KOLAR Document ID: 1379442

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
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 III Approved by: Date:									

KOLAR Document ID: 1379442

Page Two

Operator Name: _				Lease Name:			Well #:	
Sec Twp	S. R	E	ast West	County:				
open and closed,	flowing and shu	ut-in pressures, v		ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,
			Geophysical Data a er AND an image f			iled to kcc-well-lo	gs@kcc.ks.gov	. Digital electronic log
Drill Stem Tests Ta			Yes No		-	on (Top), Depth ar		Sample
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	Type of Cement # 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	: Size:	Set	At:	Packer At:				

Form	ACO1 - Well Completion
Operator	StrataKan Exploration, LLC
Well Name	RADIUM EAST 4-1
Doc ID	1379442

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	20	875	Common	3%CC2% Gel
Production	7.875	5.5	15.5	3924	Q Pro C	10%Salt 5% Gilsonite

Marc A. Downing Geologic Report	Drilling Contractor WW Drilling, Rig #4 Commenced 9-6-17 Completed 9-13-17				
Consulting Petroleum Geologist Drilling Time and Sample Log	Samples Saved From 3300 To RTD Drilling Time Kept From 3150 To RTD Samples Examined From 3300 To RTD Geological Supervision From 3300 To RTD	Semite slowite			J.
Operator StrataKan Exploration, LLC KB Elevation 1946					The state of the s
Lease Radium East No. 4-1 DF GL 1941		Ser Land Control of the Control of t			
API # 15-185-23996-0000 Casing Record Surface		OIL SHOWS	7.1.7. Thirty	, 5	
Field Radium Townsite 8 5/8" @ 867' Production	Summary and Recommendations	S Trium	\$ 2 ± 5	\$ 3 . 5 D \$ 5 - 1 12 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14	ं दें हैं है दें हैं है
Location 1668' FNL & 983' FWL S 1/2" @ 3927' Electrical Surveys	Due to Structural Position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.	THE SOLUTION OF THE STATE OF TH	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The seath of the s	5. 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
Sec. 4 Twp. 22s Rge. 14w CNDL, DIL County Stafford State Kansas	Perforate:	Times EDESCR	T	The state of the s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Formation Sample tops Log Tops Datum Struct Comp Top Anhydrite NA 865 +1081 -4	Arbuckle 2nd break: 3838-3840 (First, set plug if wet) Arbuckle: 3825-3828	Carbs	Set Ala. Ala. Ala. Ala. Ala. Ala. Ala. Ala.	The state of the s	2
Base Anhydrite NA 886 -1060 NA	Viola: 3750-3752 (DST #1)		2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 9 25 7 7 4 or 34 150 150 150 150 150 150 150 150 150 150
Heebner 3326 3321 -1375 -3 Toronto 3348 3343 -1397 -3		LITHOLOGY.			
Douglas Sh 3363 3358 -1412 -2		HE D	a a	g	10n+#N
Brown Lime 3446 3442 -1496 -3 LKC 3455 3450 -1504 -4		33.33	35.	35 35 36	33.
BKC 3686 3681 -1735 -3					
Viola 3754 3750 -1804 -2 Arbuckle 3828 3824 -1878 -4			46 (-1402) (-1402) (-1402) (-1500) (-1500) (-1500)		2 (28
Total Depth 3930 3928 -1982	Respectfully Submitted,		3326 3326 3344 11KC 3446 3446 3446 3446	3KC 3686	3528(2TD):
	Marc A. Downing		HRR HRM IN NEW NEW NEW NEW NEW NEW NEW NEW NEW NE		
Reference Well For Structural Comparison Aspen Resources LTD Gartung #3SW NE SW NWSec. 4-22s-14w		-M		mm-m-m-m-m-m-m-m-m-m-m-m-m-m-m-m-m-m-m	



Prepared For: StrataKan Exploration

100 S Main Plainville, KS 67663

ATTN: Marc Downing

Radium East #4-1

4-22S-14W Stafford,KS

Start Date: 2017.09.11 @ 22:45:50 End Date: 2017.09.12 @ 08:10:50 Job Ticket #: 57826 DST #: 1

Trilobite Testing, Inc PO Box 362 Hays, KS 67601

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



StrataKan Exploration

4-22S-14W Stafford,KS

100 S Main

Plainville, KS 67663

ATTN: Marc Downing

Radium East #4-1

Job Ticket: 57826 **DST#:1**

Test Start: 2017.09.11 @ 22:45:50

GENERAL INFORMATION:

Formation: Viola

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:47:35 Tester:
Time Test Ended: 08:10:50 Unit No:

Interval: 3681.00 ft (KB) To 3787.00 ft (KB) (TVD)

Total Depth: 3787.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1950.00 ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Leal Cason

