



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: _____



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 <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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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
_____ 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 (Explain) _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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 (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Langston, D. S.
Well Name	Zerener 5-1
Doc ID	1156498

Tops

Name	Top	Datum
KC	3348	-1927
BASE - KC	3517	-2096
MARMATON	3644	-2223
CHEROKEE SHALE	3782	-2361
ERO. MISS	3971	-2550
MISS	4006	-2585
KINDERHOOK SHALE	4310	-2889
CHATTANOOGA SHALE	4266	-2845
SIMPSON SAND	4383	-2962



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

Well Name: ZERENER # 5 - 1
Location: AP-NW-SW-SE of Sec. 5 - Tsp. 31 S. Rge. 3 W.
License Number: A.P.I. # 15-191-22697-00-00
Spud Date: 07/30/2013
Surface Coordinates: 850' FSL & 2290' FEL

Region: SUMNER CO., KS.
Drilling Completed: 08/07/2013

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 1412' **K.B. Elevation (ft):** 1421'
Logged Interval (ft): NONE **To:** NONE **Total Depth (ft):** 4465'
Formation: SIMPSON SHALE
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: D. S. LANGSTON KCC Lic. #
Address: 310 W. CENTRAL, STE. # 202
WICHITA, KANSAS 67202-1004

GEOLOGIST

Name: DAVID P. WILLIAMS, P.G.
Company: DW ENERGY, LLC.
Address: 312 NORTH BROADVIEW STREET
WICHITA, KANSAS 67208

CASING & DEVIATION

Ran 6 Jts. New 23# 8 5/8" Surface casing, Tally @ 265'. Set @ 276', cemented with 225 sacks of Common 2% Gel, 3% Cc . Cement did circulate by Copeland Acid & Cementing, Plug down 5:15 PM 07/30/2013.

DEVIATION SURVEYS: @ 276'= 1/4 degree; @ 3538"= 1 1/4 degrees; @ 4402"= 1 degree;

DSTs

~~ DST # 1 3465'-3538' Times: 30"-45"-45"- 75"

IF Blow = Strong Surface Blow Build BOB/18": FF= Fair Surface Blow Build/ 7".

Recovery: 240' TF: (120' M & 120' (20% M & 80% Wtr <1%O)).

Pressures: IH= 1696#; FH= 1686#; IF= 33-93#; FF= 103-151#; ISIP = 916#; FSIP = 906#. Temp.= 120 degrees F.. Chl.=90,000 Ppm.; RW= .09 @ 72 degrees.

~~ DST # 2 4308'-4402' Times: 30"-45"-15"- 15" .

IF Blow = Strong Surface Blow Build BOB/ 2": FF= Strong Blow Build BOB/ 2".

Recovery: 2200' TF: (120' MW & 2050' WM).

Pressures: IH= 2174#; FH= 2141#; IF= 209-865#; FF=909-1112#; ISIP= 1521#; FSIP= 1514#.; Temp.= 140 degrees F..Chl.=80,000 Ppm.; RW= .08 @ 84 degrees F.


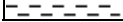


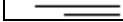













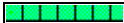






Comments

After review of all geologic samples as examined, structural correlation to offsetting prior drilled wells, combined with the fluid and pressures results from the drill stem test taken, it was determined by all parties that this well appears to be non-commercial and should be plugged and abandoned.

Respectfully submitted,

David P. Williams, P.G

ROCK TYPES

	Anhy		Clyst		Grn sh		Meta		Shcol
	Bent		Coal		Gry sh		Mrlst		Shgy
	Brec		Congl		Gyp		Red shale		Sltst
	Carb sh		Dol		Igne		Salt		Ss
	Cht		Dol		Lmst		Shale		Till

ACCESSORIES

- MINERAL**
- Anhy
 - Arggrn
 - Arg
 - Bent
 - Bit
 - Breclfrag
 - Calc
 - Carb
 - Chtdk
 - Chtlit
 - Dol
 - Feldspar
 - Ferrpel
 - Ferr
 - Glau
 - Gyp

- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

- FOSSIL**
- Algae
 - Amph

- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Fuss
- Gastro
- Oolite
- Oomold
- Ostra
- Pelec

- Pellet
- Pisolite
- Plant
- Strom

- STRINGER**
- Anhy
 - Arg
 - Bent
 - Coal
 - Dol
 - Gyp
 - Ls
 - Mrst
 - Sltstrg
 - Ssstrg

- TEXTURE**
- Boundst
 - Chalky
 - Cryxln
 - Earthy
 - Finexln
 - Grainst
 - Lithogr
 - Microxln
 - Mudst
 - Packst
 - Wackest

OTHER SYMBOLS

- POROSITY**
- Earthy
 - Fenest
 - Fracture
 - Inter
 - Moldic
 - Organic
 - Pinpoint

- Vuggy

- SORTING**
- Well
 - Moderate
 - Poor

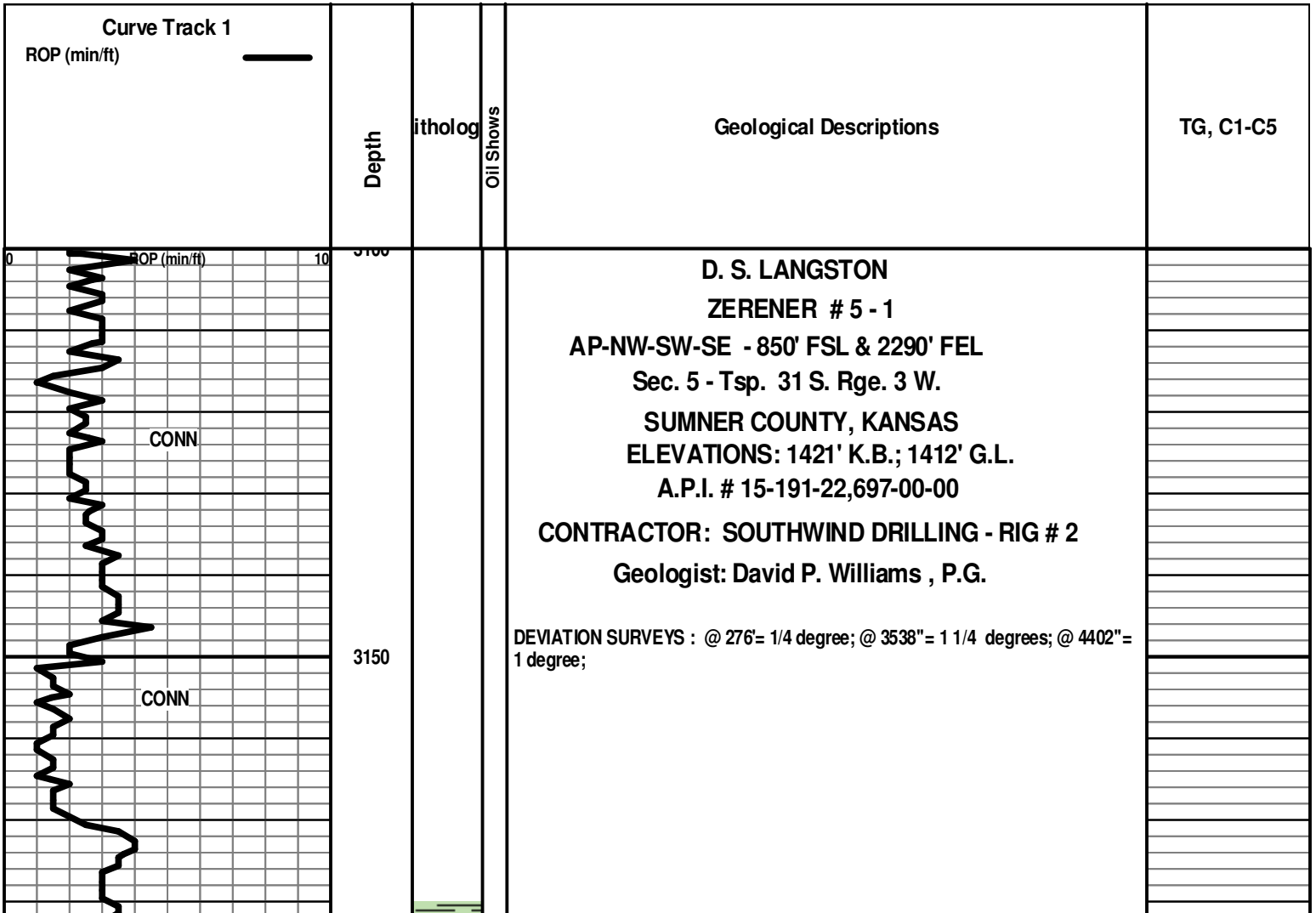
- ROUNDING**
- Rounded
 - Subrnd
 - Subang
 - Angular

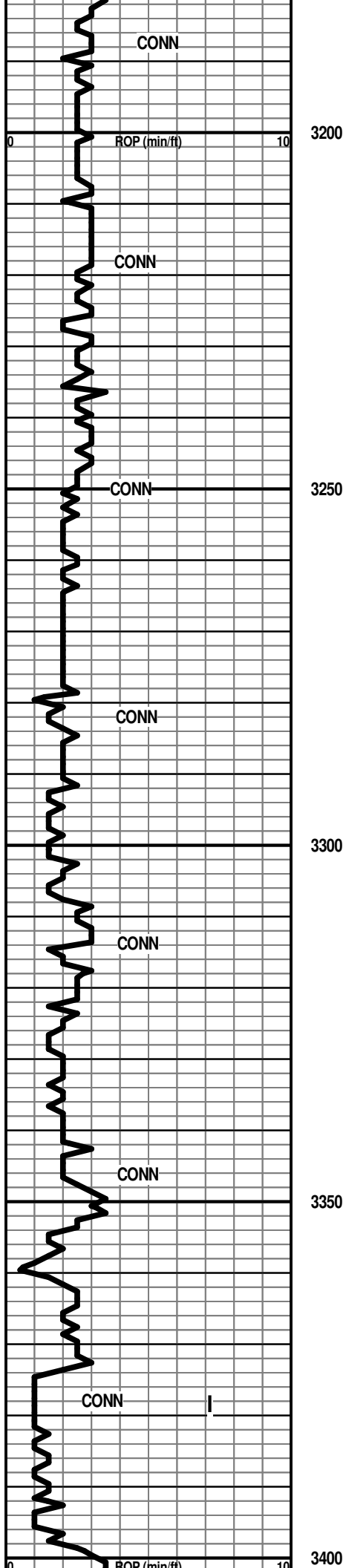
- Even
- Spotted
- Ques
- Dead

- EVENT**
- Rft
 - Sidewall

- OIL SHOW**
- Gas show

- INTERVAL**
- Dst
 - Dst_alt





SAMPLE EXAMINATION BEGIN AT 3300'.

