

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1246041  
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: \_\_\_\_\_

1246041

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	HERMAN L. LOEB, LLC
Well Name	Unruh 4-33
Doc ID	1246041

Tops

Name	Top	Datum
Chase	2428	-222
Heebner	4029	-1823
Lansing 'A'	4189	-1983
LKC 'H'	4358	-2152
KC 'I'	4407	-2201
BKC	4592	-2386
Cherokee Shale	4717	-2511
Miss (rework)	4772	-2566
Miss (clean)	4786	-2580
Kinderhook Shale	4814	-2608



# LITHOLOGY STRIP LOG

## WellSight Systems

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

Well Name: Unruh #4-33  
Location: 1660' FSL & 1330' FWL, Sec. 33-T27S-R18W, Kiowa Co., KS.  
Licence Number: 15-097-21817-00-00 Region: Einsel  
Spud Date: 2/25/2015 Drilling Completed: 3/5/2015  
Surface Coordinates: 1660' FSL & 1330' FWL, Sec. 33-T27S-R18W

Bottom Hole Same as Above  
Coordinates:  
Ground Elevation (ft): 2197' K.B. Elevation (ft): 2206'  
Logged Interval (ft): 3900' To: 4830' Total Depth (ft): 4830'  
Formation: Kinderhook Shale at Total Depth  
Type of Drilling Fluid: Freshwater/Gel to 3275'; Chemical Gel 3275' to 4830'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### OPERATOR

Company: Herman L. Loeb, LLC.  
Address: P.O. Box 838  
Lawrenceville, IL. 62439-0838

### GEOLOGIST

Name: Jon D. Christensen  
Company: Consulting Petroleum Geologist  
Address: 9002 W. Silver Hollow St.  
Wichita, KS. 67205-8856

### Cores

None Taken

### DSTs

DST #1(Kansas City 'I' zone) 4398' - 4417' Test Times 15"-45"-45"-90" IFP Fair Blow building to 10" Blow, FFP Strong Blow BOB/6.5 Min. No gas to Surface, 1" Blowback on FSI; REC: 445' Gas in Pipe, 62' G & OCWM(20%G, 15%O, 10%W, 55%M), 62' G & OCMW(39%G, 26%O, 25%W, 10%M) CI 65,000, Mud 3600; IFP 19-33#, ISIP 1237#, FFP 30-63#, FSIP 1285#, IHP 2164#, FHP 2106#, BHT 116 Deg. F.

DST #2(Cherokee - Miss. Chert) 4743' - 4812' Test Times 15"-55"-60"-120" IFP Strong Blow BOB/45 Sec., Gas to Surface in 4 Min. of ISI, FFP Strong Blow Gauged gas throughout Stabilized at 59.3 MCFG in 60 Min(23# on 0.25" Choke), no Blowback on SI's; REC: 30' GCM(10%G, 90%M), no oil or water; IFP 49-64#, ISIP 1507#, FFP 30-64#, FSIP 1503#, IHP 2319#, FHP 2298#, BHT 121 Deg. F.

## Comments

2/25/15 MIRU Sterling Drilling Co. Rig #4, Spud at 8:30 PM. , 2/26/15 TD. 638' - CCH to set 8 5/8"; 2/27/15 Drilling at 1049'; 2/28/15 Drilling at 2644'; 3/1/15 Drilling at 3745'; 3/2/15 Drilling at 4280'; 3/3/15 TD. 4417' - Rig Repairs; 3/4/15 Drilling at 4594'; 3/5/15 TD. 4812' - TIH for DST #2 - Reached Total Depth of 4830' at 7:30 PM.; 3/6/15 RTD. 4830', LTD. 4826' - Logging Run #3(MRIL); 3/7/15 RTD. 4830' - Production Casing Set.

Set new 8 5/8"(24#) Surface Casing at 635' KB with 425 sacks cement(Basic Energy Services). Cement did circulate. PD. at 12:30 PM. on 2/26/15.

Set new 5 1/2"(15.5#) Production Casing at 4829' with 200 sacks of "Loeb Blend" cement(Basic Energy Services). PD. at 5:00 AM. on 3/7/15.

Surveys: 2.0 Deg. at 638'(Surface Casing); 0.75 Deg. at 4211'(Bit Trip); 0.50 Deg. at 4417'(DST #1); 0.50 Deg. at 4812'(DST #2).

Pipe Strap at 4211'(Bit Trip): Strap 2.59' Long to the Board, no correction made to the Board.


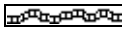
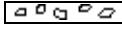
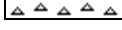
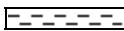






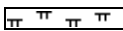
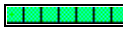
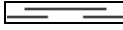
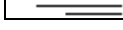
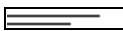



After review of the Halliburton Logs, DST data and sample shows, the operator elected to set new 5 1/2" Production Casing for completion in the Mississippi Chert and Kansas City "I" zones. The Lansing "A" zone should be perforated and tested prior to abandonment of the well based on gas kick and favorable log calculations.

LOG TOPS: (NOTE: The logs tops were all adjusted downward by 4' to 6' to correspond to driller depths which are considered correct based on Casing Tally).








































































Chase 2428(-222), Stotler 3384(-1178), Howard 3584(-1378), Heebner Shale 4029(-1823), Toronto 4041(-1835), Brown Lmst. 4179(-1973), Lansing 'A' 4189(-1983), L/KC. 'H' 4358(-2152), KC 'I' 4407(-2201), Stark Shale 4494(-2288), Hertha 4554(-2348), BKC 4592(-2386), Marmaton 4636(-2430), Cherokee Shale 4717(-2511), Reworked Miss. 4772(-2566), Clean Miss. 4786(-2580), Kinderhook Shale 4814(-2608).

NOTE: Did not import Gamma Ray onto this log due to Depth Issues with Log depths.

### ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrlst  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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### ACCESSORIES

<b>MINERAL</b>  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Feldspar  Ferrpel  Ferr  Glau	 Gyp  Hvymin  Kaol  Marl  Minxl  Nodule  Phos  Pyr  Salt  Sandy  Silt  Sil  Sulphur  Tuff	<b>FOSSIL</b>  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite	 Ostra  Pelec  Pellet  Pisolite  Plant  Strom  <b>STRINGER</b>  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst	 Sltstrg  Ssstrg  <b>TEXTURE</b>  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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OTHER SYMBOLS

- POROSITY**  
 [E] Earthy  
 [F] Fenest  
 [X] Fracture  
 [M] Inter  
 [O] Moldic  
 [P] Organic  
 [P] Pinpoint

