

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

Confidentiality Requested:

 Yes No

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- | | | | |
|--|---|-------------------------------------|-------------------------------|
| <input type="checkbox"/> New Well | <input type="checkbox"/> Re-Entry | <input type="checkbox"/> Workover | |
| <input type="checkbox"/> Oil | <input type="checkbox"/> WSW | <input type="checkbox"/> SWD | <input type="checkbox"/> SIOW |
| <input type="checkbox"/> Gas | <input type="checkbox"/> D&A | <input type="checkbox"/> ENHR | <input type="checkbox"/> SIGW |
| <input type="checkbox"/> OG | <input type="checkbox"/> GSW | <input type="checkbox"/> Temp. Abd. | |
| <input type="checkbox"/> CM (Coal Bed Methane) | | | |
| <input type="checkbox"/> Cathodic | <input type="checkbox"/> Other (Core, Expl., etc.): _____ | | |

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- | | | | | |
|--|---------------------------------------|--|---------------------------------------|--|
| <input type="checkbox"/> Deepening | <input type="checkbox"/> Re-perf. | <input type="checkbox"/> Conv. to ENHR | <input type="checkbox"/> Conv. to SWD | |
| <input type="checkbox"/> Plug Back | <input type="checkbox"/> Conv. to GSW | <input type="checkbox"/> Conv. to Producer | | |
| <input type="checkbox"/> Commingled | Permit #: _____ | | | |
| <input type="checkbox"/> Dual Completion | Permit #: _____ | | | |
| <input type="checkbox"/> SWD | Permit #: _____ | | | |
| <input type="checkbox"/> ENHR | Permit #: _____ | | | |
| <input type="checkbox"/> GSW | Permit #: _____ | | | |

Spud Date or
Recompletion Date

Date Reached TD

Completion Date or
Recompletion Date

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 DistributionALT I II III Approved by: _____ Date: _____



1169286

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No 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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Castelli Exploration, Inc.
Well Name	Heiland 2-18
Doc ID	1169286

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	Perf Arbuckle	Acidize w/150 gal 7.5% MCA	3798-3802
		Set CIBP @ 3795	3795
4	Perf Arbuckle	Set PKR 3792/Acid 150 gal 7.5% MCA	3784-86
	Retreat Acid	Set PKR 3748/Acid 500 gal 7.5% NE FE	3784-86
4	Reperf Arbuckle	Drove CIBP to PBSD 3848	3784-89
		Set PKR 3700/Acid 3000 gal 28% NE Fe	3789-3802 & 3784-89

Summary of Changes

Lease Name and Number: Heiland 2-18

API/Permit #: 15-163-24138-00-00

Doc ID: 1169286

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	10/31/2013	11/20/2013
Contractor License Number	5929	30606
Contractor Name	Duke Drilling Co., Inc.	Murfin Drilling Co., Inc.
Save Link	../../../../kcc/detail/operatorEditDetail.cfm?docID=1165611	../../../../kcc/detail/operatorEditDetail.cfm?docID=1169286



CONFIDENTIAL

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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

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

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

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

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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	---	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Castelli Exploration, Inc.
Well Name	Heiland 2-18
Doc ID	1165611

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	Perf Arbuckle	Acidize w/150 gal 7.5% MCA	3798-3802
		Set CIBP @ 3795	3795
4	Perf Arbuckle	Set PKR 3792/Acid 150 gal 7.5% MCA	3784-86
	Retreat Acid	Set PKR 3748/Acid 500 gal 7.5% NE FE	3784-86
4	Reperf Arbuckle	Drove CIBP to PBSD 3848	3784-89
		Set PKR 3700/Acid 3000 gal 28% NE Fe	3789-3802 & 3784-89

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



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

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

October 28, 2013

Tisha Love
Castelli Exploration, Inc.
6908 NW 112TH
OKLAHOMA CITY, OK 73162-2976

Re: ACO1
API 15-163-24138-00-00
Heiland 2-18
SE/4 Sec.18-10S-19W
Rooks County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Tisha Love

QUALITY OILWELL CEMENTING, INC.

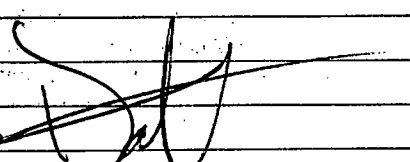
Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 7503

Cell 785-324-1041

Date	9-3-13	Sec.	Twp.	Range	County	State	On Location	Finish
					Rooks	KS		1:00 PM
Lease					Well No.		Owner	
Highland					2-18		To Quality Oilwell Cementing, Inc.	
Contractor					You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Express Well Service								
Type Job					Charge To			
Port Collar					Castelli			
Hole Size					T.D.			
7 7/8								
Csg.					Depth			
5 1/2					3999'			
Tbg. Size					Street			
2 1/2					City			
Tool					State			
Port collar								
Cement Left in Csg.					The above was done to satisfaction and supervision of owner agent or contractor.			
Shoe Joint					Cement Amount Ordered			
					250 sx QMDC 1/4 Flowseal			
Meas Line					Used			
Displace					165 sx QMDC			
7 1/2 bbl								
EQUIPMENT					Common			
Pumptrk					165			
15 No. Cementer					Poz. Mix			
Helper					Nick			
Bulktrk					Gel.			
19 No. Driver								
Driver					Clayton			
Bulktrk					Calcium			
PU No. Driver								
Driver					Brett			
JOB SERVICES & REMARKS					Hulls			
Remarks:					Salt			
Rat Hole					Flowseal 50#			
Mouse Hole					Kol-Seal			
Centralizers					Mud CLR 48			
Baskets					CFL-117 or CD110 CAF 38			
Port Collar @ 1650'					Sand			
Loaded Tubing + Test PC @ 1000lbs					Handling 250			
Pumped 5 bbl H ₂ O					Mileage			
Mixed 165 sx					FLOAT EQUIPMENT			
Displaced 7 1/2 bbl					Guide Shoe			
Ran 5 JTs					Centralizer			
Reversed out pumping 25 bbl					Baskets			
Washed truck clean					AFU Inserts			
					Float Shoe			
					Latch Down			
					Pumptrk Charge			
					port collar			
					Mileage 31			
X Signature 					Tax			
					Discount			
					Total Charge			



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET
1718 00347 A

DATE _____ TICKET NO. _____

DATE OF JOB 8-27-13 DISTRICT Pratt		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER Castelli Exploration		LEASE Heiland 2-19 WELL NO.							
ADDRESS		COUNTY Books STATE Ks							
CITY STATE		SERVICE CREW James Dale Joe							
AUTHORIZED BY		JOB TYPE: 5 1/2 Ls CNW							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
78992-7983	30 min						8-26-13	PM	3:20
70959-19918	30 min					ARRIVED AT JOB	8-27-13	AM	9:20
28443						START OPERATION	8-27-13	AM	12:45
						FINISH OPERATION	8-27-13	PM	1:15
						RELEASED	8-27-13	AM	1:15
						MILES FROM STATION TO WELL			

