



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1192921
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

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: _____

1192921

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, 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 / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method: Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Baird Oil Company LLC
Well Name	Esther Worcester 3-13
Doc ID	1192921

Tops

Name	Top	Datum
Anhydrite	1751	+374
Base Anhydrite	1783	+342
Topeka	3119	-994
Heebner	3329	-1204
Toronto	3354	-1229
Lansing	3367	-1242
Base Kansas City	3557	-1432
Marmaton	3595	-1470
Arbuckle	3663	-1538
Total Depth	3730	-1605

Global Cementing LLC dba SOS LLC

18048 I-70 Road
Russell, KS 67665

Invoice

Date	Invoice #
10/22/2013	1137

Bill To
BAIRD OIL COMPANY LLC PO BOX 428 LOGAN,KS 67646

P.O. No.	Terms	Project
ESTHER WORCE...	Net 30	

Quantity	Description	Rate	Amount
150	COMMON	15.50	2,325.00
5	CALCIUM	53.00	265.00
3	GEL	23.50	70.50
158	HANDLING	2.10	331.80
	BULK MILEAGE	354.00	354.00
1	TRI-PLEX PUMP CHARGE FOR SURFACE	1,050.00	1,050.00
56	PUMP TRUCK MILEAGE	6.50	364.00
56	PICKUP	2.50	140.00
	DEDUCT 15% FROM TOTAL IF PAID WITHIN 30 DAYS OF INVOICE GRAHAM CO	7.55%	0.00
	<p style="text-align: center;">R10/29/2013 P10/29/2013</p> <p>E worces 190402 4165.25 Esther worcester 3-13- Pump charge, Cement & other misc used to cement surface casing</p>		
			<p>10/29/2013 C/K#1393</p>

Thank you for your business.

Phone #	Fax #	E-mail
785-324-2658	785-445-3526	

Total

\$4,900.30

SCHIPPER'S OIL FIELD SERVICES, L.L.C.

1137

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT: Russell, KS - Hoxie, KS

DATE <u>10-22-13</u>	SEC. <u>13</u>	TWP. <u>7</u>	RANGE <u>22</u>	CALLED OUT	ON LOCATION	JOB START <u>6:00pm</u>	JOB FINISH <u>6:15pm</u>
LEASE <u>Esther worrester</u>	WELL# <u>3-13</u>	LOCATION			COUNTY <u>Graham</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (CIRCLE ONE)							

CONTRACTOR WWS Drilling

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 219

CASING SIZE 8 5/8 DEPTH 218

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 2054

PERFS

DISPLACEMENT 12.6

EQUIPMENT

PUMP TRUCK CEMENTER Heath

P1 HELPER Cody

BULK TRUCK DRIVER Eric

B1

BULK TRUCK DRIVER

#

OWNER

CEMENT AMOUNT ORDERED 150sv com 3%bll

2%gel

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

Run 5 hrs of 8 5/8 casing and landing it

Est Circulation with mud pump

Hook up and mix 150sv and disp

12.6 bbl of H2O - shut in @ 200psi

Cement did circulate to surface

CHARGE TO: Baird Oil

STREET

CITY STATE ZIP

Schippers Oil Field Services, L.L.C.,
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Adam Fannestiel

SIGNATURE Adam Fannestiel

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

@

@

@

@

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS



P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300



Invoice

DATE	INVOICE #
10/28/2013	25152

BILL TO
Baird Oil Company LLC PO Box 428 Logan, KS 67646

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-13	Esther Worce...	Graham	WW Drilling #8	Oil	Development	LongString	Nick

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	70	Miles	6.00	420.00
578D-L	Pump Charge - Long String - 3730 Feet	1	Job	1,500.00	1,500.00
221	Liquid KCL (Clayfix)	2	Gallon(s)	25.00	50.00T
280	Flocheck 21	500	Gallon(s)	3.00	1,500.00T
290	D-Air	3	Gallon(s)	42.00	126.00T
402-5	5 1/2" Centralizer	12	Each	70.00	840.00T
403-5	5 1/2" Cement Basket	1	Each	285.00	285.00T
404-5	5 1/2" Port Collar	1	Each	2,650.00	2,650.00T
406-5	5 1/2" Latch Down Plug & Baffle	1	Each	275.00	275.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill	1	Each	375.00	375.00T
411-5	5 1/2" Recipo Scratcher	31	Each	50.00	1,550.00T
325	Standard Cement	200	Sacks	14.00	2,800.00T
326	60/40 Pozmix (2% Gel)	40	Sacks	11.00	440.00T
283	Salt	1,600	Lb(s)	0.20	320.00T
276	Flocele	50	Lb(s)	2.00	100.00T
277	Gilsonite (Coal Seal)	50	Lb(s)	0.75	37.50T
285	CFR-1	100	Lb(s)	4.00	400.00T
581D	Service Charge Cement	240	Sacks	2.00	480.00
583D	Drayage	836	Ton Miles	1.00	836.00
	Subtotal				14,984.50
	Sales Tax Graham County			7.15%	840.02

R10/30/2013
P10/30/2013
E Worces 190402 15,824.52
Esther Worcester 3-13 - Pump charge,
Cement & other misc expenses used
to cement production casing

We Appreciate Your Business!

Total

\$15,824.52



CHARGE TO: **Baird O.I Co**
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET **25152**
 PAGE 1 OF 2

SERVICE LOCATIONS
 1. **Hays, KS**
 2. **Miss City, KS**
 3.
 4. REFERRAL LOCATION

WELL/PROJECT NO. **3-13**
 LEASE **Esther Worcester**
 COUNTY/PARISH **Graham**
 STATE **KS**
 CITY

TICKET TYPE SERVICE SALES
 CONTRACTOR **W W Drlg & S**
 RIG NAME/NO.
 SHIPPED VIA **AT**
 DELIVERED TO **Location**
 WELL PERMIT NO.

WELL TYPE **01/**
 WELL CATEGORY **Development**
 JOB PURPOSE **Longstring**
 INVOICE INSTRUCTIONS

DATE **10-28-13**
 ORDER NO.
 OWNER **same**
 WELL LOCATION

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE # 111	70	mi			6.00	420.00
578		1			Pump Charge (Longstring)	1	ea	3730		1500.00	1500.00
221		1			KCL	2	gal			25.00	50.00
280		1			Flecheck-21	506	gal			3.00	1500.00
290		1			D-Air	3	gal			42.00	126.00
402		1			Centralizers	12	ea	5 1/2	"	70.00	840.00
403		1			Basket	1	ea			285.00	285.00
404		1			Part Collar	1	ea			2650.00	2650.00
406		1			L D Plug & Bag Plk	1	ea			275.00	275.00
407		1			Insect Foot Shoe w/Fl	1	ea			375.00	375.00
411		1			Recipe Scratchers	3	ea			50.00	150.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY**, and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED **10-29-13** TIME SIGNED **0255** A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? YES NO
 WE UNDERSTOOD AND MET YOUR NEEDS? YES NO
 OUR SERVICE WAS PERFORMED WITHOUT DELAY? YES NO
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? YES NO
 ARE YOU SATISFIED WITH OUR SERVICE? YES NO

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 1 9571.00
 PAGE 2 5413.50
 Subtotal 14984.50
 Graham Tax 7.15% 840.00
 TOTAL 15,824.50

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket

SWIFT OPERATOR **Michael Sell** APPROVAL **Michael Sell**

Thank You



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 25152

CUSTOMER Baird Oil Co
WELL #3-13
Esther
Western
DATE 10-28-13
PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
325						Standard Cement	200	skts			14.00	2800.00
326						60 Pozmix 2% gel	40	ds			11.00	440.00
283						Salt	1600	#	18	%	.20	320.00
276						Floccs	50	#	14	%	2.00	100.00
277						Coal Seal	50	#	10	skts	.75	37.50
285						CFR-1	100	#	1/2	%	4.00	400.00
581						SERVICE CHARGE					2.00	480.00
583						MILEAGE CHARGE					1.00	836.00
SERVICE CHARGE MILEAGE CHARGE TOTAL WEIGHT LOADED MILES CUBIC FEET TON MILES							240	skts	70		836	

CONTINUATION TOTAL 5413.50

JOB LOG

SWIFT Services, Inc.

DATE 10-28-13 PAGE NO.

CUSTOMER *Bard Oil Co* WELL NO. *3-13* LEASE *Esther Worcester* JOB TYPE *Longstring* TICKET NO. *25152*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1930							on loc w/FE
								RTD 3730' LTD 3730'
								5 1/2" x 14# x 3735' x 23'
								Cent. 1-11, 44
								Bask. 45
								P.C. 45 @ 1773'
	2300							start FE
	0030							Break Circ.
	0155	2	7					Plug RH 30sk ⁶⁰ / ₄₀ Poz
	0202	5	0			200		Start 10 bbl KCL flush
	0204	5	10/0			200		Start 500 gal Flocheck 21
	0206	5	12/0			200		Start 10 bbl KCL flush
	0208	5	10/0			200		Start 10sk ⁶⁰ / ₄₀ Poz
	0209	5	5/0			200		Start 200sk Standard
	0217		39					End Cement
								Wash P/L
								Drop LD Plug
	0223	6	0			200		Start Displacement
	0233	5	62			250		Catch Cement
	0239		90.5			900/ 500		Land Plug
								Release Pressure
								Float Held

Thank you

Nick, David E. & Isaac

SWIFT



Services, Inc.

P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300



Invoice

DATE	INVOICE #
10/31/2013	25179

BILL TO
Baird Oil Company LLC PO Box 428 Logan, KS 67646

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-13	Esther Worch...	Graham		Oil	Development	Cement Port Collar	Don
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				70	Miles	6.00	420.00
576D-D	Pump Charge - Port Collar - 1773 Feet				1	Job	1,500.00	1,500.00
105	Port Collar Tool Rental With Man				1	Each	350.00	350.00T
290	D-Air				2	Gallon(s)	42.00	84.00T
330	Swift Multi-Density Standard (MIDCON II)				175	Sacks	17.00	2,975.00T
276	Flocele				50	Lb(s)	2.00	100.00T
581D	Service Charge Cement				200	Sacks	2.00	400.00
583D	Drayage				696.57	Ton Miles	1.00	696.57
	Subtotal							6,525.57
	Sales Tax Graham County						7.15%	250.89
	R 11/4/2013							
	P 11/4/2013							
	E Worces 190402 6191.43							
	Esther worcester 3-13 - Pump Charge,							
	Cement + other misc. expenses used							
	to Cement port collar							
	E Worces 190402 585.03							
	Esther Worcester 3-13 - Rental of							
	port collar + man when cementing port collar							
We Appreciate Your Business!							Total	\$6,776.46



CHARGE TO: Boise Oil Company, Inc.
 ADDRESS: _____
 CITY, STATE, ZIP CODE: _____

TICKET 25179
 PAGE 1 OF 1

1. SERVICE LOCATIONS: Hopk
 2. Ness City, KS
 3. TICKET TYPE: SERVICE SALES
 CONTRACTOR: Esther Worchester
 RIG NAME/NO.: Graham
 STATE: KS
 CITY: _____
 DATE: 10-31-13
 ORDER NO.: _____
 OWNER: _____

4. REFERRAL LOCATION: _____
 INVOICE INSTRUCTIONS: _____
 WELL TYPE: 0:1
 WELL CATEGORY: Development
 JOB PURPOSE: Cement Port Collar
 DELIVERED TO: NE/Hillco KS
 WELL PERMIT NO.: _____
 WELL LOCATION: _____

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE #110	70	mi			600	42000
576 D					Pump Charge - curt Portcollar	1	ea	1793	ft	15000	150000
105					Port Collar Tool Rental w/plan	1	ea			35000	350000
280					D-Air	2	gal			4200	84000
330					SWD Payment	175	stk			1200	209750
276					F/Block	50	lbs			200	10000
581					Service Charge	800	stk	19902	lbs	200	40000
583					Drayage	170	mi	69657	mi	100	696570

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS
 X DATE SIGNED: 10-31-13 TIME SIGNED: 0930
 A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?
 WE UNDERSTOOD AND MET YOUR NEEDS?
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?
 ARE YOU SATISFIED WITH OUR SERVICE?
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL: 105255
 TOTAL: 67764
 Grahams TAX 7.15% 2508

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 SWIFT OPERATOR: Don Fenner APPROVAL: _____
 Thank You

JOB LOG

SWIFT Services, Inc.

