



1131081

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)*

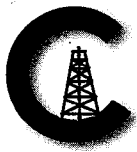
Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <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> _____
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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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

FEB 04 2013

INVOICE

Invoice # 256373

Invoice Date: 01/30/2013 Terms: 10/10/30,n/30 Page 1

CHACO ENERGY COMPANY
P.O. BOX 1587
DENVER CO 80201
(303)744-1480

SCHEETZ #4-21
39296
21-13-32
01-29-2013
KS

Part Number	Description	Qty	Unit Price	Total
1104S	CLASS "A" CEMENT (SALE)	165.00	17.6500	2912.25
1102	CALCIUM CHLORIDE (50#)	465.00	.8900	413.85
1118B	PREMIUM GEL / BENTONITE	310.00	.2500	77.50

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-340.36
9995-130	CEMENT EQUIPMENT DISCOUNT	-154.50

Description	Hours	Unit Price	Total
405 CEMENT PUMP (SURFACE)	1.00	1085.00	1085.00
405 EQUIPMENT MILEAGE (ONE WAY)	10.00	5.00	50.00
T-129 MIN. BULK DELIVERY	1.00	410.00	410.00

Alan Schubert
FEB - 8 2013

Amount Due ~~5214.09~~ if paid after 03/01/2013

Parts:	3403.60	Freight:	.00	Tax:	238.94	AR	4692.68
Labor:	.00	Misc:	.00	Total:	4692.68		
Sublt:	-494.86	Supplies:	.00	Change:	.00		

Signed **SCANNED** Date _____



CONSOLIDATED
Oil Well Services, LLC

256373

TICKET NUMBER 39296

LOCATION Oakley KS

FOREMAN Mits Shaw

Kelly Gable

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
1-29-13	1809	Scheetz	21	13S	32W	Logan	
CUSTOMER		MAILING ADDRESS		TRUCK #	DRIVER	TRUCK #	DRIVER
Chaco Energy CO		Oakley St Quail Rd W15 3/40 S		405	Jordan L		
CITY		STATE	ZIP CODE	530729	Phil K		

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 237 CASING SIZE & WEIGHT 15 1/2 24#
 CASING DEPTH 237 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 1.24 SLURRY VOL 15.2 WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 13 1/2 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting and rig up on H2 drilling #3 Circulate casing mix 1655 lbs Common Class A cement with 38 Calcium 28 gal Displaced 13 1/2 bbls water shut in. Cement did Circulate

APPROX 5 bbl to pit

Thanks Mits & Kelly + crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401S	1	PUMP CHARGE	1085. ⁰⁰	1085. ⁰⁰
5406	10	MILEAGE	5. ⁰⁰	50. ⁰⁰
5407	7.75 TONS	Ton mileage delivery	410. ⁰⁰	410. ⁰⁰
1104S	1655 lbs	Common Class A cement	17.65	2912.25
1102	465 #	Calcium Chloride	1.89	413.85
1118B	310 #	Bentonite Gel	1.25	77.50
			Subtotal	4948.60
			less 10% discount	494.86
			Subtotal	4453.74
			SALES TAX	238.94
			ESTIMATED TOTAL	4692.68

[Handwritten signature]

Completed

9:30 AM

AUTHORIZATION _____ TITLE _____ DATE 1-29-13

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

FEB 14 2013

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE

Invoice # 256622

Invoice Date: 02/11/2013 Terms: 10/10/30,n/30

Page 1

CHACO ENERGY COMPANY
P.O. BOX 1587
DENVER CO 80201
(303)744-1480

SCHEETZ 4-21
39348
21-13-32
02-09-2013
KS

Part Number	Description	Qty	Unit Price	Total
1104S	CLASS "A" CEMENT (SALE)	215.00	17.6500	3794.75
1108	FLY ASH (POZMIX)	70.00	.1200	8.40
1111	SODIUM CHLORIDE (GRANULA	1028.00	.4500	462.60
1118B	PREMIUM GEL / BENTONITE	3898.00	.2500	974.50
1107	FLO-SEAL (25#)	120.00	2.8200	338.40
1144G	MUD FLUSH (SALE)	500.00	1.0000	500.00
1142A	KCL SUB MB6875 CC3107 (1	1.00	39.1000	39.10
4103	CEMENT BASKET 4 1/2"	3.00	261.0000	783.00
4129	CENTRALIZER 4 1/2"	6.00	46.0000	276.00
4161	FLOAT SHOE 4 1/2" AFU	1.00	342.0000	342.00
4276	DV TOOL SIZE 4 1/2" (STA	1.00	3850.0000	3850.00
1104S	CLASS "A" CEMENT (SALE)	410.00	17.6500	7236.50

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-1860.53
9995-130	CEMENT EQUIPMENT DISCOUNT	-360.34

Description	Hours	Unit Price	Total
T-118 SINGLE PUMP	1.00	3020.00	3020.00
T-118 EQUIPMENT MILEAGE (ONE WAY)	10.00	5.00	50.00
566 TON MILEAGE DELIVERY	1.00	533.40	533.40

Alan Bohannon
FEB 18 2013

Σ=3603

Amount Due 23659.87 if paid after 03/13/2013

Parts:	18605.25	Freight:	.00	Tax:	1306.10	AR	21293.88
Labor:	.00	Misc:	.00	Total:	21293.88		
Sublt:	-2220.87	Supplies:	.00	Change:	.00		

SCANNED

Signed

Date



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

256622

TICKET NUMBER 39348

LOCATION Oakley #5

FOREMAN Mikes Shaw

FIELD TICKET & TREATMENT REPORT

Walt Dinkal

CEMENT

WS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
2/9/13	1809	Sheetz 4-21	21	15S	32W	Logan
CUSTOMER <u>Chaco Energy</u>			TRUCK #			
MAILING ADDRESS			DRIVER			
CITY			TRUCK #			
STATE			DRIVER			
ZIP CODE			TRUCK #			
			DRIVER			

JOB TYPE 2 Stage HOLE SIZE 7 7/8 HOLE DEPTH 4730 CASING SIZE & WEIGHT 4 1/2" 116 lb
 CASING DEPTH 4727.2 DRILL PIPE _____ TUBING _____ OTHER Duffel @ 2505'
 SLURRY WEIGHT 148 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 22.50
 DISPLACEMENT 72% DISPLACEMENT PSI 200/70 MIX PSI 1200/1500PSI RATE _____

