Confidentiality Requested: Yes No

KANSAS CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION**

1171936

Form ACO-1 August 2013 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. 15
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from Cast / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
	Field Name:
New Well Re-Entry Workover	Producing Formation:
	Elevation: Ground: Kelly Bushing:
Gas D&A ENHR SIGW	Total Vertical Depth: Plug Back Total Depth:
OG GSW Temp. Abd.	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 ENHR Conv. to SWD	Drilling Fluid Management Plan
Plug Back Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
Commingled Permit #:	Chloride content: ppm Fluid volume: bbls
Dual Completion Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR Permit #:	Location of huid disposal if hadred 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
Geologist Report Received
UIC Distribution
ALT I II III Approved by: Date:

	Page Two	1171936
Operator Name:	Lease Name:	Well #:
Sec TwpS. R □ East □ West	County:	
INCTRUCTIONS. Charge important tang of formations paratrated Da	tail all carea. Bapart all	final appias of drill stome tests giving interval tested, time test

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 She	acts)	Yes No	L	og Formatio	n (Top), Depth and	d Datum	Sample
Samples Sent to Geolog		Yes No	Nam	e		Тор	Datum
Cores Taken Electric Log Run		Yes No					
List All E. Logs Run:							
		CASING Report all strings set-c	RECORD Ne		on, etc.		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
		ADDITIONAL	CEMENTING / SQL	JEEZE RECORD			
Purpose: Perforate	Depth Top Bottom	Type of Cement	# Sacks Used		Type and Pe	ercent Additives	
Protect Casing							
Plug Off Zone							
Did you perform a hydraulic	fracturing treatment	on this well?		Yes	No (If No, skip	o questions 2 an	d 3)
	,	raulic fracturing treatment ex	, 0			question 3)	
Was the hydraulic fracturing	treatment informatio	n submitted to the chemical c	lisclosure registry?	Yes	No (If No, fill o	out Page Three o	of the ACO-1)

					e	F			Depth
Siz	e:	Set At	:	Packe	r At:	Liner R		No	
d Productio	on, SWD or ENH	۶.	Producing Meth		ping	Gas Lift	Other (Explain)		
	Oil Bb	ls.	Gas	Mcf	Wate	er	Bbls.	Gas-Oil Ratio	Gravity
ION OF G	AS:		Ň	IETHOD (OF COMPLE	TION:		PRODUCTION IN	TERVAL:
			Open Hole	Perf.		CO-5)	Commingled (Submit ACO-4)		
1	ION OF G	Size: Size: Droduction, SWD or ENHF Oil Bb	Specify Footage of Size: Set At Size: Set At Oil Bbls. ION OF GAS: d Used on Lease	Specify Footage of Each Interval Periods Size: Set At: Size: Set At: OProduction, SWD or ENHR. Producing Meth Flowing Oil Bbls. Gas ION OF GAS: OPen Hole Open Hole	Specify Footage of Each Interval Perforated Size: Set At: Packer Size: Set At: Packer Oroduction, SWD or ENHR. Producing Method: Flowing Pump Oil Bbls. Gas Mcf ION OF GAS: METHOD of d Used on Lease	Size: Set At: Packer At: d Production, SWD or ENHR. Producing Method: Image: Display training in the set of	Specify Footage of Each Interval Perforated Specify Footage of Each Interval Perforated Size: Size: Set At: Production, SWD or ENHR. Production, SWD or ENHR. Production SWD or ENHR. Oil Bbls. Gas METHOD OF COMPLETION: d Used on Lease Open Hole Perf. Dually Comp. (Submit ACO-5)	Specify Footage of Each Interval Perforated (Amount and Kind (Amount and Kind (Amount and Kind Size: Set At: Size: Set At: Packer At: Liner Run: Yes [] d Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Mcf Water Bbls. ION OF GAS: METHOD OF COMPLETION: d Used on Lease Open Hole Perf. Dually Comp. Commingled (Submit ACO-5)	Specify Footage of Each Interval Perforated (Amount and Kind of Material Used) (Amount and Kind of Material Used) Size: Set At: Size: Set At: Packer At: Liner Run: Yes No I Production, SWD or ENHR. Producing Method: Flowing Pumping Gas Mcf Water Bbls. Gas Mcf Vater Bbls. Gas: METHOD OF COMPLETION: Used on Lease Open Hole Open Hole Perf. Dually Comp. Commingled (Submit ACO-5) Commingled Commingled

