



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1225724
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: _____

1225724

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
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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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Cholla Production, LLC
Well Name	Patterson 2-12
Doc ID	1225724

All Electric Logs Run

Dual Induction
Comp Neutron Density
Micro
Borehole Comp Sonic

Form	ACO1 - Well Completion
Operator	Cholla Production, LLC
Well Name	Patterson 2-12
Doc ID	1225724

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	3702-3704'	400gal 15% HCL MCA Demo Ffe	3702-3704'
		800gal 20% gelled HCL Demo Ffe	
6	3593-3596'	400gal 15% HCL MCA w/Demo Ffe	3593-3596'
		300gal 15% HCL Demo Ffe	3584-3587'
6	3584-3587'	750gal 20% HCL Demo Ffe	3584-3587'
6	3548-3552'	400gal 15% HCL MCA Demo Ffe	3548-3552'

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. 389

Date	9/24/14	Sec.	12	Twp.	11	Range	23	County	Trego	State	KS	On Location		Finish	11:30 AM
Location													Wakarusa 60 R/R 2E 3/4S E10		

Lease	Patterson	Well No.	2-12	Owner	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.		
Contractor	WW				Charge To	Cholla	
Type Job	Surface	Hole Size	12 1/4	T.D.	260	Street	
Csg.	8 5/8	Depth	259	Tbg. Size		City	State
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.	15'	Shoe Joint		Cement Amount Ordered			1000m 3/4 CL 2/4 CFL
Meas Line		Displace	15 1/2 BCL				

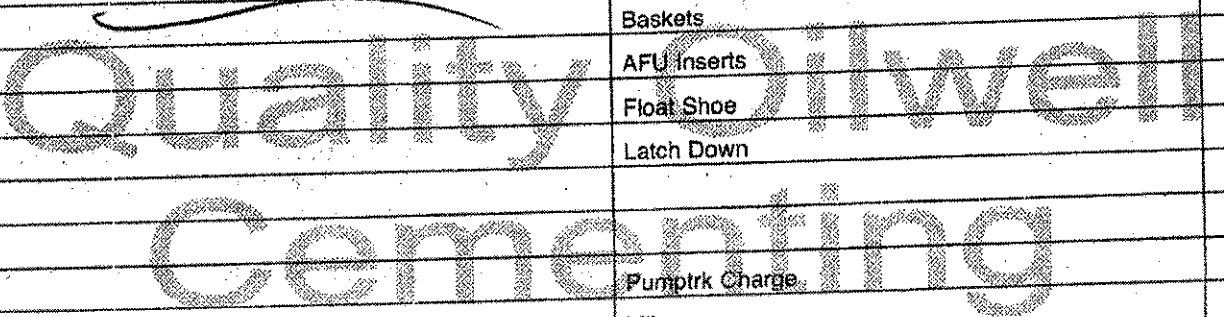
EQUIPMENT				Common
Pumptrk	16	No.	Cementer	Poz. Mix
			Helper	
Bulktrk		No.	Driver	Gel.
			Driver	
Bulktrk	14	No.	Driver	Calcium
			Driver	

JOB SERVICES & REMARKS				Hulls
Remarks:				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

8 5/8 on bottom Est. Circulation
Mix Hoses + Displace
Cement Checked

Handling	
Mileage	

FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	



Pumptrk Charge	
Mileage	

Tax	
Discount	
Total Charge	

X Mail Recd



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cholla Production, LLC

Sec. 12-11s-23w Trego, KS

10390 Bradford Rd
Suite 201
Littleton, CO 80127
ATTN: Justin Carter/Emily

Patterson #2-12

Job Ticket: 58750

DST#: 1

Test Start: 2014.09.27 @ 22:10:00

GENERAL INFORMATION:

Formation: **LKC "A-B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:26:00

Time Test Ended: 07:24:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 62

Interval: 3508.00 ft (KB) To 3562.00 ft (KB) (TVD)

Reference Elevations: 2244.00 ft (KB)