REMARKS: Safety Meeting and rig upon H2 #3 Run float equipment Centralizer on Joints 1, 5, 7, 9, 12, 15 Baskets on 17, 21, 24 PU tool on top of Joint 5 @ 2505'
Run casing to bottom circulate with rotating for 1 hr. Pumped 5 bbls water 500 gal mud flush 10 bbls HCL water mix 205 lbs common with WS Salt
28 gal shut down cleared pump & lines Released plug displaced 34546 gal
38 bbls mud with 200 psi lift plus land with 1200 psi Release pressure plus hold Drop
Dart open tool @ 2005' circulated 45 min Pumped 5 bbls water mix 450 lbs PS 15 per
88 gal 1/4 flo seal down casing ~~2005'~~ mix 300 lbs HCL cleared pump & lines
displaced 38 bbls water with 200 psi lift plus landed with 1500 PSI and hold

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	3020. ⁰⁰	3020. ⁰⁰
5406b	10	MILEAGE	5. ⁰⁰	50. ⁰⁰
5407A	31.94 tons	Ton mileage delivery	1167	533.40
1104S	2155 lbs	Class A cement Bottom	171.65	3714.75
1108	70 sbs	POZ	.12	8.40
1111	1028 #	Salt	1.45	1491.60
1118B	3871 #	Bentonite gel	1.25	4838.75
1107	120	Sho seal	2.82	338.40
1144G	500 gal	Mud flush	1.00	500. ⁰⁰
1142A	1 gal	HCL	39.10	39.10
4103	3	4 1/2" Basket W	261. ⁰⁰	783. ⁰⁰
4129	6	4 1/2" Centralizer	46. ⁰⁰	276. ⁰⁰
4161	1	4 1/2" float shoe	342	342. ⁰⁰
4276	1	4 1/2" PU tool	3850. ⁰⁰	3850. ⁰⁰
1105	410 sbs	Class A cement top stage	171.65	70398.50
		Subtotal		22208.65
		Less 10% discount		22208.65
		Subtotal		19987.78
		SALES TAX		1306.10
		ESTIMATED TOTAL		21293.88

Completed

Ravin 3737 16364 → 1277.98 SERVICE CHARGE NOT TAKEN LOGAN 7.8% COWAN ABOVE CEMENT DATE _____ AUTHORIZATION Ann W. [Signature] TITLE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

CONSUMABLES ONLY, NOT SERVICE



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 49995

DST#: 1

ATTN: Austin Garner

Test Start: 2013.02.03 @ 16:48:00

GENERAL INFORMATION:

Formation: **LKC " H - K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:21:55

Time Test Ended: 02:07:25

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 58

Interval: 4194.00 ft (KB) To 4293.00 ft (KB) (TVD)

Reference Elevations: 3036.00 ft (KB)

Total Depth: 4293.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8674

Inside

Press @ Run Depth: 146.48 psig @ 4196.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.03

End Date:

2013.02.04

Last Calib.:

2013.02.04

Start Time: 16:48:00

End Time:

02:07:25

Time On Btm:

2013.02.03 @ 19:21:40

Time Off Btm:

2013.02.03 @ 23:14:54

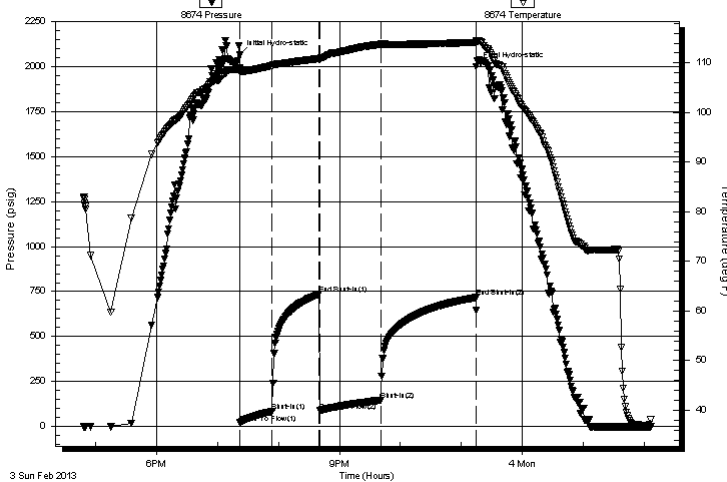
TEST COMMENT: IF- Weak Surface Blow Built to 3 1/4"

IS- No Blow

FF- Weak Surface Blow Built to 1 3/4"

FS- No Blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2065.49	108.93	Initial Hydro-static
1	20.37	108.20	Open To Flow (1)
32	83.42	109.47	Shut-In(1)
79	736.58	110.85	End Shut-In(1)
79	86.98	110.70	Open To Flow (2)
139	146.48	113.75	Shut-In(2)
233	716.99	114.15	End Shut-In(2)
234	1999.32	114.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	WCM 40%w 60%m	0.30
62.00	WCM 18%w 82%m with Skim of Oil on	0.30
62.00	WCM 4%w 96%m with Skim of Oil on	0.30
72.00	100%m with Few Oil Spots	0.35

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 49995

DST#: 1

ATTN: Austin Garner

Test Start: 2013.02.03 @ 16:48:00

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:

61000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	WCM 40%w 60%m	0.305
62.00	WCM 18%w 82%m with Skim of Oil on Top	0.305
62.00	WCM 4%w 96%m with Skim of Oil on Top	0.305
72.00	100%m with Few Oil Spots	0.354

Total Length: 258.00 ft Total Volume: 1.269 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