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Shaw 9-1
Doc ID	1171936

All Electric Logs Run

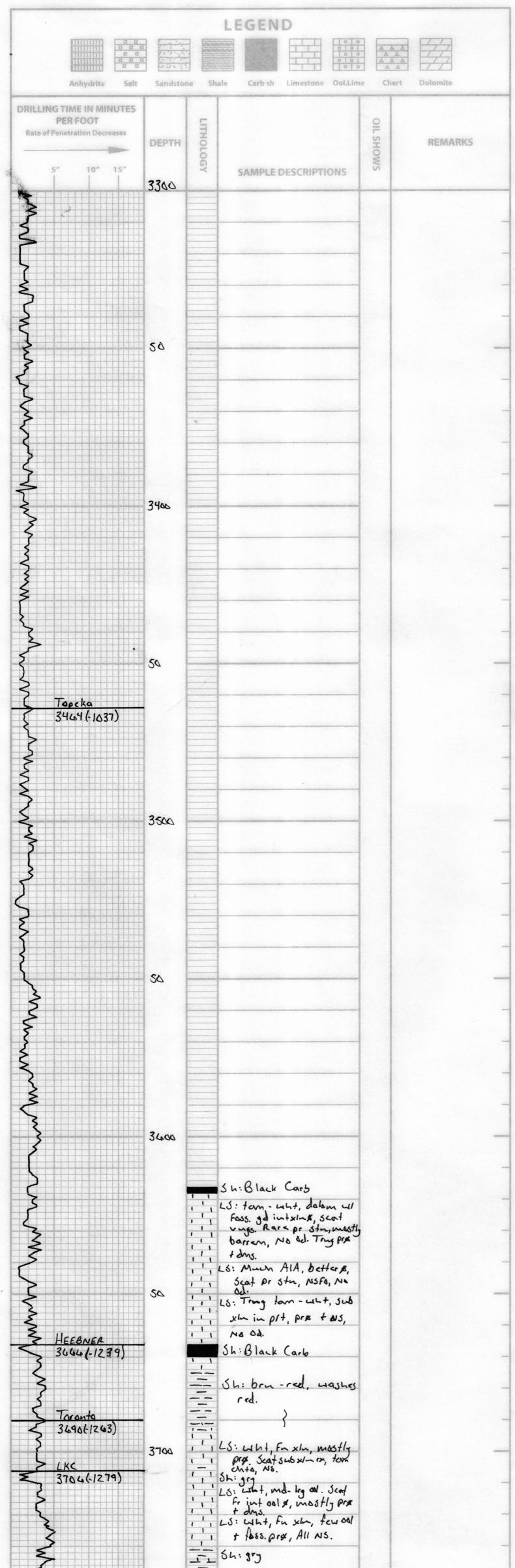
Dual Induction
Dual Compensated Porosity
Microresistivity
Sonic Cement Bond

Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Shaw 9-1
Doc ID	1171936

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	12.25	8.625	23	262	common	160	3%cc, 2%gel
Production	7.875	5.50	14	3944	Q Pro C	170	10% SALT, 5% Gilsonite

	Consulting Petroleum Geologist	GEOLOGIC			DRILL	L STEM TES	ESTS	
Marc Downing 1411 Was Hays Phone: 620-428-1	1411 Washington Circle Hays, Ks 67601 Phone: 620-428-1356 (cell) 785-621-2286	REPORT	No. Interval	val IFP/Time	ISIP/Time FFP/	FFP/Time FSIP/Time	e HP-FHP	RECOVERY
COMPANY Ht+C Dil Operating, Inc.	1	23				· · · · · ·		
Well Shaw # 9-1 FIELD Wildcat								
ATION 1320' FSL & 330' F	PRODUCTION LKC	2427			, 			
COUNTY Graham	D	2422						
7	Drilling Measured From: KB	8						
	Samples Saved From 3400 Brillian Time From 3300							
OPERATOR HAC Oil Operating, Inc.	rom: 34	To:						
RECORD	0 1	5.						
544 @ 242	DIC DIC	4				-	-	
TOTAL DEPTH LOG: 3951"	MEL MAY		REMARKSAND RE		n, if has	decided	to set	5/2 production
FORMATION TOPS AND ST	RUCTURAL POSITION	ION	casing	g for completion	letian.			
Top Anhydrife 2115	ELECTRIC LOG SUB-SEA TOP DATUM	-SI	<u> </u>	Perforate:				
J		÷ i			3840-45			-
HEEBNER Joronto 3640 LAC 3704	3666 -1239 3692 -1239 3708 -1281			~	3883-		(Betore At	Abauclanment)
REFERENCE WELL FOR STRUCTURE Much								
Bront # 1-9 NW-SE-SE	n Urilling See, 9-75-23m	75-234						