DATE 10-31-13 PAGE NO. 1

CUSTOMER Pried Oil Co. WELL NO. 3-13 LEASE Esther Worchester JOB TYPE Cut Port Callor TICKET NO. 25179

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0925					2 3/8	5 1/2	On location with P.C. Tool
	0935							Rig start Tbg/tool to 1773'
								Locate P.C. @ 1773' (NO fresh water)
						C	800	Tst P.C closed - OK (with mud)
	10:45	3				400	C	Hook to Tbg - start 160 BBL mud
		3	4			400		@ 4 BBL Have returns
			160					Pump @ 160 BBL mud
								Fin mud - Wait for tubes to get fresh water from pit
		3				400		Start 3 BBL H ₂ O Ahead -
			1/2					Have returns in 1/2 BBL
		3				400		Start mud cut
		3	40			150		25 SKS mixed - Good returns
			83					Mud CIR @ 150 SKS mixed
			91					Tail in 25 SKS @ 13 1/2 #/gal
			91					Fin mud - Displ 6 BBL H ₂ O
						C	800	Close P.C & Tst. - OK
								Rig run 5 Its
								Rev-out 2 flags clean
	1300							Job complete
								Wash up & Packup
								Rig pull Hbg & tool
	13:45							Thanks
								Alan, Jon & Issac
								150 @ 11.2 # to CIR
								25 @ 13.5 # Tail in
								175 Total mud used
								25 SKS to Ped @ 11.2 #/gal

APT. #: 15-065-23977-0000

GEOLOGICAL REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, L.L.C.
 LEASE Esther Worcester # 3-13
 FIELD Worcester East
 LOCATION 1685' E 1 + 1685' E 1
 SEC 13 TWP 7S RGE 22W
 COUNTY Graham STATE Kansas

ELEVATION
 KB 2125'
 DF 2123'
 GL 2117'
 Depths Measured From
 Log KB Drilling KB

CONTRACTOR WMI Drilling Rig #12
 SPUD 10-27-13 COMP 10-28-13
 SAMPLES SAVED FROM 3100' TO R.T.D.

CASING
 Surface 8 5/8" @ 218'
 Production 5 1/2" @ 3729'

ELECTRIC LOGS
Nabors

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
Anhydrite	1752	1751 + 374					
Base Anhydrite	1784	1783 + 342					
Tapoka	3119	3119 - 994					
Heebner	3328	3329 - 1204					
Toronto	3353	3354 - 1229					
Lansing	3366	3367 - 1242					
Base Kansas City	3556	3557 - 1432					
Marmaton	3594	3595 - 1470					
Arbuckle	3663	3663 - 1538					
Total Depth	3730	3730 - 1605					

REFERENCE WELLS

- 1 Baird Oil Co., LLC, #1-13 Worcester Unit, 2190' E 1 + 250' E 1, Sec. 13-7S-22W
- 2 Baird Oil Co., LLC, Esther Worcester # 2-13, 1870' E 1 + 695' E 1, Sec. 13-7S-22W
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
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Port Caller @ 1773

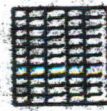
REMARKS

This well ran 10 to 12 feet lower on the casing top and 32 to 36 feet lower on the
 Ar-buckle top than the reference wells. It was decided production casing would
 be cemented to further test the well. The following zones should be tested: 3659-3671'
 and 3541'-3543'

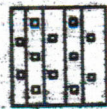
Richard G. Ball
 10-29-13

1507

LEGEND



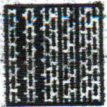
Anhydrite



Salt



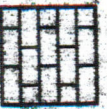
Sandstone



Shale



Carb sh



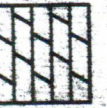
Limestone



Ool. Lime



Chert



Dolomite

DRILLING TIME IN MINUTES
 PER FOOT

Rate of Penetration Decreases



DEPTH

1750

60

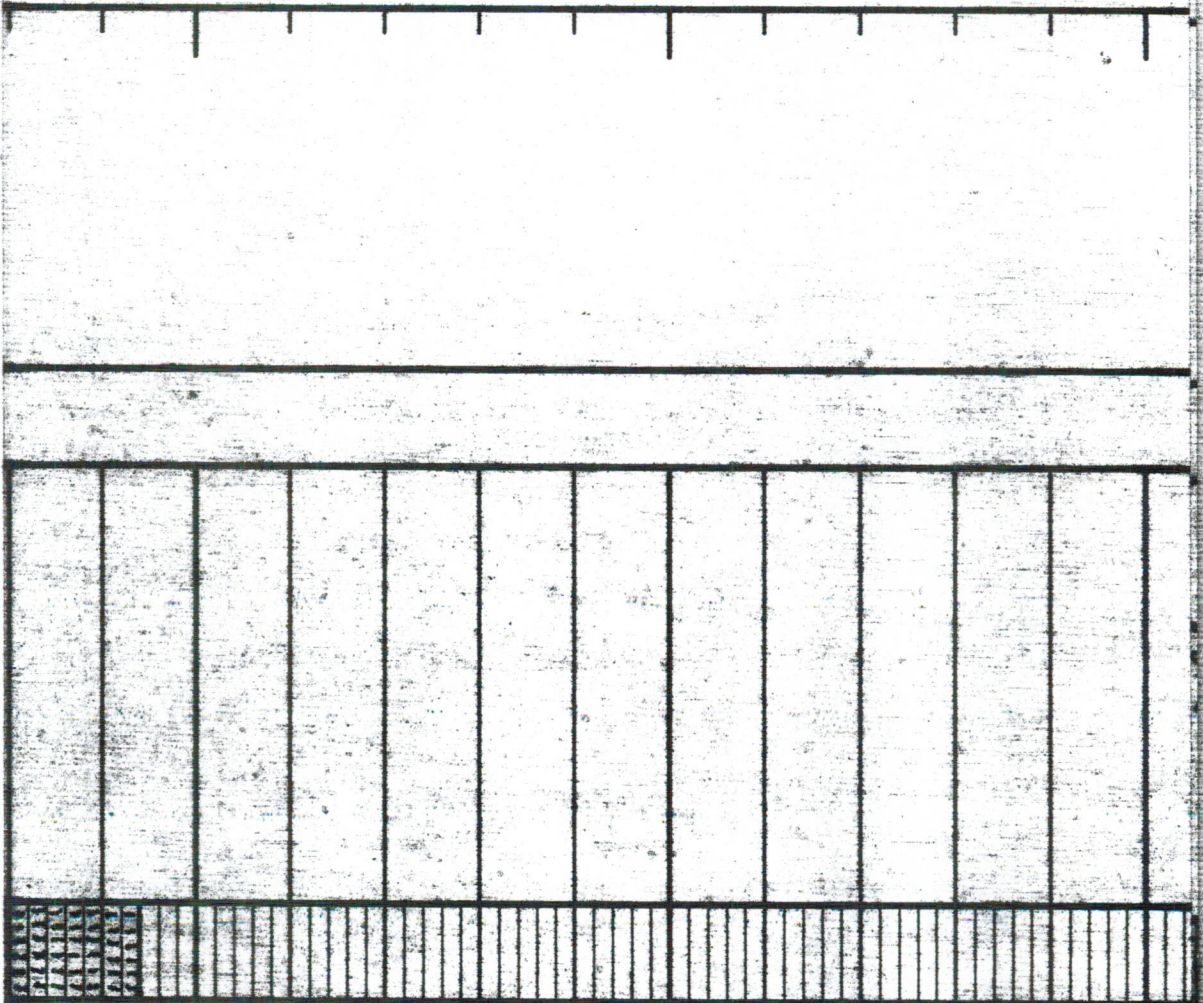
LITHOLOGY

SAMPLE DESCRIPTIONS

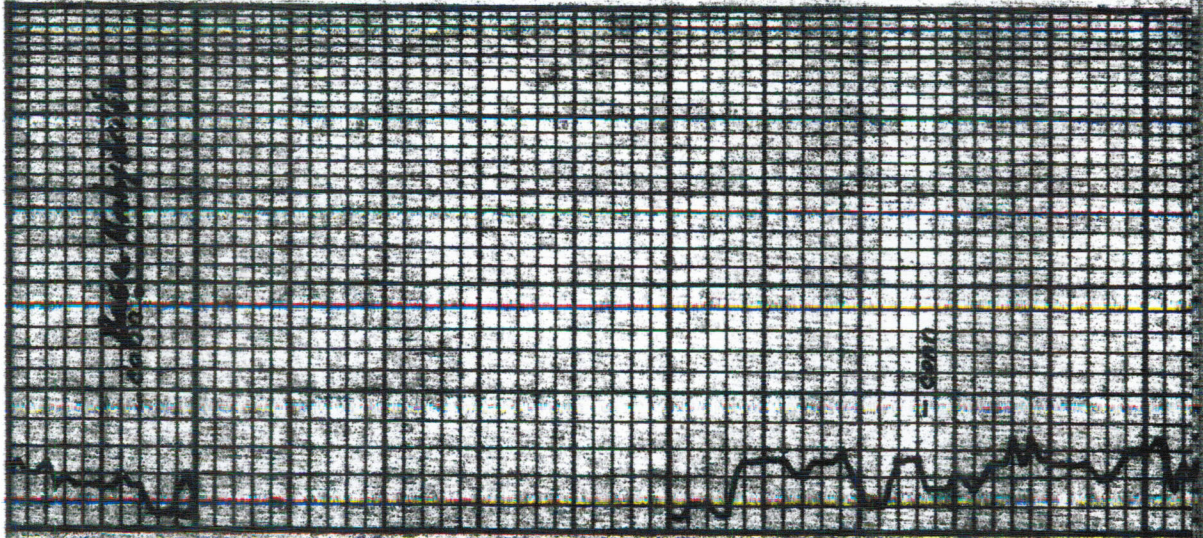
OIL SHOWS

REMARKS

1507 7710



80 1790 2950 3000



15:00 - 15:15 das

15:15 - 15:30 das

15:30 - 15:45 das

15:45 - 16:00 das

16:00 - 16:15 das

16:15 - 16:30 das

16:30 - 16:45 das

16:45 - 17:00 das

17:00 - 17:15 das

17:15 - 17:30 das

17:30 - 17:45 das

17:45 - 18:00 das

40

60

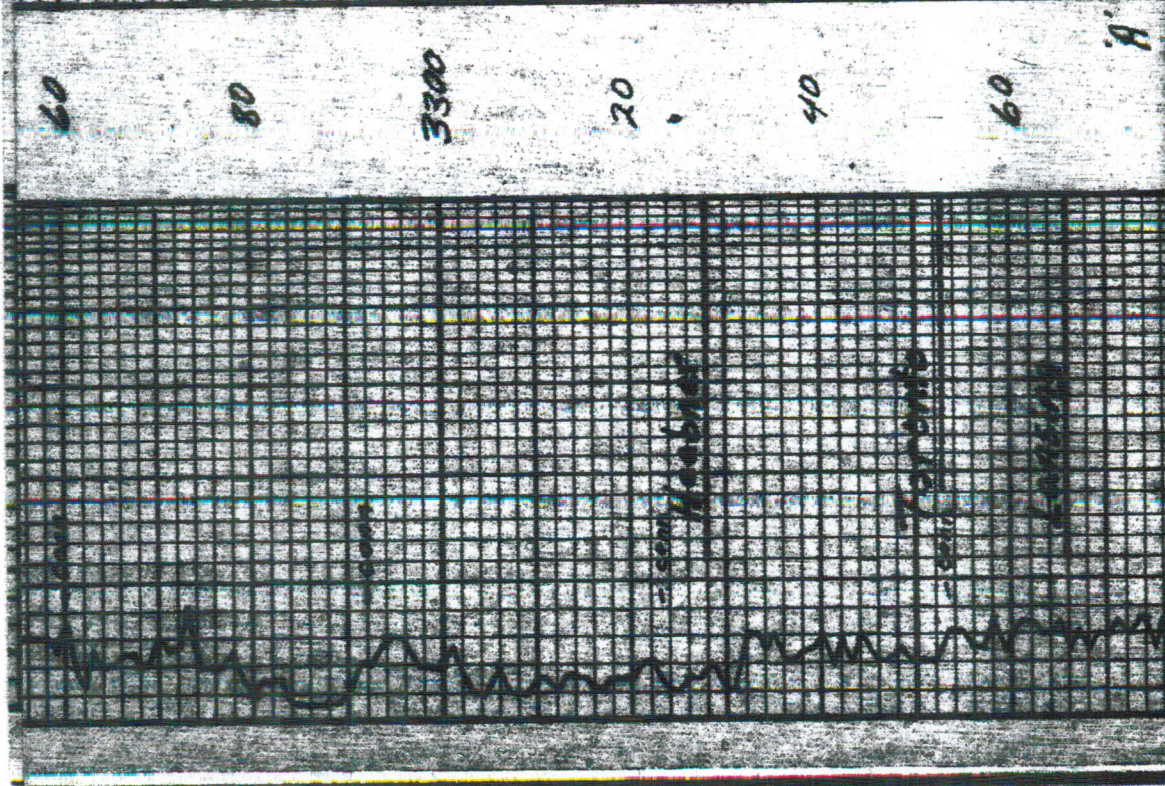
80

3200

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60	LS: tn. gry. fslf das sh: brn slye gry sly
80	LS: wh. to. li. gry. chy. fslf das. sh: blk carb (Trace)
3300	LS: wh. to. sh. chy. fslf fslf sh. wh. pp. - Tr. in to N.S.O. - A. d. l. t.
20	sh: gry. brn LS: wh. to. li. chy. fslf das
40	LS: wh. to. li. chy. fslf das sh: brn slye LS: to. fslf das sh: blk carb
60	LS: tn. gry. fslf das sh: gry. slye
80	LS: wh. to. sh. chy. fslf sh: blk carb sh: blk carb
90	LS: wh. to. sh. chy. fslf sh: blk carb sh: blk carb