Total Depth: 3562.00 ft (KB) (TVD)

2239.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8655 Outside

Press @ Run Depth: 265.54 psig @ 3509.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.27

End Date:

2014.09.28

Last Calib.:

2014.09.28

Start Time: 22:10:01

End Time:

07:24:00

Time On Btm:

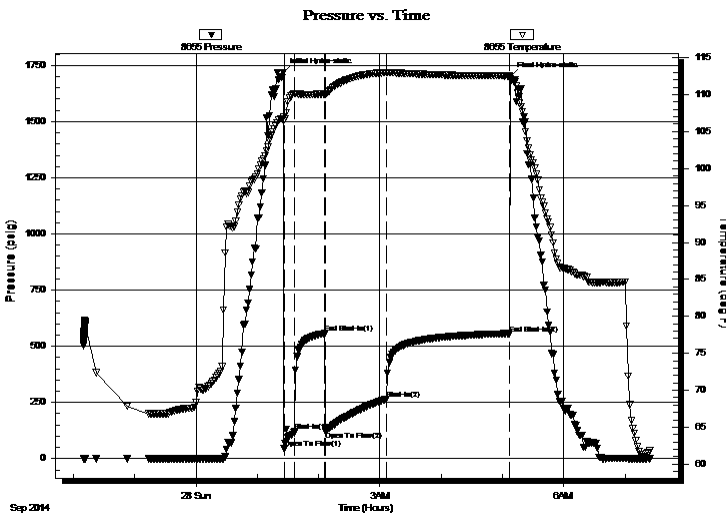
2014.09.28 @ 01:25:30

Time Off Btm:

2014.09.28 @ 05:07:30

TEST COMMENT: 10-IF-BOB in 9 mins.
30-ISI-No Return.
60-FF-BOB in 11 mins.
120-FSI-3" Return, died back to 1"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1717.87	107.04	Initial Hydro-static
1	44.32	106.51	Open To Flow (1)
11	122.22	110.14	Shut-In(1)
41	557.02	110.07	End Shut-In(1)
41	123.16	110.07	Open To Flow (2)
101	265.54	112.98	Shut-In(2)
221	553.67	112.52	End Shut-In(2)
222	1701.71	112.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
315.00	MCW, 25%w, 75%w, with oil spots	3.33
126.00	V SOWCM, 5%o, 25%w, 70%w	1.77
30.00	O, 100%o	0.42
0.00	GIP-126' 100%g	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cholla Production, LLC

Sec. 12-11s-23w Trego, KS

10390 Bradford Rd
Suite 201
Littleton, CO 80127
ATTN: Justin Carter/Emily

Patterson #2-12

Job Ticket: 58750

DST#: 1

Test Start: 2014.09.27 @ 22:10:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 59.00 sec/qt
Water Loss: 6.00 in³
Resistivity: ohm.m
Salinity: 700.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 38 deg API
Water Salinity: 98000 ppm

