



KANSAS CORPORATION COMMISSION 1114841
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

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

Spud Date or
Recompletion Date

Date Reached TD

Completion Date or
Recompletion Date

API No. 15 - _____

Spot Description: _____

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

_____ Feet from ☐ North / ☐ South Line of Section

_____ Feet from ☐ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☐ NE ☐ NW ☐ SE ☐ SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? ☐ Yes ☐ No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☐ Letter of Confidentiality Received

Date: _____

☐ Confidential Release Date: _____

☐ Wireline Log Received

☐ Geologist Report Received

☐ UIC Distribution

ALT ☐ I ☐ II ☐ III Approved by: _____ Date: _____

1114841

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

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

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☐ Yes ☐ No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey ☐ Yes ☐ No Cores Taken ☐ Yes ☐ No Electric Log Run ☐ Yes ☐ No Electric Log Submitted Electronically ☐ Yes ☐ No <i>(If no, Submit Copy)</i> List All E. Logs Run:	☐ Log Formation (Top), Depth and Datum ☐ Sample Name Top Datum
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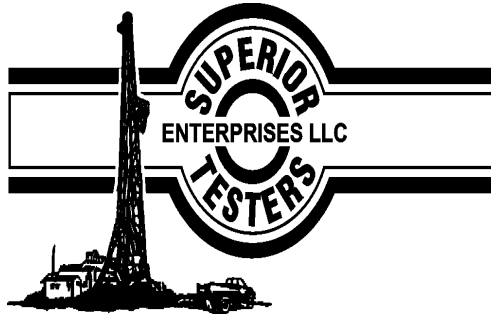
CASING RECORD ☐ New ☐ Used Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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				

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

TUBING RECORD:		Size:	Set At:	Packer At:	Liner Run: ☐ Yes ☐ No		
Date of First, Resumed Production, SWD or ENHR.				Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity		

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. <i>(Submit ACO-5)</i> ☐ Commingled <i>(Submit ACO-4)</i> ☐ Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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DRILL STEM TEST REPORT

Prepared For: **Gra EX,L.L.C**

2435 N Marquette,Kingman,KS 67068+1066

ATTN: Jeff Burk

Staub #1

31-24-13w Stafford

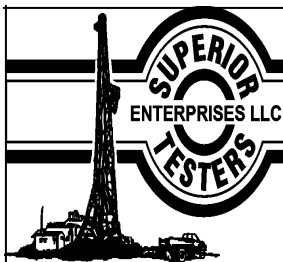
Start Date: 2012.06.18 @ 09:19:00

End Date: 2012.06.18 @ 15:08:30

Job Ticket #: 17147 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.06.18 @ 15:22:26



DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

ATTN: Jeff Burk

Job Ticket: 17147

DST#: 1

Test Start: 2012.06.18 @ 09:19:00

GENERAL INFORMATION:

Formation: **Lansing "I - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:11:30

Time Test Ended: 15:08:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-Great Bend-

Interval: 3798.00 ft (KB) To 3850.00 ft (KB) (TVD)

Total Depth: 3850.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1946.00 ft (KB)

1940.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 6731

Press@RunDepth: 65.41 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.18

End Date:

2012.06.18

Last Calib.:

2012.06.18

Start Time: 09:19:00

End Time:

15:08:30

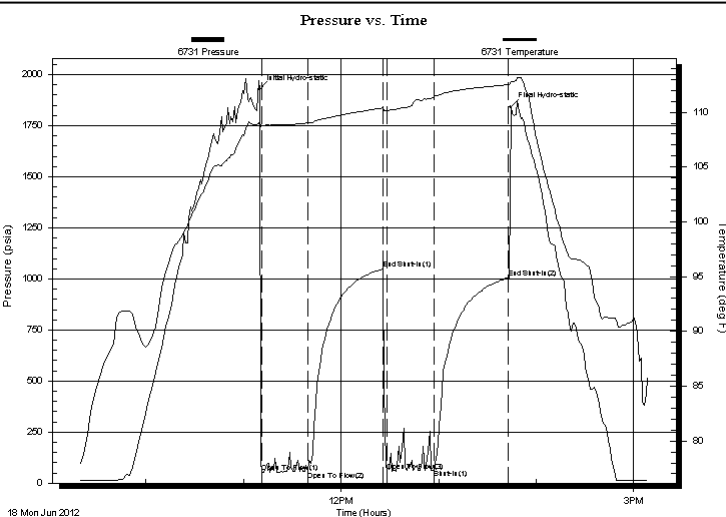
Time On Btm:

2012.06.18 @ 11:10:00

Time Off Btm:

2012.06.18 @ 13:44:30

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 1/2 inch into water in 30 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Very weak surface blow stayed steady throughout opening
2nd Shut-in 45 Minutes-No blow back



PRESSURE SUMMARY

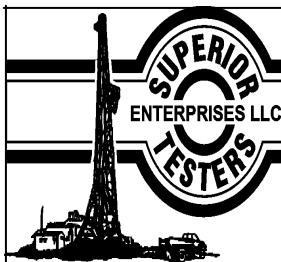
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1929.01	109.19	Initial Hydro-static
2	52.35	108.82	Open To Flow (1)
30	58.21	109.02	Open To Flow (2)
76	1048.96	110.41	End Shut-In(1)
78	59.08	110.16	Open To Flow (3)
107	65.41	111.41	Shut-In(1)
153	1006.30	112.53	End Shut-In(2)
155	1842.49	112.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	Mud	0.35

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

ATTN: Jeff Burk

Job Ticket: 17147

DST#: 1

Test Start: 2012.06.18 @ 09:19:00

GENERAL INFORMATION:

Formation: **Lansing "I - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:11:30

Time Test Ended: 15:08:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-Great Bend-

Interval: 3798.00 ft (KB) To 3850.00 ft (KB) (TVD)

Total Depth: 3850.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1946.00 ft (KB)

1940.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 8159

Press@RunDepth: 1007.42 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.18

End Date:

2012.06.18

Last Calib.:

2012.06.18

Start Time: 09:19:00

End Time:

15:08:00

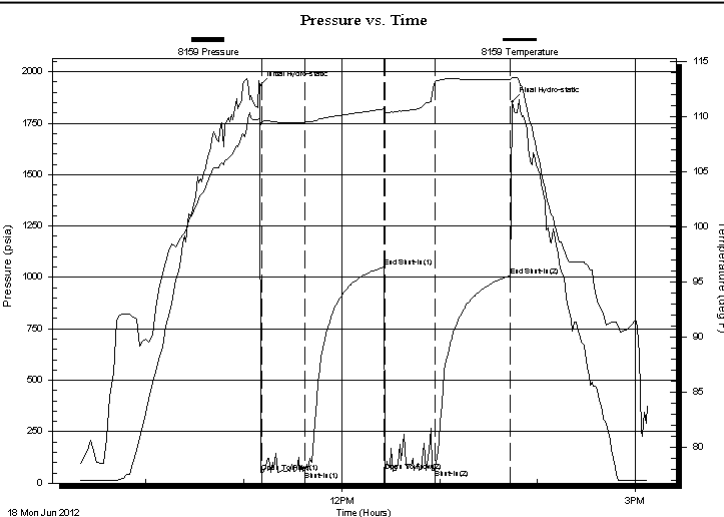
Time On Btm:

2012.06.18 @ 11:10:00

Time Off Btm:

2012.06.18 @ 13:44:30

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 1/2 inch into water in 30 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Very weak surface blow stayed steady throughout opening
2nd Shut-in 45 Minutes-No blow back



PRESSURE SUMMARY

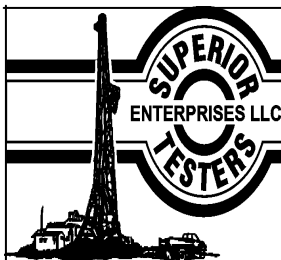
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1932.01	109.75	Initial Hydro-static
1	52.74	109.47	Open To Flow (1)
28	59.84	109.47	Shut-In(1)
76	1050.21	110.68	End Shut-In(1)
77	58.72	110.29	Open To Flow (2)
107	68.38	113.11	Shut-In(2)
153	1007.42	113.40	End Shut-In(2)
155	1853.19	113.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	Mud	0.35

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17147

DST#: 1

ATTN: Jeff Burk

Test Start: 2012.06.18 @ 09:19:00

Tool Information

Drill Pipe:	Length:	3790.00 ft	Diameter:	3.80 inches	Volume:	53.16 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	50000.00 lb
					Total Volume:	53.16 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		12.00 ft					String Weight: Initial	40000.00 lb
Depth to Top Packer:		3798.00 ft					Final	40000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		52.00 ft						
Tool Length:		72.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

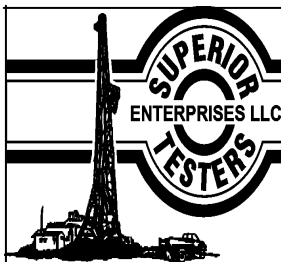
Tool Comments: was some plugging

Tool Description

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

SHut-InTool	5.00		Inside	3783.00		
Hydraulic Tool	5.00			3788.00		
Packer	5.00			3793.00	20.00	Bottom Of Top Packer
Packer	5.00			3798.00		
Anchor	0.00			3798.00		
Change Over Sub	0.75			3798.75		
Drill Pipe	31.50		Outside	3830.25		
Change Over Sub	0.75		Outside	3831.00		
Anchor	14.00			3845.00		
Recorder	1.00	6731	Inside	3846.00		
Recorder	1.00	8159	Outside	3847.00		
Bullnose	3.00			3850.00	52.00	Bottom Packers & Anchor

