compile			FLOAT EQUIPM	ENT	·		
CEMENT -	uslatest	Guide Shoe			· · · · · · · · · · · · · · · · · · ·		
		Centralizer					
		Baskets					
	<u>, h</u>	AFU Inserts					
<u> </u>	Man R/	Float Shoe					
4	100.	Latch Down			1		
is a spectrum.			<u> </u>				
		Pumptrk Ch	arge Surfact				
		Mileage 3	7	terne and the			
				Tax	•		
			ng an tha	Discount			
gnature Verthele	· · ·						

we have the second

QUALI	Federal	ELL CEMENTING, INC.				
Phone 785-483-1071 Cell 785-324-1041	Home Office P.	O. Box 32 Russell, KS 67665 No. 1829				
Sec.	Twp. Range	County State On Location Finish				
Date //-14-19		Graham KS 12:300				
		Location Filis N C.O.Line 560 380 1/20 Ento				
Lease Zpially	Well No. /. 3.5					
Contractor Western WPI		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish				
Type Job Som (eZe		cementer and helper to assist owner or contractor to do work as listed.				
Hole Size 7.7/8	T.D.	Charge Fatterson Enerni/				
Csg. 5/2	Depth	Street				
Tbg. Size 27/8	Depth	City State				
Tool Teel Tech	Depth	The above was done to satisfaction and supervision of owner agent or contractor.				
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered 100 c2m				
Meas Line	Displace					
EQUIP		Common 50				
Pumptrk / No. Cementer	213	Poz. Mix				
	N	Gel.				
Bulktrk 14 No. Driver	ce l	Calcium				
JOB SERVICES	& REMARKS	Hulls				
Remarks:		Salt				
Rat Hole	di a a	Flowseal				
Mouse Hole		Kol-Seal				
Centralizers		Mud CLR 48				
Baskets		CFL-117 or CD110 CAF.38 7 #				
D/Vrer Port Collar		Sand				
	3670-73	Handling 120				
	3550	Mileage				
RATE UR A Goott	2220	FLOAT EQUIPMENT				
Mixell 25 culled -	(025 com.	Guide Shoe				
Serveral to 1000	tot	Centralizer				
-guicaco po for		Baskets				
	17 6	AFU Inserts				
	w/e/	Float Shoe				
Tha		Latch Down				
	0					
	a the set of the					
		Pumptrk Charge Solar and				
	it good the set of	Pumptrk Charge Squeeze				
the second second		Mileage S Tax				
1	нини — — — — — — — — — — — — — — — — — —	Discount				
X Signature		Total Charge				
orginature i pr						
V -						

11:00 JOB M M-			- 11		Drilling Cont	ractor	WW	Drilling, Ri	ig #108		
Marc A. Dow	ning	Geologic 1	Report		Commenced	10-28-	- <b>19</b> Com	pleted	11-2-19		
					Samples Save	ed From	3100	То	RTD		
Consulting Petr	oleum	Drilling Time and	l Sample I	Jog	Drilling Time	Kept From	3000	То	RTD		
Geologist	t l				Samples Exam	nined From	3100	То	RTD		
			~		Geological Su	pervision From	3100	То	RTD		
Operator Patte	erson Energy	LLC	KB	levation 2095							
Lease Zeigler		No. <b>1-35</b>	DF GL	2093 2090							
API # 15-065-2	24175-0000		Surface	ng Record							
Field Trico			Productio				ary and Recon				
Location 1630'	FSL & 2970	' FEL		2" @ 3748' ical Surveys			n, DST recovery, asing for comple	-	aluation, it was decided		
Sec. 35	Twp. 10s	Rge. 21w		DL, DIL		-					
County Grat	nam State	Kansas		MEL		nded Perforatio : 3670-73 (First	ons: t, squeeze if wet)			ROCK TYPES shale, red	ACCESSORIES
Formation	Sample tops	Log Tops	Datum	Struct Comp		3658-62				shale	SSC
Top Anhydrite	1546	1542	+553	+6	LKC C:	3396-3400 (Be	fore Abandonme	ent)			UC I
Base Anhydrite	1588	1585	+510	NA						₩ 1	AC
Topeka	3116	3112	-1017	+3							
Heebner	3322	3318	-1223	+9						≥ స్	
Toronto	3342	3338	-1243	+8						shale, gry Carbon Sh	
LKC	3358	3354	-1259	+9						Sh	0
ВКС	3594	3590	-1495	NA							NGER imestone
Arbuckle	3658	3654	-1559	+11							Lime Lime
Total Depth	3750	3748	-1653								STRI
								Dagne	ectfully Submitted,	×22	
								Kespe	cuuny suonnucu,	Dolprim Lmst fw7>	
Defence as W-11 E-C	ten otues 1 Comment							Marc	A. Downing	<b>–</b> –	MINERAL △ Chert White
SE SE SW, Sec. 35-10s-		on Theodore Gore - Zo	eigler 'B' #1								NN A