Recovery Information

Recovery Table

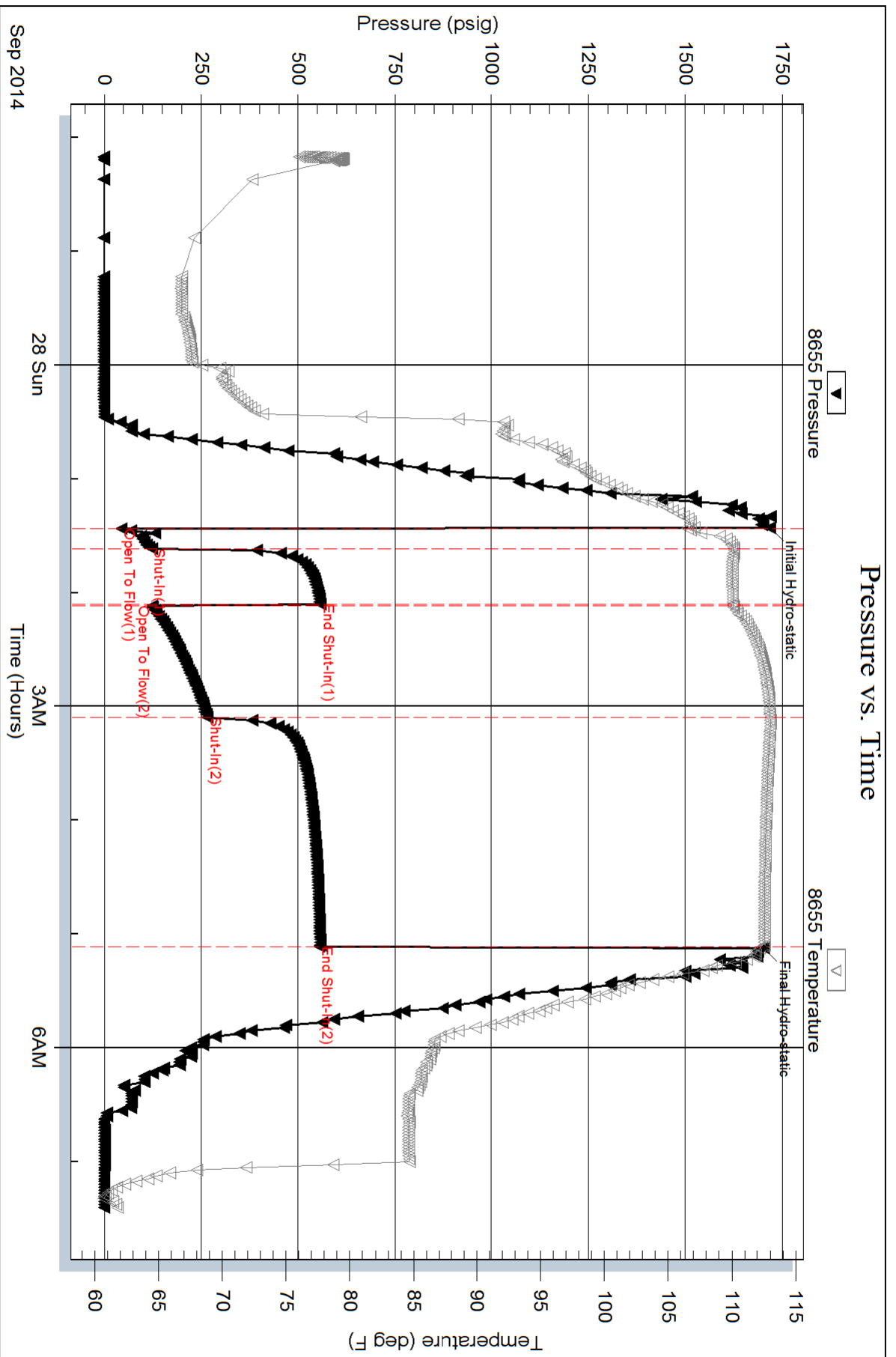
Length ft	Description	Volume bbl
315.00	MCW, 25% <i>m</i> , 75% <i>w</i> , with oil spots	3.325
126.00	VSOWCM, 5% <i>o</i> , 25% <i>w</i> , 70% <i>m</i>	1.767
30.00	O, 100% <i>o</i>	0.421
0.00	GIP-126' 100% <i>g</i>	0.000