74

1943.00 ft (CF) KB to GR/CF: 7.00 ft

Serial #: 8159 Inside

 Press@RunDepth:
 890.81 psig @ 3682.00 ft (KB)
 Capacity:
 8000.00 psig

 Start Date:
 2017.09.11
 End Date:
 2017.09.12
 Last Calib.:
 2017.09.12

 Start Time:
 22:45:51
 End Time:
 08:10:50
 Time On Btm:
 2017.09.12 @ 01:46:20

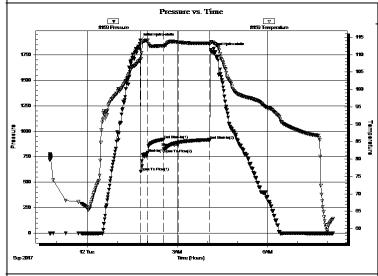
 Time Off Btm:
 2017.09.12 @ 04:06:50

TEST COMMENT: IF: Strong Blow, BOB in 30 seconds

ISI: No Blow Back

FF: Strong Blow, BOB in 30 seconds, Died Off to 8 inches

FSI: No Blow Back



PRESSURE SUMMARY

ı				
Ī	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	1892.70	108.57	Initial Hydro-static
	2	606.18	108.78	Open To Flow (1)
	15	788.76	114.07	Shut-In(1)
	47	919.46	112.51	End Shut-In(1)
	47	825.01	112.46	Open To Flow (2)
	77	890.81	113.56	Shut-In(2)
	139	916.66	113.20	End Shut-In(2)
	141	1798.81	113.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1116.00	GOMCW 20%G 5%M 5%O 70%W	14.56
310.00	GMWCO 40%G 14%M 16%W 30%O	4.35
372.00	GMWCO 20%G 12%M 12%W 56%O	5.22
226.00	SOCM 5%O 95%M	3.17

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Trilobite Testing, Inc Ref. No: 57826 Printed: 2017.09.13 @ 10:41:06



StrataKan Exploration

4-22S-14W Stafford, KS

100 S Main

Plainville, KS 67663

Radium East #4-1

Job Ticket: 57826

DST#: 1

ATTN: Marc Downing Test Start: 2017.09.11 @ 22:45:50

GENERAL INFORMATION:

Formation: Viola

Time Tool Opened: 01:47:35

Time Test Ended: 08:10:50

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

Unit No:

74

3681.00 ft (KB) To 3787.00 ft (KB) (TVD)

Total Depth: 3787.00 ft (KB) (TVD) Reference Elevations: 1950.00 ft (KB) 1943.00 ft (CF)

> KB to GR/CF: 7.00 ft

Hole Diameter: 7.88 inches Hole Condition: Good

Serial #: 6806 Press@RunDepth: Outside

psig @

3682.00 ft (KB)

Capacity: Last Calib.: 8000.00 psig

Start Date: 2017.09.11 End Date: End Time: 2017.09.12 Time On Btm: 08:11:05

2017.09.12

Start Time:

Interval:

22:45:51

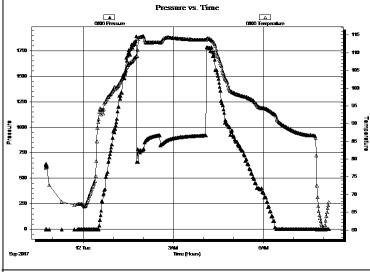
Time Off Btm:

TEST COMMENT: IF: Strong Blow, BOB in 30 seconds

ISI: No Blow Back

FF: Strong Blow, BOB in 30 seconds, Died Off to 8 inches

FSI: No Blow Back



PRESSURE SUMMARY

Time	Pressure	Temp	Annotation
(Min.)	(psig)	(deg F)	

Recovery

Description	Volume (bbl)
GOMCW 20%G 5%M 5%O 70%W	14.56
GMWCO 40%G 14%M 16%W 30%O	4.35
GMWCO 20%G 12%M 12%W 56%O	5.22
SOCM 5%O 95%M	3.17
	GOMCW 20%G 5%M 5%O 70%W GMWCO 40%G 14%M 16%W 30%O GMWCO 20%G 12%M 12%W 56%O

Gas Rates

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

Trilobite Testing, Inc. Ref. No: 57826 Printed: 2017.09.13 @ 10:41:06



TOOL DIAGRAM

StrataKan Exploration

4-22S-14W Stafford, KS

100 S Main

Radium East #4-1

Plainville, KS 67663

ATTN: Marc Downing

Job Ticket: 57826 DST#: 1

Test Start: 2017.09.11 @ 22:45:50

Tool Information

Drill Collar:

Drill Pipe: Length: 3547.00 ft Diameter: Heavy Wt. Pipe: Length:

Length:

0.00 ft Diameter: 120.00 ft Diameter: 3.80 inches Volume: 49.76 bbl 0.00 inches Volume: 0.00 bbl 2.25 inches Volume: 0.59 bbl

50.35 bbl

Total Volume:

Tool Weight: 2100.00 lb Weight set on Packer: 25000.00 lb Weight to Pull Loose: 65000.00 lb