OIL SHOWS • Even Stn • Even Stn 50 - 75 % • Spotted Stn 55 - 50 % • O Spotted Stn 1 - 25 % • O Questionable Stn D Dead Oil Stn = Fluorescence

CI ROP (min Gamma (/ Cal (in)



NOTE Gamr have fit RC vfn suc xln v Some It br Sh: LS: LS: sworts liO ζειτροίοση Cored Interval Depth | Intervals Depth | Intervals 

3140		
		LS: tan, vfn suc xln w/ gd intxln por, fr amt subxln-
3150		chlky rx. Some It brn stn, NSFO, fnt od.
		Sh: Black Carb
3160	- - - - - - - -	Sh: gry
3170		LS: tan, md xln, foss. Mostly v dns w/ no vis por, few
3180		Sh: gry
3190		LS: wht-tan, fn xln, foss in prt. Some vug por, mostly subxn-v chlky. Totally barren, no od.
3200		LS: ala. few mtld rx.
3210		Sh: Black Carb
3220		Sh: gry w/ some brn.
~		1.S: wht. fn-vfn xln. chlkv. Er amt dns rx. all NS. no
3230		
3240		LS: less chlky, trng dns w/ pr por. Trng fn-md xln w/ scat foss. All NS.
3250		Sh: gry w/ some brn
3260		Sh: Black Carb
		LS: tan, vfn xln and dns.
3270		
3280		barren, no od. Scat foss w/ depth, trng tight and dns w/ pr por.
3290		sit: gry LS: wht, fn xin, v chiky. Scat vugs, totally barren w/
3300	   	
3310		LS: tan-wht, trng v ans w/ no vis por, mtid in prt. Scat tan-wht cht, all NS.
3320		Heebner 3322 (-1227)
3330		Sh: gry
3340		Toronto 3342 (-1247)
		vln focc in
3350		אווי, וטפט ווו אוני שמט אוורטווואן,
		<u>LKC 3358 (-1263)</u>
		pr por, scat sm
3370	)    	rare
		LS: some ala, poss carry, trng vfn xln and v dns w/ no
3380		vis por. Scat tan cht.
3390		Sh: Black Carb Sh: 2n/
		au. gry LS: wht: md xln: scat frag foss. Some fr intxln and vug
3400 3400		por, fr amt subxln-chlky. Scat It brn stn w/ pr sat, softd SFD when broken It od Trng md-Irg od ry w/
3410		frag foss, fr-gd int ool/foss por, gd lt brn sat stn w/ fr-
		gu or 0, gu ou. Sh: brn w/ some arv
3420		LS: brn, md xln foss. Few rx w/ pr vug por, fr brn stn
3430		
3440		LS: tan, md xin, toss, dolomitic in prt. Scat fr-gd prn stn w/ fr sat and fr SFO in pr intxin por, few sml vugs. I t-fr od
		who vho surc in ort w/ faw onl Scat od
3450		por, mostly subxin-chiky. Totally barren, no od.
3460		Sh: gry
~		LS: wht, fn-vfn xin, few subxin rx, mostly tight w/ no vis por. Totally barren, no od.
3470	  	