1 LS: Lint, Irg Foss + oal. Fr int 1 al LS: Lint, Irg Foss + oal. Fr int 1 al xin + vings will pr stin + hing 1 al SFO. About org + tom outs, No ad 50 AN MAN - Sh: brn • • 1 LS: whith For xh. Sub xh in prt, mostly pre, NS. Fromt tom. org cute. Shidrk grg 1 CFS O 1 1 1 LS: whit, Faxla, sittly dolan. 1 1 gd intxing, chiky in prt. 1 1 rare pr stm, NSFO, NO Od. 1 1 mostly barren. whit chits. 1 LS: whit, Fn xln, prost 1 1 1 1 dms. Scat whit ents, Vis: 58 Lit: 9.1 3800 1 1 D5T#1 1 NS. 1 3813 - 3875 ł 1 LS: what, Fu- md xh hug Stut SFO in pr &, NO Od. 2-3 rx. 1 45 - 45 - 45 - 45 1 1 I.F. - 33/4" blow 1 Sh: Black Carb F.F. - 33/4" bland 1_1 0 IFP: 19-42 - Shigry will brn - LS: what, and xh, Fass. pr-5 FFP: 43-42 T SIP: 408-399 · · · Fr vinge, Fr blik stin, hug · · SFO, No od. Tring pre · · · + dins. He : 1957 - 1854 Rec: 1 1 3' FO # -- Shi gry 50 75' MO 40%0 1 1 .1 - Sh: brn - LS: unt- It forn, oal. Fr-gd in x1m K, gd It brn sat stm, fr-gd Sfo, Fr 6d. BHT : 107 : 11 1 CFS O - Sh: ben ulgry, scat - LS: what, md x/n. Many sub 1 x/a-ch/ky or. 34 or with hug - str., rare hug solid SFO Node 1 LS: what, Fn-md x/n, sub xh 1 in prt, All NS. 1 1 3900 BKC T 3902(-1475) CFS 0 =- Sh: br - red, scat Ş gra =_ Sh: bru- red 1 LS: tom - wht, md xlm, 1 1 SIHIJ mtb, dms - Sh: gry ---helaching 1 1 LS: AIA 50 3950 (-1523) RTD : 3951(-1524) LTD:



DRILL STEM TEST REPORT

Prepared For: H&C Oil Operating, Inc.

PO Box 86 Plainville, KS 67663

ATTN: Marc Downing

Shaw #9-1

9 7s 23w Graham KS

Start Date: 2013.11.26 @ 18:53:00 End Date: 2013.11.27 @ 03:14:00 Job Ticket #: 53599 DST #: 1

Trilobite Testing, Inc PO Box 362 Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620

