



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

Confidentiality Requested:

Yes No

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer

- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

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

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

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

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Summary of Changes

Lease Name and Number: Pfenninger 10D-30-1831

API/Permit #: 15-171-21071-00-00

Doc ID: 1237858

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	08/25/2014	01/07/2015
Completion Or Recompletion Date	06/26/2014	12/22/2014
Date of First or Resumed Production or SWD or Enhr Method Of Completion - Other	Yes	12/23/2014 No
Method Of Completion - Other Detail	waiting on completion	
Producing Method Other	No	Yes
Producing Method Other Detail		Injection/
Save Link	../../../../kcc/detail/operatorE ditDetail.cfm?docID=12 14693	../../../../kcc/detail/operatorE ditDetail.cfm?docID=12 37858 4256'
Tubing Packer At		4256'
Tubing Record - Set At		4256'

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Tubing Size		2.875
Well Type	SWD	EOR



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1214693
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

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

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

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

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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DRILL STEM TEST REPORT

Prepared For: **Discovery Natural Resources, llc**

410 17St STE 900
Denver CO 80202-4420

ATTN: Jim Musgrove/Gary Do

30-18s-31w Scot,KS

Pfenninger #10D-30-1831

Start Date: 2014.06.21 @ 02:45:00

End Date: 2014.06.21 @ 09:13:30

Job Ticket #: 57022 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.06.26 @ 11:16:17



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57022

DST#: 1

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.21 @ 02:45:00

GENERAL INFORMATION:

Formation: **LKC "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:09:45

Time Test Ended: 09:13:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 75

Interval: 4291.00 ft (KB) To 4320.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4320.00 ft (KB) (TVD)

2983.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8675

Inside

Press@RunDepth: 21.80 psig @ 4292.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.21

End Date:

2014.06.21

Last Calib.:

2014.06.21

Start Time: 02:45:15

End Time:

09:13:30

Time On Btm:

2014.06.21 @ 05:09:00

Time Off Btm:

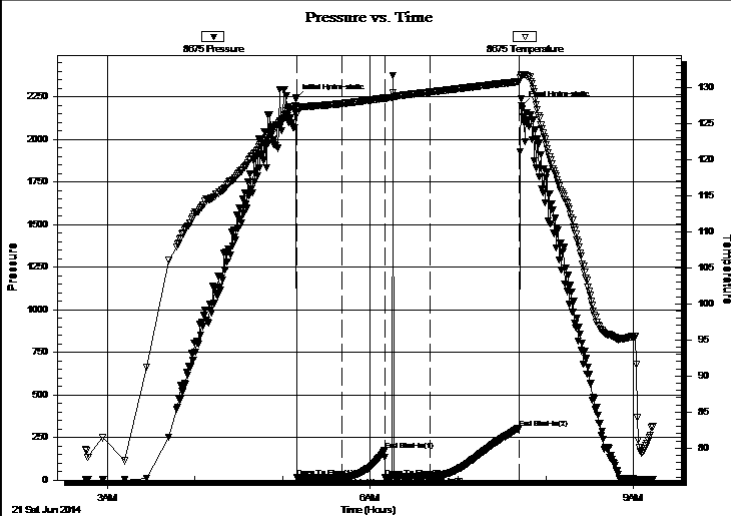
2014.06.21 @ 07:43:30

TEST COMMENT: Weak blow , died in 20 min.

No return blow

No blow , Flushed tool, Surge blow

No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2238.90	127.45	Initial Hydro-static
1	16.67	126.19	Open To Flow (1)
32	16.46	127.72	Shut-In(1)
61	175.48	128.50	End Shut-In(1)
62	17.30	128.43	Open To Flow (2)
92	21.80	129.33	Shut-In(2)
153	306.06	130.76	End Shut-In(2)
155	2199.24	131.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud w ith oil spots	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57022

DST#: 1

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.21 @ 02:45:00

Tool Information

Drill Pipe:	Length: 3932.38 ft	Diameter: 3.80 inches	Volume: 55.16 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 364.53 ft	Diameter: 2.25 inches	Volume: 1.79 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 56.95 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.91 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4291.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4272.00	
Shut In Tool	5.00			4277.00	
Hydraulic tool	5.00			4282.00	
Packer	5.00			4287.00	20.00 Bottom Of Top Packer
Packer	4.00			4291.00	
Stubb	1.00			4292.00	
Recorder	0.00	8675	Inside	4292.00	
Recorder	0.00	8650	Outside	4292.00	
perforations	25.00			4317.00	
Change Over Sub	0.00			4317.00	
Drill Pipe	0.00			4317.00	
Change Over Sub	0.00			4317.00	
Bullnose	3.00			4320.00	29.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57022

DST#: 1

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.21 @ 02:45:00

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: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.18 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 bbf
10.00	Mud w ith oil spots	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

