



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1151119
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

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

Spot Description: _____

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

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-
Feet from North / South Line of Section

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-
Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

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



1151119

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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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Form	ACO1 - Well Completion
Operator	Sunflower Energy, LLC
Well Name	Ensign Unit 1-14
Doc ID	1151119

Tops

Name	Top	Datum
Top Stone Coral	1707	1043
Base Stone Coral	1767	983
Wellington Salt	2217	533
Chase	2764	-14
Winfield	2828	-78
Tarkio (Stotler)	3661	-911
Heebner	4284	-1534
Lansing	4408	-1658
Lansing B	4450	-1700
Lansing H	4610	-1860
Swope (LKC K)	4720	-1970
Marmaton	4891	-2141
Pawnee	4974	-2224
Cherokee	5013	-2263
Atoka	5133	-2383
Mississippian	5186	-2436
St. Louis	5258	-2508
Spergen	5346	-2596
Warsaw	5459	-2709
Osage	5732	-2982
Gilmore City	5899	-3149
Viola	6018	-3268
Simpson	6141	-3391
Arbuckle	6168	-3418

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



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

July 09, 2013

David E. Rice
Sunflower Energy, LLC
10801 MASTIN, STE 920
OVERLAND PARK, KS 66210

Re: ACO1
API 15-069-20437-00-00
Ensign Unit 1-14
SE/4 Sec.14-28S-27W
Gray 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,
David E. Rice

Date 7/3/13 District LIBERAL Ticket No. ED52158
 Company SUN FLOWER Rig _____
 Lease ENSIGN UNIT 13 Well No. _____
 County _____ State TX
 Location EN 5111 Field _____

CEMENT DATA:
 Spacer Type: H2O
 Amt. 10 Skys Yield _____ ft³/sk Density 8.3 PPG

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 8 1/2 Type _____ Weight 24.5 Collar _____

LEAD: Pump Time _____ hrs. Type 60/40
4% GEL Excess _____
 Amt. 170 Skys Yield 1.42 ft³/sk Density 13.8 PPG

Casing Depths: Top 0 Bottom 1770

TAIL: Pump Time _____ hrs. Type _____
 Excess _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG
 WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Drill Pipe: Size 4 1/2 x 4 Weight 16 Collars _____
 Open Hole: Size _____ T.D. _____ ft. P.B. to _____ ft.

Pump Trucks Used 549 - 250
 Bulk Equip. 549 457 - 251

CAPACITY FACTORS:

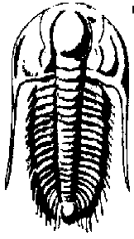
Casing: Bbls/Lin. ft. 0.626 Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. 1.131 Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. 0.01422 Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. 10.1 Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From NA to 1770 ft. Amt. _____

Float Equip: Manufacturer NA
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type MUO Amt. _____ Bbls. Weight _____ PPG
 Mud Type H2O Weight _____ PPG

COMPANY REPRESENTATIVE CLIFF

CEMENTER R RYAN

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
12:30						ON LOC + SAFETY MEETING
3:10		100		12.6	5	MIX 50 SK PUG AT 1790 FT
4:05		100		12.6	4	MIX 50 SK PUG AT 900 FT
7:20		100		5.05	4	MIX 20 SK AT 0-60'
7:30		10		7.5		MIX 30 SK AT HOLE
7:35		50		5.05	4	MIX 70 SK WASH HOLE
						WASH W/ NA RECEIVED



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sunflower Energy LLC
 10801 Mastin STE 920
 Overland Park, KS 66210
 ATTN: Austin Garner

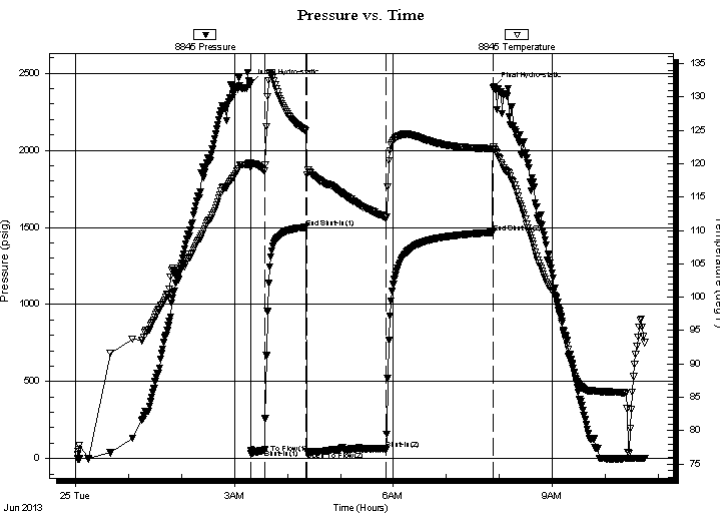
14-28s-27w Gray Co.
Ensign Unit #1-14
 Job Ticket: 49148 **DST#: 1**
 Test Start: 2013.06.25 @ 00:02:00

GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:18:45
 Time Test Ended: 10:45:15
 Interval: **4958.00 ft (KB) To 4997.00 ft (KB) (TVD)**
 Total Depth: 4997.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Sam Esparza
 Unit No: 64
 Reference Elevations: 2750.00 ft (KB)
 2741.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8845 Outside
 Press @ Run Depth: 58.07 psig @ 4959.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.25 End Date: 2013.06.25 Last Calib.: 2013.06.25
 Start Time: 00:02:05 End Time: 10:45:15 Time On Btm: 2013.06.25 @ 03:18:00
 Time Off Btm: 2013.06.25 @ 07:54:00

TEST COMMENT: IF: BOB @ 1 min. GTS @ 14 min.
 IS: Bled off for 5 min. 2" Return.
 FF: BOB & GTS Immediately.
 FS: Bled off for 5 min. 5 1/4" Return.



PRESSURE SUMMARY

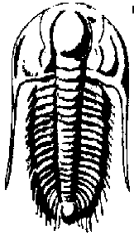
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2436.21	120.11	Initial Hydro-static
1	31.41	119.60	Open To Flow (1)
17	57.62	118.91	Shut-In(1)
64	1499.95	124.95	End Shut-In(1)
65	44.53	118.31	Open To Flow (2)
154	58.07	111.96	Shut-In(2)
275	1467.18	122.25	End Shut-In(2)
276	2415.17	122.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
135.00	Mud 100m	0.66

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	10.00	38.71
Last Gas Rate	0.38	20.00	126.02
Max. Gas Rate	0.38	20.00	126.02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sunflower Energy LLC

14-28s-27w Gray Co.

10801 Mastin STE 920
Overland Park, KS 66210

Ensign Unit #1-14

Job Ticket: 49148

DST#: 1

ATTN: Austin Garner

Test Start: 2013.06.25 @ 00:02:00

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:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
135.00	Mud 100m	0.664

Total Length: 135.00 ft Total Volume: 0.664 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8845