- [V] Vuggy  
**SORTING**  
 [W] Well  
 [M] Moderate  
 [P] Poor

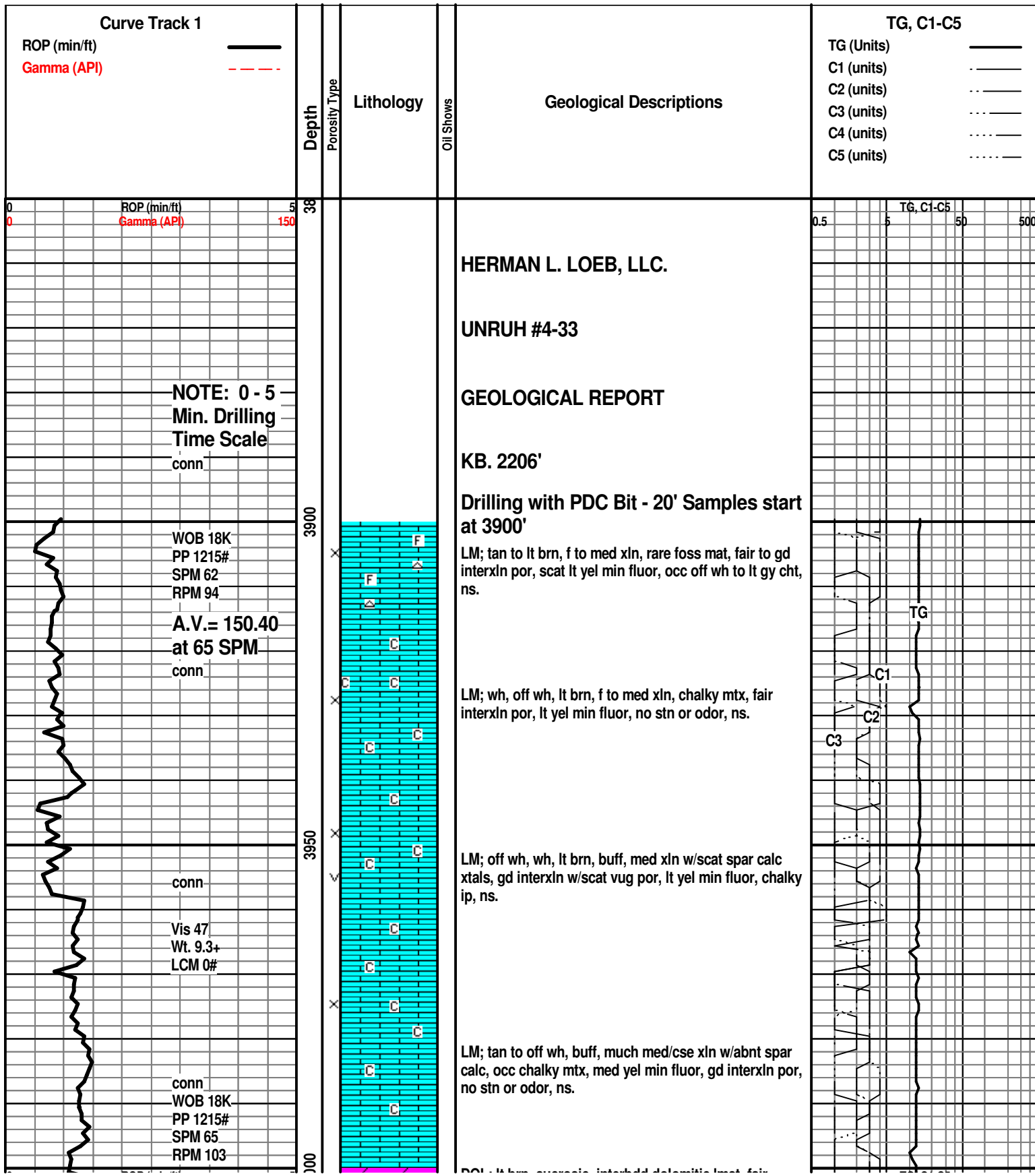
- ROUNDING**  
 [R] Rounded  
 [r] Subrnd  
 [a] Subang  
 [A] Angular

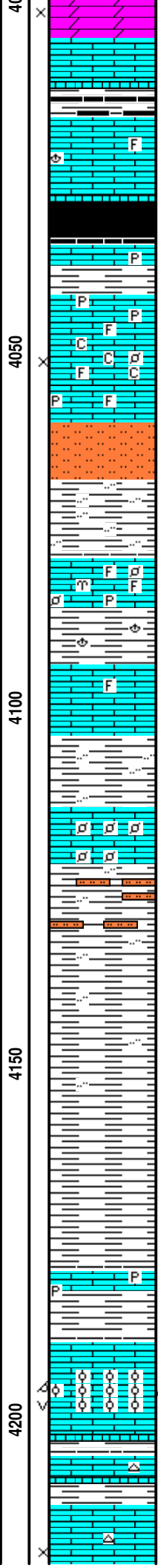
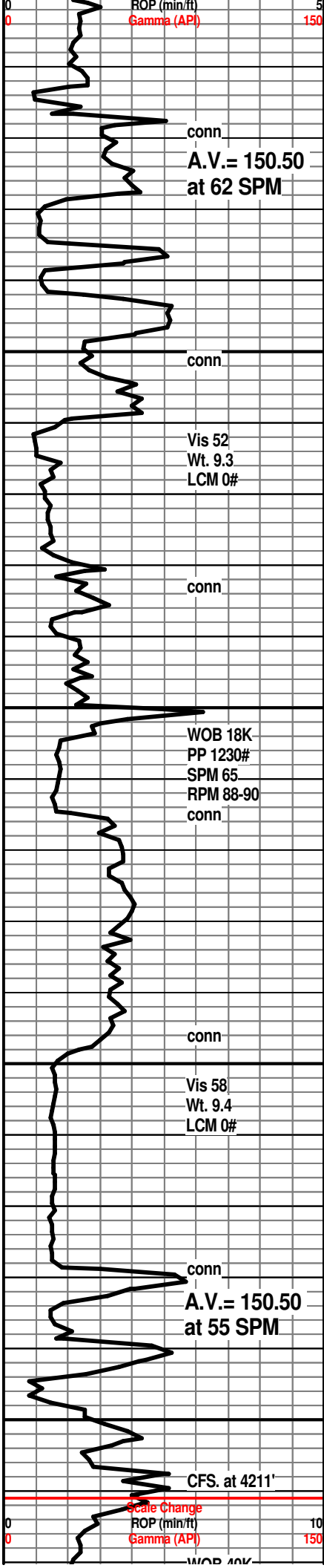
- [S] Spotted  
 [Q] Ques  
 [D] Dead

- EVENT**  
 [Rft] Rft  
 [Sd] Sidewall

- INTERVAL**  
 [C] Core  
 [D] Dst

- OIL SHOW**  
 [E] Even





DOL; lt brn, sucrosic, interbdd dolomitic lmst, fair interxln por, med yel min fluor, no vis stn, no gas kick, ns.

SH; dk gy, occ blk, platy, soft ip.

LM; lt to med brn, blocky, hd, rare well cem foss, no vis por, ns.

**HEEBNER SHALE 4029(-1823)**  
SH; blk, carb ip, trc gas w/faint gas odor  
LM; med brn, blocky, trc pyr, tite

**TORONTO 4042(-1836)**  
LM; med brn, dense, scat pyr, tite  
LM; wh to off wh, buff, foss ip, fxln w/abnt soft chalk and chalky mtx, fair interxln/interpart por, dull yel fluor, no stn or odor, ns.

**DOUGLAS SHALE 4060(-1854)**  
SLTST; lt gy, mica w/vf gr qtz ss interbdd, ns.

SH; lt gy, silty, platy

LM; lt brn, tan, highly foss, much hash, pred. well cem, rare pyr, no fluor, no vis por, ns.

SH; med gy, platy, foss ip.

LM; med brn, most dense - micritic, blocky, rarely foss, no vis por, ns.

SH; lt to med gy, silty ip, firm

LM; lt to med brn, hd, foss ip - abnt small pellets, well cem, no vis por, lt yel min fluor, ns.

SH; med gy, occ gy grn, silty ip w/scat sltst interbdd, rarely pyr, firm

SH; med gy, most smooth, platy, rarely silty

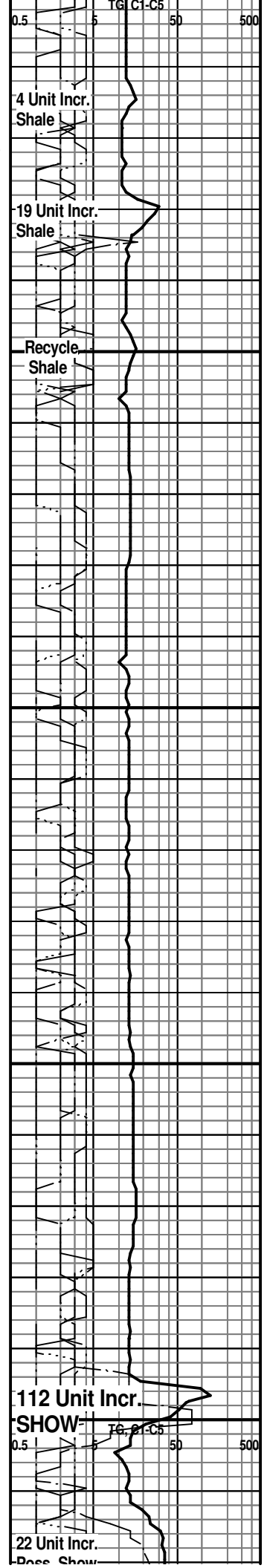
SH; med gy, platy

**BROWN LMST. 4179(-1973)**  
LM; med brn, hd, pyr ip, tite

**LANSING 'A' 4189(-1983)**  
LM; lt brn, tan, oolitic, well dev. oomoldic por w/scat vugs, brite yel fluor, few gas bubbles, v. faint to fair odor, spotted lt brn oil stn in few pieces, pred. gas show