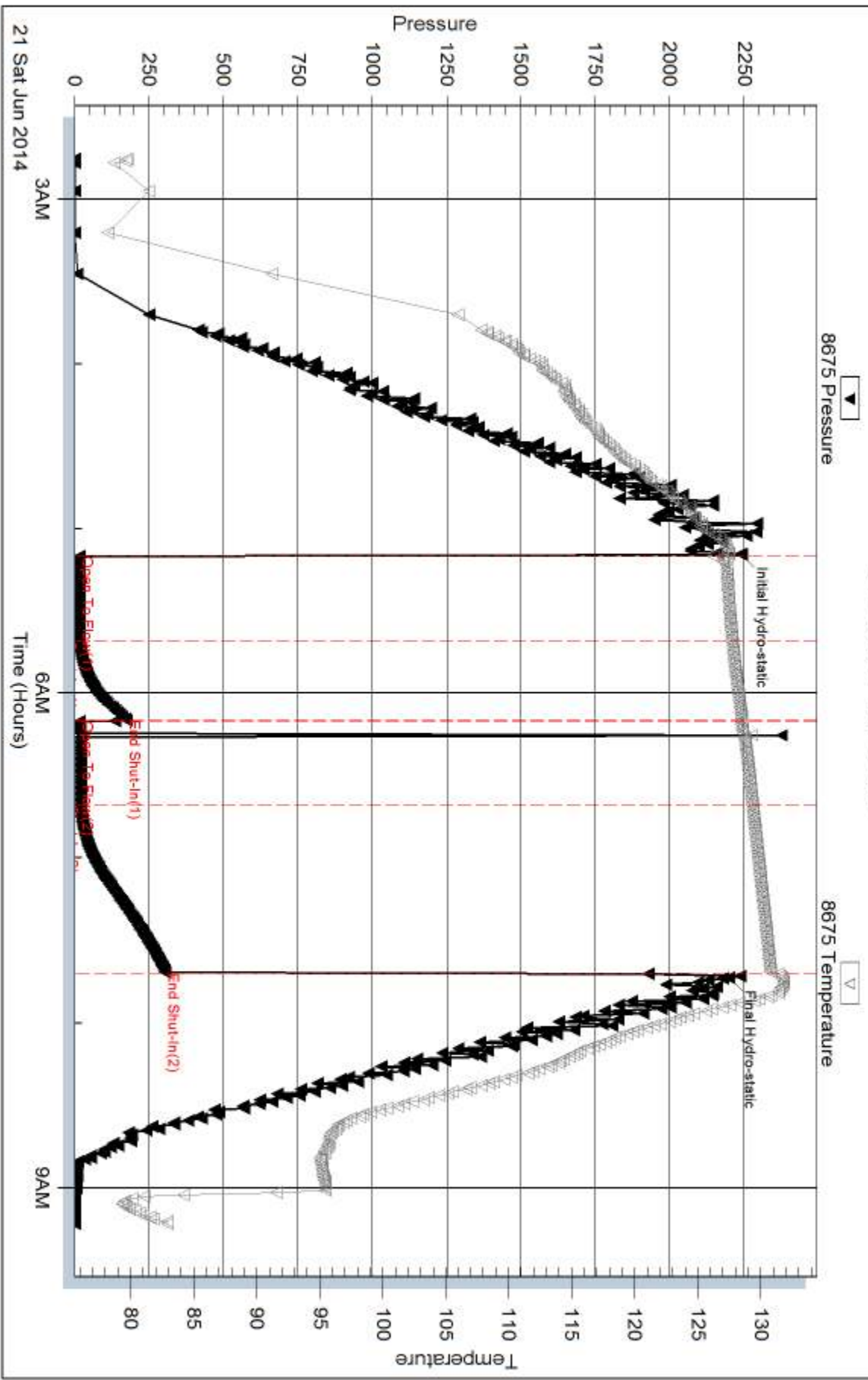
Serial #:

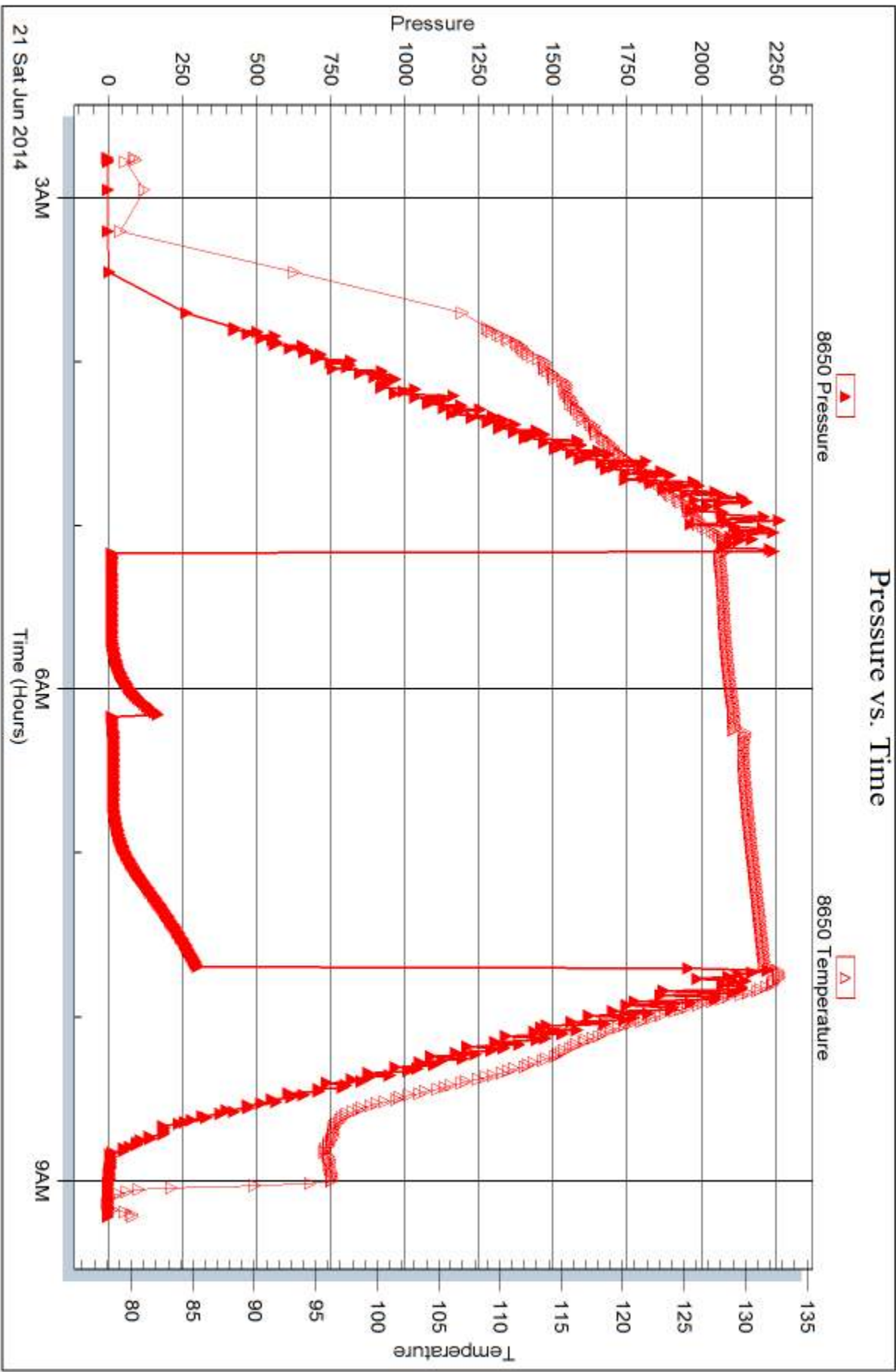
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Discovery Natural Resources, llc**

410 17St STE 900
Denver CO 80202-4420

ATTN: Jim Musgrove/Gary Do

30-18s-31w Scot,KS

Pfenninger #10D-30-1831

Start Date: 2014.06.21 @ 18:50:00

End Date: 2014.06.22 @ 01:26:45

Job Ticket #: 57023 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.06.26 @ 11:15:51