8

Tribolite Testing

D5704 8430-3466
 Straddle Test
 45-45-45-45
 IF: B.O.B. 14 23 min
 ISI: No blow 31 min.
 FF: B.O.B. in 31 min.
 ISI: No blow
 Recovery: 395' maw w/
 Oil Spks in tool
 Mtd: 1673 - 1636#
 SP: 20-126/127-180#
 SHF: 814 - 782#
 BH Temp: 109°F
 Chlorides: 78,000 ppm

15: grey fsh drs
 sh: grey sly + orn

15: white crk-fsh drs
 M.O. Tr. 0.75-0.90
 Trapped air odor
 sh: brown sly

15: white crk-fsh drs
 M.O. Tr. 0.75-0.90
 No odor sh: white

15: white crk-fsh drs
 M.O. Tr. 0.75-0.90
 No odor sh: white

15: white crk-fsh drs
 M.O. Tr. 0.75-0.90
 No odor sh: white

15: white crk-fsh drs
 M.O. Tr. 0.75-0.90
 No odor sh: white

15: white crk-fsh drs
 M.O. Tr. 0.75-0.90
 No odor sh: white

15: white crk-fsh drs
 M.O. Tr. 0.75-0.90
 No odor sh: white

3400 C

20 D

40 E

60 F

80 G

3500 H





DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co LLC.**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

13-7s-22w Graham,KS

Esther Worcester #3-13

Start Date: 2013.10.26 @ 18:29:00

End Date: 2013.10.26 @ 22:48:30

Job Ticket #: 53649 DST #: 1

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

Printed: 2013.10.29 @ 14:44:51



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 53649

DST#: 1

Test Start: 2013.10.26 @ 18:29:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 22:48:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Andy Carreira

Unit No: 68

Interval: 3659.00 ft (KB) To 3672.00 ft (KB) (TVD)

Reference Elevations: 2125.00 ft (KB)

Total Depth: 3672.00 ft (KB) (TVD)

ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: ft

Serial #: 8372 Inside

Press @ Run Depth: psig @ 3660.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.26 End Date: 2013.10.26

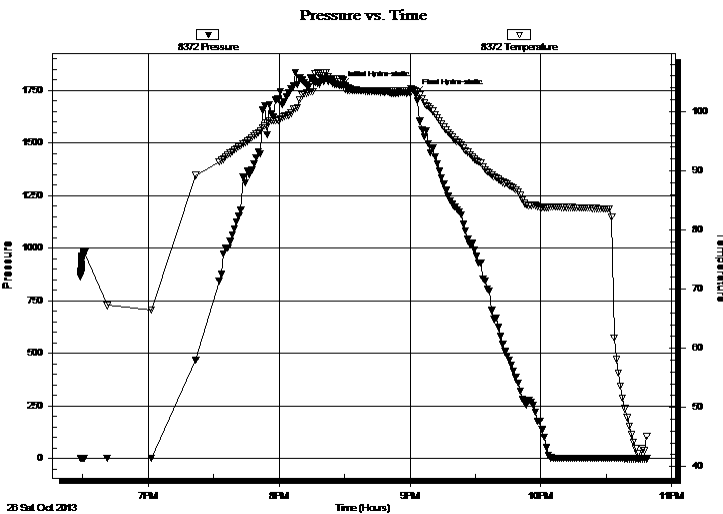
Last Calib.: 2013.10.26

Start Time: 18:29:01 End Time: 22:48:30

Time On Btm: 2013.10.26 @ 20:28:30

Time Off Btm: 2013.10.26 @ 21:02:30

TEST COMMENT: IF: Mis-run. Packer Failure



PRESSURE SUMMARY

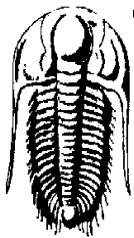
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1774.40	105.49	Initial Hydro-static
34	1736.23	103.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
190.00	Drilling Mud Misrun- Packer failure	1.56

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 53649 **DST#: 1**

ATTN: Richard Bell

Test Start: 2013.10.26 @ 18:29:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 22:48:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Andy Carreira

Unit No: 68

Interval: 3659.00 ft (KB) To 3672.00 ft (KB) (TVD)

Total Depth: 3672.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2125.00 ft (KB)

ft (CF)

KB to GR/CF: ft

Serial #: 8321 Outside

Press @ Run Depth: psig @ 3660.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.26

End Date: 2013.10.26

Last Calib.: 2013.10.26

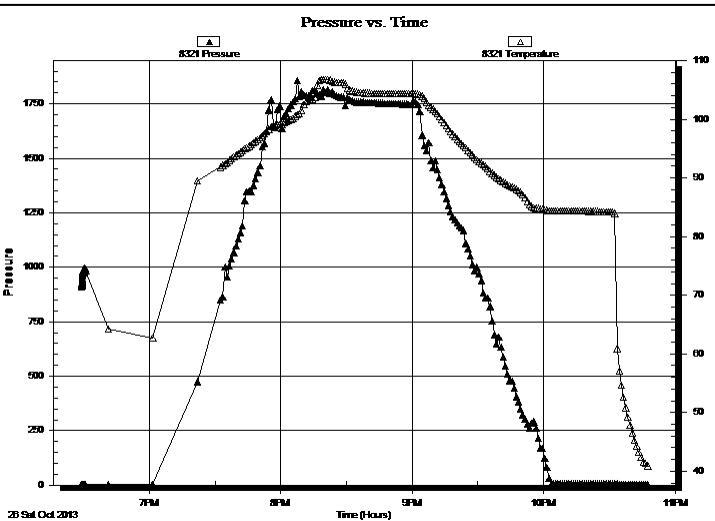
Start Time: 18:29:01

End Time: 22:48:00

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Mis-run. Packer Failure



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
190.00	Drilling Mud Misrun- Packer failure	1.56

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 53649

DST#: 1

ATTN: Richard Bell

Test Start: 2013.10.26 @ 18:29:00

Tool Information

Drill Pipe:	Length: 3548.00 ft	Diameter: 3.80 inches	Volume: 49.77 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 121.21 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume: 50.37 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.21 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3659.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	13.00 ft				
Tool Length:	33.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3640.00	
Shut In Tool	5.00			3645.00	
Hydraulic tool	5.00			3650.00	
Packer	5.00			3655.00	20.00 Bottom Of Top Packer
Packer	4.00			3659.00	
Stubb	1.00			3660.00	
Recorder	0.00	8372	Inside	3660.00	
Recorder	0.00	8321	Outside	3660.00	
Perforations	9.00			3669.00	
Bullnose	3.00			3672.00	13.00 Bottom Packers & Anchor
Total Tool Length:	33.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 53649

DST#: 1

ATTN: Richard Bell

Test Start: 2013.10.26 @ 18:29:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
190.00	Drilling Mud Misrun- Packer failure	1.561

Total Length: 190.00 ft Total Volume: 1.561 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

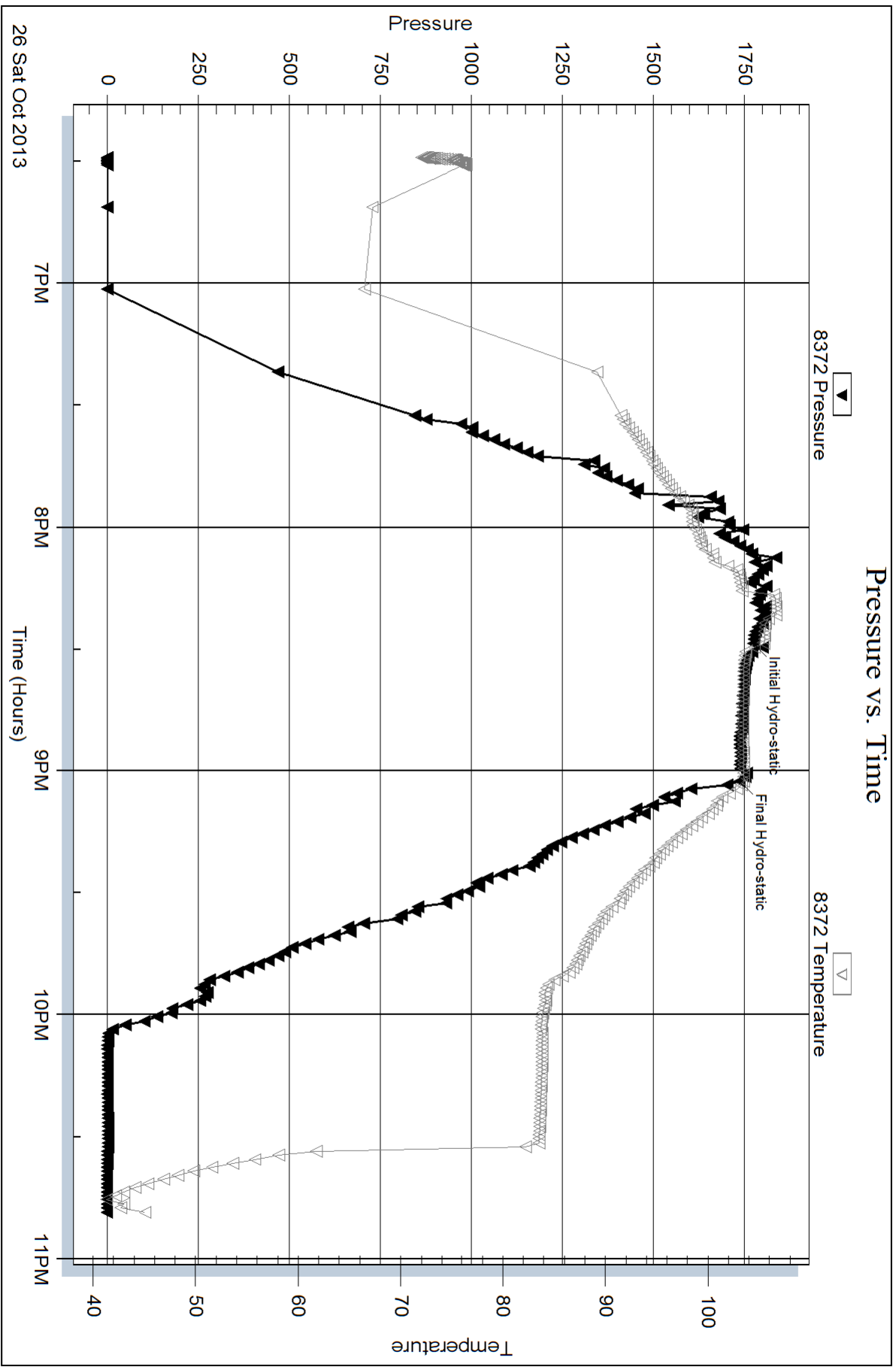
Serial #: 8372

Inside

Baird Oil Co LLC.

13-7/s-22w Graham,KS

DST Test Number: 1

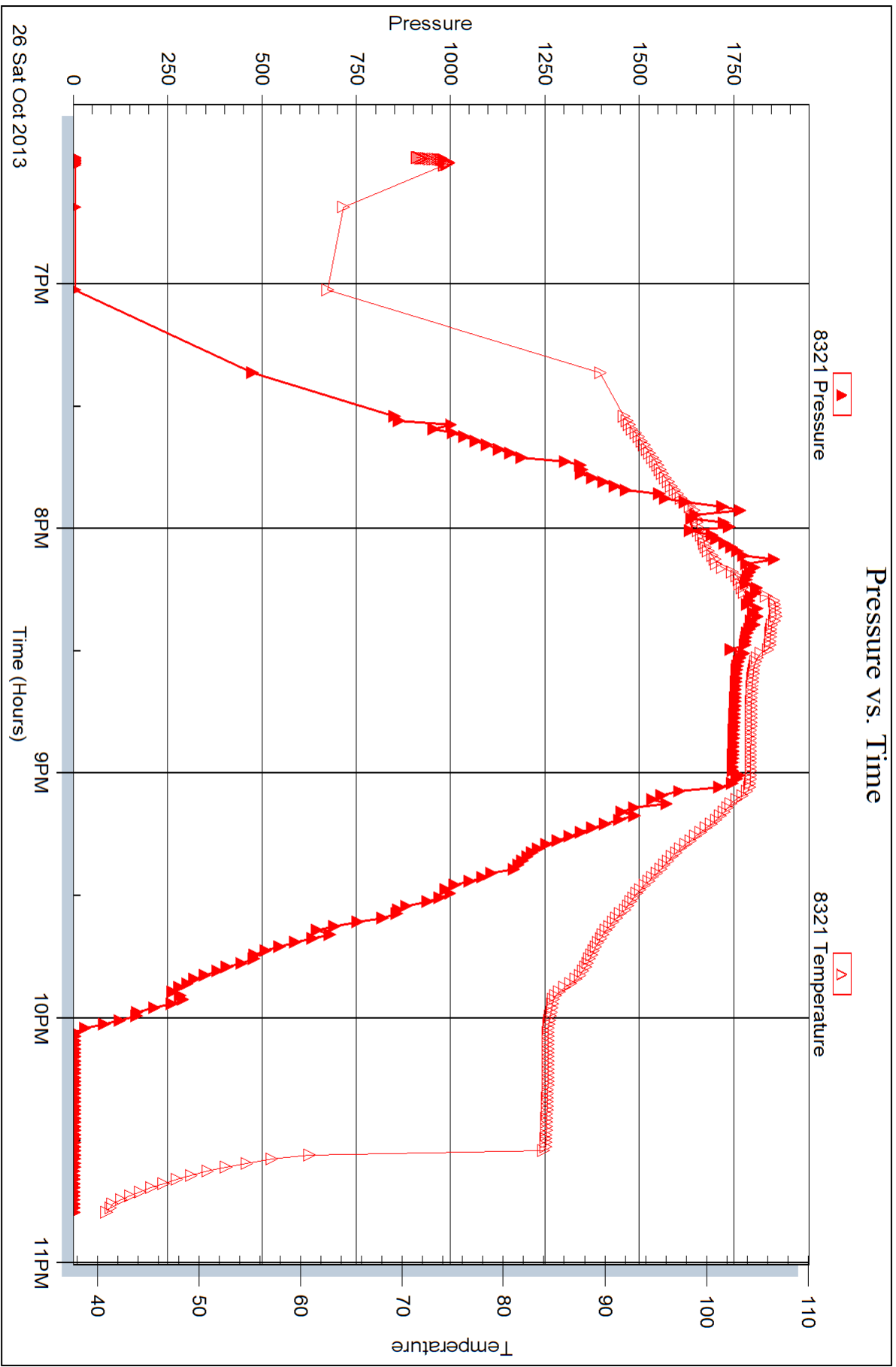


Serial #: 8321

Outside Baird Oil Co LLC.