Note: All Samples Have Been Lagged To Depth By Calculated Time.

Sh Gry-Char Soft-Fissil (w/Carb Inklus) Qtz Ss Wht-Crm-Yell MGrn Well Sort
 Ang-Sub Ang CaCO3 Matrix Med Cmt (w/Glacu Inklus) No Odor No Flor No Stn
 NS

Sh Gry-Char Soft-Fissil (w/Carb Inklus) Qtz Ss Wht-Crm-Yell MGrn Well Sort
 Ang-Sub Ang CaCO3 Matrix Med Cmt (w/Glacu Inklus) No Odor No Flor No Stn
 NS

Sh Gry-Char Soft-Fissil (w/Carb Inklus) Qtz Ss Wht-Crm-Yell MGrn Well Sort
 Ang-Sub Ang CaCO3 Matrix Med Cmt (w/Glacu Inklus) No Odor No Flor No Stn
 NS

Sh Gry-Char Soft-Fissil (w/Carb Inklus) Qtz Ss Wht-Crm-Yell MGrn Well Sort
 Ang-Sub Ang CaCO3 Matrix Med Cmt (w/Glacu Inklus) No Odor No Flor No Stn
 NS

Geologist on Location @ 3326' @ 8:30 A.M. 8-3-13

Sh Gry-Char Soft-Fissil (w/Carb Inklus) Qtz Ss Wht-Crm-Yell MGrn Well Sort
 Ang-Sub Ang CaCO3 Matrix Med Cmt (w/Glacu Inklus) No Odor No Flor No Stn
 NS

Sh Char-Gry Drk Fissil Ls Wht-Crm-Tan-Gry FxIn Barren Micrite Grad Poor Pin-Pt
 Por Cht Drk-Gry (w/Fos (Brach, Crin & Spicul Inklus) No Odor No Flor No Stn NS

KANSAS CITY 3348' (- 1927)

Ls Crm-Tan FxIn Barren Micrite Grad Poor Pin-Pt Por Cht Wht-Gry Op Shp Vit
 Chalky Abd Sh Char-Drab Grn/Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Barren Micrite Grad Poor Pin-Pt Por Cht Wht-Gry Op Shp Vit
 Chalky Abd Sh Char-Drab Grn/Gry Drk Fissil No Odor No Flor No Stn NS

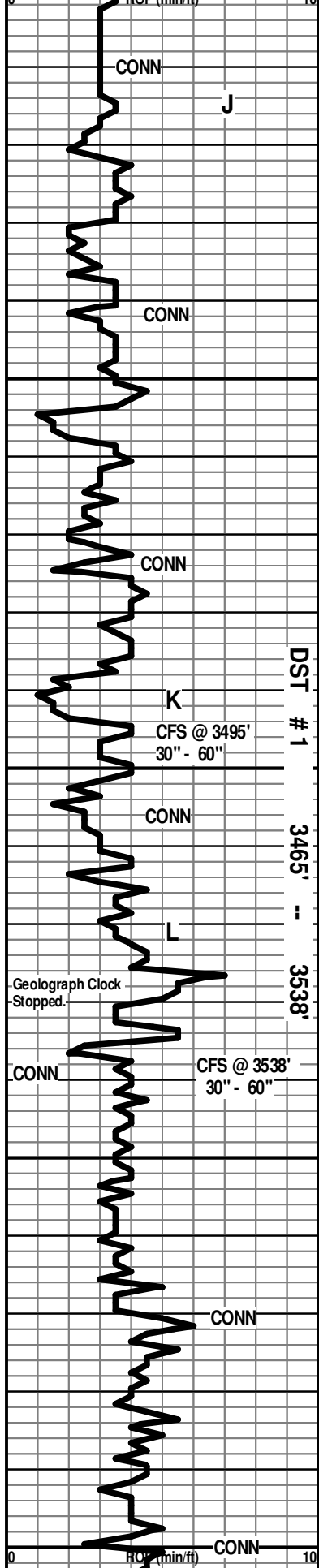
Ls Wht-Crm-Gry FxIn Barren Micrite Grad Poor Pin-Pt IxIx Por Grad Poor OOM
 Por (w/Small Ooids in Pl) Poor Develop Poor-No Leaching Barren Chalky Abd Sh
 Char-Drab Grn/Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Barren Micrite Grad Poor Pin-Pt IxIx Por Grad Poor OOM Por
 (w/Small Ooids in Pl) Poor Develop Poor-Med Vug Leaching Barren Chalky Abd
 Fos (Crin) Sh Char-Drab Grn/Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Barren Micrite Grad Poor Pin-Pt Por Cht Wht Op Shp Vit Chalky
 Abd Sh Char-Drab Grn/Gry Drk Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Barren Micrite Grad Poor Pin-Pt IxIx Por Grad Poor OOM Por (w/Small Ooids in Pl) Poor Develop Poor-No Leaching Barren Chalky Abd Sh Char-Drab Grn/Gry Fissil No Odor No Flor No Stn NS

Mud on Ck



Ls Wht-Crm-Gry Fxln Barren Micrite Grad Poor Pin-Pt Ixln Por Cht Amber-Smoky Gry Translu-Op Shp Vit Chalky Abd Sh Char-Drk Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Barren Micrite Grad Poor Pin-Pt Ixln Por Cht Amber-Smoky Gry Translu-Op Shp Vit Chalky Abd Sh Char-Drk Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Barren Micrite Grad Poor Pin-Pt Ixln Por Cht Wht - Drk Gry/Brn Translu-Op Shp Vit Chalky Sh Char-Drk Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Barren Micrite Grad Poor Pin-Pt Ixln Por Cht Wht - Drk Gry/Brn Translu-Op Shp Vit Chalky Sh Char-Drk Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Barren Micrite Grad Poor Pin-Pt Ixln Por Cht Wht - Drk Gry/Brn Translu-Op Shp Vit Fos (Brach) Chalky Sh Char-Drk Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Barren Micrite Grad Poor Pin-Pt Ixln Por Cht Wht - Drk Gry/Brn Amber Translu-Op Shp Vit Chalky Sh Char-Drk Gry Fissil No Odor No Flor No Stn NS

STARK 3473' (- 2052)

30" CFS @ 3495' Ls Wht-Crm Fxln Fair Pin-Pt Ixln Por (w/Pyr Includ) Grad Fair-Med Vug OOM Por (w/Small OOids in Pl) Poor-Med Leaching Fair-Med Develop (w/ GSG & GSO in both Pin-Pi & OOM Por) Sli Odor Sli Flor (Lt Grn & Both Gas/Lt Brn Oil Does Flor) Sh Blk Carb-Char Fair Odor Sli Lt Brn Stn SSG & 60" CFS @ 3495' Ls Wht-Crm Fxln Fair Pin-Pt Ixln Por (w/Pyr Includ) Grad Fair Vug OOM Por (w/Small OOids in Pl) Poor-Fair Leaching Fair-Med Develop (w/ FSG & FSO in both Pin-Pi & OOM Por) Sli Odor Sli Flor (Lt Grn & Both Gas/Lt Brn Oil Does Flor) Sh Char AA Faint Odor Sli Lt Brn Stn SSG & SSO

Ls Wht-Crm Fxln Barren Micrite Grad Poor Pin-Pt Ixln Por Cht Wht - Drk Gry/Amber Translu-Op Shp Vit Chalky Sh Char-Drk Gry Fissil No Odor No Flor No Stn NS

HUSHPUCKNEY 3510' (- 2089)

KANSAS CITY "HERTHA" (L) 3515' (-2094)

30" CFS @ 3538' Ls Wht-Crm MicroIn-Fxln Fair Pin-Pt Ixln Por (w/Pyr Includ) Grad Fair-Med Vug OOM Por (w/Small OOids in Pl) Poor-Fair Leaching Fair Develop (w/ SSG & SSO in OOM Por) Fos (Crin) Sli Odor Sli Flor (Lt Grn & Both Gas/Lt Brn Oil Does Flor) Sh Blk Carb-Char Faint/Fair Odor Sli Lt Brn Stn SSG & SSO

60" CFS @ 3538' Ls Wht-Crm Fxln Fair Pin-Pt Ixln Por (w/Pyr Includ) Grad Fair Vug OOM Por (w/Small OOids in pl) Poor-Fair Leaching Fair Develop (w/FSG & FSO in OOM Por) Sli Odor Sli Flor (Lt Grn & Both Gas/Lt Brn Oil Does Flor) Sh Char Faint Odor Sli Lt Brn Stn SSG & SSO

Ls Gry-Crm Fxln Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Gry-Crm Fxln Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

BASE KANSAS CITY 3517' (- 2096)

Sh Char Fissil Ls Gry-Crm Fxln Dns Micrite Barren Chalky No Odor No Stn No Flor NS

Ls Gry-Crm Fxln Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Gry-Crm Fxln Dns Micrite Barren Cht Amber-Gry Translu-Op Shp Vit Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Sh Char Fissil Ls Gry-Crm Fxln Dns Micrite Barren Cht Amber-Gry Translu-Op Shp Vit Pyr Mass Chalky No Odor No Stn No Flor NS

Sh Char-Gry Fissil Ls Gry-Crm Fxln Dns Micrite Barren Cht Amber-Gry Translu-Op Shp Vit Chalky No Odor No Stn No Flor NS