Direct of the product of the produ	10x-		DRILL STEM TE	S	T REPO	ORT				
Pairwille, KS 67663 ATN: Marc Downing Job Ticke: 53599 DST#: 1 ATN: Marc Downing Test Start: 2013.11.26 (@ 18:53:00) GENERAL INFORMATION: Formation: LKC H-J Deviate ite: No. Witpstock: ft (KB) Time Tool Openet: 312:53 Test Type: Conventional Bottom Hole (Initial) Time Test Ended: 03:14:00 Test Type: Conventional Bottom Hole (Initial) Time Test Ended: 3313:00 ft (KB) To 3875.00 ft (KB) (TVD) Total Depti: 3375.00 ft (KB) (TVD) Hole Diameter: 7.88 inchesHole Condition: Good KB to GR/OF: 5.00 ft Start Date: 2013.11.26 End Time: 2013.11.27 Last Cable: 2013.11.27 Start Date: 2013.11.26 End Time: 03:14:00 Time Or Bim: 2013.11.27 (B 00:42:00) TEST COMMENT: F: Weak blow, Built to 3 34" over 45 mins. FF: Weak blow, Built to 3 34" over 45 mins. Time (Min.) Time Or Bim: 2013.11.27 (B 00:42:00) Test Not blow back over 45 mins. FF: Weak blow, Built to 3 34" over 45 mins. FF: Weak blow, Built to 3 34" over 45 mins. Time (Min.) Time (Min.) Time (Min.) Annotation 113 407.65		LEODITE	H&C Oil Operating, Inc.			9 7	's 23w G	rahar	n KS	
Job Inc.et: 33399 Job Inc.et: 33399 GENERAL INFORMATION: Formation: LKC H-J Deviated: No Whipstock: ft (KB) Time Test Ended: 03:14:00 Time Test Ended: 03:14:00 Tester: Chuck Kreutzer Jr. Unit No: 61 Tester: Chuck Kreutzer Jr. Unit No: 61 Tester: Chuck Kreutzer Jr. Unit No: 61 Serial #: 8673 Inside 2013.11.26 Pess@Rundpeth: 2242.00 ft (KB) Yess@Rundpeth: 2242.pt (@) Start Date: 2013.11.27 Start Time: 18:53:01 EST COMMENT: F: Weak blow, Built to 3:34" over 45 mins. St: No blow back over 45 mins. St: No blow back over 45 mins. F: Weak blow, Built to 3:34" over 45 mins. F: Neak blow, Built to 3:34" over 45 mins. F: No blow back over 45 mins.<		ESTING , INC.								
GENERAL INFORMATION: Generation: LKC H.J Deviated: No Whipstock: ft (KB) Time Tool Opened: 21:25:30 Time Tool Opened: 21:25:30 Time Test Effect: 03:14:00 Test Type: Conventional Bottom Hole (Initial) Tester:: Chuck Kreutzer Jr. Time Test Effect: 03:14:00 Interval: 3813.00 ft (KB) To 3875.00 ft (KB) (TVD) Total Depth: 3875.00 ft (KB) (TVD) Capacity: 2427.00 ft (KB) 2422.00 ft (KB) 2422.00 ft (KB) Serial #: 8673 Inside Press@RunDepth: 62:42.psig @ 3816.00 ft (KB) Start Date: 2013.11.26 End Date: 2013.11.27 Time OFI Btm: 2013.11.27 @ 00:42:00 Start Date: 2013.11.26 End Date: 2013.11.27 Time OFI Btm: 2013.11.27 @ 00:42:00 Start Date: 2013.11.27 @ 00:42:00									_	
Formation: LKC HJ Deviated: No Whipstock: ft (KB) Test Trype: Conventional Bottom Hole (Initial) Time Tool Opened: 21:25:30 Time Test End tool: 0.314.00 Tester:: Onuck Kreutzer Jr. Interval: 3813.00 ft (KB) To 3875.00 ft (KB) (TVD) Tester:: Onuck Kreutzer Jr. Total Depth: 3875.00 ft (KB) (TVD) 2422.00 ft (KB) 2422.00 ft (KB) Piese@PanDepth: 62.42 psig @ 3816.00 ft (KB) Capacity:: 8000.00 psig Start Date: 2013.11.26 End Date: 2013.11.27 00.42.00 TEST COMMENT: F: Weak blow, Built to 3 3/4" over 45 mins. BI: No blow back over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. BI: No blow back over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 1/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FF: Weak bl	alimite.		ATTN: Marc Dow ning			Tes	t Start: 20)13.11.2	26 @ 18:53:00)
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial) Time Tool Opened: 21:25:30 Test Type: Conventional Bottom Hole (Initial) Time Tool Opened: 21:25:30 Unit No: 61 Interval: 3813.00 ft (KB) To 3875.00 ft (KB) (TVD) 2422.00 ft (KB) Total Depin: 3875.00 ft (KB) (TVD) 2422.00 ft (KB) Serial #: 8673 Inside Reference Bevatons: 2427.00 ft (KB) Press@RunDepth: 62.42 psig 3816.00 ft (KB) Capacity:: 8000.00 psig Start Date: 2013.11.27 Last Calib :: 2013.11.27 2013.11.27 Start Time: 18:53.01 End Time: 03:14.00 Time On Btrn: 2013.11.27 @ 00.42:00 TEST COMMENT: F: Weak blow, Built to 3 3/4" over 45 mins. ESt No blow back over 45 mins. ESt No blow back over 45 mins. St No blow back over 45 mins. FSt No blow back over 45 mins. FSt No blow back over 45 mins. Time Of Btrn: 2010.17 Open To Flow (1) 116 42.23 104.76 60 Shut-hr(1) 113 40.45 Shut-hr(2) 116 67.75	-									
Total Depth: 3875.00 ft (KB) (TVD) 2422.00 ft (CF) Hole Diameter: 7.88 inchesHole Condition: Good KB to GRUCF: 5.00 ft Serial #: 8673 Inside Rese@hunDepth: 62.42 psig @ 3816.00 ft (KB) Capacity:: 8000.00 psig Start Date: 2013.11.26 End Date: 2013.11.27 Time On Bitm: 2013.11.27 <t< td=""><td>Deviated: Time Tool Open</td><td>No Whipstock: ed: 21:25:30</td><td>ft (KB)</td><td></td><td></td><td>Tes</td><td>ter:</td><td>Chuck ł</td><td></td><td>Hole (Initial)</td></t<>	Deviated: Time Tool Open	No Whipstock: ed: 21:25:30	ft (KB)			Tes	ter:	Chuck ł		Hole (Initial)
Press@RunDepth: 62.42 psig @ 3816.00 ft (KB) Capacity: 8000.00 psig Start Date: 2013.11.26 End Date: 2013.11.27 Last Calib.: 2013.11.26 @ 21:04:30 Start Time: 18:53:01 End Time: 03:14:00 Time On Btm 2013.11.27 @ 00:42:00 TEST COMMENT: F: Weak blow, Built to 3 3/4" over 45 mins. St. No blow back over 45 mins. F: Weak blow, Built to 3 3/4" over 45 mins. F: Weak blow, Built to 3 3/4" over 45 mins. FS: No blow back over 45 mins. FS: Weak blow, built to 3 3/4" over 45 mins. Time Off Btm 2013.11.27 @ 00:42:00 PRESSURE SUMMARY Overset vs. Time Pressure (fig) Time Off Btm 2013.11.27 @ 00:42:00 PRESSURE SUMMARY Overset vs. Time Time Off Btm: 2013.11.27 @ 00:42:00	Total Depth:	3875.00 ft (KB) (T	/D)			Ref			2422.0	00 ft (CF)
Si: No blow back over 45 mins. FF: Weak blow, Built to 3 3/4" over 45 mins. FSI: No blow back over 45 mins. PRESSURE SUMMARY Time Pressure (Min.) 0 1957.42 100.17 Open To Flow (1) 5 nut-In(1) End Shut-In(1) Final Hydro-static 116 42.93 104.56 Open To Flow (2) 5 nut-In(2) Final Hydro-static 116 42.93 104.56 Shut-In(2) Final Hydro-static 116 42.93 104.56 Shut-In(2) Final Hydro-static 117 Open To Flow (2) 5 nut-In(2) Final Hydro-static 107.98 Final Hydro-static	Press@RunDep Start Date:	oth: 62.42 psig 2013.11.26	End Date:	2		Last Cali Time On	b.: Btm: 2		2013.11.2 1.26 @ 21:04:3	27 30
Image: Note of the second se	TEST COMM	ISI: No blow bacl FF: Weak blow , I	< over 45 mins. Built to 3 3/4" over 45 mins.							
Imme Pressure Temp Annotation Imme (Min.) (ligg F) initial Hydro-static 00 1957.42 97.82 100.17 Open To Flow (1) 113 407.85 104.76 End Shut-In(1) 116 42.93 104.56 Open To Flow (2) Shut-In(2) End Shut-In(2) End Shut-In(2) End Shut-In(2) End Shut-In(2) Final Hydro-static 118 1856.00 107.98 Final Hydro-static Gas Rates Chee (inches) Presure (psig) Gas Rate (Mcd/d) 75.00 Hmco-60%o40%m 0.78										
Image: constraint of the second se	2000 -							Ann	otation	
Image: constraint of the second se	1750					1957.42	97.82		•	
Image: constraint of the second se	1500		90							
Image: Second control of the second					-				. ,	
70 70 <td< td=""><td></td><td></td><td></td><td>mpere</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>				mpere						
Image: Second				ure (de)						
Length (ft) Description Volume (bbl) 75.00 Hmco-60%o40%m 0.78		STM THE (Has)		IP)						
75.00 Hmco-60%o40%m 0.78		Recovery		_			Ga	l s Rate	es	
	Length (ft)	Description	Volume (bbl)				Choke (i	nches)	Pressure (psig)	Gas Rate (Mcf/d)
3.00 free oil-100%o 0.04										
	3.00	free oil-100%o	0.04							