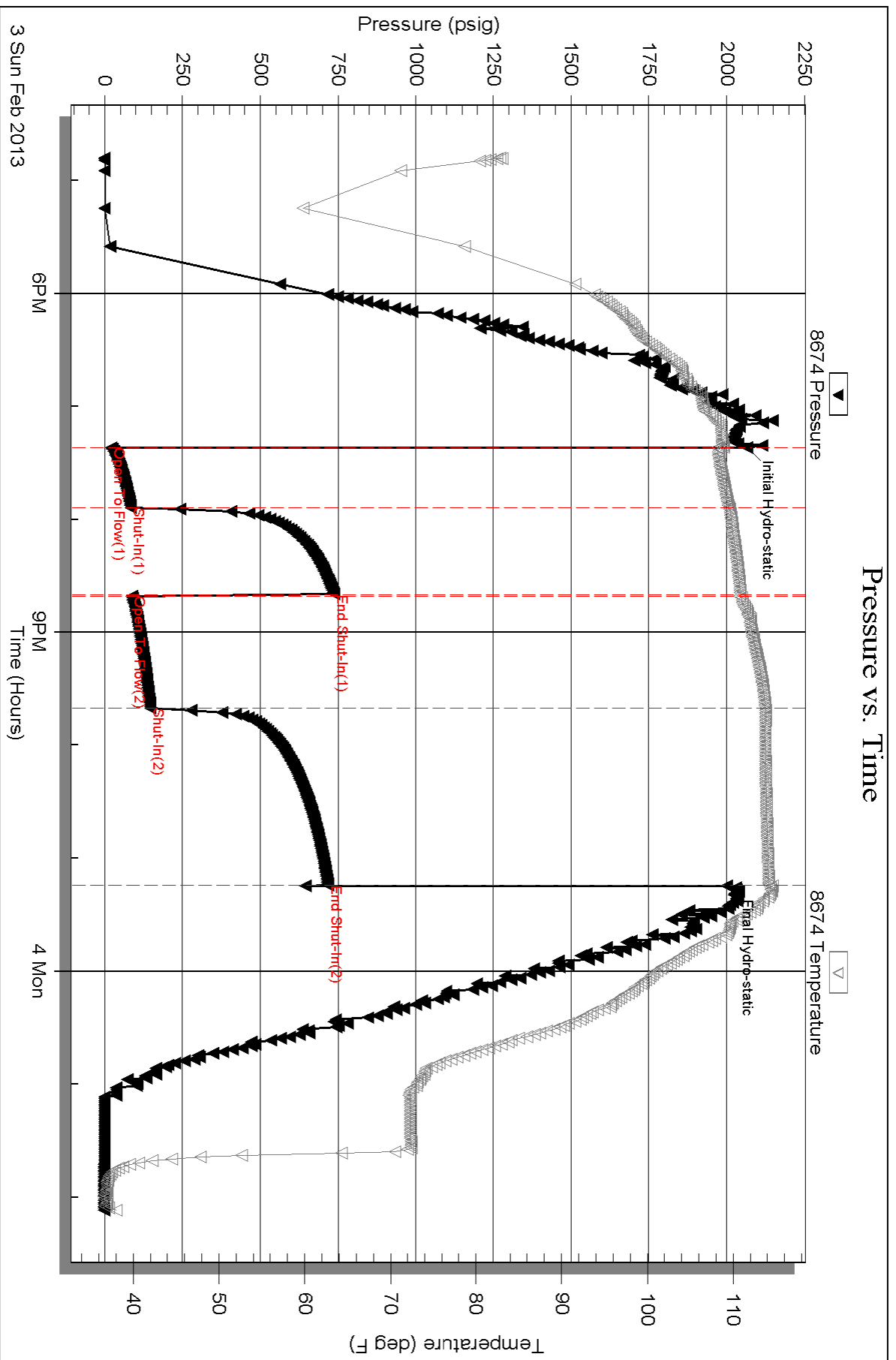
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW is .231 @ 37f = 61000

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 49996

DST#: 2

ATTN: Austin Garner

Test Start: 2013.02.05 @ 05:34:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
635.00	100% mud	6.083

Total Length: 635.00 ft Total Volume: 6.083 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 49997

DST#: 3

ATTN: Austin Garner

Test Start: 2013.02.05 @ 11:34:00

GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:45:55

Time Test Ended: 19:10:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: 4484.00 ft (KB) To 4529.00 ft (KB) (TVD)

Reference Elevations: 3036.00 ft (KB)

Total Depth: 4529.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8674

Inside

Press @RunDepth: 26.17 psig @ 4485.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.05

End Date:

2013.02.05

Last Calib.: 2013.02.05

Start Time: 11:34:00

End Time:

19:10:39

Time On Btm: 2013.02.05 @ 13:45:40

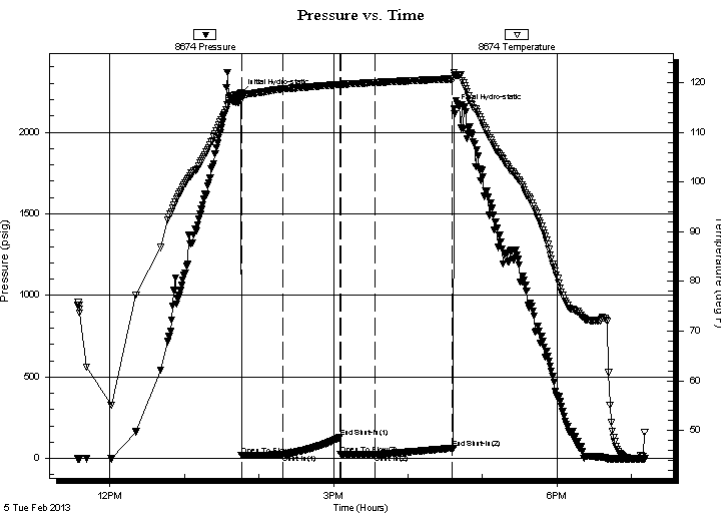
Time Off Btm: 2013.02.05 @ 16:37:09

TEST COMMENT: IF- Weak Surface Blow 1/4"

IS- No Blow

FF- Very Weak Surface Blow Died in 22min

FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2236.39	117.89	Initial Hydro-static
1	17.90	116.68	Open To Flow (1)
34	23.19	118.74	Shut-In(1)
80	130.30	119.62	End Shut-In(1)
80	25.64	119.58	Open To Flow (2)
108	26.17	120.03	Shut-In(2)
170	63.99	120.75	End Shut-In(2)
172	2143.86	122.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 7%oil 93% <i>m</i>	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 49997

DST#: 3

ATTN: Austin Garner

Test Start: 2013.02.05 @ 11:34:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OCM 7%oil 93%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