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: James Dale Joe
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 107	Econo Bond	SK	150		2,625 00
CP 103	60/40 POZ	SK	85		1,020 00
CC 102	celloflake	lb	38		140 60
CC 105	C-41 P Defoamer	lb	32		128 00
CC 112	Cement Friction Reducer	lb	38		228 00
CC 129	FLA-322 Low Fluid Loss	lb	38		285 00
CF 607	Latch Down Plug & Baffle	eq	1		400 00
CF 1251	Auto fill shoe	eq	1		380 00
CF 481	5/8 Port collar	eq	1		3,500 00
CF 1601	5/8 Turbolizer	eq	6		750 00
CF 1901	5/8 Basket	eq	2		580 00
C 704	Claymax KCl Substitute	gal	4		140 00
E 100	Pickup Mileage	mi	150		637 50
E 101	Heavy mileage	mi	300		2,100 00
E 113	Bulk Delivery	TM	1500		2,400 00
CE 2001	Depth Charge 300'-400'	4hr	1		2,160 00
CE 240	Mixing Charge	SK	235		329 00
CE 504	Plug container	JOB	1		250 00
S 003	Service Supervisor	cg	1		175 00

SUB TOTAL **13,656 08**

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE: John M
THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: James Dale Joe
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

Customer Castelli	Lease No.	Date 8-27-13
Lease Heiland	Well # 2-18	
Field Order # 8347	Station Pratt	Casing 5 1/2
	Depth 3900	County ROOKS
Type Job CNW 5 1/2 LS	Formation	State KS
		Legal Description 18-10-19

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
5 1/2								
Depth 3900	Depth	From	To	Pre Pad	Max		5 Min.	
Volume	Volume	From	To	Pad	Min		10 Min.	
Max Press	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative	Station Manager	Treater
Service Units 7892 78987	70459 19918	28443
Driver Names James	Dale	Joe

Time	Casing Pressure	Tubing Pressure	Bbbs. Pumped	Rate	Service Log
9:30					ONLOC / safety meeting
					Run 93JTS at 15.5# csg
					Turb. on 1,2,3,4,5,55
					Back on Pin of 53,54
					Part. collar on JT 54 1647' from SF
12:30					csg on BOTTOM / circ. with Big
12:45					HOOK TO PUMP TO START JOB
	450		10	7	MIX 35SK scavenger at 13.0 PPG
	450		39	7	MIX 150SK EconoBand at 13.8 PPG
	⊖		49	⊖	SHUT DOWN wash pump & lines
10:13:05			⊖ 0	⊖ 0	Release Plug
	200		0	⊖	START DISD with 2% KCL
L	400		70	5.5	LIFT
	400		70	5.5	SLOW RATE
13:20	1500		94	⊖	Plug DOWN
			8		BH 205K
			6		MH 205K
					⊖ JOB COMPLETE
					Thank you
					Joe

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

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

No. 6877

Date	8-21-13	Sec.	18	Twp.	10	Range	19	County	Rooks	State	KS	On Location	Finish	3:45AM	
								Location <i>Yocemento N to C.L. 3w to 8 Rd, 3N to BRd, 1/2w</i>							
Lease <i>Heiland</i>				Well No. <i>2-18</i>				Owner <i>NnZ</i>							
Contractor <i>Murfin #16</i>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.											
Type Job <i>Surface</i>								Charge To <i>Castelli Exp.</i>							
Hole Size <i>12 1/4</i>				T.D. <i>220</i>				Street							
Csg. <i>8 5/8</i>				Depth <i>218</i>				City							
Tbg. Size				Depth				State							
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg. <i>20</i>				Shoe Joint <i>20</i>				Cement Amount Ordered <i>150 SX Com 3% cc 2% gel</i>							
Meas Line				Displace <i>12 1/2 bbl</i>											
EQUIPMENT								Common <i>150</i>							
Pumptrk <i>5</i> No. <i>5</i>				Cement Helper <i>Lonnie W.</i>				Poz. Mix							
Bulktrk <i>13</i> No. <i>13</i>				Driver <i>Lonnie M.</i>				Gel. <i>3</i>							
Bulktrk <i>P4</i> No. <i>P4</i>				Driver <i>Travis</i>				Calcium <i>5</i>							
JOB SERVICES & REMARKS								Hulls							
Remarks: <i>Cement did circulate</i>								Salt							
Rat Hole								Flowseal							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
								Handling <i>158</i>							
								Mileage							
								FLOAT EQUIPMENT							
								Guide Shoe							
								Centralizer							
								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge <i>Surface</i>							
								Mileage <i>31</i>							
								Tax							
								Discount							
								Total Charge							
Signature <i>Ag [Signature]</i>															



Scale 1:240 (5"=100') Imperial

Well Name:	Castelli Expl. , Inc.	Heiland 2-18
Location:	Sec. 18-10S-19W	Rooks Co. Ks.
Licence Number:	API 15-163-24138	Region: U.S.A.
Spud Date:	8/21/2013	Drilling Completed: 8/26/2013
Surface Coordinates:	330' FSL. , 2,310' FEL. in the SW,SW,SE of Sec. 18	

Bottom Hole Coordinates:	SAmE	
Ground Elevation (ft):	2,220'	K.B. Elevation (ft): 2,225'
Logged Interval (ft):	3,100' To: 3,900'	Total Depth (ft): 3,900'
Formation:	Arbuckle	
Type of Drilling Fluid:	Chemical	

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Castelli Expl. , Inc.
 Address: 6908 N.W. 112th. St.
 Okla. City , Okla.

73126

GEOLOGIST

Name: Camero Castelli
 Company: Castelli Expl. , Inc.
 Address: 6908 N.W. 112th. St.
 Okla. City , Okla.

73162

DSTs

1 @ 3,802' / 30-IFP wk bl thru-out 1/2"-2" bl / 45 ISI no bl / 45 FFP wk bl thru-out surface to 1/8" / 60 FSI no bl / Initial Hyd 1,733 / FIF 33 / FFF 54 / ISI 434 / 2nd F 60 / 2nd FF 75 / FSI 426 / Final Hyd 1,703 / Total Rec. 110' ,5% oil ,95% mud

 # 2 @3,813' / 30IFP wk-strg to 5min / 45 ISIP no bl / 45 FFP wk-strg in 12min / 60 FSIP no bl / Initial Hyd. 1,729 / FIF 86 / FFL 249 / ISI 1,085 / 2nd IF 243 / 2nd FF 472/ FSI 1,070 / Final hyd. 1,693 / total rec. 845' 100' OCM 5% Oil 95% Mud / 435' HO & WCM 25% Oil 35% Water 40% Mud / 310' GM & WCO 20% Gas 35% Oil 30% Water 15% Mud