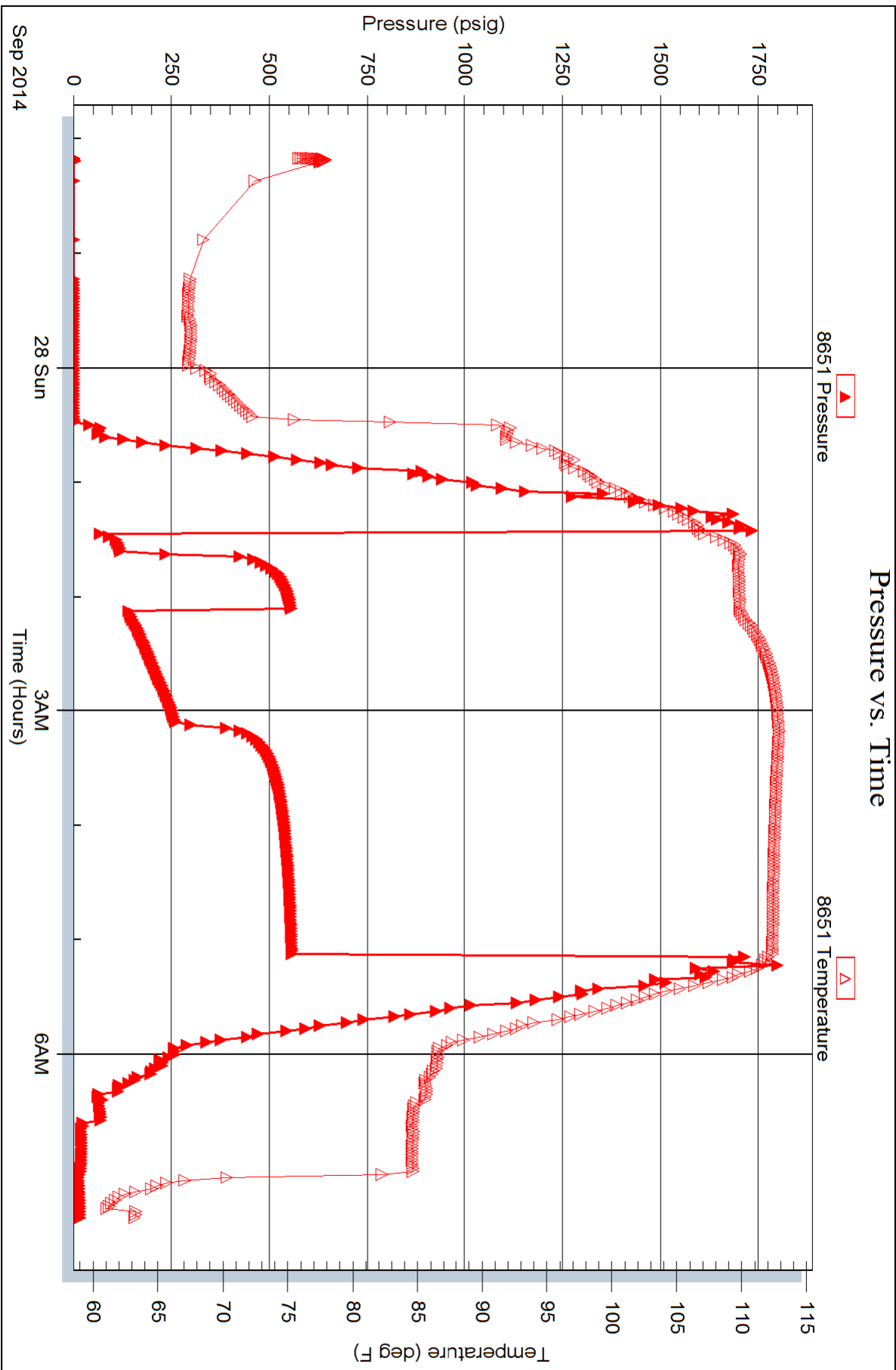
Total Length: 471.00 ft Total Volume: 5.513 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: .100 @ 59 degrees = 98000 Salinity







**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cholla Production, LLC

Sec. 12-11s-23w Trego, KS

10390 Bradford Rd
Suite 201
Littleton, CO 80127
ATTN: Justin Carter/Emily

Patterson #2-12

Job Ticket: 60701

DST#: 2

Test Start: 2014.09.28 @ 14:12:00

GENERAL INFORMATION:

Formation: **LKC "E-F"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 15:58:30
 Tester: Phillip Gage
 Time Test Ended: 22:13:00
 Unit No: 62
 Interval: **3570.00 ft (KB) To 3603.00 ft (KB) (TVD)**
 Reference Elevations: 2244.00 ft (KB)
 Total Depth: 3603.00 ft (KB) (TVD)
 2239.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

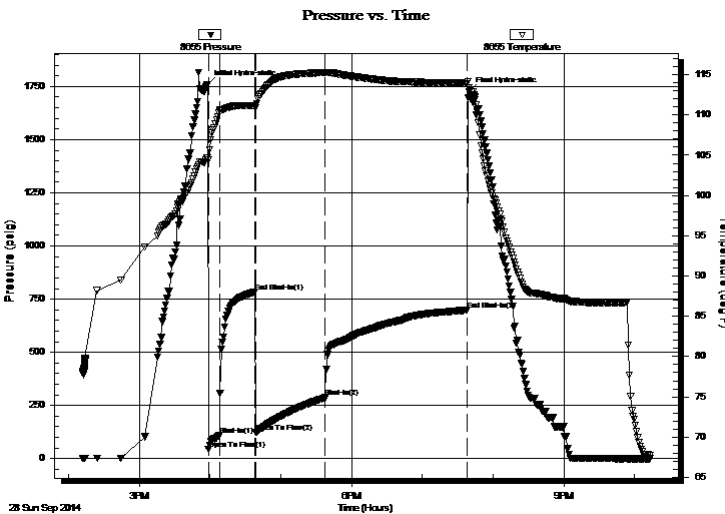
Serial #: 8655

Outside

Press@RunDepth: 286.53 psig @ 3571.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.28 End Date: 2014.09.28 Last Calib.: 2014.09.28
 Start Time: 14:12:01 End Time: 22:13:00 Time On Btm: 2014.09.28 @ 15:58:00
 Time Off Btm: 2014.09.28 @ 19:39:30

TEST COMMENT: 10-IF-BOB in 6 mins.
 30-ISI-1 1/2" Return
 60-FF-BOB in 5 mins.
 120-FSI-BOB Return in 30 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1760.20	104.66	Initial Hydro-static
1	42.28	104.46	Open To Flow (1)
10	109.64	110.51	Shut-In(1)
40	782.91	111.11	End Shut-In(1)
41	123.58	110.90	Open To Flow (2)
100	286.53	115.26	Shut-In(2)
220	698.32	113.93	End Shut-In(2)
222	1727.30	113.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
441.00	MCW, 20%m, 80%w, with oil spots	5.09
113.00	SWGCM, 10%w, 20%g, 70%m	1.59
40.00	O, 100%o	0.56
0.00	GIP-534' 100%g	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cholla Production, LLC

Sec. 12-11s-23w Trego, KS

10390 Bradford Rd
Suite 201
Littleton, CO 80127
ATTN: Justin Carter/Emily

Patterson #2-12

Job Ticket: 60701

DST#: 2

Test Start: 2014.09.28 @ 14:12:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 59.00 sec/qt
Water Loss: 6.00 in³
Resistivity: ohm.m
Salinity: 700.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 39 deg API
Water Salinity: 99000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
441.00	MCW, 20%m, 80%w , with oil spots	5.093
113.00	SWGCM, 10%w , 20%g, 70%m	1.585
40.00	O, 100%o	0.561
0.00	GIP-534' 100%g	0.000