13-7-s-22w Graham,KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co LLC.**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

13-7s-22w Graham,KS

Esther Worcester #3-13

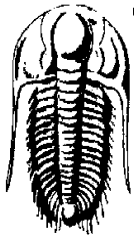
Start Date: 2013.10.26 @ 23:12:01

End Date: 2013.10.27 @ 06:01:00

Job Ticket #: 63650 DST #: 2

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

Printed: 2013.10.29 @ 14:44:30



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 63650

DST#: 2

Test Start: 2013.10.26 @ 23:12:01

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:52:30

Time Test Ended: 06:01:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Andy Carreira

Unit No: 68

Interval: 3631.00 ft (KB) To 3672.00 ft (KB) (TVD)

Reference Elevations: 2125.00 ft (KB)

Total Depth: 3672.00 ft (KB) (TVD)

ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: ft

Serial #: 8372 Inside

Press @ Run Depth: 55.69 psig @ 3636.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.26

End Date:

2013.10.27

Last Calib.: 2013.10.27

Start Time: 23:12:01

End Time:

06:01:00

Time On Btm: 2013.10.27 @ 00:52:00

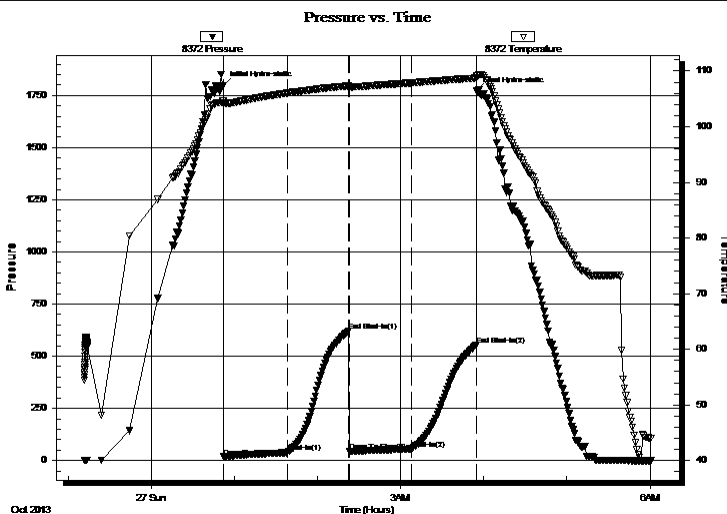
Time Off Btm: 2013.10.27 @ 03:55:00

TEST COMMENT: IF:(45min) 1" blow in 7 min. Built to 1 1/2"

IS:(45min) No Return

FF:(45min) Built to 1"

FS:(45min) No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1796.63	104.60	Initial Hydro-static
1	17.37	104.09	Open To Flow (1)
46	38.14	106.04	Shut-In(1)
91	619.73	107.30	End Shut-In(1)
91	44.43	107.13	Open To Flow (2)
136	55.69	107.87	Shut-In(2)
183	552.52	108.72	End Shut-In(2)
183	1770.66	109.16	Final Hydro-static

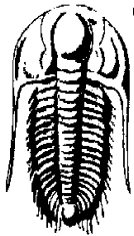
Recovery

Length (ft)	Description	Volume (bbl)
60.00	HOCM o=40% m=60%	0.30
30.00	CO o=100%	0.15

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 63650

DST#: 2

Test Start: 2013.10.26 @ 23:12:01

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:52:30

Time Test Ended: 06:01:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Andy Carreira

Unit No: 68

Interval: 3631.00 ft (KB) To 3672.00 ft (KB) (TVD)

Reference Elevations: 2125.00 ft (KB)

Total Depth: 3672.00 ft (KB) (TVD)

ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: ft

Serial #: 8321 Outside

Press @ Run Depth: psig @ 3636.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.26

End Date:

2013.10.27

Last Calib.:

2013.10.27

Start Time: 23:12:01

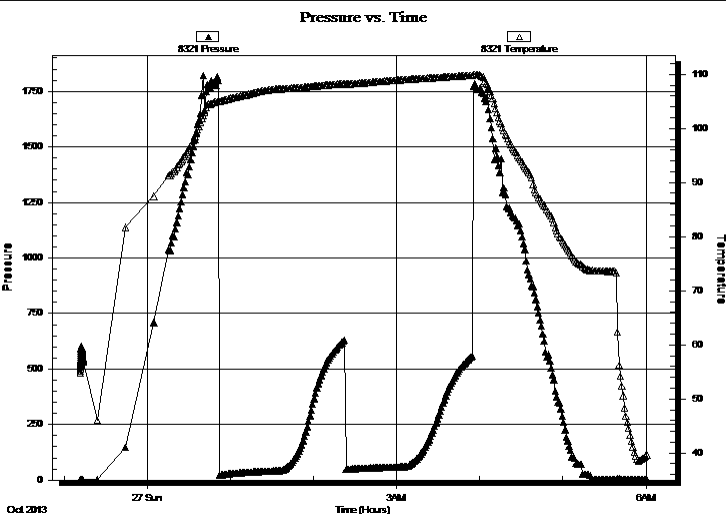
End Time:

06:01:00

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:(45min) 1" blow in 7 min. Built to 1 1/2"
IS:(45min) No Return
FF:(45min) Built to 1"
FS:(45min) No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	HOCM o=40% m=60%	0.30
30.00	CO o=100%	0.15

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 63650

DST#: 2

ATTN: Richard Bell

Test Start: 2013.10.26 @ 23:12:01

Tool Information

Drill Pipe:	Length: 3517.00 ft	Diameter: 3.80 inches	Volume: 49.33 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 121.21 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 49.93 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.21 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3631.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3612.00	
Shut In Tool	5.00			3617.00	
Hydraulic tool	5.00			3622.00	
Packer	5.00			3627.00	20.00 Bottom Of Top Packer
Packer	4.00			3631.00	
Stubb	1.00			3632.00	
Perforations	3.00			3635.00	
Change Over Sub	1.00			3636.00	
Recorder	0.00	8372	Inside	3636.00	
Recorder	0.00	8321	Outside	3636.00	
Drill Pipe	32.00			3668.00	
Change Over Sub	1.00			3669.00	
Bullnose	3.00			3672.00	41.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 63650

DST#: 2

ATTN: Richard Bell

Test Start: 2013.10.26 @ 23:12:01

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
60.00	HOCM o=40% m=60%	0.295
30.00	CO o=100%	0.148

Total Length: 90.00 ft Total Volume: 0.443 bbf

Num Fluid Samples: 0

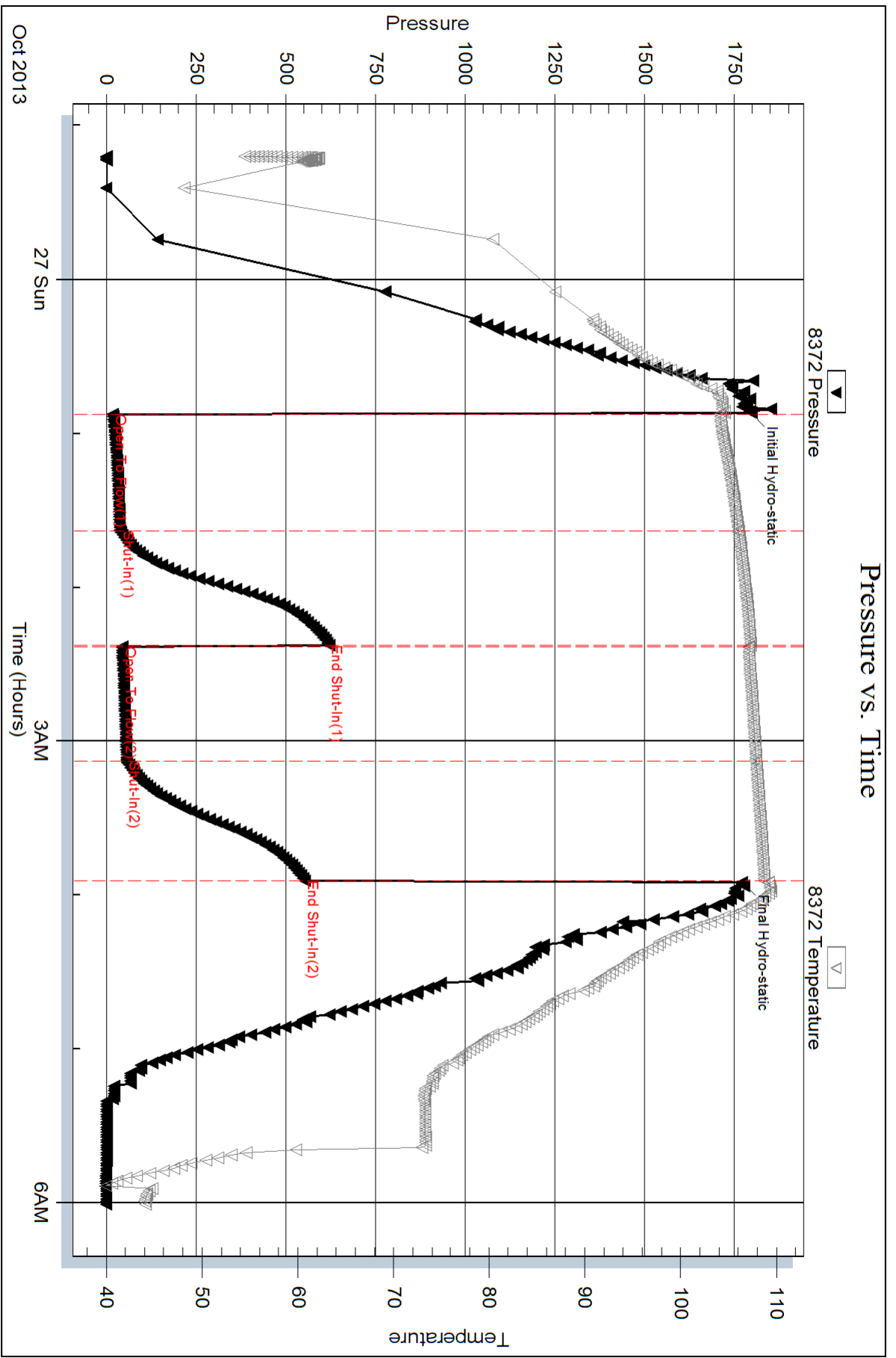
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