Comments

Logger : Joel Knight
 Cell : (580) 216-5489
 Unit : # 6

Drlng. Co. : Murfin , rig # 16
 Samples : caught by rig hands

ROCK TYPES

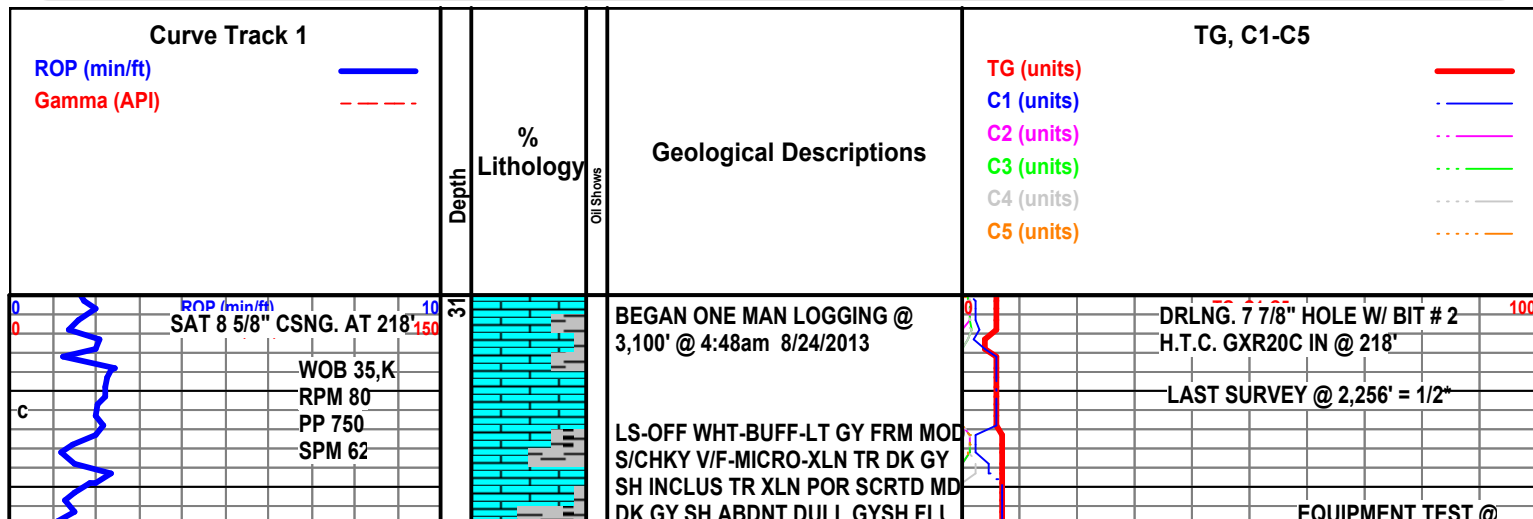
Anhy	Coal	Lmst	Shcol	sdy sh
Bent	Congl	Meta	Shgy	calc sh
Brec	Dol	Mrlst	Slstst	shale
Cht	Gyp	Salt	Ss	carb sh
Clyst	Igne	Shale	Till	

ACCESSORIES

MINERAL	Gyp	FOSSIL	Ostra	Slststrg
Anhy	Hvymin	Algae	Pelec	Ssstrg
Arggrn	Kaol	Amph	Pellet	TEXTURE
Arg	Marl	Belm	Pisolite	Boundst
Bent	Minxl	Bioclst	Plant	Chalky
Bit	Nodule	Brach	Strom	Cryxln
Brecfrag	Phos	Bryozoa	STRINGER	Earthy
Calc	Pyr	Cephal	Anhy	Finexln
Carb	Salt	Coral	Arg	Grainst
Chtdk	Sandy	Crin	Bent	Lithogr
Chtlt	Silt	Echin	Coal	Microxln
Dol	Sil	Fish	Dol	Mudst
Feldspar	Sulphur	Foram	Gyp	Packst
Ferrpel	Tuff	Fossil	Ls	Wackest
Ferr		Gastro	Mrst	
Glau		Oolite		

OTHER SYMBOLS

POROSITY TYPE	Vuggy	ROUNDING	Spotted	EVENTS
Earthy	SORTING	Rounded	Ques	Rft
Fenest	Well	Subrnd	Dead	Sidewall
Fracture	Moderate	Subang	INTERVALS	
Inter	Poor	Angular	Core	
Moldic		OIL SHOWS	Dst	
Organic		Even		
Pinpoint				



NO CUT OR STN

AGITATOR 126u.

LS-PRED AAB W/SM SLI FOSS
ABDNT LT GY-MD GYSFT SH SCRTRD
TR DULL LT GRNSH GY SLI S/WXY
SH TR POR IN LS FLU AAB NO VIS
CUT OR STN

MUD CK. @ 3,143'
WT. 8.6 V. 68
PV. 24 YP. 16
GEL. 14/35 PH. 10.5
WL. 7.6 CK. 1
CHL. 500 CA. trc.
SOL. 1.8% LCM. 2.5#

LS-BUFF-CRM-TN SM LT GY-LT MD
GY PRED FRM-HD BRITL
V/F-MICRO-XLN W/SM OFF WHT
MOD S/CHKY I.P. SLI REWRKD SM
V/FOSS SM PYR'IC I.P. SLI MOTT I.P.
W/SM MD GY-MD DK GY SH ABDNT
DULL GYSH FLU SCRTRD TR DULL
YEL GLD FLU NO VIS CUT OR STN
NO ODOR

LS-AAB

TG, C1-C5 100

SH-GY-MD GY-MD DDK GY SFT
S/PLTY-S/SPLNTY V/F-F-SMTH TEXT
SM W/HD BRITL LS INCLUS I.P. SL
PYR'IC I.P.

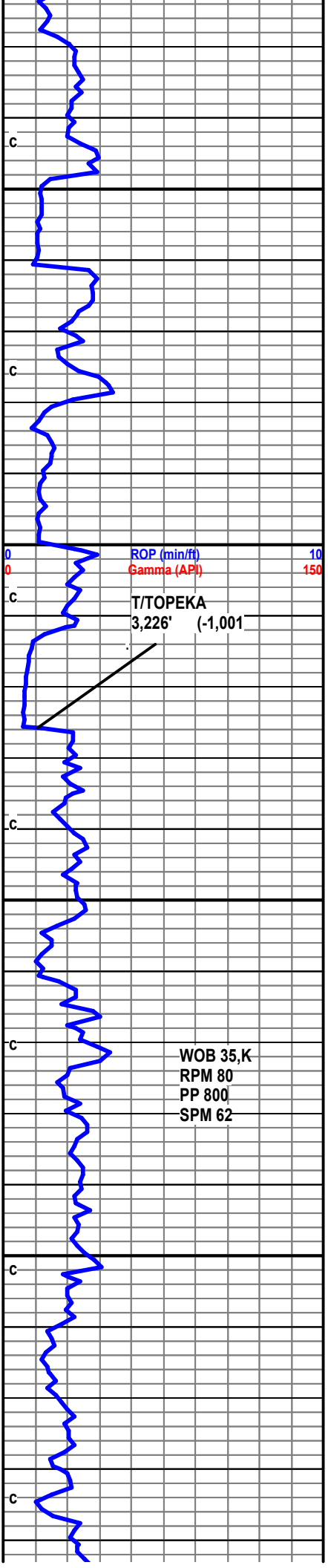
LS-PRED AAB W/SM SUC V/SLI TR
P.P. VUG POR I.P. ABDNT DK GY SH
NOD & INCLUS TR-FR POR
THRUOUT W/ABDNT DULL GYSH
FLU SCRTRD TR DULL YEL GLD FLU
NO VIS CUT OR STN NO ODO

LS-BUFF-CRM-TN SM LT GY-LT MD
GY PRED FRM MOD S/CHKY W/SM
HD BRITL V/F-MICRO-XLN W/TR F
XLN I.P. SLI MOTT SLI FOSS
W/SCRTRD TR PYR'IC I.P. ABDNT MD
GY SH ABDNT DULL GYSH FLU
SCRTRD TR DULL YEL GLD FLU
W/V/SLI TR BRT YEL FLU NO VIS
CUT OR STN NO ODO

LS-AAB W/INCRS IN HD BRITL LS
CON FLU AAB NO CUT OR STN NO
ODOR

SH-LT MD GY-MD GY SCRTRD TR
DULL GRNSH GY SFT-MOD FRM
PLTY-S/PLTY-S/SPLNTY V/F-F-SMTH
TEXT V/FNLY MICA SM SLI CALC
SLI TR PYR'IC