**Bit Trip at 4211' - TIH w/Button Bit**

**LANSING 'B' 4212(-2006)**  
LM; off wh, lt gy, fxln, poor to fair interxln por, rare wh





WOB 40K  
PP 1210#  
SPM 55  
RPM 76

conn

A.V.= 143.00  
at 52 SPM

Vis 55  
Wt. 9.3  
LCM 0#

conn

WOB 41K  
PP 1250#  
SPM 52  
RPM 72

conn

MudCo. Mud  
Check at 4325'  
Vis 51 Wt. 9.3  
WL 8.0 Cl 3600  
PH 10.5 LCM 0#  
conn

WOB 42K  
PP 1250#  
SPM 53  
RPM 70  
conn

A.V.= 143.00  
at 53 SPM

Vis 56  
Wt. 9.4  
LCM 0#

DST #1  
K.C. 'I'  
4398' - 4417'

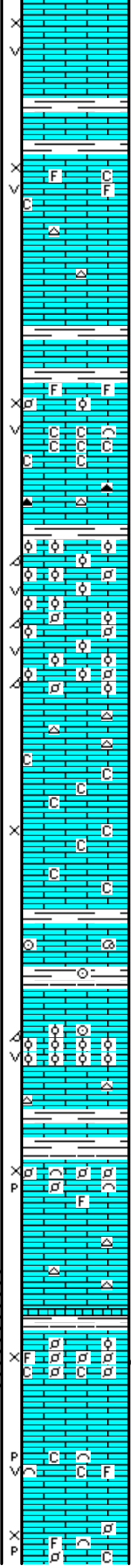
CFS. at 4417'  
MudCo. Mud  
Check at 4417'  
Vis 53 Wt. 9.4  
WL 9.6 Cl 5000  
PH 9.5 LCM 0#

4250

4300

4350

4400



cht, v. dull yel fluor, no stn or odor, ns.  
LM; lt yel, med xln w/scat fair vug por, rare lt yel fluor, no vis stn, no sample shows

LM; med brn, micritic, tite

LM; tan to cream, buff, med xln to gran text, occ foss mat, fair interxln w/occ vug por, minor chalky mtx, dull yel fluor, no stn or odor, ns.

LM; tan to lt brn, most dense, blocky, occ off wh/gy cht, ns.

LM; tan to lt brn, highly foss, scat fair interpart and vug por, dull yel fluor, no stn or odor, no gas kick, ns, bcm very chalky at base

LM; med to dk brn, hd, scat gy foss cht, tite

### LANSING 'G' POROSITY 4296(-2090)

LM; lt to med brn, oolitic, thick oolite shoal w/occ foss mat, most med size molds, gd oomoldic w/scat vug por, brittle, dull yel min fluor, no vis stn, no odor, no sample shows

LM; tan to cream, buff, fxln, some dense - micritic, scat wh cht, ns.

LM; off wh, buff, fxln w/much soft chalk and chalky mtx, poor interxln por, occ cse opaque spar calc xtals, no fluor, no stn or odor, ns.

SH; med gy, grn, platy

LM; med brn, blocky, well cem foss, tite

### LANSING/KC 'H' 4358(-2152)

LM; lt brn, oolitic, small to med size molds, gd oomoldic por, brittle ip, rare vug por, dull to lt yel min fluor, no stn or odor, no gas kick, ns.

LM; tan, lt brn, hd, blocky, scat off wh cht, tite

SH; med gy, grn, fiss

LM; tan to cream, buff, foss - finely pelletal ip, fair interpart w/scat p-p por, minor chalky mtx, no fluor, no stn or odor, no gas kick

LM; tan to cream, lt brn, most dense, micritic, scat gy cht, tite

### KANSAS CITY 'I' 4407(-2201)

LM; lt brn, foss - pelletal to oolitic, fair interpart por, spotted lt brn stn, trc FO, fair to gd odor, much brite yel fluor, trc gas bubbles, gd cut

### DST #1: K.C. "I" Zone 4398' - 4417'

LM; tan to cream, off wh, foss w/fair dev. p-p and small vug por, chalky ip, no fluor, no stn or odor, no gas kick

LM; tan to buff, off wh, foss w/scat hash, fair interpart & p-p por, minor soft chalky mtx, dull yel fluor, no stn or odor, no gas kick

Foss. Show

TG

6 Unit Incr.

C1  
C2  
C3  
C4

Gas Test at Extractor

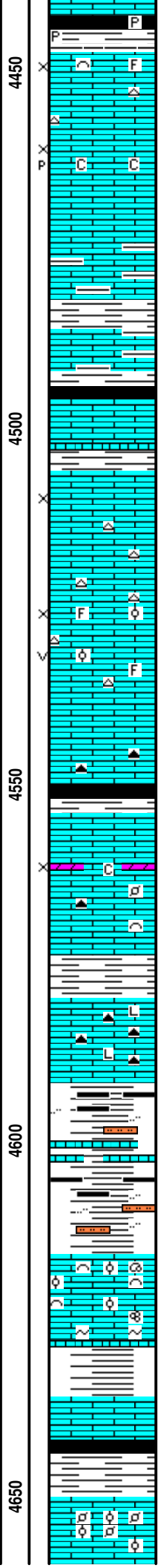
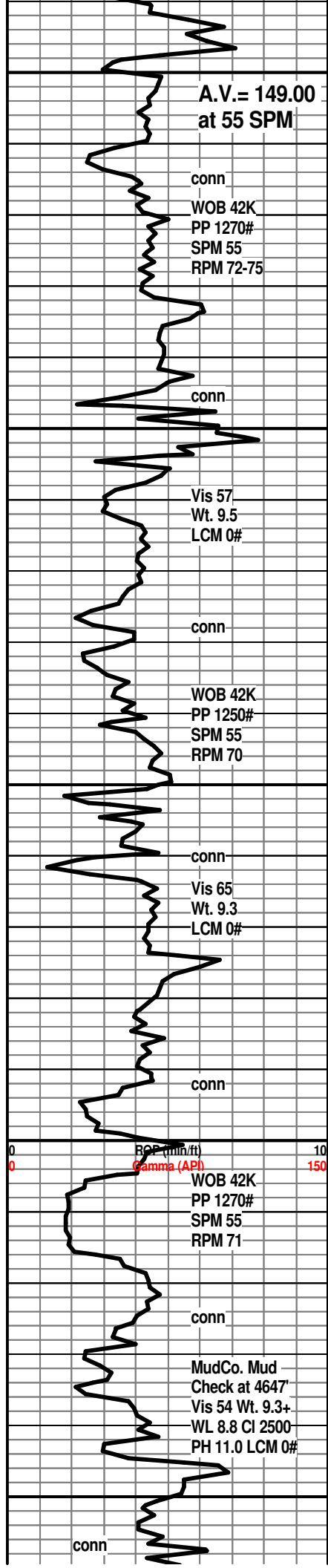
10 Unit Incr. SHOW

B.U./Trip Gas

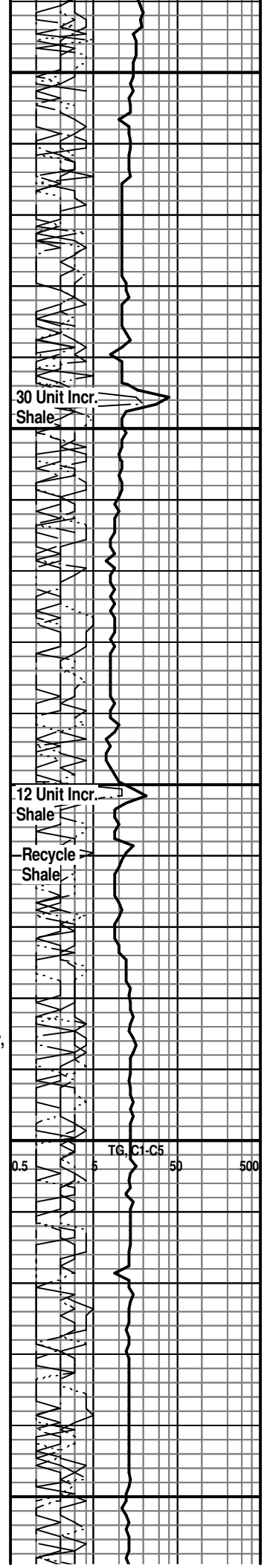
Recycle B.U.

