Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1099406

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 # 3882
Name: Samuel Gary Jr. & Associates, Inc.
Address 1: 1515 WYNKOOP, STE 700
Address 2:
City: DENVER State: CO Zip: 80202 + ____
Contact Person: CLAYTON CAMOZZI
Phone: (303) 831-4673
CONTRACTOR: License # 5822
Name: Val Energy, Inc.
Wellsite Geologist: TIM HEDRICK
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 #:

7/9/2012	7/16/2012	7/17/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-165-21984-00-00
Spot Description:
NE - NE - NW - SE Sec. 1 Twp. 16 S. R. 17 ☐ East ☑ West
2350 Feet from ☐ North / ☑ South Line of Section
1390 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Rush
Lease Name: JACOBS ET AL Well #: 1-1
Field Name:
Producing Formation: N/A
Elevation: Ground: 1927 Kelly Bushing: 1937
Total Vertical Depth: 3640 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 821 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: 12500 ppm Fluid volume: 320 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: KARLIN, GENE DBA GENE KARLIN COMPANY
Lease Name: NUSS License #: 3444
Quarter SW Sec. 5 Twp. 13 S. R. 17 ☐ East ☑ West
County: ELLIS Permit #: D25588

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: 10/31/2012
☑ **Confidential Release Date:** 10/31/2014
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 10/31/2012

1099406

Operator Name: Samuel Gary Jr. & Associates, Inc. Lease Name: JACOBS ET AL Well #: 1-1

Sec. 1 Twp. 16 S. R. 17 ☐ East ☑ West County: Rush

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
TOPEKA	2968	-1031
HEEBNER	3194	-1257
DOUGLAS	3227	-1290
LANSING	3246	-1309
ARBUCKLE	3538	-1601
TD	3640	

CASING RECORD ☑ New ☐ 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
SURFACE	12.25	8.625	23	821	COMMON CLASS A	350	2% GEL, 3% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	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: ☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*

METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)* _____

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	JACOBS ET AL 1-1
Doc ID	1099406

All Electric Logs Run

DIL
MICRO
POR
SONIC
SPECTRAL

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

Kansas
Corporation Commission

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 31, 2012

CLAYTON CAMOZZI
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-165-21984-00-00
JACOBS ET AL 1-1
SE/4 Sec.01-16S-17W
Rush 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,
CLAYTON CAMOZZI

QUALITY OILWELL CEMENTING, INC.
PO Box 32 - 740 West Wichita Ave, Russell KS 67665
Phone:785-324-1041 fax:785-483-1087
Email: cementing@ruraltel.net

Date: 7/15/2012
Invoice # 699

P.O.#:

Due Date: 8/14/2012
Division: *Russell*

Invoice

Contact:
Samuel Gary Jr & Associates Inc
Address/Job Location:
Samuel Gary Jr & Associates Inc
1815 11th Street
Great Bend, KS 67530

Reference:
JACOBS ET AL 1-1

Description of Work:
LONG SURFACE JOB

☐ DRLG ☐ COMP ☐ W/O ☐ LOE ☐ GG

Account	8200.138
Well/Prospect	
Deck	
AFE	
Approval	
Description	

Services / Items Included:	Quantity	Price	Taxable
Labor		$ 963.85	No
Common-Class A	350	$ 4,507.22	Yes
8 5/8" Basket	3	$ 1,000.67	Yes
Bulk Truck Matl-Material Service Charge	370	$ 781.11	No
Calcium Chloride	13	$ 654.00	Yes
Pump Truck Mileage-Job to Nearest Camp	21	$ 221.22	No
8 5/8" Centralizer	3	$ 202.67	Yes
Flo Seal	87	$ 183.67	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	21	$ 129.45	No
Premium Gel (Bentonite)	7	$ 120.29	Yes
8 5/8" Top Rubber Plug	1	$ 111.89	Yes

Item	Quantity	Price	Taxable
Baffle Plate Aluminum, 8 5/8"	1	$95.00	Yes

Invoice Terms:
Net 30

SubTotal:	$	*8,971.04*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(1,345.66)
SubTotal for Taxable Items:	$	5,844.09
SubTotal for Non-Taxable Items:	$	1,781.29
Total:	$	7,625.38
6.30% Rush County Sales Tax Tax:	$	368.18
Amount Due:	**$**	**7,993.56**
Applied Payments:		
Balance Due:	**$**	**7,993.56**

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.
©2008-2013 Straker Investments, LLC. All rights reserved.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 699

Cell 785-324-1041

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 2-10-12	1	16	17	Rush	KS		3:15 PM

Lease Jacobs Et AL Well No. 1-1 Location Pfeifer 1E 1S 1/2E 1/2S Winto

Contractor Val #6

Type Job Surface

Hole Size 12 1/4 T.D. 821

Csg. 8 5/8 Depth 821

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 42.65 Shoe Joint 42.65

Meas Line Displace 49.5

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.

Charge To Sam Coen / Jr & Assoc

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 350 com 3% cc 2% gel 1/4# Flo

EQUIPMENT

Pumptrk 15 No. Cementer Craig / Helper

Bulktrk No. Driver Matt / Driver

Bulktrk 13 No. Driver / Driver Levi

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

8 5/8 on bottom. Est. Circulation. Mix 350 sks Displace Plug. Cement did Circulate

Common	350
Poz. Mix	
Gel.	7
Calcium	13
Hulls	
Salt	
Flowseal	87#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	370
Mileage	

FLOAT EQUIPMENT

Guide Shoe	8 5/8
Centralizer	3
Baskets	3
AFU Inserts	Rubber Aug
Float Shoe	Baffle Plate
Latch Down	

Pumptrk Charge	Long Surface
Mileage	21
Tax	
Discount	
Total Charge	

X Signature

Date: 7/19/2012
Invoice # 754

P.O.#:

Due Date: 8/18/2012
Division: *Russell*

QUALITY OILWELL CEMENTING, INC.
PO Box 32 - 740 West Wichita Ave, Russell KS 67665
Phone:785-324-1041 fax:785-483-1087
Email: cementing@ruraltel.net

Invoice

Contact:
Samuel Gary Jr & Associates Inc
Address/Job Location:
Samuel Gary Jr & Associates Inc
1815 11th Street
Great Bend, KS 67530

Reference:
JACOBS ET AL 1-1

Description of Work:
PLUG JOB

☑ DRLG ☐ COMP ☐ W/O ☐ LOE ☐ GG

Account	8200.145
Well/Prospect	
Deck	
AFE	
Approval	
Description	

Services / Items Included:	Quantity	Price	Taxable
Labor		$ 1,239.23	Yes
Common-Class A	150	$ 1,986.86	Yes
Bulk Truck Matl-Material Service Charge	259	$ 562.40	Yes
POZ Mix-Standard	100	$ 499.43	Yes
Pump Truck Mileage-Job to Nearest Camp	21	$ 227.54	Yes
Premium Gel (Bentonite)	9	$ 159.08	Yes
Flo Seal	62	$ 134.63	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	21	$ 133.15	Yes

Item	Quantity	Price	Taxable

Invoice Terms:
Net 30

SubTotal:	$	*4,942.32*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(741.35)
SubTotal for Taxable Items:	$	4,200.97
SubTotal for Non-Taxable Items:	$	-
Total:	$	4,200.97
6.30% Rush County Sales Tax Tax:	$	264.66
Amount Due:	**$**	**4,465.64**
Applied Payments:		
Balance Due:	**$**	**4,465.64**

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.
©2008-2013 Straker Investments, LLC. All rights reserved.

RECEIVED
JUL 27 2012
SAMUEL GARY JR.
& ASSOCIATES, INC.

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. 754

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-17-12	1	16	17	Rush	KS	4:30 p.m.	[redacted] AM

Lease Jacobs ETAL Well No. [redacted] 1-1 Location Dieter ½E 15 ½W ½S Winto

Contractor Val #6

Type Job Rotary Plug

Hole Size 7 7/8 T.D. 3640

Csg. Depth

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint

Meas Line Displace

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.

Charge To Sam Cerny

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 220 60/40 4%gel ¼# [redacted]

EQUIPMENT

Pumptrk 15 No. Cementer Craig / Helper

Bulktrk No. Driver Cody / Driver

Bulktrk 8 No. Driver / Driver Doug

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30

Mouse Hole 20

Centralizers

Baskets

D/V or Port Collar

1st 3539 50SK

2nd 1090 50SK

3rd 850' 50SK

4th 430 50SK

Common	
Poz. Mix	
Gel.	
Calcium	
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	
Mileage	
FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	
Mileage	
Tax	
Discount	
Total Charge	

X Signature [signature]

Quality Oilwell Cementing

DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Assoc Inc**

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

Jacobs et al #1-1

1-16s-17w Rush,KS

Start Date: 2012.07.13 @ 09:18:00
End Date: 2012.07.13 @ 18:07:00
Job Ticket #: 49269 DST #: 1

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

Printed: 2012.07.19 @ 10:08:59

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 11:21:30
Time Test Ended: 18:07:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 59

Interval: 2951.00 ft (KB) To 2992.00 ft (KB) (TVD)
Total Depth: 2992.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

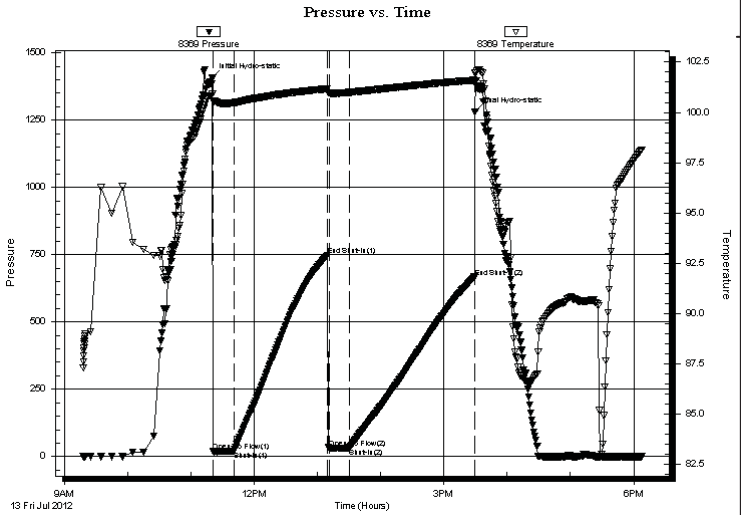
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8369 **Inside**

Press@RunDepth: 32.89 psig @ 2957.00 ft (KB)
Start Date: 2012.07.13 End Date: 2012.07.13
Start Time: 09:18:05 End Time: 18:07:30

Capacity: 8000.00 psig
Last Calib.: 2012.07.13
Time On Btm: 2012.07.13 @ 11:20:30
Time Off Btm: 2012.07.13 @ 15:29:30

TEST COMMENT: 20-IFP- BOB in 5 1/2 min
90-ISIP- Weak Surface Blow Died in 8 min
20-FFP- BOB in 30 sec
120-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1405.38	100.93	Initial Hydro-static
1	20.24	100.59	Open To Flow (1)
21	20.88	100.48	Shut-In(1)
109	747.95	101.17	End Shut-In(1)
111	30.65	100.97	Open To Flow (2)
130	32.89	100.99	Shut-In(2)
249	666.45	101.60	End Shut-In(2)
249	1281.48	101.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
43.00	OCM 20%o 80%m	0.60
640.00	GIP	8.98

Gas Rates

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

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 11:21:30
Time Test Ended: 18:07:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 59