DUMP TRAP , CLN. AGITATOR



ROP (min/ft)
Gamma (API)

T/TOPEKA
3,226' (-1,001)

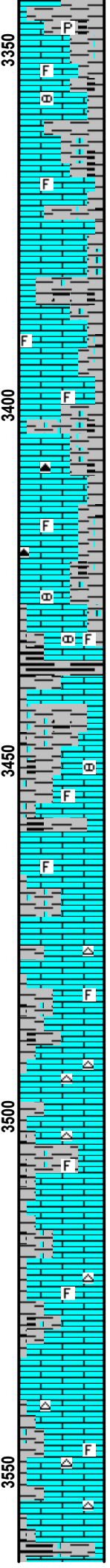
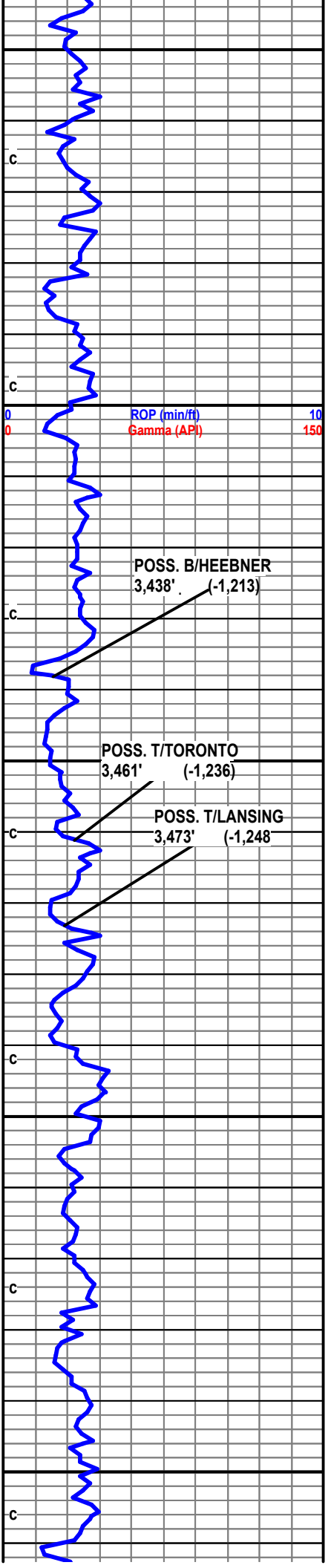
WOB 35,K
RPM 80
PP 800
SPM 62

3150

3200

3250

3300



SH-AAB W/ABDNT MICRO-XLN LS
SCRTD THROU1

LS-OFF WHT-BUFF-CRM PRED
FRM-MOD S/CHKY -S/CHKY W/SM
TN-LT GY HD BR TTL
V/F-MICRO-XLN THROUT SLI FOSS
W/V/SLI TR SUC I.P. SLI MOTT I.P.
ARG W/ABDNT GY-MD GY-MD DK
GY SH SCR TD THROUT ABDNT
DULL GYSH FLU SLI TR DULL GLD
FLU NO VIS CUT OR STN NO ODOR

LS-AAB W/ABDNT S/PLTY-PLTY SH
SLI CALC W/TR LS INCLUS I.P. V/SLI
TR DK GY CHRT

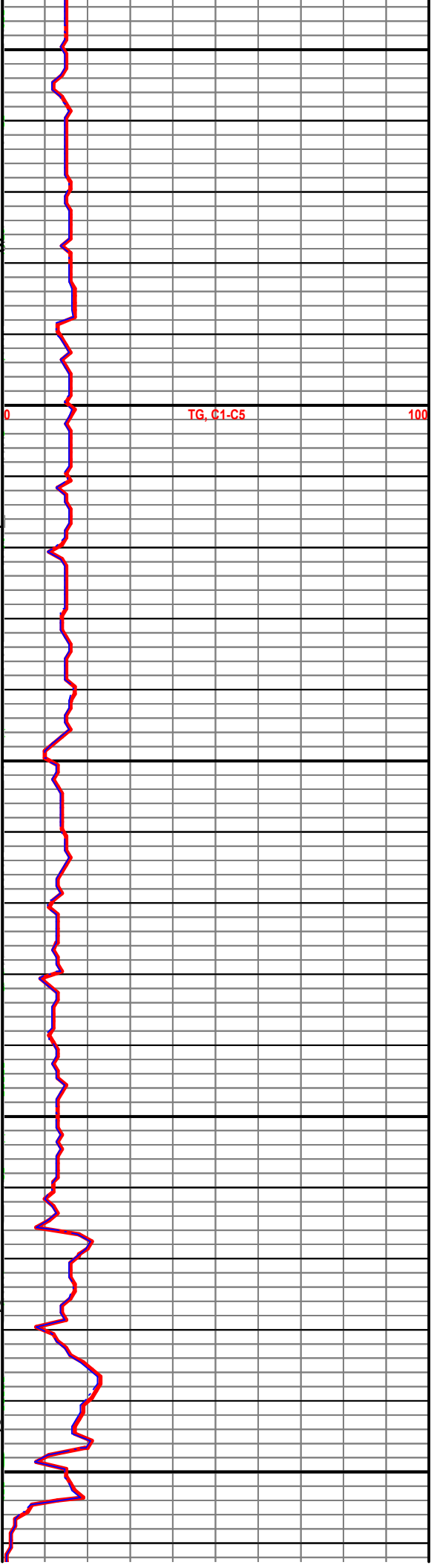
SH-MD GY-DK GY-BLK SLI TR
GRNSH GY SFT PLTY-S/PLTY -
S/PSPLNTY V/F-F-SMTH TEXT SLI
SM FISS SLI CARB SLI TR CALC
W/TR LS INCLUS I.P.

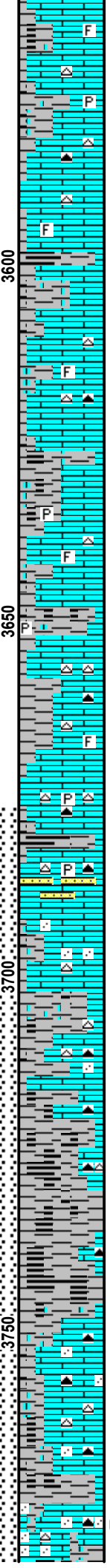
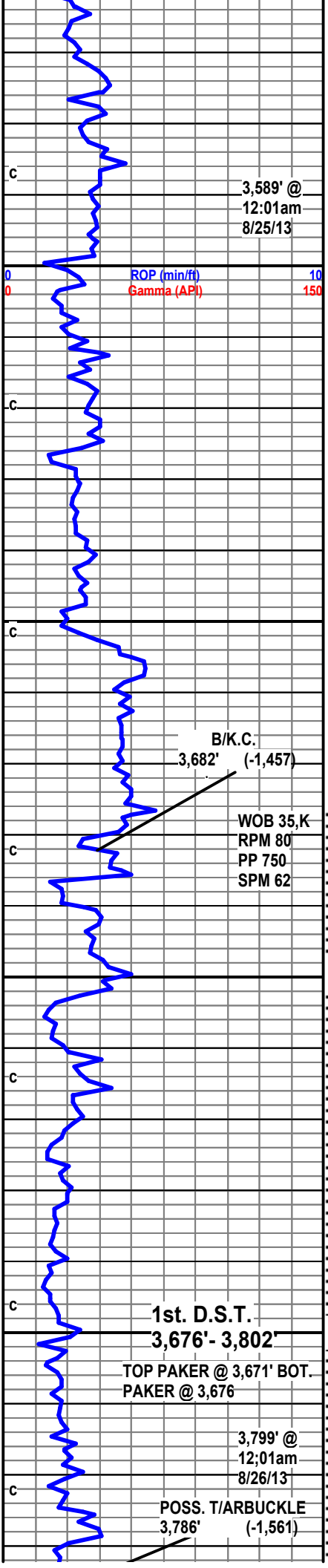
LS-OFF WHT-BUFF-CRM-TN SM LT
MD GY V/F-MICRO-XLN PRED
FRM-MOD HD BR TTL SM S/CHKY
SLI TR P.P. POR I.P. SLI MOTT I.P.
W/SM SH INCLUS I.P. TR-FR POR
SCR TD THROUT ABDNT DULL
GYSH FLU SLI TR YEL-DULL YEL
GLD FLU I.P. NO VIS CUT OR STN
NO ODOR