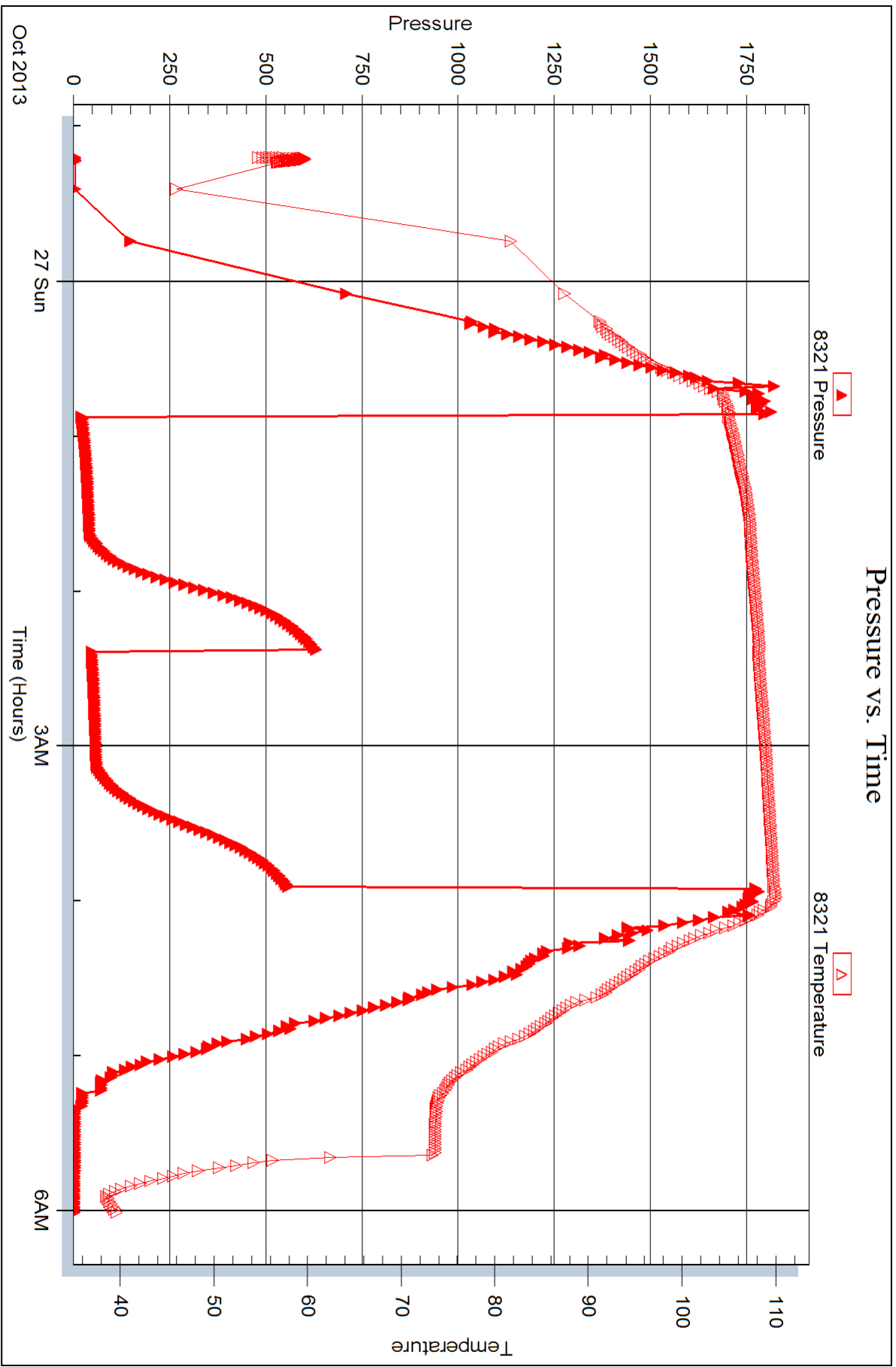


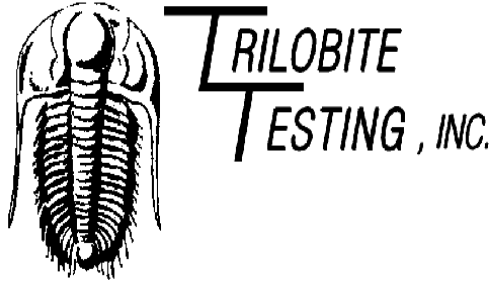
Serial #: 8321

Outside Baird Oil Co LLC.

13-7/s-22w Graham,KS

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co LLC.**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

13-7s-22w Graham,KS

Esther Worcester #3-13

Start Date: 2013.10.27 @ 21:06:01

End Date: 2013.10.28 @ 04:32:00

Job Ticket #: 54326 DST #: 3

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

Printed: 2013.10.29 @ 14:44:06

Baird Oil Co LLC.

Esther Worcester #3-13

13-7s-22w Graham,KS

DST # 3

LKC-"K"

2013.10.27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 54326

DST#: 3

Test Start: 2013.10.27 @ 21:06:01

GENERAL INFORMATION:

Formation: **LKC"K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:41:30

Time Test Ended: 04:32:00

Test Type: Conventional Straddle (Reset)

Tester: Andy Carreira

Unit No: 68

Interval: 3526.00 ft (KB) To 3554.00 ft (KB) (TVD)

Reference Elevations: 2125.00 ft (KB)

Total Depth: 3730.00 ft (KB) (TVD)

ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: ft

Serial #: 8372

Inside

Press @ RunDepth: 42.38 psig @ 3527.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.27

End Date:

2013.10.28

Last Calib.: 2013.10.28

Start Time: 21:06:01

End Time:

04:32:00

Time On Btm: 2013.10.27 @ 22:41:00

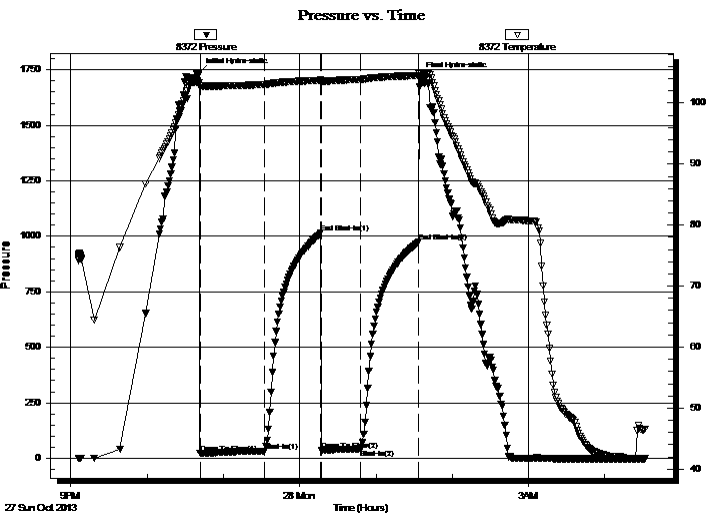
Time Off Btm: 2013.10.28 @ 01:34:00

TEST COMMENT: IF:(45min) 1" blow in 19 min. Decreased to 1/4"

ISl:(45min) No Return

FF:(30min) Surface blow died in 15 min.

FSl:(45min) No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1738.82	103.33	Initial Hydro-static
1	21.29	102.83	Open To Flow (1)
52	31.45	103.03	Shut-In(1)
96	1016.21	103.73	End Shut-In(1)
96	36.32	103.27	Open To Flow (2)
127	42.38	103.87	Shut-In(2)
173	974.12	104.52	End Shut-In(2)
173	1721.61	104.77	Final Hydro-static

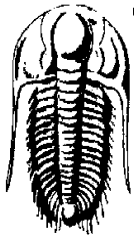
Recovery

Length (ft)	Description	Volume (bbl)
30.00	OSM	0.15

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Baird Oil Co LLC.

PO Box 428
Logan KS 67646

ATTN: Richard Bell

Esther Worcester #3-13

13-7s-22w Graham,KS

Job Ticket: 54326

DST#: 3

Test Start: 2013.10.27 @ 21:06:01

GENERAL INFORMATION:

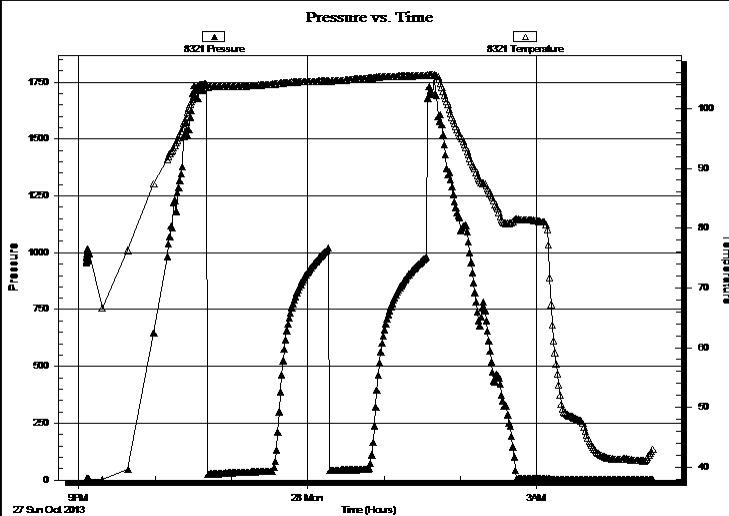
Formation: **LKC"K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:41:30
 Time Test Ended: 04:32:00
Interval: 3526.00 ft (KB) To 3554.00 ft (KB) (TVD)
 Total Depth: 3730.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Andy Carreira
 Unit No: 68
 Reference Elevations: 2125.00 ft (KB)
 ft (CF)
 KB to GR/CF: ft

Serial #: 8321

Outside

Press @ RunDepth: psig @ 3527.00 ft (KB)
 Start Date: 2013.10.27 End Date: 2013.10.28
 Start Time: 21:06:01 End Time: 04:32:00
 Capacity: 8000.00 psig
 Last Calib.: 2013.10.28
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:(45min) 1" blow in 19 min. Decreased to 1/4"
 IS:(45min) No Return
 FF:(30min) Surface blow died in 15 min.
 FS:(45min) No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	OSM	0.15

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 54326

DST#: 3

Test Start: 2013.10.27 @ 21:06:01

Tool Information

Drill Pipe:	Length: 3389.00 ft	Diameter: 3.80 inches	Volume: 47.54 bbl	Tool Weight: 3500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 121.21 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 48.14 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.21 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3526.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	3554.00 ft			
Interval between Packers:	28.00 ft			
Tool Length:	236.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3499.00	
Shut In Tool	5.00			3504.00	
Hydraulic tool	5.00			3509.00	
Jars	5.00			3514.00	
Safety Joint	3.00			3517.00	
Packer	5.00			3522.00	28.00 Bottom Of Top Packer
Packer	4.00			3526.00	
Stubb	1.00			3527.00	
Recorder	0.00	8372	Inside	3527.00	
Recorder	0.00	8321	Outside	3527.00	
Perforations	22.00			3549.00	
Blank Off Sub	1.00			3550.00	
Blank Spacing	4.00			3554.00	28.00 Tool Interval
Packer	4.00			3558.00	
Stubb	1.00			3559.00	
Perforations	10.00			3569.00	
Change Over Sub	1.00			3570.00	
Recorder	0.00	8647	Below	3570.00	
Drill Pipe	159.00			3729.00	
Change Over Sub	1.00			3730.00	
Perforations	1.00			3731.00	
Bullnose	3.00			3734.00	180.00 Bottom Packers & Anchor
Total Tool Length:	236.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 54326 **DST#: 3**

ATTN: Richard Bell

Test Start: 2013.10.27 @ 21:06:01

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.77 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

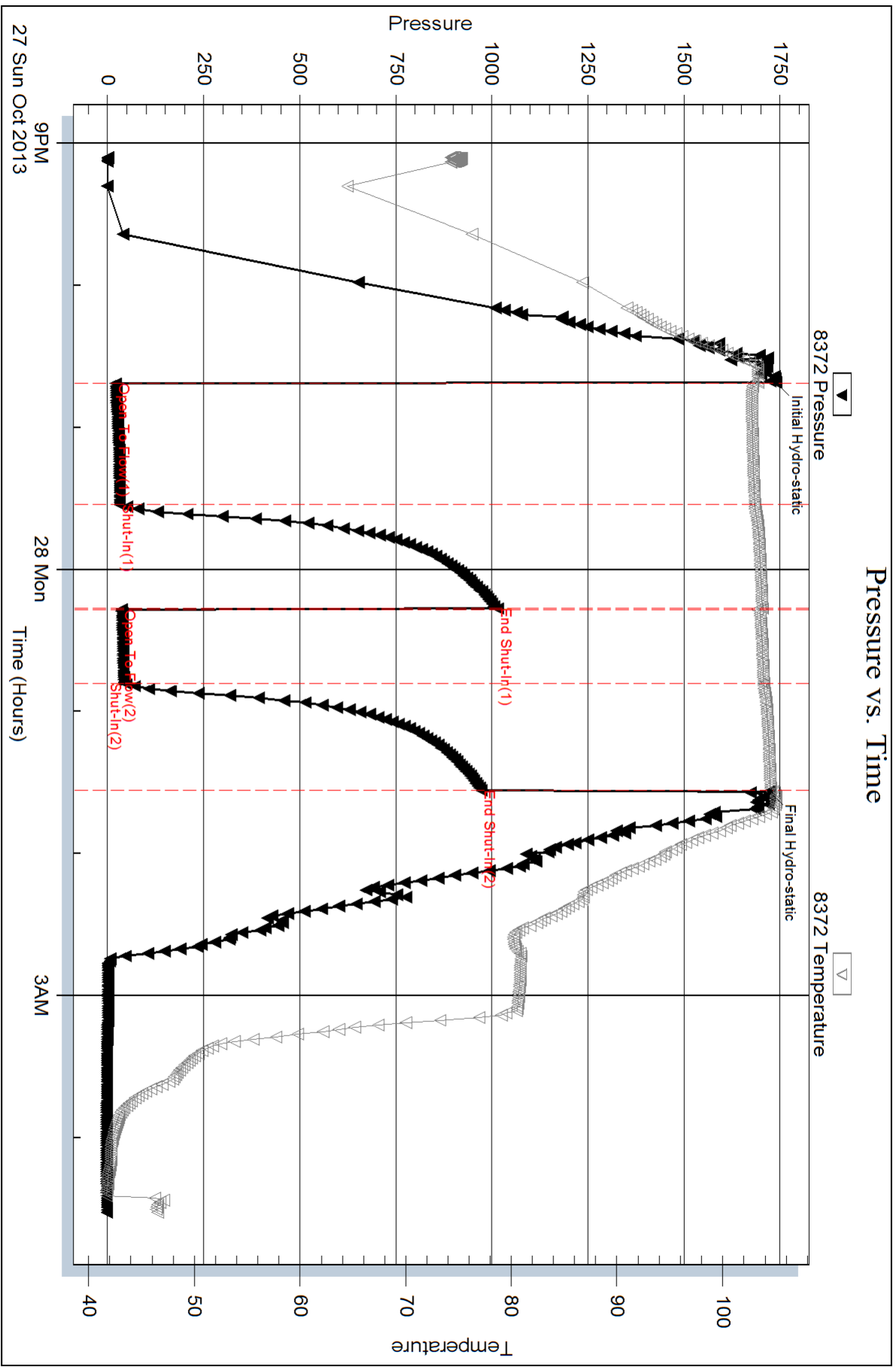
Length ft	Description	Volume bbl
30.00	OSM	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