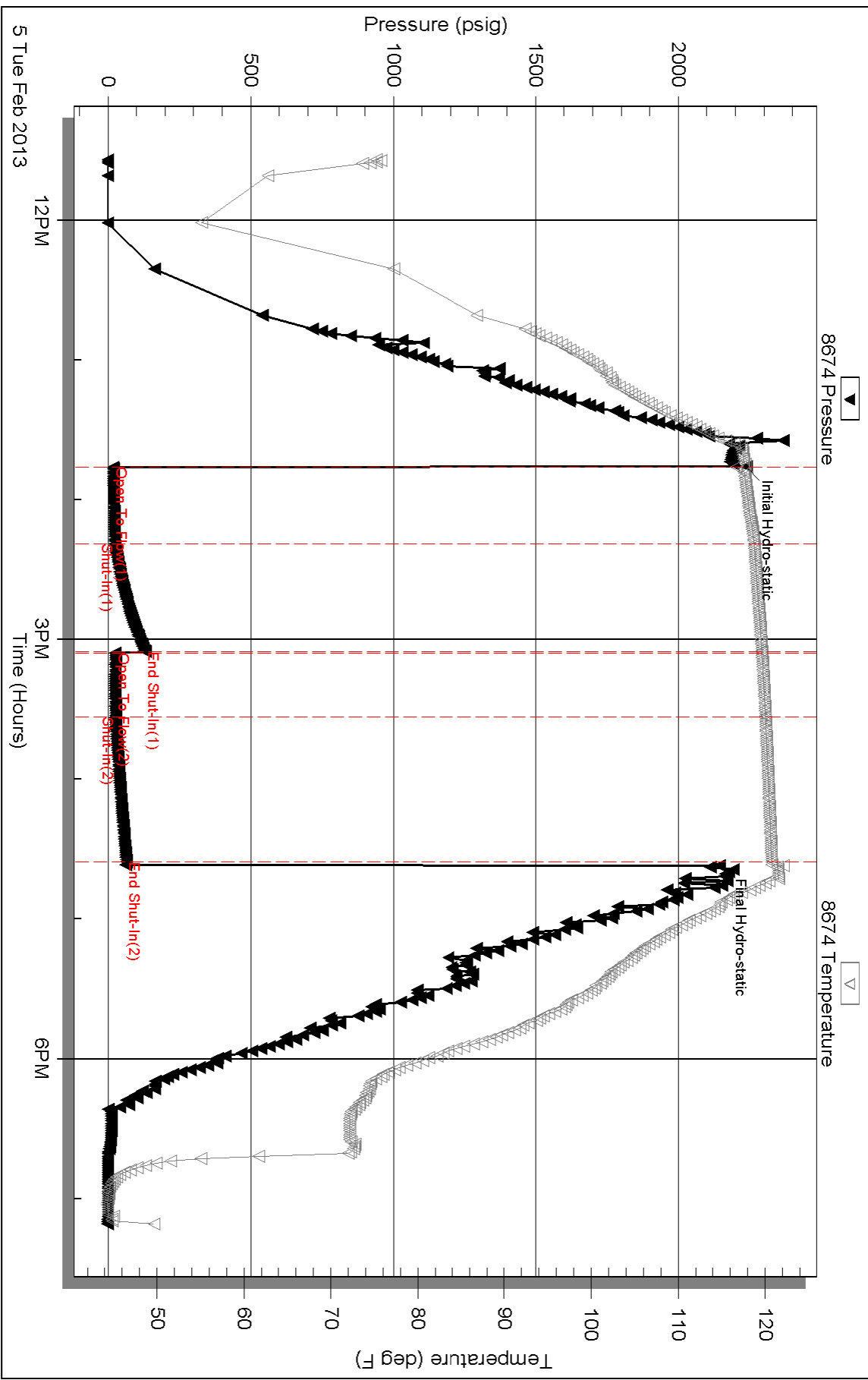
Serial #:

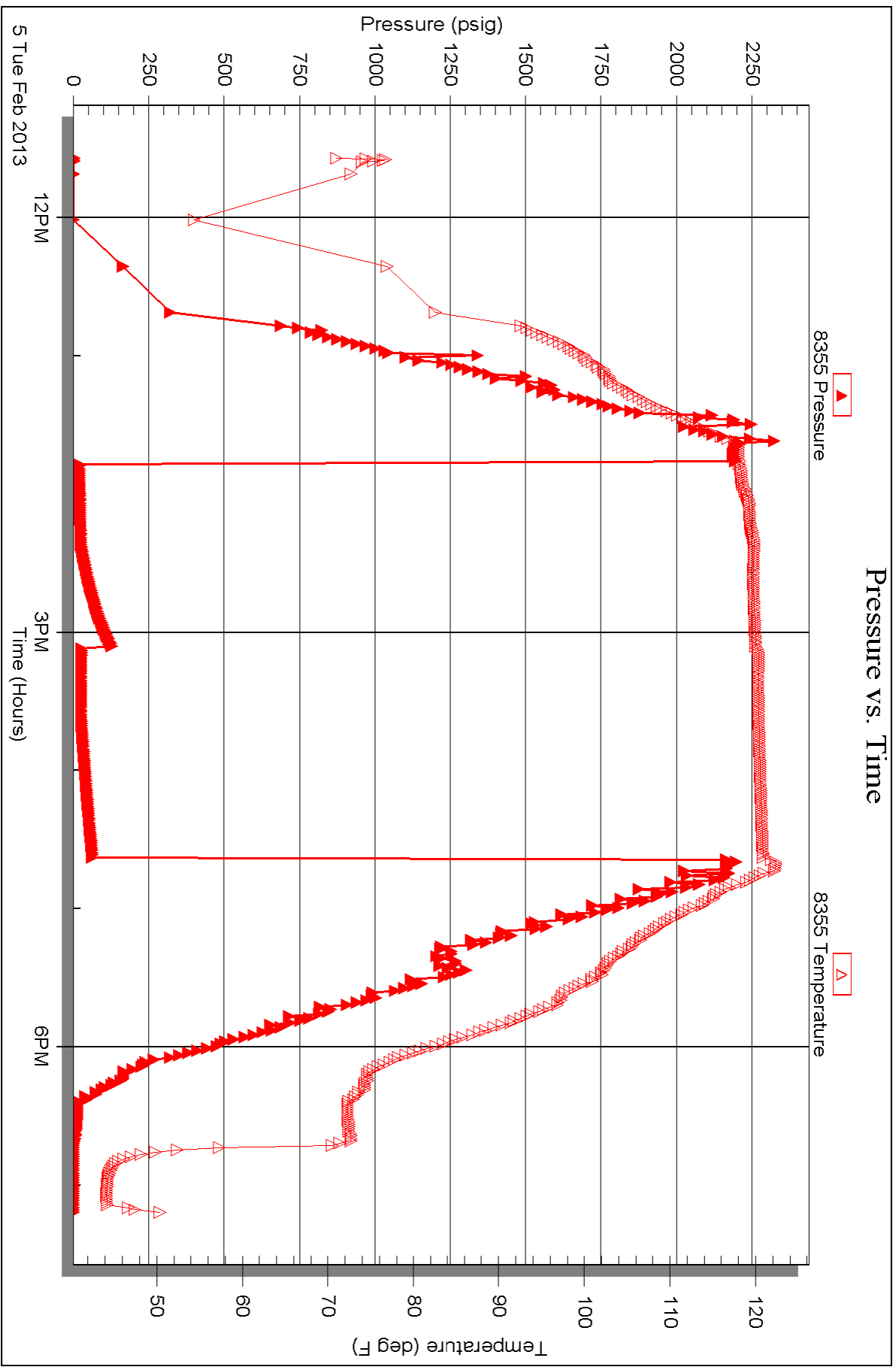
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 49998

