# **ORIGINAL**

Kansas Corporation Commission OIL & GAS CONSERVATION DIVISION

# WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form ACO-1 June 2009 Form Must Be Typed Form must be Signed All blanks must be Filled

NTIAL	OIL & GAS CONSE		June 2009 Form Must Be Typed Form must be Signed
MI TWP MEIT		LETION FORM PTION OF WELL & LEASE	All blanks must be Filled
OPERATOR: License # 34038	KCC	API No. 15 - 065-23678-00-00	11/17
Name: Flatirons resources LLC	NOV 1 2 2010	Spot Description:	
Address 1: 303 E. 17th Ave  Suite 940	CONFIDENTIAL	Feet from V North	/ South Line of Section
City: Denver State: CO Zip:	80203 +		/ West Line of Section
Contact Person: <u>John Marvin</u> Phone: ( 303 ) 292-3902 ext 229		Footages Calculated from Nearest Outside Se	
CONTRACTOR: License # 33575		County: Graham	
MAN Drilling LLC		Lease Name: Worcester Unit	Well #: 11-19
Wellsite Geologist: Tim Priest		Field Name: wildcat	
Purchaser: _Texon L.P.		Producing Formation: Lansing KC	Florento
Designate Type of Completion:		Elevation: Ground: 2299 Kelly B	
	Workover	Total Depth: 3865 Plug Back Total Depth	
✓ oil  wsw swd	□ SIOW	Amount of Surface Pipe Set and Cemented at	
Gas D&A ENHR	SIGW	Multiple Stage Cementing Collar Used? ✓	
☐ og ☐ Gsw	Temp. Abd.	If yes, show depth set:	Fee
CM (Coal Bed Methane)		If Alternate II completion, cement circulated fro	om:
Cathodic Other (Core, Expl., etc.):		feet depth to:w/	sx cm
If Workover/Re-entry: Old Well Info as follows:			
Operator:	•	Dritting Fluid Management Plan	
Well Name:		(Data must be collected from the Reserve Pit)	
Original Comp. Date: Original Total	Depth:	Chloride content: 2000 ppm Fluid	volume: 1000 bbls
☐ Deepening ☐ Re-perf. ☐ Conv. to EN☐ Conv. to G	NHR Conv. to SWD	Dewatering method used: air dry - backfill	
Plug Back: Plug B		Location of fluid disposal if hauled offsite:	
Commingled Permit #:		Operator Name:	
		Lease Name: Licen	150 #·
SWD Permit #:		Quarter Sec TwpS.	
		County: Permit #:	
GSW Permit #:		County: Permit #:	
9/22/2010 9/29/2010	10/26/2010		
	Completion Date or Recompletion Date		

of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

#### **AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and requlations 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.

	7	•		
Signature:	P			
			/	. 1
Title: Managing D	irector	Date	a: ///	12/20/0
	,		-T	- , -

KCC Office Use O	NLY RECEIVED
Letter of Confidentiality Received  Date: 11/2/10 - 4//2/	( NOV 1 9 2010
Confidential Release Date: Wireline Log Received	KCC WICHITA
Geologist Report Received	NOC WICHITA
UIC Distribution  ALT 1 1 II III Approved by:	1Date: 11-1810

#### Side Two

Operator Name: <u>Flat</u>					lame: _		it	_Well#: _1	CONFIDENT	
Sec. 19 Twp.6  INSTRUCTIONS: She time tool open and clo recovery, and flow rate line Logs surveyed. A	ow important tops ar sed, flowing and shu s if gas to surface to	nd base of it-in pressuest, along v	formations pen res, whether si vith final chart(s	etrated. De	ure read	ores. Report all ched static level,	hydrostatic pres	sures, botton	n hole temperature, fl	
Drill Stem Tests Taken		✓ Ye	s No		<b></b> ✓Lo	og Formation	n (Top), Depth ar	nd Datum	Sample	
(Attach Additional S	Sheets)				Nam	e		Тор	Datum	
Samples Sent to Geological Survey			s 🗌 No		1	rite - top		1956	348	
Cores Taken			- =		Anhyd	rite - base		1988	316	
Electric Log Run	f Electropically		=		Topek	а		3306	-1002	
Electric Log Submitted (If no, Submit Copy	•		:5 <u>V</u> 140		Lansin	ng		3554	-1250	
Lint All E. Long Burn					Base/	Kansas City		3746	-1360	
List All E. Logs Run: Dual Induction,	Dual Compens	ated Po	rosity Bore	hole		Conglomerate		3796	-1492	
Compensated, I					TD	Ū		3868	-1564	
		Rano		RECORD	√ Ne	ew Used	on etc			
Purpose of String	Size Hole	Siz	e Casing	Weig	ht	Setting	Type of	# Sacks	Type and Percer	
Surface	12 1/4"	8 5/8"	(In O.D.)	Lbs. / Ft.		Depth 259	common	Used 165	Additives 3%cc, 2% gel	
Production	7 7/8"	5 1/2"		15.5#		3860	common	350	QMDC 1/4# flos	
Production	7 770	3 1/2		15.5#		3800	Continion	330	QIVIDO 174# 1103	
			ADDITIONAL	CEMENTI		JEEZE RECORD				
Purpose:	Depth Top Bottom	Туре	of Cement	# Sacks		PEEEE RECORD	Type and	Percent Addition	/es	
Perforate ✓ Protect Casing	1916	60/40		150		10% sait. 5%	10% salt, 5% gilsonite			
Plug Back TD Plug Off Zone					·····					
									.	
Shots Per Foot			kD - Bridge Plug Each Interval Per				cture, Shot, Cemer mount and Kind of M		cord Depth	
4	3626'-3634'									
4	3555'-3559'									
4	3537'-3541'				treated w/ 500 gal. 15% N			CA	3537-3	
CIBP	3577 36	10								
								G	RECEIVED	
TUBING RECORD:	Size: 2 7/8"	Set At: 3614		Packer A 3520'	t:	Liner Run:	✓ Yes 🔲 N		01/ 4 5 0040	
Date of First, Resumed			Producing Met		a	Gas Lift 0	Other (Explain)	(NI	 J <u>v i → 7910</u>	
Estimated Production Per 24 Hours	0il 95	Bbis.	Gas 0	Mcf	Wat	<u> </u>	bls.	Gas-Oil Ratio	C WICHITA,	
DISPOSITI	ON OF GAS:			METHOD OF	COMPL	ETION:		PRODUC	CTION INTERVAL:	
Vented Sold	_		_	Perf.	_		mmingled 8	all perfs abo		
_	bmit ACO-18.)		Other (Specify)		(Submit		mit ACO-4)	. ,		

# Russell, KS 785-483-2003

# ALLIED CEMENTING CO. LLC (ACID) P.O. Box 31

P.O. Box 31 Russell, Kansas 67665 785-483-2627

NOV 1 2 ZUIB CONFIDENTIAL 1 0 7 2 4 Medicine Lodge, KS 620-886-5926

Date 1 O	<b></b>	12 .	- , c			PO#	rhal -	Bret	н.	Location	1 Boo	de	<u> </u>
Owner_		•				Lease			Well		County	Stat	e
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	zasel									Jaront		Rerega	do W/S
			DATA	1		<del></del>	RATIONS	Ti	REATME	NT	INFO:		
		SIZE	WEIGHT	ļ	VOLUME	1	TS FT.	Max. Pressure	0		To: Allied	Cementing Company L	LC (ACID)
TUBING		27/8		3520	20.38	From 35	3763541	Min. Pressure			_	re hereby requested to	•
CASING		51/2		3541	150	From	to	Avg. Inj. Rate				ment to do work as liste	ed.
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TDPB		ĺ	<u> </u>		<u> </u>	From	to	<u></u>	<u>7.88</u>	Bbis.	City		State
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As conside	ration, th	ie above	names	(well owr	ner or conf	ractor) agree	s to: (a) pay y	ou in accordan	ce with y	our current pri	ce schedule;	(D) Allied Cementing	Company LLC (ACID)