0.5 5 50 500

0 conn BOP (min/ft) 10  
0 Gamma (A) 150



odor, no gas kick  
SH; dk gy - blk, pyr ip.  
**KANSAS CITY 'J' 4447(-2241)**  
LM; tan to buff, lt brn, foss at top w/fair interpart por, bcm dense - micritic, rare off wh cht, no fluor, no stn or odor, ns.  
LM; tan to cream, buff, fxln w/scat fair interxln and p-p por, trc sucrosic text, dull yel min fluor, no stn or odor, minor chalky mtx, ns.  
LM; med brn, gy brn, hd, argil ip, tite  
SH; med gy, platy, firm  
LM; med to dk gy, gy brn, some argil, hd  
**STARK SHALE 4494(-2288)**  
SH; blk, carb ip, platy  
**SWOPE 4506(-2300)**  
LM; tan to off wh, buff, fxln ip, some dense - micritic, scat lt yel min fluor, no vis stn, no odor, ns, occ off wh to lty gy occ foss cht  
LM; tan to off wh, med to cse xln, scat foss mat w/few oolites, much spar calc, med yel fluor, fair to gd interpart and occ vug por, no vis stn, no odor, no gas kick, barren  
LM; med to dk brn, micritic, scat brn cht, tite  
SH; blk, platy, carb ip.  
**HERTHA 4554(-2348)**  
LM; tan to lt brn, fxln w/scat sucrosic text, partly dolomitic, soft, gd interpart por, trc chalky mtx, dull yel fluor, no vis stn, no odor, ns.  
LM; med to dk brn, foss ip, most well cem, occ brn, to dk gy cht, no vis por, occ spar calc, lt/med yel min fluor, interbdd hd litho lmst, ns.  
**BASE KANSAS CITY 4592(-2386)**  
SH; med to dk gy, some blk, silty, varic grn slitst interbdd.  
SH; dk gy, some blk, most varic, platy, soft, interbdd silty sh and slitst.  
**PLEASANTON 4616(-2410)**  
LM; off wh, tan - cream, highly foss w/much hash and ooids, well cem, lt yel fluor, poor to no interpart por, rare grn glau - clay incl, no stn or odor, ns.  
SH; dk gy, blk, varic, platy  
**MARMATON 4636(-2430)**  
LM; lt gy brn, lt gy, occ pale grn tint, hd, blocky, tite  
SH; med gy, gy grn, firm  
LM; tan to lt brn, scat well cem foss, occ ooids/small pellets, few pcs w/dk brn - blk dead oil/gils, spotty med yel fluor, no vis por, no odor, no gas kick, looks tite



A.V.= 148.25  
at 55 SPM

conn

WOB 42K  
PP 1200#  
SPM 55  
RPM 65-70

Vis 57  
Wt. 9.4  
LCM 1.5#

conn

WOB 42K  
PP 1200#  
SPM 55  
RPM 70

conn

CFS. at 4761'  
A.V.= 148.25  
at 55 SPM

conn

DST #2  
Miss. Chert  
4743' - 4812'

Vis 55  
Wt. 9.4  
LCM 2#

ROP (min/ft)  
Gamma (API)

MudCo. Mud  
Check at 4812'  
Vis 58 Wt. 9.4  
WL 8.8 CI 4500  
PH 10.5 LCM 2#

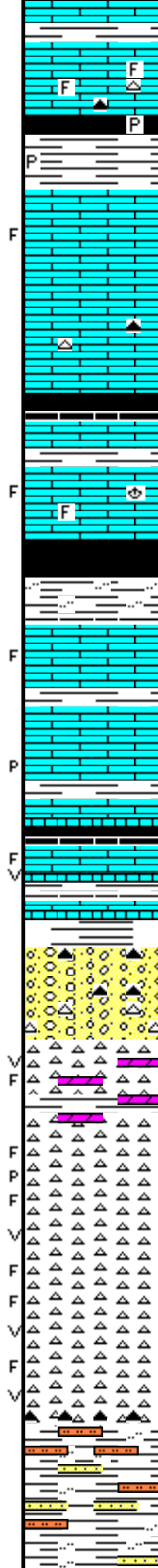
CFS. at RTD.

4700

4750

4800

4850



LM; lt brn, foss ip, most dense, scat amber/lt brn cht, no vis por, rare lt yel fluor, ns.

SH; dk gy, blk, dk grn, firm, rarely pyr.

**PAWNEE 4680(-2474)**

LM; lt brn, med xln to micritic, most massive bdd - dense, occ lt yel min fluor, rare spar calc xtals, poss frags, no stn or odor, no gas kick

LM; lt to med brn, dense, blocky, some litho, hd, occ amber/tan cht, ns.

SH; blk, carb, gassy w/faint gas odor

LM; lt to med brn, foss ip, well cem, scat spar calc - edge xtals, poss frags, no fluor, ns.

**CHEROKEE SHALE 4717(-2511)**

SH; blk, trc carb mat, gy grn, platy, occ silty ip.

LM; lt to med brn, fxln to micritic, few pcs w/blk tar/gils, poss frags, most tite, no fluor, no kick

LM; tan to lt brn, fxln, most dense, few pcs w/p-p por w/spotted dk brn stn, trc frags w/edge stn, no odor, no gas kick

**CHEROKEE LMST. 4751(-2545)**

LM; lt brn, fxln, fair amt of blk tar/gils, some frags w/live edge stn, no odor, few pcs w/small vug por and live oil stn, fair cut

CONGL; org,wh cht, partly weathered, scat grn weathered lmst

**REW. MISS. CHERT 4772(-2566)**

CHT; wh, off wh, fresh, interbdd cherty dolo and tite appearing gritty - dolomitic cht, rare lt yel fluor, v. faint odor, rare spotted med brn stn, scat blk dead oil in poor vug por

CHT; wh, transl, most fresh, scat frags w/edge stn, occ p-p and vug por, spotted med yel fluor, faint odor, some trip cht w/live oil stn

CHT; wh, fresh with incr. tripolite, abnt frags w/much edge stn, SSFO, faint odor, abnt brite yel fluor, occ vug por, spotted to rarely even lt brn oil stn, better por. than above

**DST #2: Miss. Chert 4743' - 4812'**

**KINDERHOOK SHALE 4814(-2608)**

SH; varic, maroon, red brn, silty ip, scat dk org/grn/brn fresh & weath. cht

SH; pale grn, gy grn, sl. sandy ip, interbdd sltst and hd vf gr qtz ss

RTD. 4830' at 7:30 PM. on 3/5/15

LTD. 4830'(See NOTE below)

Halliburton ACRT, NEU/DEN w/PE,  
Microlog, MRIL

NOTE: Log Depth was adjusted to match RTD. based on Casing Talley, being shifted downward by 4' to 6'.