Total Length: 594.00 ft Total Volume: 7.239 bbl

Num Fluid Samples: 0

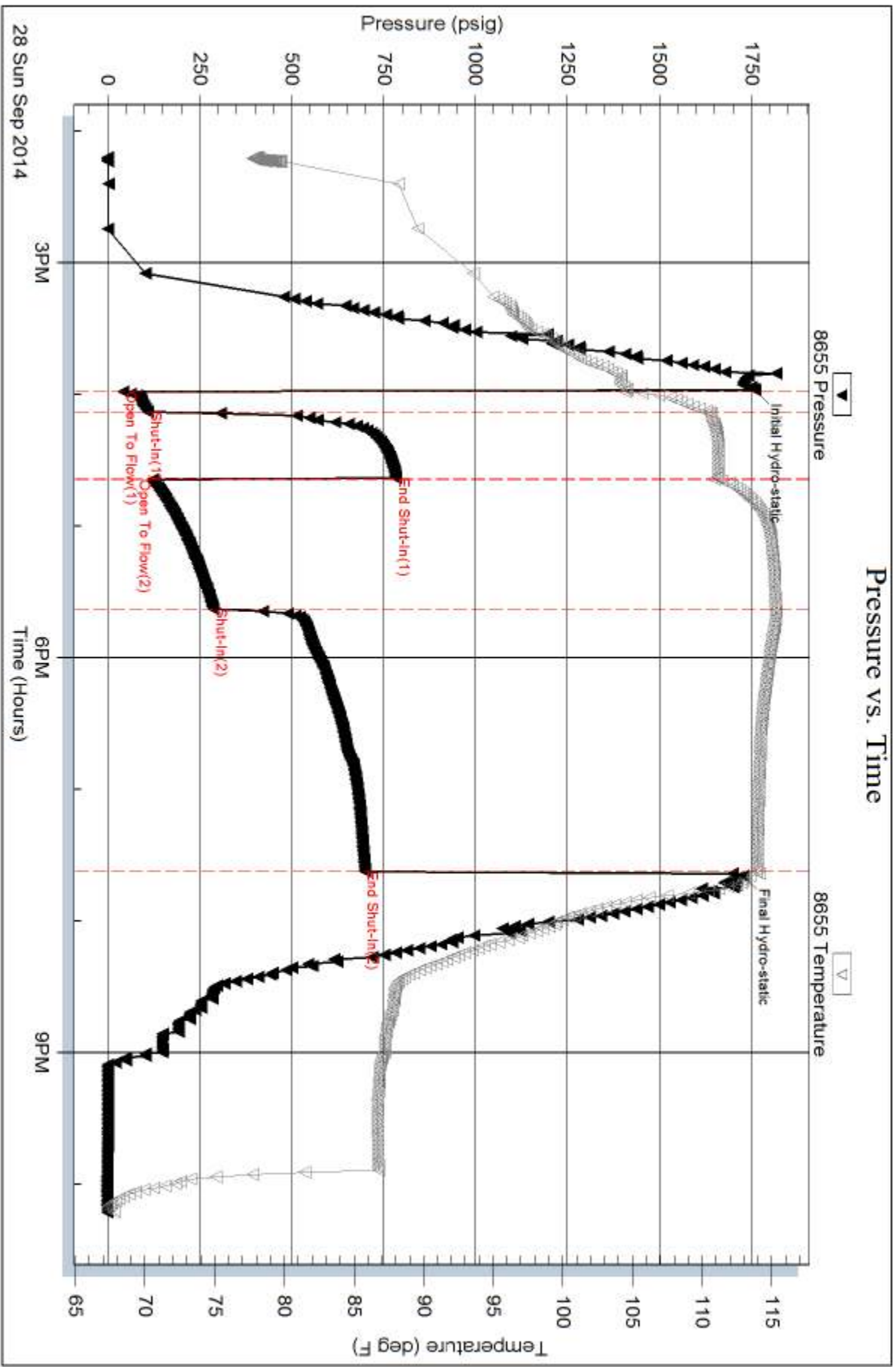
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .09 @ 68 degrees = 99,000 Salinity
Sample, 100ml/G, 100ml/M, 1800ml/O, PSI=400





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cholla Production, LLC

Sec. 12-11s-23w Trego, KS

10390 Bradford Rd
Suite 201
Littleton, CO 80127
ATTN: Justin Carter/Emily

Patterson #2-12

Job Ticket: 60702

DST#: 3

Test Start: 2014.09.29 @ 11:46:00

GENERAL INFORMATION:

Formation: **LKC "K"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 14:22:30
 Tester: Phillip Gage
 Time Test Ended: 20:22:30
 Unit No: 62
 Interval: **3693.00 ft (KB) To 3711.00 ft (KB) (TVD)**
 Reference Elevations: 2244.00 ft (KB)
 Total Depth: 3711.00 ft (KB) (TVD)
 2239.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

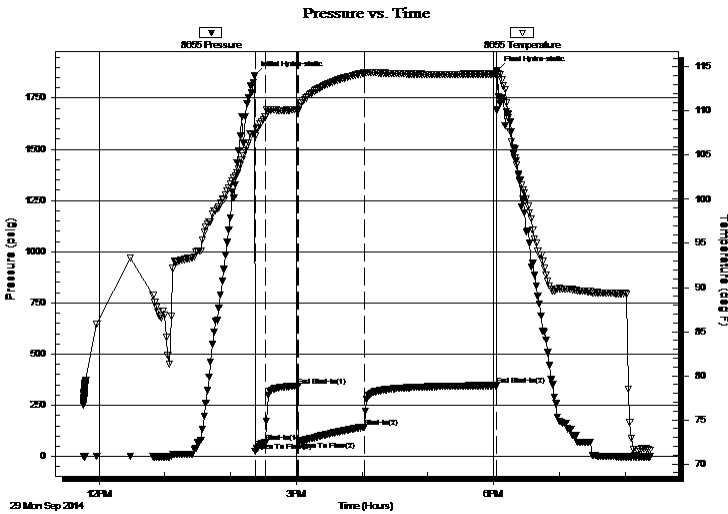
Serial #: 8655

Outside

Press @ Run Depth: 143.63 psig @ 3694.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.29 End Date: 2014.09.29 Last Calib.: 2014.09.29
 Start Time: 11:46:01 End Time: 20:22:30 Time On Btm: 2014.09.29 @ 14:22:00
 Time Off Btm: 2014.09.29 @ 18:03:30

TEST COMMENT: 10-IF-Built to 7 1/2"
 30-ISI-Weak Surface Return, died in 7 mins.
 60-FF-BOB in 7 mins.
 120-FSI-BOB Return in 10 mins, died in 1 hr 42 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1857.21	107.47	Initial Hydro-static
1	24.32	107.16	Open To Flow (1)
10	68.74	109.40	Shut-In(1)
40	344.70	110.19	End Shut-In(1)
40	76.42	110.09	Open To Flow (2)
100	143.63	114.31	Shut-In(2)
221	346.35	114.22	End Shut-In(2)
222	1884.89	114.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	MCW, w ith oil spots, 20%o, 80%w	0.67
73.00	SOWGCM, 10%o, 10%w, 20%g, 60%o	1.02
55.00	GO, 50%g, 50%o	0.77
68.00	O, 100%o	0.95
0.00	GIP-622'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cholla Production, LLC

Sec. 12-11s-23w Trego, KS

10390 Bradford Rd
Suite 201
Littleton, CO 80127
ATTN: Justin Carter/Emily

Patterson #2-12

Job Ticket: 60702

DST#: 3

Test Start: 2014.09.29 @ 11:46:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 1200.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 34 deg API
Water Salinity: 68000 ppm