Russell, KS 785-483-2003

# \*ALLIED CEMENTING CO. LLC

(ACID) P.O. Box 31 Russell, Kansas 67665 785-483-2627

KCC NOV 1 2 2010 10722 Medicine Lodge, KS 620-886-5926

CONFIDENTIAL

Date 1 💍	. c	_	. ~			PO#	- I	Bret	4.5	Location		P ./	
Owner			10			Lease	(2)	Dret	Well 1	N.	County	Boque Ka	State
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Station						Section	Township	Range	Formation		_	Contractor	1 / 10
	S)EV	WELL	DATA			PERFO	RATIONS	TR	EATME	K C.	رم INFO:	hened	que w/s
	I	SIZE	WEIGHT	DEPTH	VOLUME		TS FT.	†					
TUBING		278		+			<del>_</del>	Min. Pressure	550	2	1	Cementing Compan	
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PKR				3616		From	to		Fluid Pump		Street		
TDP8	•			3624		From	to		34	_Bbls.	City		State
			•				TRE	ATMENT LO	)G				
TIME		SSURE		TOTAL FL	-	FLUID IN	INDIVIDUAL					EXPLANATION	
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# QUALITY OILWELL CEMENTING, INC. KCC KCC Res 493 2025 Home Office BO Box 22 Buscall KS 67665 No. 4 5 7

Phone 785-483-2025 Cell 785-324-1041	Home Office P.O. B	ox 32 Russell 2010 67665 140.	45//
Q Q Sec.		Count CONFIDEN SAME On Location	Finish
Date 7 - 30 - 10 14		ham Ks	3:15 AM
	Vell No. 步川-19 Locati	on Hill City Ks Nto YKd,	uf Jin
Contractor W. W King	#14	Owner t/3	
Type Job production	708	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment	and furnish
Hole Size	T.D. 3865	cementer and helper to assist owner or contractor to do	work as listed.
Csg. $5^{kl}$	Depth 3860'	To Flatilons Resources	
Tbg. Size	Depth •	Street	
Tool	Depth	City State	
Cement Left in Csg. 22,00		The above was done to satisfaction and supervision of owner	agent or contractor.
Meas Line	Displace HZO 434	Cement Amount Ordered 350 sx QMI	1C 4# Flo-Se
EQUIPN	MENT	SOUGO	
Pumptrk 7 No. Cementer 19	ole -	Common 3.50	
Bulktrk / No. Driver Driver	7	Poz. Mix	1.
Bulkirk (), U. No. Driver C. C.	, ,	Gel.	
JOB SERVICES	& REMARKS	Calcium	
Remarks:		Hulls	
Rat Hole 30 SX QN	nDC	Salt	
Mouse Hole N/A		Flowseal 87 II	4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar 19/6		CFL-117 or CD110 CAF 38	
		Sand	
Hook to p	oump truck	Handling 350	
+ Ohe Pul Ki	10 1114 30.St	Mileage	
OMBCO, SLA	down Hout to	FLOAT EQUIPMENT	<u> </u>
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(1) . 1/2.0	<u>,                                    </u>	Discount	
X Signature	elres	Total Charge	

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. Notwith-standing 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 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.

Phone 785-483*2025 Cell 785-324-1041	Н	ome	Office	P.O. Bo	ox 32 Rus		NUV 1 2	2010	No.	4576	
9 79 10 Sec.	Twp.	R	ange		County	Stat	CONFIDE	On Location	on:	Finish	1
Date 7 /0 /9	6		<u> </u>	Uia	ham	K <del>s</del>		17.6		1.00 HYM	<u>!</u>
	/ell No.	#1	1-19	Location	on Hilly	ty, Ks	N to	YKX	<u>, '`)</u>	E, SN	
Contractor W-W	Sia 1	14			Owner =	5	and a land				
Type Job o coduction	~	<u> Bot</u>	tom	: '	To Quality Oi You are here	by request	ed to rent cem	enting equi	pment	and furnish	
Hole Size	T.D.		<u>865'</u>			<del> </del>			r to do	work as listed.	<u>:</u>
Csg. Sku	Depth	<u>3</u>	860		Charge F )	aticon	s Kesov	L ( CE S		<u> </u>	<u>.:.</u>
Tbg. Size	Depth		-	<del> </del>	Street						
Tool DU Tool	Depth	19,	/6'	· · · ·	City	<u> </u>	St	tate	<u> </u>		
Cement Left in Csg. 22.00	Shoe J	oint (	22,00	<u> </u>	The above wa	s done to sa	tisfaction and su	pervision of	owner a	gent or contract	tor.
Meas Line	Displac	e9/	400	13	Cement Amo	ount Ordere	<u>a 156 s</u>	x Com	Mø	n 10%	<u>'مح</u>
EQUIPM	IENT				5% G:	Sonite	·				
Pumptrk 9 No. Cementer Helper	rale_				Common	150				<u>,</u>	
Bulktrk No. Driver Dow	9(				Poz. Mix					the state of	
Bulking P. U. No. Driver C. C.	6				Gel.	·					
JOB SERVICES	& REMA	RKS			Calcium	· . · ·					
Remarks:					Hulls						
Rat Hole					Salt /5						
Mouse Hole				44	Flowseal						
Centralizers 96, 2, 4, 6	8.10	2.//	113,1	5.19	Kol-Seal 7	50 H					
Baskets 46	1	1 /	,	7	Mud CLR 48	500	aal	(		<u></u>	
D/V or Port Collar 46 + 5+	- 19	16	,		CFL-117 or (	CD110 CAF	38				
					Sand		Allen.				
PUMP SOD gol	mu	d	Clear	48	Handling/4	35					
mix 150 Sx C	omn	מכור	1029		Mileage						
S% G./sonite, St	ud o	الما	سن ر	ch .		FLOAT	EQUIPMENT	[	<b>X</b>	**	
pumo Alines Rele	used.	رام	a/ N4	1	Guide Shoe						
displaced with	L14 )	REV	s un	aler	Centralizer	1/	70	5/2/	. '		
and 42 x BBLS o	f Liv	m	1	land	Baskets	ゆめ		RE	CEN	<u> </u>	<del></del>
phy to 1000#	Kelen	del	The	12.	AFU Inserts					- P	:.
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10.00	Λ Δ		1	7.4	1,		1	Dis	count		
X Signature	V.V	Z	)	<del> </del>			• .	Total C	harge		
		0	<del>/                                    </del>			· 1/2					

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. Notwith-standing 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.
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- 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 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.
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# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025 Cell 785-324-1041 Home Office P.O. Box 32 Russell, KS 67665