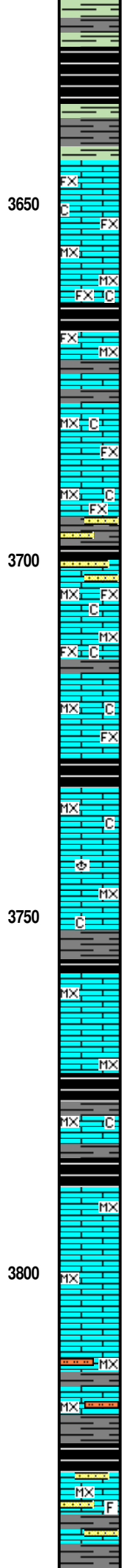
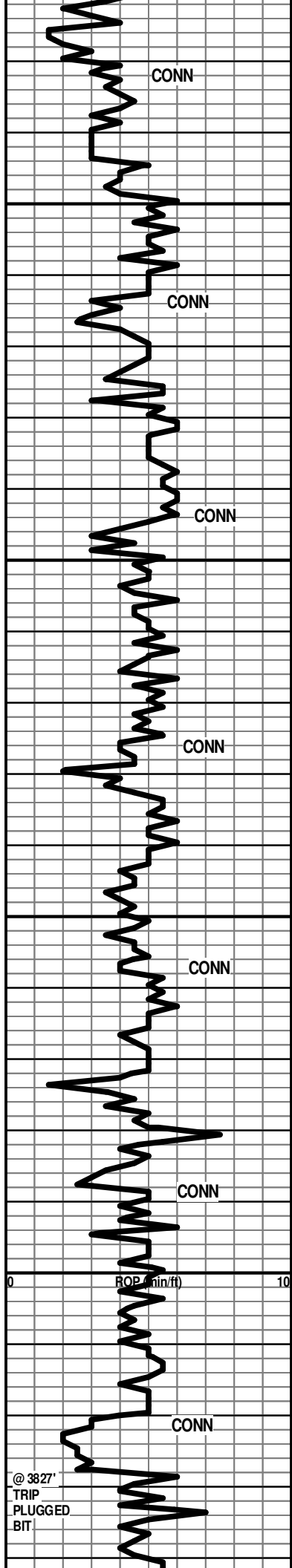
Sh Char Fissil Ls Wht-Crm Fxln Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

@ 3421' @
11:30 AM
8/03/13 Vis
56; WT= 9.4;
PV=15;
YP=16;
WL=9.2;
Cake= 1;
Chl= 5000;
Cal 60;
Sol=7.5%.
LCM= 0#
DMC=\$
511.05
CMC=\$
6,315.50

DST # 1
3465'-3538'
Times:
30"-45"-45"- 75"
IF Blow = Strong
Surface Blow Build
BOB/ 18": FF= Fair
Surface Blow
Build/ 7".
Recovery: 240' TF:
(120' M & 120' (20%
M & 80% Wtr
<1%O)).
Pressures:
IH = 1696#;
FH = 1686#;
IF = 33-93#;
FF = 103-151#;
ISIP = 916#;
FSIP = 906#.
Temp.= 120
degrees F..
Chl.=90,000 Ppm.
Rw= .09 @ 72
degrees.

Pipe Strap = < 0.79">
Long to Board. No Cor.
Made.

Mudco Ck
@ 3550' @
1:45 PM
8/04/13 Vis
56; WT= 9.4;
PV=15;
YP=16;
WL=9.8;
Cake= 1;
Chl= 8000;
Cal 100;
Sol=7.3%.
LCM= 0#
DMC=\$
425.20
CMC=\$
6,740.70



Sh Char-Grn/Gry-Aqua Fissil Ls Gry-Crm FxIn Dns Micrite Barren Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char-Grn/Gry Fissil Ls Gry-Crm FxIn Dns Micrite Barren Chalky No Odor No Stn No Flor NS

MARMATON 3644' (- 2223)

Ls Crm-Wht FxIn-MicroxIn Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Wht MicroxIn-FxIn Dns Micrite Barren Chalky Sh Char-Gry-Grn Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char Fissil Ls Gry-Crm-Wht MicroxIn-FxIn Dns Micrite Barren Chalky No Odor No Stn No Flor NS

Ls Crm-Wht MicroxIn- FxIn Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Wht MicroxIn- FxIn Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Wht-Gry MicroxIn-FxIn Dns Micrite Barren (w/Pyr Includ) Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Wht MicroxIn-FxIn Dns Micrite Barren Qtz Ss Wht VFG Well Sort (Small Clusters w/Hvy CaCO3 Cmt Matrix) Chalky Sh Blk Carb- Char-Gry Fissil No Odor No Stn No Flor NS

Sh Blk Char-Grn/Gry Fissil Ls Gry-Crm-Wht MicroxIn-FxIn Dns Micrite Barren Chalky No Odor No Stn No Flor NS

Ls Crm-Wht-Gry MicroxIn-FxIn Dns Micrite Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Grn Fissil Ls Gry-Crm-Wht MicroxIn Dns Micrite Barren Chalky No Odor No Stn No Flor NS

Ls Crm-Wht-Gry MicroxIn Dns Micrite Barren Fos (Brach) Sh Char-Gry Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Grn Fissil Ls Gry-Crm-Wht MicroxIn Dns Micrite Barren Chalky No Odor No Stn No Flor NS

Ls Crm-Wht-Gry MicroxIn Dns Micrite Barren Sh Char-Gry Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Grn Fissil Ls Gry-Crm-Wht MicroxIn Dns Micrite Barren Chalky No Odor No Stn No Flor NS

CHEROKEE SHALE 3782' (- 2361)

Sh Blk Carb-Char-Grn Fissil Ls Crm-Wht-Gry MicroxIn-FxIn Dns Micrite Barren No Odor No Stn No Flor NS

Ls Tan-Crm-Wht MicroxIn Dns Micrite Barren Sh Blk Carb-Char- Grn Fissil No Odor No Stn No Flor NS

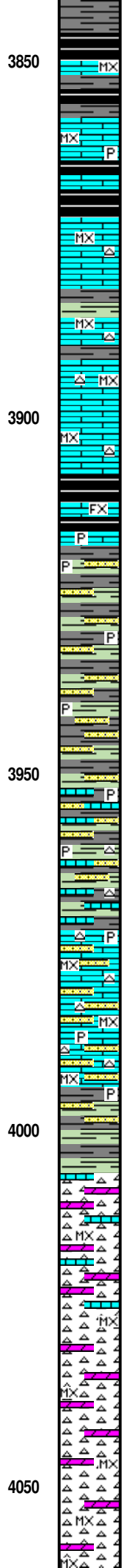
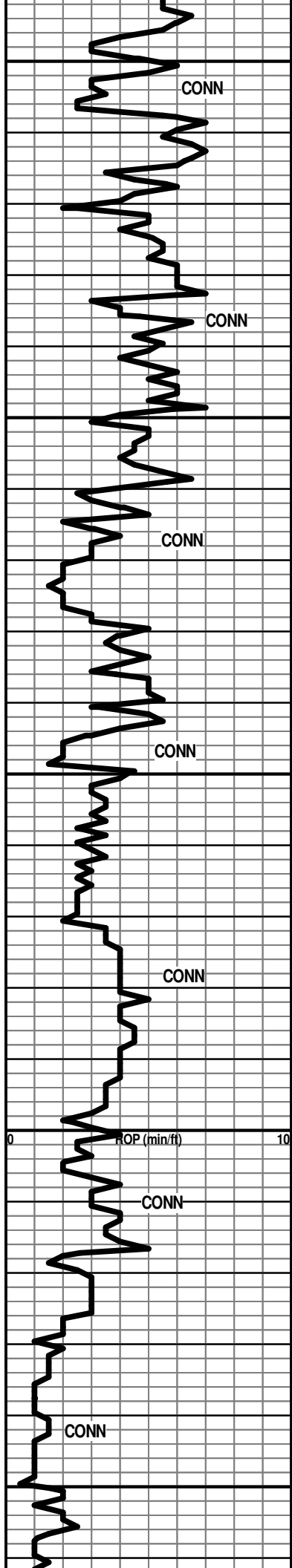
Ls Tan-Crm-Wht MicroxIn Dns Micrite Barren Sh Blk Carb-Char- Grn -Gry Silt Fissil No Odor No Stn No Flor NS

Ls Tan-Crm-Wht MicroxIn Dns Micrite Barren Sh Blk Carb-Char- Grn -Gry Silt Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Grn-Gry Silt Fissil Ls Tan-Crm-Wht-MicroxIn-FxIn Dns Micrite Barren No Odor No Stn No Flor NS

Ls Tan-Crm MicroxIn Dns Micrite Barren Qtz Ss Wht MFG Well Sort (Ss Clusters w/Lt CaCO3 Cmt Matrix w/Carb Includ) Sh Char-Gry-Tr Blk Carb Fissil No Odor No Stn No Flor NS

Mudco Ck
 @ 3827' @
 10:45 AM
 8/05/13 Vis
 46; WT= 9.6;
 PV=14;
 YP=15;
 WL=10.0;



Ls Wht-Tan-Crm MicroxIn Dns Micrite Barren Sh Char-Gry-Tr Blk Carb- Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Tan-Crm MicroxIn Dns Micrite Barren Sh Char-Gry-Tr Blk Carb- Aqua Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Lt Gry (w/Pyr Includ) Fissil Ls Wht - Crm MicroxIn -FxlN Dns Micrite Barren No Odor No Stn No Flor NS

Ls Crm-Tan-Gry MicroxIn Dns Micrite Barren Cht Smoky-Gry Translu Shp Vit Sh Char-Lt Gry- Blk Carb-Aqua Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry MicroxIn Dns Micrite Barren Cht Smoky-Gry Translu Shp Vit Sh Char-Lt Gry- Blk Carb-Aqua Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry MicroxIn Dns Micrite Barren Cht Smoky-Gry Translu Shp Vit Sh Char-Lt Gry- Blk Carb-Maroon Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry MicroxIn Dns Micrite Barren Cht Smoky-Gry Translu Shp Vit Sh Char-Lt Gry- Blk Carb-Maroon Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxlN Dns Micrite Barren Grad Fair Pin-Pt lxn Por Barren Pyr Mass Sh Blk Carb-Char-Lt Gry Fissil No Odor No Stn No Flor NS

Sh Char-Drab Grn-Lt Gry-Blk Carb Fissil Ls Tan-Gry MicroxIn Dns Micrite Barren Qtz Ss Wht-Gry VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix) Pyr Mass No Odor No Stn No Flor NS

Sh Char-Drab Grn-Lt Gry-Blk Carb Fissil Ls Tan-Gry MicroxIn Dns Micrite Barren Qtz Ss Wht-Gry VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix) Pyr Mass No Odor No Stn No Flor NS