LS-PRED AAB W/SM CHKY F/XLN
I.P. POR & FLU AAB W/SM MLKY
CHRT SCR TD THROUT W/SLI
INCRS IN YEL FLU CONT NO VIS
CUT OR STN NO ODOR

LS-BUFF-CRM-TN SM LT MD GY
PRED HD BR TTL MICRO-XLN W/SM
OFF WHT-WHT MOD
S/CHKY-S/CHKY V/F-MICRO XLN TR
V/SLI SUC W/V/SLI TR FRSTY QRTZ
XLB I.P. V/SLI FOSS W/SM SCR TD
DK GY SH THROUT SCR TD
MLKY-OPQ LT GY CHRT TR-FR POI
I.P. FR LY TT THROUT W/ABDNT
DULL GYSH -DULL WHT FLU SLI TR
YEL FLU NO VIS CUT OR STN NO
ODOR

LS-AAB W/SM MD DK GY-DK
GY-BLK SFT PLTY-S/PLNTY





LS-WHT-OFF WHT-BUFF-CRM FRM-MOD S/CHKY ABDNT HD BR TTL W/SLI TR MD GY-MD BRN DNS PRED MICRO-XLN THRUOUT W/SM V/F-XLN TR SLI MOTT I.P. W/V/SLI TR F XLN SLI TR P.P. POR I.P. SM D GY SH INCLUS SLI FOSS V/SLI TR PYR'IC W/SM MLKY-OPQ LT GY -MD GY CHRT PRED POOR TT POR ABDNT DULL GYSH -DULL WHT FLU SCR TD TR DULL YEL GLD FLU NO VIS CUT OR STN NO ODOR

SH-MD GY-DK GY-BLK SCR TD TR DULL GRNSH PLTY-S/SPLNTY -SPLNTY SM S/BLKY V/F-F-SMTH TEXT SSSI FISS SLI CALC SM LMY W/ABDNT LS AAB

LS- AAB

SH-LT MD GY-MD DK GY-DK GY SFT-MOD FRM PLTY-S/SPLNTY-SPLNTY V/F-F-SMTH TEXT SM SLI FISS CALC V/FNLY MICA W/ABDNT LS AAB

SH- WLS AAB TR SH SLI OYR'IX I.P LS AAB W/SM MLKY-LT GY-MD DK GY CHRT TR-FR POR ABDNT DULL FLU AAB SLI TR SCR TD YEL FLU NO VIS CUT OR STN NO ODOR

SH-MD DK GY-DK GY-BLK SFT FISS

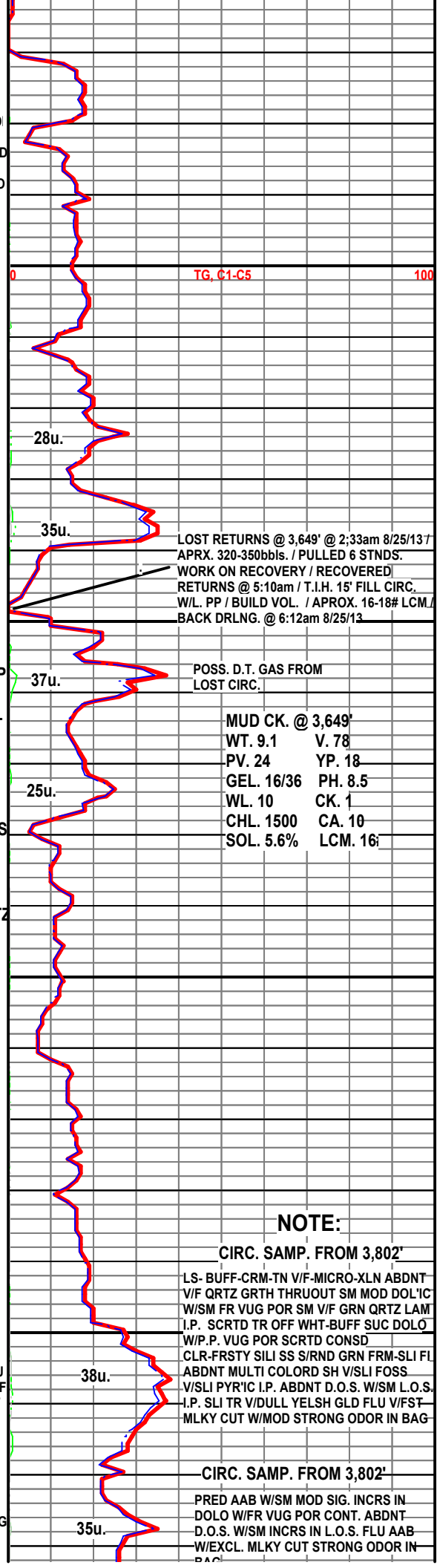
LS-BUFF-CRM-TN FRM-HD SM BR TTL MOD S/CHKY TT W/SM FRSTY UNCONSD S/RND-RND QRTZ GRN TR FREE PYR SM CHRT AAB DULL GYSH-WHT FLU NO CUT OR STN

SH-MD GY-MD DK GY SM DK GY-BLK PLTY-S/SPLNTY-SPLNTY V/F-F-SMTH TEXT SM SLI FISS SLI CALC SFT-MOD FRM W/ABDNT CRM-TN-LT BRN-LT GY HD BR TTL MICRO-XLN LS SLI TR SUC I.P. W/V/SLI TR FRSTY QRTZ INTRBDD I.P. SM MLKY-LT GY-MD DK GY CHRT

SH-MD DK GY-DK GY-BLK SFT PLTY-S/SPLNTY-SPLNTY SM S/BLKY V/F-F-SMTH TEXT SM FISS SLI CARB W/SCR TD SLI LMY I.P.

LS-CRM-TN-LT BRN-LT MD GY PRED HD BR TTL MICRO-XLN SLI TR V/F-XLN V/SLI SU I.P. W/ABDNT BUFF-CRM MOD S/CHKY V/F-F XLN SLI MOTT I.P. SM CHRT AAB W/ABDNT SH AABDNT DULL GYSH FLU SCR TD TR DULL YEL FLU NO VIS CUT OR STN NO ODOR

LS-AAB W/SCR TD TR CONSD V/F GRN SS W/D.O.S. TR POR DULL GYSH FLU W/STRNG FST MLKY CUT IN SS NO ODOR



LOST RETURNS @ 3,649' @ 2:33am 8/25/137
APRX. 320-350bbls. / PULLED 6 STNDS.
WORK ON RECOVERY / RECOVERED
RETURNS @ 5:10am / T.I.H. 15' FILL CIRC.
W/L. PP / BUILD VOL. / APX. 16-18# LCM/
BACK DRLNG. @ 6:12am 8/25/13

POSS. D.T. GAS FROM
LOST CIRC.