INV 1.2 20th

No. 4313

NOV 1 2 2010

	Sec. Twp.	Range		County	State	CONFI	DENTINE	Finish
Date 9-22-10	19 6	21	Cara	han	KS		> <b></b>	10:00m.
Lease Worchester	Well No.	1/19	Location	on AliKit/	V VRD 7	E 3N.	Buro	
Contractor WW#4				Owner			·	
Type Job Sarface					well Cementin by requested to		ntina equipmer	it and furnish
Hole Size 01/4	T.D. <b>2</b>	61		cementer and				lo work as listed.
Csg. 85/8 13	Depth	259		Charge Ta	Toon 5			
Tbg. Size	Depth	·	• 	Street		· -		****
Tool	Depth			City		Stat	е	
Cement Left in Csg. 151	Shoe	loint		The above was	done to satisfa	ction and supe	ervision of owne	r agent or contractor.
Meas Line	Displac	× 15 /2	BC	Cement Amor	unt Ordered	165 Com	3% K	290bel
	QUIPMENT			·				
Pumptrk 5 No. Cement	e raig	<u> </u>		Common /	25		<u></u>	
Bulktrk No Driver Driver	<i>→</i> √/			Poz. Mix				
Bulktrk 12 No. Driver Driver	Deres	F 2		Gel. 3		<u></u>		
JOB SER	VICES & REMA	ARKS	<u> </u>	Calcium E	)			***
Remarks:		**		Hulls		<del> </del>		
Rat Hole		<u> </u>	<i>i</i>	Salt				
Mouse Hole			,	Flowseal				
Centralizers		* .		Kol-Seal	1	, i		
Baskets	<del>-i</del>		1,	Mud CLR 48				
D/V or Port Collar		·.		CFL-117 or C	D110 CAF 38			
85/8 on Don	om Es	Circulation	4	Sand		<u> </u>		
Mix /asse & Si	Stace			Handling /	74			
A	<del>-</del>	-,/	200 (4)	Mileage				
Unerca	LUKATES	<u> </u>			FLOAT EC	UIPMENT	_	
				Guide Shoe				
	<u> </u>	<del></del>		Centralizer	<u> </u>		·	
				Baskets				
				AFU Inserts	-	- 4		
				Float Shoe			REC	VED
<u> </u>	.151			Latch Down	<u> </u>		<u> </u>	<u> </u>
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Signature /	det !			J			rotal Charge	* <u></u>

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Prepared For: Flatirons Res LLC

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

19-6-21 Graham,Ks

#### Worcester Unit # 11-19

Start Date: 2010.09.25 @ 19:05:23 End Date: 2010.09.26 @ 01:52:08 Job Ticket #: 039948 DST #: 1

DST#: 1

KCC NOV 1 2 2010 CONFIDENTIAL

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

RECEIVED NOV 1 6 2010 KCC WICHITA



Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks Job Ticket: 039948

DST#: 1

ATTN: John Marvin

Test Start: 2010.09.25 @ 19:05:23

#### **GENERAL INFORMATION:**

Formation:

Oread

Deviated:

Interval:

No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole

Tester:

Dan Bangle

Unit No:

Reference Elevations:

2304.00 ft (KB)

2299.00 ft (CF)

Total Depth: Hole Diameter:

Time Tool Opened: 20:56:23

Time Test Ended: 01:52:08

3485.00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

3442.00 ft (KB) To 3485.00 ft (KB) (TVD)

KB to GR/CF:

5.00 ft

Serial #: 8354

Press@RunDepth:

Inside

114.97 psig @

3445.00 ft (KB)

2010.09.26

Capacity: Last Calib.: 8000.00 psig

Start Date: Start Time:

2010.09.25 19:05:24

End Date: End Time:

01:52:08

Time On Btm:

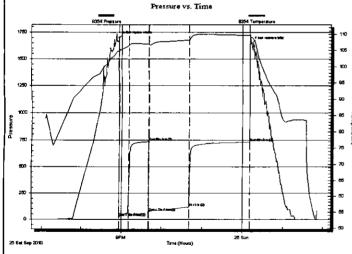
2010.09.26

Time Off Btm:

2010.09.25 @ 20:55:38 2010.09.26 @ 00:12:53

TEST COMMENT: IF-Weak building to 4"

FF-Weak building to 4"



	PRESSURE SUMMARY									
	Time	Pressure	Temp	Annotation						
	(Min.)	(psig)	(deg F)							
	0	1695.39	104.82	Initial Hydro-static						
	1	22.51	104.32	Open To Flow (1)						
	15	62.05	106.42	Shut-In(1)						
	45	732.93	106.91	End Shut-in(1)						
T en	46	69.74	106.69	Open To Flow (2)						
Temperature	105	114.97	108.24	Shut-In(2)						
6	195	729.63	109.65	End Shut-In(2)						
	198	1643.06	108.94	Final Hydro-static						
				i						
1				İ						
			'							

Length (ft)	Description	Volume (bbl)				
120.00	Wtr	0.59				
60.00	Sitly OCM 3%o 97%m	0.81				
20.00	OCM 30% o 70% m	0.28				
20.00	$\infty$	0.28				

Gas	Rates
-----	-------

Trilobite Testing, Inc.

Ref. No: 039948

Printed: 2010.10.07 @ 16:45:55 Page 2



**TOOL DIAGRAM** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940

19-6-21 Graham, Ks

Denver Co 80203

Job Ticket: 039948

DST#:1

ATTN: John Marvin

Test Start: 2010.09.25 @ 19:05:23

Tool Information

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 3310.00 ft Diameter: 0.00 ft Diameter: 3.80 inches Volume: 0.00 inches Volume:

46.43 bbl 0.00 bbl Tool Weight:

2000.00 lb

Drill Collar:

Length:

123.00 ft Diameter:

0.60 bbl 2.25 inches Volume:

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

Drill Pipe Above KB:

19.00 ft

Total Volume: 47.03 bbl Tool Chased

0.00 ft

Depth to Top Packer:

3442.00 ft

String Weight: Initial 38000.00 lb

Depth to Bottom Packer: Interval between Packers:

43.00 ft

Final 39000.00 lb

Tool Length: Number of Packers: 71.00 ft 2 Diameter:

6.75 inches

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3415.00		
Shut in Tool	5.00			3420.00		
Hydraulic tool	5.00			3425.00		
Jars	5.00		Å÷	3430.00		
Safety Joint	3.00		*	3433.00		
Packer	5.00			3438.00	28.00	Bottom Of Top Packer
Packer	4.00			3442.00		
Stubb	1.00			3443.00		
Perforations	1.00			3444.00		
Change Over Sub	1.00			3445.00		
Recorder	0.00	8354	Inside	3445.00		
Recorder	0.00	8520	Outside	3445.00		
Orill Pipe	31.00			3476.00		
Change Over Sub	1.00			3477.00		
Perforations	5.00			3482.00		
Bullnose	3.00			3485.00	43.00	Bottom Packers & Anchor
Total Tool Length	n: 71.00	ı				



**FLUID SUMMARY** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks Job Ticket: 039948

DST#:1

ATTN: John Marvin

Test Start: 2010.09.25 @ 19:05:23

Mud and Cushion Information

Mud Type: Gel Chem

9.00 lb/gal

Cushion Type:

Oil API:

30 deg API

Mud Weight: Viscosity:

56.00 sec/qt

Cushion Length:

Water Salinity:

ppm

Water Loss:

7.57 in<sup>3</sup>

Cushion Volume:

Resistivity:

ohm.m

Gas Cushion Type:

Gas Cushion Pressure:

900.00 ppm

psig

fŧ

bbl

Salinity: Filter Cake:

inches

#### **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl
120.00	Wtr	0.590
60.00	SittyOCM 3%o 97%m	0.814
20.00	OCM 30% o 70% m	0.281
20.00	CO	0.281

Total Length:

220.00 ft

Total Volume:

1.966 bbl

0

Num Fluid Samples: 0

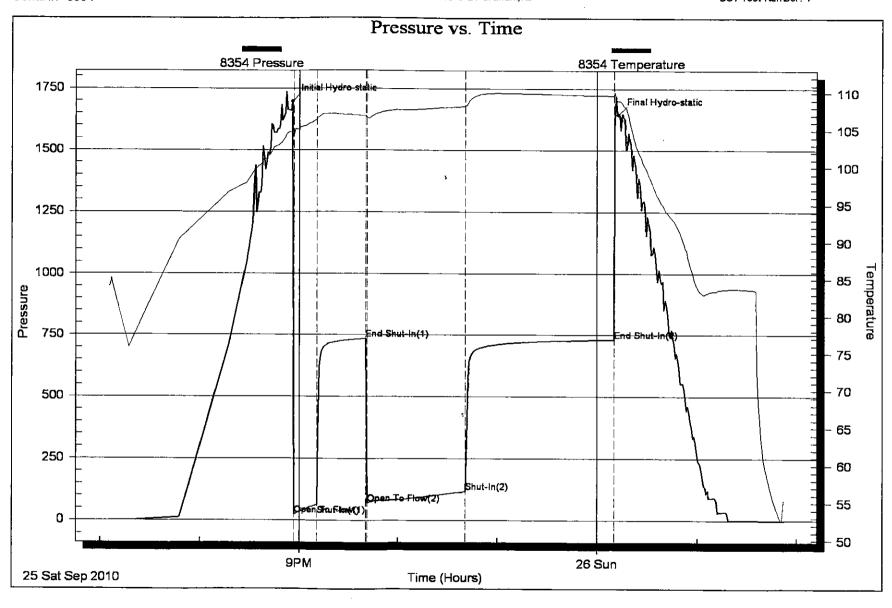
Num Gas Bombs:

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





Prepared For: Flatirons Res LLC

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

19-6-21 Graham, Ks

#### Worcester Unit #11-19

Start Date: 2010.09.26 @ 10:30:10 End Date: 2010.09.26 @ 18:32:40 Job Ticket #: 039949 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks Job Ticket: 039949

DST#: 2

ATTN: John Marvin

Test Start: 2010.09.26 @ 10:30:10

#### **GENERAL INFORMATION:**

Time Tool Opened: 12:14:25

Time Test Ended: 18:32:40

Formation:

Toronto/A

Deviated:

No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole

Tester:

Dan Bangle

Unit No:

38

Reference Elevations:

2304.00 ft (KB)

2299.00 ft (CF)

KB to GR/CF:

5.00 ft

Interval: Total Depth: Hole Diameter: 3500.00 ft (KB) To 3560.00 ft (KB) (TVD) 3560.00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

Serial #: 8354 Press@RunDepth: Inside

763.57 psig @

3503.00 ft (KB)

2010.09.26

Capacity:

8000.00 psig

Start Date: Start Time:

2010.09.26 10:30:11

End Date: End Time:

18:32:40

Last Calib.: Time On Btm: 2010.09.26

Time Off Btm:

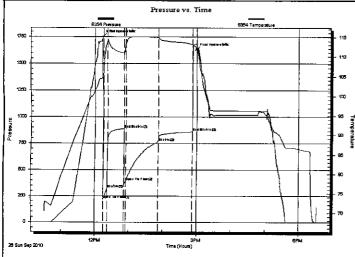
2010.09.26 @ 12:13:25 2010.09.26 @ 14:58:25

TEST COMMENT: IF-Strong B-B in 45 sec

ISI-Strong B-B in 11 min

FF-Strong B-B in 1 min GTS in 56 min

FSI-Strong B-B in 7 min



	. PRESSURE SUMMARY							
	Time Pressure Temp		Temp	Annotation				
	(Min.)	(psig)	(deg F)					
	0	1750.19	104.58	Initial Hydro-static				
	1	219.83	104.69	Open To Flow (1)				
	9	323.10	113.92	Shut-In(1)				
	38	888.28	111.00	End Shut-In(1)				
ď	42	392.98	113.39	Open To Flow (2)				
Temperature	99	763.57	114.80	Shut-In(2)				
ā	159	857.71	113.19	End Shut-In(2)				
	165	1625.30	113.35	Final Hydro-static				
				•				

Description	
yM 20%g 40%o 40%m	
D 6 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	•

Recovery

185.00	OCGsyM 20%g 40%o 40%m	1.47
1915.00	CGsyO 30%g 70%o	26.86
0.00	GTS	0.00

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

Trilobite Testing, Inc.

Length (ft)

Ref. No: 039949

Volume (bb!)

Printed: 2010.10.07 @ 16:46:35 Page 2



**TOOL DIAGRAM** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

Job Ticket: 039949

DST#: 2

ATTN: John Marvin

Test Start: 2010.09.26 @ 10:30:10

Tool Information

Drill Pipe: Length: 3373.00 ft Diameter: Heavy Wt. Pipe: Length:

0.00 ft Diameter:

3.80 inches Volume:

47.31 bbl 0.00 bbl Tool Weight:

2000.00 lb

Drill Collar:

Length: 123.00 ft Diameter: 0.00 inches Volume: 2.25 inches Volume:

Weight set on Packer: 25000.00 lb 0.60 bbl Weight to Pull Loose: 60000.00 lb

Total Volume: 47.91 bbl

Tool Chased

8.00 ft

Drill Pipe Above KB: Depth to Top Packer:

24.00 ft 3500.00 ft

String Weight: Initial 40000.00 lb

Depth to Bottom Packer: Interval between Packers:

ft 60.00 ft

Final 48000.00 lb

Number of Packers:

88.00 ft 2 Diameter:

6.75 inches

Tool Comments:

Tool Length:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3473.00		
Shut In Tool	5.00			3478.00		
Hydraulic tool	5.00			3483.00		
Jars	5.00			3488.00	A.F	
Safety Joint	3.00			a 3491.00		
Packer	5.00			3496.00	28.00	Bottom Of Top Packer
Packer	4.00		•	3500.00		
Stubb	1.00			3501.00		
Perforations	1.00			3502.00		
Change Over Sub	1.00			3503.00		
Recorder	0.00	8354	Inside	3503.00		
Recorder	0.00	8520	Outside	3503.00		
Drill Pipe	31.00			3534.00		
Change Over Sub	1.00			3535.00		
Perforations	22.00			3557.00		
Bulinose	3.00			3560.00	60.00	Bottom Packers & Anchor
Total Tool Length	: 88.00	l				



**FLUID SUMMARY** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks Job Ticket: 039949

DST#:2

ATTN: John Marvin

Test Start: 2010.09.26 @ 10:30:10

**Mud and Cushion Information** 

Mud Type: Gel Chem

9.00 lb/gal

Cushion Type:

Oil API:

36 deg API

Mud Weight: Viscosity:

52.00 sec/qt

Cushion Length: Cushion Volume: Water Salinity:

ppm

Water Loss:

7.58 in<sup>3</sup>

Gas Cushion Type: Gas Cushion Pressure: bbl psig

ft

Resistivity:

ohm.m

900.00 ppm

Salinity: Filter Cake:

inches

**Recovery Information** 

Recovery Table

Length ft	Description	Volume bbl
185.00	OCGsyM 20%g 40%o 40%m	1.475
1915.00	CGsyO 30%g 70%o	26.862
0.00	GTS	0.000

Total Length:

2100.00 ft

Total Volume:

28.337 bbl

Num Fluid Samples: 0

Num Gas Bombs:

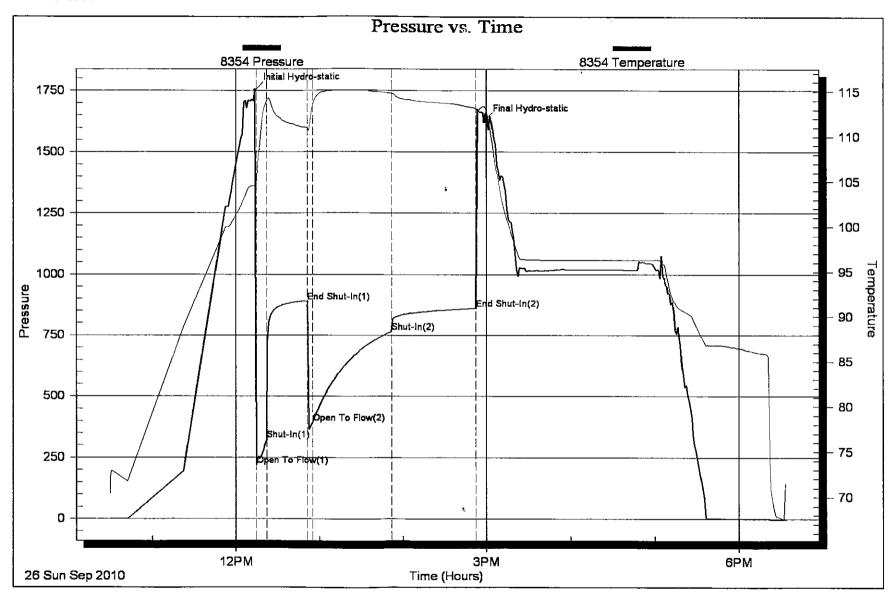
Serial#:

Laboratory Name:,.

