KOLAR Document ID: 1376764

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1 November 2016 Form must be Typed Form must be Signed All blanks must be Filled

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No.:
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxxx) (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:
	Producing Formation:
☐ Oil ☐ WSW ☐ SWD	Elevation: Ground: Kelly Bushing:
☐ Gas ☐ DH ☐ EOR	Total Vertical Depth: Plug Back Total Depth:
☐ OG ☐ GSW	Amount of Surface Pipe Set and Cemented at: Feet
CM (Coal Bed Methane)	
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)
Described	Chloride content: ppm Fluid volume: bbls
☐ Commingled Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
EOR Permit #:	Location of fluid disposal if flauled offsite.
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD 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: 1376764

Page Two

Operator Name: _				Lease Name:			Well #:	
Sec Twp	S. R	E	ast West	County:				
INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.								
			Geophysical Data a er AND an image f			iled to kcc-well-lo	gs@kcc.ks.gov	. Digital electronic log
Drill Stem Tests Taken								
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum
Cores Taken Electric Log Run Geolgist Report / List All E. Logs Ru	_		Yes No Yes No Yes No					
		B	CASING eport all strings set-c		New Used	ion. etc.		
Purpose of Stri		e Hole rilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING / SO	QUEEZE RECORD			
Purpose: Perforate		epth T Bottom	ype of Cement	# Sacks Used	# Sacks Used Type and Percent Additives			
Protect Cas								
Plug Off Zor								
	of the total base	fluid of the hydrauli	is well? c fracturing treatment omitted to the chemic	_	<u> </u>	No (If No, sk	ip questions 2 an ip question 3) out Page Three (,
Date of first Produc Injection:	tion/Injection or F	lesumed Production	Producing Meth	nod:	Gas Lift C	Other (Explain)		
Estimated Producti Per 24 Hours	ion	Oil Bbls.					Gas-Oil Ratio	Gravity
DISPO	SITION OF GAS:		N	METHOD OF COMP	LETION:		PRODUCTIO	N INTERVAL:
Vented	Sold Used	on Lease	Open Hole			nmingled	Тор	Bottom
(If vented	d, Submit ACO-18.))		(Sub	mit ACO-5) (Sub	mit ACO-4)		
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze of Material Used)	Record
TUBING RECORD	TUBING RECORD: Size: Set At: Packer At:							

Form	ACO1 - Well Completion	
Operator	Pioneer Resources Inc.	
Well Name	ZERR 1	
Doc ID	1376764	

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	10.75	8.625	23	224	60/40 Poz	225	3%CC 2% Gel

GLOBAL OIL FIELD SERVICES, LLC

3202

IF PAID IN 30 DAYS

SERVICE POINT: REMIT TO 24 S. Lincoln Russell, KS 67665 JOB FINISH ON LOCATION JOB START CALLED OUT RANGE SEC. 12:15 9m DATE) COUNTY LOCATION LEASE Z CT WELL# OLD OR NEW (CIRCLE ONE) OWNER CONTRACTOR TYPE OF JOB HOLE SIZE with lot H CEMENT CASING SIZE DEPTH AMOUNT ORDERED DEPTH TUBING SIZE DEPTH DRILL PIPE DEPTH TOOL PRES. MAX MINIMUM COMMON MEAS. LINE SHOE JOINT @ POZMIX. CEMENT LEFT IN CSG. @ GEL PERFS CHLORIDE @ DISPLACEMENT ASC (a) EQUIPMENT (a). (a) PUMP TRUCK CEMENTER @ HELPER Chr. @ BULK TRUCK @. Mark DRIVER (a) BULK TRUCK (a) DRIVER (a) HANDLING. @ MILEAGE TOTAL REMARKS: 63/8 casing + 1015 SERVICE Broke Europation Hooked to pump true 25545 of Cement it did cure 15\$ ppis of 450 DEPTH OF JOB displaced PUMP TRUCK CHARGE EXTRA FOOTAGE. MILEAGE @ MANIFOLD @ @ (a) CHARGE TO: Pigger TOTAL STATE -PLUG & FLOAT EQUIPMENT Global Oil Field Services, LLC @ You are hereby requested to rent cementing equipment and @ furnish cementer and helper(s) to assist owner or contractor to @ do work as is listed. The above work was done to satisfaction (a) and supervision of owner agent or contractor. I have read and (a) understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side. TOTAL PRINTED NAME SALES TAX (If Any) TOTAL CHARGES SIGNATURE