MUD CK. @ 3,649'
WT. 9.1 V. 78
PV. 24 YP. 18
GEL. 16/36 PH. 8.5
WL. 10 CK. 1
CHL. 1500 CA. 10
SOL. 5.6% LCM. 16;

NOTE:
CIRC. SAMP. FROM 3,802'
LS- BUFF-CRM-TN V/F-MICRO-XLN ABDNT V/F QRTZ GRTH THRUOUT SM MOD DOL'IC W/SM FR VUG POR SM V/F GRN QRTZ LAM I.P. SCR TD TR OFF WHT-BUFF SUC DOLO W/P.P. VUG POR SCR TD CONSD CLR-FRSTY SILI SS S/RND GRN FRM-SLI FL ABDNT MULTI COLOR SH V/SLI FOSS V/SLI PYR'IC I.P. ABDNT D.O.S. W/SM L.O.S. I.P. SLI TR V/DULL YELSH GLD FLU V/FST MLKY CUT W/MOD STRONG ODOR IN BAG

CIRC. SAMP. FROM 3,802'
PRED AAB W/SM MOD SIG. INCRS IN DOLO W/FR VUG POR CONT. ABDNT D.O.S. W/SM INCRS IN L.O.S. FLU AAB W/EXCL. MLKY CUT STRONG ODOR IN BAG

CIRC. BOTTOMS UP SAMPLES FOR D.S.T. # 1 @ 3,799'

DEPTH CORRECTION TO 3,802'

2nd. D.S.T. 3,676' - 3,812'

TOP PAKER @ 3,671'
BOT. PAKER @ 3,676'

CIRC. BOTTOMS UP SAMPLES FOR D.S.T. # 2 @ 3,813'

WOB 35,K
RPM 80
PP 800
SPM 62

O.B. DRLD. 3,680' IN 78 3/4hrs.
(46.73 FPH)

SH-MD DK GY-DK GY-BLK SFT FISS

SEE CIRC. SAMPLE DESCRIPTIONS TO THE RIGHT

DOLO-BUFF-CRM SUC SM GD P.P. VUG POT I.P. SM CLR-FRSTY QRTZ GROWTH SM DO'IC LM ABDNT LMY DOLO W/ABDNT MULTI COLRD SH SM DOS & LOS I.P. DULL YELSH FLU SCRTRD THRUOUT W/MOD-FST MLKY CUT TR STRM CUT MOD STNG ODOR IN BAG

DOLO-OFF WHT-BUFF-CRM SM LT BRN SLI SUC THRUOUT W/SCRTRD TR LMY I.P. SIG DECRS IN VUG POR SM SCRTRD TR XLN GRTH I.P. W/SM BUFF-CRM-TN MOD S/CHKY-HD BR TTL MICRO-XLN LS THRUOUT ABDNT MULTI COLRD SH W/SIG GRN S/WXY SH SM DOS SCRTRD THRUOUT SLI TR LOS W/ABDNT DULL GYSH-DULL WHT FLU SLI TR YELSH-DULL YEL GLD FLU SLOW-MOD MLKY CUT I.P. FAINT ODOR

DOLO-BUFF-CRM-LT TN TR LT BRN V/F-MICRO-XLN THRUOUT W/SM SCRTRD F XLL I.P. MOD SUC I.P. W/SM QRTZ GRTH I.P. V/SLI VUGY I.P. SM TR LS INCLUS W/SLI TR SCRTRD DOL'IC LS SIG DECRS IN SH SIG INCRS IN MLKY WHT-LT GY-FRSTY LT BRN CHRT THRUOUTSCRTRD ST ABDNT V/DULL LT YELSH FLU W/SLOW-MOD FST MLKY CUT TR W/SLOW STRM CUT V/FAINT ODOR

CIRC. SAMPLES AT TD / DOLO AAB

RIG T.D. @ 3,900' @ 8:pm 8/26/13
LOGGER T.D. @ 3,897' @ 11:45pm 2/26/13

SURVEY @ 3,802' = 3/4"

S.T. 18 STNDS. GAS @ 3,799' = 77u.

T.G. AFTER TEST # 1 = 108u.

NOTE

CIRC. SAMPLES FROM 3,813'

DOLO-PRED AAB W/SM SLI INCRS IN DOLO SM INCRS IN MULTI COLRD SH SCRTRD DULL YELSH FLU W/SM DOS & LOS W/MOD FST-FST MLKY CUT TR STRM CUT MOD STNG ODOR IN BAG

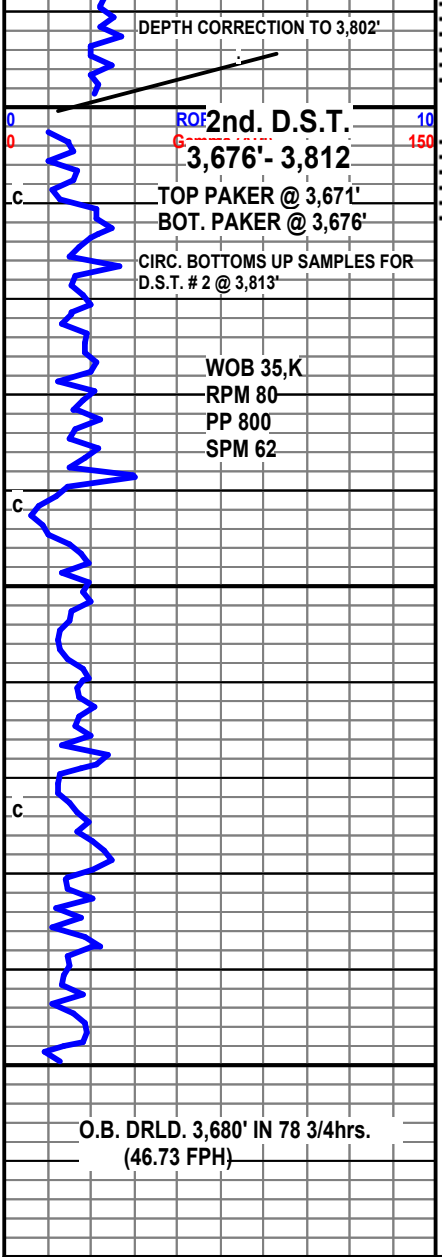
MUD CK. @ 3,812'