6 Unit Incr.  
Shale

45 Unit Incr.  
Shale

3 Unit Incr.  
Shale

5 Unit Incr.  
Poss. Show

5 Unit Incr.

12 Unit Incr.  
SHOW

22 Unit Incr.  
SHOW

Cl-C5  
50 500





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Herman L. Loeb, LLC.  
P.O. Box 838  
Lawrenceville, IL 62439  
ATTN: Jon Christensen

**33-27s-18w Kiowa Co., Ks**  
**Unruh #4-33**  
Job Ticket: 57808      **DST#: 1**  
Test Start: 2015.03.02 @ 19:18:25

## GENERAL INFORMATION:

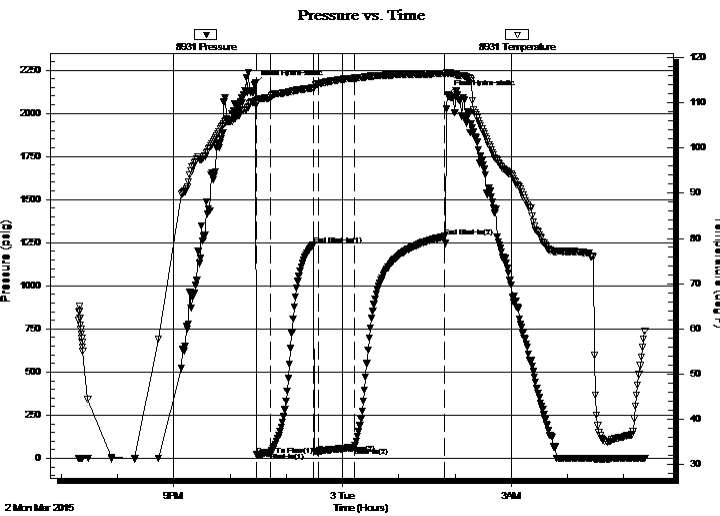
Formation: **KC. "I"**  
Deviated: No    Whipstock: 0.00 ft (KB)  
Time Tool Opened: 22:28:40  
Time Test Ended: 05:23:10  
Interval: **4398.00 ft (KB) To 4417.00 ft (KB) (TVD)**  
Total Depth: 4417.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches    Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Matt Smith  
Unit No: 53  
Reference Elevations: 2206.00 ft (KB)  
2197.00 ft (CF)  
KB to GR/CF: 9.00 ft

## Serial #: 8931

Inside

Press @ Run Depth: 62.73 psig @ 4399.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2015.03.02      End Date: 2015.03.03      Last Calib.: 2015.03.03  
Start Time: 19:18:30      End Time: 05:23:10      Time On Btm: 2015.03.02 @ 22:25:55  
Time Off Btm: 2015.03.03 @ 01:52:10

**TEST COMMENT:** IF: Fair-Strong blow . Building surf., - 10".  
IS: Weak blow . Surf., - 1/8". Bleed off in 2 1/2 mins. 23 mins for blow back.  
FF: Strong blow . B.O.B. in 6 1/2 mins.  
FSI: Weak blow . Surf., - 1". 4 mins. to bleed off. 45 mins for blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2163.99	110.10	Initial Hydro-static
3	18.76	110.23	Open To Flow (1)
18	32.70	111.16	Shut-In(1)
63	1237.17	113.27	End Shut-In(1)
69	29.55	114.21	Open To Flow (2)
107	62.73	115.46	Shut-In(2)
203	1285.33	116.47	End Shut-In(2)
207	2106.03	116.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	MOCWG 10% m 25% w 26% oc 39% g	0.30
62.00	WOGCM 10% w 15% oc 20% g 55% m	0.30
0.00	445' G.I.P. 100% g	0.00
0.00	RW 38 @ .36 = 65000 chlorides	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Herman L. Loeb, LLC.  
P.O. Box 838  
Lawrenceville, IL.62439  
ATTN: Jon Christensen

**33-27s-18w Kiowa Co., Ks**  
**Unruh #4-33**  
Job Ticket: 57808      **DST#: 1**  
Test Start: 2015.03.02 @ 19:18:25

## 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:	65000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.36 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3600.00 ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

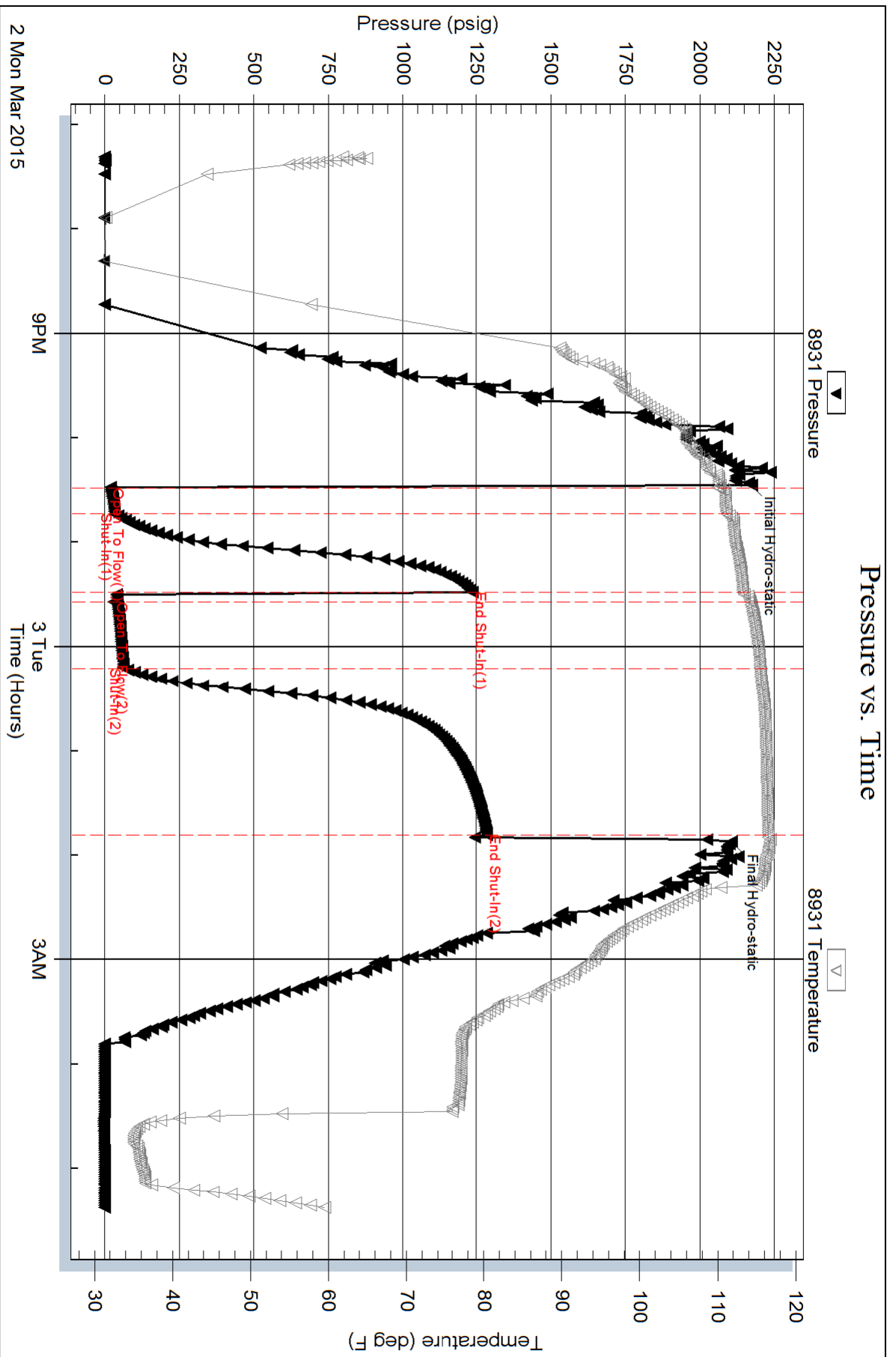
Length ft	Description	Volume bbl
62.00	MOCWG 10%m 25%w 26%oc 39%g	0.305
62.00	WOGCM 10%w 15%oc 20%g 55%m	0.305
0.00	445' G.I.P. 100%g	0.000
0.00	RW 38 @ .36 = 65000 chlorides	0.000

Total Length: 124.00 ft      Total Volume: 0.610 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #: none

Laboratory Name:      Laboratory Location:

Recovery Comments: RW is 38 degrees @ .36 = 65000 chlorides.