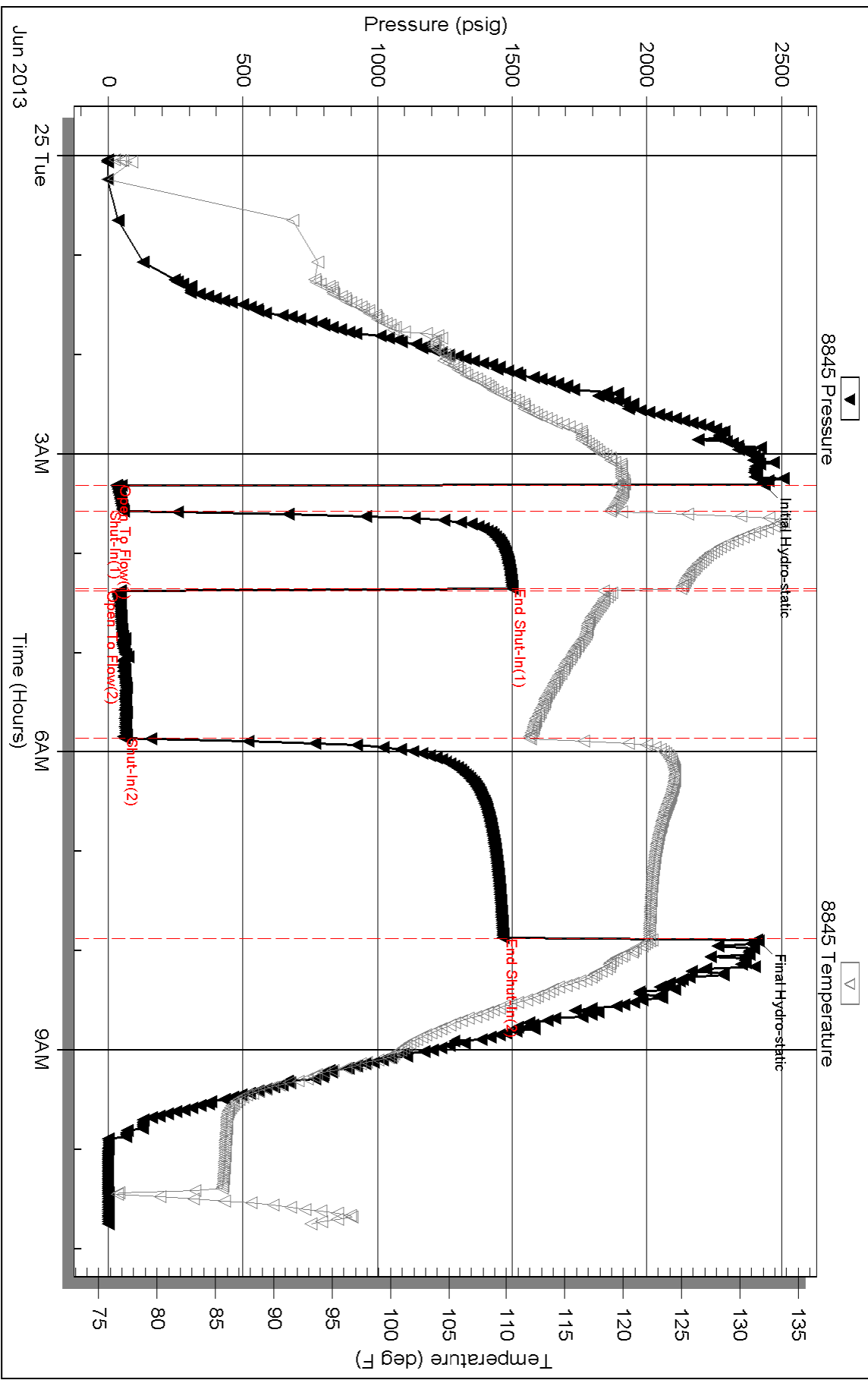
Outside

Sunflow er Energy LLC

Ensign Unit #1-14

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 49148

Printed: 2013.06.25 @ 11:15:32



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sunflower Energy LLC
 10801 Mastin STE 920
 Overland Park, KS 66210
 ATTN: Austin Garner

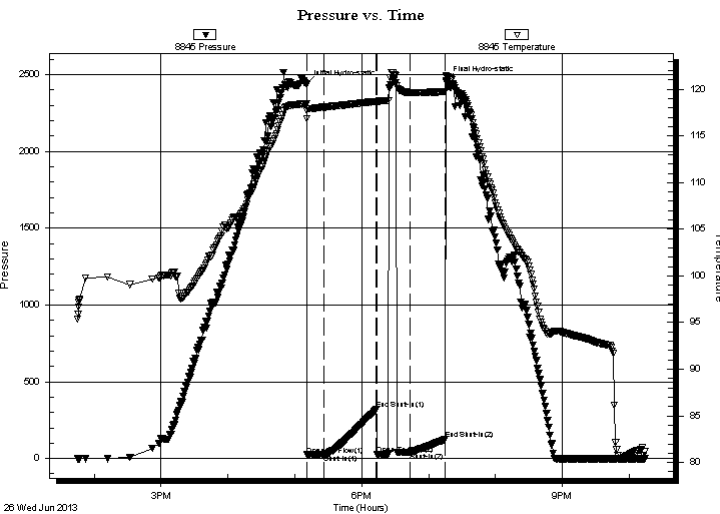
14-28s-27w Gray Co.
Ensign Unit #1-14
 Job Ticket: 49149 **DST#: 2**
 Test Start: 2013.06.26 @ 13:45:00

GENERAL INFORMATION:

Formation: **Cherokee & Atoka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:11:00
 Time Test Ended: 22:13:45
 Interval: **5008.00 ft (KB) To 5184.00 ft (KB) (TVD)**
 Total Depth: 5184.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Sam Esparza
 Unit No: 64
 Reference Elevations: 2750.00 ft (KB)
 2741.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8845 Outside
 Press @ Run Depth: 39.46 psig @ 5009.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.26 End Date: 2013.06.26 Last Calib.: 2013.06.26
 Start Time: 13:45:05 End Time: 22:13:44 Time On Btm: 2013.06.26 @ 17:10:30
 Time Off Btm: 2013.06.26 @ 19:15:30

TEST COMMENT: IF: Weak Surface Blow .
 IS: No Return.
 FF: No Blow flushed tool. Weak Surface Blow died 25 min.
 FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2438.57	118.46	Initial Hydro-static
1	24.08	117.69	Open To Flow (1)
16	27.37	118.09	Shut-In(1)
63	319.77	118.72	End Shut-In(1)
63	29.28	118.64	Open To Flow (2)
93	39.46	119.66	Shut-In(2)
125	124.22	119.76	End Shut-In(2)
125	2463.51	121.49	Final Hydro-static

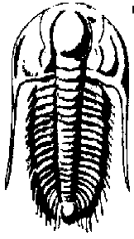
Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sunflower Energy LLC
10801 Mastin STE 920
Overland Park, KS 66210
ATTN: Austin Garner

14-28s-27w Gray Co.
Ensign Unit #1-14
Job Ticket: 49149 **DST#: 2**
Test Start: 2013.06.26 @ 13:45:00

Mud and Cushion Information

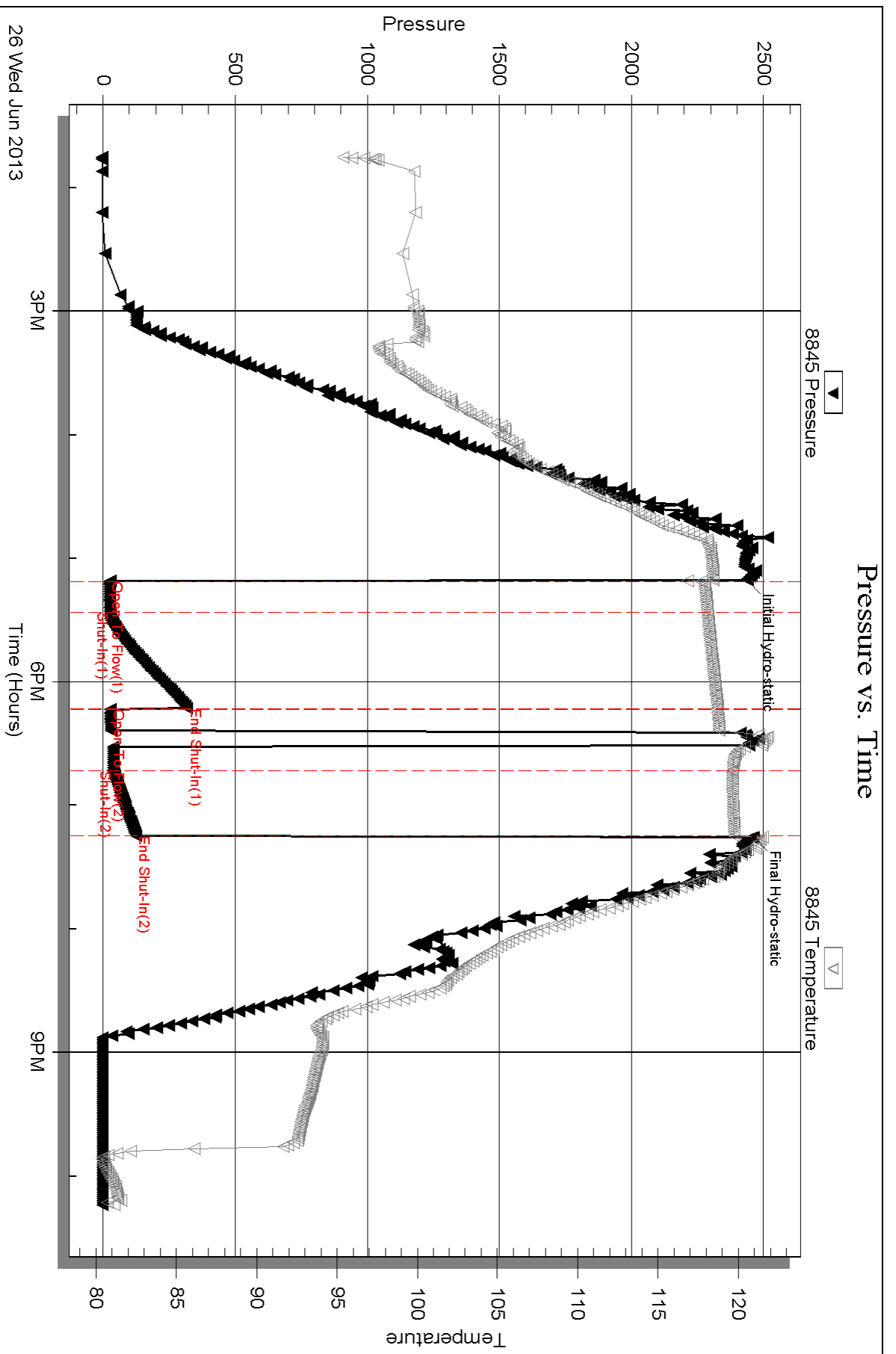
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.39 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4350.00 ppm			
Filter Cake: 1.00 inches			