Sh Char-Drab Grn-Lt Gry (w/Pyr Includ)-Blk Carb-Aqua Fissil Ls Tan-Gry MicroxIn Dns Micrite Barren Qtz Ss Wht-Gry VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix w/Pyr & Glacu Includ) Pyr Mass No Odor No Stn No Flor NS

Sh Char-Drab Grn-Lt Gry (w/Pyr Includ)-Blk Carb Fissil Ls Tan-Gry MicroxIn Dns Micrite Barren Qtz Ss Wht VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix w/Pyr & Glacu Includ) Pyr Mass No Odor No Stn No Flor NS

Sh Char-Drab Grn-Lt Gry (w/Pyr Includ)-Tr Blk Carb Fissil Ls Tan-Gry MicroxIn Dns Micrite Barren Qtz Ss Wht VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix w/Pyr & Glacu Includ) Cht Wht-Yell-Peach-Org Translu-Op Shp Vit No Odor No Stn No Flor NS

EROS MISSISSIPPIAN 3971' (- 2550)

Ls Gry MicroxIn Dns Micrite Barren Cht Wht-Yell-Peach Translu-Op Shp Vit (w/Ooid Includ) Qtz Ss Smoky Gry VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix w/Pyr & Glacu Includ) Sh Char-Drab Grn-Lt Gry (w/Pyr Includ)-Tr Blk Carb-Grn-Aqua Fissil No Odor No Stn No Flor NS

Ls Gry MicroxIn Dns Micrite Barren Cht Wht-Drk Tan Op Shp Vit (Tr) Qtz Ss Smoky Gry VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix) Sh Char-Lt Gry (w/Pyr Includ)-Tr Blk Carb-Grn-Aqua Fissil No Odor No Stn No Flor NS

Ls Gry MicroxIn Dns Micrite Barren Cht Wht-Drk Tan Op Shp Vit (Tr) Qtz Ss Smoky Gry VFG Well Sort (Ss Clusters w/Hvy CaCO3 Cmt Matrix) Sh Char-Lt Gry (w/Pyr Includ)-Tr Blk Carb-Grn-Aqua Fissil No Odor No Stn No Flor NS

MISSISSIPPIAN 4006' (- 2585)

Cht Bone Wht Op Shp Vit Fresh Ls/Dolo Crm-Gry MicrixIn Micrite Barren Sh Char- Gry No Odor No Stn No Flor NS

Cht Bone Wht Op Shp Vit Fresh Ls/Dolo Crm-Gry MicrixIn Micrite Barren Sh Char- Gry No Odor No Stn No Flor NS

Cht Bone Wht-Gry Poor Pin-Pt Por Poor Lt Grn ? Faint Flor Odor Ls Tan/Dolo Gry MixroxIn Poor Scat ? Lt Grn Flor Pyr Mass Fos (Crin) Sh Char-Blk Carb-Gry-Aqua Fissil AA SG & SFO

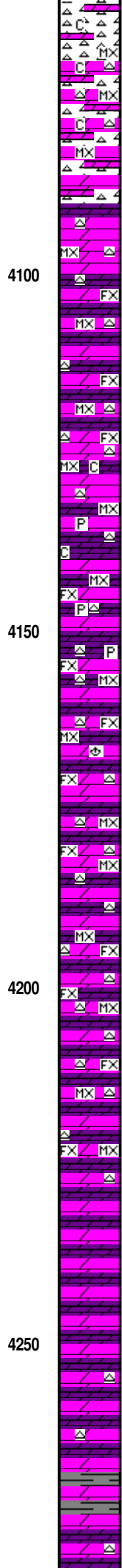
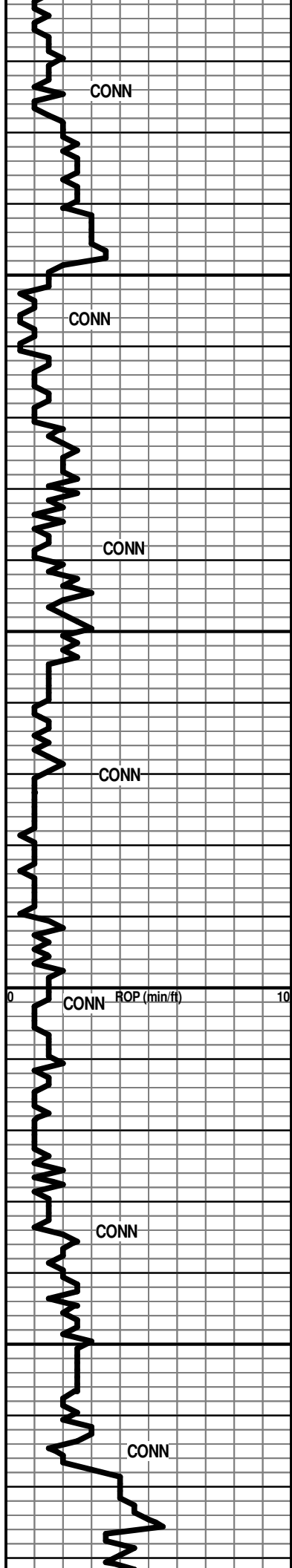
Cht Bone Wht-Gry Poor Pin-Pt & V Small Vug Por (w/ VSSG & VSFO) Poor Lt Grn Flor (Both Gas & Oil Do Flor) Faint Odor Dolo Gry MicroxIn (w/ SSG & SSFO) Faint Lt Grn Flor (Both Gas & Oil Do Flor) Sh Char-Blk Carb-Gry-Aqua Fissil AA SG & SFO

Cht Bone Wht-Gry Poor Pin-Pt & Small Vug Por (w/ SSG & VSFO) Fair Lt Grn Flor (Both Gas & Oil Do Flor) Faint Odor Dolo Gry MicroxIn Poor lxn Por (w/ VSSG & VSSFO) Poor Inc Lt Grn Flor (Both Gas & Oil Do Flor) Sh Char-Blk Carb-Gry-Aqua Fissil VSSG & VSSFO

Cht Bone Wht-Gry Fair-Med Pin-Pt Vug lxn (Chalky) Por (w/GSG & GSFO) Med Inc Lt Grn Flor (Both Gas & Oil Do Flor) Fair Odor Dolo Gry MicroxIn Poor lxn Por Sh Char-Blk Carb-Gry-Aqua Fissil GSG & GSFO

Cht Bone Wht-Gry Fair-Med Pin-Pt lxn Vug (Chalky) Por (w/GSG & GSFO) Med Inc Lt Grn Flor (Both

Cake= 1;
 Chl= 8000;
 Ca= 80;
 Sol=8.8%.
 LCM= 0#
 DMC=\$
 1,087.90
 CMC=\$
 7,828.60



Gas & Oil Do Flor) Fair Odor Dolo Gry Microxn Poor IxIn Por Sh Char-Blk Carb-Gry-Aqua Fissil GSG & GSFO

Cht Wht-Gry-Brn Fair-Med Pin-Pt IxIn Vug (Chalky) Por (w/SG & SO) Med Inc Lt Grn Flor AA Fair Odor AA Dolo Tan-Gry Microxn Poor Pin-Pt IxIn Por (w/GSG & GSO) IncSh Char-Blk Carb-Gry-Aqua Fissil Lt Brn Stn GSG & GSFO

Dolo Tan-Gry Microxn Poor Pin-Pt IxIn Por (w/SG & SO) IncCht Wht-Gry-Brn Fair-Med Pin-Pt IxIn Vug (Chalky) Por (w/SG & SFO) Med Inc Lt Grn Flor AA Fair Odor AA Sh Char-Gry-Aqua Fissil Lt Brn Stn GSG & GSFO

Dolo Gry Microxn Fair-Med Pin-Pt IxIn Por Barren Cht Wht- Lt Gry Tr Translu Most Op Shp Vit Fair-Med Leaching Por Sh Char-Gry-Blk Carb-Aqua Fissil No Odor No Flor No Stn NS

Dolo Gry Microxn-Fxn Fair-Med Pin-Pt IxIn Por Barren Cht Wht-Lt Gry-Lt Brn Translu Most Op Shp Vit Fair-Med Leaching Por Sh Char-Gry-Blk Carb-Purple- Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry Microxn-Fxn Fair-Med Pin-Pt IxIn Por Barren Cht Wht-Lt Gry-Lt Brn Translu Most Op Shp Vit Fair-Med Leaching Por Sh Char-Gry- Blk Carb Fissil No Odor No Flor No Stn NS

Dolo Gry Microxn-Fxn Fair-Med Pin-Pt IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Chalky Sh Char-Gry-Blk Carb- Gry/Grn Fissil No Odor No Flor No Stn NS

Dolo Gry Microxn-Fxn Fair-Med Pin-Pt IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Pyr Mass Chalky Sh Char-Gry-Blk Carb- Gry/Grn Fissil No Odor No Flor No Stn NS

Dolo Gry Microxn-Fxn Fair Pin-Pt IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Pyr Mass Sh Char-Gry-Blk Carb- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry Microxn-Fxn Fair Pin-Pt IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Pyr Mass Sh Char-Gry-Blk Carb- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Brn Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Fos (Brach) Sh Char-Gry-Blk Carb- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry-Blk Carb- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry-Blk Carb- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Aqua-Gry Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry- Aqua-Maroon Fissil No Odor No Flor No Stn NS