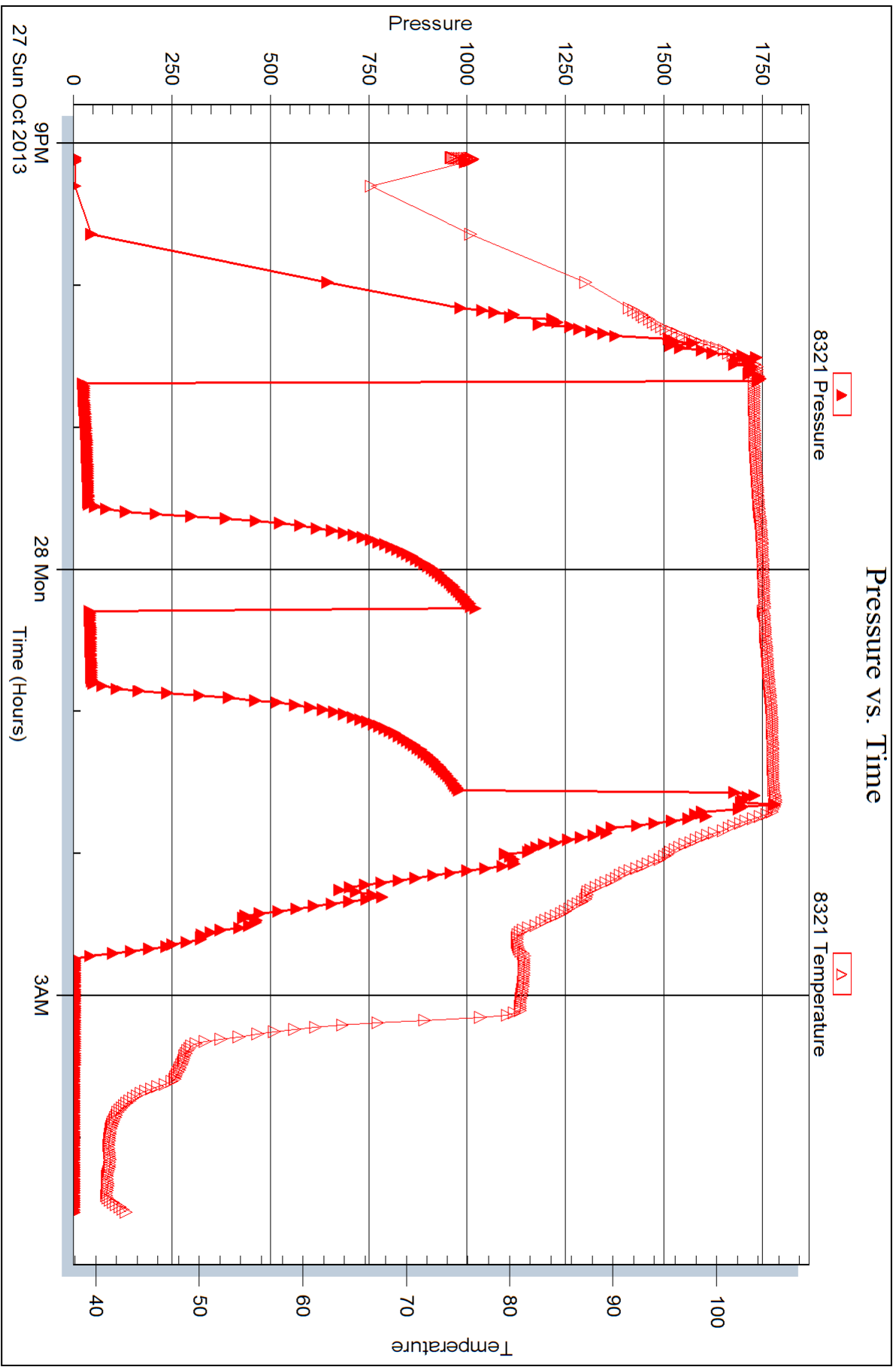


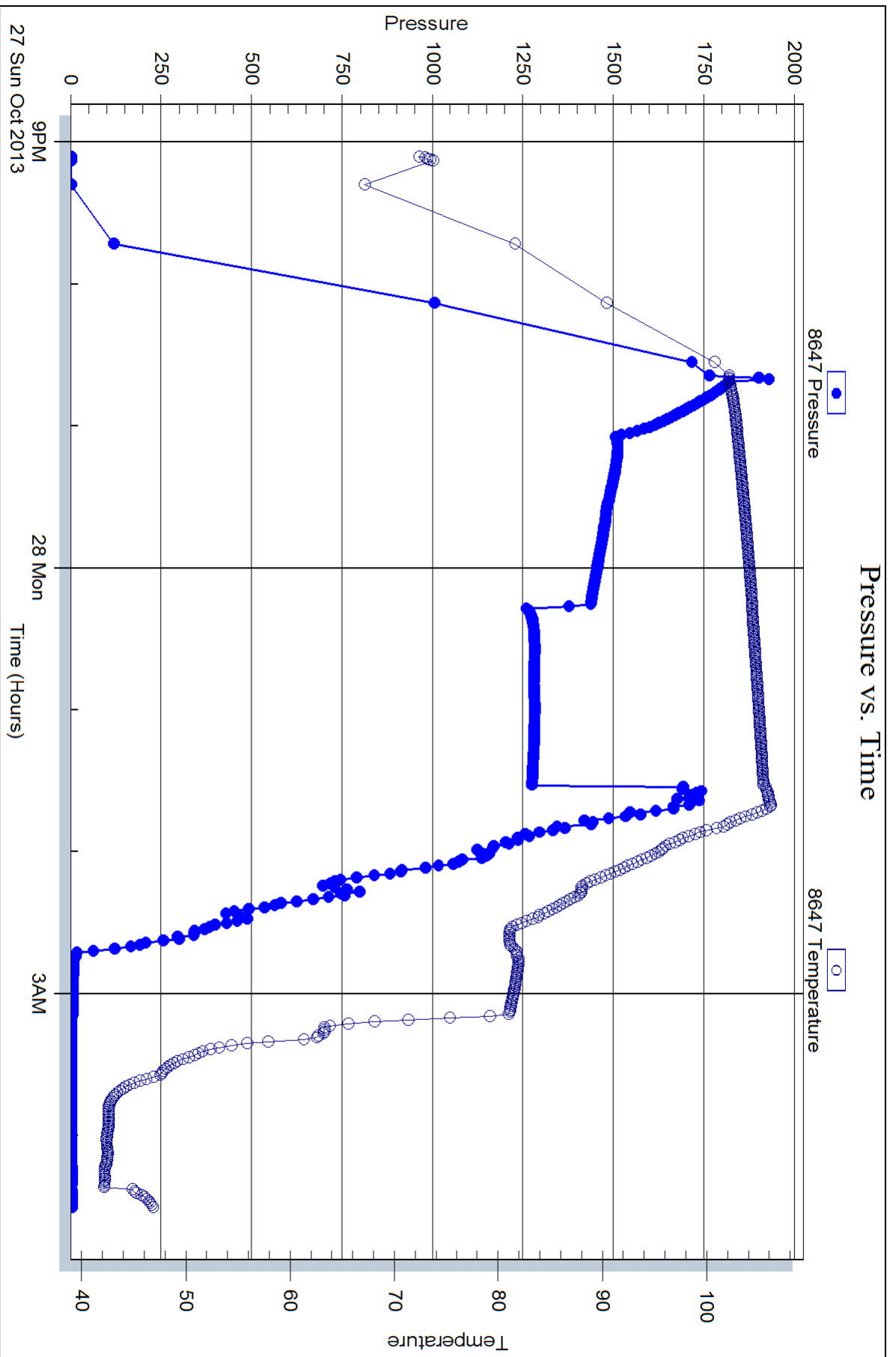
Serial #: 8321

Outside Baird Oil Co LLC.

13-7/s-22w Graham,KS

DST Test Number: 3







DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co LLC.**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

13-7s-22w Graham,KS

Esther Worcester #3-13

Start Date: 2013.10.28 @ 07:58:01

End Date: 2013.10.28 @ 16:13:30

Job Ticket #: 54327 DST #: 4

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

Printed: 2013.10.29 @ 14:43:28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 54327

DST#: 4

Test Start: 2013.10.28 @ 07:58:01

GENERAL INFORMATION:

Formation: **LKC"F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:01:00

Time Test Ended: 16:13:30

Test Type: Conventional Straddle (Reset)

Tester: Andy Carreira

Unit No: 68

Interval: 3420.00 ft (KB) To 3466.00 ft (KB) (TVD)

Reference Elevations: 2125.00 ft (KB)

Total Depth: 3730.00 ft (KB) (TVD)

ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: ft

Serial #: 8372

Inside

Press @ Run Depth: 188.15 psig @ 3423.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.28 End Date: 2013.10.28

Last Calib.: 2013.10.28

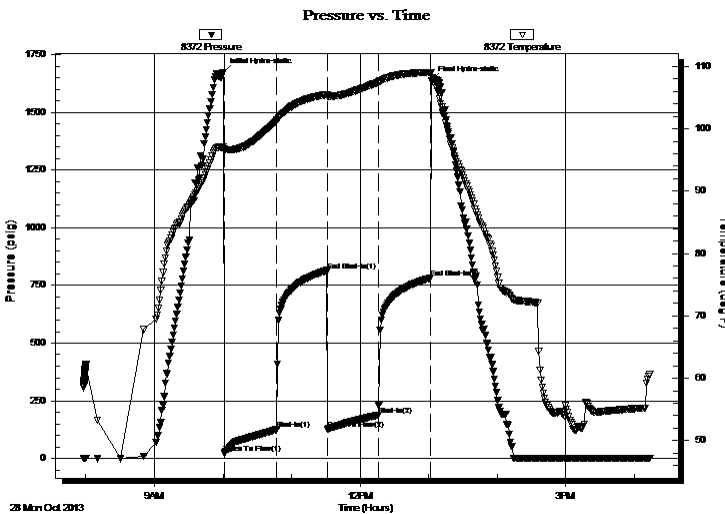
Start Time: 07:58:01 End Time: 16:13:30

Time On Btm: 2013.10.28 @ 10:00:30

Time Off Btm: 2013.10.28 @ 13:02:30

TEST COMMENT: IF:(45min) 2" blow in 3 min. 6" in 11 min. BOB in 23 min.
ISl:(45min) No Return
FF:(45min) 2" blow in 5 min. 6" in 16 min. BOB in 31 min.
FSl:(45min) No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1673.53	97.06	Initial Hydro-static
1	20.89	96.55	Open To Flow (1)
47	126.14	101.24	Shut-In(1)
91	814.65	105.46	End Shut-In(1)
91	127.64	105.23	Open To Flow (2)
136	188.15	107.42	Shut-In(2)
181	782.47	108.97	End Shut-In(2)
182	1636.23	109.03	Final Hydro-static

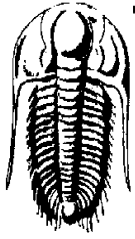
Recovery

Length (ft)	Description	Volume (bbl)
385.00	MW w / oil spks in tool	4.30

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 54327

DST#: 4

Test Start: 2013.10.28 @ 07:58:01

GENERAL INFORMATION:

Formation: **LKC"F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:01:00

Time Test Ended: 16:13:30

Test Type: Conventional Straddle (Reset)

Tester: Andy Carreira

Unit No: 68

Interval: 3420.00 ft (KB) To 3466.00 ft (KB) (TVD)