DST#: 4

ATTN: Austin Garner

Test Start: 2013.02.06 @ 08:42:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:51:40

Time Test Ended: 16:55:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: 4556.00 ft (KB) To 4601.00 ft (KB) (TVD)

Reference Elevations: 3036.00 ft (KB)

Total Depth: 4601.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8674

Inside

Press @ Run Depth: 21.91 psig @ 4557.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.06

End Date:

2013.02.06

Last Calib.:

2013.02.06

Start Time: 08:42:00

End Time:

16:55:39

Time On Btm:

2013.02.06 @ 10:51:25

Time Off Btm:

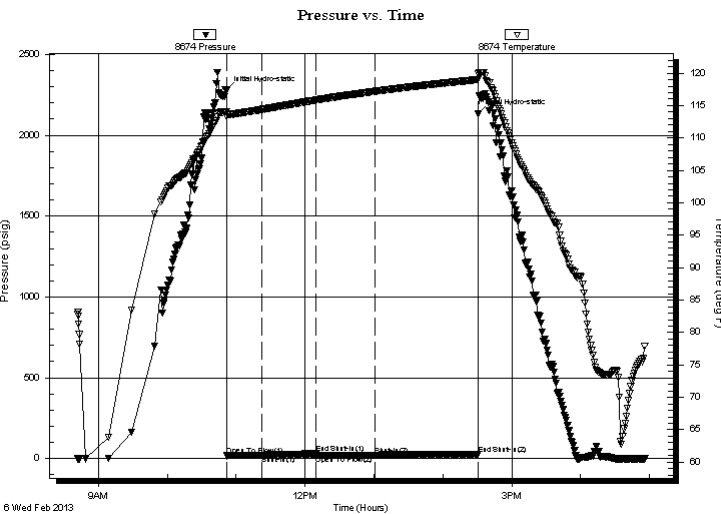
2013.02.06 @ 14:30:39

TEST COMMENT: IF- Weak Surface Blow 1/2"

IS- No Blow

FF- Very Weak Surface Blow Died in 40min

FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2278.60	114.09	Initial Hydro-static
1	17.58	113.31	Open To Flow (1)
32	20.68	114.40	Shut-In(1)
78	30.54	115.83	End Shut-In(1)
79	21.63	115.84	Open To Flow (2)
130	21.91	117.19	Shut-In(2)
219	28.18	119.00	End Shut-In(2)
220	2131.00	119.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
8.00	OCM 3%oil 97% m	0.04

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 49998

DST#: 4

ATTN: Austin Garner

Test Start: 2013.02.06 @ 08:42:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
8.00	OCM 3%oil 97%m	0.039

Total Length: 8.00 ft Total Volume: 0.039 bbl

Num Fluid Samples: 0

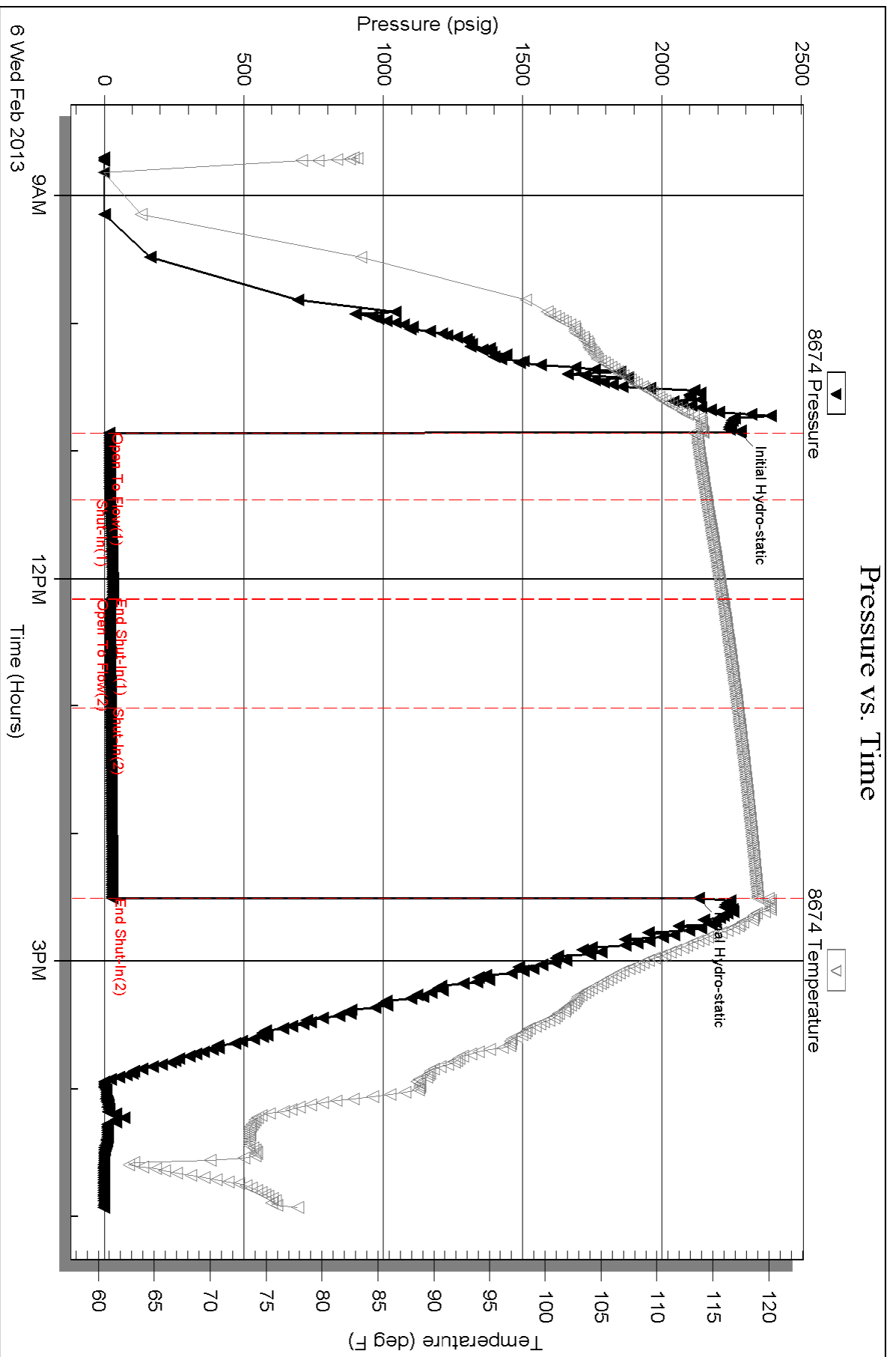
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Scheetz #4-21