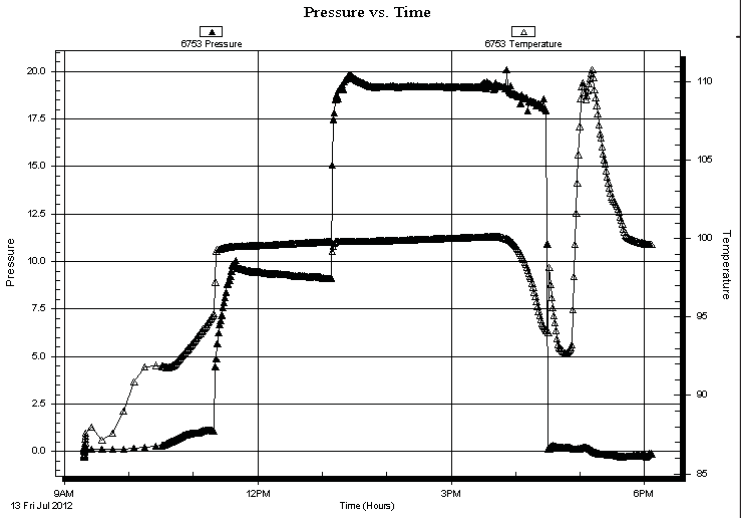
Interval: 2951.00 ft (KB) To 2992.00 ft (KB) (TVD)
Total Depth: 2992.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753 **Fluid**
Press@RunDepth: psig @ 2917.00 ft (KB)
Start Date: 2012.07.13 End Date: 2012.07.13
Start Time: 09:18:05 End Time: 18:06:30

Capacity: 8000.00 psig
Last Calib.: 2012.07.13
Time On Btm:
Time Off Btm:

TEST COMMENT: 20-IFP- BOB in 5 1/2 min
90-ISIP- Weak Surface Blow Died in 8 min
20-FFP- BOB in 30 sec
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
43.00	OCM 20%o 80%m	0.60
640.00	GIP	8.98

Gas Rates

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

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 11:21:30
Time Test Ended: 18:07:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 59

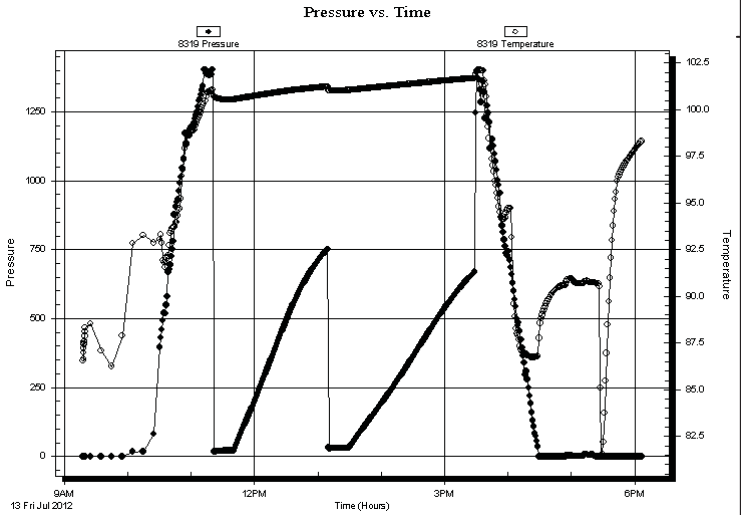
Interval: 2951.00 ft (KB) To 2992.00 ft (KB) (TVD)
Total Depth: 2992.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8319 **Outside**
Press@RunDepth: psig @ 2957.00 ft (KB)
Start Date: 2012.07.13 End Date: 2012.07.13
Start Time: 09:18:05 End Time: 18:07:00

Capacity: 8000.00 psig
Last Calib.: 2012.07.13
Time On Btm:
Time Off Btm:

TEST COMMENT: 20-IFP- BOB in 5 1/2 min
90-ISIP- Weak Surface Blow Died in 8 min
20-FFP- BOB in 30 sec
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
43.00	OCM 20%o 80%m	0.60
640.00	GIP	8.98

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

Tool Information

Drill Pipe:	Length:	2940.00 ft	Diameter:	3.80 inches	Volume:	41.24 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	41.24 bbl	

Drill Pipe Above KB:	24.00 ft
Depth to Top Packer:	2951.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	41.00 ft
Tool Length:	76.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2500.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	50000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	46000.00 lb
Final	46000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			2917.00		
Recorder	0.00	6753	Fluid	2917.00		
Stubb	5.00			2922.00		
Shut In Tool	5.00			2927.00		
Sampler	2.00			2929.00		
Hydraulic tool	5.00			2934.00		
Jars	5.00			2939.00		
Safety Joint	2.00			2941.00		
Packer	5.00			2946.00	35.00	Bottom Of Top Packer
Packer	5.00			2951.00		
Stubb	1.00			2952.00		
Perforations	4.00			2956.00		
Change Over Sub	1.00			2957.00		
Recorder	0.00	8369	Inside	2957.00		
Recorder	0.00	8319	Outside	2957.00		
Blank Spacing	31.00			2988.00		
Change Over Sub	1.00			2989.00		
Bullnose	3.00			2992.00	41.00	Bottom Packers & Anchor
Total Tool Length:	**76.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	10.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	27.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	94000.00 ppm				
Filter Cake:	inches				

Recovery Information

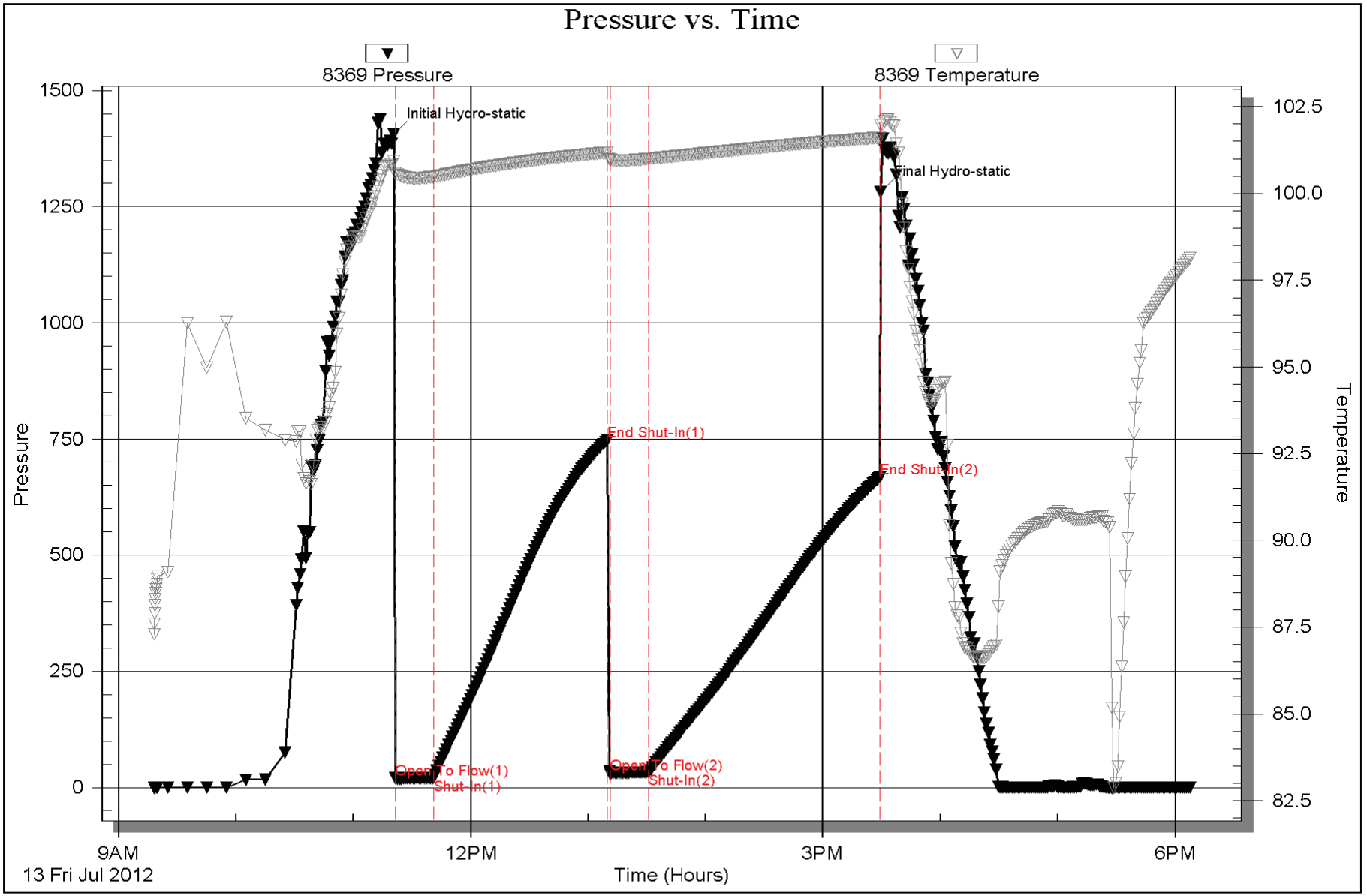
Recovery Table

Length ft	Description	Volume bbl
43.00	OCM 20%o 80%m	0.603
640.00	GIP	8.978

Total Length: 683.00 ft Total Volume: 9.581 bbl

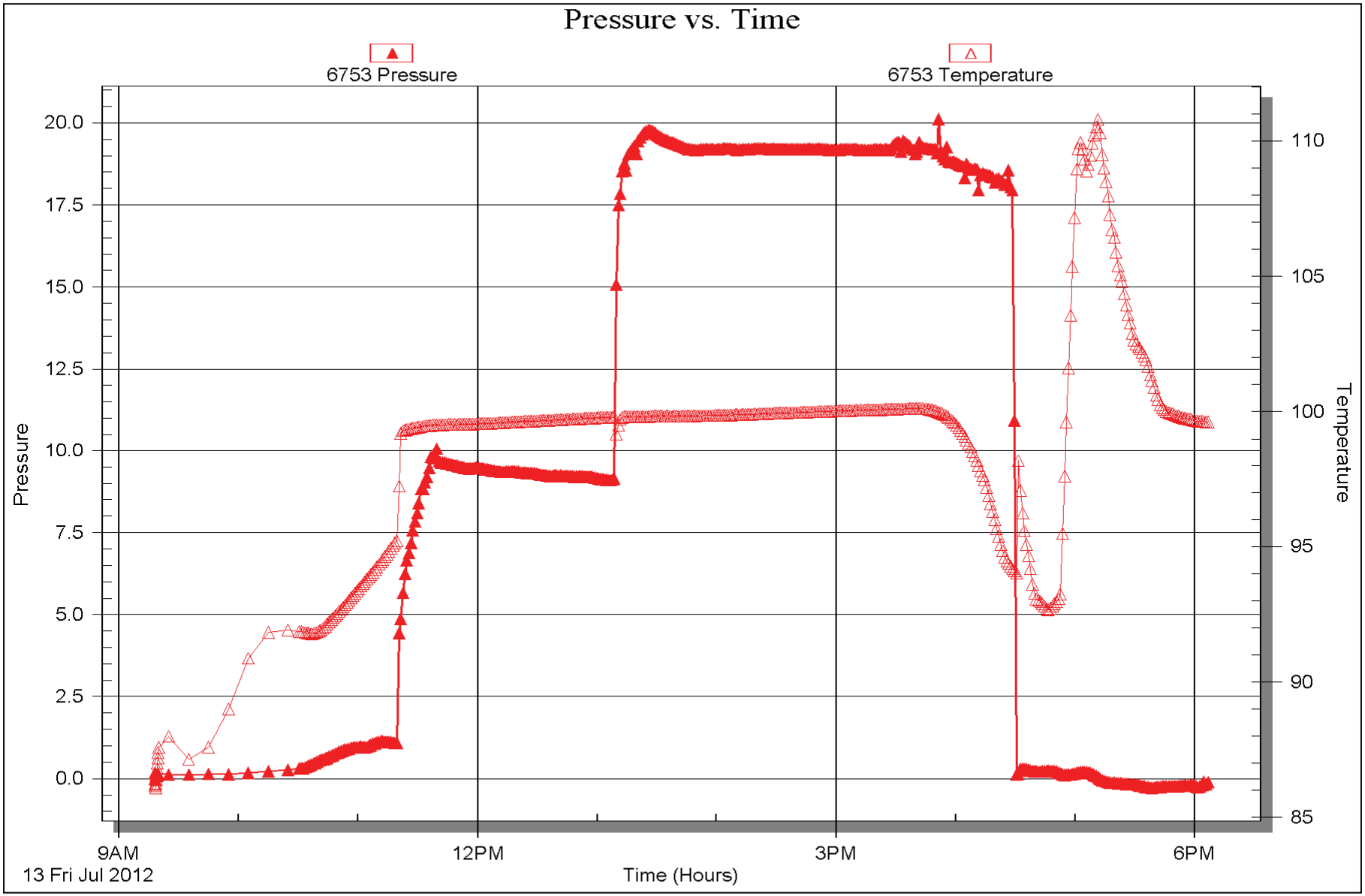
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8369 **Inside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 1