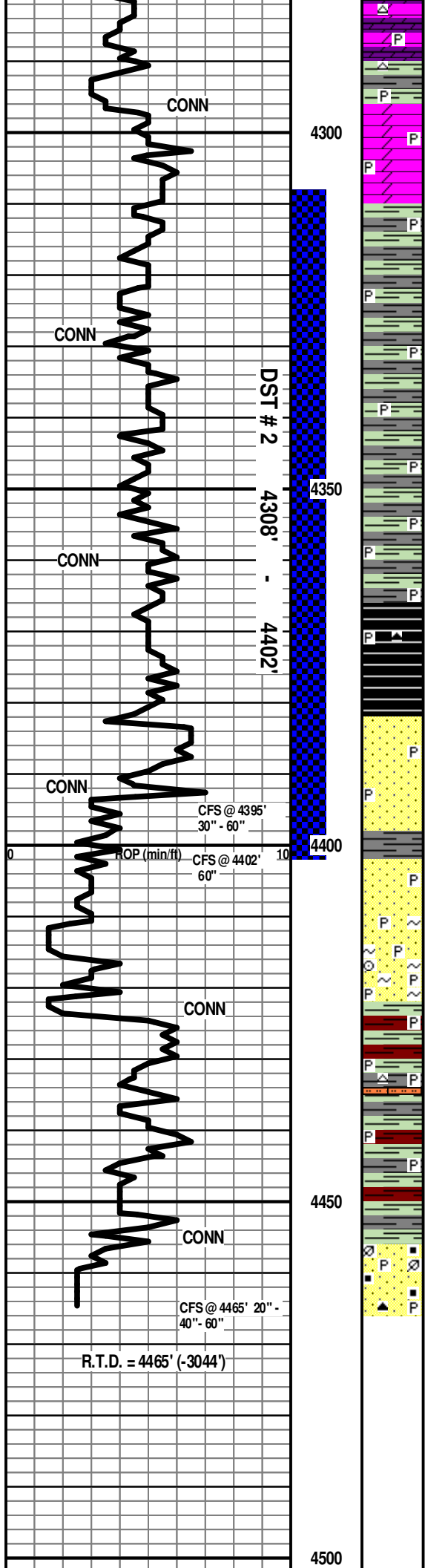
Dolo Gry-Crm-Wht Microxn-Fxn Fair Pin-Pt IxIn Por Grad Fair Sucrosic IxIn Por Barren Cht Wht-Lt Gry Op Shp Vit Fair Leaching Por Sh Char-Gry- Aqua-Maroon Fissil No Odor No Flor No Stn NS

Sh Char (Banded)-Drab Gry/Grn-Aqua Fissil Abd Cht AA No Odor No Stn No Flor NS

Sh Char-Drab Gry/Grn-Aqua Fissil Abd Cht AA No Odor No Stn No Flor NS

Mudco Ck
 @ 4272' @
 12:45 PM
 8/06/13
 Vis 43;
 WT= 9.7;
 PV=14;
 YP=16;
 WL=9.6#;
 Cake= 1;
 Chl=8000;
 Ca= 80;
 Sol=9.5%.
 LCM= 4#
 DMC=\$
 1,710.65
 CMC=\$
 9,539.25

Mudco Ck @
 4402' @
 12:00 PM
 8/07/13 Vis



Dolo Crm-Tan-Wht MicroIn Dns Micrite Barren AA Cht AA Chalky Pyr Mass Sh Char-Drab Gry/Grn-Aqua Fissil No Odor No Stn No Flor NS

Sh Char-Drab Grn/Gry (w/Pyr Includ) Fissil Abd Dolo AA Cht AA No Odor No Stn No Flor NS

Dolo Crm-Tan-Wht MicroIn Dns Micrite Barren AA Cht AA Chalky Pyr Mass Sh Char-Drab Gry/Grn-Aqua Fissil No Odor No Stn No Flor NS

KINDERHOOK SHALE 4310' (- 2889)

Sh Char-Drab Grn/Gry (w/Pyr Includ) Fissil Abd Dolo AA Cht AA No Odor No Stn No Flor NS

Sh Char-Drab Grn/Gry (w/Pyr Includ) Fissil Abd Dolo AA Cht AA No Odor No Stn No Flor NS

Sh Char-Drab Grn/Gry (w/Pyr Includ) Fissil Abd Dolo AA Cht AA No Odor No Stn No Flor NS

BEGIN EXAMINATION 5' SAMPLES @ 4355'

Sh Char-Drab Grn/Gry (w/Pyr Includ) Fissil Abd No Odor No Stn No Flor NS

Sh Char-Drab Grn/Gry (w/Pyr Includ) Fissil Abd No Odor No Stn No Flor NS

Sh Char-Drab Grn/Gry (w/Pyr Includ)-Aqua Fissil Abd No Odor No Stn No Flor NS

Sh Char-Drab Grn/Gry (w/Pyr Includ)-Aqua Fissil Abd No Odor No Stn No Flor NS

Sh Char-Drab Grn/Gry (w/Pyr Includ)-Aqua Fissil Abd Cht Org Faint Inc Odor No Stn No Flor NS

CHATTANOOGA SHALE 4266' (- 2845)

Sh Blk Carb-Char-Drab Grn/Gry-Aqua (w/Pyr & Micaceous Includ) Fissil Abd Faint Inc Odor No Stn No Flor NS

Sh Blk Carb-Char-Drab Grn/Gry-Aqua (w/Pyr & Micaceous Includ) Fissil Abd Cht Blk Op Shp Vit Faint Inc Odor No Stn No Flor NS

SIMPSON SAND 4383' (- 2962)

Qtz Ss Wht-Tan FGrn Sub-Angular Well Sorted VFriable Clusters w/Clear Grns Good IGran Por (w/Carb Includ) Lt CaCO3 Cmt Matrix (w/SG & SFO W/Heat Under Wtr) Good Flor (Both Gas & Oil Do Flor) Pyr Mass Sh AA Sli Lt Brn Stn Faint Odor Med SG & SO

30" CFS @ 4395' Qtz Ss Wht-Tan FGrn Sub-Angular Well Sorted VFriable Clusters w/SG & SFO AA Good Flor Pyr Mass Sh AA Sli Lt Brn Stn Faint Odor Med SG & SO

60" CFS @ 4402' Qtz Ss Clusters AA SG & SFO AA Good Flor Pyr Mass Sh AA Sli Lt Brn Stn Faint Odor Med SG & SO

Qtz Ss Wht-Tan Clusters FGrn Well Sort Good IGran Por Barren Pyr Mass Sh AA No Stn No Odor No Flor NS

Qtz Ss Wht-Tan Clusters FGrn Well Sort Good IGran Por Barren Pyr Mass Sh AA No Stn No Odor No Flor NS

Qtz Ss Bone Wht Clusters (Fining Downward) VFGrn Well Sort Med-Good IGran Por (w/Pyr & Glacu Includ) Barren Pyr Mass Fos (Crin w/Pyr) Sh AA No Stn No Odor No Flor NS

Qtz Ss Bone Wht Clusters (Fining Downward) VFGrn Well Sort Med-Good IGran Por (w/Pyr & Glacu Includ) Barren Pyr Mass Fos (Crin w/Pyr) Sh AA No Stn No Odor No Flor NS

Sh Aqua-Char-Maroon Fissil Qtz Ss Bone Wht-Tan Clusters (Fining Downward) VFGrn Well Sort Med IGran Por (w/Pyr & Glacu Includ) Barren Cht Tan Translu-Op Shp Vit Tr Pyr Mass No Stn No Odor No Flor NS

Sh Aqua-Char-Maroon Fissil Qtz Ss Bone Wht-Tan Clusters (Fining Downward) VFGrn Well Sort Med IGran Por (w/Pyr & Glacu Includ) Barren Siltstn Wht VFGrn Tr Cht Tan Translu-Op Shp Vit Tr Pyr Mass No Stn No Odor No Flor NS

Sh Aqua-Char-Maroon Fissil Qtz Ss Bone Wht-Tan Clusters (Fining Downward) VFGrn Well Sort Med IGran Por (w/Pyr & Glacu Includ) Barren Cht Tan Translu-Op Shp Vit Tr Pyr Mass No Stn No Odor No Flor NS

20" CFS @ 4465' Qtz Ss Wht-Gry FGrn Lg Grn-Small Sub-Angular to Poor Sorted VFriable Clusters (w/Glacu & Drk-Brn Carb Includ) Pyr Mass Sh AA No Stn No Odor No Flor NS

40" CFS @ 4465' Qtz Ss Wht-Gry-Aqua FGrn Lg Grn-Small Sub-Angular to Poor - Fair Sorted VFriable Clusters (w/Glacu & Drk-Brn Carb Includ) Cht Peach Op Shp Vit Pyr Mass Sh Aqua-Char-No Stn No Odor No Flor NS

60" CFS @ 4465' Qtz Ss Wht-Gry-Aqua FGrn Lg Grn-Small Sub-Angular to Poor - Fair Sorted VFriable Clusters (w/Glacu & Drk-Brn Carb Includ) Cht Peach Op Shp Vit Pyr Mass Sh Aqua-Char-No Stn No Odor No Flor NS

No Electric Logs Were Run.

Geologist left Location at 10:00 P.M. 08/07/2013

45; WT= 9.6#; PV=14; YP=16; WL=9.6#; Cake= 1; Chl=5000; Ca= 80; Sol=8.8%; LCM= 2# DMC=\$ 1,849.35 CMC=\$ 11,388.60

~ DST # 2 4308'-4402'

Times: 30"-45"-15"- 15" IF Blow = Strong Surface Blow Build BOB/ 2': FF= Strong Blow Build BOB/ 2': Recovery: 2200' TF: (120' MW & 2050' WM). Pressures: IH = 2174#; FH = 2141#; IF = 209-865#; FF = 909-1112#; ISIP = 1521#; FSIP = 1514#. Temp.= 140 degrees F.. Chl.=80,000 Ppm. Rw=.08 @ 84 degrees F.

Acid & Cement

HAYSVILLE, KS
 (316) 524-1225
 (316) 524-1027 FAX

BURRTON, KS (620) 463-5161
 GREAT BEND, KS (620) 793-3366
 FAX (620) 463-2104 FAX (620) 793-3536

INVOICE NUMBER:
 C41358-IN

BILL TO:

LEASE: ZERENER 5-1

D.S. LANGSTON
 310 W. CENTRAL, STE. 202
 WICHITA, KS 67202-1004

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
08/15/2013	C41358		08/08/2013		NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
50.00	MI	CEMENT MILEAGE PUMP TRUCK		0.00	4.00	200.00
50.00	MI	CEMENT MILEAGE PU TRUCK		0.00	2.00	100.00
1.00	EA	CEMENT PUMP CHARGE		0.00	1,100.00	1,100.00
110.00	SAX	60-40 POZ MIX 2% GEL		0.00	9.25	1,017.50
2.00	SAX	2% ADDITIONAL GEL		0.00	22.00	44.00
25.00	LB	CELLO-FLAKES		0.00	3.00	75.00
1.00	EA	MIN. BULK CHARGE		0.00	150.00	150.00
246.40	MI	BULK TRUCK - TON MILES		0.00	1.10	271.04
REMIT TO: P.O. BOX 438 HAYSVILLE, KS 67060		COP		Net Invoice:		2,957.54
RECEIVED BY _____		FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		SUMCO Sales Tax:		73.15
		NET 30 DAYS		Invoice Total:		<u>3,030.69</u>

*paid 8/21
 check # 8040*

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days past due.