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Herman L. Loeb, LLC.  
P.O. Box 838  
Lawrenceville, IL.62439  
ATTN: Jon Christensen

**33-27s-18w Kiowa Co., Ks**  
**Unruh #4-33**  
Job Ticket: 57809 **DST#: 2**  
Test Start: 2015.03.05 @ 03:28:47

## GENERAL INFORMATION:

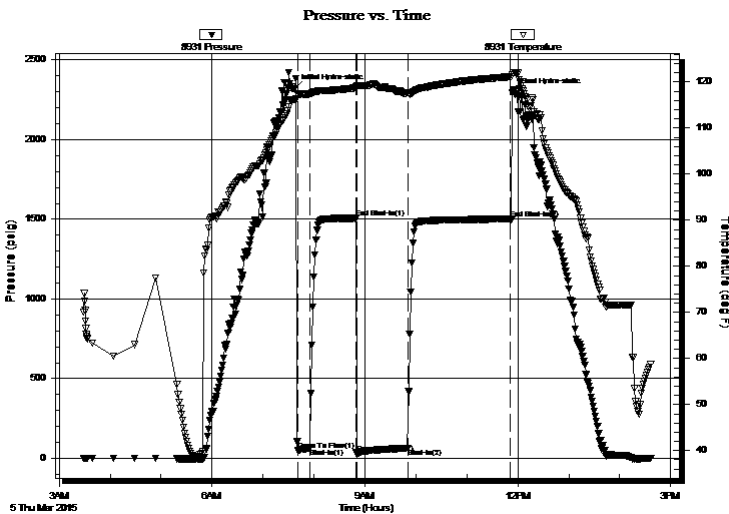
Formation: **Mississippi Chert**  
Deviated: No Whipstock: 0.00 ft (KB)  
Time Tool Opened: 07:41:02  
Time Test Ended: 14:37:17  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Matt Smith  
Unit No: 53  
Interval: **4743.00 ft (KB) To 4812.00 ft (KB) (TVD)**  
Reference Elevations: 2206.00 ft (KB)  
Total Depth: 4812.00 ft (KB) (TVD) 2197.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

## Serial #: 8931

Inside

Press@RunDepth: 63.79 psig @ 4744.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.03.05 End Date: 2015.03.05 Last Calib.: 2015.03.05  
Start Time: 03:28:52 End Time: 14:37:17 Time On Btm: 2015.03.05 @ 07:37:32  
Time Off Btm: 2015.03.05 @ 11:53:47

TEST COMMENT: IF: Strong blow . B.O.B. in 45 secs.  
IS: Weak blow . Surface. G.T.S. in 4 mins. Blow back after 15 mins. Dead in 34 mins.  
FF: Strong blow . B.O.B. immediate. G.T.S., Gauged gas see gas report.  
FSI: No blow . Bleed off in 10 mins.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2318.97	116.11	Initial Hydro-static
4	49.29	117.25	Open To Flow (1)
18	63.63	117.44	Shut-In(1)
72	1506.60	118.73	End Shut-In(1)
73	29.59	119.04	Open To Flow (2)
133	63.79	117.74	Shut-In(2)
254	1502.51	121.18	End Shut-In(2)
257	2297.62	121.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	GCM 10%g 90%m	0.15
0.00	G.I.P. G.T.S. 100% g	0.00

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	13.00	43.47
Last Gas Rate	0.25	23.00	59.33
Max. Gas Rate	0.25	23.00	59.33





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Herman L. Loeb. LLC.  
P.O. Box 838  
Lawrenceville, IL.62439  
ATTN: Jon Christensen

**33-27s-18w Kiowa Co., Ks**  
**Unruh #4-33**  
Job Ticket: 57809      **DST#: 2**  
Test Start: 2015.03.05 @ 03:28:47

## 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:	2500 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	GCM 10%g 90%m	0.148
0.00	G.I.P. G.T.S. 100% g	0.000

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 1      Num Gas Bombs: 2      Serial #: MAS Pratt

Laboratory Name: Caraway      Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Herman L. Loeb, LLC.

**33-27s-18w Kiowa Co., Ks**

P.O. Box 838  
Lawrenceville, IL 62439

**Unruh #4-33**

Job Ticket: 57809

**DST#: 2**

ATTN: Jon Christensen

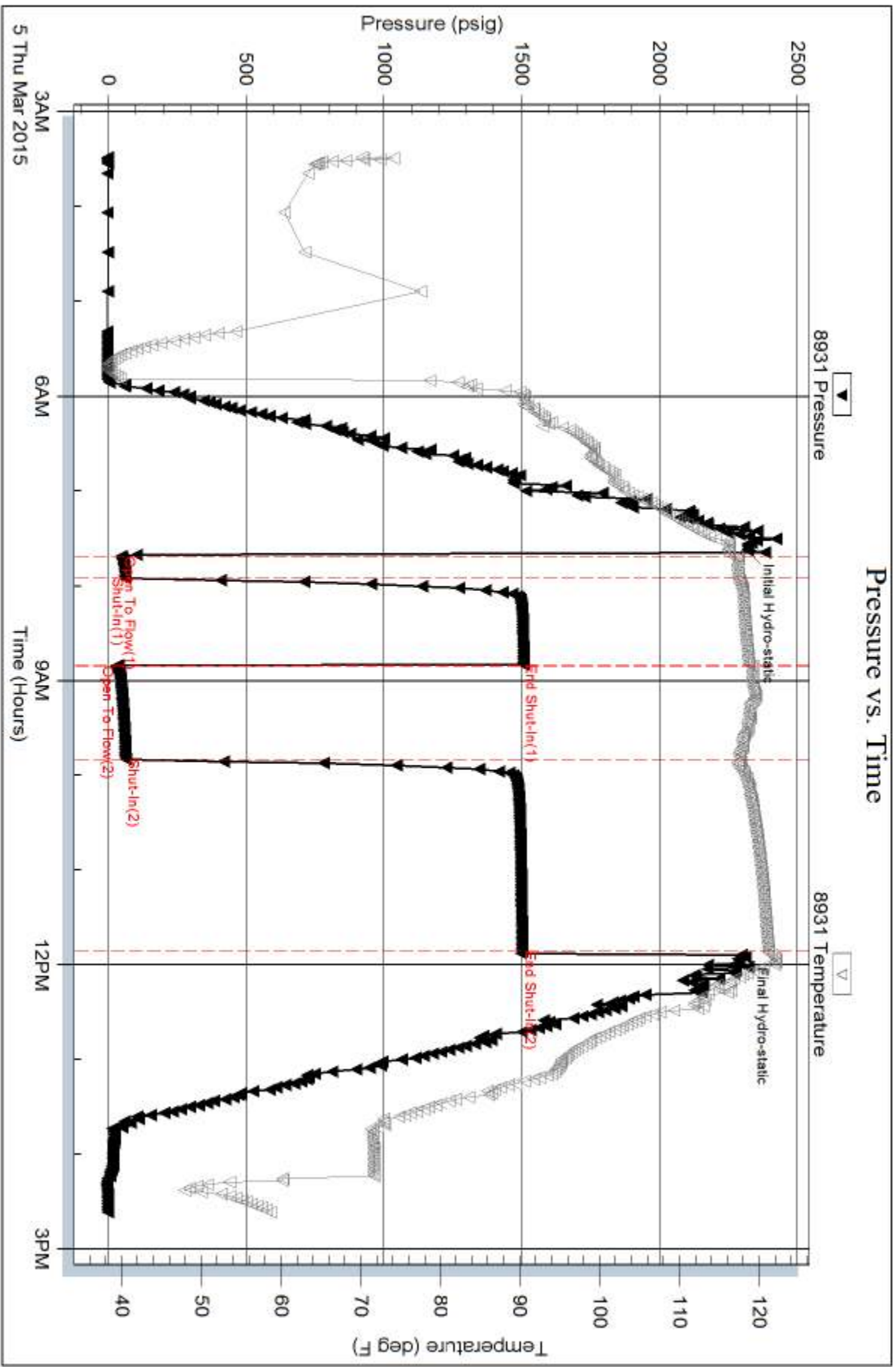
Test Start: 2015.03.05 @ 03:28:47

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	13.00	43.47
2	10	0.25	13.00	43.47
2	20	0.25	17.00	49.81
2	30	0.25	20.00	54.57
2	40	0.25	22.00	57.74
2	45	0.25	22.50	58.54
2	50	0.25	23.00	59.33