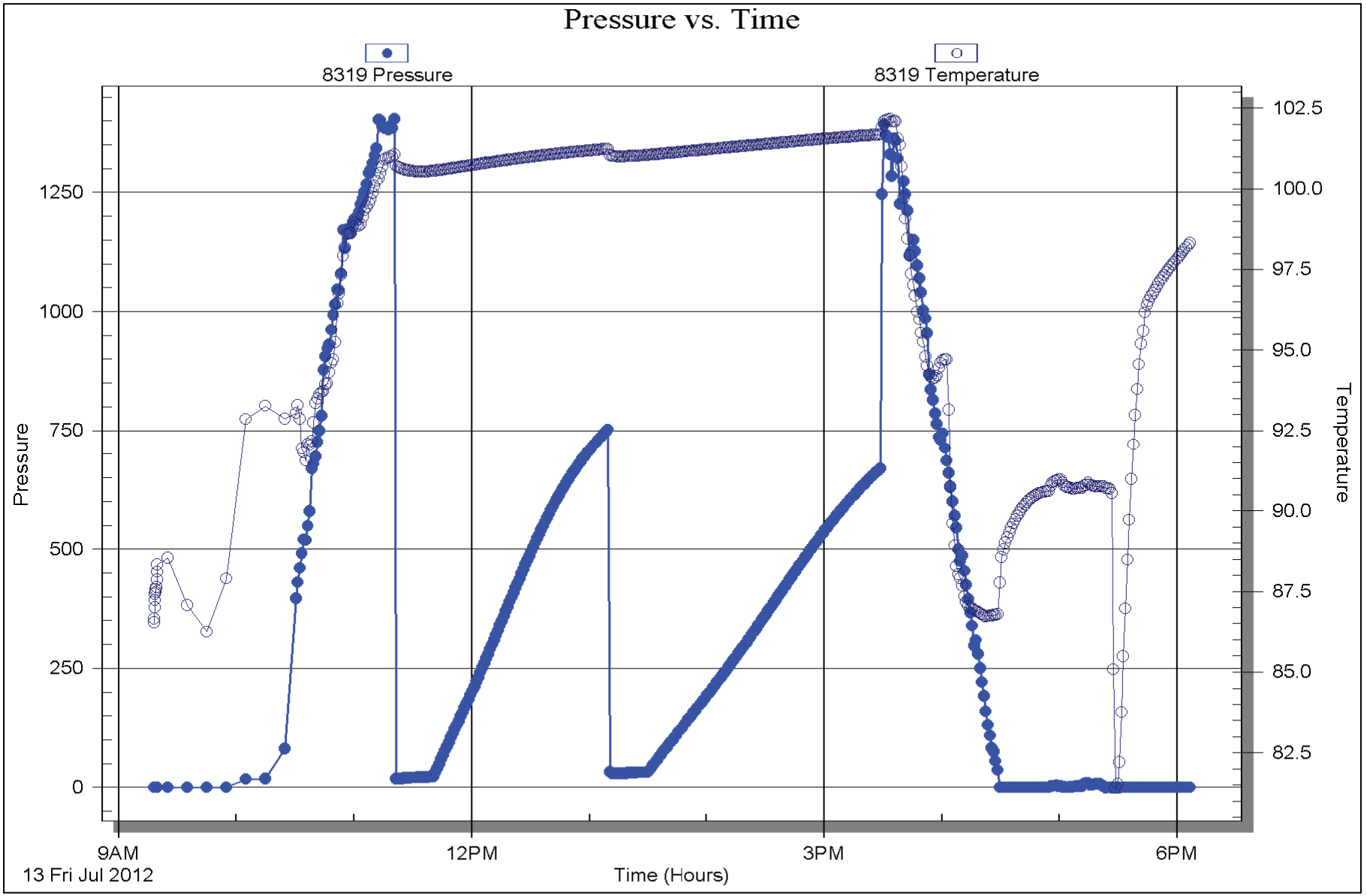
Trilobite Testing, Inc Ref. No: 49269 Printed: 2012.07.19 @ 10:09:02

Serial #: 6753 **Fluid** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 1

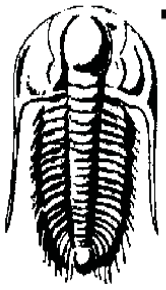


Trilobite Testing, Inc Ref. No: 49269 Printed: 2012.07.19 @ 10:09:02

Serial #: 8319 **Outside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 49269 Printed: 2012.07.19 @ 10:09:03



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Assoc Inc**

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

Jacobs et al #1-1

1-16s-17w Rush,KS

Start Date: 2012.07.14 @ 16:52:00
End Date: 2012.07.15 @ 00:48:00
Job Ticket #: 49270 DST #: 2

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

Printed: 2012.07.19 @ 10:08:07

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

GENERAL INFORMATION:

Formation: **LKC " F-G "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 18:17:30
Time Test Ended: 00:48:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

Interval: 3306.00 ft (KB) To 3356.00 ft (KB) (TVD)
Total Depth: 3356.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

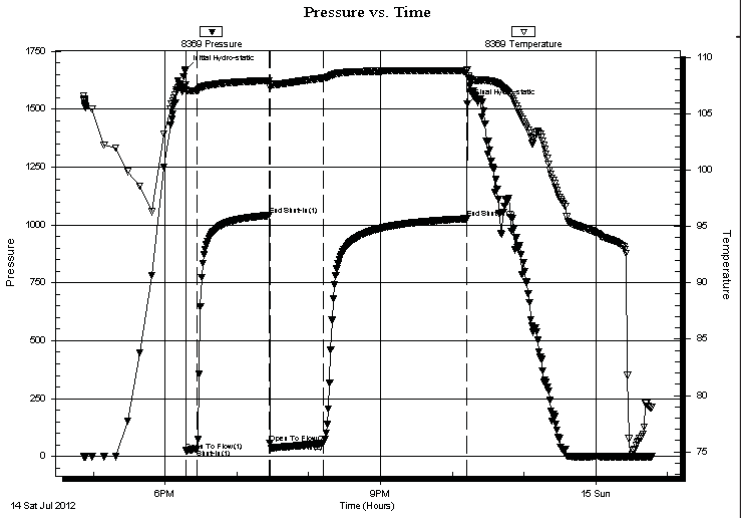
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8369 **Inside**

Press@RunDepth: 58.06 psig @ 3317.00 ft (KB)
Start Date: 2012.07.14 End Date: 2012.07.15
Start Time: 16:52:05 End Time: 00:46:29

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm: 2012.07.14 @ 18:17:00
Time Off Btm: 2012.07.14 @ 22:12:30

TEST COMMENT: 10-IFP- Surface Blow Building to 1 1/2"
60-ISIP- No Blow
45-FFP- Surface Blow in 5 min Building to 7"
120-FSIP Weak Surface Blow Died in 6 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1671.06	107.56	Initial Hydro-static
1	24.91	107.11	Open To Flow (1)
10	31.58	107.03	Shut-In(1)
70	1040.90	107.94	End Shut-In(1)
71	58.54	107.33	Open To Flow (2)
116	58.06	108.16	Shut-In(2)
235	1026.98	108.77	End Shut-In(2)
236	1522.59	108.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSO&WCM 2%o 48%w 50%m	0.21
36.00	MCW 30%m 70%w	0.50

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

GENERAL INFORMATION:

Formation: **LKC " F-G "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 18:17:30
Time Test Ended: 00:48:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

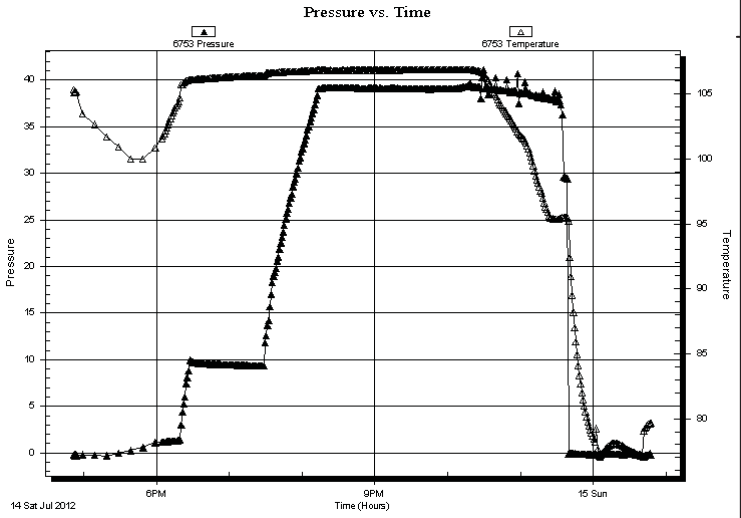
Interval: 3306.00 ft (KB) To 3356.00 ft (KB) (TVD)
Total Depth: 3356.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753 **Fluid**
Press@RunDepth: psig @ 3272.00 ft (KB)
Start Date: 2012.07.14 End Date: 2012.07.15
Start Time: 16:52:05 End Time: 00:47:29

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 10-IFP- Surface Blow Building to 1 1/2"
60-ISIP- No Blow
45-FFP- Surface Blow in 5 min Building to 7"
120-FSIP Weak Surface Blow Died in 6 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSO&WCM 2%o 48%w 50%m	0.21
36.00	MCW 30%m 70%w	0.50

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

GENERAL INFORMATION:

Formation: **LKC " F-G "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 18:17:30
Time Test Ended: 00:48:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

Interval: 3306.00 ft (KB) To 3356.00 ft (KB) (TVD)
Total Depth: 3356.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

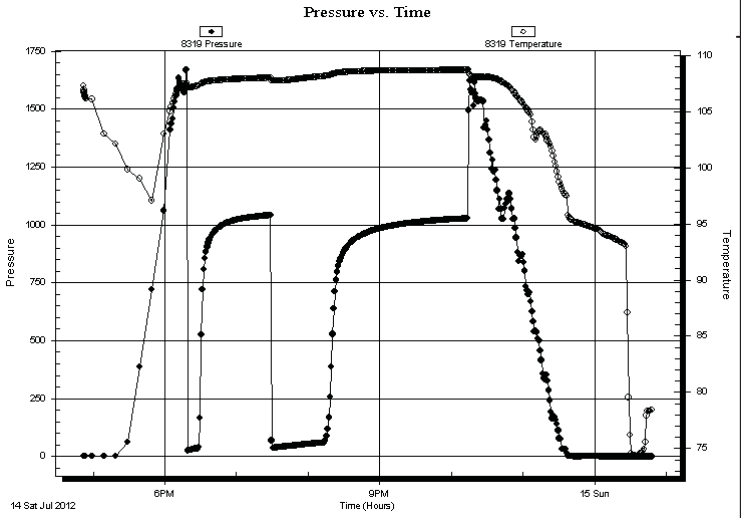
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8319 **Outside**

Press@RunDepth: psig @ 3317.00 ft (KB)
Start Date: 2012.07.14 End Date: 2012.07.15
Start Time: 16:52:05 End Time: 00:47:59

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 10-IFP- Surface Blow Building to 1 1/2"
60-ISIP- No Blow
45-FFP- Surface Blow in 5 min Building to 7"
120-FSIP Weak Surface Blow Died in 6 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSO&WCM 2%o 48%w 50%m	0.21
36.00	MCW 30%m 70%w	0.50

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

Tool Information

Drill Pipe:	Length:	3283.00 ft	Diameter:	3.80 inches	Volume:	46.05 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	46.05 bbl	