Laboratory Location:

Recovery Comments: Reversed out in truck

28 Bbls





Prepared For: Flatirons Res LLC

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

# 19-6-21 Graham,Ks

#### Worcester Unit # 11-19

Start Date: 2010.09.27 @ 02:55:30 End Date: 2010.09.27 @ 09:34:15 Job Ticket #: 039950 DST #: 3

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940

19-6-21 Graham, Ks

Denver Co 80203

Job Ticket: 039950

D\$T#: 3

ATTN: John Marvin

Test Start: 2010.09.27 @ 02:55:30

#### GENERAL INFORMATION:

Formation:

Interval:

Total Depth:

C-D

LKC

Deviated: No Time Tool Opened: 04:32:30

Time Test Ended: 09:34:15

Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole

Tester: Unit No: Dan Bangle

Reference Elevations:

2304.00 ft (KB)

2299.00 ft (CF)

7.88 inchesHole Condition: Good

3562.00 ft (KB) To 3603.00 ft (KB) (TVD)

KB to GR/CF:

5.00 ft

Hole Diameter: Serial #: 8520

Press@RunDepth:

Outside

683.51 psig @

3603.00 ft (KB) (TVD)

3565.00 ft (KB)

Capacity:

8000.00 psig

Start Date: Start Time: 2010.09.27 02:55:31 End Date: End Time: 2010.09.27 09:34:15 Last Calib .:

2010.09.27

Time On Btm:

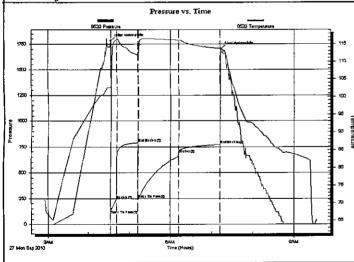
2010.09.27 @ 04:32:15

Time Off Btm:

2010.09.27 @ 07:13:30

TEST COMMENT: IF-Strong B-B in 2 min

FF-Strong B-B in 3 min



, PRESSURE SUMMARY						
Time	Pressure	Temp	Annotation			
(Min.)	(psig)	(deg F)				
0	1783.09	102.81	Initial Hydro-static			
1	96.76	102.46	Open To Flow (1)			
9	240.79	116.28	Shut-In(1)			
40	790.37	111.77	End Shut-In(1)			
41	248.74	111.92	Open To Flow (2)			
100	683.51	116.16	Shut-ln(2)			
160	773.07	113.70	End Shut-In(2)			
162	1703.01	112.91	Final Hydro-static			
			-			
	•					
	(Min.) 0 1 9 40 41 100 160	Time (Min.) (psig)  0 1783.09  1 96.76  9 240.79  40 790.37  41 248.74  100 683.51  160 773.07	Time (Min.) (psig) (deg F) 0 1783.09 102.81 1 96.76 102.46 9 240.79 116.28 40 790.37 111.77 41 248.74 111.92 100 683.51 116.16 160 773.07 113.70			

Recovery

Length (ft)	Description	Volume (bbl)
555.00	Wtr	6.66
500.00	Sittly OCW 3%o 97%w	7.01
365.00	OCW 7%o 93%w	5.12
5.00	co	0.07

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

Trilobite Testing, Inc

Ref. No: 039950

Printed: 2010.10.07 @ 16:47:01 Page 2



**TOOL DIAGRAM** 

Flatirons Res LLC

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

Worcester Unit # 11-19

19-6-21 Graham, Ks

Job Ticket: 039950

DST#: 3

Test Start: 2010.09.27 @ 02:55:30

**Tool Information** 

Drill Pipe:

Driff Collar:

Length: 3437.00 ft Diameter: Heavy Wt. Pipe: Length: Length:

0.00 ft Diameter: 123.00 ft Diameter: 3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume:

Total Volume:

48.21 bbl 0.00 bbl 0.60 bbl

48.81 bbl

Tool Weight:

2000.00 lb

Weight to Pull Loose: 60000.00 lb

Weight set on Packer: 25000.00 lb

45000.00 lb

Tool Chased

0.00 ft

String Weight: Initial 40000.00 lb

Final

26.00 ft 3562.00 ft

Depth to Top Packer: Depth to Bottom Packer: interval between Packers:

ft

41.00 ft 69.00 ft

Tool Length:

Number of Packers:

Drill Pipe Above KB:

Diameter:

6.75 inches

Ref. No: 039950

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3535.00	· ·	
Shut in Tool	5.00			3540.00		
Hydraulic tool	5.00			3545.00		
Jars +	5.00			3550.00		7*
Safety Joint	3.00			3553.00		
Packer	5.00			3558.00	28.00	Bottom Of Top Packer
Packer	4.00			3562.00		
Stubb	1.00			3563.00		
Perforations	1.00			3564.00		
Change Over Sub	1.00			3565.00		
Recorder	0.00	8354	Inside	3565.00		
Recorder	0.00	8520	Outside	3565.00		
Drill Pipe	31.00			3596.00		
Change Over Sub	1.00			3597.00		
Perforations	3.00			3600.00		
Bullnose	3.00			3603.00	41.00	Bottom Packers & Anchor
Total Tool L	ength: 69.00					



**FLUID SUMMARY** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

Job Ticket: 039950

DST#: 3

ATTN: John Marvin

Test Start: 2010.09.27 @ 02:55:30

Oil API:

#### **Mud and Cushion Information**

Mud Type: Gel Chem

Mud Weight:

Viscosity:

Water Loss:

Resistivity:

Salinity: Filter Cake:

9.00 lb/gal 52.00 sec/qt

7.58 in<sup>3</sup>

ohm.m 900.00 ppm

inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Water Salinity:

Serial #:

fţ

idd

psig

deg API

70000 ppm

#### **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl
555.00	Wtr	6.665
500.00	SitiyOCW 3%o 97%w	7.014
365.00	OCW 7%o 93%w	5.120
5.00	co	0.070

Total Length:

1425.00 ft

Total Volume:

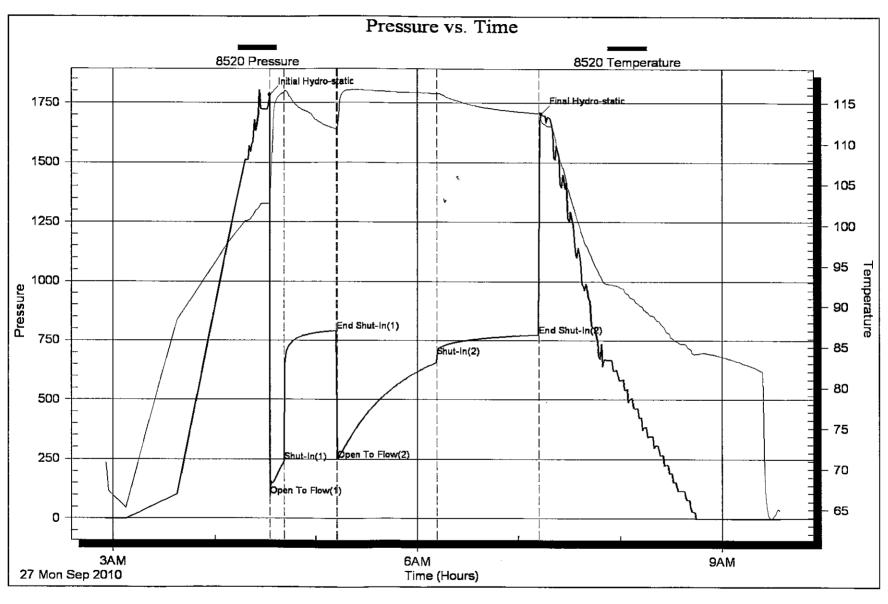
18.869 bbl

Num Fluid Samples: 0 Laboratory Name:

Num Gas Bombs:

, Laboratory Location:

Recovery Comments: Rw .09 @ 80 = 70000ppm





Prepared For: Flatirons Res LLC

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

19-6-21 Graham,Ks

#### Worcester Unit # 11-19

Start Date: 2010.09.27 @ 18:00:01 End Date: 2010.09.28 @ 00:26:46 Job Ticket #: 040351 DST #: 4

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham.Ks

Job Ticket: 040351

DST#: 4

ATTN: John Marvin

Test Start: 2010.09.27 @ 18:00:01

#### GENERAL INFORMATION:

Formation: Deviated:

G

No

LKC Whipstock:

Time Tool Opened: 19:40:01

Tester: Unit No:

Test Type: Conventional Bottom Hole

Time Test Ended: 00:26:46

ft (KB)

Dan Bangle 38

Interval:

3607.00 ft (KB) To 3671.00 ft (KB) (TVD)

2304.00 ft (KB)

Total Depth:

Reference Elevations:

2299.00 ft (CF)

Hole Diameter:

3671.00 ft (KB) (TVD)

7.88 inchesHole Condition: Good

KB to GR/CF:

5.00 ft

Serial #: 8354

Press@RunDepth:

Inside

3610.00 ft (KB)

Capacity:

8000.00 psig

Start Date:

164.38 psig @ 2010.09.27

End Date:

2010.09.28

Last Calib.:

2010.09.28

Start Time:

18:00:02

Time On Btm:

2010.09.27 @ 19:38:46

End Time:

00:26:46

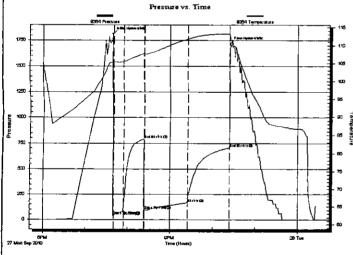
Time Off Btm:

2010.09.27 @ 22:24:46

TEST COMMENT: IF-Strong B-B in 5 min

ISI-Weak building to 1/4'-died in 15 min

FF-Strong B-B in 6 min FSI-Weak died in 15 min



	- PRESSURE SUMMARY							
	Time	Pressure	Temp	Annotation				
	(Min.)	(psig)	(deg F)					
	0	1814.27	105.31	Initial Hydro-static				
	2	41.51	105.24	Open To Flow (1)				
	16	80.78	105.41	Shut-In(1)				
ļ	45	791.40	107.66	End Shut-In(1)				
Tom	46	92.49	107.51	Open To Flow (2)				
Temperature	107	164.38	111.76	Shut-In(2)				
ire.	166	707.13	113.20	End Shut-In(2)				
	166	1719.20	112.87	Final Hydro-static				
i	•							

#### Recovery

Length (ft)	Description	Volume (bbi)
123.00	Wtr	0.60
177.00	OCGsyM 10%g 40%o 50%m	2.48
185.00	CGsyO 20%g 80%o	2.60
0.00	495 GIP	0.00

Rates

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

Trilobite Testing, Inc.

Ref. No: 040351

Printed: 2010.10.07 @ 16:47:39 Page 2



**TOOL DIAGRAM** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

19-6-21 Graham, Ks

Job Ticket: 040351

DST#:4

Test Start: 2010.09.27 @ 18:00:01

Tool Information

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 3468.00 ft Diameter:

0.00 ft Diameter:

3.80 inches Volume: 0.00 inches Volume: 48.65 bbl 0.00 bbl Tool Weight:

2000.00 lb

Drill Collar:

Length:

123.00 ft Diameter:

2.25 inches Volume:

0.60 bbl

Weight set on Packer: 25000.00 lb Weight to Pull Loose: 60000.00 lb

12.00 ft

49.25 bbl Total Volume:

Tool Chased

0.00 ft

Drill Pipe Above KB: Depth to Top Packer:

Depth to Bottom Packer:

3607.00 ft ft

String Weight: Initial 40000.00 lb

Interval between Packers:

64.00 ft

Final 42000.00 lb

Tool Length: Number of Packers: 92.00 ft 2

Diameter:

6.75 inches

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3580.00		
Shut in Tool	5.00			3585.00		
Hydraulic tool	5.00			3590.00		
Jars "	5.00			3595.00		gê.
Safety Joint	3.00			3598.00		
Packer	5.00			3603.00	28.00	Bottom Of Top Packer
Packer	4.00			3607.00		
Stubb	1.00			3608.00		
Perforations	1.00			3609.00		
Change Over Sub	1.00			3610.00		
Recorder	0.00	8354	Inside	3610.00		
Recorder	0.00	8520	Outside	3610.00		
Drill Pipe	31.00			3641.00		
Change Over Sub	1.00			3642.00		
Perforations	26.00			3668.00		
Bullnose	3.00			3671.00	64.00	Bottom Packers & Anchor
Total Tool Length	92.00	)				



**FLUID SUMMARY** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

Job Ticket: 040351

DST#:4

ATTN: John Marvin

Test Start: 2010.09.27 @ 18:00:01

#### **Mud and Cushion Information**

Mud Type: Gel Chem

9.00 lb/gal

Mud Weight: Viscosity:

52.00 sec/qt 7.20 in<sup>3</sup>

Water Loss: Resistivity:

ohm.m

Salinity: Filter Cake: 700.00 ppm inches Cushion Type:

Cushion Length:

fţ bbl Oil API: Water Salinity: 34 deg API

90000 ppm

Cushion Volume: Gas Cushion Type:

Gas Cushion Pressure:

psig

#### **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl
123.00	Wtr	0.605
177.00	OCGsyM 10%g 40%o 50%m	2.483
185.00	CGsyO 20%g 80%o	2.595
0.00	495 GIP	0.000

Total Length:

485.00 ft

Total Volume:

5.683 bbl

0

Num Fluid Samples: 0

Num Gas Bombs:

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .07 @ 85 = 90000ppm

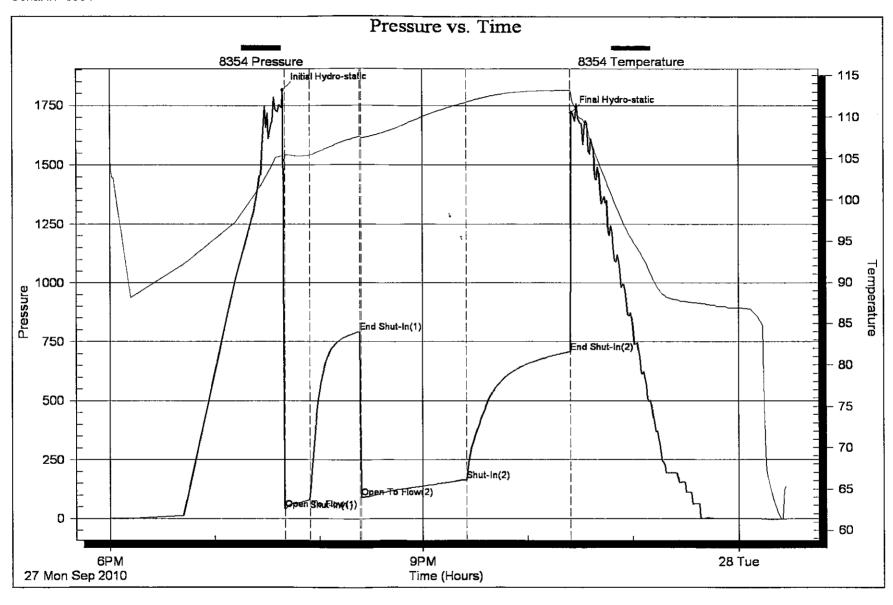
Serial #: 8354

Inside

Flatirons Res LLC

19-6-21 Graham.Ks

DST Test Number: 4





Prepared For: Flatirons Res LLC

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

19-6-21 Graham, Ks

Worcester Unit #11-19

Start Date: 2010.09.28 @ 09:05:05 End Date: 2010.09.28 @ 13:53:20 Job Ticket #: 040352 DST #: 5