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57023

DST#: 2

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.21 @ 18:50:00

GENERAL INFORMATION:

Formation: **Pleasaton - Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:57:30

Time Test Ended: 01:26:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4312.00 ft (KB) To 4385.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4385.00 ft (KB) (TVD)

2983.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8675

Inside

Press@RunDepth: 62.90 psig @ 4313.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.21

End Date:

2014.06.22

Last Calib.:

2014.06.22

Start Time: 18:50:15

End Time:

01:26:45

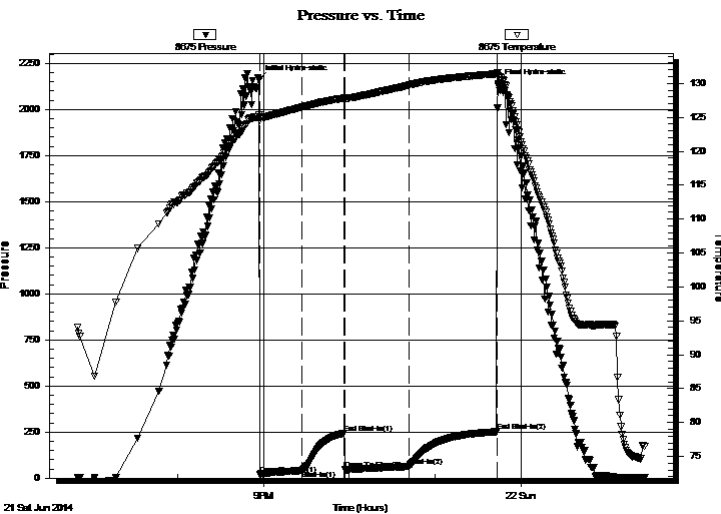
Time On Btm:

2014.06.21 @ 20:57:00

Time Off Btm:

2014.06.21 @ 23:44:00

TEST COMMENT: Built to 3" blow
No return blow
Built to 2" blow
No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2160.61	125.34	Initial Hydro-static
1	20.83	124.52	Open To Flow (1)
30	40.74	126.48	Shut-In(1)
60	243.43	127.81	End Shut-In(1)
60	46.41	127.74	Open To Flow (2)
105	62.90	129.72	Shut-In(2)
166	251.72	131.41	End Shut-In(2)
167	2140.95	131.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	gco 10%G 90%O	0.25
50.00	gcom 10%G 40%O 50%M	0.25

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57023

DST#: 2

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.21 @ 18:50:00

GENERAL INFORMATION:

Formation: **Pleasaton - Marmaton**

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Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

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Interval: **4312.00 ft (KB) To 4385.00 ft (KB) (TVD)**

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4385.00 ft (KB) (TVD)

2983.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 4313.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.21 End Date: 2014.06.22

Last Calib.: 2014.06.22

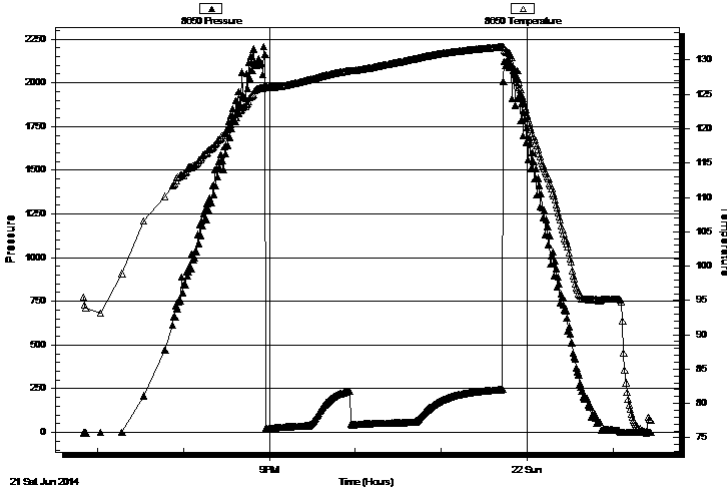
Start Time: 18:50:15 End Time: 01:26:30

Time On Btm:

Time Off Btm:

TEST COMMENT: Built to 3" blow
No return blow
Built to 2" blow
No return blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
50.00	gco 10%G 90%O	0.25
50.00	gcom 10%G 40%O 50%M	0.25

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57023

DST#: 2

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.21 @ 18:50:00

Tool Information

Drill Pipe:	Length: 3932.28 ft	Diameter: 3.80 inches	Volume: 55.16 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 364.53 ft	Diameter: 2.25 inches	Volume: 1.79 bbl	Weight to Pull Loose: 91000.00 lb
			<u>Total Volume: 56.95 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.81 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4312.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.00 ft			
Tool Length:	93.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4293.00	
Shut In Tool	5.00			4298.00	
Hydraulic tool	5.00			4303.00	
Packer	5.00			4308.00	20.00 Bottom Of Top Packer
Packer	4.00			4312.00	
Stubb	1.00			4313.00	
Recorder	0.00	8675	Inside	4313.00	
Recorder	0.00	8650	Outside	4313.00	
perforations	36.00			4349.00	
Change Over Sub	1.00			4350.00	
Drill Pipe	31.00			4381.00	
Change Over Sub	1.00			4382.00	
Bullnose	3.00			4385.00	73.00 Bottom Packers & Anchor

Total Tool Length: 93.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57023

DST#: 2

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.21 @ 18:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 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
50.00	gco 10%G 90%O	0.246
50.00	gcom 10%G 40%O 50%M	0.246

Total Length: 100.00 ft Total Volume: 0.492 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