Drill Pipe Above KB:	12.00 ft
Depth to Top Packer:	3306.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	50.00 ft
Tool Length:	85.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		54000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	52000.00 lb
	Final	52000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3272.00		
Recorder	0.00	6753	Fluid	3272.00		
Stubb	5.00			3277.00		
Shut In Tool	5.00			3282.00		
Sampler	2.00			3284.00		
Hydraulic tool	5.00			3289.00		
Jars	5.00			3294.00		
Safety Joint	2.00			3296.00		
Packer	5.00			3301.00	35.00	Bottom Of Top Packer
Packer	5.00			3306.00		
Stubb	1.00			3307.00		
Perforations	9.00			3316.00		
Change Over Sub	1.00			3317.00		
Recorder	0.00	8369	Inside	3317.00		
Recorder	0.00	8319	Outside	3317.00		
Blank Spacing	31.00			3348.00		
Change Over Sub	1.00			3349.00		
Perforations	4.00			3353.00		
Bullnose	3.00			3356.00	50.00	Bottom Packers & Anchor
Total Tool Length:	**85.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49270 **DST#: 2**

Test Start: 2012.07.14 @ 16:52:00

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:	95000 ppm
Viscosity:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.15 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	9200.00 ppm				
Filter Cake:	inches				

Recovery Information

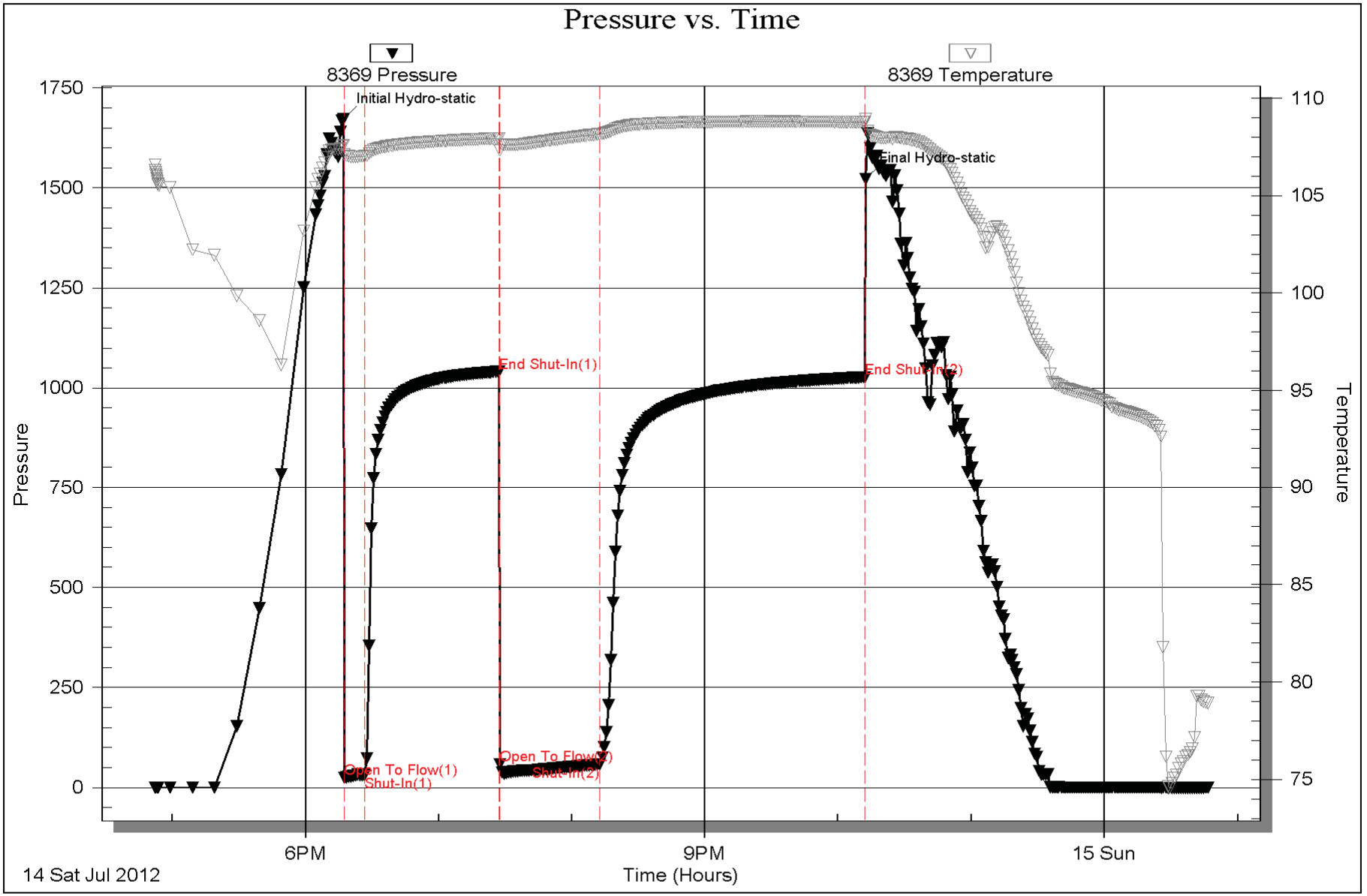
Recovery Table

Length ft	Description	Volume bbl
15.00	VSO&WCM 2%o 48%w 50%m	0.210
36.00	MCW 30%m 70%w	0.505

Total Length: 51.00 ft Total Volume: 0.715 bbl

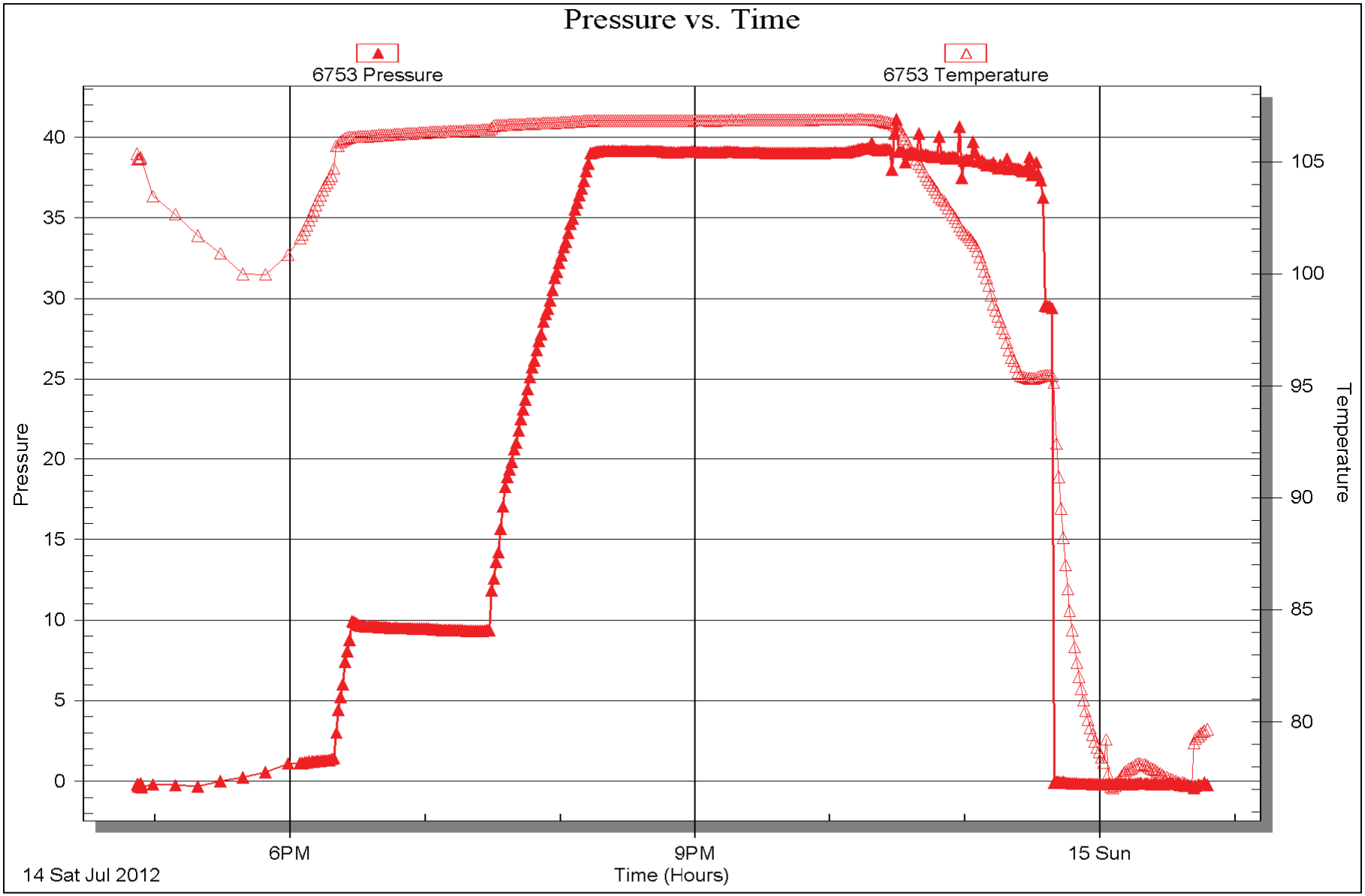
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .073 @ 80

Serial #: 8369 **Inside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 2



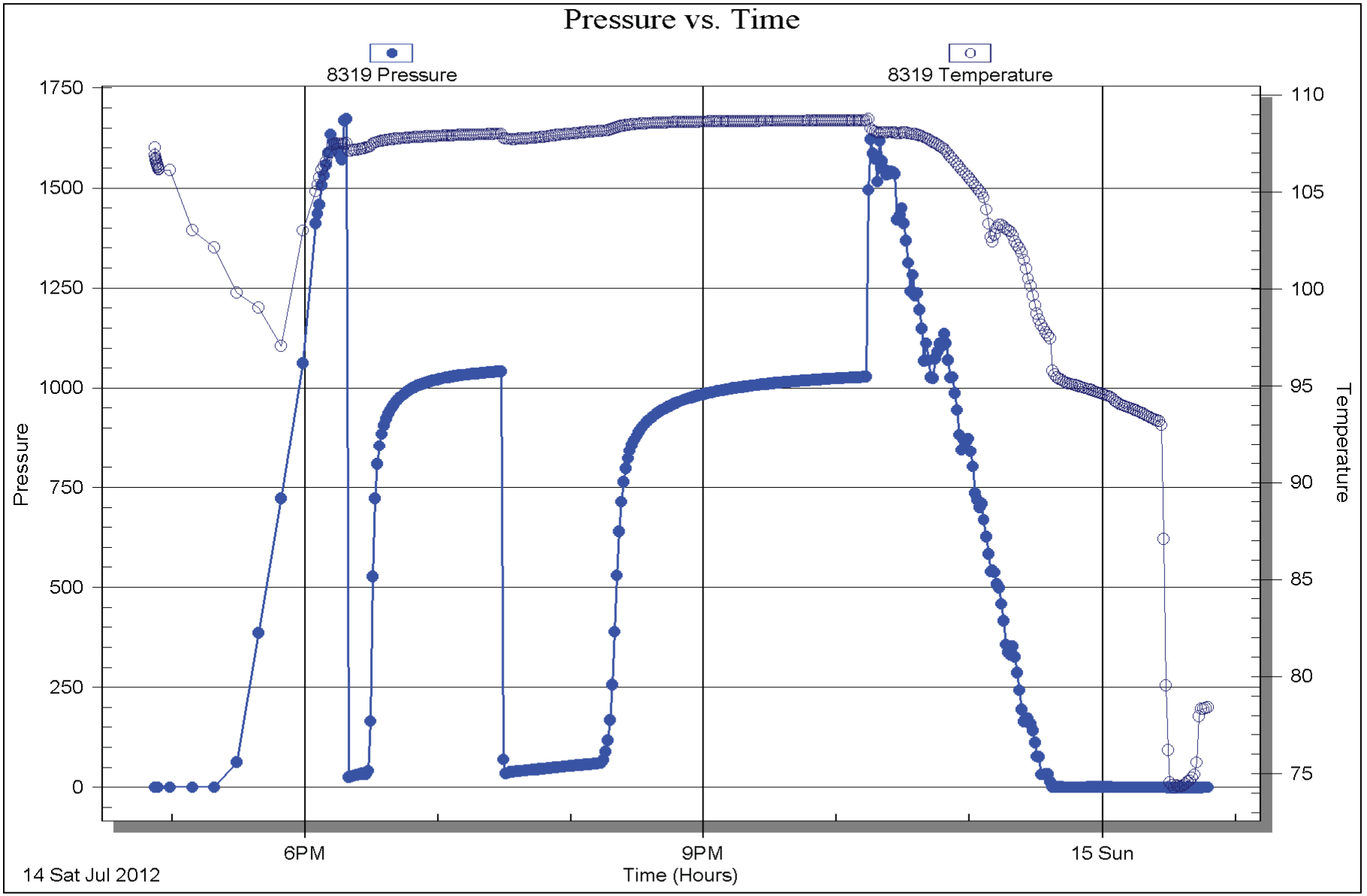
Trilobite Testing, Inc Ref. No: 49270 Printed: 2012.07.19 @ 10:08:10