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service
 Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code



TREATMENT REPORT

Acid Stage No.

Date 8-8-13 District F. O. No. 41358
 Company DS LANGSTON
 Well Name & No. ZENER S-1
 Location Field
 County SUMNER State KS

Type Treatment: Amt. Type Fluid Sand Size Pounds of Sand
 Bkdown Bbl./Gal.
 Bbl./Gal.
 Bbl./Gal.
 Bbl./Gal.
 Flush Bbl./Gal.
 Treated from ft. to ft. No. ft.
 from ft. to ft. No. ft.
 from ft. to ft. No. ft.

Casing: Size Type & Wt. Set at ft.
 Formation: Perf. to
 Formation: Perf. to
 Formation: Perf. to
 Liner: Size Type & Wt. Top at ft. Bottom at ft.
 Cemented: Yes/No. Perforated from ft. to ft.
 Tubing: Size & Wt. Swung at ft.
 Perforated from ft. to ft.
 then Hole Size T.D. ft. P.B. to ft.

Actual Volume of Oil/Water to Load Hole: Bbl./Gal
 Pump Trucks. No. Used: Std. 318 Sp. Twin
 Auxiliary Equipment 327
 Packer: Set at
 Auxiliary Tools
 Plugging or Sealing Materials: Type Gal.

Company Representative _____

Treater _____

TIME a.m./p.m.	PRESSURES		Total Fluid Pumped	REMARKS
	Tubing	Casing		
1:30				ON LOCATION
:				
:				pump 35 sbs at 326' - 60/40 4% gel B/
:				1/4" # per sack celloflock
:				
:				pump 35 sbs at 60' - 60/40 4% gel
:				w/ 1/4" # per sack celloflock
:				
:				plug vet hole w/ 30 sbs 60/40 4%
:				
:				plug mouse hole w/ 20 sbs 60/40 4%
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Thanks
Greadan



DRILL STEM TEST REPORT

Prepared For: **D.S Langston**

310 W Central STE 202
Wichita KS 67202

ATTN: D S Langston / Dave

Zerener #5-1

5-31s-3w Sumner,KS

Start Date: 2013.08.03 @ 23:42:13

End Date: 2013.08.04 @ 09:09:28

Job Ticket #: 47519 DST #: 1

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

Printed: 2013.08.09 @ 14:47:53



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

D.S Langston
 310 W Central STE 202
 Wichita KS 67202
 ATTN: D S Langston / Dave

5-31s-3w Sumner,KS
Zerener #5-1
 Job Ticket: 47519 **DST#: 1**
 Test Start: 2013.08.03 @ 23:42:13

GENERAL INFORMATION:

Formation: **Swope/ Hertha**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:01:58
 Time Test Ended: 09:09:28
 Interval: **3465.00 ft (KB) To 3538.00 ft (KB) (TVD)**
 Total Depth: 3538.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Chris Staats
 Unit No: 47
 Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
 KB to GR/CF: 9.00 ft

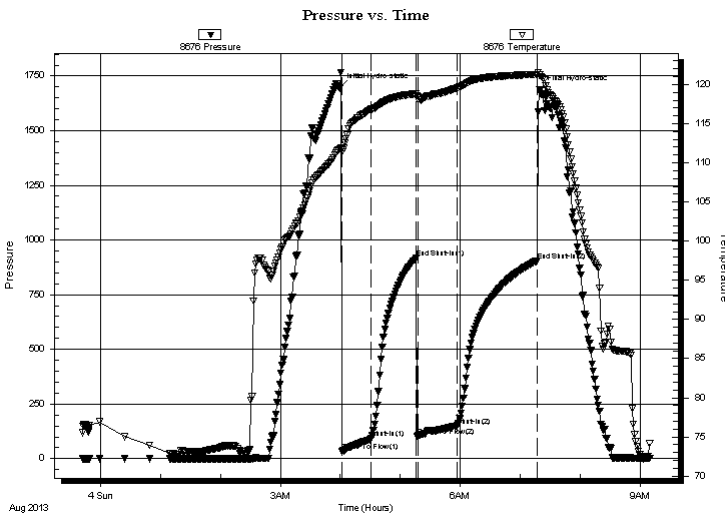
Serial #: 8676

Outside

Press @ Run Depth: 150.55 psig @ 3466.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.08.03 End Date: 2013.08.04 Last Calib.: 2013.08.04
 Start Time: 23:42:18 End Time: 09:09:28 Time On Btm: 2013.08.04 @ 03:59:28
 Time Off Btm: 2013.08.04 @ 07:19:28

TEST COMMENT: IF: Strong blow BOB 18 min
 IS: No blow back
 FF: Fair blow 7"
 FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1695.56	111.77	Initial Hydro-static
3	33.33	111.44	Open To Flow (1)
32	92.97	116.87	Shut-In(1)
77	916.26	118.81	End Shut-In(1)
78	103.44	118.44	Open To Flow (2)
118	150.55	119.58	Shut-In(2)
198	906.22	121.31	End Shut-In(2)
200	1685.99	121.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud	1.68
120.00	W,M 20% mud 80% water	1.68

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

D.S Langston
310 W Central STE 202
Wichita KS 67202
ATTN: D S Langston / Dave

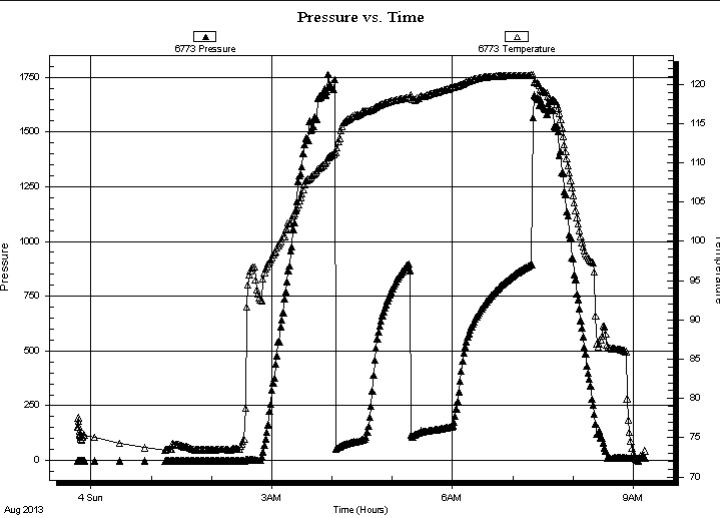
5-31s-3w Sumner,KS
Zerener #5-1
Job Ticket: 47519 **DST#: 1**
Test Start: 2013.08.03 @ 23:42:13

GENERAL INFORMATION:

Formation: **Swope/ Hertha**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 04:01:58 Tester: Chris Staats
Time Test Ended: 09:09:28 Unit No: 47
Interval: 3465.00 ft (KB) To 3538.00 ft (KB) (TVD) Reference Elevations: 1421.00 ft (KB)
Total Depth: 3538.00 ft (KB) (TVD) 1412.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

Serial #: 6773 Inside
Press@RunDepth: psig @ 3466.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.08.03 End Date: 2013.08.04 Last Calib.: 2013.08.04
Start Time: 23:46:40 End Time: 09:11:35 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong blow BOB 18 min
IS: No blow back
FF: Fair blow 7"
FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud	1.68
120.00	W,M 20% mud 80% w ater	1.68

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

D.S Langston

5-31s-3w Sumner,KS

310 W Central STE 202
Wichita KS 67202

Zerener #5-1

Job Ticket: 47519

DST#: 1

ATTN: D S Langston / Dave

Test Start: 2013.08.03 @ 23:42:13

Tool Information

Drill Pipe:	Length: 3459.00 ft	Diameter: 3.80 inches	Volume: 48.52 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 48.52 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 37000.00 lb
Depth to Top Packer:	3465.00 ft			Final 37000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.00 ft			
Tool Length:	102.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3437.00	
Shut In Tool	5.00			3442.00	
Hydraulic tool	5.00			3447.00	
Jars	5.00			3452.00	
Safety Joint	3.00			3455.00	
Packer	5.00			3460.00	29.00 Bottom Of Top Packer
Packer	5.00			3465.00	
Stubb	1.00			3466.00	
Recorder	0.00	8676	Outside	3466.00	
Recorder	0.00	6773	Inside	3466.00	
Change Over Sub	0.50			3466.50	
Drill Pipe	63.00			3529.50	
Change Over Sub	0.50			3530.00	
Perforations	5.00			3535.00	
Bullnose	3.00			3538.00	73.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

D.S Langston

5-31s-3w Sumner,KS

310 W Central STE 202
Wichita KS 67202

Zerener #5-1

Job Ticket: 47519

DST#: 1

ATTN: D S Langston / Dave

Test Start: 2013.08.03 @ 23:42:13

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:

90 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Mud	1.683
120.00	W,M 20%mud 80%w ater	1.683