Drill Pipe Above KB: 5.00 ft Depth to Top Packer: 3681.00 ft

Depth to Bottom Packer: ft Tool Chased String Weight: Initial 46000.00 lb Final 56000.00 lb

Interval between Packers: 106.00 ft Tool Length: 125.00 ft

Number of Packers: 2 Diameter: 6.75 inches

Tool Comments:

	5.00					
Shut In Tool	5.00			3667.00		
Hydraulic tool	5.00			3672.00		
Packer	5.00			3677.00	19.00	Bottom Of Top Packer
Packer	4.00			3681.00		
Stubb	1.00			3682.00		
Recorder	0.00	8159	Inside	3682.00		
Recorder	0.00	6806	Outside	3682.00		
Perforations	6.00			3688.00		
Change Over Sub	1.00			3689.00		
Drill Pipe	94.00			3783.00		
Change Over Sub	1.00			3784.00		
Bullnose	3.00			3787.00	106.00	Bottom Packers & Anchor

Total Tool Length: 125.00

Trilobite Testing, Inc Ref. No: 57826 Printed: 2017.09.13 @ 10:41:06



FLUID SUMMARY

deg API

53000 ppm

StrataKan Exploration

4-22S-14W Stafford, KS

100 S Main

Radium East #4-1 Job Ticket: 57826

DST#: 1

Plainville, KS 67663

Test Start: 2017.09.11 @ 22:45:50

ATTN: Marc Downing

Mud and Cushion Information

Mud Type: Gel Chem Cushion Type: Oil API: Mud Weight: Cushion Length: ft Water Salinity:

9.00 lb/gal Viscosity: 53.00 sec/qt Cushion Volume: bbl

7.99 in³ Gas Cushion Type:

Resistivity: Gas Cushion Pressure: ohm.m psig

5000.00 ppm Salinity: Filter Cake: 0.02 inches

Recovery Information

Water Loss:

Recovery Table

Length ft	Description	Volume bbl
1116.00	GOMCW 20%G 5%M 5%O 70%W	14.561
310.00	GMWCO 40%G 14%M 16%W 30%O	4.348
372.00	GMWCO 20%G 12%M 12%W 56%O	5.218
226.00	SOCM 5%O 95%M	3.170

Total Length: 2024.00 ft Total Volume: 27.297 bbl

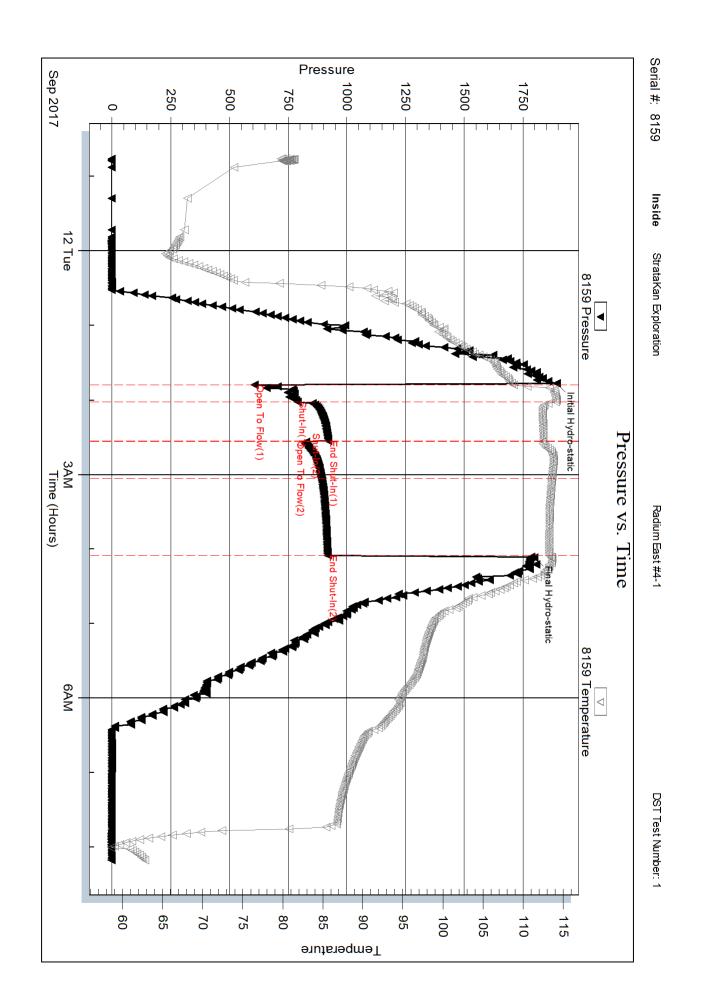
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