	The				3480		10 <sup>2</sup> - 12	LS: ala, scat tan-wht cht.
				+		   		
1		V			3490			Sh: Black Carb
	Y	A			-3500			Sh: gry
0 0 0		Call	samma (API) Samma (API) Cal (in)	150 150	8		•	LS: wht, fn xln. Scat fr pp por w/ brn stn and rare SFO. Few selenite xls, lt od.
					3510 -			Sh: drk gry
		N	$\gamma$		- 3520			Sh: gry
							•	LS: wht, mostly fn xln w/ few foss and subxln. 2-3 rx tot foss w/ It brn stn and spttd SFO in fr vug por, fnt
	-				0000			.po
	V			_	3540			Sh: gry
	<u> </u>	$\wedge$					•	LS: ala w/ 1-2 rx fr vug por, fr stn and spttd SFO, lt
		$\mathbf{\Lambda}$	m		3550			Sh: Black Carb
	Y				3560			LS: tan, tot ool. 2-3 rx w/ fr int ool por and small
	W.				a 1 a			vugs, fr-gd sat stn w/ fr SFO, lt-fr od. Rest trng no vis por and totally barren.
				N	3570			
HH.				1				Sh: Black Carb
		Y			3580		0	LS: wht, fn-md xln, scat foss and ool. Many subxln-
					3500			rare uneven stn, NSFC
	4.	A	$\int$				rende.	<u>BKC 3594 (-1499)</u>
	-	n_	5		3600		-25	
	T							sn: brn w/ gry
				_	3610			LS: tan-wht, md xln. Few foss, v dns, no vis por.
	-7		M					Sh: ala w/ much dns wht LS.
	Y			Λ	3620		1000	Sh: mostly brn-red, arg in prt
	<b>\</b> F	N			1.1.1			LS: tan-wht, md xln, foss. Dns w/ no vis por.
	+	r	$\wedge$		3630			
	-	M	1		111			Sh: gry w/ brn
	-	$\checkmark$	M		3640			
	1	K					0.5	
	-				3650			סוו. פוץ אין טווו, זו מווור טווא בא אנווופכוא
	-	Л	$\bigwedge$					<u>Arbuckle 3658 (-1563)</u>
	R				3660			Dolo: tan-brn, fn suc xln w/ few sml rhombs, some
	AC			-Ddl				sltly sndy. Fr-gd intxln por w/ scat Irg vugs, slightly tight in prt Gd It hrn sat stn w/ od SEO od od Trno
	~				3670 _	1 1 1	•	tighter w/ depth, still good show, free oil on cup.
	×							Dolo: too from too of the model of the set of
	$\Delta$				3680			intxln and vug por w/ gd sat stn and gd SFO, gd od.
	K				1.1	1 1 1		Fr amt tight rx w/ less show. Free oil on cup.
					3690			Dolo: tan, some suc xIn, some md rhom xIn. Much
Y	1					1 1 1	•	aia, scat gu sat sui w/ gu srO in it inixin por, it aint tight rx w/ less show.  Fr amt chlky rx w/ depth,
	0				3/00		•	barren, w/ shp wht cht. Gd od.
	are				1		•	Dolo: tan, trng more sml-md rhom xln. Scat fr-gd intxln por w/ ad sat stn and ad SFO. Manv tiaht
	A				3710 -			barren rx w/ pr por. fr-gd od.
	J							Dolo: some ala, trng fr amt chiky and barren. Many
	$\mathbf{V}$				3/20 -		Acres alars	tight rx w/ NS, md rhom xin. Fr amt shp wht cht. Fr od.
	$\checkmark$				3730			Dolo: wht, trng md-crs rhom xln, mostly tight w/ pr
	$\mathcal{N}$							por, mostly barren. Scat cht ala. Fr od.
M	$\forall f$				3740		2 - A3	Dolo: mostly ala, scat lrg vugs, totally barren.
	4/					1 1 1		
			CFS 3750'	20,	3750		· ·	<u>KID: 3/50' (-1655)</u>