Job Ticket: 49999

DST#: 5

ATTN: Austin Garner

Test Start: 2013.02.07 @ 05:36:00

GENERAL INFORMATION:

Formation: **Morrow Sands**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:43:55

Time Test Ended: 12:09:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: 4597.00 ft (KB) To 4632.00 ft (KB) (TVD)

Reference Elevations: 3036.00 ft (KB)

Total Depth: 4632.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8674

Inside

Press @ Run Depth: 24.96 psig @ 4600.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.07

End Date:

2013.02.07

Last Calib.:

2013.02.07

Start Time: 05:36:00

End Time:

12:09:09

Time On Btm:

2013.02.07 @ 07:43:40

Time Off Btm:

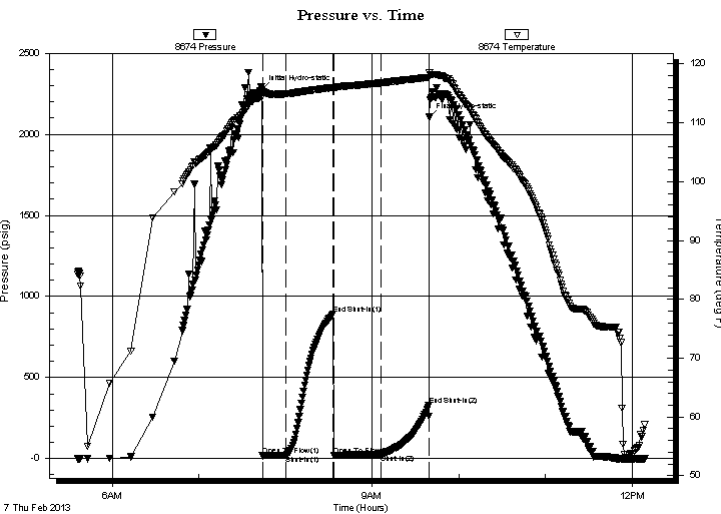
2013.02.07 @ 09:39:40

TEST COMMENT: IF- Very Weak Surface Blow

IS- No Blow

FF- No Blow

FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2278.03	115.59	Initial Hydro-static
1	17.79	114.67	Open To Flow (1)
17	19.76	114.91	Shut-In(1)
50	893.15	116.01	End Shut-In(1)
50	20.29	115.87	Open To Flow (2)
83	24.96	116.78	Shut-In(2)
116	327.92	117.75	End Shut-In(2)
116	2105.54	118.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 2%oil 98%m	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Scheetz #4-21

Job Ticket: 49999

DST#: 5

ATTN: Austin Garner

Test Start: 2013.02.07 @ 05:36:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OCM 2%oil 98%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

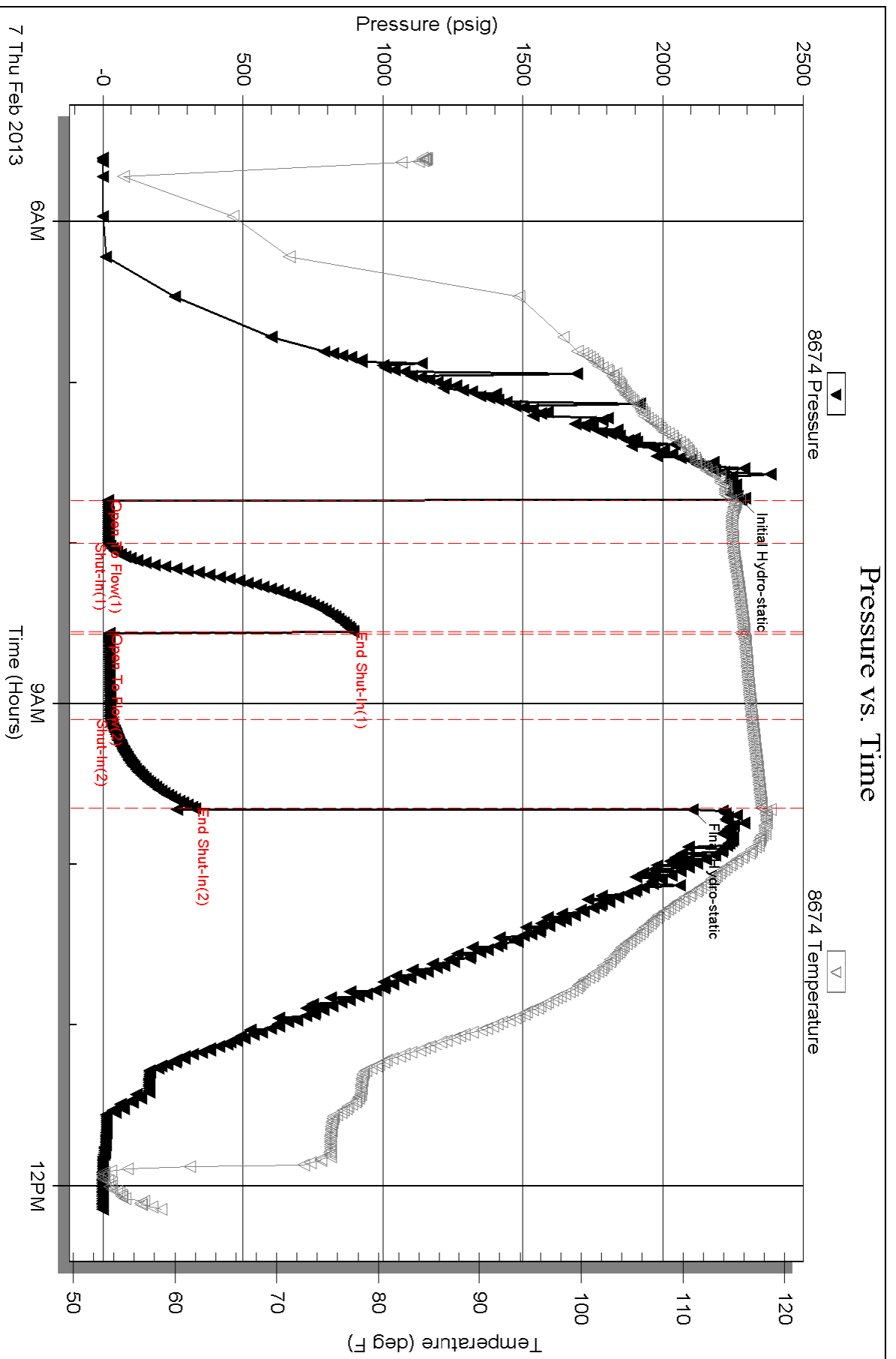
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Sheetz #4-21