Total Depth: 3730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2125.00 ft (KB)

ft (CF)

KB to GR/CF:

ft

Serial #: 8321

Outside

Press @ Run Depth: psig @ 3423.00 ft (KB)

Start Date: 2013.10.28

End Date: 2013.10.28

Start Time: 07:58:01

End Time: 16:13:30

Capacity: 8000.00 psig

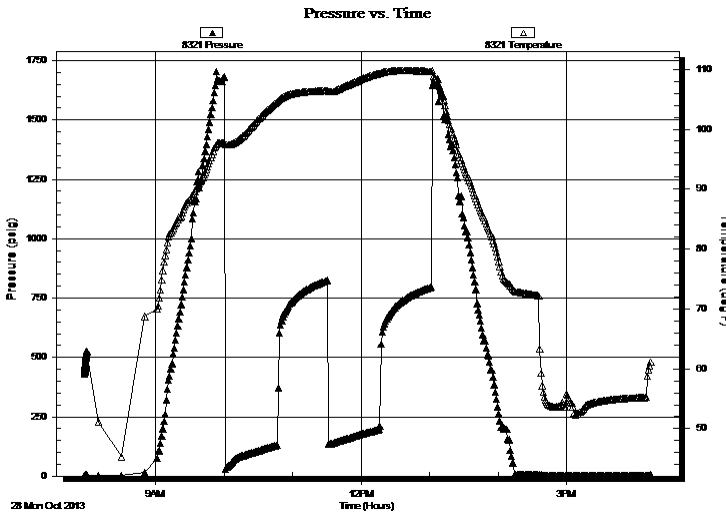
Last Calib.: 2013.10.28

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:(45min) 2" blow in 3 min. 6" in 11 min. BOB in 23 min.
ISl:(45min) No Return
FF:(45min) 2" blow in 5 min. 6" in 16 min. BOB in 31 min.
FSl:(45min) No Return

PRESSURE SUMMARY



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

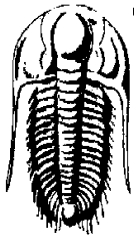
Recovery

Length (ft)	Description	Volume (bbl)
385.00	MW w / oil spks in tool	4.30

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 54327

DST#: 4

Test Start: 2013.10.28 @ 07:58:01

GENERAL INFORMATION:

Formation: **LKC"F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:01:00

Time Test Ended: 16:13:30

Test Type: Conventional Straddle (Reset)

Tester: Andy Carreira

Unit No: 68

Interval: 3420.00 ft (KB) To 3466.00 ft (KB) (TVD)

Reference Elevations: 2125.00 ft (KB)

Total Depth: 3730.00 ft (KB) (TVD)

ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: ft

Serial #: 8647 Below (Straddle)

Press @ Run Depth: psig @ 3476.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.28 End Date: 2013.10.28

Last Calib.: 2013.10.28

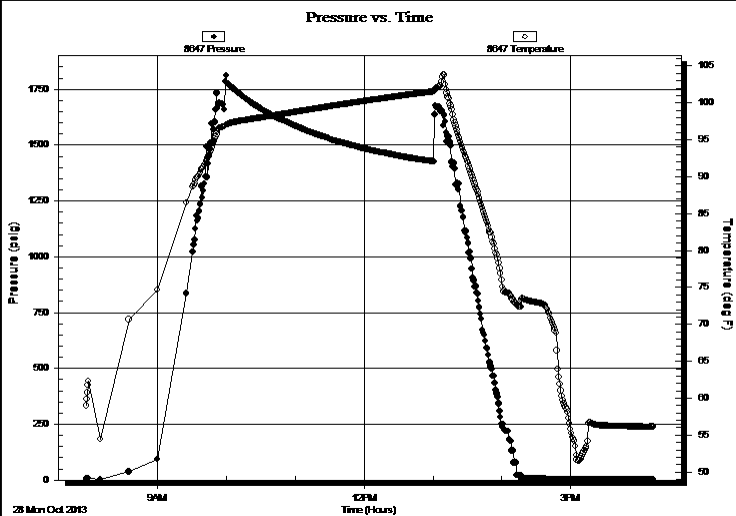
Start Time: 07:58:05 End Time: 16:12:10

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:(45min) 2" blow in 3 min. 6" in 11 min. BOB in 23 min.
ISl:(45min) No Return
FF:(45min) 2" blow in 5 min. 6" in 16 min. BOB in 31 min.
FSl:(45min) No Return

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
385.00	MW w / oil spks in tool	4.30

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 54327

DST#: 4

Test Start: 2013.10.28 @ 07:58:01

Tool Information

Drill Pipe:	Length: 3296.00 ft	Diameter: 3.80 inches	Volume: 46.23 bbl	Tool Weight: 4000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 121.21 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 46.83 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.21 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3420.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	3466.00 ft			
Interval between Packers:	46.00 ft			
Tool Length:	342.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3393.00	
Shut In Tool	5.00			3398.00	
Hydraulic tool	5.00			3403.00	
Jars	5.00			3408.00	
Safety Joint	3.00			3411.00	
Packer	5.00			3416.00	28.00 Bottom Of Top Packer
Packer	4.00			3420.00	
Stubb	1.00			3421.00	
Perforations	1.00			3422.00	
Change Over Sub	1.00			3423.00	
Recorder	0.00	8372	Inside	3423.00	
Recorder	0.00	8321	Outside	3423.00	
Drill Pipe	32.00			3455.00	
Change Over Sub	1.00			3456.00	
Perforations	5.00			3461.00	
Blank Off Sub	1.00			3462.00	
Blank Spacing	4.00			3466.00	46.00 Tool Interval
Packer	4.00			3470.00	
Stubb	1.00			3471.00	
Perforations	4.00			3475.00	
Change Over Sub	1.00			3476.00	
Recorder	0.00	8647	Below	3476.00	
Drill Pipe	252.00			3728.00	
Change Over Sub	1.00			3729.00	
Perforations	2.00			3731.00	
Bullnose	3.00			3734.00	268.00 Bottom Packers & Anchor

Total Tool Length: 342.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil Co LLC.

Esther Worcester #3-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 54327 **DST#: 4**

ATTN: Richard Bell

Test Start: 2013.10.28 @ 07:58:01

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	78000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.77 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

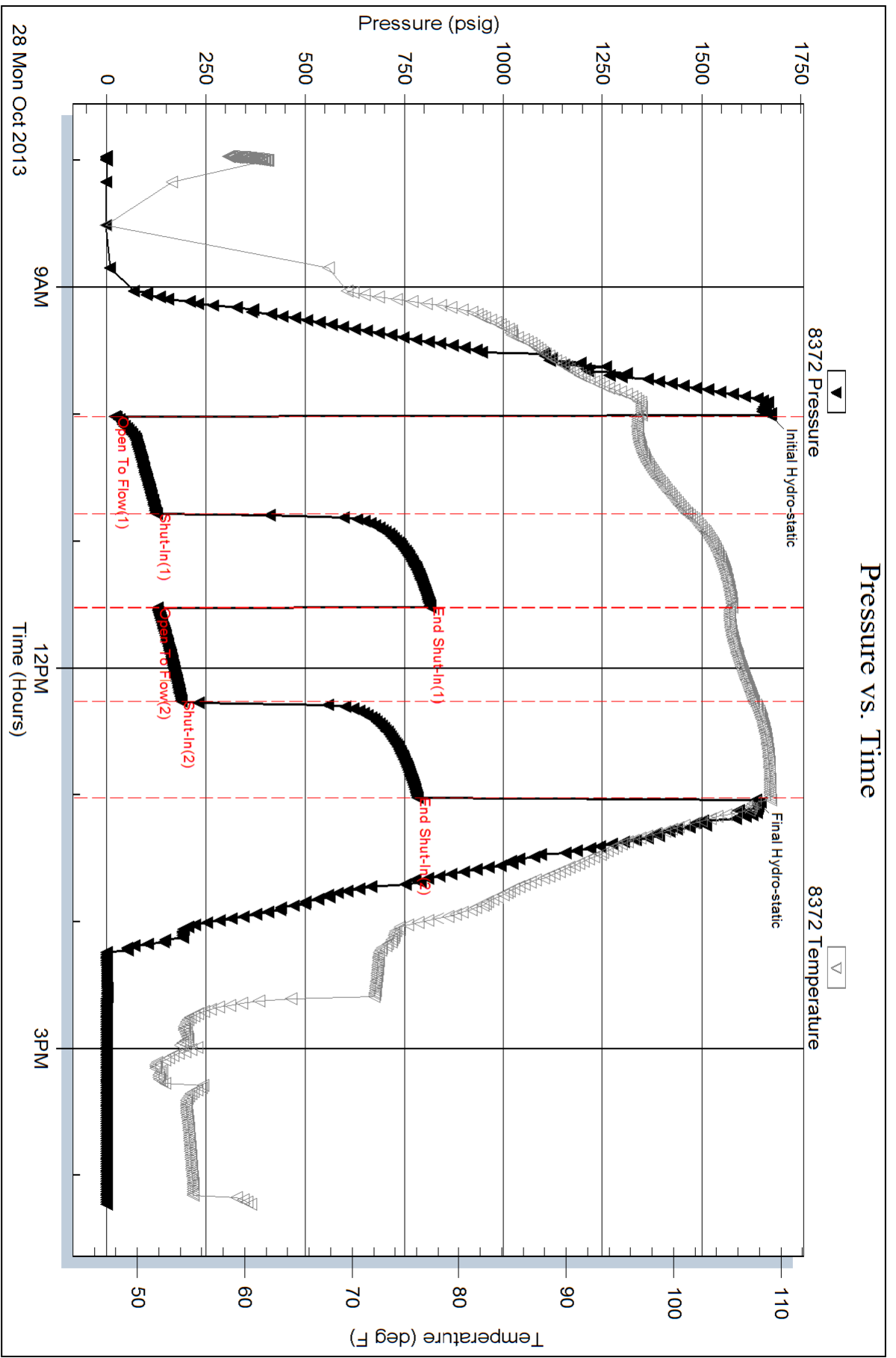
Length ft	Description	Volume bbl
385.00	MW w / oil spks in tool	4.296

Total Length: 385.00 ft Total Volume: 4.296 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Resistivity- .150 @ 52 deg = 78000