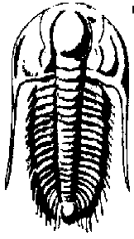
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud 100m	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sunflower Energy LLC
 10801 Mastin STE 920
 Overland Park, KS 66210
 ATTN: Austin Garner

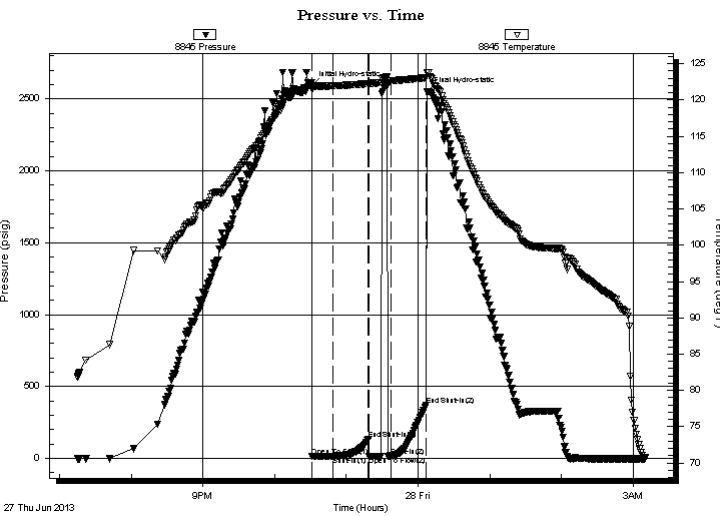
14-28s-27w Gray Co.
Ensign Unit #1-14
 Job Ticket: 49150 **DST#: 3**
 Test Start: 2013.06.27 @ 19:15:00

GENERAL INFORMATION:

Formation: **St. Louis**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:31:30
 Time Test Ended: 03:10:15
 Interval: **5279.00 ft (KB) To 5316.00 ft (KB) (TVD)**
 Total Depth: 5316.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Sam Esparza
 Unit No: 64
 Reference Elevations: 2750.00 ft (KB)
 2741.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8845 Outside
 Press @ Run Depth: 17.07 psig @ 5280.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.27 End Date: 2013.06.28 Last Calib.: 2013.06.28
 Start Time: 19:15:05 End Time: 03:10:14 Time On Btm: 2013.06.27 @ 22:31:15
 Time Off Btm: 2013.06.28 @ 00:07:30

TEST COMMENT: IF: No Blow Flushed tool. No Blow .
 IS: No Return.
 FF: No Blow Flushed tool. No Blow .
 FS: No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2594.28	122.41	Initial Hydro-static
1	14.80	121.52	Open To Flow (1)
18	15.80	121.95	Shut-In(1)
48	133.65	122.26	End Shut-In(1)
48	14.42	122.21	Open To Flow (2)
67	17.07	122.62	Shut-In(2)
96	369.97	123.08	End Shut-In(2)
97	2549.47	123.81	Final Hydro-static

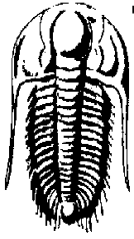
Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sunflower Energy LLC
10801 Mastin STE 920
Overland Park, KS 66210
ATTN: Austin Garner

