

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1261350  
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: \_\_\_\_\_

1261350

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

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

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

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

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

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

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

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

TUBING RECORD:	Size: _____ Set At: _____ Packer At: _____	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR. _____	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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. <input type="checkbox"/> Commingled <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	BANTA 'F' 1-21
Doc ID	1261350

Tops

Name	Top	Datum
Chase	2447	-223
Heebner Shale	4049	-1825
Lansing 'A'	4212	-1988
Kansas City 'I'	4417	-2193
Kansas City 'J'	4459	-2235
Base K.C.	4600	-2376
Marmaton	4636	-2412
Cherokee Shale	4724	-2500
Cherokee Sand	4758	-2534
Miss. Chert	4772	-2548
Kinderhook Shale	4809	-2585



# LITHOLOGY STRIP LOG

## WellSight Systems

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

Well Name: Banta 'F' #1-21  
Location: 795' FSL & 790' FWL, Sec. 21-T27S-R18W, Kiowa Co., KS.  
Licence Number: 15-097-21822-00-00 Region: Einsel  
Spud Date: 6/5/2015 Drilling Completed: 6/12/15  
Surface Coordinates: 795' FSL & 790' FWL, Sec. 21-T27S-R18W

Bottom Hole Same as Above  
Coordinates:  
Ground Elevation (ft): 2211' K.B. Elevation (ft): 2224'  
Logged Interval (ft): 4000' To: 4820' Total Depth (ft): 4820'  
Formation: Kinderhook at Total Depth  
Type of Drilling Fluid: Freshwater/Gel to 2777'; Chemical Gel 2777' to 4820'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 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' Upper Porosity) 4410' - 4427'(Corrected Depths to Log) Test Times 15"-45"-45"-90" IFP Fair Blow built to 11", FFP Strong Blow BOB Immediately, no Gas to Surface, no Blowback on SI's; REC: 1685' Rich Gas in Pipe, 45' GOCWM(22%G, 10%O, 17%W, 51%M), 60' GOCWM(33%G, 20%O, 17%W, 30%M) CI 42,000, Mud 6000; IFP 17-27#, ISIP 1232#, FFP 23-29#, FSIP 1200#, IHP 2142#, FHP 2159#, BHT 120 Deg. F.

DST #2(Kansas City 'J' zone) 4454' - 4470'(Corrected Depths to Log) Test Times 15"-45"-30"-60" IFP Fair Blow built to 6" in 15 Min., FFP Good 8" Blow, no Gas to Surface, no Blowback on SI's; REC: 190' MSW(10%M, 90%W) CI 75,000, Mud 6000, no Shows of oil or gas; IFP 19-64#, ISIP 1353#, FFP 70-128#, FSIP 1340#, IHP 2178#, FHP 2044#, BHT 124 Deg. F.

## Comments

6/5/15 MIRU Sterling Drilling Co. Rig #5, Spud at 4:15 PM. , 6/6/15 Drilling at 483'; 6/7/15 Drilling at 1246'; 6/8/15 Drilling at 3159'; 6/9/15 TD. 4243' - TIH after Bit Trip; 6/10/15 TD. 4431' - DST #1; 6/11/15 Drilling at 4495'; 6/12/15 Drilling at 4750' - Reached TD. 4820' at 11:10 AM., Logged well; 6/13/15 RTD. 4820' - Nipple down BOP - run 5 1/2" Production Casing.

Set new 8 5/8"(23#) Surface Casing at 545' KB. with 400 sacks cement(Basic Energy Services). Cement did Circulate. PD. at 12:30 PM. on 6/6/15.

Set new and used 5 1/2"(15.5#) Production casing at 4817' with 200 sacks of "Loeb Blend" cement(Basic Energy Services. PD. at 1:30 PM. on 6/13/15.

Surveys: 0.75 Deg. at 550'(Surface Casing); 0.25 Deg. at 4243'(Bit Trip); 0.50 Deg. at 4431'(DST #1); 1.0 Deg. at 4820' RTD.


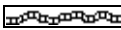
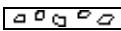
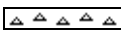
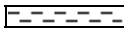







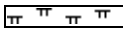

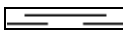
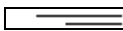
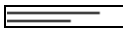



Pipe Strap at 4243'(Bit Trip): Strap 0.79' Short to the Board, no correction made to the Board.

After review of the Halliburton Logs, DST data, sample shows and positive indications of commercially recoverable hydrocarbons, the operator elected to set 5 1/2" Production Casing for completion in the Kansas City 'I' and Cherokee Sand zones.








































































LOG TOPS: Chase 2447(-223), Stotler Lmst. 3397(-1173), Howard 3603(-1379), Heebner Shale 4049(-1825), Toronto 4064(-1840), Brown Lmst. 4202(-1978), Lansing 'A' 4212(-1988), Kansas City 'I' 4417(-2193), Kansas City 'J' 4459(-2235), Stark Shale 4506(-2282), Hertha 4565(-2341), Base Kansas City 4600(-2376), Marmaton 4636(-2412), Pawnee 4686(-2462), Cherokee Shale 4724(-2500), Cherokee Sand 4758(-2534), Miss. Chert 4772(-2548), Kinderhook Shale 4809(-2585).