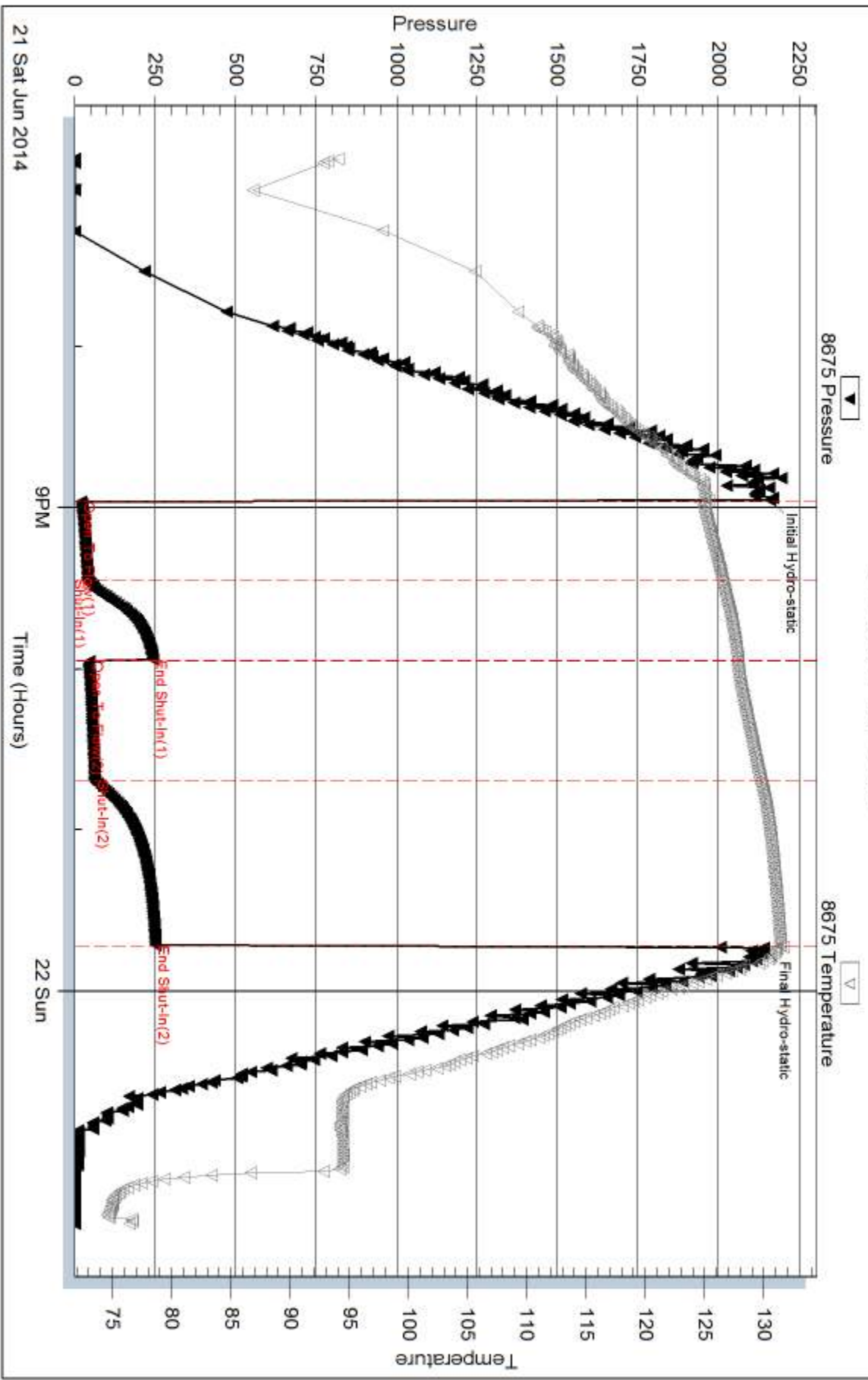
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 31 @ 70 F = 30