14-28s-27w Gray Co.
Ensign Unit #1-14
Job Ticket: 49150 **DST#: 3**
Test Start: 2013.06.27 @ 19:15:00

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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.59 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4600.00 ppm			
Filter Cake: 1.00 inches			

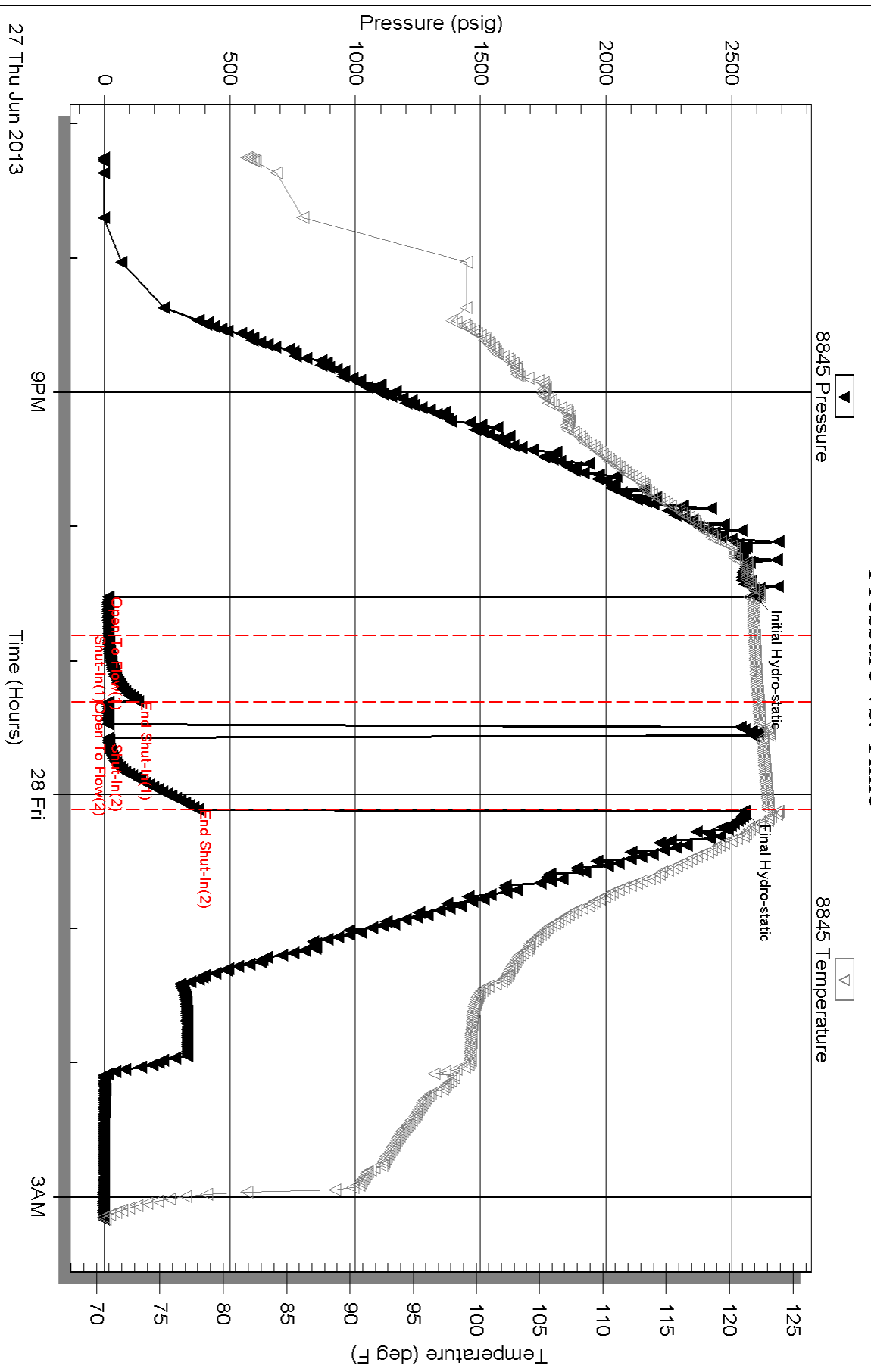
Recovery Information

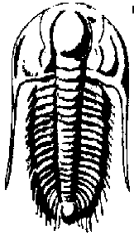
Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sunflower Energy LLC
 10801 Mastin STE 920
 Overland Park, KS 66210
 ATTN: Austin Garner