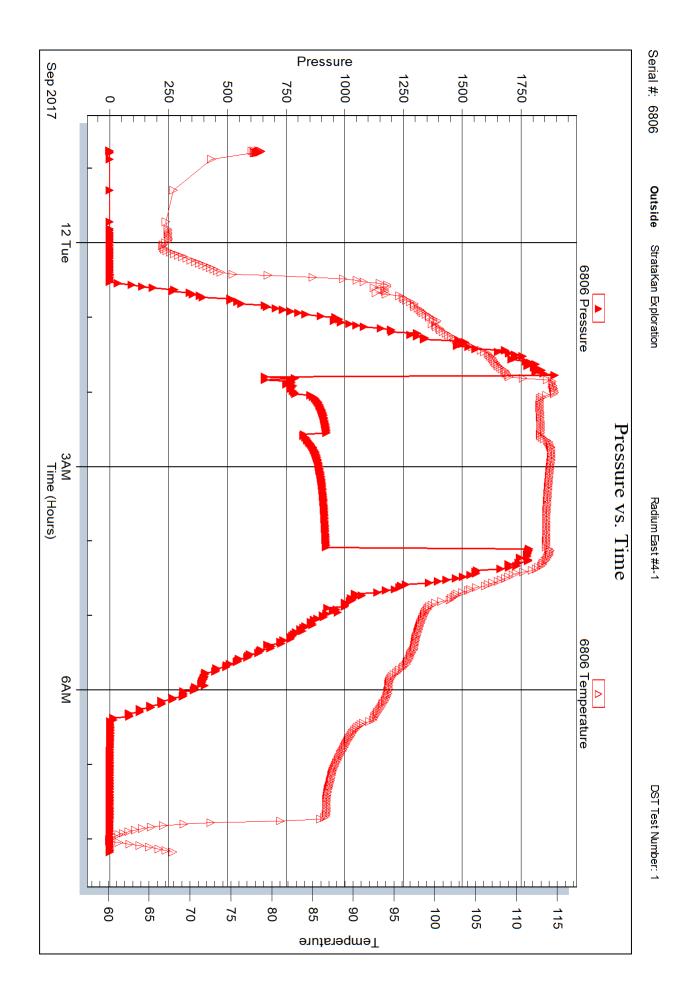
Laboratory Name: Laboratory Location:

Recovery Comments: H2S Peaked @ 124 ppm

RW was .13 @ 80 degrees

Trilobite Testing, Inc. Ref. No: 57826 Printed: 2017.09.13 @ 10:41:06

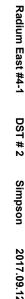




Trilobite Testing, Inc

Ref. No: 57826

Printed: 2017.09.13 @ 10:41:07





Prepared For: **StrataKan Exploration**

> 100 S Main Plainville, KS 67663

ATTN: Marc Downing

Radium East #4-1

4-22S-14W Stafford,KS

Start Date: 2017.09.12 @ 14:58:51 End Date: 2017.09.12 @ 19:21:51 Job Ticket #: 57827 DST#: 2

Trilobite Testing, Inc PO Box 362 Hays, KS 67601

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



StrataKan Exploration

4-22S-14W Stafford, KS

100 S Main

Plainville, KS 67663

Radium East #4-1

Job Ticket: 57827

DST#: 2

ATTN: Marc Downing Test Start: 2017.09.12 @ 14:58:51

GENERAL INFORMATION:

Formation: Simpson

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

Time Tool Opened: 16:35:21 Tester: Leal Cason 74

Time Test Ended: 19:21:51 Unit No:

Interval: 3778.00 ft (KB) To 3810.00 ft (KB) (TVD) Reference Elevations: 1950.00 ft (KB)

Total Depth: 3810.00 ft (KB) (TVD) 1943.00 ft (CF)

7.88 inches Hole Condition: Good KB to GR/CF: Hole Diameter: 7.00 ft

Serial #: 8159 Inside

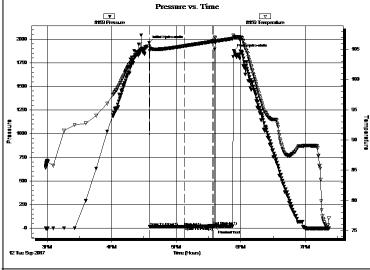
3779.00 ft (KB) Capacity: Press@RunDepth: 17.91 psig @ 8000.00 psig

Start Date: 2017.09.12 End Date: 2017.09.12 Last Calib.: 2017.09.12 Start Time: 14:58:52 End Time: 19:21:51 Time On Btm: 2017.09.12 @ 16:35:06 Time Off Btm: 2017.09.12 @ 17:53:21

TEST COMMENT: IF: Weak Surface Blow , Dead @ 20 minutes

ISI: No Blow Back

FF: No Blow, Flushed Tool, No Blow, Pulled Tool



		PRESSURE SUMMARY						
Time Pressure Temp Annotation								
	(Min.)	(psig)	(deg F)					
	0	1961.87	105.50	Initial Hydro-static				
	1	16.38	104.71	Open To Flow (1)				
	33	17.91	105.54	Shut-In(1)				
	59	24.96	106.27	End Shut-In(1)				
۱ ا	60	16.37	106.27	Open To Flow (2)				
	61	16.89	106.31	Flushed Tool				
•	79	1873.10	107.09	Final Hydro-static				