	DRILL STEM TES	T REPO	ORT			
	H&C Oil Operating, Inc.		9 7s 23w	Graham	KS	
ESTING , INC	PO Box 86 Plainville, KS 67663		Shaw #9		DOT	ц. д
	ATTN: Marc Dow ning		Job Ticket: Test Start:	2013.11.26	DST# @ 18:53:00	
GENERAL INFORMATION:						
Formation:LKC H-JDeviated:NoWhipstock:Time Tool Opened:21:25:30Time Test Ended:03:14:00	ft (KB)		Test Type: Tester: Unit No:	Conventior Chuck Kre 61		Hole (Initial)
Interval:3813.00 ft (KB) To38Total Depth:3875.00 ft (KB) (TVHole Diameter:7.88 inches Hole			Reference KI	Elevations: B to GR/CF:	2422.0	00 ft (KB) 00 ft (CF) 00 ft
Serial #:8651OutsidePress@RunDepth:psigStart Date:2013.11.26Start Time:18:53:01	 3816.00 ft (KB) End Date: End Time: 	2013.11.27 03:14:30	Capacity: Last Calib.: Time On Btm: Time Off Btm:		8000.0 2013.11.2	00 psig 27
FSI: No blow bac	x over 45 mins. Built to 3 3/4" over 45 mins. k over 45 mins. inne	1	PRESSI	JRE SUMI	MARY	
BOSI Pressee BOSI Pressee BOSI Pressee COULD IN THE INFORMATION OF INTERNATION	27 Wed 3W	Time (Min.)	Pressure Temp (psig) (deg F	Annota		
Recovery			G	Sas Rates		
Length (ft) Description	Volume (bbl)		Chok	æ (inches) Pres	sure (psig)	Gas Rate (Mcf/d)
75.00 Hmco-60%o40%m 3.00 free oil-100%o	0.78 0.04					