Total Length: 240.00 ft Total Volume: 3.366 bbl

Num Fluid Samples: 0

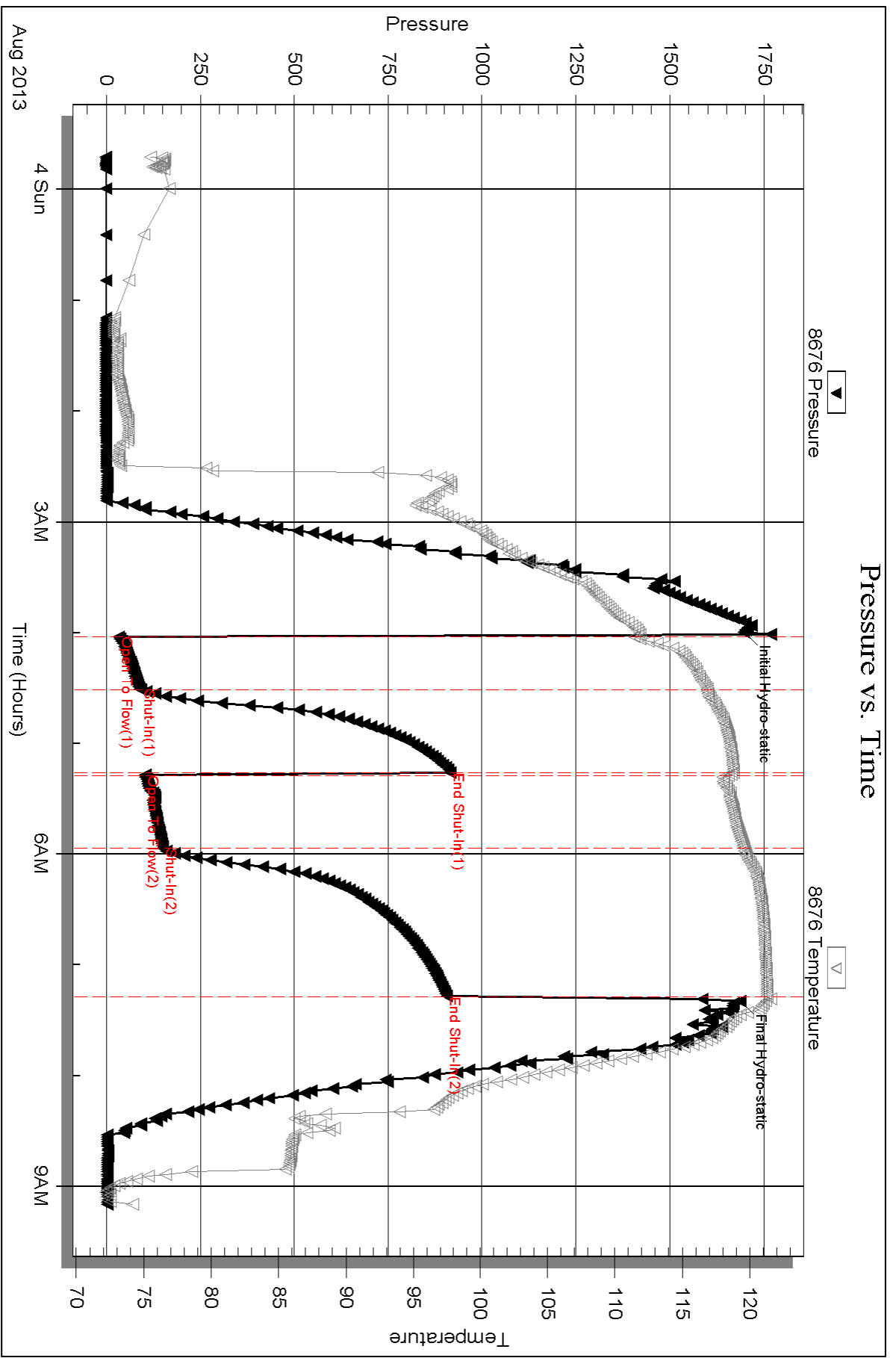
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



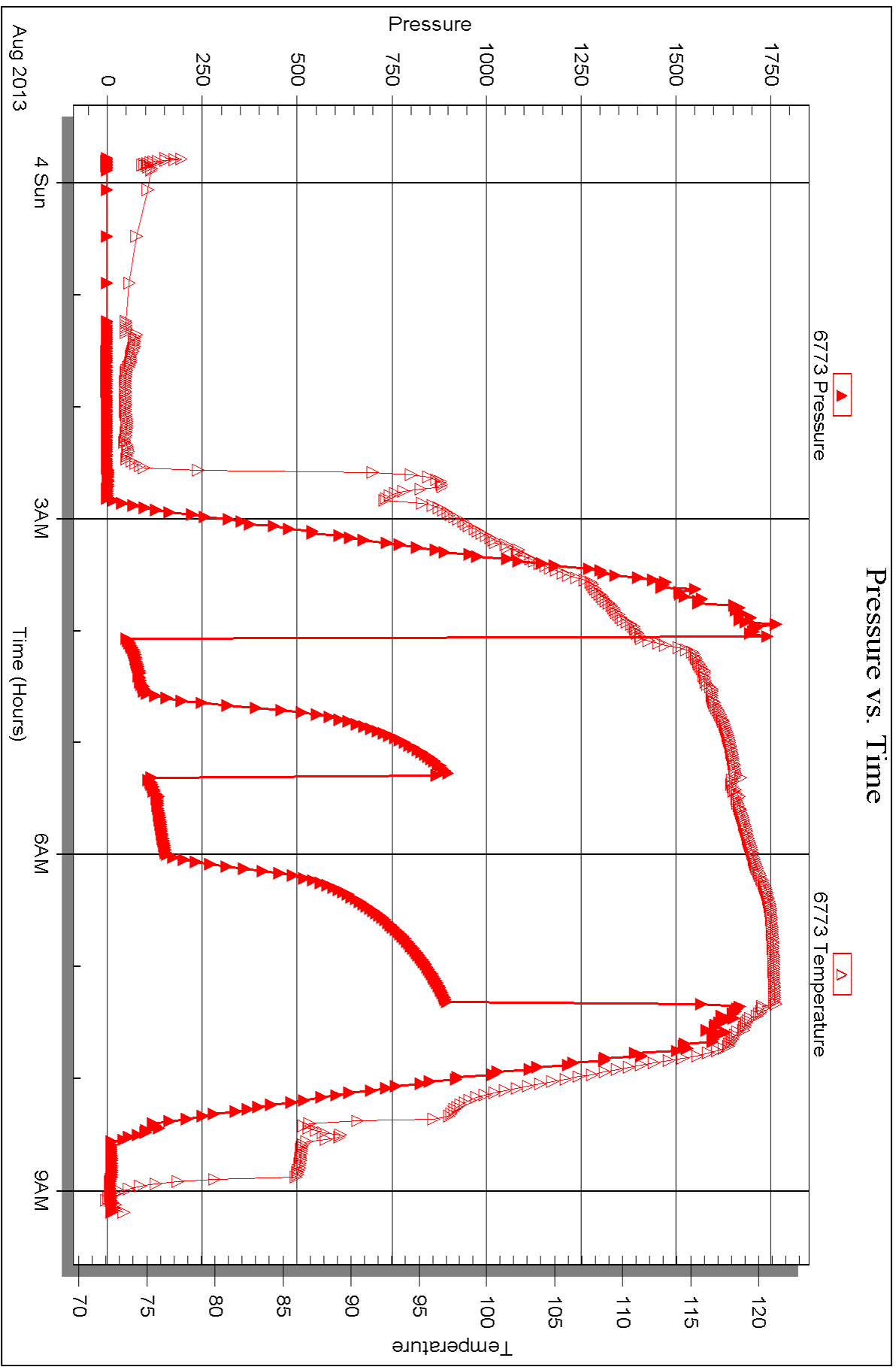
Serial #: 6773

Inside

D.S. Langston

Zerener #5-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **D.S Langston**

310 W Central STE 202
Wichita KS 67202

ATTN: D S Langston / Dave

Zerener #5-1

5-31s-3w Sumner,KS

Start Date: 2013.08.07 @ 05:27:59

End Date: 2013.08.07 @ 12:24:29

Job Ticket #: 47520 DST #: 2

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

Printed: 2013.08.09 @ 14:47:13



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

D.S Langston
 310 W Central STE 202
 Wichita KS 67202
 ATTN: D S Langston / Dave

5-31s-3w Sumner,KS
Zerener #5-1
 Job Ticket: 47520 **DST#: 2**
 Test Start: 2013.08.07 @ 05:27:59

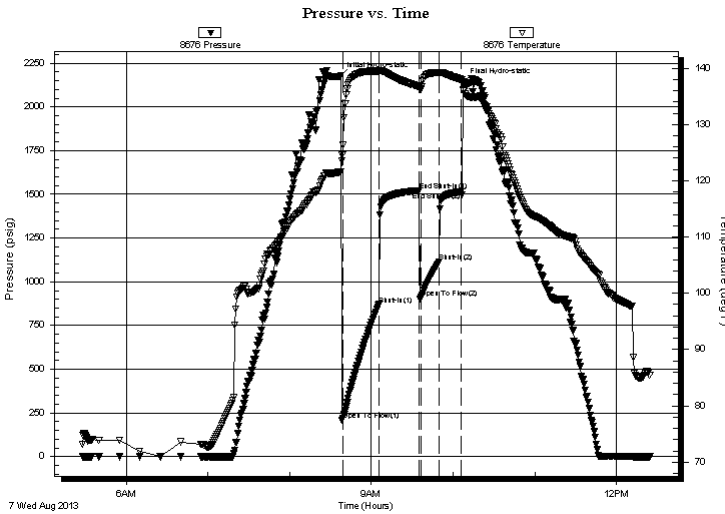
GENERAL INFORMATION:

Formation: **Simpson Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:38:44
 Time Test Ended: 12:24:29
 Interval: **4308.00 ft (KB) To 4402.00 ft (KB) (TVD)**
 Total Depth: 4402.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chris Staats
 Unit No: 47
 Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8676 Outside
 Press @ Run Depth: 1112.64 psig @ 4309.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.08.07 End Date: 2013.08.07 Last Calib.: 2013.08.07
 Start Time: 05:28:04 End Time: 12:24:28 Time On Btm: 2013.08.07 @ 08:36:59
 Time Off Btm: 2013.08.07 @ 10:07:29

TEST COMMENT: IF: Strong blow BOB 2 min
 IS: No blow back
 FF: Strong blow BOB 2 min
 FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2174.01	121.56	Initial Hydro-static
2	209.60	124.56	Open To Flow (1)
29	865.99	139.43	Shut-In(1)
58	1521.25	136.70	End Shut-In(1)
60	909.97	136.14	Open To Flow (2)
73	1112.64	139.15	Shut-In(2)
89	1514.76	138.01	End Shut-In(2)
91	2141.10	136.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	M,W 20% w ater 80% mud	1.68
2080.00	W,M 10% mud 90% w ater	29.18