Total Tool Length: 72.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17147

DST#: 1

ATTN: Jeff Burk

Test Start: 2012.06.18 @ 09:19:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 9.60 in³

Resistivity: ohm.m

Salinity: 7200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	Mud	0.351

Total Length: 25.00 ft

Total Volume: 0.351 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

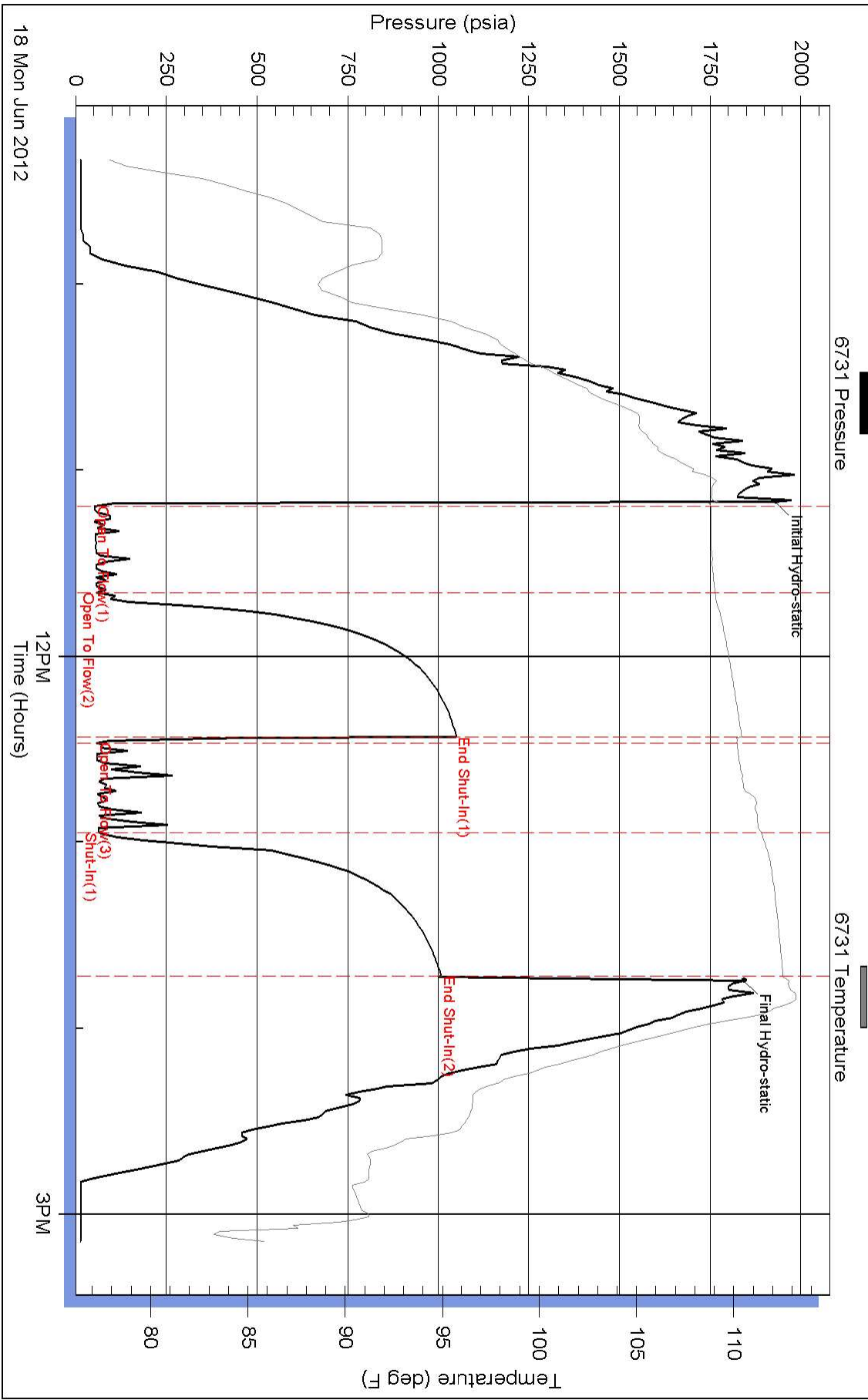
Serial #: 6731

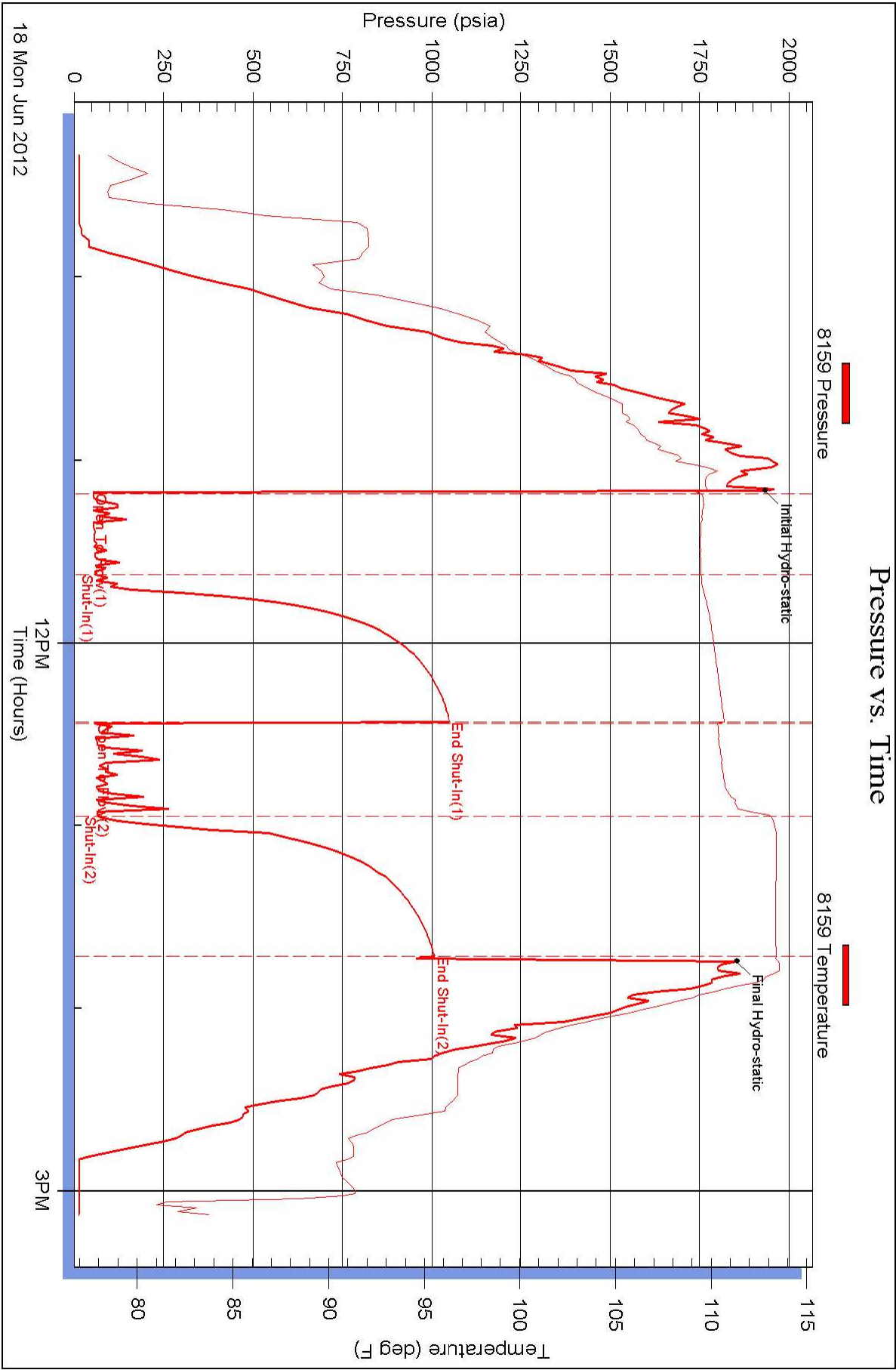
Gra EX.L.L.C

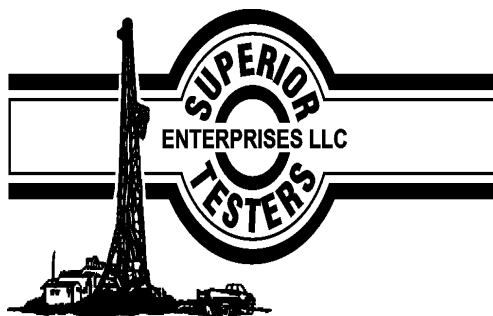
Staub #1

DST Test Number: 1

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Gra EX,L.L.C**

2435 N Marquette,Kingman,KS 67068+1066

ATTN: Jeff Burk

Staub #1

31-24-13w Stafford

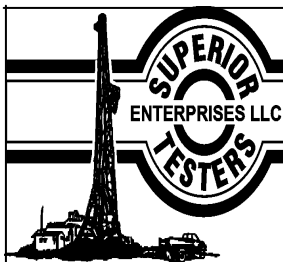
Start Date: 2012.06.19 @ 12:35:00

End Date: 2012.06.19 @ 18:52:00

Job Ticket #: 17148 DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.06.19 @ 07:07:49



DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

Job Ticket: 17148

DST#: 2

ATTN: Jeff Burk

Test Start: 2012.06.19 @ 12:35:00

GENERAL INFORMATION:

Formation: **Lansing " L " zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:11:00

Time Test Ended: 18:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320- Great Bend-

Interval: 3876.00 ft (KB) To 3916.00 ft (KB) (TVD)

Reference Elevations: 1946.00 ft (KB)

Total Depth: 3916.00 ft (KB) (TVD)

1940.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 6.00 ft

Serial #: 6731

Press@RunDepth: 60.63 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.19

End Date:

2012.06.19

Last Calib.:

2012.06.19

Start Time: 12:35:00

End Time:

18:52:00

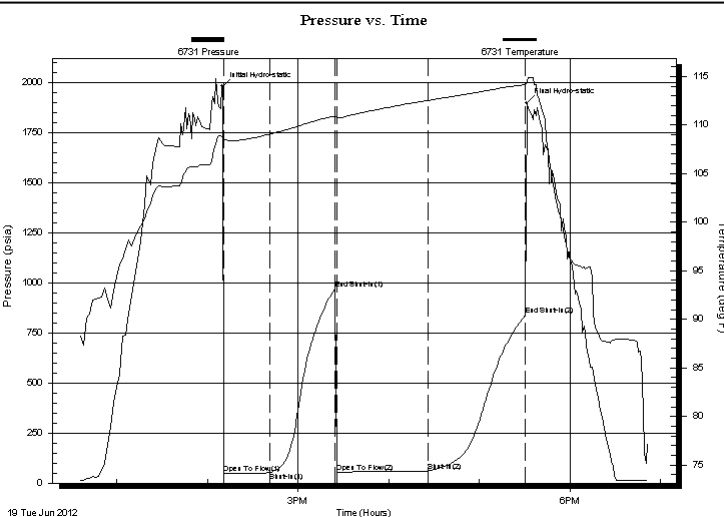
Time On Btm:

2012.06.19 @ 14:10:00

Time Off Btm:

2012.06.19 @ 17:31:30

TEST COMMENT: 1st Opening 30 Minutes-Weak building blow built 1 1/2 into water in 30 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 60 Minutes-Very weak surface blow built 1/2 inch into water in 60 minutes
2nd Shut-in 60 Minutes-No blow back



PRESSURE SUMMARY

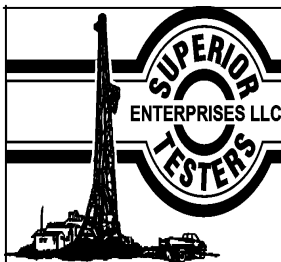
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1978.98	108.86	Initial Hydro-static
1	47.26	108.48	Open To Flow (1)
32	52.22	109.08	Shut-In(1)
75	968.91	110.94	End Shut-In(1)
76	55.56	110.72	Open To Flow (2)
136	60.63	112.53	Shut-In(2)
201	837.80	114.17	End Shut-In(2)
202	1895.79	114.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Spot oil cut mud 100% mud	0.70

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

Job Ticket: 17148

DST#: 2

ATTN: Jeff Burk

Test Start: 2012.06.19 @ 12:35:00

GENERAL INFORMATION:

Formation: **Lansing " L " zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:11:00

Time Test Ended: 18:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320- Great Bend-

Interval: 3876.00 ft (KB) To 3916.00 ft (KB) (TVD)

Reference Elevations: 1946.00 ft (KB)

Total Depth: 3916.00 ft (KB) (TVD)

1940.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 6.00 ft

Serial #: 8159

Press@RunDepth: 837.72 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.19

End Date:

2012.06.19

Last Calib.:

2012.06.19

Start Time: 12:35:00

End Time:

18:52:00

Time On Btm:

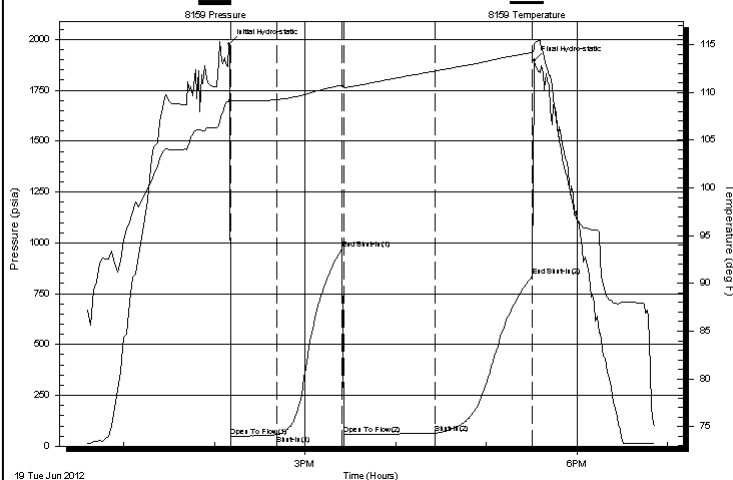
2012.06.19 @ 14:10:00

Time Off Btm:

2012.06.19 @ 17:32:00

TEST COMMENT: 1st Opening 30 Minutes-Weak building blow built 1 1/2 into water in 30 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 60 Minutes-Very weak surface blow built 1/2 inch into water in 60 minutes
2nd Shut-in 60 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

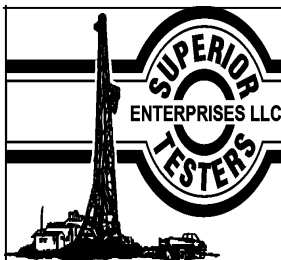
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1978.68	109.40	Initial Hydro-static
1	48.73	109.12	Open To Flow (1)
32	53.30	109.24	Shut-In(1)
75	968.78	110.80	End Shut-In(1)
76	57.01	110.52	Open To Flow (2)
136	61.70	112.24	Shut-In(2)
201	837.72	114.17	End Shut-In(2)
202	1896.16	115.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Spot oil cut mud 100% mud	0.70

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17148

DST#: 2

ATTN: Jeff Burk

Test Start: 2012.06.19 @ 12:35:00

Tool Information

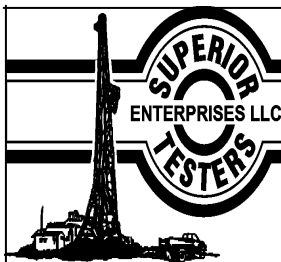
Drill Pipe:	Length:	3884.00 ft	Diameter:	3.80 inches	Volume:	54.48 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	54.48 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		28.00 ft					String Weight: Initial	40000.00 lb
Depth to Top Packer:		3876.00 ft					Final	40000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		40.00 ft						
Tool Length:		60.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments: Hit bridge 300 feet off bottom

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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SHut-InTool	5.00		Inside	3861.00	
Hydraulic Tool	5.00			3866.00	
Packer	5.00			3871.00	20.00 Bottom Of Top Packer
Packer	5.00			3876.00	
Anchor	35.00			3911.00	
Recorder	1.00	6731	Inside	3912.00	
Recorder	1.00	8159	Outside	3913.00	
Bullnose	3.00			3916.00	40.00 Bottom Packers & Anchor

Total Tool Length: 60.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17148

DST#: 2

ATTN: Jeff Burk

Test Start: 2012.06.19 @ 12:35:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 9.59 in³

Resistivity: ohm.m

Salinity: 7200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	Spot oil cut mud 100% mud	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Hit bridge 300 feet off bottom