NOTE: This log was shifted upward by 3' to 4' for correlation purposes with the Halliburton Logs.

### 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  
 [I] Inter  
 [M] Moldic  
 [O] Organic  
 [P] Pinpoint

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

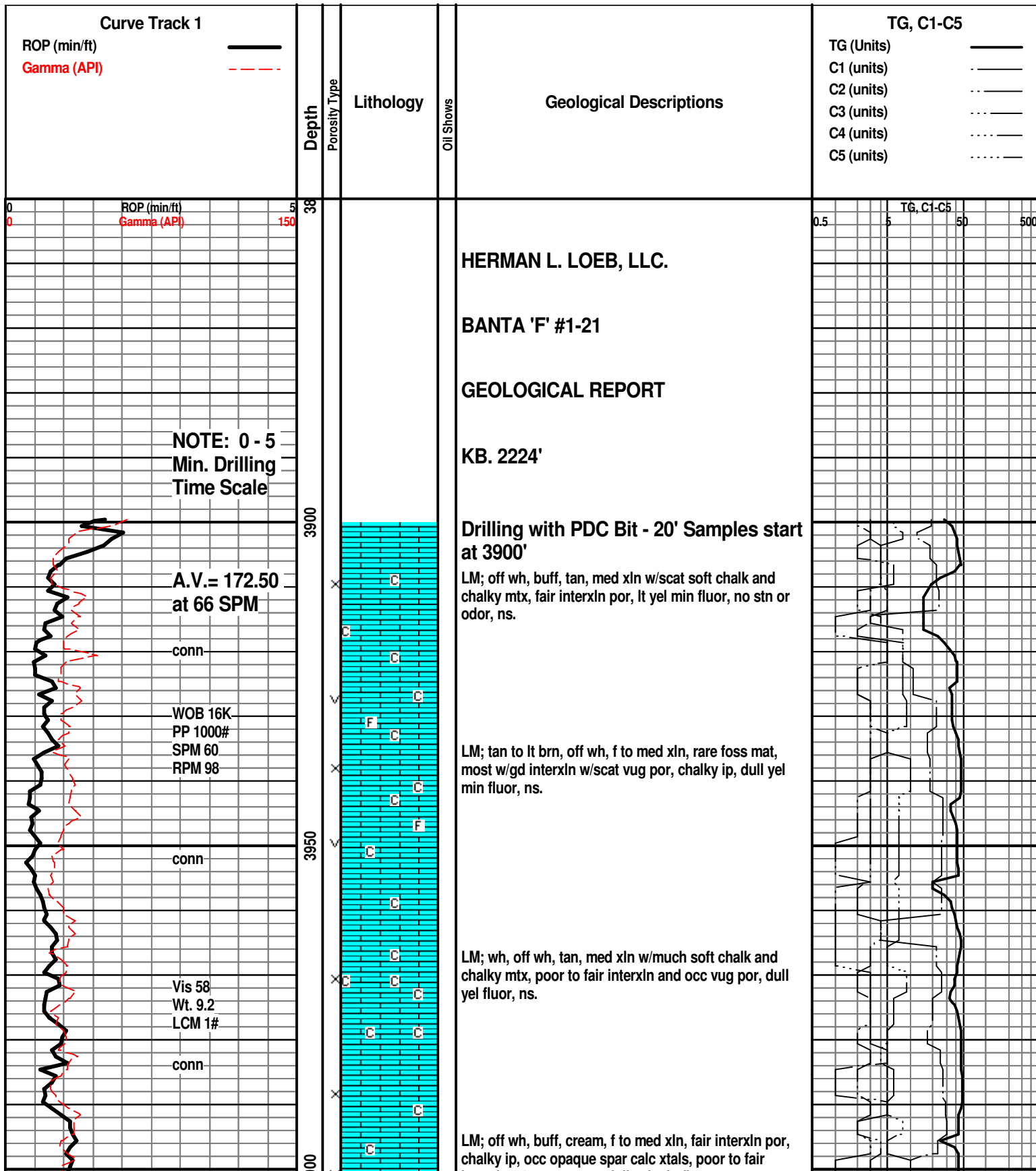
- ROUNDING**  
 [R] Rounded  
 [r] Subrnd  
 [a] Subang  
 [A] Angular