Serial #: 6753 **Fluid** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 2

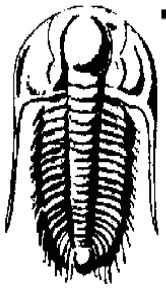


Trilobite Testing, Inc Ref. No: 49270 Printed: 2012.07.19 @ 10:08:10

Serial #: 8319 **Outside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 49270 Printed: 2012.07.19 @ 10:08:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Assoc Inc**

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

Jacobs et al #1-1

1-16s-17w Rush,KS

Start Date: 2012.07.15 @ 11:57:00
End Date: 2012.07.15 @ 19:25:00
Job Ticket #: 49271 DST #: 3

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

Printed: 2012.07.19 @ 10:07:10

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

GENERAL INFORMATION:

Formation: **LKC " J "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 13:42:00
Time Test Ended: 19:25:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

Interval: 3420.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

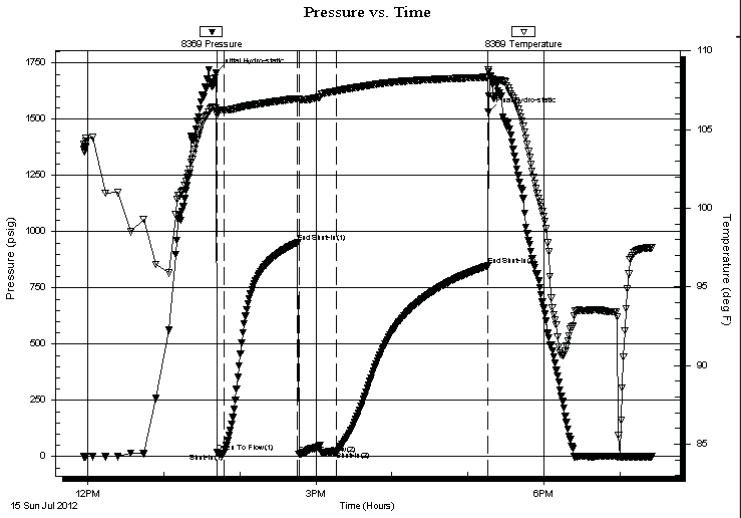
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8369 **Inside**

Press@RunDepth: 22.57 psig @ 3421.00 ft (KB)
Start Date: 2012.07.15 End Date: 2012.07.15
Start Time: 11:57:05 End Time: 19:24:59

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm: 2012.07.15 @ 13:41:30
Time Off Btm: 2012.07.15 @ 17:16:00

TEST COMMENT: 5-IFP- Surface Blow Building to 5 1/2"
60-ISIP- No Blow
30-FFP- BOB in 17 1/2 min
120-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1705.97	106.39	Initial Hydro-static
1	20.93	105.89	Open To Flow (1)
6	14.99	106.22	Shut-In(1)
64	952.64	106.96	End Shut-In(1)
65	12.01	106.95	Open To Flow (2)
95	22.57	107.44	Shut-In(2)
214	848.36	108.32	End Shut-In(2)
215	1533.36	108.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
36.00	W&MCO 10%w 15%m 75%o	0.50
0.00	217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

GENERAL INFORMATION:

Formation: **LKC " J "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 13:42:00
Time Test Ended: 19:25:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

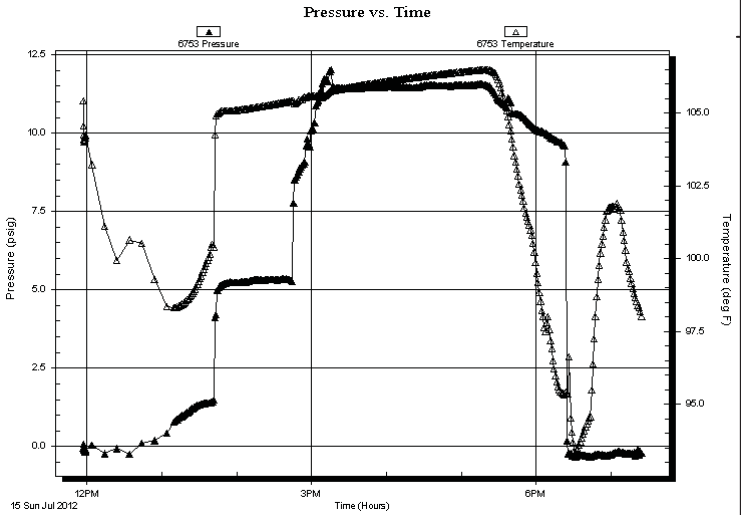
Interval: 3420.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753 **Fluid**
Press@RunDepth: psig @ 3387.00 ft (KB)
Start Date: 2012.07.15 End Date: 2012.07.15
Start Time: 11:57:05 End Time: 19:24:29

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 5-IFP- Surface Blow Building to 5 1/2"
60-ISIP- No Blow
30-FFP- BOB in 17 1/2 min
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
36.00	W&MCO 10%w 15%m 75%o	0.50
0.00	217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

GENERAL INFORMATION:

Formation: **LKC " J "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 13:42:00
Time Test Ended: 19:25:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

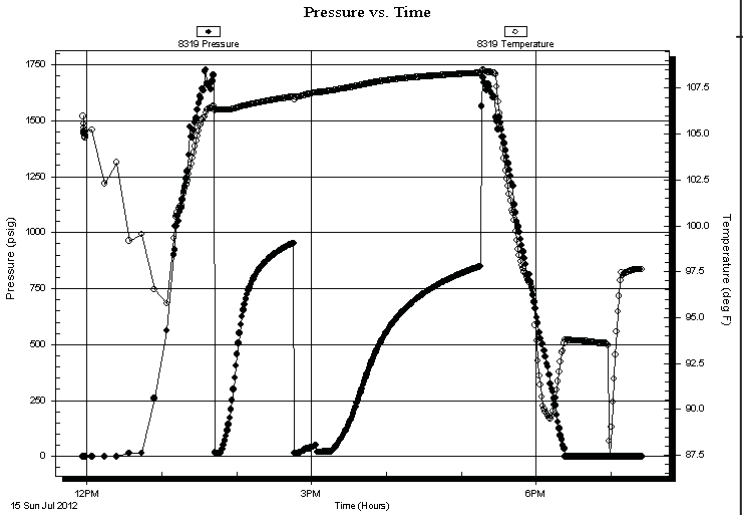
Interval: 3420.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8319 **Outside**
Press@RunDepth: psig @ 3421.00 ft (KB)
Start Date: 2012.07.15 End Date: 2012.07.15
Start Time: 11:57:05 End Time: 19:24:59

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 5-IFP- Surface Blow Building to 5 1/2"
60-ISIP- No Blow
30-FFP- BOB in 17 1/2 min
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
36.00	W&MCO 10%w 15%m 75%o	0.50
0.00	217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

Tool Information

Drill Pipe:	Length:	3410.00 ft	Diameter:	3.80 inches	Volume:	47.83 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	47.83 bbl	

Drill Pipe Above KB:	23.00 ft
Depth to Top Packer:	3420.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	16.00 ft
Tool Length:	49.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		60000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	50000.00 lb
	Final	50000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Recorder	0.00	6753	Fluid	3387.00		
Stubb	5.00			3392.00		
Shut In Tool	5.00			3397.00		
Sampler	2.00			3399.00		
Hydraulic tool	5.00			3404.00		
Jars	5.00			3409.00		
Safety Joint	2.00			3411.00		
Packer	4.00			3415.00	33.00	Bottom Of Top Packer
Packer	5.00			3420.00		
Stubb	1.00			3421.00		
Recorder	0.00	8369	Inside	3421.00		
Recorder	0.00	8319	Outside	3421.00		
Perforations	12.00			3433.00		
Bullnose	3.00			3436.00	16.00	Bottom Packers & Anchor
Total Tool Length:	**49.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	41 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.17 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	9200.00 ppm				
Filter Cake:	inches				

Recovery Information

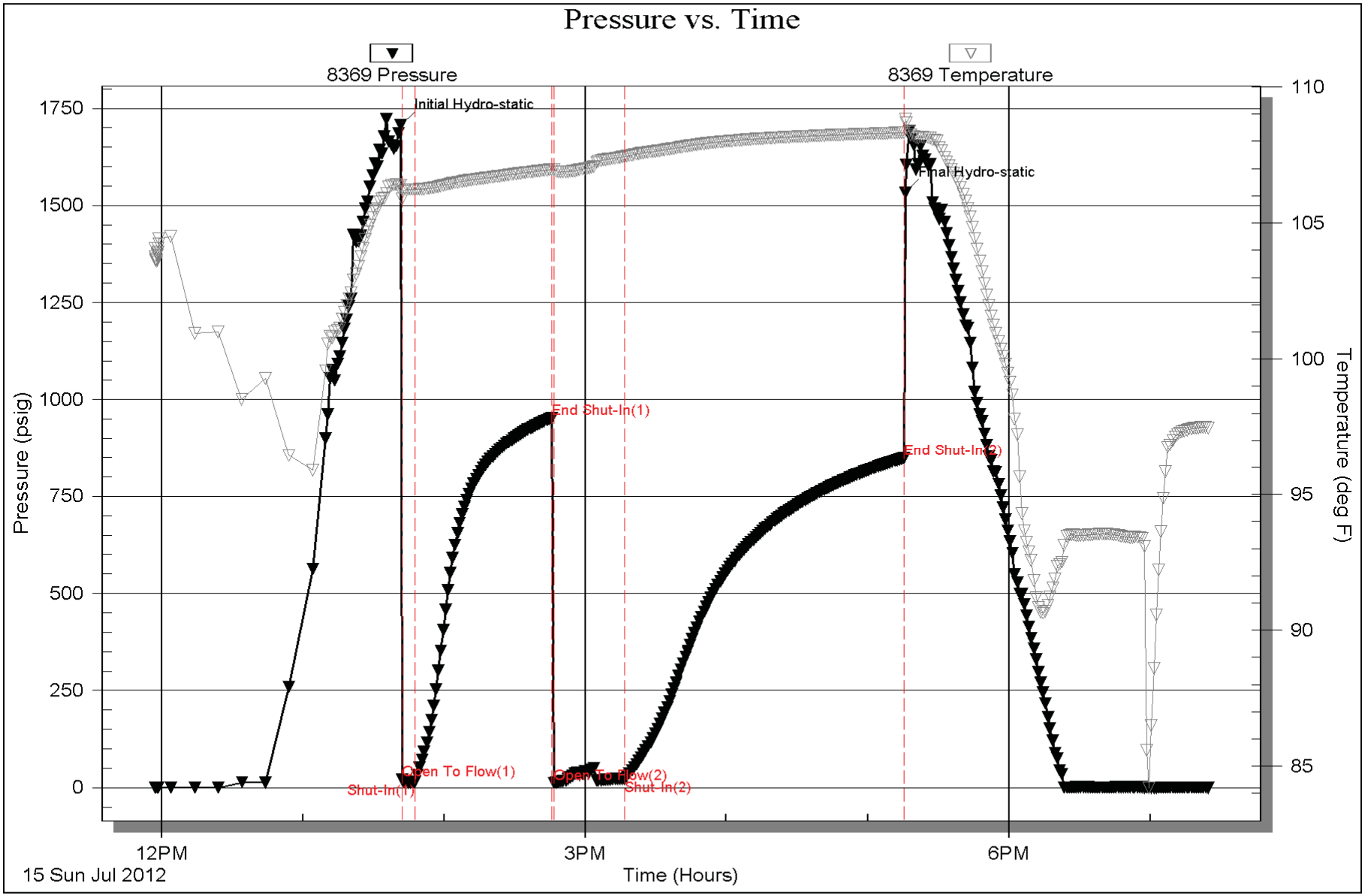
Recovery Table

Length ft	Description	Volume bbl
36.00	W&MCO 10%w 15%m 75%o	0.505
0.00	217 GIP	0.000