DRILL STEM TEST REPORT

Pioneer Resources LLC

36-11s-33w Logan Co KS

80 Windmill Dr. Phillipsburg KS

67661

Job Ticket: 64402

Zerr 1

DST#:1

ATTN: Jason Alm

Test Start: 2017.12.09 @ 04:38:00

GENERAL INFORMATION:

Formation: E-F

Time Tool Opened: 07:28:30

Deviated: No Whipstock: ft (KB)

ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Time Test Ended: 12:53:30 Unit No: 81

Interval: 4132.00 ft (KB) To 4170.00 ft (KB) (TVD) Reference ⊟evations: 3090.00 ft (KB)

Total Depth: 4170.00 ft (KB) (TVD) 3082.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8672 Inside

Press@RunDepth: 250.37 psig @ 4133.00 ft (KB) Capacity: 8000.00 psig

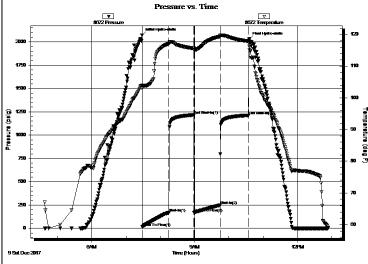
 Start Date:
 2017.12.09
 End Date:
 2017.12.09
 Last Calib.:
 2017.12.09

 Start Time:
 04:38:00
 End Time:
 12:53:30
 Time On Btm:
 2017.12.09 @ 07:28:00

Time Off Btm: 2017.12.09 @ 10:35:15

TEST COMMENT: IF:BOB in 24 min.

IS:No return blow FF:BOB in 29 min. FS:No return blow



Ī	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	2071.39	103.91	Initial Hydro-static
	1	16.19	103.03	Open To Flow (1)
	47	168.67	117.08	Shut-In(1)
	91	1216.18	115.57	End Shut-In(1)
	91	170.47	115.02	Open To Flow (2)
	137	250.37	119.33	Shut-In(2)
6 5	187	1212.39	117.82	End Shut-In(2)
J	188	2029.78	116.18	Final Hydro-static

Cac Datas

PRESSURE SUMMARY

Recovery

Length (ft)	Description	Volume (bbl)
196.00	w cm 20%w 80%m	2.75
310.00	mcw 5%m 95%w	4.35
0.00	1" free oil	0.00

Oas Nai	.03	
Choke (inches)	Proceure (peig)	Gas Pate (Mof/d)

Trilobite Testing, Inc Ref. No: 64402 Printed: 2017.12.09 @ 15:53:26



DRILL STEM TEST REPORT

Pioneer Resources LLC

36-11s-33w Logan Co KS

80 Windmill Dr.

Phillipsburg KS

67661

ATTN: Jason Alm

Zerr 1

Tester:

Job Ticket: 64402

DST#: 1

Test Start: 2017.12.09 @ 04:38:00

GENERAL INFORMATION:

Formation: E-F

Deviated: Whipstock: No ft (KB)

Time Tool Opened: 07:28:30 Time Test Ended: 12:53:30

4132.00 ft (KB) To 4170.00 ft (KB) (TVD)

Total Depth: 4170.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair Test Type: Conventional Bottom Hole (Initial)

Mike Roberts

Unit No: 81 Reference Elevations:

3090.00 ft (KB)

3082.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8374 Outside

Press@RunDepth: psig @

Start Date: 2017.12.09

4133.00 ft (KB) End Date:

2017.12.09

Capacity: Last Calib.: 8000.00 psig

2017.12.09

Start Time:

Interval:

04:38:15

End Time:

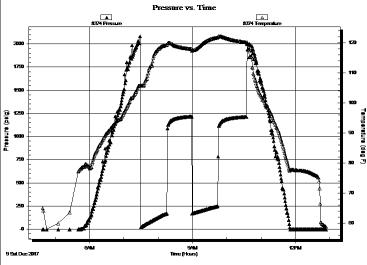
12:53:45

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:BOB in 24 min.