Pressure vs. Time

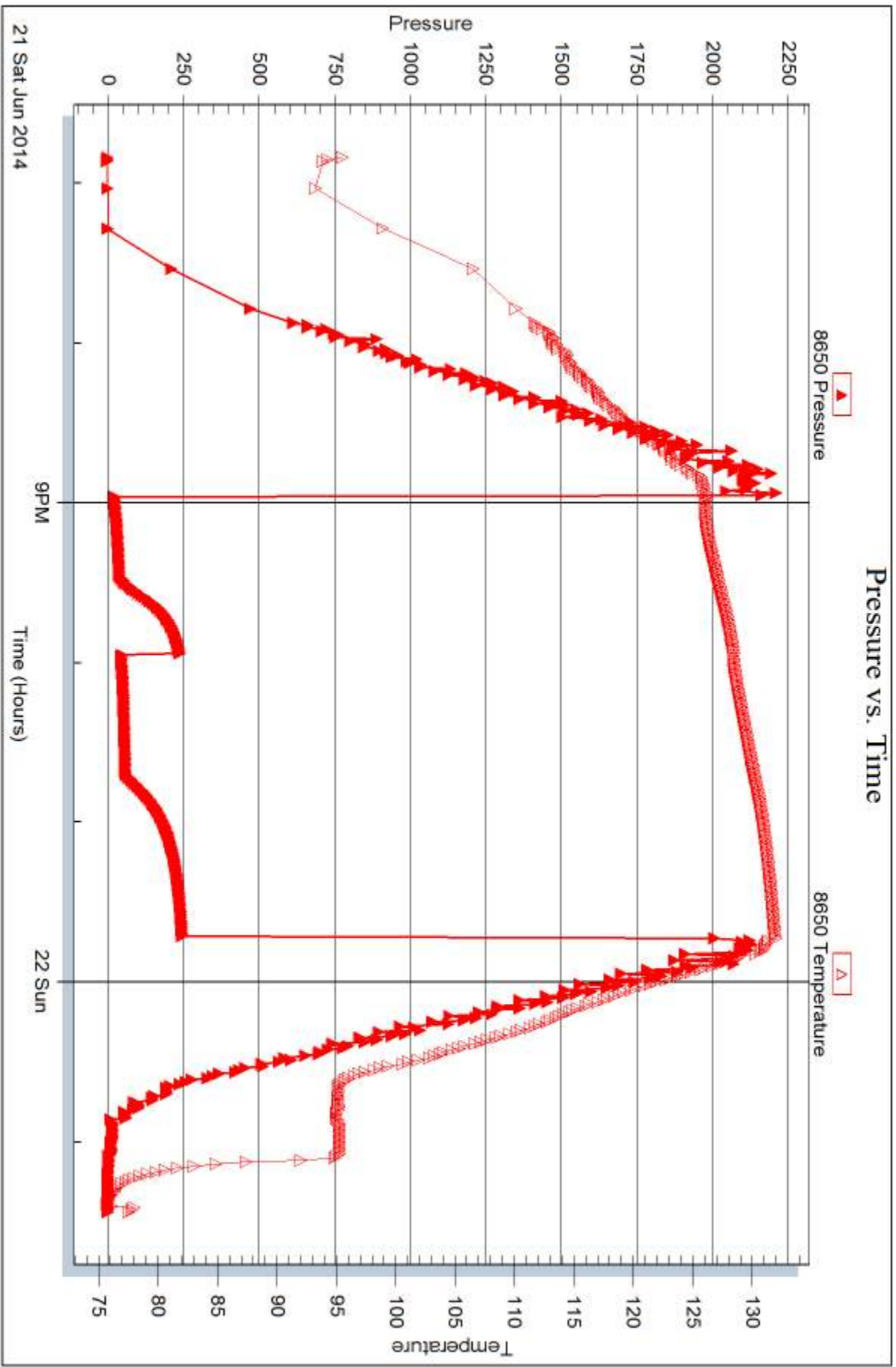


Serial #: 8650

Outside Discovery Natural Resources, Inc

30-18s-31w ScotKS

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 57023

Printed: 2014.06.26 @ 11:15:52



DRILL STEM TEST REPORT

Prepared For: **Discovery Natural Resources, llc**

410 17St STE 900
Denver CO 80202-4420

ATTN: Jim Musgrove/Gary Do

30-18s-31w Scot,KS

Pfenninger #10D-30-1831

Start Date: 2014.06.22 @ 23:08:00

End Date: 2014.06.23 @ 06:26:00

Job Ticket #: 57024 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.06.26 @ 11:15:04



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57024

DST#: 3

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.22 @ 23:08:00

GENERAL INFORMATION:

Formation: **Fort Scott - Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:48:15

Time Test Ended: 06:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4450.00 ft (KB) To 4572.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4572.00 ft (KB) (TVD)

2983.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8675 Inside

Press@RunDepth: 184.75 psig @ 4451.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.22

End Date:

2014.06.23

Last Calib.:

2014.06.23

Start Time: 23:08:15

End Time:

06:26:00

Time On Btm:

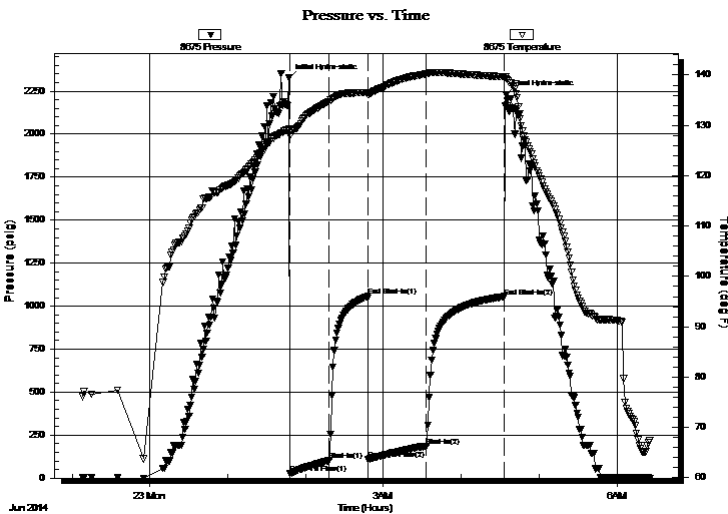
2014.06.23 @ 01:47:15

Time Off Btm:

2014.06.23 @ 04:34:45

TEST COMMENT: Built to 5" blow
Bled off for 3 min. No return blow
Built to 4 1/2" blow
Bled off for 3 min. No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2325.88	129.28	Initial Hydro-static
1	27.95	127.94	Open To Flow (1)
31	101.12	134.77	Shut-In(1)
61	1057.57	136.46	End Shut-In(1)
62	109.75	136.08	Open To Flow (2)
106	184.75	140.24	Shut-In(2)
166	1055.87	139.66	End Shut-In(2)
168	2227.72	139.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
182.00	mcw 10%M 90%W	0.90
183.00	w cm 40%W 60%M	0.90

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57024

DST#: 3

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.22 @ 23:08:00

Tool Information

Drill Pipe:	Length: 4090.88 ft	Diameter: 3.80 inches	Volume: 57.38 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 364.53 ft	Diameter: 2.25 inches	Volume: 1.79 bbl	Weight to Pull Loose: 93000.00 lb
			<u>Total Volume: 59.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.41 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4450.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	122.00 ft			
Tool Length:	142.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4431.00	
Shut In Tool	5.00			4436.00	
Hydraulic tool	5.00			4441.00	
Packer	5.00			4446.00	20.00 Bottom Of Top Packer
Packer	4.00			4450.00	
Stubb	1.00			4451.00	
Recorder	0.00	8675	Inside	4451.00	
Recorder	0.00	8650	Outside	4451.00	
perforations	21.00			4472.00	
Change Over Sub	1.00			4473.00	
Drill Pipe	95.00			4568.00	
Change Over Sub	1.00			4569.00	
Bullnose	3.00			4572.00	122.00 Bottom Packers & Anchor

Total Tool Length: 142.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Discovery Natural Resources, llc

Pfenninger #10D-30-1831

410 17St STE 900
Denver CO 80202-4420

30-18s-31w Scot,KS

Job Ticket: 57024

DST#: 3

ATTN: Jim Musgrove/Gary Do

Test Start: 2014.06.22 @ 23:08:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
182.00	mcw 10%M 90%W	0.895
183.00	w cm 40%W 60%M	0.904

Total Length: 365.00 ft Total Volume: 1.799 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