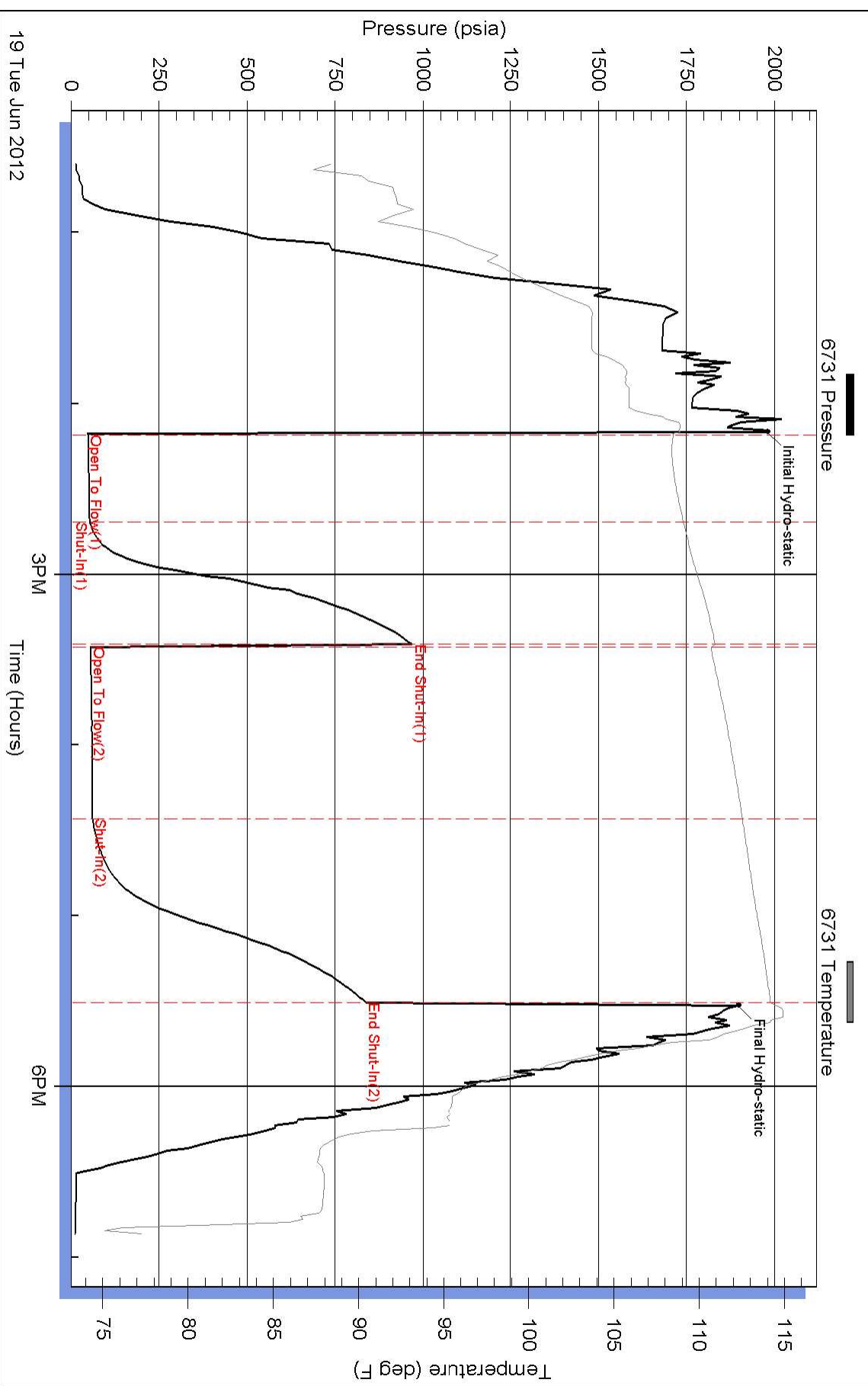
Serial #: 6731

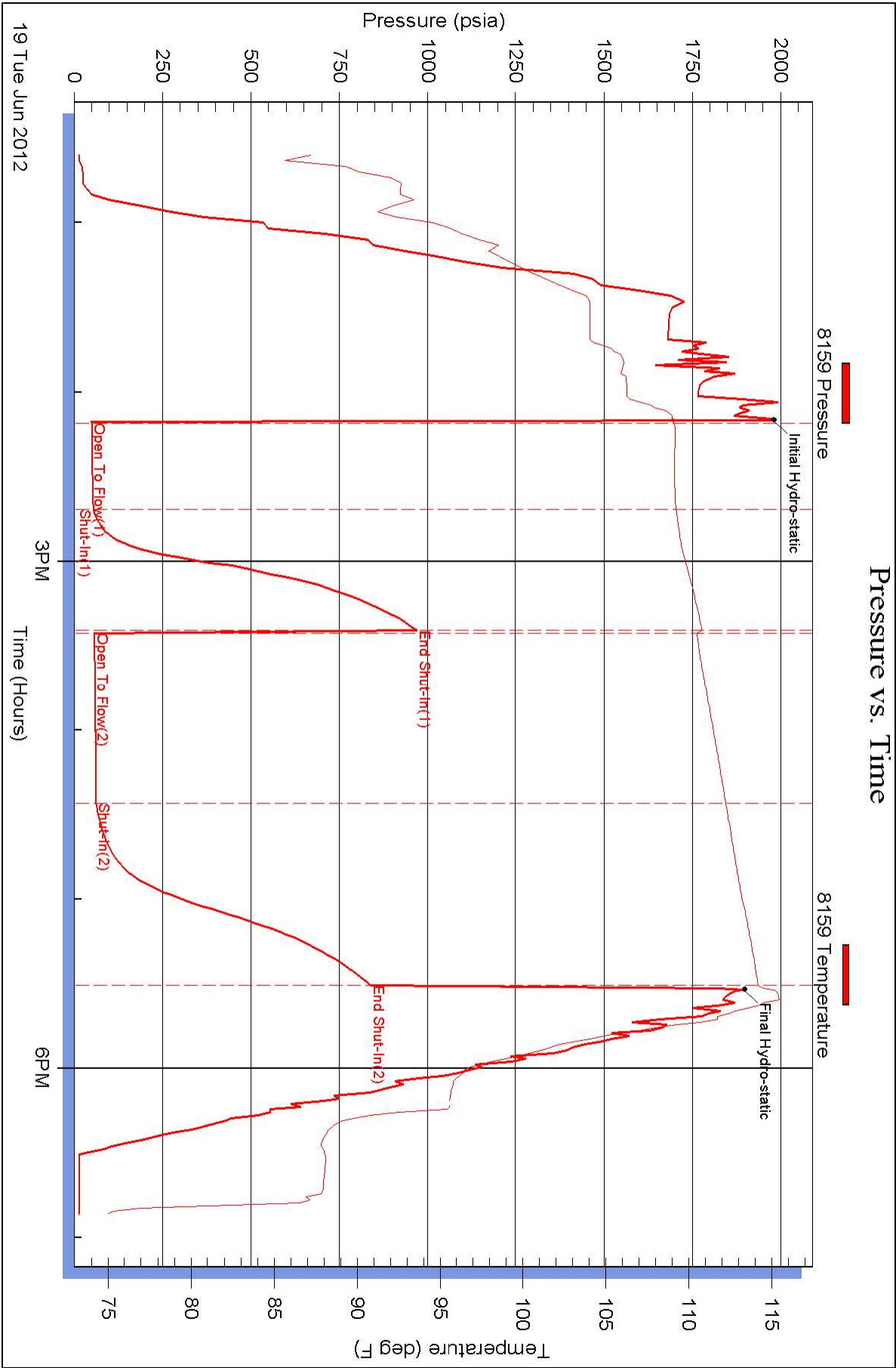
Gra EX.L.L.C

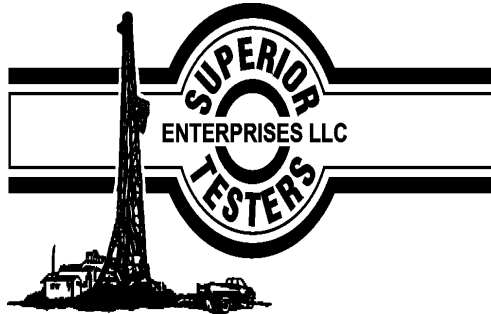
Staub #1

DST Test Number: 2

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Gra EX,L.L.C**

2435 N Marquette,Kingman,KS 67068+1066

ATTN: Jeff Burk

Staub #1

31-24-13w Stafford

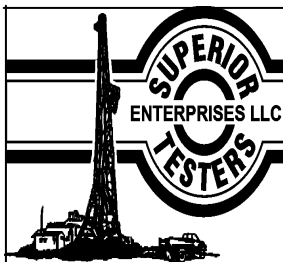
Start Date: 2012.06.19 @ 16:59:00

End Date: 2012.06.19 @ 23:46:00

Job Ticket #: 17149 DST #: 3

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.06.20 @ 00:09:55



DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

Job Ticket: 17149

DST#: 3

ATTN: Jeff Burk

Test Start: 2012.06.19 @ 16:59:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:24:00

Time Test Ended: 23:46:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-Great Bend-60

Interval: 3991.00 ft (KB) To 4026.00 ft (KB) (TVD)

Reference Elevations: 1946.00 ft (KB)

Total Depth: 4026.00 ft (KB) (TVD)

1940.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 6.00 ft

Serial #: 6731

Press@RunDepth: 69.67 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.19

End Date:

2012.06.19

Last Calib.:

2012.06.20

Start Time: 16:59:00

End Time:

23:46:00

Time On Btm:

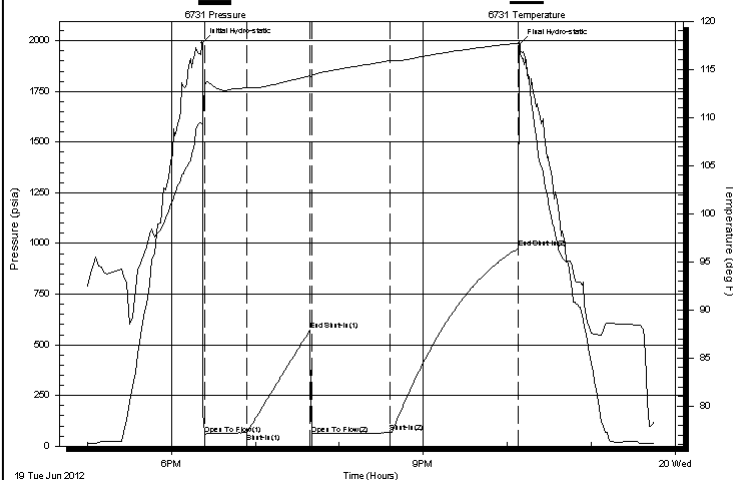
2012.06.19 @ 18:22:00

Time Off Btm:

2012.06.19 @ 22:09:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute
1st Shut-in 45 Minutes-No blow back
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 1 minute
2nd Shut-in 90 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