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

D.S Langston

5-31s-3w Sumner,KS

310 W Central STE 202
Wichita KS 67202

Zerener #5-1

Job Ticket: 47520

DST#: 2

ATTN: D S Langston / Dave

Test Start: 2013.08.07 @ 05:27:59

Tool Information

Drill Pipe:	Length: 4282.00 ft	Diameter: 3.80 inches	Volume: 60.07 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 60.07 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4308.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	94.00 ft			
Tool Length:	123.00 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			4280.00	
Shut In Tool	5.00			4285.00	
Hydraulic tool	5.00			4290.00	
Jars	5.00			4295.00	
Safety Joint	3.00			4298.00	
Packer	5.00			4303.00	29.00 Bottom Of Top Packer
Packer	5.00			4308.00	
Stubb	1.00			4309.00	
Recorder	0.00	8676	Outside	4309.00	
Recorder	0.00	6773	Inside	4309.00	
Change Over Sub	0.50			4309.50	
Drill Pipe	63.00			4372.50	
Change Over Sub	0.50			4373.00	
Perforations	26.00			4399.00	
Bullnose	3.00			4402.00	94.00 Bottom Packers & Anchor

Total Tool Length: 123.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

D.S Langston

5-31s-3w Sumner,KS

310 W Central STE 202
Wichita KS 67202

Zerener #5-1

Job Ticket: 47520

DST#: 2

ATTN: D S Langston / Dave

Test Start: 2013.08.07 @ 05:27:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

80 ppm

Viscosity: 43.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 0.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	M,W 20% water 80% mud	1.683
2080.00	W,M 10% mud 90% water	29.177

Total Length: 2200.00 ft

Total Volume: 30.860 bbl

Num Fluid Samples: 0

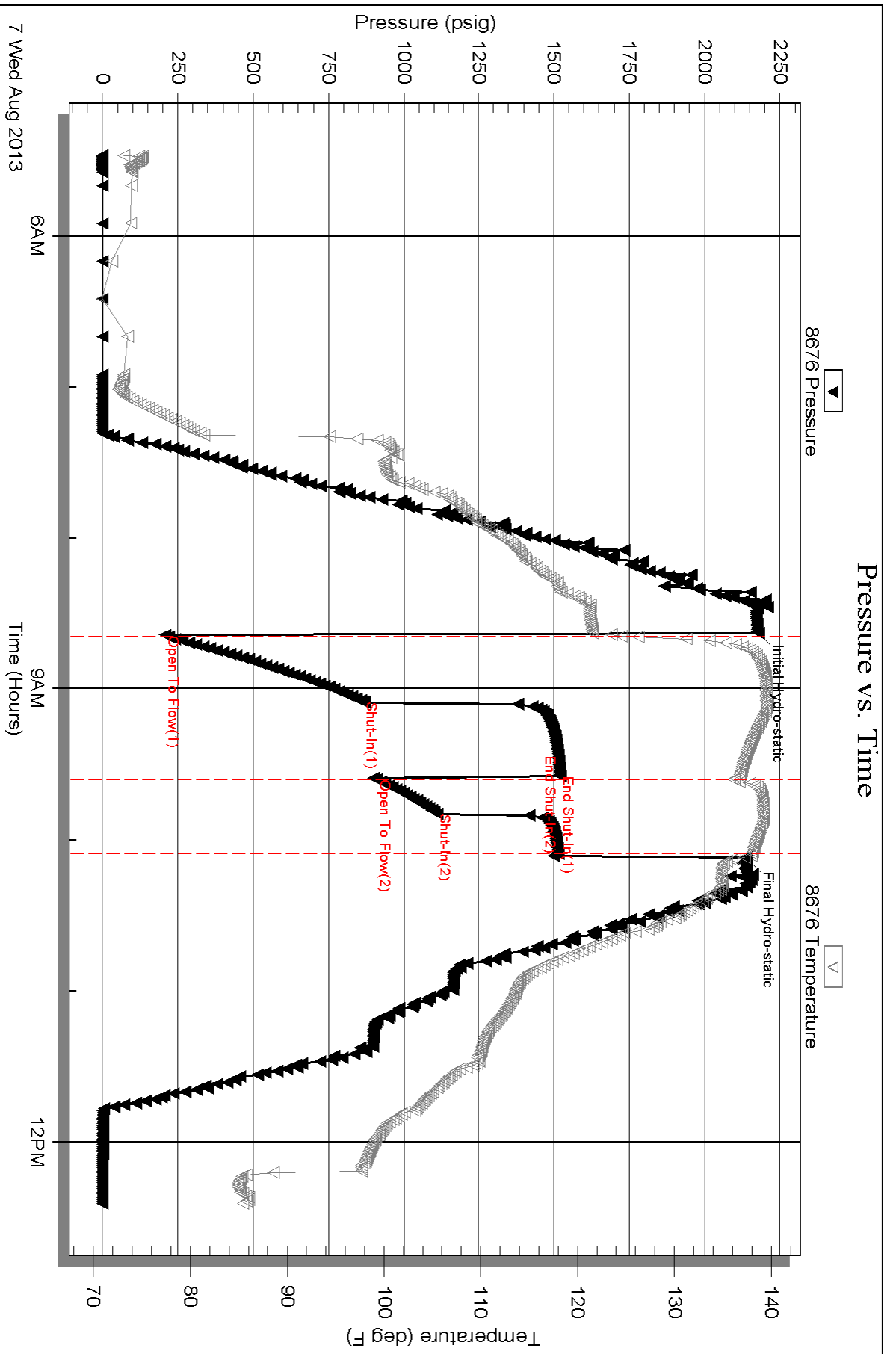
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47519

4/10

Well Name & No. D.S Langston Zerener #S-1 Test No. 1 Date 8-3-13
 Company D.S Langston Elevation 1421 KB 1412 GL
 Address 310 W Central STE 202 Wichita KS 67202
 Co. Rep / Geo. DS Langston Rig Southwind #2
 Location: Sec. S Twp. 31 Rge. 3 Co. Sumner State KS

Interval Tested 3465 - 3538 Zone Tested Swope / Acantha
 Anchor Length 73' Drill Pipe Run 3459 Mud Wt. 9.4
 Top Packer Depth 3460 Drill Collars Run 0 Vis 56
 Bottom Packer Depth 3465 Wt. Pipe Run 0 WL 9.2
 Total Depth 3538 Chlorides 5000 ppm System LCM 0

Blow Description FF: Strong blow BOB 18 min
ISI: NO blow back
FF: Fair blow 7"
FSI: NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>120'</u>	Feet of <u>MUD</u>				
Rec <u>120'</u>	Feet of <u>M, W slight oil cut</u>			<u>80</u>	<u>20</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 240 BHT 120° Gravity - API RW .09 @ 72 °F Chlorides 90,000 ppm

(A) Initial Hydrostatic <u>1695</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>23:30</u>
(B) First Initial Flow <u>33</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:42</u>
(C) First Final Flow <u>92</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:01</u>
(D) Initial Shut-In <u>916</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>7:15</u>
(E) Second Initial Flow <u>103</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:00</u>
(F) Second Final Flow <u>150</u>	<input checked="" type="checkbox"/> Mileage <u>190 miles</u> 294.50	Comments
(G) Final Shut-In <u>906</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1685</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 75

Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1769.50

Sub Total 1769.50

Approved By Paul P. Williams

Our Representative chi st

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.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47520

Well Name & No. 2c rener # 5-1 Test No. 2 Date 8-~~07~~-13
 Company D.S. Langston Elevation 1401 KB 1412 GL
 Address 310 West central STE 202 Wichita KS 67202
 Co. Rep / Geol. D.S. Langston / Dave Williams Rig Southwind #2
 Location: Sec. 5 Twp. 31 Rge. 3 Co. Sumner State KS

Interval Tested 4308 - 4402 Zone Tested Simpson Sand
 Anchor Length 94' Drill Pipe Run 4282 Mud Wt. 9.7
 Top Packer Depth 4303 Drill Collars Run 0 Vis 43
 Bottom Packer Depth 4308 Wt. Pipe Run 0 WL 9.6
 Total Depth 4402 Chlorides 8000 ppm System LCM 4#

Blow Description IF Strong blow BOB 2 min
ISI: NO blow back
FF: STRONG blow BOB 2 min
FBI: NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120'</u>	<u>M.W</u>			<u>20</u>	<u>80</u>
<u>2080</u>	<u>W.M</u>			<u>90</u>	<u>10</u>

Rec Total 2200 BHT 140 Gravity - API RW .08 @ 84 °F Chlorides 80,000 ppm

(A) Initial Hydrostatic 2174
 (B) First Initial Flow 209
 (C) First Final Flow 865
 (D) Initial Shut-In 1521
 (E) Second Initial Flow 909
 (F) Second Final Flow 1112
 (G) Final Shut-In 1514
 (H) Final Hydrostatic 2141

Test 1250
 Jars 250
 Safety Joint 75
 Circ Sub
 Hourly Standby
 Mileage 50 miles 294.50
 Sampler
 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby 3 Days
 Accessibility
 Sub Total 1869.50

T-On Location 5:10
 T-Started 5:27
 T-Open 8:38
 T-Pulled 10:05
 T-Out 12:20

Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 2275
 Total 4144.50
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 1.5
 Final Shut-In 1.5

Approved By Daniel P. Wilson Our Representative Chris [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.

Acid & Cement

(316) 524-1225
(316) 524-1027 FAX

BURRTON, KS GREAT BEND, KS
(620) 463-5161 (620) 793-3366
FAX (620) 463-2104 FAX (620) 793-3536

INVOICE NUMBER:
C41099-IN

BILL TO:
D.S. LANGSTON
310 W. CENTRAL, STE. 202
WICHITA, KS 67202-1004

LEASE: ZERENER 5-1

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
07/31/2013	C41099		07/30/2013		NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
50.00	MI	CEMENT MILEAGE PUMP TRUCK		0.00	4.00	200.00
50.00	MI	CEMENT MILEAGE PU TRUCK		0.00	2.00	100.00
1.00	EA	CEMENT PUMP CHARGE		0.00	950.00	950.00
225.00	SAX	60-40 POZ MIX 2% GEL		0.00	9.25	2,081.25
6.00	SAX	CALCIUM CHLORIDE - SAX		0.00	40.00	240.00
231.00	EA	BULK CHARGE		0.00	1.25	288.75
508.20	MI	BULK TRUCK - TON MILES		0.00	1.10	559.02
REMIT TO: P.O. BOX 438 HAYSVILLE, KS 67060		COP		Net Invoice:		4,419.02
RECEIVED BY _____		FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		SUMCO Sales Tax:		63.18
		NET 30 DAYS		Invoice Total:		<u>4,482.20</u>

*paid 8/7
check #8005*

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days past due.

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service
Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code