WT. 9.1 V. 58
PV. 24 YP. 18
GEL. 16/36 PH. 9
WL. 10.2 CK. 1
CHL. 2,K CA. 10
SOL. 6.3% LCM. 13#

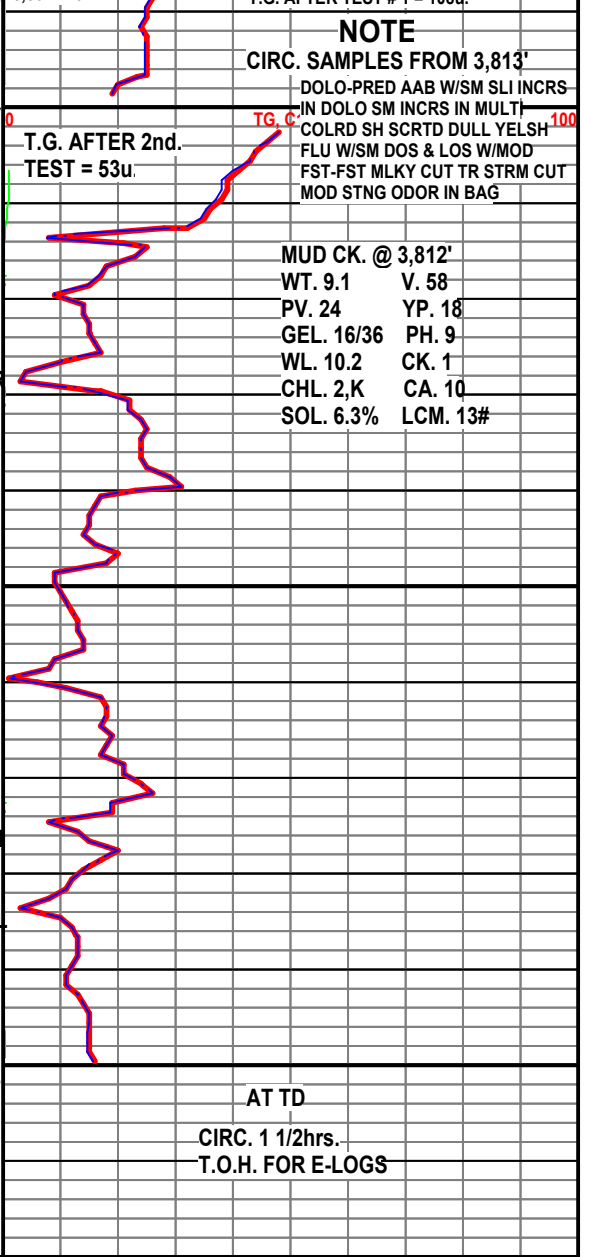
T.G. AFTER 2nd. TEST = 53u.

AT TD

CIRC. 1 1/2hrs.
T.O.H. FOR E-LOGS



SH-MD DK GY-DK GY-BLK SFT FISS
SEE CIRC. SAMPLE DESCRIPTIONS TO THE RIGHT
DOLO-BUFF-CRM SUC SM GD P.P. VUG POT I.P. SM CLR-FRSTY QRTZ GROWTH SM DO'IC LM ABDNT LMY DOLO W/ABDNT MULTI COLRD SH SM DOS & LOS I.P. DULL YELSH FLU SCRTRD THRUOUT W/MOD-FST MLKY CUT TR STRM CUT MOD STNG ODOR IN BAG
DOLO-OFF WHT-BUFF-CRM SM LT BRN SLI SUC THRUOUT W/SCRTRD TR LMY I.P. SIG DECRS IN VUG POR SM SCRTRD TR XLN GRTH I.P. W/SM BUFF-CRM-TN MOD S/CHKY-HD BR TTL MICRO-XLN LS THRUOUT ABDNT MULTI COLRD SH W/SIG GRN S/WXY SH SM DOS SCRTRD THRUOUT SLI TR LOS W/ABDNT DULL GYSH-DULL WHT FLU SLI TR YELSH-DULL YEL GLD FLU SLOW-MOD MLKY CUT I.P. FAINT ODOR
DOLO-BUFF-CRM-LT TN TR LT BRN V/F-MICRO-XLN THRUOUT W/SM SCRTRD F XLL I.P. MOD SUC I.P. W/SM QRTZ GRTH I.P. V/SLI VUGY I.P. SM TR LS INCLUS W/SLI TR SCRTRD DOL'IC LS SIG DECRS IN SH SIG INCRS IN MLKY WHT-LT GY-FRSTY LT BRN CHRT THRUOUTSCRTRD ST ABDNT V/DULL LT YELSH FLU W/SLOW-MOD FST MLKY CUT TR W/SLOW STRM CUT V/FAINT ODOR
CIRC. SAMPLES AT TD / DOLO AAB
RIG T.D. @ 3,900' @ 8:pm 8/26/13
LOGGER T.D. @ 3,897' @ 11:45pm 2/26/13





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Castelli Exploration Inc
 6908 NW 112th
 Oklahoma, City OK 73162-2976
 ATTN: Tom Castelli

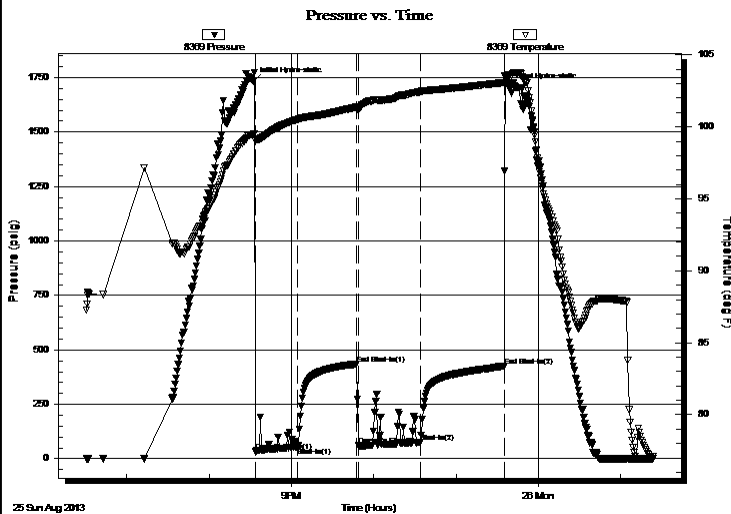
18-10s-19w Rooks
Heiland #2-18
 Job Ticket: 54801 **DST#: 1**
 Test Start: 2013.08.25 @ 18:30:51

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 20:33:46 Tester: Ray Schwager
 Time Test Ended: 01:23:30 Unit No: 70
 Interval: **3676.00 ft (KB) To 3802.00 ft (KB) (TVD)** Reference Elevations: 2225.00 ft (KB)
 Total Depth: 3802.00 ft (KB) (TVD) 2220.00 ft (CF)
 Hole Diameter: 6.75 inches Hole Condition: Poor KB to GR/CF: 5.00 ft

Serial #: 8369 Inside
 Press @ Run Depth: 75.69 psig @ 3682.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.08.25 End Date: 2013.08.26 Last Calib.: 2013.08.26
 Start Time: 18:30:51 End Time: 01:23:30 Time On Btm: 2013.08.25 @ 20:32:16
 Time Off Btm: 2013.08.25 @ 23:39:00

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" to 2" bl
 45-ISIP-no bl
 45-FFP-w k bl thru-out surface to 1/8" bl
 60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1733.23	99.49	Initial Hydro-static
2	33.96	99.01	Open To Flow (1)
33	54.30	100.51	Shut-In(1)
75	434.59	101.37	End Shut-In(1)
77	60.14	101.14	Open To Flow (2)
122	75.69	102.44	Shut-In(2)
183	426.24	103.08	End Shut-In(2)
187	1703.69	103.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
110.00	SOCM 5% O95%M	1.27

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Castelli Exploration Inc
6908 NW 112th
Oklahoma, City OK 73162-2976
ATTN: Tom Castelli

18-10s-19w Rooks
Heiland #2-18
Job Ticket: 54801 **DST#: 1**
Test Start: 2013.08.25 @ 18:30:51

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: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.96 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	SOCM 5%O95%M	1.270

Total Length: 110.00 ft Total Volume: 1.270 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8369