Job Ticket: 50000

DST#: 6

ATTN: Austin Garner

Test Start: 2013.02.07 @ 21:14:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
374.00	100%m	2.422

Total Length: 374.00 ft Total Volume: 2.422 bbl

Num Fluid Samples: 0

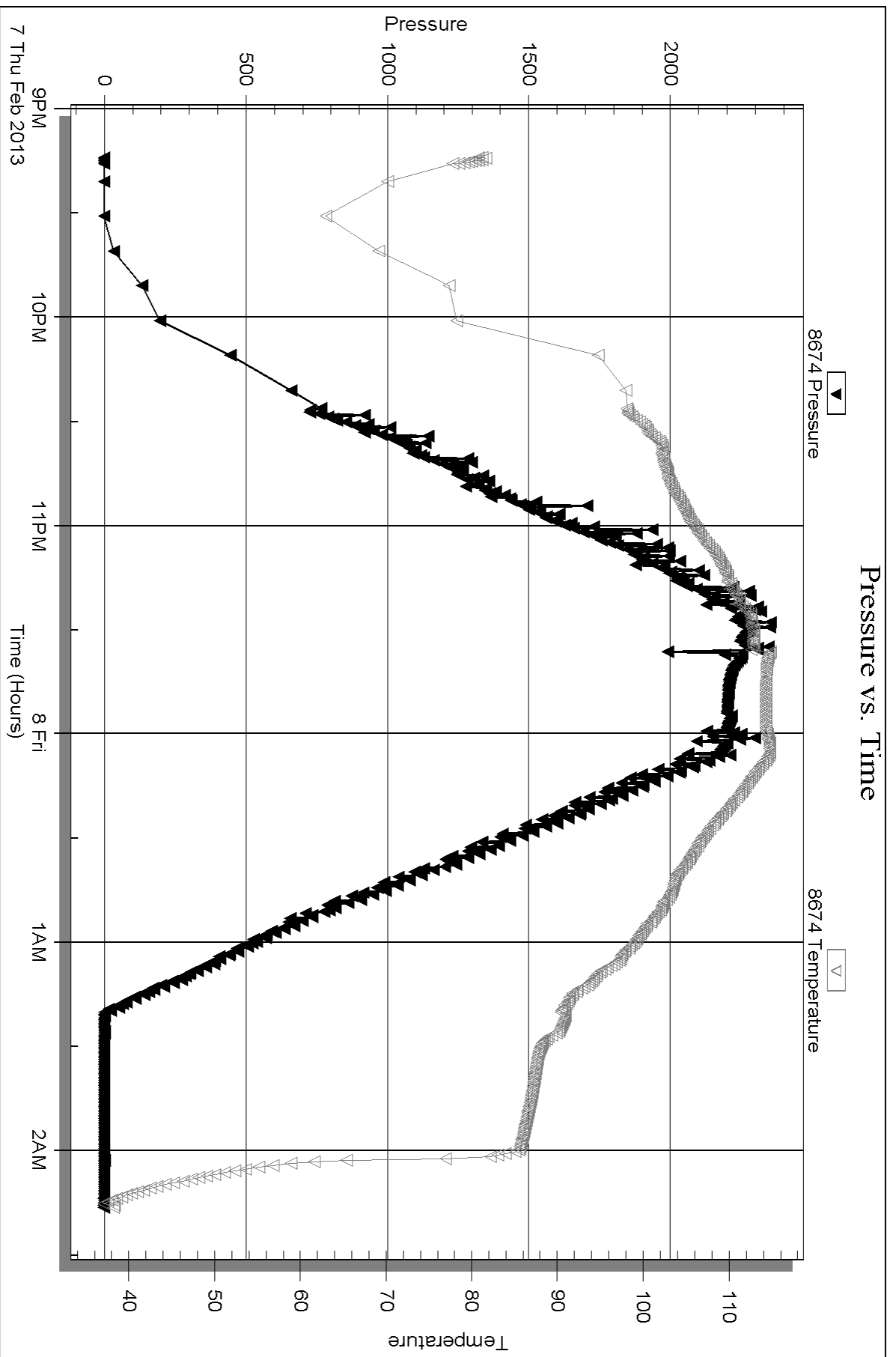
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Scheetz #4-21

Job Ticket: 49777

DST#: 7

ATTN: Austin Garner

Test Start: 2013.02.08 @ 02:44:00

GENERAL INFORMATION:

Formation: **Morrow Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:02:40

Time Test Ended: 11:49:25

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: 4598.00 ft (KB) To 4647.00 ft (KB) (TVD)

Reference Elevations: 3036.00 ft (KB)

Total Depth: 4293.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8674 Inside

Press @ Run Depth: 49.18 psig @ 4599.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.08

End Date:

2013.02.08

Last Calib.:

2013.02.08

Start Time: 02:44:00

End Time:

11:49:25

Time On Btm:

2013.02.08 @ 05:02:10

Time Off Btm:

2013.02.08 @ 08:56:24

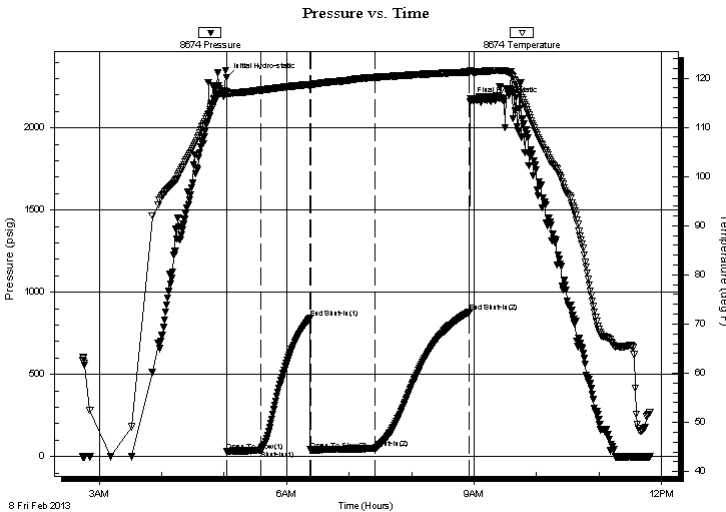
TEST COMMENT: IF- Weak Surface Blow Built to 1 1/4"

IS- No Blow

FF- Weak Surface Blow in 20min

FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2307.25	117.23	Initial Hydro-static
1	29.45	116.69	Open To Flow (1)
33	37.33	117.52	Shut-In(1)
81	840.70	118.73	End Shut-In(1)
81	39.17	118.58	Open To Flow (2)
143	49.18	120.14	Shut-In(2)
234	879.93	121.24	End Shut-In(2)
235	2156.79	121.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	OCM 5%oil 95% m	0.31

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chaco Energy Co.