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02
* Recovery from mult	iple tests	

Gas Rat	es	
 Choke (inches)	Proceure (peig)	Cas Pate (Mof/d)

Trilobite Testing, Inc Ref. No: 57827 Printed: 2017.09.13 @ 10:37:42



StrataKan Exploration

4-22S-14W Stafford,KS

100 S Main

Plainville, KS 67663 Job Ticket: 57827

ATTN: Marc Downing

Radium East #4-1

Ticket: 57827 **DST#: 2**

Test Start: 2017.09.12 @ 14:58:51

GENERAL INFORMATION:

Formation: Simpson

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

Time Tool Opened: 16:35:21 Tester: Leal Cason Time Test Ended: 19:21:51 Unit No: 74

Interval: 3778.00 ft (KB) To 3810.00 ft (KB) (TVD) Reference ⊟evations: 1950.00 ft (KB)

Total Depth: 3810.00 ft (KB) (TVD) 1943.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

Serial #: 6806 Outside

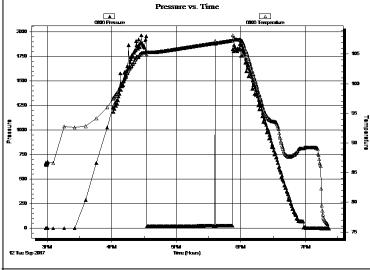
 Press@RunDepth:
 psig
 @
 3779.00 ft (KB)
 Capacity:
 8000.00 psig

Start Date: 2017.09.12 End Date: 2017.09.12 Last Calib.: 2017.09.12

Start Time: 14:58:52 End Time: 19:21:51 Time On Btm: Time Off Btm:

TEST COMMENT: IF: Weak Surface Blow , Dead @ 20 minutes ISI: No Blow Back

FF: No Blow, Flushed Tool, No Blow, Pulled Tool



	(Min.)	(psig)	(deg F)	
-				

PRESSURE SUMMARY

Pressure Temp Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02
* Recovery from mult	iple tests	

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

Trilobite Testing, Inc Ref. No: 57827 Printed: 2017.09.13 @ 10:37:42



TOOL DIAGRAM

StrataKan Exploration

4-22S-14W Stafford, KS

100 S Main

Radium East #4-1

Plainville, KS 67663

Job Ticket: 57827 DST#: 2

ATTN: Marc Downing

Test Start: 2017.09.12 @ 14:58:51

Tool Information

Drill Collar:

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 3644.00 ft Diameter: Length:

0.00 ft Diameter: 120.00 ft Diameter: 3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume:

51.12 bbl 0.00 bbl 0.59 bbl Total Volume: 51.71 bbl

Tool Weight: 2100.00 lb Weight set on Packer: 25000.00 lb Weight to Pull Loose: 50000.00 lb

Tool Chased

String Weight: Initial 44000.00 lb

Final 44000.00 lb

Drill Pipe Above KB: 5.00 ft Depth to Top Packer: 3778.00 ft

Depth to Bottom Packer: ft Interval between Packers: 32.00 ft Tool Length: 51.00 ft

Number of Packers:

2 Diameter: 6.75 inches

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3764.00		
Hydraulic tool	5.00			3769.00		
Packer	5.00			3774.00	19.00	Bottom Of Top Packer
Packer	4.00			3778.00		
Stubb	1.00			3779.00		
Recorder	0.00	8159	Inside	3779.00		
Recorder	0.00	6806	Outside	3779.00		
Perforations	28.00			3807.00		
Bullnose	3.00			3810.00	32.00	Bottom Packers & Anchor

Total Tool Length: 51.00

Printed: 2017.09.13 @ 10:37:42 Trilobite Testing, Inc Ref. No: 57827



FLUID SUMMARY

deg API

ppm

StrataKan Exploration

4-22S-14W Stafford, KS

100 S Main

Radium East #4-1 Job Ticket: 57827

Plainville, KS 67663

ATTN: Marc Downing

DST#: 2

Test Start: 2017.09.12 @ 14:58:51

Serial #:

Mud and Cushion Information

Mud Type: Gel Chem Cushion Type: Oil API: Mud Weight: Cushion Length: 9.00 lb/gal ft Water Salinity:

Viscosity: 53.00 sec/qt Cushion Volume: bbl

Water Loss: 7.98 in³ Gas Cushion Type:

Resistivity: Gas Cushion Pressure: ohm.m psig

5000.00 ppm Salinity: Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl	
5.00	Mud	0.025	