IS:No return blow FF:BOB in 29 min. FS:No return blow



PRESSURE S	SUMMARY
------------	---------

	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
	(101111.)	(psig)	(deg i)	
7				
Temperature (deg F)				
9				

Recovery

Length (ft)	Description	Volume (bbl)
196.00	w cm 20%w 80%m	2.75
310.00	mcw 5%m 95%w	4.35
0.00	1" free oil	0.00

Gas Rates

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

Trilobite Testing, Inc. Ref. No: 64402 Printed: 2017.12.09 @ 15:53:26



DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources LLC

36-11s-33w Logan Co KS

Oil API:

80 Windmill Dr.

ATTN: Jason Alm

Zerr 1

bbl

Phillipsburg KS

Job Ticket: 64402

DST#: 1

67661

Test Start: 2017.12.09 @ 04:38:00

Mud and Cushion Information

Mud Type: Gel Chem Mud Weight: 9.00 lb/gal

1.00 inches

Cushion Type: Cushion Length: ft

0 deg API 12000 ppm

Viscosity: 48.00 sec/qt Water Loss: 7.98 in³

Gas Cushion Type:

Water Salinity:

Resistivity: 0.00 ohm.m Salinity: 6500.00 ppm

Gas Cushion Pressure: psig

Recovery Information

Filter Cake:

Recovery Table

Cushion Volume:

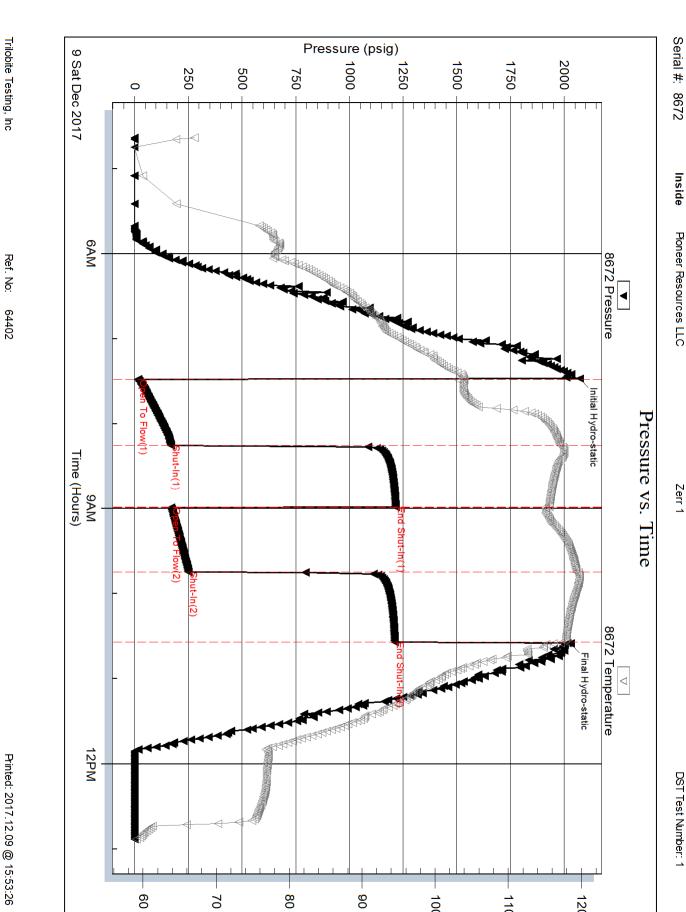
Volume Length Description ft bbl 196.00 w cm 20%w 80%m 2.749 4.348 310.00 mcw 5%m95%w 0.000 0.00 1" free oil