21-13s-32w Logan Co. KS

P.O Box 1587
Denver CO. 80201

Scheetz #4-21

Job Ticket: 49777

DST#: 7

ATTN: Austin Garner

Test Start: 2013.02.08 @ 02:44:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	OCM 5%oil 95%m	0.310

Total Length: 63.00 ft Total Volume: 0.310 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8674

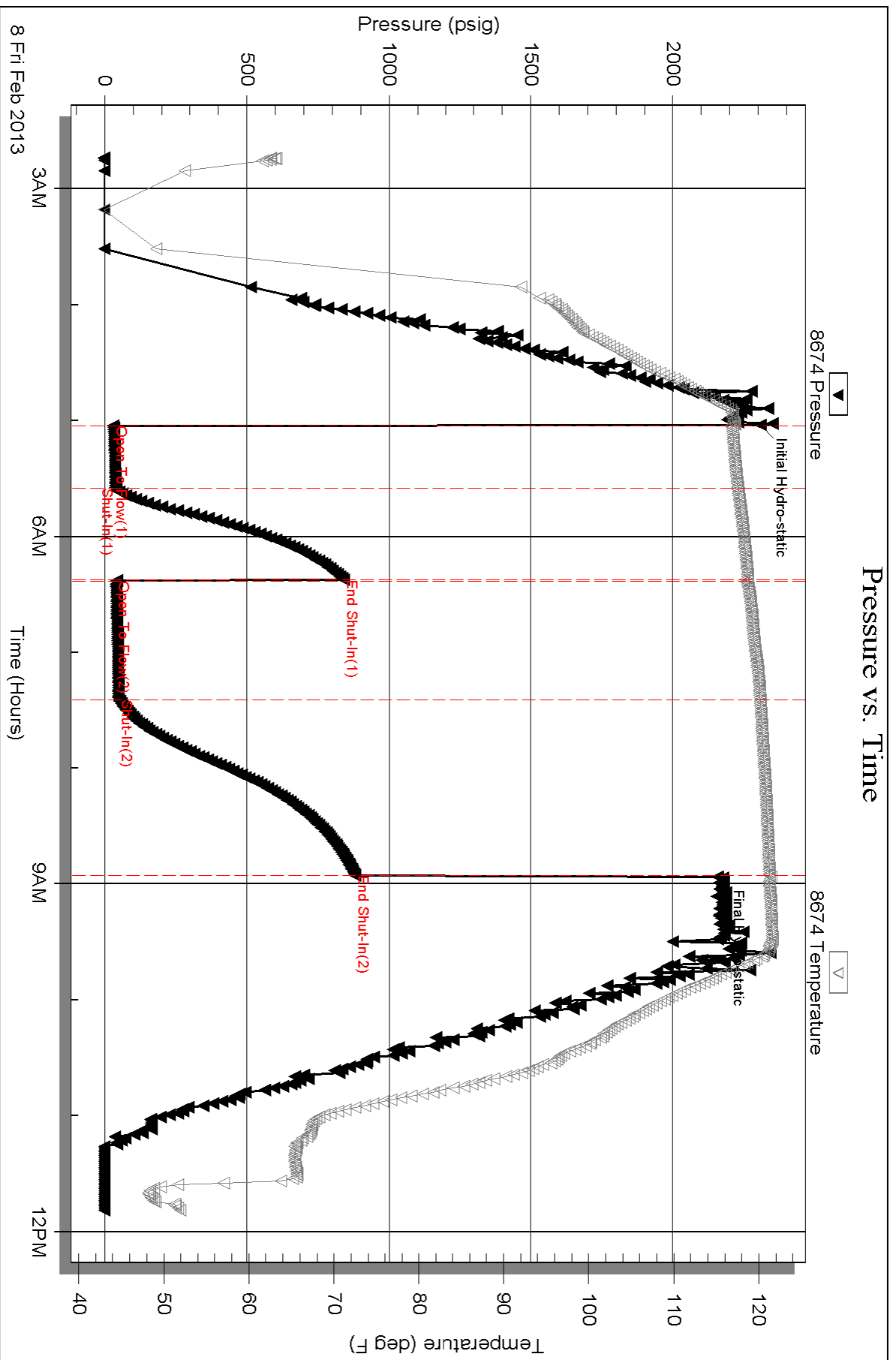
Inside

Chaco Energy Co.

Scheetz #4-21

DST Test Number: 7

Pressure vs. Time



Scheetz #4-21 Intervals

Zone	Interval*		Ft	No. Holes	SPF	Nom. Gun Size (in)	Nom. EHD (in)
	Top	Bottom					
Toronto	4000	- 4012	12	36	3.0	3 1/8"	0.35
Lansing B	4054	- 4058	4	16	4.0	3 1/8"	0.35
Lansing E	4112	- 4116	4	16	4.0	3 1/8"	0.35
Lansing I	4214	- 4218	4	16	4.0	3 1/8"	0.35
Lansing I	4222	- 4225	3	12	4.0	3 1/8"	0.35
Lansing J	4239	- 4243	4	16	4.0	3 1/8"	0.35
Pawnee	4452	- 4462	10	20	2.0	3 1/8"	0.35
Ft Scott	4509	- 4513	4	12	3.0	3 1/8"	0.35
	4520	- 4524	4	12	3.0	3 1/8"	0.35
Johnson	4581	- 4593	12	24	2.0	3 1/8"	0.35
Morrow	4604	- 4607	3	12	4.0	3 1/8"	0.40
L. Morrow	4628	- 4631	3	12	4.0	3 1/8"	0.35
			67	204			

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

April 04, 2013

Alan Nelson
Chaco Energy Company
PO BOX 1587
DENVER, CO 80201-1587

Re: ACO1
API 15-109-21158-00-00
Scheetz 4-21
NE/4 Sec.21-13S-32W
Logan 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,
Alan Nelson

Form	ACO1 - Well Completion
Operator	Chaco Energy Company
Well Name	Scheetz #4-21
Doc ID	1131081

Name	Top	Datum
Anhydrite	2502	534
Lansing	4021	-985
Stark Sh.	4353	-1217
Marmaton	4354	-1318
Ft. Scott	4508	-1472
Chr. Sh.	4537	-1501
Johnson	4579	-1543
Sand	4604	-1572
Miss	4635	-1599

Logs Run

DUAL INDUCTION ,GR, SP 250'-T.D
COMP. DENSITY/ NEUTRON, GR, CAL. 3700'- T.D.
LITHO - DENSITY, PE 3700'-T.D.
SONIC, GR. 250'- T.D