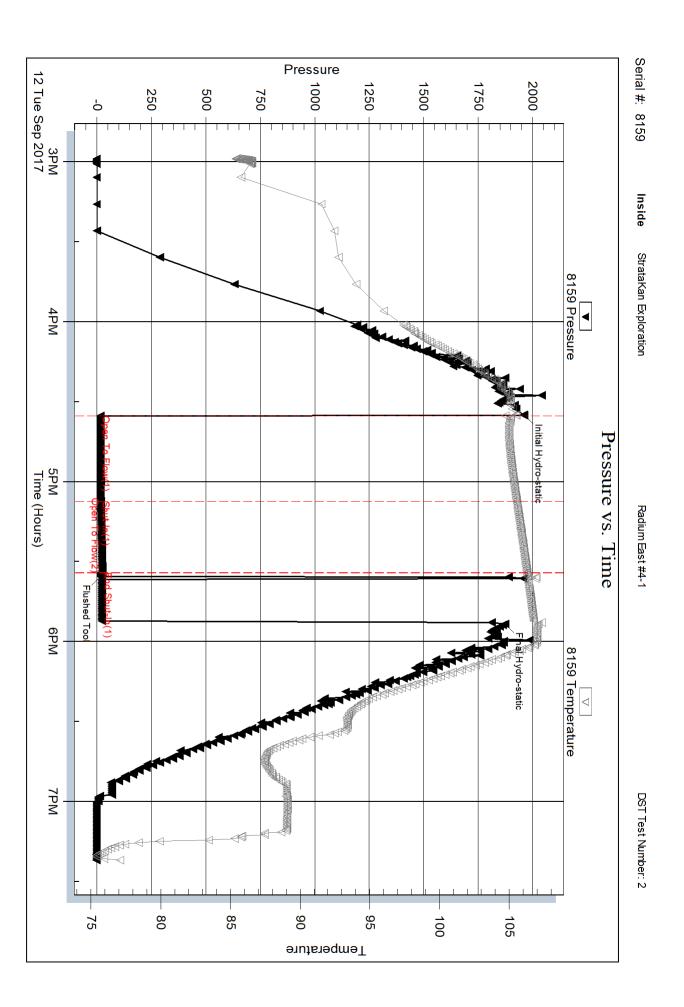
Total Volume: 0.025 bbl Total Length: 5.00 ft

Num Fluid Samples: 0 Num Gas Bombs: 0

Laboratory Name: Laboratory Location:

Recovery Comments:

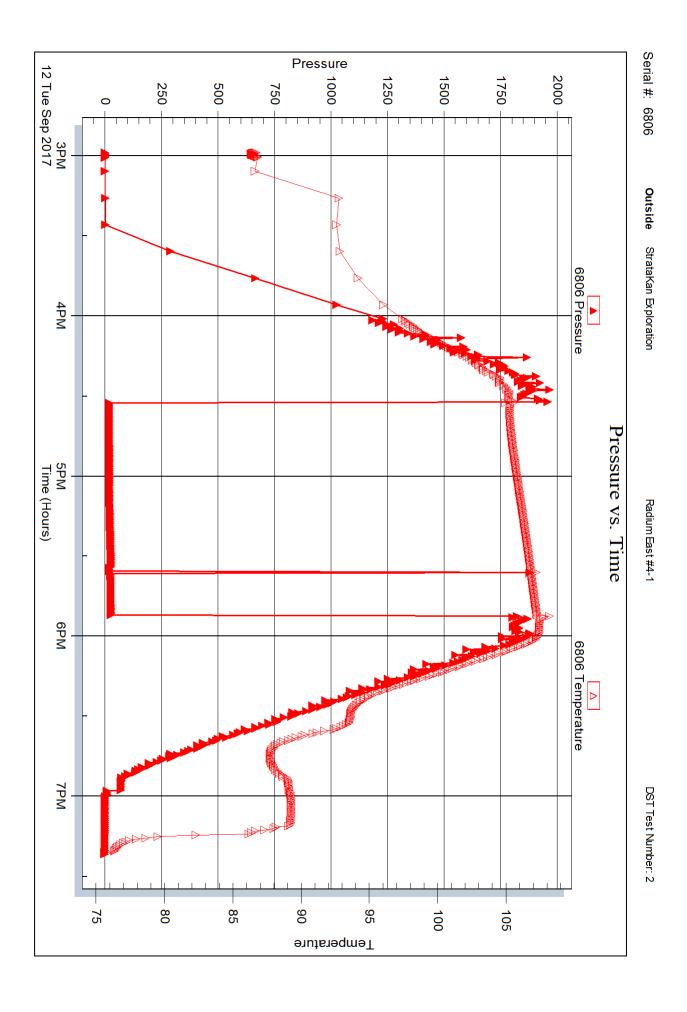
Printed: 2017.09.13 @ 10:37:42 Trilobite Testing, Inc Ref. No: 57827