Total Length: 506.00 ft Total Volume: 7.097 bbl

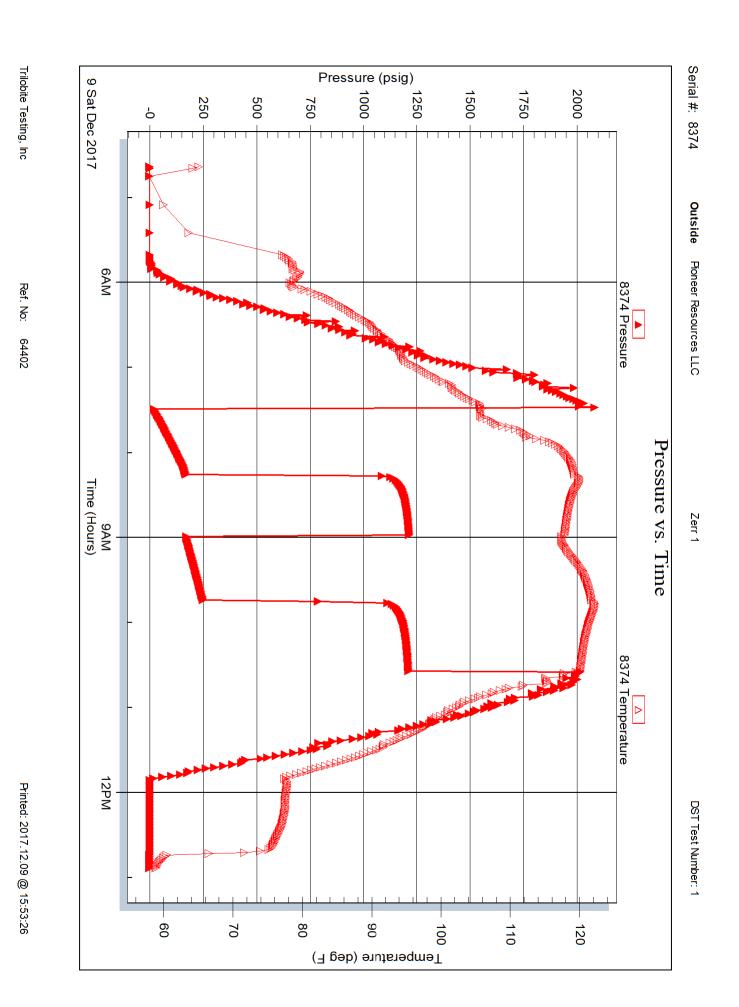
Num Fluid Samples: 0 Num Gas Bombs: Serial #:

Laboratory Name: Laboratory Location: Recovery Comments: RW= .741@55.9= 12,000 ppm

Trilobite Testing, Inc. Ref. No: 64402 Printed: 2017.12.09 @ 15:53:26



Temperature (deg F)



Geological Report

Zerr #1
1491' FNL & 1339' FEL
Sec. 36 T11s R33w
Logan County, Kansas



Pioneer Resources, Inc.

General Data

Well Data:	Pioneer Resources, Inc. Zerr #1 1491' FNL & 1339' FEL Sec. 36 T11s R33w Logan County, Kansas API # 15-109-21531-0000
Drilling Contractor:	Discovery Drilling Co. Inc. Rig #1
Geologist:	Jason T Alm
Spud Date:	December 4, 2017
Completion Date:	December 11, 2017
Elevation:	3082' Ground Level 3090' Kelly Bushing
Directions:	Oakley KS, West on Hwy 40 3 mi to 400 rd. South 3 mi. West into location.
Casing:	224' 8 5/8" surface casing
Samples:	10' wet and dry, 3800' to RTD
Drilling Time:	3775' to RTD
Electric Logs:	None
Drillstem Tests:	Two, Trilobite Testing, Inc. "Mike Roberts"
Problems:	None

Remarks:

Deviation ³/₄ degrees at 4170°. Pipe Strap .74 ft short to board.