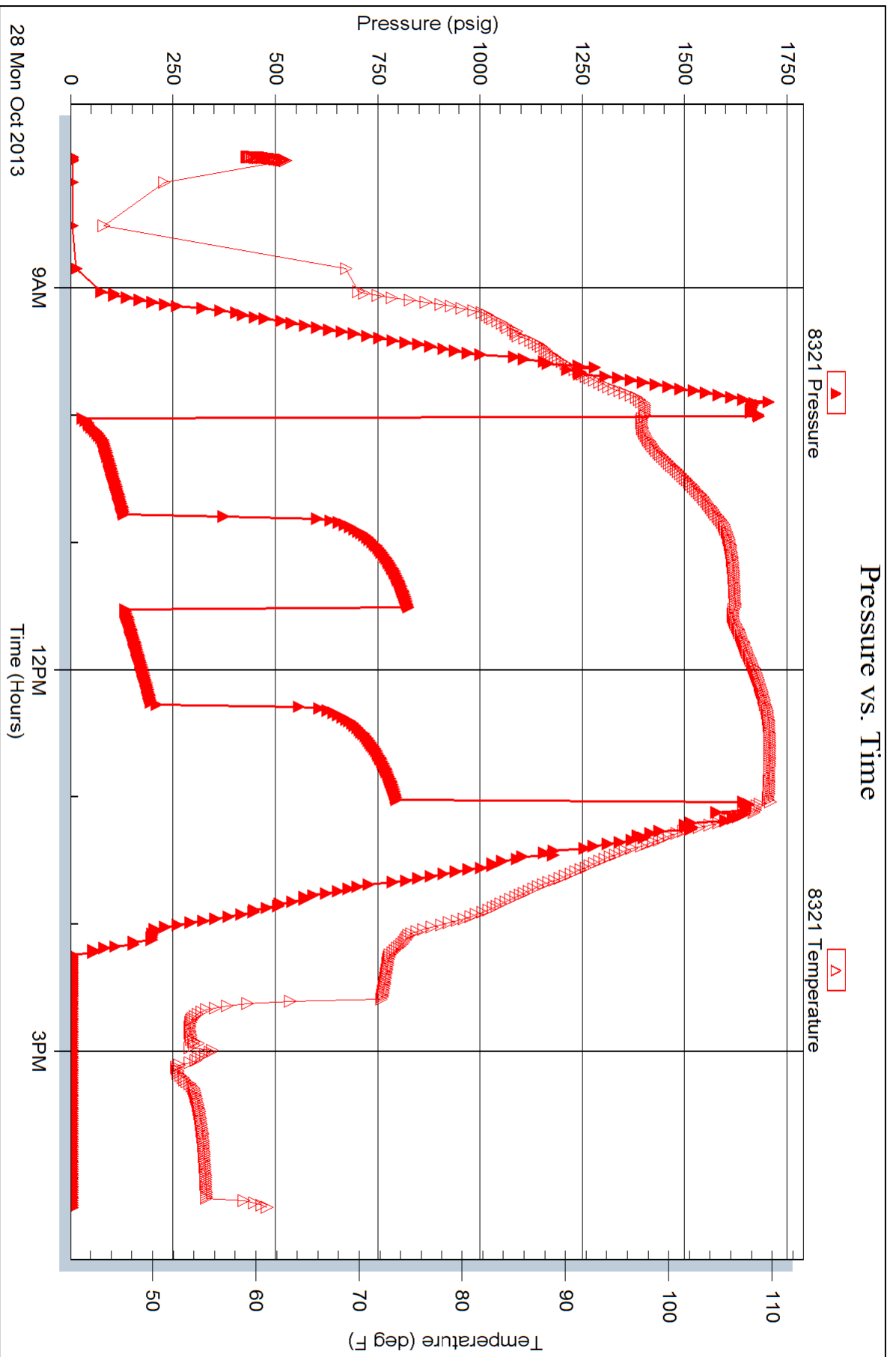


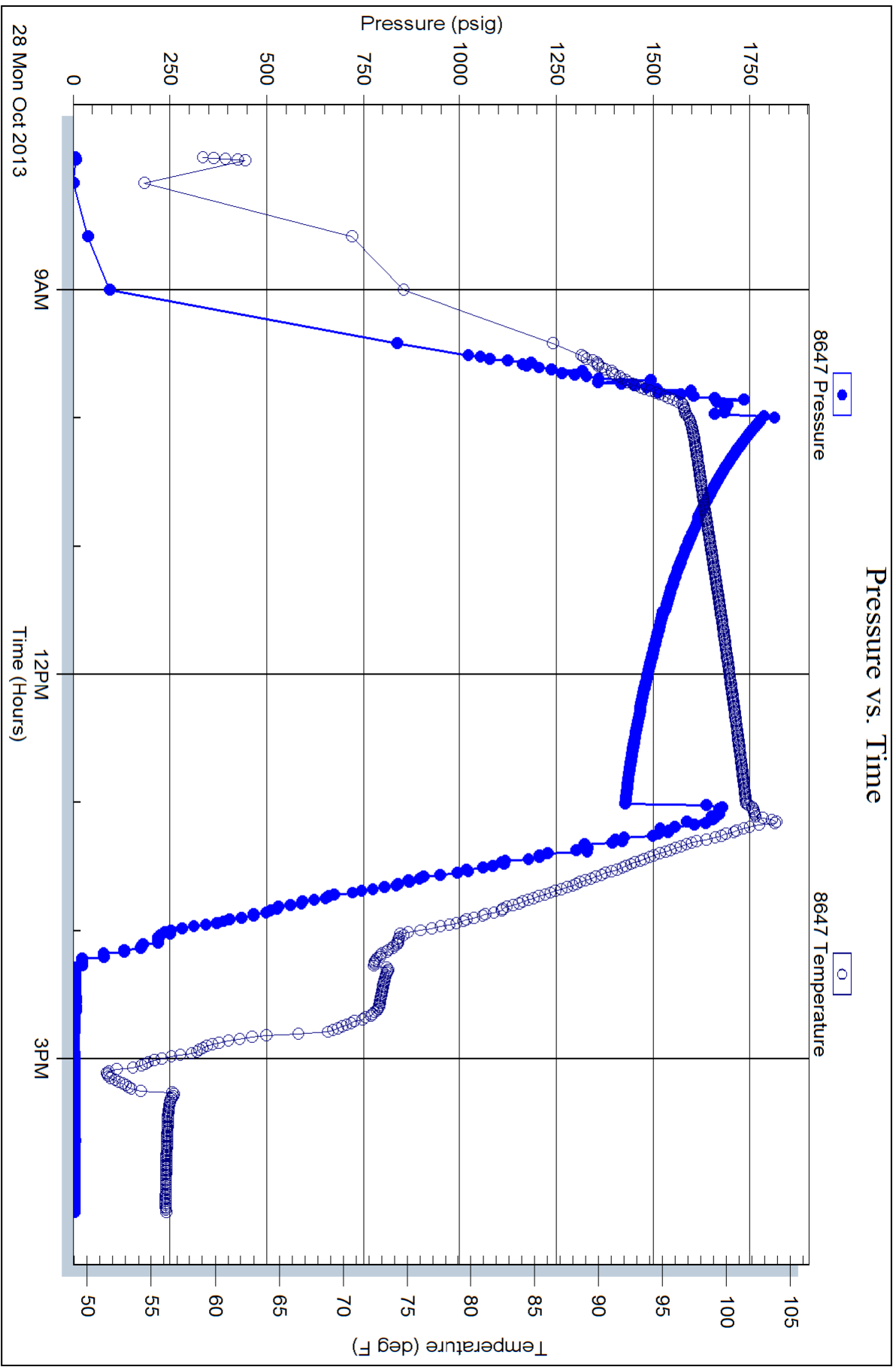
Serial #: 8321

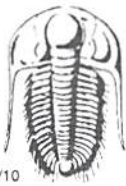
Outside Baird Oil Co LLC.

13-7-s-22w Graham,KS

DST Test Number: 4







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53649

4/10

Well Name & No. Esther Worcester #3-13 Test No. 1 Date 10-26-13
 Company Boiled Oil Co LLC Elevation 2125 KB _____ GL _____
 Address PO Box 428 Logan Ks 67646
 Co. Rep / Geo. Richard Bell Rig WW #12
 Location: Sec. 13 Twp. 7s Rge. 22w Co. Graham State Ks

Interval Tested 3659-3672 Zone Tested Arbuckle
 Anchor Length 13' Drill Pipe Run 3548 Mud Wt. 9.1
 Top Packer Depth 3654 Drill Collars Run 121.21 Vis 6.0
 Bottom Packer Depth 3659 Wt. Pipe Run 0 WL 6.8
 Total Depth 3672 Chlorides 1400 ppm System LCM 3^{lb}

Blow Description ISF: MISRUN packer failure
ISI:
FIS:
FSI:

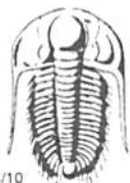
Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>Drilling Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 190 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1774 Test ← 950 T-On Location 17:42
 (B) First Initial Flow _____ Jars _____ T-Started 18:29
 (C) First Final Flow _____ Safety Joint _____ T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled 20:45
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 22:48
 (F) Second Final Flow _____ Mileage 120RT 186 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1736 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Initial Open _____ Extra Packer _____ Extra Copies _____
 Initial Shut-In _____ Extra Recorder _____ Sub Total 0
 Final Flow _____ Day Standby _____ Total 1136
 Final Shut-In _____ Accessibility _____ MP/DST Disc't _____
 Sub Total 1136

Approved By _____ Our Representative [Signature]

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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53650

Well Name & No. Esther Worcester #3-13 Test No. 2 Date 10-26-13
 Company BIRD Oil Co. LLC Elevation 2125 KB _____ GL _____
 Address PO Box 428 Logan Ks 67646
 Co. Rep / Geo. Richard Bell Rig WW#2
 Location: Sec. 13 Twp. 7s Rge. 22w Co. Graham State Ks

Interval Tested 3631-3672 Zone Tested Arbucklir
 Anchor Length 41 Drill Pipe Run 3517 Mud Wt. 9.1
 Top Packer Depth 3626 Drill Collars Run 121.21 Vis 60
 Bottom Packer Depth 3631 Wt. Pipe Run 0 WL 6.8
 Total Depth 3672 Chlorides 1400 ppm System LCM 3#

Blow Description IF: 1" blow in 7 min. Built to 1 1/2"
ISI: No Return
FF: Built to 1"
FBI: No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>CO</u>		<u>100</u>		
<u>60</u>	<u>HOCM</u>		<u>40</u>		<u>60</u>
____	____	%gas	%oil	%water	%mud
____	____	%gas	%oil	%water	%mud

Rec Total 90 BHT 108° Gravity 27 API RW _____ @ _____ °F Chlorides _____ ppm

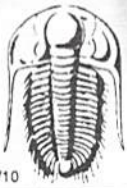
(A) Initial Hydrostatic 1796 Test @ 1150 T-On Location 17:42
 (B) First Initial Flow 17 Jars _____ T-Started 23:12
 (C) First Final Flow 38 Safety Joint _____ T-Open 00:53
 (D) Initial Shut-In 619 Circ Sub _____ T-Pulled 03:53
 (E) Second Initial Flow 44 Hourly Standby _____ T-Out 06:01
 (F) Second Final Flow 55 Mileage _____
 (G) Final Shut-In 552 Sampler _____
 (H) Final Hydrostatic 1770 Straddle _____

Initial Open 45 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 45 Extra Packer _____
 Final Shut-In 45 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Sub Total 1150 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54326

Well Name & No. Esther Worcester #3-13 Test No. 3 Date 10-27-13
 Company Baird Oil Co. LLC Elevation 2125 KB _____ GL _____
 Address PO Box 428 Logan Ks 67646
 Co. Rep / Geo. Richard Bell Rig WW #12
 Location: Sec. 13 Twp. 7s Rge. 22w Co. Graham State Ks

Interval Tested 3526-3554 Zone Tested LKC "K"
 Anchor Length 28' Drill Pipe Run 3389 Mud Wt. 9.1
 Top Packer Depth 3526 Drill Collars Run 121.21 Vis 60
 Bottom Packer Depth 3534 Wt. Pipe Run 0 WL 6.8
 Total Depth 3730 Chlorides 1400 ppm System LCM 3#

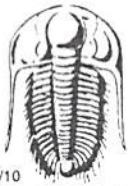
Blow Description IF: 1" Blow in 19 min. Decreased to 1/4"
ISI: NO Return
FF: SURFACE blow sized in 15 min.
FSD NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>OSM</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 104° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1738 Test ← 1150 T-On Location 19:39
 (B) First Initial Flow 21 Jars ← 250 T-Started 21:06
 (C) First Final Flow 31 Safety Joint ← 75 T-Open 22:42
 (D) Initial Shut-In 1016 Circ Sub _____ T-Pulled 01:37
 (E) Second Initial Flow 36 Hourly Standby _____ T-Out 04:32
 (F) Second Final Flow 42 Mileage 26.47 Hill City 40.30 Comments _____
 (G) Final Shut-In 974 Sampler _____
 (H) Final Hydrostatic 1721 Straddle ← 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 45 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 2115.30
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 45 Sub Total 2115.30

Approved By _____ Our Representative _____
 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54327

Well Name & No. Esther Worcester #3-13 Test No. 114 Date 10-28-13
 Company Baird Oil Co LLC Elevation 2125 KB _____ GL _____
 Address PO BOX 428, LOGAN Ks. 67646
 Co. Rep / Geo. Richard Bell Rig WW #12
 Location: Sec. 13 Twp. 7s Rge. 22W Co. Beaumont State Ks

Interval Tested 3420 - 3466 Zone Tested LKC "F"
 Anchor Length 46' Drill Pipe Run 3296 Mud Wt. 9.1
 Top Packer Depth 3420 Drill Collars Run 121.21 Vis 60
 Bottom Packer Depth 3466 Wt. Pipe Run 0 WL 6.8
 Total Depth 3730 Chlorides 1400 ppm System LCM 3^{1/2}

Blow Description IF: 2" blow in 3 min. 6" in 11 min. BOB in 23 min.
ISI: No Return
FF: 2" blow in 5 min. 6" in 16 min. BOB in 31 min.
FSI: No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>385</u>	<u>MW w/ oil spks in tool</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 385 BHT _____ Gravity _____ API RW 150 @ 52° F Chlorides 78000 ppm
 (A) Initial Hydrostatic 1673 Test ← 1150 T-On Location 11:42 07:40
 (B) First Initial Flow 20 Jars ← 2520 T-Started 07:58
 (C) First Final Flow 126 Safety Joint ← 75 T-Open 10:03
 (D) Initial Shut-In 814 Circ Sub _____ T-Pulled 13:03
 (E) Second Initial Flow 127 Hourly Standby _____ T-Out 16:15
 (F) Second Final Flow 188 Mileage 26 RT Hill City 40.30 Comments _____
 (G) Final Shut-In 782 Sampler _____
 (H) Final Hydrostatic 1636 Straddle ← 600 Ruined Shale Packer _____

Initial Open 45 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 45 Extra Packer _____ Extra Copies _____
 Final Flow 45 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 2115.30
 Accessibility _____ MP/DST Disc't _____
 Sub Total 2115.30

Approved By _____ Our Representative Andy Carr

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.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



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<http://kcc.ks.gov/>

Shari Feist Albrecht, Chair
Thomas E. Wright, Commissioner
Jay Scott Emler, Commissioner

Sam Brownback, Governor

March 11, 2014

Jim R. Baird
Baird Oil Company LLC
113 W MAIN
PO BOX 428
LOGAN, KS 67646

Re: ACO-1
API 15-065-23977-00-00
Esther Worcester 3-13
SE/4 Sec.13-07S-22W
Graham County, Kansas

Dear Jim R. Baird:

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 10/22/2013 and the ACO-1 was received on March 06, 2014 (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