Total Length: 36.00 ft Total Volume: 0.505 bbl

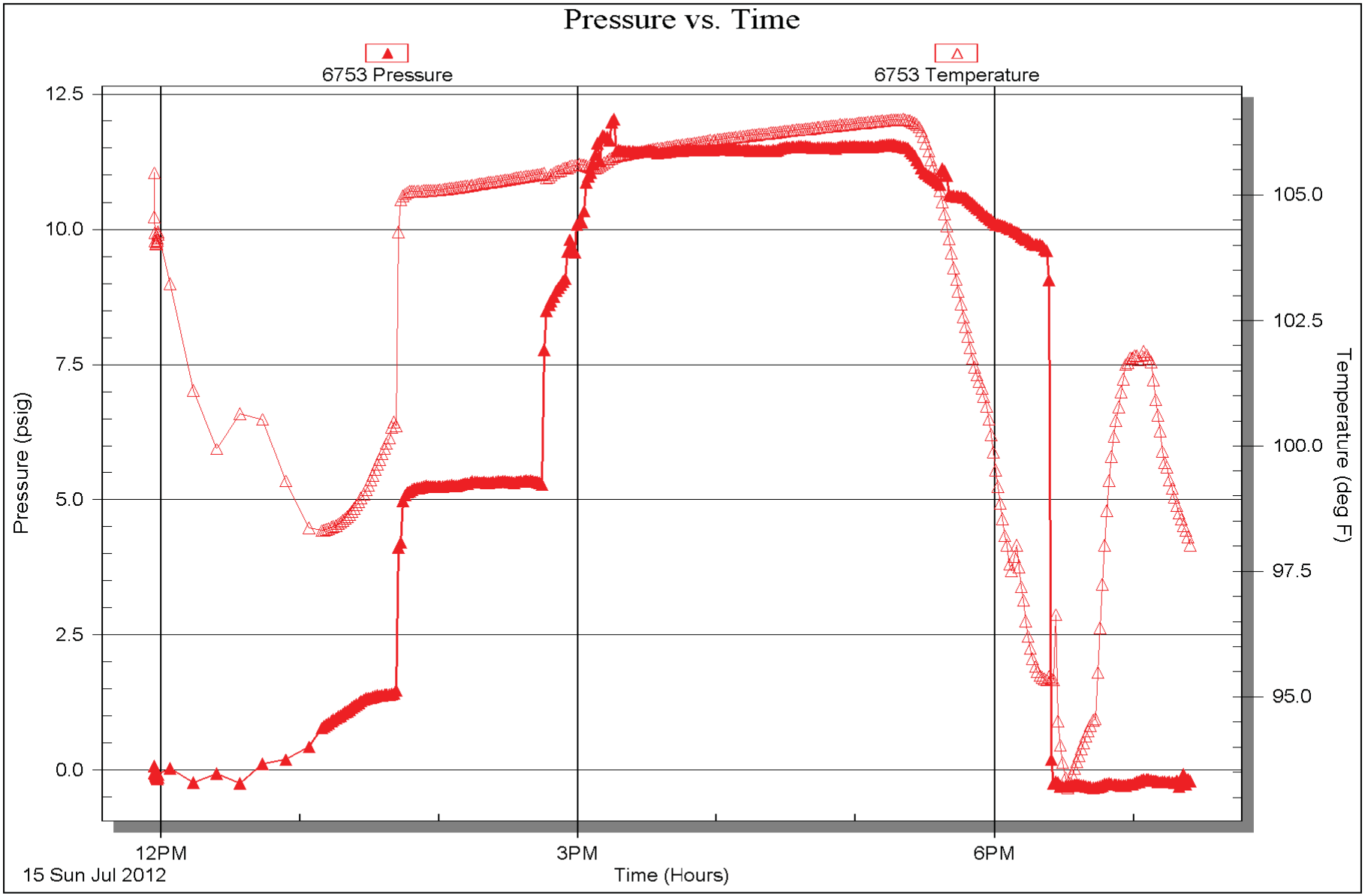
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8369 **Inside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 3



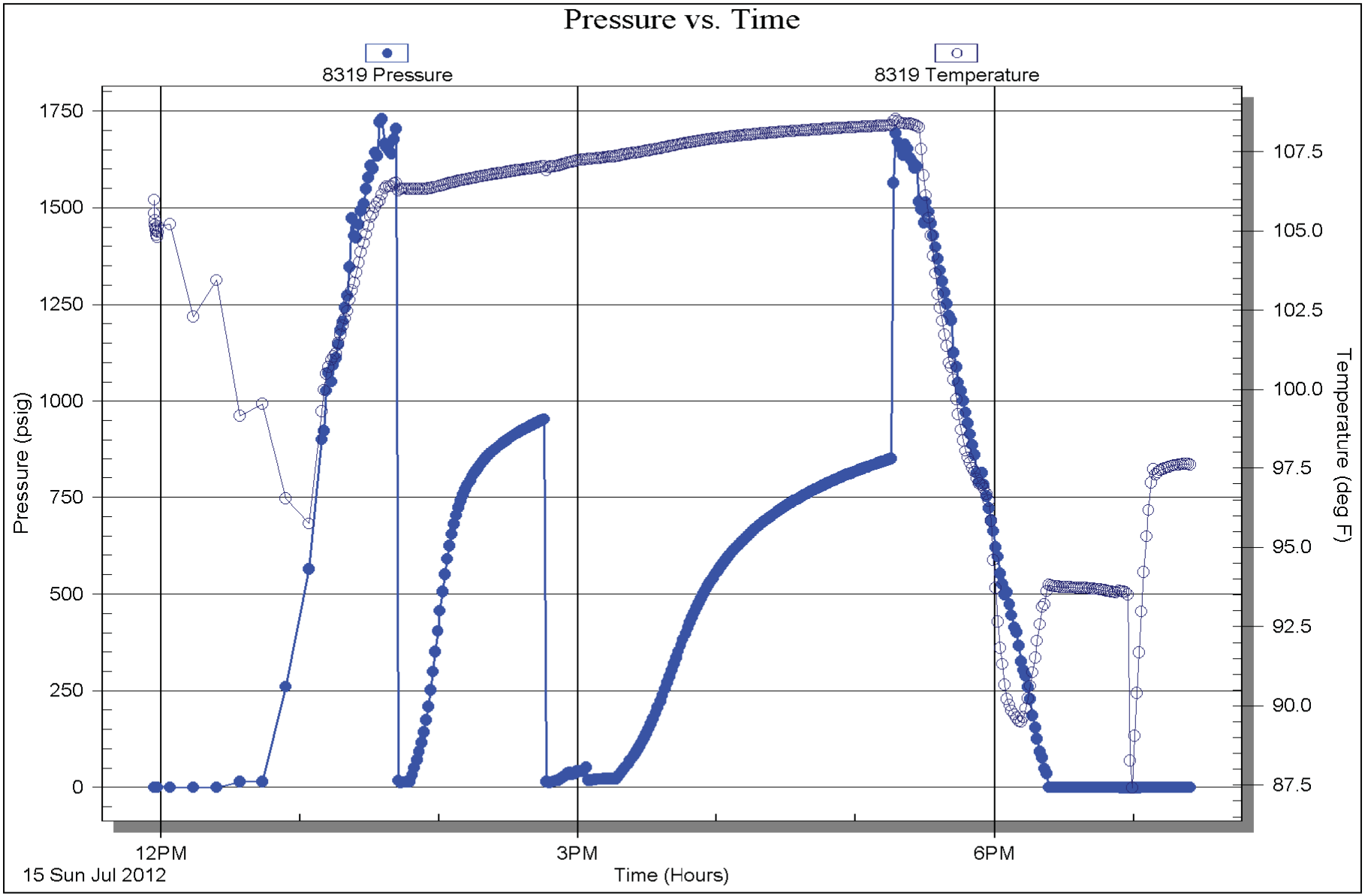
Trilobite Testing, Inc Ref. No: 49271 Printed: 2012.07.19 @ 10:07:12

Serial #: 6753 **Fluid** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 49271 Printed: 2012.07.19 @ 10:07:13

Serial #: 8319 **Outside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 49271 Printed: 2012.07.19 @ 10:07:13

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

Well Name:	SGA JACOBS ET AL 1-1		
Location:	SEC. 1 16S-17W RUSH CO., KANSAS		
License Number:	15-165-21984-0000	Region:	WILDCAT
Spud Date:	7/09/12	Drilling Completed:	7/16/12
Surface Coordinates:	2350' FSL/ 1390' FEL		
Bottom Hole Coordinates:			
Ground Elevation (ft):	1927'	K.B. Elevation (ft):	1937'
Logged Interval (ft):	2920' To: 3640'	Total Depth (ft):	3640'
Formation:	Lansing, Arbuckle		
Type of Drilling Fluid:			

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Samuel Gary Jr. & Assoc.
Address: 1515 Wynkoop, Ste. # 700
Denver, Colo. 80202
Geo: Clayton Camozzi

GEOLOGIST

Name: Schuyler Hedrick
Company: Earth Tech OGL, Inc.
Address: PO Box 683
Hooker, Okla . 73945
Off. 888-543-8378

DST's Report

DST# 1 2951'-2992' 20-90-20-120
IF- BOB IN 5.5 MIN, ISI- WK SURF. BLW DIED AT 11:48 A.M., FF- BOB IN 30 SEC., FSI- NO BLW
IH- 1405, FH- 1281/ IF- 20 TO 20, FF- 30 TO 32/ ISI- 747, FSI- 666
REC. 43' OF TF/ 43' OF OCM 20% OIL, 80% MUD/ 640' GIP/ BHT- 101/ CHLOR.- 94,000

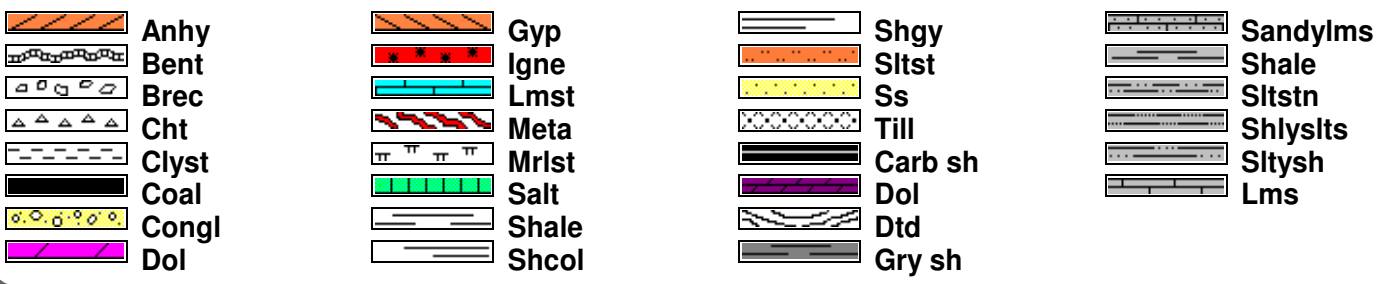
DST's Report

DST# 2 3306'-3356' 10-60-45-120
IF- SURF. BLW IN BUILD TO 1 1/2", ISI- NO BLW, FF- SURF. BLW IN 5 MIN BUILD TO 7", FSI- WK SURF. BLW DIED IN 6 MIN
IH- 1671, FH- 1522/ IF- 24 TO 31, FF- 58 TO 58/ ISI- 1040, FSI-1026
REC. 51' OF TF/ 15' OF VSO & WCM 2% OIL, 48% WATER, 50% MUD/ 36' OF MCW 70% WATER, 30% MUD/
BHT- 108, API RW- .O73 @ 80 DEG. F./ CHLOR.- 9,200