Recovery Information

Recovery Table

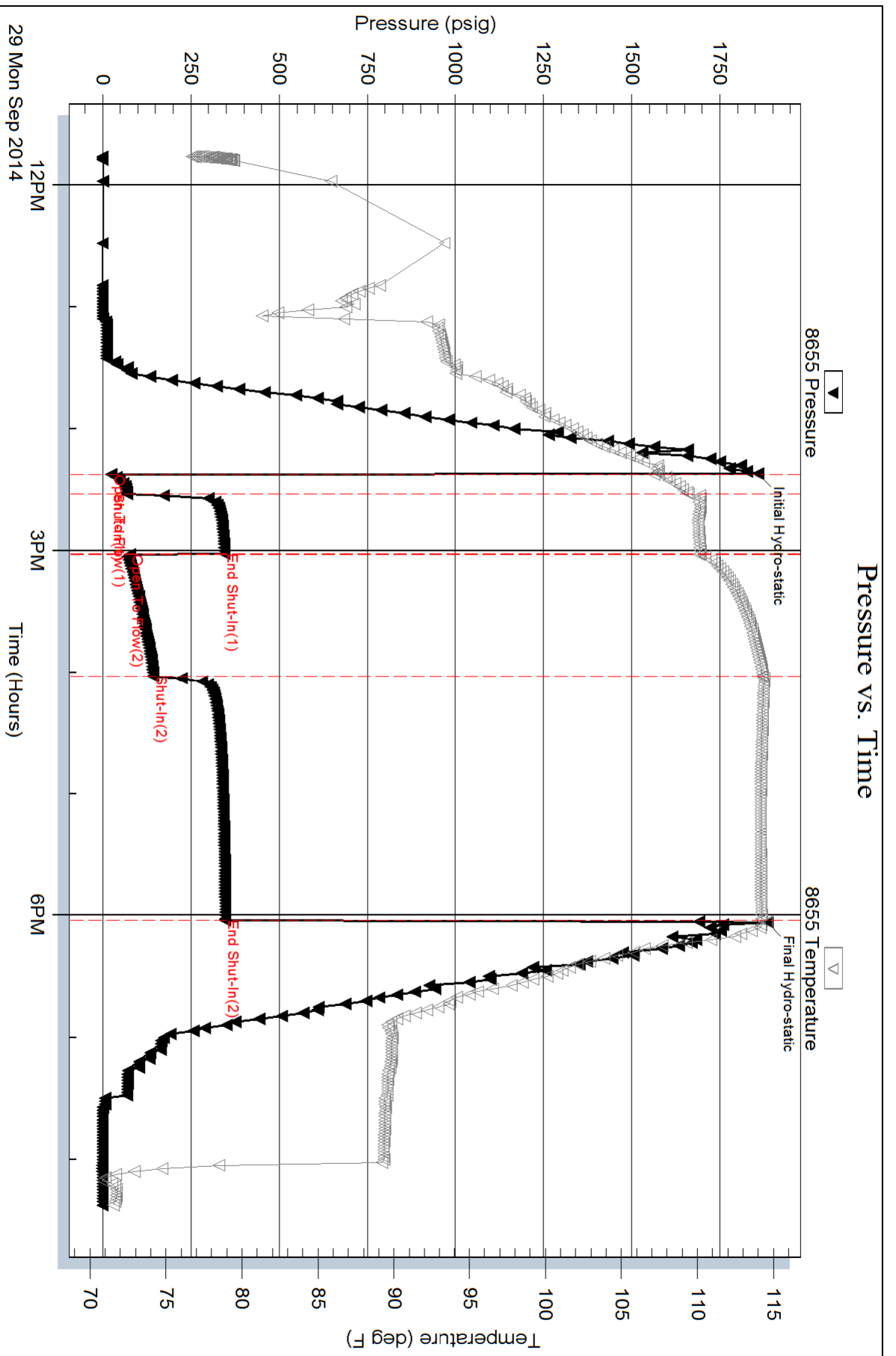
Length ft	Description	Volume bbl
126.00	MCW, w ith oil spots, 20%m, 80%w	0.674
73.00	SOWGCM, 10%o, 10%w , 20%g, 60%m	1.024
55.00	GO, 50%g, 50%o	0.772
68.00	O, 100%o	0.954
0.00	GIP-622'	0.000

Total Length: 322.00 ft Total Volume: 3.424 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: .12 @ 75 degrees = 68000 Salinity
Sampler, 1800ml/o, 200ml/w , total 2000ml.



Serial #: 8651

Inside

Cholla Production, LLC

Patterson #2-12

DST Test Number: 3