Trilobite Testing, Inc

Ref. No: 57827

Printed: 2017.09.13 @ 10:37:42





Test Ticket

1515 Commerce	IG INC. e Parkway ∙ Hays, Kansas 6760 ⁻	NO.	57826
Well Name & No. Radium Ed	25t 4-1	Test No	Date <u>09/11/17</u>
Company Stratakan Ex	ploration	Elevation	KBGL
Address 100 5 Main Pia	inville, KS 6766	63	
Co. Rep / Geo. Marc Down	ing	Rig <i>WW</i> 4	
Location: Sec H_ Twp. 23	25 Rge. 1 - 1 www	co. Stafford	State K3
Interval Tested_3 181 -	3787 Zone Tested <i>V</i> !	ola	
Anchor Length	106 Drill Pipe Run	3547	Mud Wt. 9.4
Top Packer Depth	3676 Drill Collars Run	120	Vis53
Bottom Packer Depth	36 8 l Wt. Pipe Run		wl_8
Total Depth	787 Chlorides	5000 ppm System	LCM 1 1/2
Blow Description TF: 54rong B		ond 5	
ESI: NOBLOW Back	,		
FF: Strong Blow, BOB	in 30 seconds Died	off to 8inches	
FST: NO Blow Back			
Rec		%gas 5 %oil	%water 95 %mud
Rec_ 372 Feet of GMWc	· O	20 %gas 56 %oil	12 %water 12 %mud
Rec 310 Feet of GM wo	0 4	0 %gas 30 %%oil	16 12 %water @14%mud
Rec Feet of GOMC		20%gas 5 %oil	70%water 5 %mud
Rec Feet of		%gas %oil	%water %mud
Rec Total 2024 BHT	113 Gravity NCC	API RW <u>./3</u> @ 80°	F Chlorides 53000 ppm
(A) Initial Hydrostatic 189	7 F Test 1050	T-On l	Location 2115

27:45 T-Started 606 (B) First Initial Flow_____ ☐ Jars_____ T-Open (C) First Final Flow ☐ Safety Joint T-Pulled 04:05 (D) Initial Shut-In____ ☐ Circ Sub ____ 08:10 (E) Second Initial Flow _____ ☐ Hourly Standby Comments H2S Peakeda 67.50 (F) Second Final Flow Mileage 124 ppm (G) Final Shut-In _____ Sampler_ (H) Final Hydrostatic_____ ☐ Straddle ☐ Ruined Shale Packer_____ ☐ Shale Packer_____ ☐ Ruined Packer Initial Open _____ Extra Packer ____ □ Extra Copies _____ Initial Shut-In 0 ☐ Extra Recorder _____ Sub Total 1117.50 Final Flow _ Day Standby ____ Total Final Shut-In □ Accessibility _ MP/DST Disc't 1117.50 Sub Total Approved By Our Representative_



RILOBITE ESTING INC. 1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

57827 NO.

4/10						
Well Name & No. Radina						7_
Company Strata Kan						GL
Address 100 S. Main	n Plainvill	e.Ks	67663			
Co. Rep / Geo. Marc Do				w4		
Location: Sec				CE 700 W	State KS	
Interval Tested 3778 -	- 3810	Zone Tested	Simpson			
Anchor Length			3644	1	Mud Wt. 9.4	
Top Packer Depth			n		Vis <u>56</u>	
Bottom Packer Depth	3778				wl <u>8.8</u>	
Total Depth			4800 p		LCM	
Blow Description TF: Weak		•		********		
ISI: NO Blow Back		-				
FF: NO Blow Flush			Hed Tool			
Rec5 Feet of M	ud		%gas	%oil	%water	%muc
			%gas	%oil	%water	%mu
87 COLORS CAR COLORS CONTROL C			%gas	%oil	%water	%muc
			%gas	%oil	%water	%mud
Rec Feet of			%gas	%oil	%water	%mu
Rec Total5	2002	Gravity N/C		-	F Chlorides M/C	ppn
(A) Initial Hydrostatic					ocation 14,30	
(B) First Initial Flow				T-Star	ted 14:58	
(C) First Final Flow	18	☐ Safety Joint		T-Ope	n16:35	
(D) Initial Shut-In	25			T-Pulle	St	
(E) Second Initial Flow	C =	☐ Hourly Standby		T-Out	19:21	
(F) Second Final Flow		Mileage 9		Comm	nents	
(G) Final Shut-In						
(H) Final Hydrostatic	1873					
(1)				5550 3350	uined Shale Packer	
Initial Open	30				uined Packer	
Initial Shut-In	30		y		ktra Copies	
	15		r		otal0	
Final Flow	NIA					
Final Shut-In	.,,,,,	SC 112	7.50	MP/D	OST Disc't	-
		Sub Total 111	1.30		-7-	

Our Representative

DEFINITIONS: In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

- TERMS: Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise; including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.
- ATTORNEY FEES: In any legal action or proceeding between the parties to enforce any of the terms of this Service-Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limit to, a reasonable sum as and attorney's fees.
- PRICES AND TAXES: All merchandise listed in "QUALITY'S" current price shall schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.
- TOWING CHARGES: QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.
- PREPARATION CHARGES: If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.
- DEADHAUL, CHARGES: Unless otherwise specified on the front of this Contract, a deadhaul charges as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.
- SERVICE CONDITIONS AND LIABILITIES: 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:
- (A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:
- (B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.
- 2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss of damage results from the sole negligence of QUALITY or its employees.
- 3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.
- WARRANTIES: 1. QUALITY warrants all merchandise manufactured or turnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation
 under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE,
 EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR
 FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall
 be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential,
 special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.
 - 2. More specifically:
- (A) Nothing in this contract shall be constructed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.
- (B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

CEMENTING, INC.