DST's Report

DST# 3 3420'-3436' 5-60-30-120
IF- SURF. BLW BUILD TO 5 1/2", ISI- NO BLW, FF- B.O.B. IN 17 1/2 MIN., FSI- NO BLW
IH- 1705, FH- 1533/ IF- 20 TO 15, FF- 12 TO 22/ ISI- 952, FSI- 848
REC. 36' OF TF/ 36' OF W & MCO 75% OIL, 10% WATER, 15% MUD, 217' OF GIP/ BHT 108, GRAVITY- 41/
CHLOR.- 9200

ROCK TYPES



ACCESSORIES

MINERAL
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Slty

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE
- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest

OTHER SYMBOLS

POROSITY TYPE
- E Earthy
- F Fenest
- F Fracture
- X Inter
- Moldic
- O Organic
- P Pinpoint
- V Vuggy

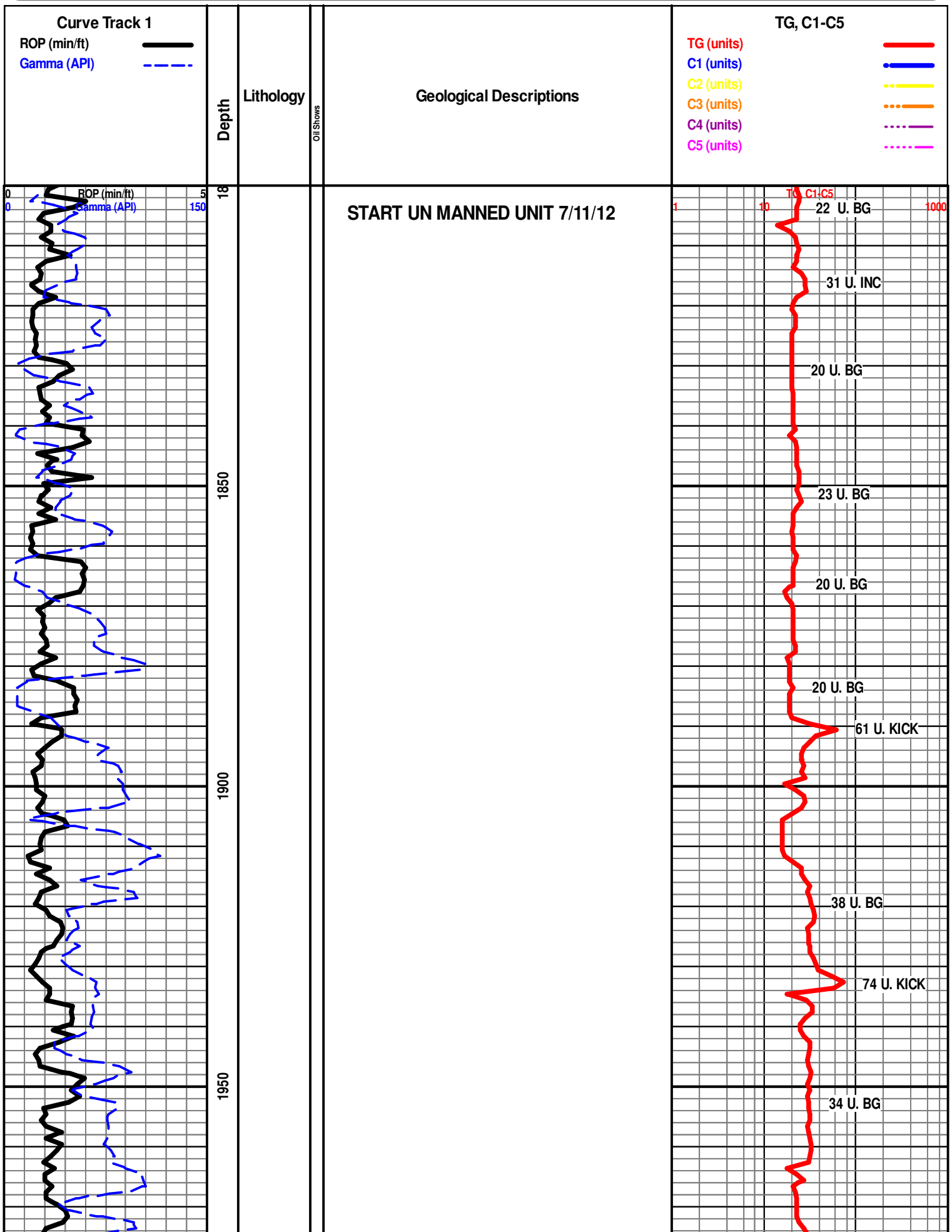
SORTING
- W Well
- M Moderate
- P Poor

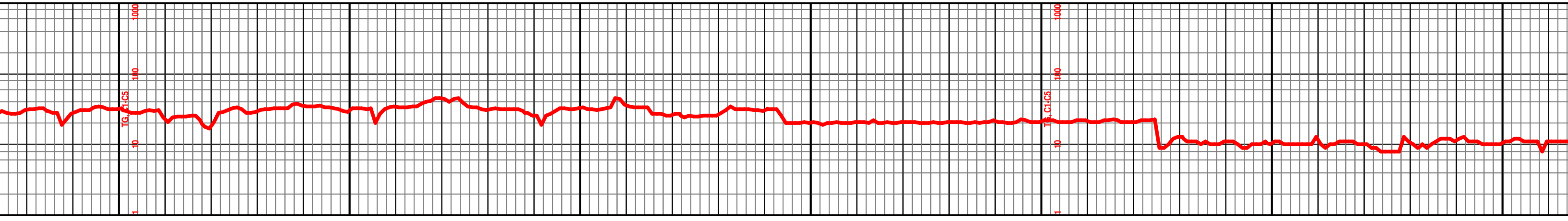
ROUNDING
- R Rounded
- r Subrnd
- a Subang
- A Angular

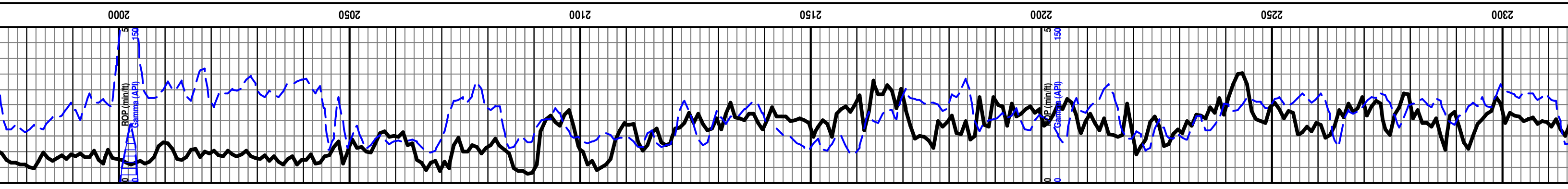
OIL SHOWS
- Even
- Spotted
- Ques
- D Dead
- Gas show

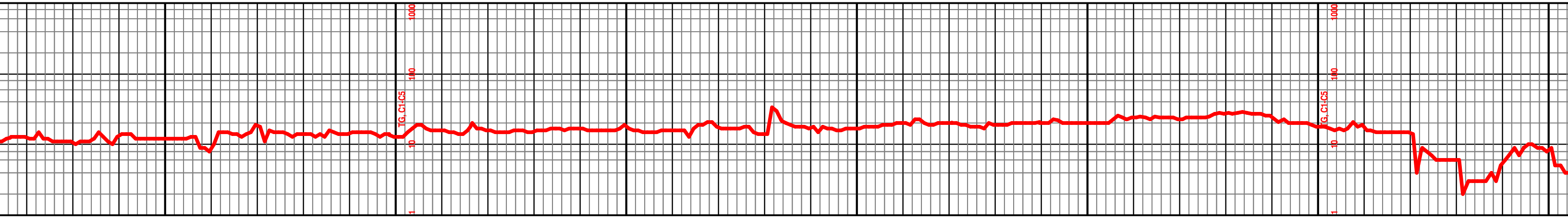
INTERVALS
- Core
- Dst
- Dst

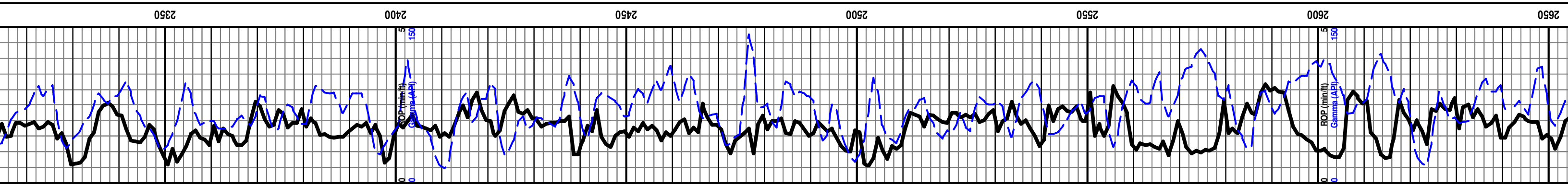
EVENTS
- Rft
- Sidewall




1000
100
10
1
TG_C1:C5


2000
2050
2100
2150
2200
2250
2300
ROP (min/ft)
Gamma (API)
5
150
0


TG, C1-C5
1000
100
10
1
TG, C1-C5
1000
100
10
1


2350
2400
2450
2500
2550
2600
2650
ROP (min/ft)
Gamma (API)
5
0
150
0
ROP (min/ft)
Gamma (API)
5
0
150
0

2700

2750

2800

0 ROP (min/ft) 5
0 Gamma (API) 150

2850

2900

2950

W.O.B. 39
RPM 75
PP 850

DST# 1
2951'-2992'

WT. 8.8
VIS 50

CFS @ 2992'

BRS 2730'-793'

MUD DISPLACEMENT

HOWARD 2912'-975'

START 24 HR. MANNED UNIT 7/12/12

SH- GY TO DK GY, FRM, BLCKY SLTY TXT

2942'-2943' LS- TN TO DK TN (W/ TN OIL STN IN 25%), HD DNS, F/XLN MTRX, TR RE-XLN IP, S-CHLKY IP, TR IMB CALC-XLS IP, BRT YEL GLD FLO IN 30%, DUL YEL GLD FLO IN 20%, V PR TO PR MICRO-VUG POR IN 2%, PR WK FLSH CUT IN 30%, FR SLW STRM GSSY CUT IN 40%, NO VIS LCH ON DSH, NO OIL ODOR

SEVERY 2958'-1021'

SH- GY TO DK GY, FRM TO SFT, BLCKY SMTH TXT

TOPEKA 2972'-1035'

2972'-2974' LS- TN (W OIL STN IN 40% & LIVE OIL STN IN 10%, DNS TO V SFT THRU, V SUCRO MTRX, SCAT FREE CALC-XLS IP, DISS PYR IP, YEL GLD FLO IN 70%, DUL YEL GLD FLO IN 20%, BRT YEL GLD FLO SPTTD IN 10%, FR TO TR GD MICRO-PP POR SCAT 10%, PR VUG POR IN 5%, EXCEL FLSH CUT IN 80%, EXCEL SLW STRM CUT IN 90%, V DK TN LCH ON DSH, V STRNG OIL ODOR

TG, C1-C5
1 10 100 1000

UNPLUGGED AGITATOR

25 U. BG

17 U. BG

CN

C2 C1 20 U. BG

14 U. BG

GATE LEFT OPEN CN

C4

C5 C3 C2 C1 184 U. SHOW

SHORT TRIP
STRAP PIPE
16 LONG TO
BOARD

W.O.B. 40
RPM 80
PP 925

WT. 8.9
VIS 55

W.O.B. 40
RPM 80
PP 925

WT. 9.1
VIS 59

W.O.B. 39
RPM 80
PP 925

"A"

WT. 9.2
VIS 60

"C"

"D"

CFS@ 3297'

DST# 2
3306'-3356'

"E"

"F"