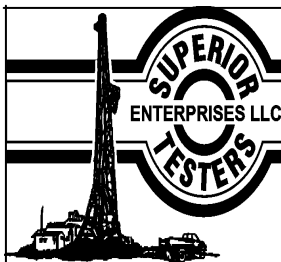
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1991.33	109.41	Initial Hydro-static
2	60.05	113.39	Open To Flow (1)
32	65.48	113.08	Shut-In(1)
77	570.63	114.33	End Shut-In(1)
79	60.24	114.39	Open To Flow (2)
134	69.67	115.88	Shut-In(2)
226	975.69	117.72	End Shut-In(2)
227	1984.39	117.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Gassy mud 10%gas 90%mud	0.91
0.00	1200 feet gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

ATTN: Jeff Burk

Job Ticket: 17149

DST#: 3

Test Start: 2012.06.19 @ 16:59:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:24:00

Time Test Ended: 23:46:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-Great Bend-60

Interval: 3991.00 ft (KB) To 4026.00 ft (KB) (TVD)

Total Depth: 4026.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1946.00 ft (KB)

1940.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 8159

Press@RunDepth: 976.66 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.19

End Date:

2012.06.19

Last Calib.:

2012.06.20

Start Time: 16:59:00

End Time:

23:46:00

Time On Btm:

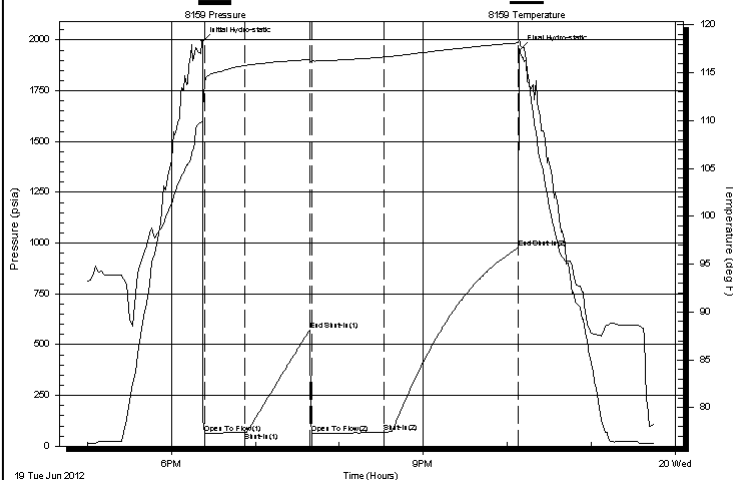
2012.06.19 @ 18:22:00

Time Off Btm:

2012.06.19 @ 22:09:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute
1st Shut-in 45 Minutes-No blow back
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 1 minute
2nd Shut-in 90 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

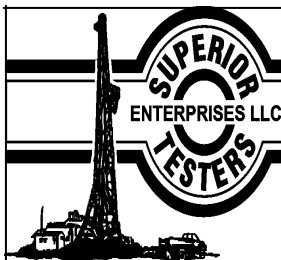
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1994.16	110.01	Initial Hydro-static
2	62.86	113.94	Open To Flow (1)
31	67.36	115.78	Shut-In(1)
77	572.25	116.40	End Shut-In(1)
79	62.38	116.23	Open To Flow (2)
130	66.92	116.66	Shut-In(2)
226	976.66	118.15	End Shut-In(2)
227	1951.23	118.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Gassy mud 10%gas 90%mud	0.91
0.00	1200 feet gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



DRILL STEM TEST REPORT

TOOL DIAGRAM

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17149

DST#: 3

ATTN: Jeff Burk

Test Start: 2012.06.19 @ 16:59:00

Tool Information

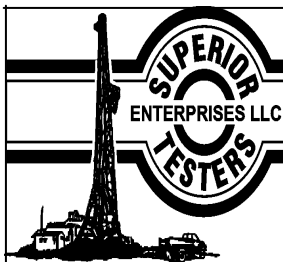
Drill Pipe:	Length:	3979.00 ft	Diameter:	3.80 inches	Volume:	55.81 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	75000.00 lb
					Total Volume:	55.81 bbl	Tool Chased	6.00 ft
Drill Pipe Above KB:		16.00 ft					String Weight: Initial	40000.00 lb
Depth to Top Packer:		3991.00 ft					Final	41000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		35.00 ft						
Tool Length:		63.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments: tool chased 6 feet to bottom

Tool Description

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

SHut-InTool	5.00		Inside	3968.00		
Hydrolic Tool	5.00			3973.00		
Jars	6.00			3979.00		
Safety Joint	2.00			3981.00		
Packer	5.00			3986.00	28.00	Bottom Of Top Packer
Packer	5.00			3991.00		
Anchor	30.00			4021.00		
Recorder	1.00		Inside	4022.00		
Recorder	1.00		Outside	4023.00		
Bullnose	3.00			4026.00	35.00	Bottom Packers & Anchor
Total Tool Length:	63.00					



DRILL STEM TEST REPORT

FLUID SUMMARY

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17149

DST#: 3

ATTN: Jeff Burk

Test Start: 2012.06.19 @ 16:59:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 9.60 in³

Resistivity: ohm.m

Salinity: 7200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Gassy mud 10%gas 90%mud	0.912
0.00	1200 feet gas in pipe	0.000

Total Length: 65.00 ft Total Volume: 0.912 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

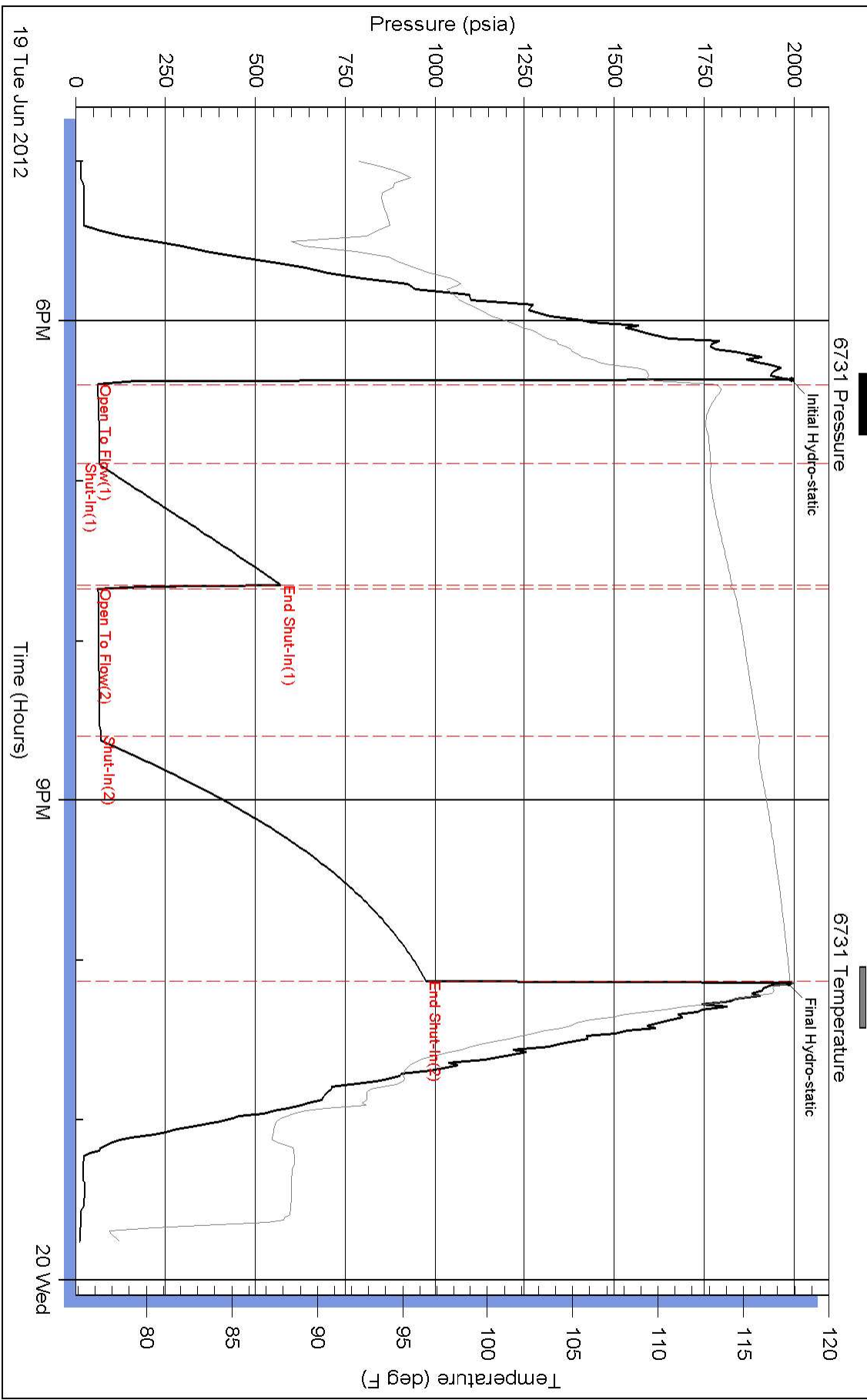
Serial #:

Laboratory Name:

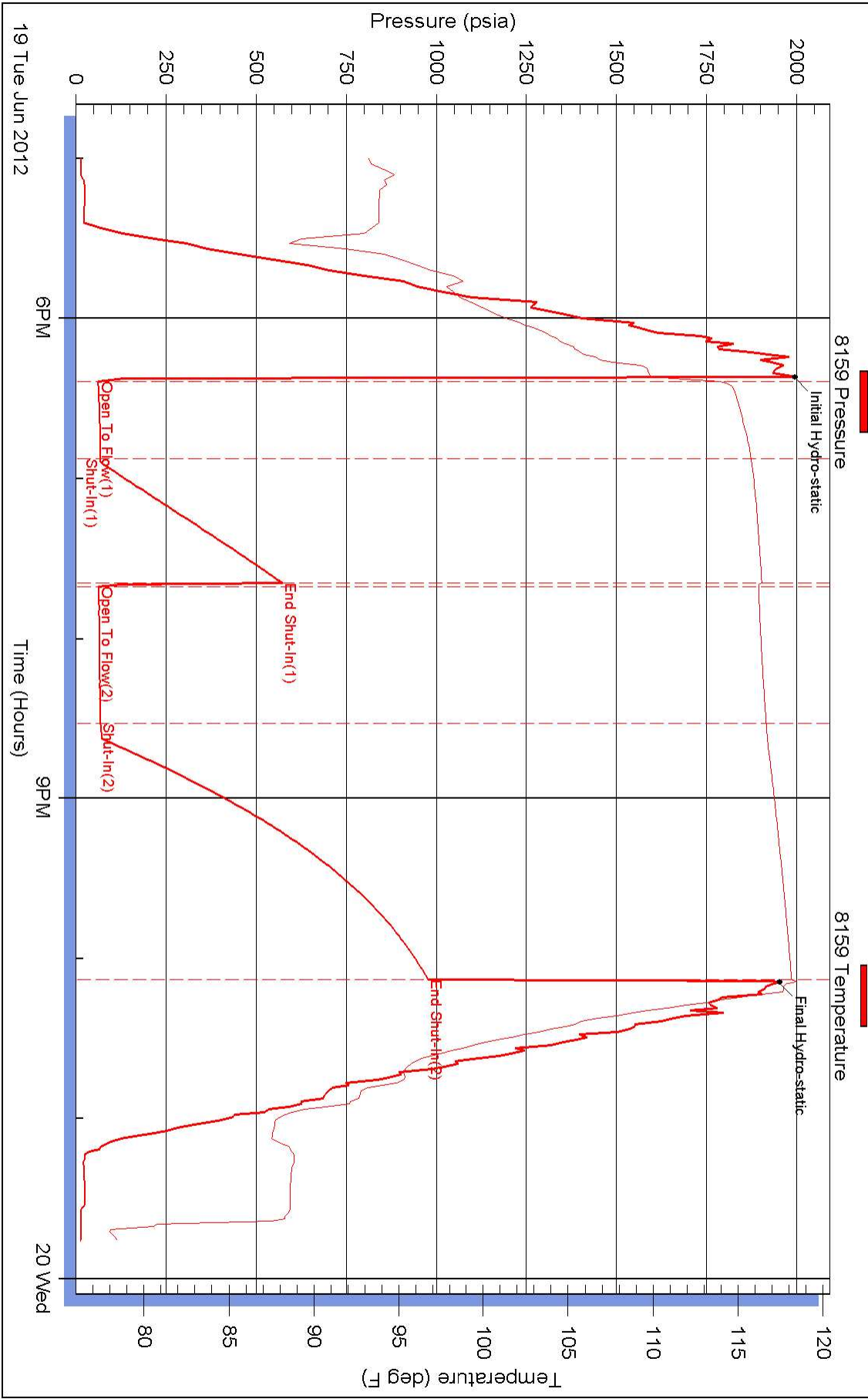
Laboratory Location:

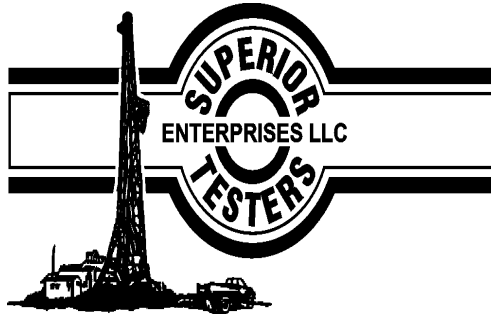
Recovery Comments: tool chased 6 feet to bottom

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Gra EX,L.L.C**

2435 N Marquette,Kingman,KS 67068+1066

ATTN: Jeff Burk

Staub #1

31-24-13w Stafford

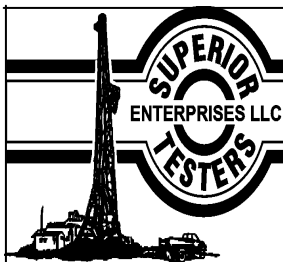
Start Date: 2012.06.20 @ 15:40:00

End Date: 2012.06.20 @ 21:30:00

Job Ticket #: 17150 DST #: 4

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.06.20 @ 21:45:39



DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

Job Ticket: 17150

DST#: 4

ATTN: Jeff Burk

Test Start: 2012.06.20 @ 15:40:00

GENERAL INFORMATION:

Formation: **Viola /chert**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:04:00

Time Test Ended: 21:30:00

Test Type: Conventional Straddle (Initial)

Tester: Jared Scheck

Unit No: 3320-Great Bend -60

Interval: 4132.00 ft (KB) To 4160.00 ft (KB) (TVD)

Total Depth: 4216.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1946.00 ft (KB)

1940.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 6731

Press@RunDepth: 64.88 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.20

End Date:

2012.06.20

Last Calib.:

2012.06.20

Start Time: 15:40:00

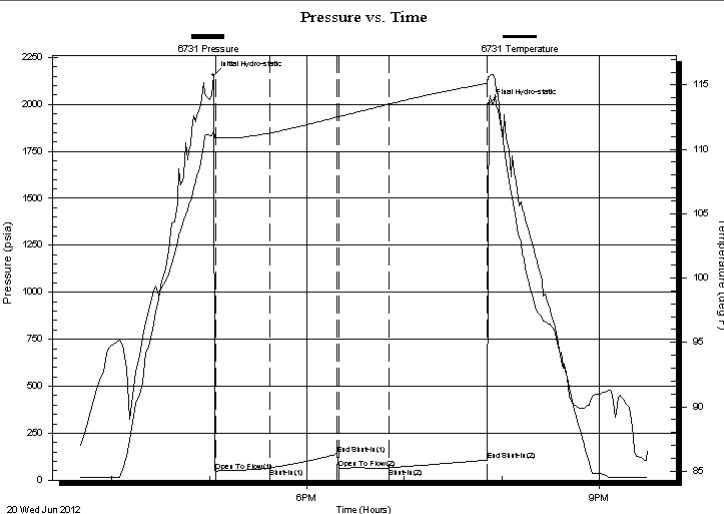
End Time:

21:30:00

Time On Btm: 2012.06.20 @ 17:02:30

Time Off Btm: 2012.06.20 @ 19:52:00

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 2 inches into water in 30 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Very weak surface blow built 1/2 inch into water stayed steady throughout open
2nd Shut-in 60 Minutes-No blow back



PRESSURE SUMMARY

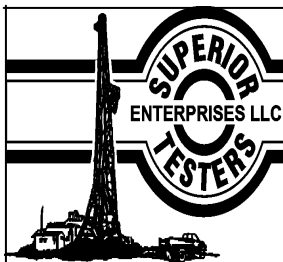
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2155.29	111.49	Initial Hydro-static
2	48.05	110.92	Open To Flow (1)
35	65.52	111.27	Shut-In (1)
76	140.01	112.51	End Shut-In (1)
78	60.40	112.53	Open To Flow (2)
108	64.88	113.52	Shut-In (2)
169	107.64	115.15	End Shut-In (2)
170	2001.40	115.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	mud	0.70

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Gra EX, L.L.C

31-24-13w Stafford

2435 N Marquette, Kingman, KS 67068+1066

Staub #1

Job Ticket: 17150

DST#: 4

ATTN: Jeff Burk

Test Start: 2012.06.20 @ 15:40:00

GENERAL INFORMATION:

Formation: **Viola /chert**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:04:00

Time Test Ended: 21:30:00

Test Type: Conventional Straddle (Initial)

Tester: Jared Scheck

Unit No: 3320-Great Bend -60

Interval: 4132.00 ft (KB) To 4160.00 ft (KB) (TVD)

Reference Elevations: 1946.00 ft (KB)

Total Depth: 4216.00 ft (KB) (TVD)

1940.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 6.00 ft

Serial #: 8525

Press@RunDepth: 124.77 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.06.20

End Date:

2012.06.20

Last Calib.:

2012.06.20

Start Time: 15:40:00

End Time:

21:28:00

Time On Btm:

2012.06.20 @ 17:00:30

Time Off Btm:

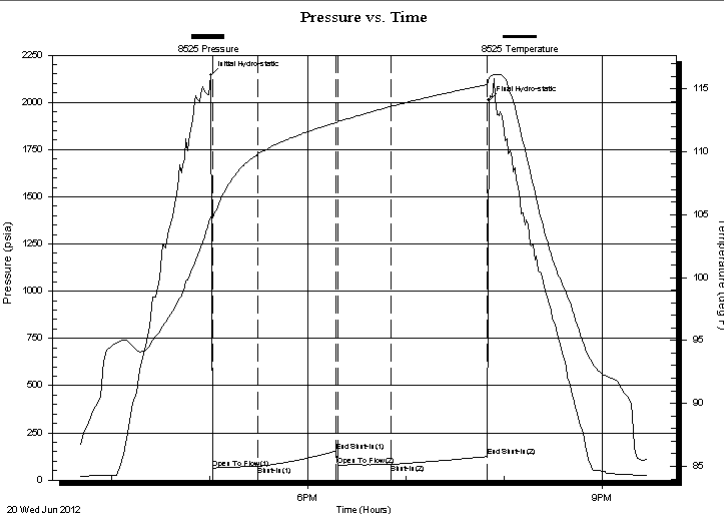
2012.06.20 @ 19:50:30

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 2 inches into water in 30 minutes

1st Shut-in 45 Minutes-No blow back

2nd Opening 30 Minutes-Very weak surface blow built 1/2 inch into water stayed steady throughout open

2nd Shut-in 60 Minutes-No blow back



PRESSURE SUMMARY

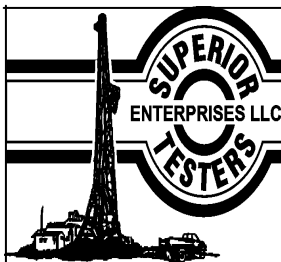
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2144.03	104.80	Initial Hydro-static
1	60.99	104.74	Open To Flow (1)
29	73.93	109.79	Shut-In (1)
77	154.68	112.32	End Shut-In (1)
78	78.88	112.38	Open To Flow (2)
110	82.93	113.58	Shut-In (2)
169	124.77	115.33	End Shut-In (2)
170	2010.61	115.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	mud	0.70

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



DRILL STEM TEST REPORT

TOOL DIAGRAM

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17150

DST#: 4

ATTN: Jeff Burk

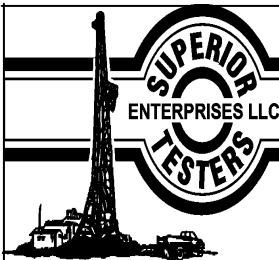
Test Start: 2012.06.20 @ 15:40:00

Tool Information

Drill Pipe:	Length: 4108.00 ft	Diameter: 3.80 inches	Volume: 57.62 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume:	57.62 bbl	Tool Chased 4.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	4132.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	4160.00 ft			
Interval between Packers:	28.00 ft			
Tool Length:	118.00 ft			
Number of Packers:	3	Diameter:	6.75 inches	

Tool Comments: Tool chased 4 feet to bottom

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
S.I. Tool	5.00			4109.00	
HYD S.I. Tool	5.00			4114.00	
Jars	6.00			4120.00	
Safety Joint	2.00			4122.00	
Packer	5.00			4127.00	28.00 Bottom Of Top Packer
Packer	5.00			4132.00	
Recorder	1.00			4133.00	
Recorder	1.00			4134.00	
Anchor	25.50			4159.50	
Blank Off Sub	0.50			4160.00	28.00 Tool Interval
Packer	5.00			4165.00	
Recorder	1.00			4166.00	
Change Over	0.50			4166.50	
Drill pipe	31.00			4197.50	
Change Over	0.50			4198.00	
Tail pipe	24.00			4222.00	62.00 Bottom Packers & Anchor
Total Tool Length:	118.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Gra EX,L.L.C

31-24-13w Stafford

2435 N Marquette,Kingman,KS 67068+1066

Staub #1

Job Ticket: 17150

DST#: 4

ATTN: Jeff Burk

Test Start: 2012.06.20 @ 15:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 13.59 in³

Resistivity: ohm.m

Salinity: 14000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	mud	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

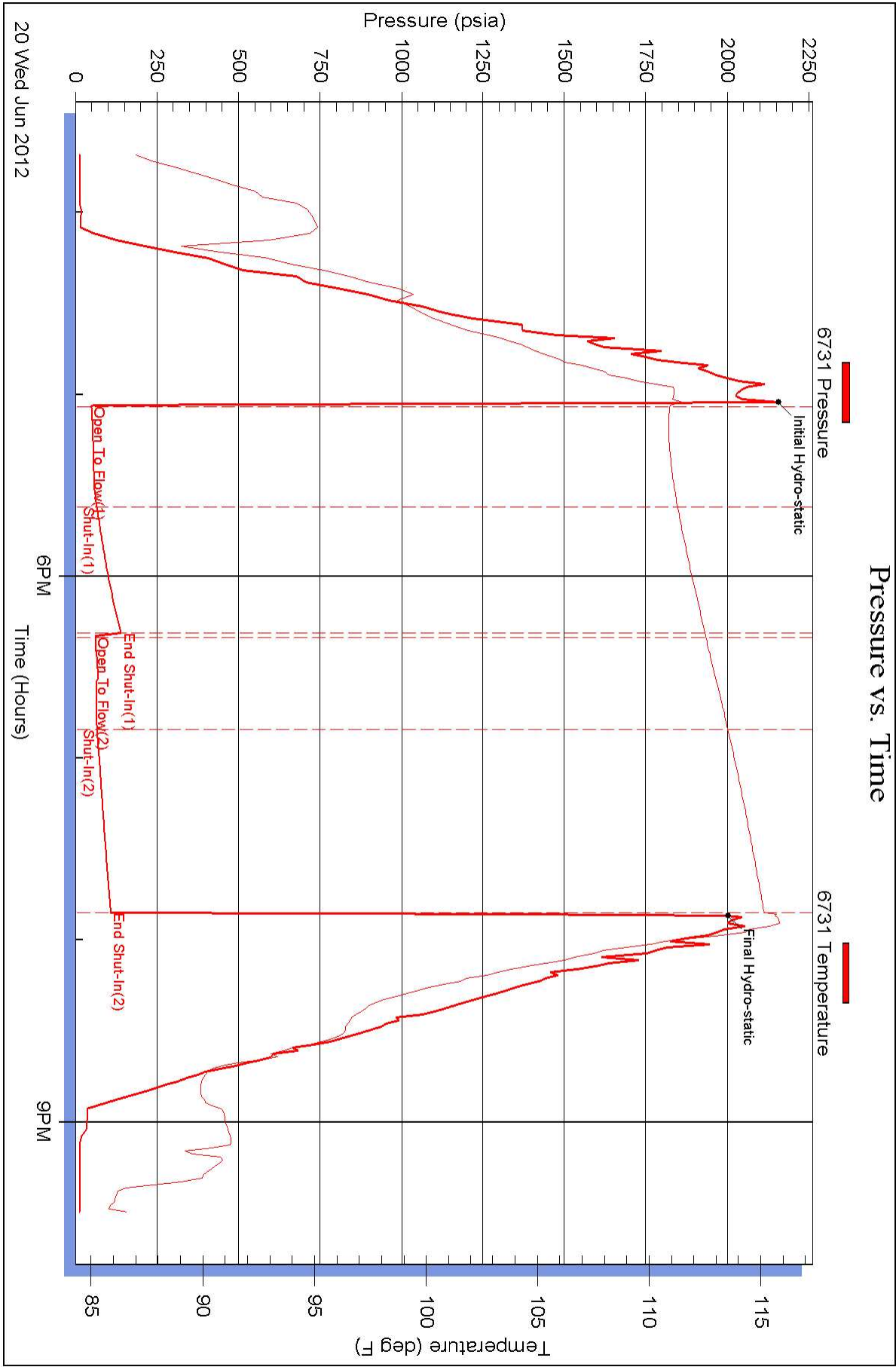
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Tool chased 4 feet to bottom