$\Delta \widehat{O} \wedge \mathbf{T}$	RILOE	DITE	DRIL	L STEM TEST	REPOR	т	TOOL DIAGRAM
(1444) L	_			Operating, Inc.		9 7s 23w Graham K	S
	ES1	TING , INC	PO Box 8	6		Shaw #9-1	
			Plainville,	KS 67663		Job Ticket: 53599	DST#:1
NON .			ATTN: N	larc Dow ning		Test Start: 2013.11.26 @	0 18:53:00
Tool Information	ı		Į				
Drill Pipe:	Length:	3778.00 ft	Diameter:	3.80 inches Volume:	53.00 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:	30.00 ft	Diameter:	2.25 inches Volume:	0.15 bbl	Weight to Pull Loose:	45000.00 lb
	_			Total Volume:	53.15 bbl	Tool Chased	2.00 ft
Drill Pipe Above KE		15.00 ft				String Weight: Initial	40000.00 lb
Depth to Top Pack		3813.00 ft				Final	40000.00 lb
Depth to Bottom Pa	acker:	ft					
Interval between F	Packers:	62.00 ft					
Tool Length:		82.00 ft					
Number of Packers	s:	2	Diameter:	6.75 inches			
Tool Comments:							

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3798.00		
Hydraulic tool	5.00			3803.00		
Packer	5.00			3808.00	20.00	Bottom Of Top Packer
Packer	5.00			3813.00		
Stubb	1.00			3814.00		
Perforations	2.00			3816.00		
Recorder	0.00	8673	Inside	3816.00		
Recorder	0.00	8651	Outside	3816.00		
Blank Spacing	31.00			3847.00		
Perforations	25.00			3872.00		
Bullnose	3.00			3875.00	62.00	Bottom Packers & Anchor

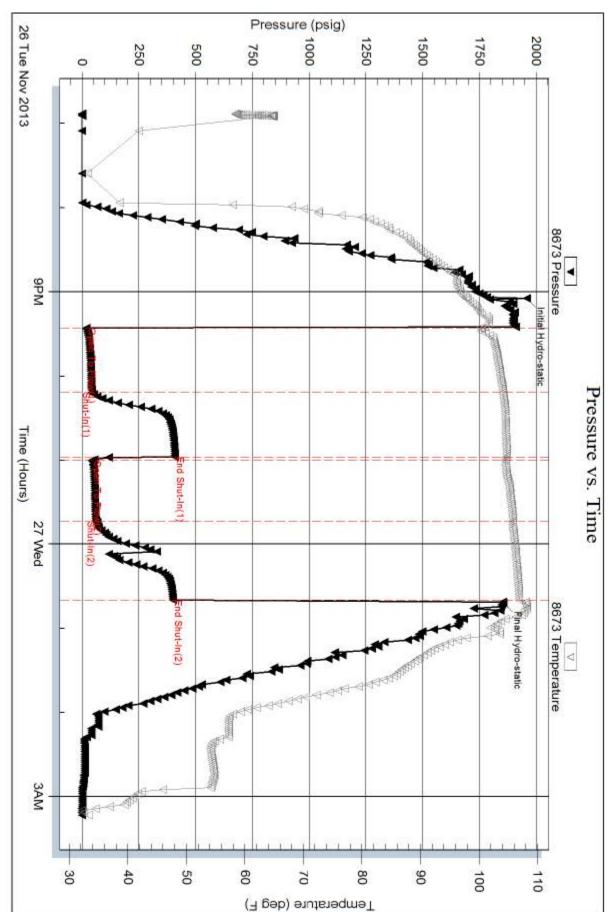
Total Tool Length: 82.00

10h		DRI	LL S	STEM TEST I	REPORT	-		FLUID S	UMMARY
	RILOBITE	H&C O	il Opera	iting, Inc.		9 7s 23w (Graham KS	6	
	ESTING , INC.	PO Box Plainvill		67663		Shaw #9- Job Ticket: 5		DST#:1	
1		ATTN:	Marc	Dow ning			2013.11.26 @		
Mud and Cu	shion Information								
Mud Type: Ge Mud Weight: Viscosity: Water Loss: Resistivity: Salinity: Filter Cake:				Cushion Type: Cushion Length: Cushion Volume: Gas Cushion Type: Gas Cushion Pressur	e:	ft bbl psig	Oil API: Water Salinit	y:	deg API ppm
Recovery In	formation								
	Leng	th		Recovery Table Description		Volume bbl]		
		75.00		-60%o40%m		0.779	-		
	Total Length:	3.00	<u> free o</u> .00 ft	il-100%o Total Volume:	0.821 bbl	0.042	2		
	Recovery Com	nents:							