U. "G"

3000
3050
3100
3150
3200
3250
3300

LS- GRYISH TN, V HD DNS, F/VF-XLN MTRX, S-CHLKY IP, TR SCAT PYR IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TN TO TN GY IP, HD DNS TO TR BRTT IP, MD/F-XLN MTRX, RE-XLN IP, S-CHLKY, SCAT SFT WHT CHLK IP, DISS PYR IP, V DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

LS- LT GY TO GY, HD DNS TO BRTT, MD-XLN MTRX, S-SUCRO IP, IMB CALC-XLS IP, V DUL YEL SPTTD FLO IP, NO VIS POR, NO VIS CUT OR SHOW

LS- LT TN TO TN, HD DNS TO BRTT, MD/F-XLN MTRX, RE-XLN, S-CHLKY THRU, IMB CALC-XLS IP, DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

LE COMPTON 3073'-1136'

LS- CRM BFF, HD DNS TO BRTT IP, F-XLN MTRX, RE-XLN IP, SCATT IMB PYR, BRT YEL MIN FLO THRU, NO VIS POR, NO VIS CUT OR SHOW

SH- GY TO DK GY, FRM TO SFT, SPLNTY SMTH TXT

SH- BLCK SFT CARB

LS- CRM BFF TO LT TN, HD DNS TO BRTT IP, MD-XLN, RE-XLN IP, S-CHLKY IP, IMB CALC-XLS THRU, DUL YEL SPTTD FLO IP, NO VIS POR, NO VIS CUT OR SHOW

SH- LT GRN LT GRY TO GY, FRM TO SFT, BLCK SLTY TXT

LS- LT TN TO TN, V HD DNS, VF/CRYPTO-XLN, SCAT PYR IP, TR WHT CHRT IP, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM TO LT TN, HD DNS TO BRTT IP, MD/F-XLN, S-CHLKY THRU, IMB CALC-XLS IP, TR SCAT SFT CHLK IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

HEEBNER 3197'-1260'

SH- BLCK SFT CARB

SH- GY, FRM TO V SFT GMMY IP, SPLNTY SMTH TXT

LS- LT TN TO TN, HD DNS TO BRTT, F/VF-XLN, S-CHLKY THRU, ABDT SFT WHT CHLK THRU, YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

DOUGLAS 3230'-1293'

SH- LT GY TO GY, V SFT TO GMMY, BLKY SMTH TXT

LANSING 3248'-1311'

LS- CRM TO LT TN, HD DNST TO TR BRTT IP, F/VF-XLN MTRX, RE-XLN IP, S-CHLKY IP, SCAT IMB CALC-XLS IP, TR SFT WHT CHLK IP, TR V DUL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

LANSING "C" 3271'-1334'

LS- CRM TO LT TN, DNS TO BRTT, MD-XLN, RE-XLN, OOL-MOLDIC THUR, SCAT SFT WHT CHLK THRU, NO VIS FLO, V PR TO PR OOL-MOLDIC POR SCAT IN 10%, NO VIS CUT OR SHOW

LS- LT TN TO TN, HD DNS TO BRTT IP, MD-XLN, S-SUCRO IP, ABDT IMB SM TO MD CALC-XLS THRU, DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

LANSING "F" 3315'-1378'

3317'-3318' LS- CRM TO LT TN (W/ TN OIL STN IN 30%), HD DNST TO V BRTT, MD-XLN, RE-XLN MTRX, S-SUCRO, ABDT IMB SM OOLITES THRU, V OOLITIC THRU, DUL YEL GLD FLO IN 30%, PR TO FR INTER-OOLITC POR SCAT IN 5%, TR V PR VUG POR IP, FR FLSH CUT IN 50%, FR SLW STRM CUT IN 50%, LT TN TO TN LCH ON DSH, FR OIL ODOR

SWITCHED AGITATOR
CN
PIT TEST
120 U. BG
CN
165 U.
SH KICK
126 U. BG
112 U. BG
CN
104 U. BG
98 U. BG
CN
127 U.
POSS
83 U. BG
CN
80 U. BG
95 U. BG
CN
108 U. INC
95 U. BG
82 U. BG
CN
96 U. BG
98 U. BG
CN
79 U. BG
100 U. BG
CN
132 U.
SHOW
90 U. BG

M. "G"

CFS@ 3356'

W.O.B. 39
RPM 80
PP 950

L. "G"

"H"

0 ROP (min/ft) 5
0 Gamma (API) 150

WT. 9.2
VIS 60

"I"

DST# 3
3420'-3436'

"J"

CFS@ 3436'

"K"

"L"

W.O.B. 39
RPM 80
PP 925

CFS @ 3513'

PLUGGED
BIT
T.O.F.B

WT. 9.2
VIS 73

CFS @ 3561'

W.O.B. 39
RPM 75
PP 900

0 ROP (min/ft) 5
0 Gamma (API) 150

WT. 9.3
VIS 68

CFS @ 3640'
30, 60

R.T.D. @ 3640'

C.T.C.H. 1.5 HRS

3350
3400
3450
3500
3550
3600
3650

LS- CRM TO LT TN, HD DNS TO BRTT, MD-XLN MTRX, RE-XLN, S-CHLKY IP, V-OOLMOLDIC THRU, SCAT SFT WHT CHLK IP, DUL YEL FLO SCAT IN 20%, V PR TO PR OOL-MOLDIC POR IN 15%, NO VIS CUT OR SHOW

LS- OFF WHT TO CRM BFF, V HD, VF/CRYPTO XLN MTRX, S-CHLKY IP, SCAT WHT CHRT, IMB SM CALC-XLS, TR DUL YEL FLO IN IP, NO VIS POR, NO VIS CUT OR SHOW

LANSING "H" 3485'-1448'

LS- CRM BFF TO LT TN IP, HD DNS TO TR BRTT IP, MD/F-XLN MTRX, RE-XLN IP, S-SUCRO IP, TR PYR IP, V DUL YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

3410'-3412' LS- OFF WHT TO CRM (W/ TN OIL STN IN 30%), HD DNS TO BRTT, MD-XLN, V RE-XLN MTRX, S-CHLKY THRU, S-SUCRO, ABDT SCAT SM OOLITES THRU, V OOLITIC, DUL YEL GLD FLO IN 60%, BRT YEL GLD FLO IN 15%, FR TO GD INTER-OOLITIC POR IN 15%, PR WK FLSH CUT IN 30%, FR TO GD SLW STRM CUT GSSY IP IN 40%, LT TN LCH ON DSH, LT OIL ODOR

3425'-3426' LS- CRM TO LT TN (W/ TN OIL STN IN 90%), HD DNS TO V BRTT, MD-XLN, V SUCRO MTRX, OOL-MOLDIC IP, YEL GLD FLO IN 70%, BRT YEL GLD FLO IN 30%, V GD VUG POR IN 15%, GD OOL-MOLDIC POR IN 5%, GD FLSH CUT IN 80%, EXCEL SLW STRM CUT IN 90%, DK TN LCH ON DSH, FREE FLOATING SPTTD OIL IN SAMPLE CUP, V STRNG POTENT OIL ODOR

3445'-3446' LS- CRM TO LT TN (W/ DK TN OIL STN IN 25%), HD DNS TO BRTT IP, MD-XLN MTRX, RE-XLN IP, S-CHLK THRU, TR SCAT IMB OOLITES IP, SLI TR FREE FOSS IP, DUL GLD FLO IN 40%, BRT YEL GLD FLO IN 10%, PR VUG POR IN 5%, TR V PR MICRO VUG POR IP, FR TO GD FLSH CUT IN 50%, GD SLW STRM CUT IN 70%, TN TO DK TN LCH ON DSH, V GD STRNG OIL ODOR

3457'-3458' LS- OFF WHT TO CRM BFF (W/ LT TN OIL STN IN 30-40%), HD DNS TO BRTT IP, RE-XLN MTRX, S-SUCRO THRU, S-CHLKY IP, SCAT IMB OOLITES THRU, IMB SM CALC-XLS IP, DUL YEL GLD FLO IN 40%, YEL GLD FLO IN 30%, FR TO TR GD VUG POR SCAT IN 10%, TR V PR INTER-OOLITC POR IP, V PR WK FLSH CUT IN 20%, PR TO TR FR SLW STRM CUT IN 30%, TR V LT TN LCH ON DSH, FNT LT OIL ODOR

BKC 3482'-1545'

3491'-3492' SS- OFF WHT TO CRM (W/ LT TN OIL STN IN 20%), FRI TO V FRI, F/VFN SM TO MD S-ANG CLR QRTZ GRNS, PR SRT, CALC CMNT TO SIL CMNT IP, BRT YEL GLD IN 70%, DUL YEL GLD FLO IN 10%, PR TO TR FR INTER-GRN POR IN 4%, V PR WK FLSH CUT IN 10%, V PR SLW STRM CUT IN 15%, NO VIS LCH ON DSH, NO OIL ODOR

SH- RD TO DK RD MAROON IP, FRM TO V SFT, SPLNTY RIGGED TXT, W/ SCAT WHT CHRT IP

ARBUCKLE 3539'-1602'

3545'-3546' DOLO- WHT TO OFF WHT(BLCK TAR STAIN IN 10%), V HD DNS, V RE-XLN MTRX, ABDT IMB SM TO MD ANG TO S-ANG DOLO GRNS THUR, SCAT DISS PYR, SPTTD BRT YEL GLD FLO IP, SLI TR INTER-GRN POR IP, V PR WK FLSH CUT IN 10%, V PR SLW STRM CUT IN 10%, NO VIS LCH ON DSH, NO VIS OIL ODOR

DOLO- WHT TO OFF WHT, HD DNS TO BRTT IP, MD-XLN, RE-XLN MTRX, ABDT IMB SM TO MD S-ANG DOLO GRNS THRU, SCAT IMB PYR THRU, DUL YEL MIN FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

DOLO- WHT TO OFF WHT IP, HD DNS TO BRTT IP, MD-XLN, RE-XLN MTRX, ABDT IMB SM S-ANG DOLO GRNS THRU, SCAT SM RND CLR QRTZ GRNS, TR PYR IP, BRT YEL MIN FLO THRU, DUL YEL MIN FLO IN 20%, PR INTER-GRN POR IN 5% , NO VIS CUT OR SHOW

DOLO- OFF WHT TO CRM, HD DNS TO BRTT, V RE-XLN MTRX, ABDT IMB SM S-ANG TO RND DOLO GRNS THRU, ABDT IMB SM TO MD RND CLR QRTZ GRNS THRU, DUL YEL MIN FLO SCAT IN 30%, NO VIS POR, NO VIS CUT OR SHOW

R.T.D. @ 1:30 P.M. 7/16/12

DROP SURVEY

T.O.F.L. @ 3:00 P.M. 7/16/12

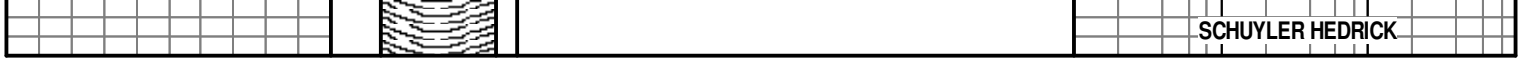
WEATHERFORD/ LIBERAL, KANSAS

C5 C3 C2 C1
87 U. BG
CN
82 U. BG
60 U. BG
CN
70 U. INC
45 U. BG
C3 C2 C1
TG, C1-C5
1 10 100 1000
44 U. BG
CN
64 U. INC
C4
C5
156 U. SHOW
C5
CN
C4 C3 C2 C1
176 U. SHOW
100 U. BG
117 U. SHOW
CN
85 U. BG
62 U. BG
85 U. INC
C3 C2 C1
40 U. BG
CN
137 U. BG
115 U. BG
CN
140 U. INC
C3 C2 C1
94 U. BG
CN
98 U. BG
82 U. BG
C3 C2 C1
CN
TG, C1-C5
1 10 100 1000
60 U. BG
CN
C3 C2 C1
55 U. BG

R.T.D. @ 3640'

SAMPLES WILL BE DELIVERED TO KGS

THANK YOU FOR CHOOSING EARTH TECH


SCHUYLER HEDRICK