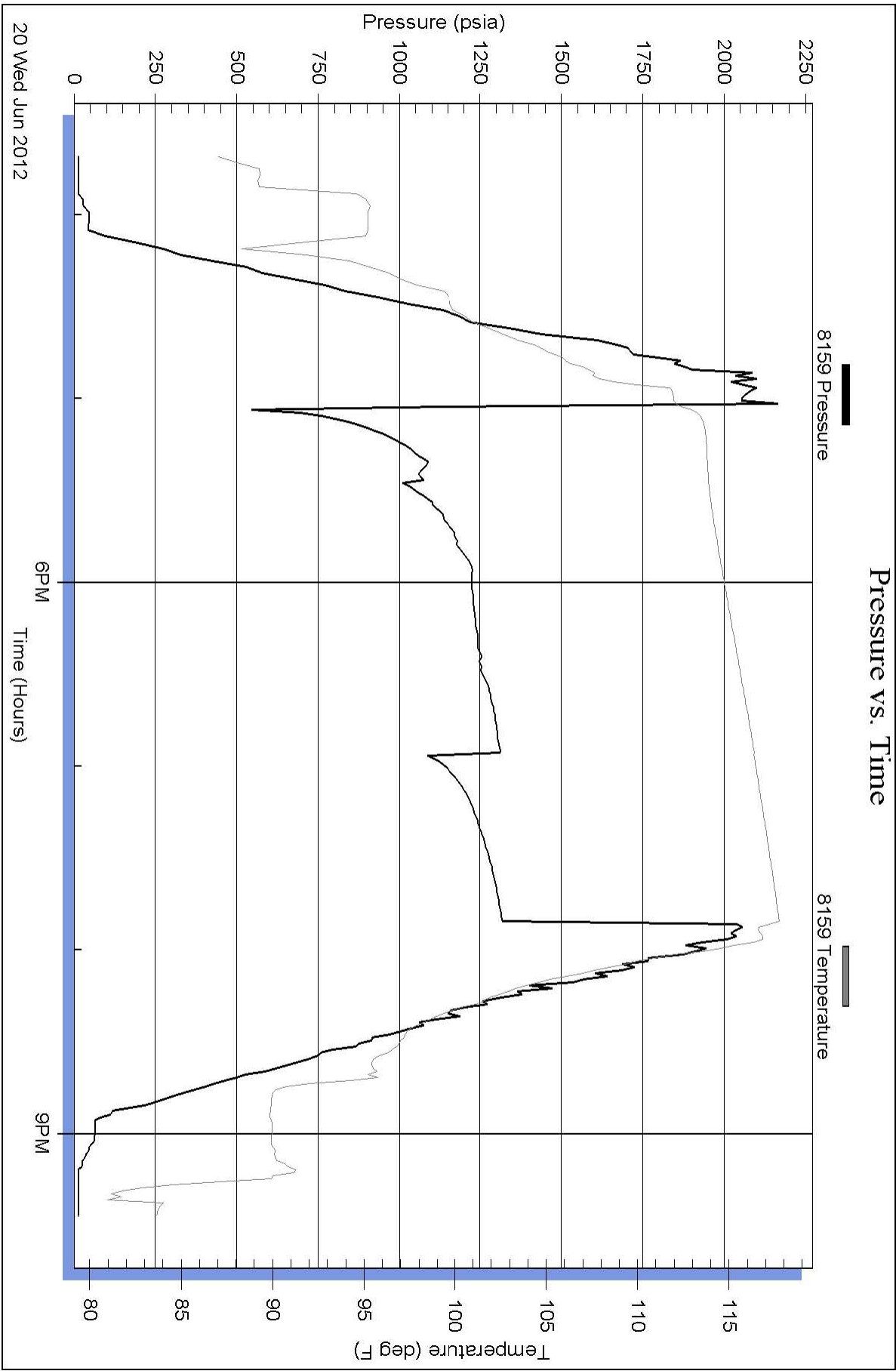


Serial #: 8159

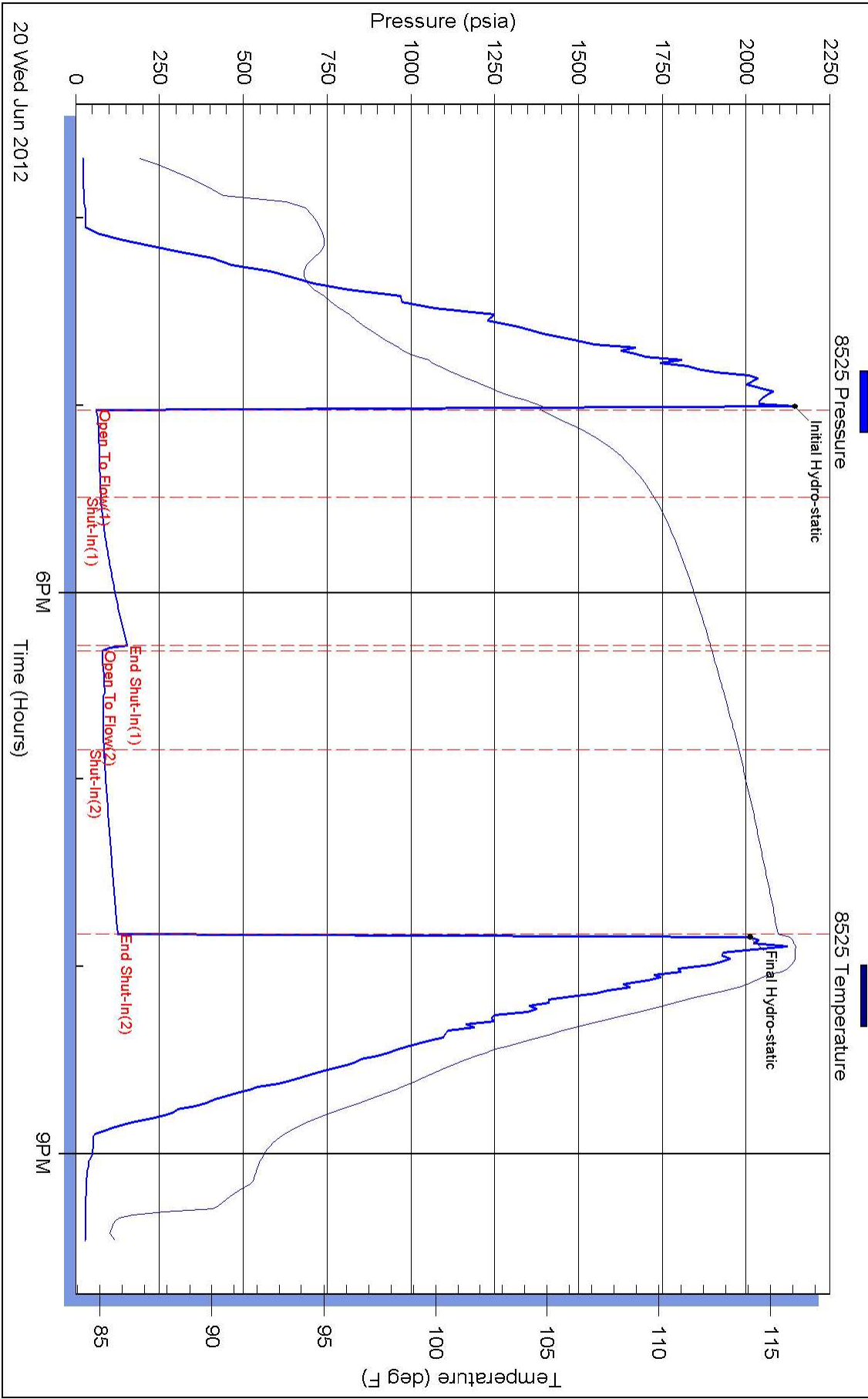
Gra EX.L.L.C

Staub #1

DST Test Number: 4



Pressure vs. Time





PAGE	CTT NO	INVOICE DATE
1 of 1	1001703	06/14/2012
INVOICE NUMBER		
1718 - 90928785		

Pratt (620) 672-1201
 B GRA-EX LLC
 I PO Box: 32
 L KINGMAN
 KS US 67068
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Staub 1
 O LOCATION
 B COUNTY Stafford
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.		TERMS	DUE DATE
40475044	27463			Cash Sale	06/14/2012
		QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 06/13/2012 to 06/13/2012					
0040475044					
171806146A Cement-New Well Casing/Pl 06/13/2012					
Cement 8 5/8" Surface					
60/40 POZ	250.00	EA	9.12	2,280.00	T
Celloflaka	63.00	EA	2.81	177.16	T
Calcium Chloride	645.00	EA	0.80	514.71	T
"Wooden Cmt Plug, 8 5/8" "	1.00	EA	121.60	121.60	
"Unit Mileage Chg (PU, cars one way)"	20.00	MI	3.23	64.60	
Heavy Equipment Mileage	40.00	MI	5.32	212.80	
"Proppant & Bulk Del. Chgs., per ton mil	215.00	EA	1.22	261.44	
Depth Charge; 0-500'	1.00	EA	760.00	760.00	
Blending & Mixing Service Charge	250.00	BAG	1.06	266.00	
Plug Container Util. Chg.	1.00	EA	190.00	190.00	
"Service Supervisor, first 8 hrs on loc.	1.00	EA	133.00	133.00	
PLEASE REMIT TO: SEND OTHER CORRESPONDENCE TO:					
BASIC ENERGY SERVICES, LP		BASIC ENERGY SERVICES, LP		SUB TOTAL	4,981.31
PO BOX 841903		PO BOX 10460		TAX	216.95
DALLAS, TX 75284-1903		MIDLAND, TX 79702		INVOICE TOTAL	5,198.26



PAGE	CUST NO	INVOICE DATE
1 of 1	1001703	06/22/2012
INVOICE NUMBER		
1718 - 90935551		

Pratt (620) 672-1201
 B GRA-EX LLC
 I PO Box: 32
 L KINGMAN
 L KS US 67068
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Staub 1
 O LOCATION
 B COUNTY Stafford
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.		TERMS	DUE DATE
40478511	19905			Cash Sale	06/22/2012
		QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 06/21/2012 to 06/21/2012</i>					
0040478511					
171806342A Cement-New Well Casing/Pi 06/21/2012					
Cement PTA					
60/40 POZ		220.00	EA	9.12	2,006.40
Cement Gel		380.00	EA	0.19	72.20
"Unit Mileage Chg (PU, cars one way)"		20.00	MI	3.23	64.60
Heavy Equipment Mileage		40.00	MI	5.32	212.80
"Proppant & Bulk Del. Chgs., per ton mil		190.00	EA	1.22	231.00
Depth Charge: 4001'-5000'		1.00	EA	1,915.20	1,915.20
Blending & Mixing Service Charge		220.00	BAG	1.06	234.08
"Service Supervisor, first 8 hrs on loc.		1.00	EA	133.00	133.00
PLEASE REMIT TO: BASIC ENERGY SERVICES, LP PO BOX 841903 DALLAS, TX 75284-1903					
SEND OTHER CORRESPONDENCE TO: BASIC ENERGY SERVICES, LP PO BOX 10460 MIDLAND, TX 79702					
SUB TOTAL					4,869.32
TAX					151.74
INVOICE TOTAL					5,021.06