6076  
771 Unruh  
9438

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1007589	1718	02/27/2015
<b>INVOICE NUMBER</b>			
<b>91742575</b>			

**Pratt** (620) 672-1201  
 B HERMAN L LOEB LLC  
 I PO Box: 838  
 L LAWRENCEVILLE  
 L IL US 62439  
 T  
 O **ATTN:** ACCOUNTS PAYABLE

**J** LEASE NAME Unruh 4-33  
**O** LOCATION  
**B** COUNTY Kiowa  
**S** STATE KS  
**I** JOB DESCRIPTION Cement-New Well Casing/Pi  
**T** JOB CONTACT  
**E**

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40819309	19843		Net - 30 days	03/29/2015

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<b>For Service Dates: 02/26/2015 to 02/26/2015</b>				
0040819309				
171812057A Cement-New Well Casing/Pi 02/26/2015				
Cement 8 5/8 Surface				
A-Con Blend Common	225.00	EA	10.80	2,430.00 T
Common Cement	200.00	EA	9.60	1,920.00 T
Celloflake	106.00	EA	2.22	235.32 T
Calcium Chloride	1,012.00	EA	0.63	637.56 T
"Top Rubber Cmt Plug, 5 1/2""	1.00	EA	135.00	135.00
"8 5/8"" Guide Shoe (Red)"	1.00	EA	330.00	330.00
Flapper Type Insrt Float Valve 8 5/8(Blu	1.00	EA	168.00	168.00
"Unit Mileage Chg (PU, cars one way)"	35.00	MI	2.70	94.50
Heavy Equipment Mileage	70.00	MI	4.50	315.00
"Proppant & Bulk Del. Chgs., per ton mil	700.00	EA	1.50	1,050.00
Depth Charge; 501'-1000'	1.00	EA	720.00	720.00
Blending & Mixing Service Charge	425.00	BAG	0.84	357.00
Plug Container Util. Chg.	1.00	EA	150.00	150.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	105.00	105.00

**PAID**  
**57234**  
**MAR 12 2015**  
**SCANNED**

<b>PLEASE REMIT TO:</b>	<b>SEND OTHER CORRESPONDENCE TO:</b>	<b>SUB TOTAL</b>	<b>8,647.38</b>
<b>BASIC ENERGY SERVICES, LP</b>	<b>BASIC ENERGY SERVICES, LP</b>	<b>TAX</b>	<b>373.44</b>
<b>PO BOX 841903</b>	<b>801 CHERRY ST, STE 2100</b>	<b>INVOICE TOTAL</b>	<b>9,020.82</b>
<b>DALLAS, TX 75284-1903</b>	<b>FORT WORTH, TX 76102</b>		





**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

6076

FIELD SERVICE TICKET  
1718 12057 A

33-275-

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB: 2-26-2015		DISTRICT: Pratt, KS		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/>		PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/>		CUSTOMER ORDER NO.:	
CUSTOMER: Hermen L. Koeb				LEASE: Unruh				WELL NO. 4-33	
ADDRESS:				COUNTY: Kiowa		STATE: KS			
CITY: STATE:				SERVICE CREW: Derry, Ed, Graves					
AUTHORIZED BY:				JOB TYPE: CNW 8 5/8 SUICRE					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM/PM	TIME
19843	3/4						2-26	AM	5:30
19860	1/2						2-26	AM	8:00
							2-26	AM	11:45
							2-26	AM	12:30
							2-26	AM	1:00
						MILES FROM STATION TO WELL	40		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *[Signature]*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP101	A-con Blend Common	SK	225		4,050 00
CP100C	Common Cement	SK	200		3,200 00
CC102	Celloflocke	Lb	1012		392 20
CC109	Calcium Chloride	Lb	1012		1,062 60
CF105	Top Rubber Cement Plug, 8 5/8	EG	1		225 00
CF203	8 5/8 Guide Shoe (Red)	EG	1		350 00
CF1453	Fispper Type Insert Flost usiw, 8 5/8	ES	1		280 00
E100	Unit M, lesse Chorse-pickup, Sasivca > rcs	M	35		157 50
E101	Hesuy Equipment M, lesse	M	70		525 00
E113	Proppsat and Bulk Delivery Chorses, p, r, r, r	Toln	700		1,750 00
CE201	Depth Chorse; Sol - 1,000'	4hr	1		1,200 00
CE240	Blending & mixing Service Chorse	SK	425		595 00
CE504	PLUG container util. 1/2 st. on Chorse	Job	1		250 00
5003	Service Supervisor, first 8 hrs on loc	EG	1		175 00
SUB TOTAL					14,412 30

CHEMICAL / ACID DATA:


SERVICE & EQUIPMENT  
MATERIALS

%TAX ON \$  
%TAX ON \$

DISCOUNT 10% TOTAL 8,647 38  
DL5

SERVICE REPRESENTATIVE *[Signature]*

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *[Signature]*  
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.



6076

## TREATMENT REPORT

Customer Heimen Loeb	Lease No.	Date 2-26-2015	
Lease Unruh #4-33	Well #		
Field Order # 12057	Station Pratt, KS	Casing 8 5/8	Depth 633
Type Job CNU / 8 5/8 surface	Formation TD-638	County K. Ows	State KS
		Legal Description 33-275-180	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
8 5/8							
Depth 633	Depth	From	To	Pre Pad	Max		5 Min.
Volume 40	Volume	From	To	Pad	Min		10 Min.
Max Press	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 387	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative Lynn S. Gissus	Station Manager Kevin Gordley	Treater Darin Friskin
Service Units 27283 84981 19843 19907 19860		
Driver Names Darin Ed Graves Gissus		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
8:00pm					ON LOCATION / Safety Meeting
					8 5/8 - 633' 5
					225SK A-Con Blend Common, 3% CC
					1/4" Cell Flsck, 12 pps, 2.47 v. 12, 14.45 w.s.p.
					200 SK Common cement 2% CC, 1/4" Cell Flsck, 15.6 pps, 1.20 v. 12, 5.23 w.s.p.
11:45am	300		3	5	PUMP 3 bbls water
	300		99	5	Mix 225SK 1st cement
	300		43	5	Mix 200 SK 1st cement
					Shut down
					Release Plug
	300		0	5	Static displacement
	300		38	3	Bump Plug - did not bump
12:30pm					<del>Release Plug</del> Shut in
					Cement did circulate - 20 bbls
					Job Complete / Darin & crew
					Thank you!!!