Federal Tax I.D.# 20-2886107 405 Home Office P.O. Box 32 Russell, KS 67665 Phone 785-483-2025 Cell 785-324-1041 State On Location Finish Sec. Twp. Range County Well No. Owner To Quality Oilwell Cementing, Inc. Contractor You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. Type Job Charge T.D Hole Size To Depth Street Depth City Tbg. Size State The above was done to satisfaction and supervision of owner agent or contractor. Depth Tool Cement Amount Ordered Shoe Joint Cement Left in Csg Displace Meas Line EQUIPMENT Common Cementer No. Poz. Mix Pumptrk Helper Driver No. Gel. Bulktrk Driver

No. Driver Catcium Driver JOB SERVICES & REMARKS Hulls Salt Remarks: Flowseal Rat Hole Mouse Hole Kol-Seal Centralizers Baskets D CFL-117 or CD110 CAF 38 Sand Handling Mileage FLOAT EQUIPMENT Guide Shoe Centralizer Baskets AFU Inserts Float Shoe Latch Down Pumptrk Charge Tax Discount X Signature Total Charge

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- (A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner: and:
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- 2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.
- 3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.
- WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.
 - 2. More specifically:
- (A) Nothing in this contract shall be constructed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.
- (B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 401

Cell 785-324-1041	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> Anna American de la companya dela companya dela companya dela companya de la co</u>	. the satisfies	<u> </u>	<u> </u>	<u> </u>	
Date 9 - 8 - 17 Sec. 4	121 111 151	county K:	State 5	On Locati		6:301	M
Lease Radium Eo	Well No. 4 -	Owner 1/2 N	P Jch	- 7W	4	70 W	.
Contractor WW #4	A CONTROL OF THE CONT	To Quality Oilwell Co You are hereby requirementer and helpe	lested to rent co	ementing equi	ipment	and furnish	
Type Job Surface	(m /)	Charge -	١. ١	- \ \	<u> </u>	WOIR as listed	<u></u>
Hole Size 131/4"	T.D. 813	10 21 ROT	akon	FXDIPIA	41000	<u> </u>	
Csg.	Depth 87	Street	· · · · · · · · · · · · · · · · · · ·	***		• •	
Tbg. Size	Depth	City		State			
Tool	Depth	The above was done t	to satisfaction and	supervision of	owner a	agent or contrac	otor.
Cement Left in Csg. 27	Shoe Joint 27	Cement Amount Ord	dered 450	2 sx 2	20		
Meas Line	Displace 53 3/4	3%	cc 2%	GeL	る可	Flo-seal	
EQUIPM	MENT	Common 360)				
Pumptrk No. Cementer Helper	lenn	Poz. Mix 90	7				
Bulktrk 19 No. Driver Dou		Gel. ζ					
Bulktrk D.U. No. Driver Driver		Calcium /6					
JOB SERVICES	& REMARKS	Hulls					
Remarks: Coment of	D Cisculate	Salt			. 1.		
Rat Hole	CITCULTE	Flowseal 125	,				
Mouse Hole		Kol-Seal				 	—
Centralizers				<u> </u>			_
Baskets		Mud CLR 48	045.00				
	,	CFL-117 or CD110 (UAF 38		•		-
D/V or Port Collar		Sand					
		Handling 4/9					
		Mileage		المار الم	ostoprota.	•	
	<u></u>	FL	OAT EQUIPME	NT .			
		Galde Shoe	Kulober	plug		* * ; *	
		Cantralizar	pattle i	Jate U		<u></u>	
		Baskets	,				_
		AFU Inserts					
		Float Shoe					
		Latch Down			SS SS	1	
			<u> </u>	•, , , , •			
							_
		Pumptrk Charge /	(, 60	fare		·	
		Mileage 2.3	OUGIUN				
		windage		 	Tax		
				Die	count		
X I C AND	· · · · · · · · · · · · · · · · · · ·	+			. +		_
Signature / / / / / / / / / / / / / / / / / / /	'Am	J		Total Cl	large [

Conservation Division 266 N. Main St., Ste. 220 Wichita, KS 67202-1513



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor

Pat Apple, Chairman Shari Feist Albrecht, Commissioner Jay Scott Emler, Commissioner

January 11, 2018

Justin R. Prater StrataKan Exploration, LLC 100 S MAIN PLAINVILLE, KS 67663

Re: ACO-1 API 15-185-23996-00-00 RADIUM EAST 4-1 NW/4 Sec.04-22S-14W Stafford County, Kansas

Dear Justin R. Prater:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 9/6/2017 and the ACO-1 was received on January 11, 2018 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department