Formation Tops

	Pioneer Resources, Inc.
	Zerr #1
	Sec. 36 T11s R33w
Formation	1491' FNL & 1339' FEL
Anhydrite	2602' +488
Base	2630' +460
Topeka	3797' -707
Heebner	4023' -933
Toronto	4042' -952
Lansing	4062' -792
BKC	4651' -1261
Marmaton	4381' -1291
Pawnee	4488' -1398
Myrick	4514' -1424
Fort Scott	4539' -1449
Cherokee	4568' -1478
Johnson	4612' -1522
Morrow	4654' -1564
Mississippian	4671' -1581
RTD	4554' -1709

Sample Zone Descriptions

LKC "E" zone (4142' -1052): Covered in DST #1

Ls – Fine crystalline, oolitic with poor oolicastic porosity, light to fair oil stain with light scattered saturation, fair show of free oil, fair odor, fair to good spotted yellow fluorescents, chalky towards bottom, 28 units hotwire.

LKC "F" zone (4156' -1066): Covered in DST #1

Ls – Fine crystalline, oolitic with fair oomoldic and oolicastic porosity, light oil stain with spotted light saturation, slight show of free oil, light odor, dull to fair yellow fluorescents, very chalky, 14 units hotwire.

LKC "J" zone (4268' -1178): Covered in DST #2

Ls – Fine to sub-crystalline, oolitic with poor oolicastic porosity, light spotted oil stain in porosity, slight show of free oil when broken, light odor, dull to fair yellow fluorescents, 20 units hotwire.

LKC "K" zone (4298' -1208): Covered in DST #2

Ls – Fine to sub-crystalline, oolitic in part with poor scattered oolicastic and oomoldic porosity, light spotted oil stain in porosity, no show of free oil, mostly dense, 12 units hotwire.

Drill Stem Tests

Trilobite Testing, Inc. "Mike Roberts"

DST #1 LKC E-F zones

Interval (4132' – 4170') Anchor Length 38'

IHP -2071 #

IFP -45" - B.O.B. 24 min. 16-169 #
ISI -45" - Dead 1216 #
FFP -45" - B.O.B. 29 min. 170-250 #
FSI -45" - Dead 1212 #

FHP - 2029 # BHT - 119°F

Recovery: 1" Clean Oil

310' MCW 95% Water 196' WCM 20% Water

DST #2 LKC J-K zones

Interval (4256 – 4320') Anchor Length 64'

IHP - 2142 #

IFP - 30" - W.S.B. 33-35 #
ISI - 30" - Dead 774 #
FFP - 20" - Dead, Flush, Dead 35-40 #

FHP - 2136 # BHT - 108°F

Recovery: 5' Mud w/ oil spots

Structural Comparison

	Pioneer Resources, Inc.	Bickle Energies, LLC.		Dane G Hansen Trust	
	Zerr #1	Willie Z#1		Bahr #1	
	Sec. 36 T11s R33w	Sec. 36 T11s R33w		Sec. 36 T11s R33w	
Formation	1491' FNL & 1339' FEL	1870' FNL & 535' FEL		NW SW NW	
Anhydrite	2602' +488	2602' +488	FL	2591' +489	(-1)
Base	2630' +460	2626' +464	(-4)	NA	NA
Topeka	3797' -707	3802' -712	(+5)	NA	NA
Heebner	4023' -933	4028' -938	(+5)	4003' -923	(-10)
Toronto	4042' -952	4048' -958	(+6)	NA	NA
Lansing	4062' -992	4072' -981	(+9)	NA	NA
BKC	4651' -1261	4365' -1275	(+14)	NA	NA
Marmaton	4381' -1291	4396' -1306	(+15)	4354' -1274	(-17)
Pawnee	4488' -1398	4502' -1412	(+14)	4464' -1384	(-14)
Myrick	4514' -1424	4531' -1441	(+17)	NA	NA
Fort Scott	4539' -1449	4557' -1467	(+18)	4518' -1438	(-11)
Cherokee	4568' -1478	4588' -1498	(+20)	4544' -1464	(-14)
Johnson	4612' -1522	4632' -1542	(+20)	4590' -1510	(-12)
Morrow	4654' -1564	4670' -1580	(+16)	NA	NA
Mississippian	4671' -1581	4685' -1597	(+16)	4644' -1564	(-17)

Summary

The location for the Zerr #1 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. Two Drill Stem Tests were conducted, both of which were negative. After all gathered data had been examined the decision was made to plug and abandon the Zerr #1 well.

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.