Printed: 2013.11.29 @ 11:50:46

Ref. No: 53599

Trilobite Testing, Inc



Shaw 持9-1

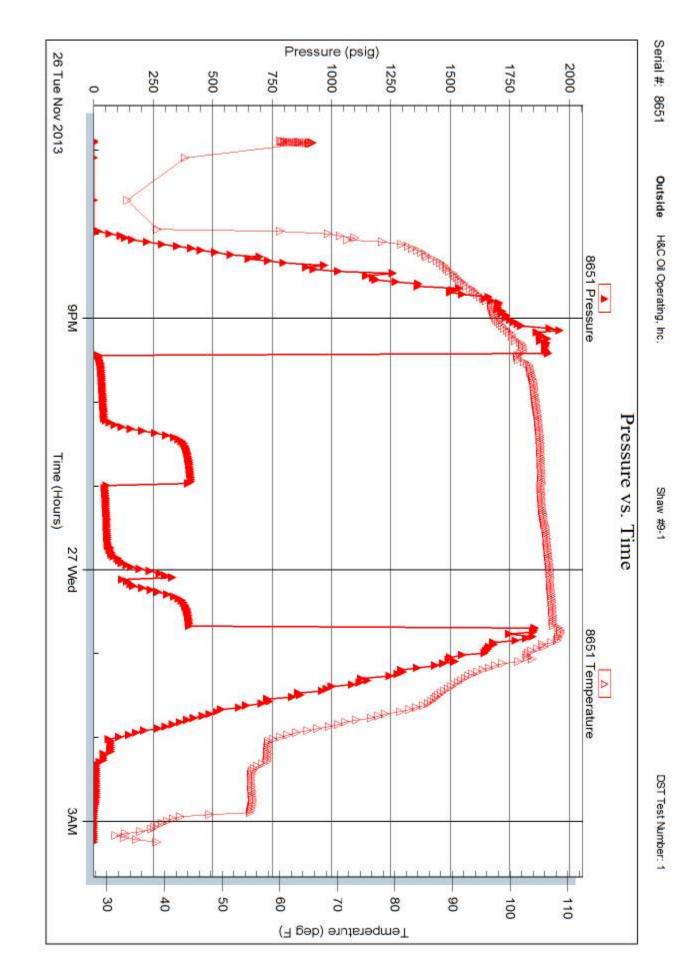
DST Test Number: 1

Serial #: 8673 Inside H&C Oil Operating, Inc.

Printed: 2013.11.29 @ 11:50:47

Ref. No: 53599







RILOBITE ESTING INC.

1515 Commerce Parkway · Hays, Kansas 67601

Test Ticket

NO. 53599

Well Name & No. 5ho	W #9-1		Test No.		Date 11-26	2017
Company HAC Oil			Elevation 2		01100	
Address P.O. BOX		67663				
Co. Rep / Geo. Marc D			Rig Americ	an Eagle 1	# 3	
Location: Sec		Rge	Co. Graha	m	State	5
Interval Tested 3813	387.	Zone Tested	LKC - HJJ			
Anchor Length	1		3778	M	ud Wt. 9.1	
Top Packer Depth	38		Run <u>30</u>	Vi	s 58	
Bottom Packer Depth	20		- 0-	w	6.0	
Total Depth	38	75 Chlorides	1,400 ppm	System LC	CM 2#	
Blow Description JF: M	Heak blow, Built	+0 334:0.01	ver 45 mins.			
ISI: No blow b						
FF: Work blow,	Built to 33/4 in	over 45 mins.				
FST: No blow bud	K					
Rec 75 Feet			%gas	60 %oil	%water	40 %mu
Rec Feet	of Free oil		%gas	%oil	%water	%mu
Rec Feet	of		%gas	%oil	%water	%mu
Rec Feet	of		%gas	%oil	%water	%mu
Rec Feet	of		%gas	%oil	%water	%mu
Rec Total 78	внт 106	_ Gravity	API RW@	₯°F C	Chlorides	ppr
(A) Initial Hydrostatic	1957	Test115	50	T-On Loca	ation	17:10
(B) First Initial Flow	19	Jars		T-Started	18	3.534
(C) First Final Flow		Safety Joint _		T-Open		21:25
(D) Initial Shut-In	408	Circ Sub		T-Pulled _		
(E) Second Initial Flow	43	Hourly Stand	by			3:14
(F) Second Final Flow	62	Mileage 60	12=120×1.55=18		s wooded	
(G) Final Shut-In	399	Sampler 186	X 2 Lordal To HS 3	72	13 at 20:1	spa
(H) Final Hydrostatic	1856		~		d Cholo Doolaat	
					d Shale Packer_	
Initial Open	45				d Packer	
Initial Shut-In	45		er		Copies0	
Final Flow	1					
Final Shut-In	110				Disc't	
		Cub Tatal 450	20			and the
Approved By			Our Representative	hurk	TPM	