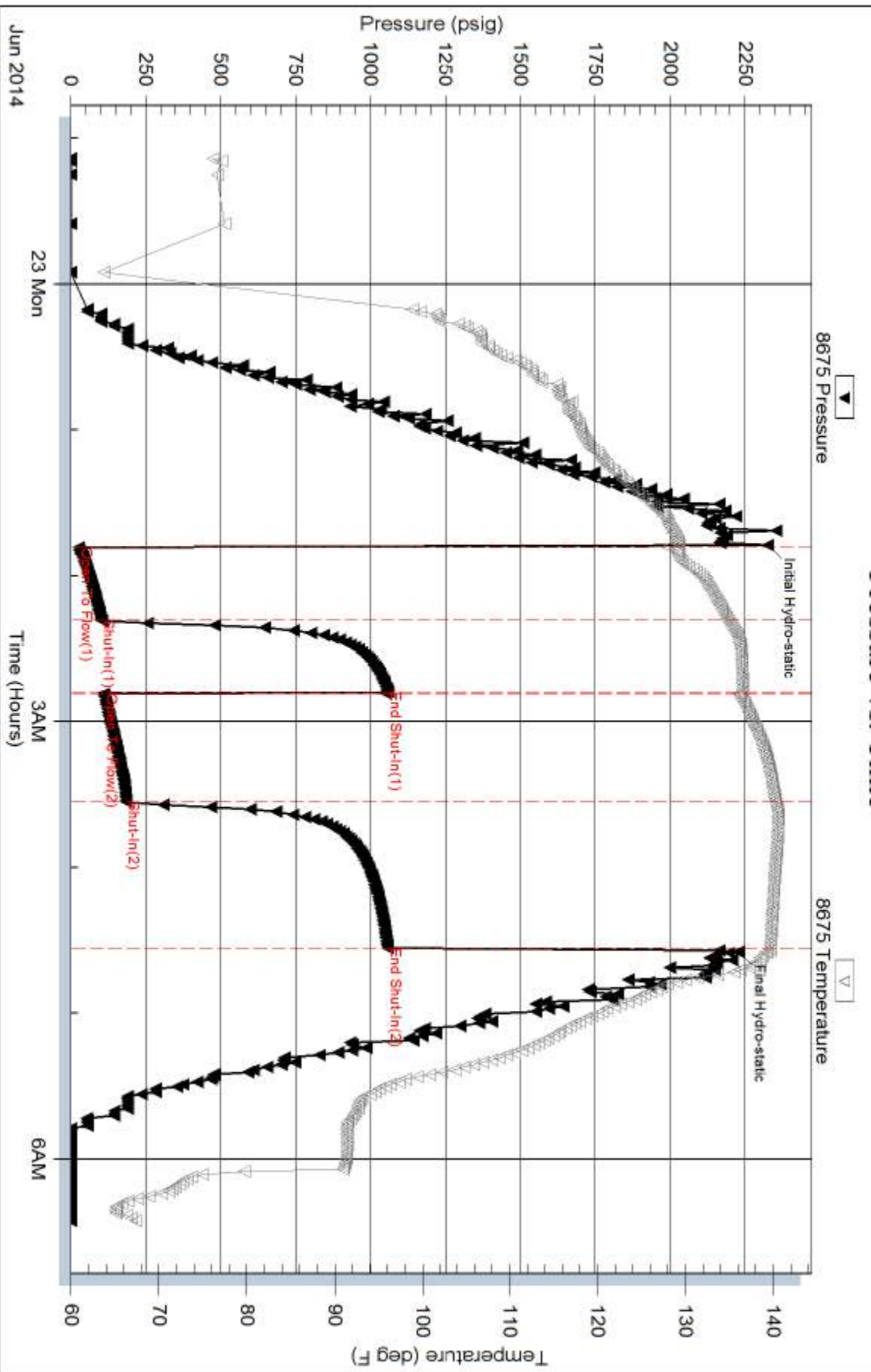
Serial #:

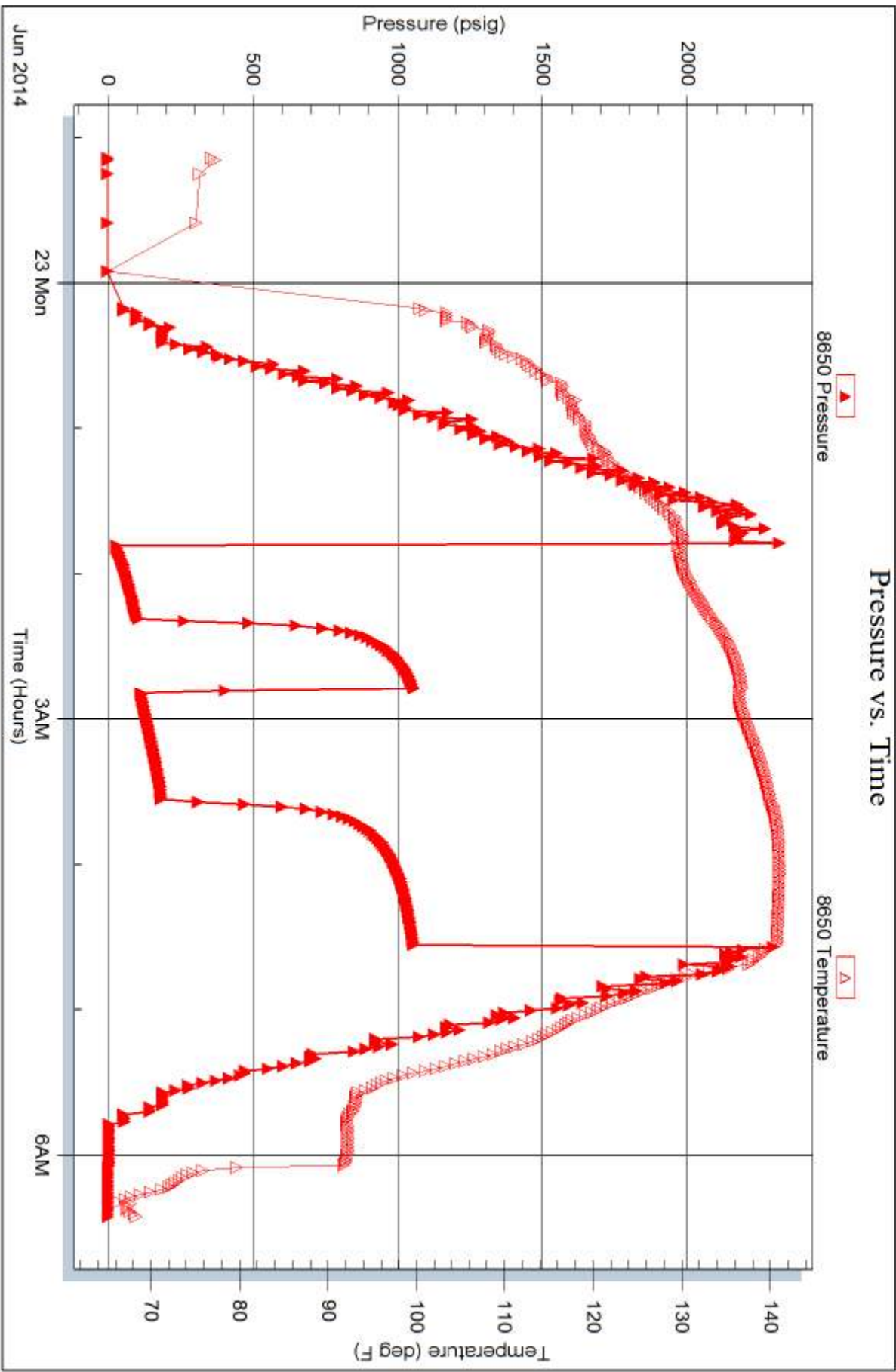
Laboratory Name:

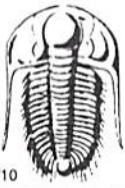
Laboratory Location:

Recovery Comments: RW: .23 @ 60 F = 40,000

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57022

Well Name & No. Pfenninger 10D-30-1831 Test No. 1 Date 6/21/14
 Company Discovery Natural Resources, LLC Elevation 2493 KB 2483 GL
 Address 410 17th ST STE 900, Denver CO, 80202-4420
 Co. Rep / Geo. Jim Musgrove + Gary Duke Rig H&J Drilling Rig 1
 Location: Sec. 30 Twp. 18s Rge. 3lw Co. Scott County State K5

Interval Tested 4291-4320 Zone Tested Lansing "L"
 Anchor Length 29 Drill Pipe Run 3932.38 Mud Wt. 9.3
 Top Packer Depth 4287 Drill Collars Run 364.53 Vis 52
 Bottom Packer Depth 4291 Wt. Pipe Run _____ WL 7.2
 Total Depth 4320 Chlorides 2,000 ppm System LCM 4

Blow Description Weak surface died in 20 mins
No return below
No blow, Flushed tool, Surge below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud with oil spots</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 130 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm
 (A) Initial Hydrostatic 2,239 Test 1250 T-On Location 02:15
 (B) First Initial Flow 17 Jars _____ T-Started 02:45
 (C) First Final Flow 16 Safety Joint _____ T-Open 05:08
 (D) Initial Shut-In 175 Circ Sub N/C T-Pulled 07:38
 (E) Second Initial Flow 17 Hourly Standby _____ T-Out 09:13
 (F) Second Final Flow 22 Mileage 18 BT 27.90 Comments _____
 (G) Final Shut-In 306 Sampler _____
 (H) Final Hydrostatic 2,199 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 60
 Day Standby _____
 Accessibility 150
 Sub Total 1427.90
 Sub Total 1427.90

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57023

4/10

Well Name & No. Pfennings 100-30-1831 Test No. 2 Date 6/21/14 6/22/14
 Company Discovery Natural Resources, LLC Elevation 2993 KB 2983 GL
 Address 410 17th ST STE 900, Denver CO, 80202-4420
 Co. Rep / Geo. Jim Minsgrove / Corey Duke Rig H2 Drilling Rig 1
 Location: Sec. 30 Twp. 18s Rge. 31w Co. Scott County State K5

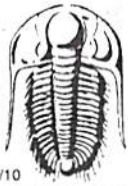
Interval Tested 4312-4385 Zone Tested Pleasanton, Marmaton 'A+B'
 Anchor Length 73 Drill Pipe Run 3932.28 Mud Wt. 9.4
 Top Packer Depth 4308 Drill Collars Run 364.53 Vis 60
 Bottom Packer Depth 4312 Wt. Pipe Run WL 8.4
 Total Depth 4385 Chlorides 2,000 ppm System LCM 4#
 Blow Description Built to 3" below
No return below
Built to 2" below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>600</u>	<u>10</u>	<u>90</u>		
<u>50</u>	<u>600M</u>	<u>10</u>	<u>40</u>		<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 100 BHT 131 Gravity 30 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 2,161 Test 1250 T-On Location 18:40
 (B) First Initial Flow 21 Jars T-Started 18:50
 (C) First Final Flow 41 Safety Joint T-Open 20:56
 (D) Initial Shut-In 243 Circ Sub W/C T-Pulled 23:41
 (E) Second Initial Flow 46 Hourly Standby T-Out 01:26
 (F) Second Final Flow 63 Mileage 18 BT 27.90 Comments
 (G) Final Shut-In 252 Sampler
 (H) Final Hydrostatic 2,141 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1427.90
 Accessibility 150 MP/DST Disc't
 Sub Total 1427.90

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57024

Well Name & No. Penninger 100-30-1831 Test No. 3 Date 6/22/14 6/23/14
 Company Discovery Natural Resources, LLC Elevation 2993 KB 2983 GL
 Address 410 17th ST STE 900, Denver CO. 80202-4420
 Co. Rep / Geo. Jim Musgrave / Gary Duke Rig H2 Drilling Rig I
 Location: Sec. 30 Twp. 18S Rge. 3W Co. Scott County State KS

Interval Tested 4450-4572 Zone Tested Fort Scott - Johnson
 Anchor Length 122 Drill Pipe Run 4090.88 Mud Wt. 9.3
 Top Packer Depth 4446 Drill Collars Run 364.53 Vis 65
 Bottom Packer Depth 4450 Wt. Pipe Run _____ WL 7.6
 Total Depth 4572 Chlorides 1,500 ppm System LCM 4

Blow Description Built to 5" below
Bled off for 3 min. No return below
Built to 4 1/2" below

Bled off for 3 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>183</u>	<u>WCM</u>		<u>40</u>	<u>60</u>	
<u>182</u>	<u>MCM</u>		<u>90</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 365 BHT 140 Gravity _____ API RW 0.23 @ 60 °F Chlorides 40,000 ppm
 (A) Initial Hydrostatic 2,326 Test 1250 T-On Location 23:00
 (B) First Initial Flow 28 Jars _____ T-Started 23:08
 (C) First Final Flow 101 Safety Joint _____ T-Open 01:48
 (D) Initial Shut-In 1,058 Circ Sub N/C T-Pulled 04:33
 (E) Second Initial Flow 110 Hourly Standby _____ T-Out 06:26
 (F) Second Final Flow 185 Mileage 18 AT X 2 55.80 Comments Loaded tools
 (G) Final Shut-In 1,056 Sampler _____ 6/23 @ 19:30
 (H) Final Hydrostatic 2,228 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1455.80
 Accessibility 150 MP/DST Disc't _____
 Sub Total 1455.80

Initial Open 30
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 60

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

ALLIED OIL & GAS SERVICES, LLC 063341

24440

Federal Tax I.D. # 20-3651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: OK Key

DATE <u>6/16/14</u>	SEC <u>30</u>	TWP <u>18</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>4:00 AM</u>	JOB FINISH <u>4:30 AM</u>
LEASE <u>PF # 11787</u>	WELL # <u>10-D</u>		LOCATION <u>Scott City E 70 Road 9</u>		COUNTY <u>Scott</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>							