10076  
Unruh  
9438

PAGE 1 of 1	CUST NO 100758	YARD # 1718	INVOICE DATE 03/10/2015
<b>INVOICE NUMBER</b> <b>91749642</b>			

**Pratt** (620) 672-1201  
 B HERMAN L LOEB LLC  
 I PO Box: 838  
 L LAWRENCEVILLE  
 L IL US 62439  
 T  
 O **ATTN:** ACCOUNTS PAYABLE

**J** LEASE NAME Unruh 4-33  
**O** LOCATION  
**B** COUNTY Kiowa  
**S** STATE KS  
**I** JOB DESCRIPTION Cement-New Well Casing/Pi  
**T** JOB CONTACT  
**E**

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40822209	20920		Net - 30 days	04/09/2015

*For Service Dates: 03/07/2015 to 03/07/2015*

0040822209

171812123A Cement-New Well Casing/Pi 03/07/2015  
 Cement 5 1/2" Longstring

**PAID**  
57447  
MAR 19 2015  
**SCANNED**

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
50/50 POZ	250.00	EA	6.60	1,649.89 T
Celloflake	63.00	EA	2.22	139.85 T
Gypsum	1,050.00	EA	0.45	472.46 T
FLA-322	105.00	EA	4.50	472.46 T
Mud Flush	1,000.00	EA	0.90	899.93 T
Gilsonite	1,500.00	EA	0.40	602.95 T
KCL Potassium Chloride	566.00	EA	0.90	509.36 T
Claymax KCL Substitute	5.00	EA	21.00	104.99 T
"Latch Down Plug & Baffle, 5 1/2" (Blu	1.00	EA	239.98	239.98
"Auto Fill Float Shoe 5 1/2" (Blue)"	1.00	EA	215.98	215.98
"Turbolizer, 5 1/2" (Blue)"	12.00	EA	66.00	791.94
"5 1/2" Basket (Blue)"	2.00	EA	173.99	347.97
"Cement Scratchers Cable Type, 5 1/2" "	6.00	EA	45.00	269.98
"Unit Mileage Chg (PU, cars one way)"	35.00	MI	2.70	94.49
Heavy Equipment Mileage	70.00	MI	4.50	314.98
"Proppant & Bulk Del. Chgs., per ton mil	368.00	EA	1.50	551.96
Depth Charge; 4001'-5000'	1.00	EA	1,511.88	1,511.88
Blending & Mixing Service Charge	250.00	BAG	0.84	209.98
Plug Container Util. Chg.	1.00	EA	149.99	149.99
"Service Supervisor, first 8 hrs on loc.	1.00	EA	104.99	104.99

<b>PLEASE REMIT TO:</b>	<b>SEND OTHER CORRESPONDENCE TO:</b>	<b>SUB TOTAL</b>	<b>9,656.01</b>
<b>BASIC ENERGY SERVICES, LP</b>	<b>BASIC ENERGY SERVICES, LP</b>	<b>TAX</b>	<b>346.91</b>
<b>PO BOX 841903</b>	<b>801 CHERRY ST, STE 2100</b>	<b>INVOICE TOTAL</b>	<b>10,002.92</b>
<b>DALLAS, TX 75284-1903</b>	<b>FORT WORTH, TX 76102</b>		





**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 12123 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <u>3/7/15</u> DISTRICT _____		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.: _____								
CUSTOMER <u>Herman K. Loeb</u>		LEASE <u>Unrub</u> <u>4-33</u> WELL NO.								
ADDRESS _____		COUNTY <u>Kiowa</u> STATE <u>Ks</u>								
CITY _____ STATE _____		SERVICE CREW <u>Scott, Josh, Mal</u>								
AUTHORIZED BY <u>Michael Polley</u>		JOB TYPE: <u>5 1/2 Long string crew</u>								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
<u>20920</u>	<u>.75</u>									
<u>73768</u>	<u>.5</u>									
						ARRIVED AT JOB	<u>3/6/15</u>			<u>10:15</u>
						START OPERATION	<u>3/7/15</u>			<u>4:15</u>
						FINISH OPERATION	<u>3/7/15</u>			<u>5:00</u>
						RELEASED				
						MILES FROM STATION TO WELL				

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: Michael Polley  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP104	50/50 POZ	SK	200		2200.00
CP104	50/50 POZ	SK	50		550.00
CC102	Celloflake	lb	63		233.10
CC113	Gypsum	lb	1050		787.50
CC129	FIA-322	lb	105		787.50
CC201	Gilsonite	lb	1500		1005.00
C700	KCL, Potassium Chloride	lb	566		849.00
CFG07	Latch Down Plug + Baffle 5 1/2	EA	1		400.00
CF1251	Auto Fill Flouy Shoe 5 1/2	EA	1		360.00
CF1651	Turbolizers 5 1/2	EA	12		1320.00
CF1901	5 1/2 Basket	EA	2		580.00
CF2001	Cement Scrubbers Cable Type	EA	6		450.00
C704	Claymax KCL Substitute	Gal	5		175.00
CC151	Mud Flush	Gal	1000		1500.00
E100	Unit Mileage Charge Pickups	MI	35		157.50
E101	Heavy Equipment Mileage	MI	70		525.00
E113	Prop + Bulk Delivery Charge	TM	368		918.75
CE205	Depth Charge 4001-5000'	4hrs	1		2520.00
CE240	Blending + Mixing Service Chig	SK	250		350.00
SUB TOTAL					

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$

TOTAL 9656.01  
Discounted Total 9656.01

SERVICE REPRESENTATIVE <u>[Signature]</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>Michael Polley</u> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
FIELD SERVICE ORDER NO. _____	







Customer <i>Herman L. Leach</i>		Lease No.		Date <i>3/7/15</i>	
Lease <i>11000</i>		Well # <i>4-33</i>			
Field Order # <i>12123A</i>	Station <i>Pratt KS</i>	Casing <i>5 1/2</i>	Depth <i>4829</i>	County <i>Kingman</i>	State <i>KS</i>
Type Job <i>5 1/2 Long string CNW</i>			Formation	Legal Description <i>35-275-18A</i>	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
<i>5 1/2</i>				Pre Pad				5 Min.
Depth <i>4829</i>	Depth	From	To	Pad		Max		10 Min.
Volume <i>111.93</i>	Volume	From	To	Frac		Min		15 Min.
Max Press <i>2000</i>	Max Press	From	To			Avg		
Well Connection <i>5 1/2</i>	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush		Gas Volume		Total Load

Customer Representative <i>Michael Pralle</i>			Station Manager <i>Kevin Gardley</i>			Treater <i>Scott Graves</i>		
Service Units	<i>38970</i>	<i>33708</i>	<i>19959</i>	<i>20926</i>	<i>73708</i>			
Driver Names	<i>Scott</i>	<i>Josh</i>	<i>Mat</i>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>10:15</i>					<i>On location safety Meeting Rig up</i>
<i>10:30</i>					<i>Run Float Equipment</i>
<i>11:25</i>					<i>Circulate at Joint # 40 20min</i>
<i>12:30</i>					<i>Circulate at Joint # 80 50min</i>
<i>3:00</i>					<i>Circulate on bottom 1 hour</i>
<i>4:14</i>	<i>0</i>			<i>4</i>	<i>Pump H2O spacer</i>
<i>4:15</i>	<i>100</i>		<i>5</i>	<i>4</i>	<i>Pump 1000 gallons Mud flush</i>
<i>4:20</i>	<i>100</i>		<i>24</i>	<i>4</i>	<i>Pump H2O spacer</i>
<i>4:21</i>	<i>200</i>		<i>5</i>	<i>5.3</i>	<i>Mix 200 sks 50/50 pot 14 ppv</i>
<i>4:30</i>	<i>0</i>		<i>48</i>		<i>Shut Down</i>
					<i>Wash pump + lines</i>
<i>4:33</i>	<i>100</i>			<i>6</i>	<i>Release plug start Displacement</i>
<i>4:46</i>	<i>600</i>		<i>81</i>	<i>6</i>	<i>lift pressure</i>
<i>4:50</i>	<i>700</i>		<i>24</i>	<i>3.5</i>	<i>Reduce Rate</i>
<i>4:53</i>	<i>800</i>		<i>7.5</i>	<i>3.5</i>	<i>Plug landed</i>
<i>4:53</i>	<i>1500</i>				<i>Increase pressure</i>
<i>4:54</i>	<i>1500</i>				<i>Shut down</i>
<i>4:54</i>	<i>0</i>				<i>Release pressure NO Returns</i>
<i>5:00</i>	<i>0</i>		<i>8</i>	<i>2.5</i>	<i>Plug bit hole 30 sks 50/50 pot</i>
<i>5:05</i>	<i>0</i>		<i>6</i>	<i>2.5</i>	<i>Plug Mouse hole 20 sks 50/50 pot</i>
<i>5:10</i>					<i>Shut down</i>
					<i>Job Complete</i>