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

QUALIT	Y OLWEL	LWELL CEMENTING, INC.
Phone 785-483-2025	Home Office P.O. Box 32	Box 32 Russell, KS 67665 No. 7495
Cell 785-324-1041		
Sec.	Twp. Range	County State On Location Finish
		Prov 61 Run 200 /41 Winto
Shaw	Well No. 9 - 1	
Contractor Struppert		To Quality Oilwell Cementing, Inc.
What C		cementer and helper to assist owner or contractor to do work as listed.
SKC	T.D.	Charge Ny C
Csg. 51/2	Depth	Street
Tbg. Size 3 3/8	Depth	City State
	Depth 2/32	of ov
	Shoe Joint	Cement Amount Ordered 350 Dm2/ HHH
Meas Line	Displace 736	1145 N 12054
EQU	IPMENT	Common 170 Qualc
Ŷκ	S.W	Poz. Mix
No. Driver b	V++	Gel.
19 ^{NG}		Calcium
	Å REMARKS	Hulls
Remarks;		Salt
Rat Hole		Flowseal 87 #
Mouse Hole		Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Coliar	and the second	Sand
000 1	FS+ TO PUER	Handling 350
	CINH C WINTER	and the state of the
Re - H muld	trind	FLOAT EQUIPMENT
2) Nede is the	Mel. Chen The 9	Guide Shoe
15h Predation	with Millissi	Centralizer
1703Ky Chre	1 Constantes.	
San 782 1	252 Tool & Tost to	AFU Inserts
* Hell Rin 5	Cours y wash flan.	Float Shoe
	8	Latch Down
		Pumptrk Charge Do VT COVIOU
		Discount
X NU V No.		Total Charge

QUALITY OILWELL Federal Tax I.D.# Phone 785-483-2025 Home Office P.O. Box 32	CEMENTING, IN 20-2886107 Russell, KS 67665 No.
Sec. Twp. Range	County State On Location Finish
	11 At low Dw Hall Wir
Lease $< \lambda_{d \ U}$ (Well No. 7-1	Owner
dor Amen Lan Buffet	To Quality Oilwell Cementing, Inc.
Sirlere	cementer and helper to assist owner or contractor to do work as listed.
12:4	Charge H/ C
csg. \$ 5/8 Depth 263	Street
Tbg. Size	City State
Tool	faction and supervision of owner agent or cont
ient Left in Csg. LS	Cement Amount Ordered
	100 ×
EQUIPM	Common 160
Pumotrk No. Cementer Cravia	Poz. Mix
1	Gel 7
Bulktrik Q No. Driver 1. 1. V	Calcium S
JOB SERV	Hulls
Bamarks.	Salt
	Flowseal
har noie Morise Hole	Kol-Seal
Cantralizars	Mud CLR 48
Dominantoro	CFL-117 or CD110 CAF 38
DN or Dort Collar	Sand
& S/K on hettom PSK / Ke Nation	Handling 16 8
esien ?	and a company of a constant
	FLOA
Compt 132 por Cardate	Guide Shoe
	Centralizer
1. 230'	Baskets Syl Sunge
USED FOSIC N	AFUInsets
Comme Churlatte.	Float Shoe
	Pumptrk Charge Surface
	Discount
Signature Ash 2	Total Charge
the set is the second	

	ELL CEMENTING, INC.
Phone 785-483-2025 Home Office P.O. Box 32 Cell 785-324-1041	ox 32 Russell, KS 67665 No. 7021
Sec. Twp. Range	On Location Finish
·	21° × KS 11.15 P
Location	DN H ": C., 6 N 22 22 4 V
Lease Share	Owner
ctor Amer . con Earl. # 3	To Quality Oilwell Cementing, Inc.
	cementer and helper to assist owner or contractor to do work as listed.
5	Charge 1/2 C
(T)	Street
Size	City State
Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. 16.55 Shoe Joint 15.55	Cement Amount Ordered $2 C C$ $C + P$ $C + D^2 C C + D$
45	5 m (01501.00 14. FOWSE
Mdl	Common
Pumptrk (No. Cementer C	Poz. Mix
Bulktrk / No. Driver <u>Doc. 5</u>	Gel.
. Bulktrk PU No. Driver ら (P3)	Calcium
JOB SERVICES & REMARKS	Hulls
Remarks:	Salt
Rat Hole 2 3 3	Flowseal
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48 ~ 5(16 321 10 10 10 10 10 10
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
	Handling
	Mileage
Mrs. 560 Gu. A. A. L. S.	5 FLOAT EQUIPMENT
PL 7. M. K. 121	Guide Shoe
MD IN at C F. C	Centralizer 10
D. 26 41 45 20 401	Baskets
Lill Resure Va in	AFUinserts
1. and 1. 3. 1. Sec. 14.	Float Shoe
Property and the second s	Latch Down
and the second	Racher Pass and
	Pumptrk Charge
	Mileage
	Tax
	Discount
Signature	Total Charge