14-28s-27w Gray Co.
Ensign Unit #1-14
 Job Ticket: 53310 **DST#: 4**
 Test Start: 2013.06.30 @ 14:21:00

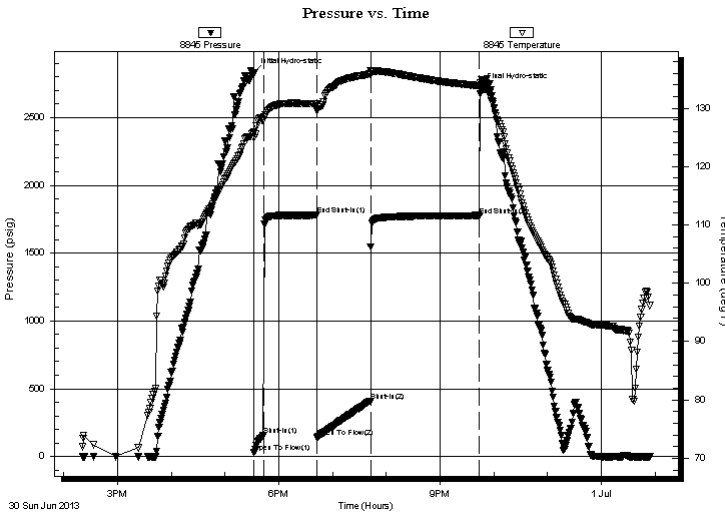
GENERAL INFORMATION:

Formation: **Osage**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 17:32:30 Tester: Cornelio Landa III
 Time Test Ended: 00:53:45 Unit No: 64
 Interval: **5738.00 ft (KB) To 5770.00 ft (KB) (TVD)** Reference Elevations: 2750.00 ft (KB)
 Total Depth: 5770.00 ft (KB) (TVD) 2741.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 9.00 ft

Serial #: 8845 Outside
 Press @ Run Depth: 410.21 psig @ 5739.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.30 End Date: 2013.07.01 Last Calib.: 2013.06.30
 Start Time: 14:21:05 End Time: 00:53:45 Time On Btm: 2013.06.30 @ 17:32:15
 Time Off Btm: 2013.06.30 @ 21:44:15

TEST COMMENT: IF: 3 1/2 in of blow
 IS: No return
 FF: Bob in 15 min
 FS: No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2829.31	125.87	Initial Hydro-static
1	31.56	124.92	Open To Flow (1)
11	153.84	127.99	Shut-In(1)
70	1779.75	130.67	End Shut-In(1)
70	138.61	129.57	Open To Flow (2)
130	410.21	135.86	Shut-In(2)
252	1777.22	133.84	End Shut-In(2)
252	2717.78	134.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Wm 20w 80m	0.30
183.00	Mw 10m 90w	0.90
600.00	Mw 40 m 60w	8.42

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sunflower Energy LLC
10801 Mastin STE 920
Overland Park, KS 66210
ATTN: Austin Garner

14-28s-27w Gray Co.
Ensign Unit #1-14
Job Ticket: 53310 **DST#: 4**
Test Start: 2013.06.30 @ 14:21:00