CONTRACTOR H2

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 433

CASING SIZE 8 5/8 DEPTH 433

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 26.62

OWNER Same

CEMENT

AMOUNT ORDERED 260 Con 370 CC

270 gal 114 Flt

62 bbls slurry

COMMON	<u>260</u>	@ <u>17.90</u>	<u>4654.00</u>
POZMIX		@ <u>1.25</u>	<u>24</u>
GEL	<u>489 lb</u>	@ <u>1.10</u>	<u>538</u>
CHLORIDE	<u>733 lb</u>	@ <u>1.10</u>	<u>806</u>
ASC		@	
<u>Flo Seal</u>	<u>65 lb</u>	@ <u>2.92</u>	<u>193.24</u>
<u>Material Total</u>			<u>6166.81</u>
<u>(1,541.71 / 25%)</u>			
HANDLING	<u>285</u>	@ <u>2.48</u>	<u>708.24</u>
MILEAGE	<u>23700</u>	@ <u>12.66</u>	<u>2999.22</u>
TOTAL			<u>1,915.43</u>

EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan

403-28 HELPER Kevin Ryan

BULK TRUCK

386 DRIVER John (was)

BULK TRUCK

DRIVER

REMARKS:

Run Cgg Circulate, mix cement, displaced

Plug & Shut in

Cement did Circulate

Thank You

Alan Kevin John

CHARGE TO: Discovery Natural Resources

STREET _____

CITY _____ STATE _____ ZIP _____

used to be FIML

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME _____

SIGNATURE W. Day

SERVICE

DEPTH OF JOB _____

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE @ _____

MILEAGE 55 @ 2.20 121.00

MANIFOLD @ 4.40 242.00

17 Vehicle 55 @ 4.40 242.00

(1269.28 / 25%)

TOTAL 5,077.15

PLUG & FLOAT EQUIPMENT

8 5/8 Wood Den Plug @ _____ 110.00

4 Centralizers @ 75.00 300.00

(0%)

TOTAL 410.00

SALES TAX (If Any) _____

TOTAL CHARGES 11,653.96

DISCOUNT 2,810.99 (25%) IF PAID IN 30 DAYS

8,842.97 Net.

ALLIED OIL & GAS SERVICES, LLC 064022

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
(6-25-14) Bottom - Oakley, KS

DATE <u>6-24-14</u>	SEC <u>30</u>	TWP. <u>18</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION <u>8:00 am</u>	JOB START <u>1:30 am</u>	JOB FINISH <u>12:30 am</u>
LEASE <u>DR Pennington</u>	WELL # <u>10D30-1831</u>	LOCATION <u>Scott City E to Railroad</u>			COUNTY <u>Scott</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>				<u>2 S, 3/4 E Ninto</u>			

CONTRACTOR H2 Rig 1 OWNER Same

TYPE OF JOB Production (3 stage)

HOLE SIZE 7 1/2 I.D. 4800' CEMENT 500 gal super flush

CASING SIZE 5 1/2 (15.5") DEPTH 4797.58' AMOUNT ORDERED Bottom stage - 220 sks ASC

TUBING SIZE _____ DEPTH _____ 10% salt, 5% gilsonite 2% gel, 1/4" Flo-seal

DRILL PIPE _____ DEPTH _____ Top stage 465 sks Lite 5% gilsonite, 1/4" Flo-seal

TOOL DV TOOL DEPTH 3004.35' COMMON _____ @ _____

PRES. MAX _____ MINIMUM _____ POZMIX _____ @ _____

MEAS. LINE _____ SHOE JOINT 25.92' GEL _____ @ 1.05 433.65

CEMENT LEFT IN CSG 25.92' CHLORIDE _____ @ _____

PERFS. _____ ASC _____ @ _____

DISPLACEMENT Bottom 40 bbl water 73.57 bbl mud EQUIPMENT Top 71.50 bbl water

PUMP TRUCK CEMENTER Paul Beaver LITE _____ @ _____

120 HELPER Tyler Flipse Gilsonite (Bottom) 1100 @ .98 1078.00

BULK TRUCK # 566/595 DRIVER _____ Flo-seal (Bottom) 55 @ 2.97 163.35

BULK TRUCK # 603 DRIVER Brian Lang (Grandband) Gilsonite (Top) 2325 @ .98 2278.50

_____ Mud Flush 12 bbl @ 41.09 493.08

_____ MILEAGE 35.13 tons x 5.5 mi = 192.72 @ 2.48 477.94

_____ MILEAGE 857.78 @ 2.48 2127.29

_____ MILEAGE 35.13 tons x 5.5 mi = 192.72 @ 2.75 5313.41

_____ TOTAL _____

REMARKS: Bottom - Run Pipe / Float equip, Rig up, mix mud

Flush, mix 220 sks ASC, release plug,

Displace w/ water + mud, plug did land @ 3004'

Lift 900' float held, Trip start, opened tool @ 900'

circ 4 hrs Top - mix 30 sks in R.H, mix 15 sks

in m.H, mix 420 sks lite, release plug,

displace w/ water, plug did land @ 3000'

Lift 1100' cement, did circulate

(20 bbl to pit) Thank you!

CHARGE TO: Discovery Natural Res.

STREET _____

CITY _____ STATE _____ ZIP _____

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Gary Dole

SIGNATURE [Signature]

	Bottom	Top
DEPTH OF JOB	<u>4800'</u>	<u>3004'</u>
PUMP TRUCK CHARGE	<u>2765.75</u>	<u>2558.75</u>
EXTRA FOOTAGE	@	@
MILEAGE MILV	<u>55 @ 7.70</u>	<u>423.50</u>
MANIFOLD Head	@	<u>275.00</u>
MILV	<u>55 @ 4.40</u>	<u>242.00</u>
TOTAL	<u>13,205.70</u>	

PLUG & FLOAT EQUIPMENT

Weatherford (5 1/2)	
Sure Seal Float shoe 1 @	<u>608.00</u>
Sure Seal Float Collar 1 @	<u>725.00</u>
Baskets 2 @	<u>395.00</u> <u>790.00</u>
Centralizers 2.5 @	<u>57.00</u> <u>142.50</u>
DV TOOL 1 @	<u>535.00</u>
lock ring	<u>49.00</u>
TOTAL	<u>8,832.00</u>

SALES TAX (If Any) _____

TOTAL CHARGES 41,847.65

DISCOUNT 7,570.59 (23%) IF PAID IN 30 DAYS

34,277.05 Net