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

19-6-21 Graham, Ks

Job Ticket: 040352

DST#:5

Test Start: 2010.09.28 @ 09:05:05

#### GENERAL INFORMATION:

Formation:

H-I-J

Deviated: No Time Tool Opened: 10:39:05

Time Test Ended: 13:53:20

Whipstock:

ft (KB)

Conventional Bottom Hole

Tester:

Dan Bangle

Unit No:

38

3655.00 ft (KB) To 3715.00 ft (KB) (TVD)

Interval: Total Depth: Hole Diameter:

3715.00 ft (KB) (TVD)

Reference Elevations:

2304.00 ft (KB) 2299.00 ft (CF)

7.88 inches Hole Condition: Good

KB to GR/CF:

5.00 ft

Serial #: 8354 Press@RunDepth:

Inside

19.55 psig @

3658.00 ft (KB)

Capacity:

8000.00 psig

Start Date: Start Time:

2010.09.28 09:05:06 End Date: End Time:

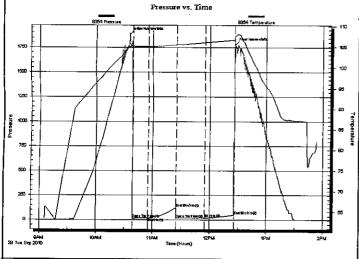
2010.09.28 13:53:20 Last Calib.:

2010.09.28

Time On Btm: Time Off Btm: 2010.09.28 @ 10:35:50 2010.09.28 @ 12:26:50

TEST COMMENT: IF-Weak died in 11 min

FF-No blow



	PRESSURE SUMMARY								
0	Time	Pressure	Temp	Annotation	_				
5	(Min.)	(psig)	(deg F)						
	0	1882.94	104.89	Initial Hydro-static					
3	4	17.81	104.89	Open To Flow (1)					
	20	18.56	105.03	Shut-In(1)					
	49	123.67	105.50	End Shut-In(1)					
707	50	18.24	105.45	Open To Flow (2)					
Temperature	80	19.55	106.05	Shut-In(2)					
4	111	50.98	106.66	End Shut-In(2)					
	111	1780.57	107.47	Final Hydro-static					
i									
			i						
			ļ						

#### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drlg Mud	0.02

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 040352

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**TOOL DIAGRAM** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

Job Ticket: 040352

DST#: 5

ATTN: John Marvin

Test Start: 2010.09.28 @ 09:05:05

**Tool Information** 

Drill Pipe: Heavy Wt. Pipe: Length:

Drill Collar:

Length:

Length: 3530.00 ft Diameter:

0.00 ft Diameter: 123.00 ft Diameter: 3.80 inches Volume: 0.00 inches Volume: 49.52 bbl 0.00 bbl 0.60 bbl Tool Weight: Weight set on Packer: 25000.00 lb

2000.00 lb

2.25 inches Volume: Total Volume:

50.12 bbl

Weight to Pull Loose: 50000.00 lb

0.00 ft

Drill Pipe Above KB:

26.00 ft 3655.00 ft

Depth to Top Packer: Depth to Bottom Packer:

ft

Tool Chased String Weight: Initial 40000.00 lb

Interval between Packers:

88.00 ft

60.00 ft

Final 40000.00 lb

Number of Packers:

2

6.75 inches Diameter:

Tool Comments:

Tool Length:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3628.00		
Shut In Tool	5.00			3633.00		
Hydraulic tool	5.00			3638.00		
Jars	<b>₩</b> 5.00			3643.00		*
Safety Joint	3.00			3646.00		
Packer	5.00			3651.00	28.00	Bottom Of Top Packer
Packer	4.00			3655.00	· · · · · · · · · · · · · · · · · · ·	•
Stubb	1.00			3656.00		
Perforations	1.00			3657.00		
Change Over Sub	1.00			3658.00		
Recorder	0.00	8354	Inside	3658.00		
Recorder	0.00	8520	Outside	3658.00		
Drill Pipe	31.00			3689.00		
Change Over Sub	1.00			3690.00		
Perforations	22.00			3712.00		
Bullnose	3.00			3715.00	60.00	Bottom Packers & Anchor
Total Tool ( amount		1				

Total Tool Length:

88.00



**FLUID SUMMARY** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

Job Ticket: 040352

DST#:5

ATTN: John Marvin

Test Start: 2010.09.28 @ 09:05:05

Oil API:

#### Mud and Cushion Information

Mud Type: Gel Chem

9.00 lb/gal

Mud Weight: Viscosity:

61.00 sec/qt 7.79 in<sup>3</sup>

Water Loss: Resistivity: Salinity: Filter Cake:

2700.00 ppm

Cushion Type:

Cushion Length:

Cushion Volume: Gas Cushion Type:

Gas Cushion Pressure:

ft bbl

psig

Water Salinity:

deg API ppm

ohm.m

inches

# **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl
5.00	Drig Mud	0.025

Total Length:

5.00 ft

Total Volume:

0.025 bbl

Num Fluid Samples: 0

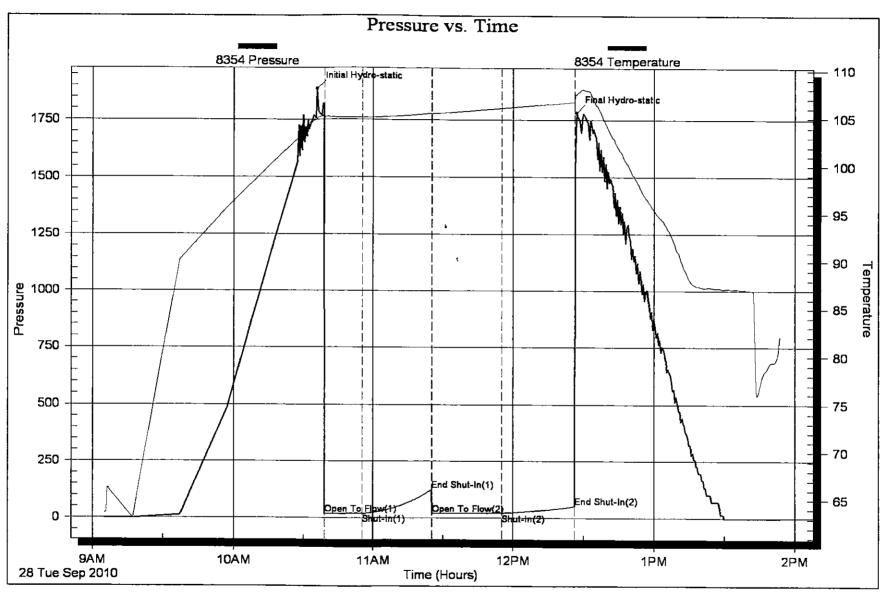
Num Gas Bombs:

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





Prepared For: Flatirons Res LLC

303 E 17th Ave Ste 940 Denver Co 80203

ATTN: John Marvin

19-6-21 Graham, Ks

#### Worcester Unit # 11-19

Start Date: 2010.09.29 @ 08:50:56 End Date: 2010.09.29 @ 14:48:41 Job Ticket #: 040353 DST #: 6

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

ATTN: John Marvin

Job Ticket: 040353

Test Start: 2010.09.29 @ 08:50:56

#### **GENERAL INFORMATION:**

Time Tool Opened: 10:15:41

Time Test Ended: 14:48:41

Formation:

Conglom erate

Deviated:

No

Whipstock:

ft (KB)

Test Type:

Conventional Straddle

Tester: Unit No: Dan Bangle

Interval:

3809.00 ft (KB) To 3849.00 ft (KB) (TVD)

2304.00 ft (KB)

DST#:6

Total Depth:

3865.00 ft (KB) (TVD)

Reference Elevations:

2299.00 ft (CF)

Hole Diameter:

7.88 inches Hole Condition: Good

KB to GR/CF:

38

5.00 ft

Serial #: 8354

Press@RunDepth:

Inside

215.63 psig @

3812.00 ft (KB)

Capacity:

8000.00 psig

Start Date:

2010.09.29

End Date:

2010.09.29

Last Calib.:

2010.09.29

Start Time:

08:50:57

End Time:

14:48:41

Time On Btm:

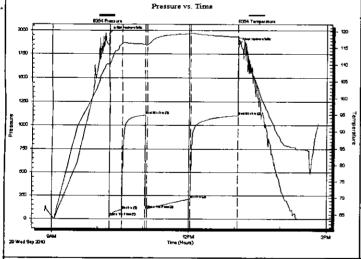
2010.09.29 @ 10:14:56

Time Off Btm:

2010.09.29 @ 13:04:26

TEST COMMENT: IF-Weak building to 10" fair blow

FF-Strong B-B in 19 min



PPÆSSURE SUMMARY						
Pressure	Temp	Annotation				

T T/EOOOT/E GOIVINAL()						
	Time	Pressure	Temp	Annotation		
	(Min.)	(psig)	(deg F)			
	0	1969.90	110.27	Initial Hydro-static		
	1	25.23	109.87	Open To Flow (1)		
	17	94.58	116.24	Shut-In(1)		
	48	1105.41	116.10	End Shut-In(1)		
Ten	50	105.76	115.91	Open To Flow (2)		
Temperature	107	215.63	119.27	Shut-In(2)		
5	169	1102.95	118.32	End Shut-In(2)		
	170	1852.51	118.21	Final Hydro-static		
				•		
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			i			

#### Recovery

Description	Volume (bbl)		
Mdy Wtr	5.89		

#### Gas Rates

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

Trilobite Testing, Inc.

Ref. No: 040353

Printed: 2010.10.07 @ 16:49:41 Page 2



Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

Job Ticket: 040353

DST#: 6

ATTN: John Marvin

Test Start: 2010.09.29 @ 08:50:56

#### GENERAL INFORMATION:

Time Test Ended: 14:48:41

Formation:

Conglomerate

Deviated:

Whipstock: No

Time Tool Opened: 10:15:41

ft (KB)

Test Type: Conventional Straddle

Tester:

Dan Bangle

Unit No:

38

Reference Elevations:

2304.00 ft (KB)

2299.00 ft (CF)

KB to GR/CF:

5.00 ft

Interval: Total Depth:

Hole Diameter:

3809.00 ft (KB) To 3849.00 ft (KB) (TVD) 3865.00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

Serial #: 8653 Press@RunDepth: Outside

psig @

3852.00 ft (KB)

2010.09.29

Capacity:

8000.00 psig

Start Date:

2010.09.29

End Date:

Last Calib.:

2010.09.29

Start Time:

08:50:23

End Time:

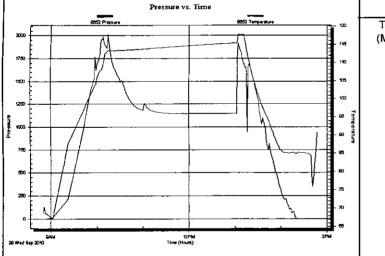
14:46:52

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-Weak building to 10" fair blow

FF-Strong B-B in 19 min



	- PRESSURE SUMMARY						
20	Time	Pressure	Temp	Annotation			
15	(Min.)	(psig)	(deg F)				
10							
25		:					
20							
Temp							
Temperature			i				
3		}					
)		ĺ					
5							
)							
5							

#### Recovery

Length (ft)	Description	Volume (bbl)	
500.00	Mdy Wtr	5.89	

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

Trilobite Testing, Inc.

Ref. No: 040353

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**TOOL DIAGRAM** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham.Ks

Job Ticket: 040353

DST#:6

ATTN: John Marvin

Test Start: 2010.09.29 @ 08:50:56

**Tool Information** 

Drill Pipe:

Length: 3660.00 ft Diameter:

3.80 inches Volume:

51.34 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: 25000.00 lb

Drill Collar:

Length:

123.00 ft Diameter:

2.00 ft

2.25 inches Volume:

0.60 bbl

Weight to Pull Loose: 50000.00 lb

Drill Pipe Above KB:

Total Volume: 51.94 bbl

Tool Chased

0.00 ft

Depth to Top Packer:

3809.00 ft

String Weight: Initial 40000.00 lb

Depth to Bottom Packer:

3849.00 ft 40.00 ft

Final 42000.00 lb

Interval between Packers: Tool Length:

87.00 ft 3

Diameter:

6.75 inches

Tool Comments:

Number of Packers:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3782.00		
Shut in Tool	5.00			3787.00		
Hydraulic tool	5.00			3792.00		
Jars -	5.00			3797.00	4-	
Safety Joint	3.00		**	3800.00		
Packer	5.00			3805.00	28.00	Bottom Of Top Packer
Packer	4.00			3809.00		
Stubb	1.00			3810.00		
Perforations	1.00			3811.00		
Change Over Sub	1.00			3812.00		
Recorder	0.00	8354	Inside	3812.00		
Recorder	0.00	8520	Outside	3812.00		
Drill Pipe	31.00			3843.00		
Change Over Sub	1.00			3844.00		
Perforations	1.00			3845.00		
Blank Off Sub	1.00			3846.00		
Blank Spacing	3.00			3849.00	40.00	Tool Interval
Packer	2.00			3851.00		
Stubb	1.00			3852.00		
Recorder	0.00	8653	Outside	3852.00		
Perforations	13.00			3865.00		
Bullnose	3.00			3868.00	19.00	Bottom Packers & Anchor

Total Tool Length:

87.00



**FLUID SUMMARY** 

Flatirons Res LLC

Worcester Unit # 11-19

303 E 17th Ave Ste 940 Denver Co 80203

19-6-21 Graham, Ks

Job Ticket: 040353

DST#: 6

ATTN: John Marvin

Test Start: 2010.09.29 @ 08:50:56

**Mud and Cushion Information** 

Mud Type: Gel Chem

Mud Weight:

9.00 lb/gal 63.00 sec/qt

Viscosity: Water Loss:

7.19 in<sup>3</sup>

Resistivity: Salinity: Filter Cake:

2800.00 ppm

ohm.m

inches

Cushion Type:

Cushion Length:

ft bbl Oil API: Water Salinity:

deg API 40000 ppm

Cushion Volume: Gas Cushion Type:

Gas Cushion Pressure:

psig

#### **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl
500.00	Mdy Wtr	5.893

Total Length:

500.00 ft

Total Volume:

5.893 bbl

Num Fluid Samples: 0

Num Gas Bombs:

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .18 @ 75 = 40000ppm

Ref. No: 040353