Mud and Cushion Information

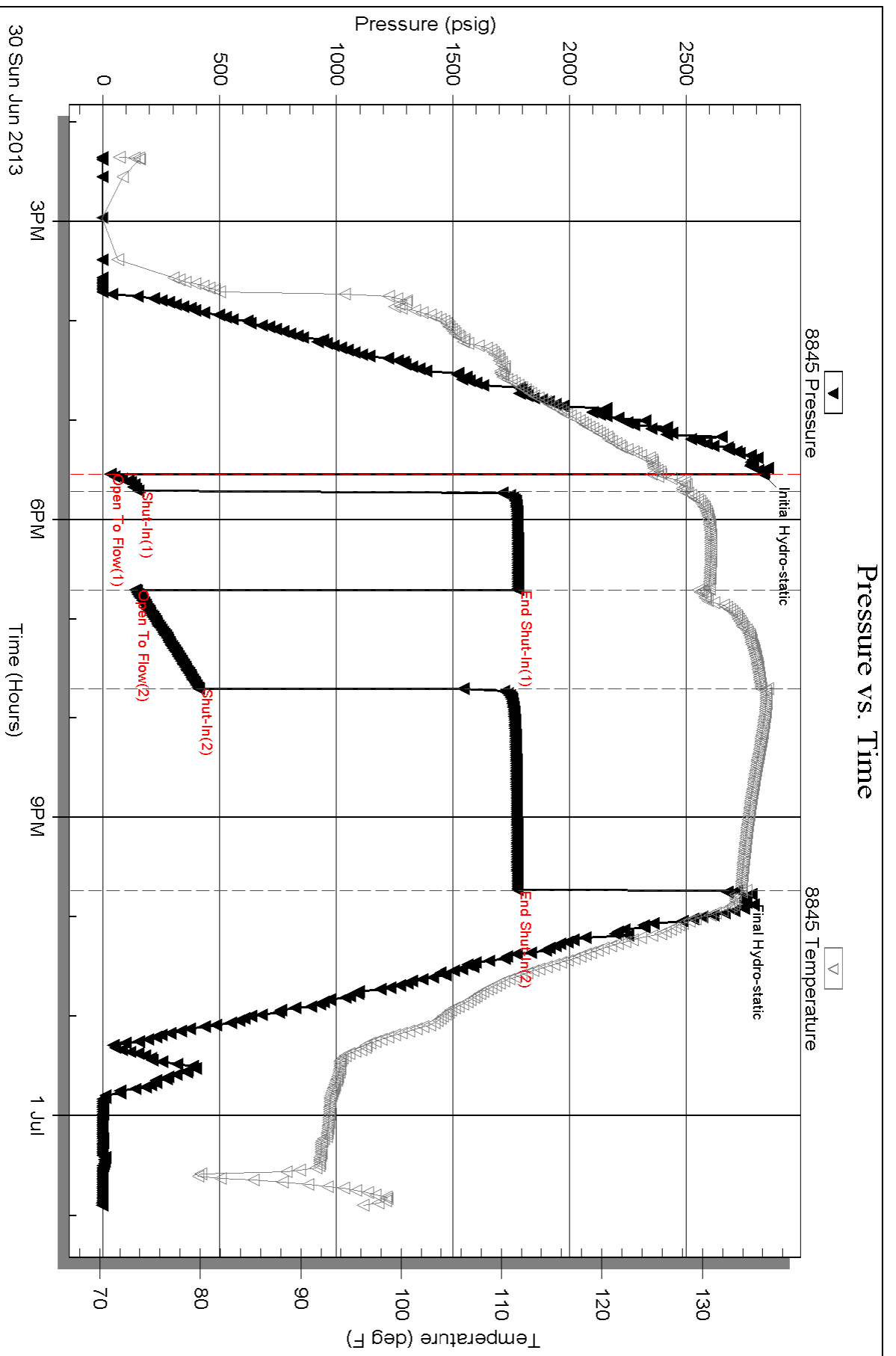
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	52000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.39 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Wm 20w 80m	0.295
183.00	Mw 10m 90w	0.900
600.00	Mw 40 m 60w	8.416

Total Length: 843.00 ft Total Volume: 9.611 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:



Log Tops:

Sunflower Energy	nit 1-14	
Ensign Unit 1-14	4	
2217fs/2415fe	MD	SS
14-28s-27w	LOGS TOPS	
TOPS		
Base Blaine Anhydrite		
Cedar Hills Sandstone		
Top Stone Coral	1707	1043
Base Stone Coral	1767	983
Wellington Salt	2217	533
Chase	2764	-14
Winfield	2828	-78
Tarkio (Stotler)	3661	-911
Heebner	4284	-1534
Lansing	4408	-1658
Lansing B	4450	-1700
Lansing H	4610	-1860
Swope (LKC K)	4720	-1970
Marmaton	4891	-2141
Pawnee	4974	-2224
Cherokee	5013	-2263
Atoka	5133	-2383
Basal Penn Sand		
Mississippian	5186	-2436
St.Louis	5258	-2508
Spergen	5346	-2596
Warsaw	5459	-2709
Osage	5732	-2982
Gilmore City	5899	-3149
Viola	6018	-3268
Simpson	6141	-3391
Arbuckle	6168	-3418