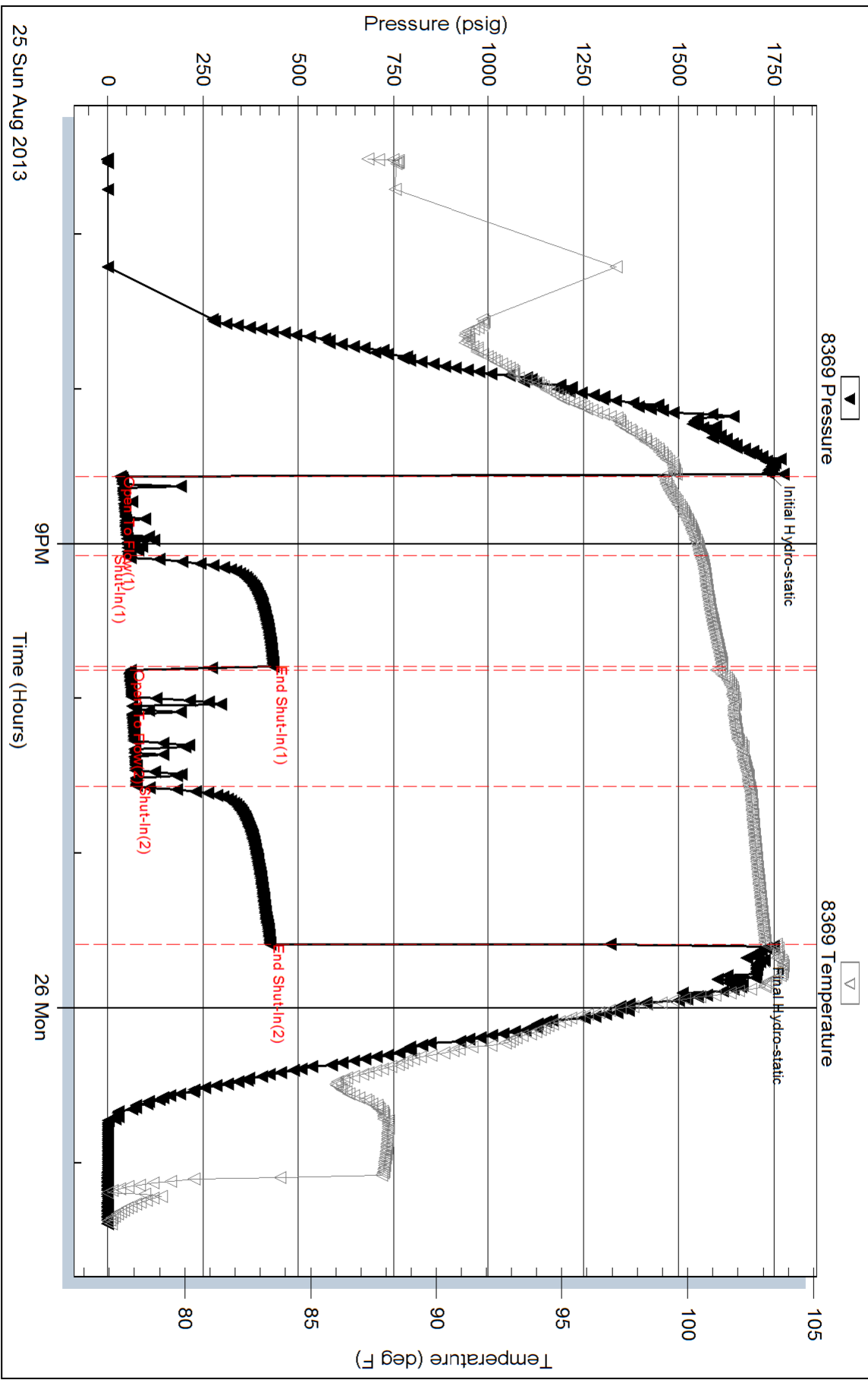
Inside

Castelli Exploration Inc

Welland #2-18

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 54801

Printed: 2013.08.26 @ 06:09:53



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Castelli Exploration Inc
 6908 NW 112th
 Oklahoma, City OK 73162-2976
 ATTN: Tom Castelli

18-10s-19w Rooks
Heiland #2-18
 Job Ticket: 54802 **DST#: 2**
 Test Start: 2013.08.26 @ 06:34:42

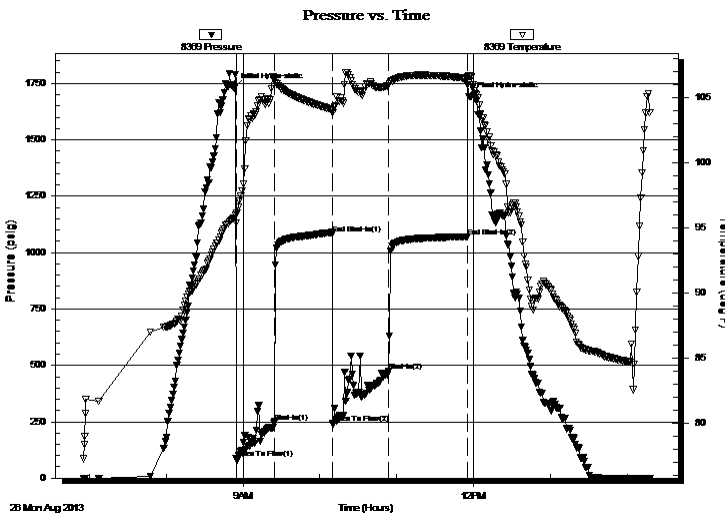
GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 08:33:37 Tester: Ray Schwager
 Time Test Ended: 13:56:21 Unit No: 70
 Interval: **3676.00 ft (KB) To 3812.00 ft (KB) (TVD)** Reference Elevations: 2225.00 ft (KB)
 Total Depth: 3812.00 ft (KB) (TVD) 2220.00 ft (CF)
 Hole Diameter: 6.75 inches Hole Condition: Poor KB to GR/CF: 5.00 ft

Serial #: 8369 Inside
 Press @ Run Depth: 472.65 psig @ 3680.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.08.26 End Date: 2013.08.26 Last Calib.: 2013.08.26
 Start Time: 06:55:42 End Time: 14:17:21 Time On Btm: 2013.08.26 @ 08:53:07
 Time Off Btm: 2013.08.26 @ 11:57:36

TEST COMMENT: 30-IFP-w k to strg to 5 min
 45-ISIP-no bl
 45-FFP-w k to strg in 12 min
 60-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1729.72	95.73	Initial Hydro-static
2	86.41	95.35	Open To Flow (1)
32	249.42	106.28	Shut-In(1)
77	1085.00	104.07	End Shut-In(1)
77	243.88	103.84	Open To Flow (2)
121	472.65	105.94	Shut-In(2)
182	1070.03	106.44	End Shut-In(2)
185	1693.49	106.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	SOCM 5%O95%M	1.13
435.00	HO&WCM 25%O35%W40%M	6.10
310.00	GM&WCO 20%G15%M30%W35%O	4.35

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Castelli Exploration Inc
6908 NW 112th
Oklahoma, City OK 73162-2976
ATTN: Tom Castelli

18-10s-19w Rooks
Heiland #2-18
Job Ticket: 54802 **DST#: 2**
Test Start: 2013.08.26 @ 06:34:42

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: 24000 ppm	
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.95 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	SOCM 5%O95%M	1.129
435.00	HO&WCM 25%O35%W40%M	6.102
310.00	GM&WCO 20%G15%M30%W35%O	4.348

Total Length: 845.00 ft Total Volume: 11.579 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW .28@70F