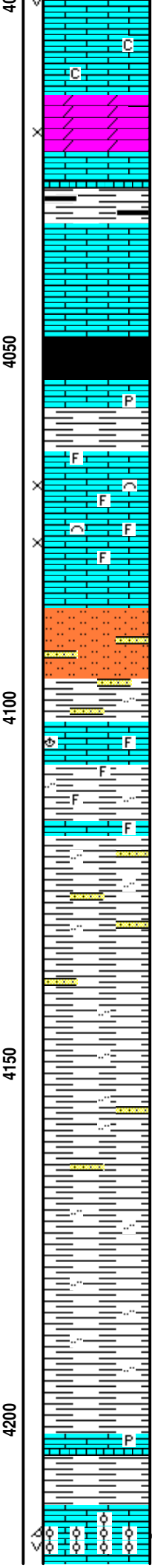
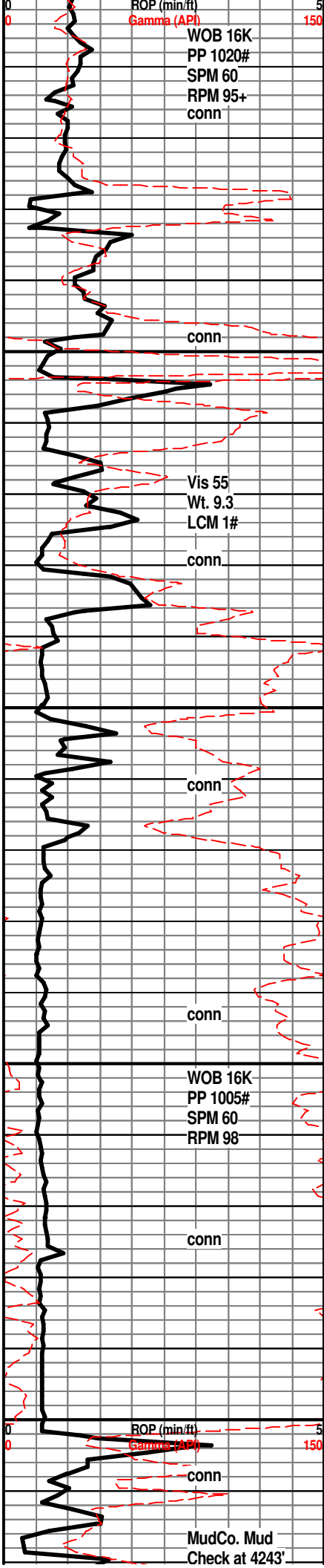
- [S] Spotted  
 [Q] Ques  
 [D] Dead

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

- INTERVAL**  
 [Core] Core  
 [Dst] Dst

- OIL SHOW**  
 [Even] Even





interxln w/occ vug por, dull yel min fluor, ns.

DOL; lt brn, sucrosic, fair interxln por, lt yel min fluor, no stn or odor, ns.

SH; dk gy, some blk, platy

LM; med brn, occ med gy brn, fxln w/most dense, scat poor interxln por, ns.

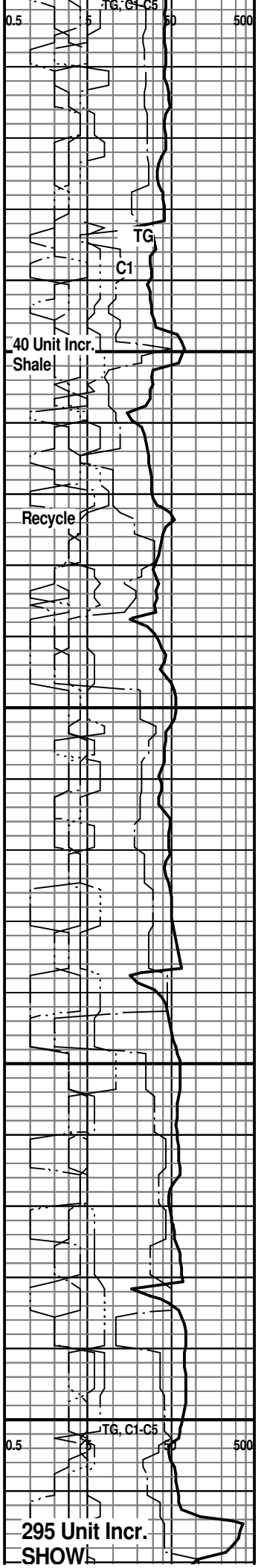
**HEEBNER SHALE 4048(-1824)**  
 SH; blk, carb ip, platy  
 LM; med brn, dense, pyr ip.

**TORONTO 4064(-1840)**  
 LM; lt gy, off wh, foss w/scat fair interxln w/occ vug por, lt/med yel fluor, no vis stn, no odor, ns.  
 LM; off wh, wh, buff, scat foss mat, fxln w/gd interxln por, lt yel fluor, no stn or odor, ns.

**DOUGLAS SHALE 4086(-1862)**  
 SLTST; lt gy, sandy ip w/interbdd vf to f gr qtz ss, fair intergran por, ns.  
 LM; med to dk brn, foss, well cem, tite  
 SH; lt gy, silty ip, foss  
 LM; dk brn, foss, hd  
 SH; med gy, silty to sandy, platy  
 SH; most med gy, platy, silty to sandy  
 SH; med gy, platy, most smooth, some flakey

**BROWN LMST. 4202(-1978)**  
 LM; med brn, dense, hd-sharp, trc pyr

**LANSING 'A' 4212(-1988)**  
 LM; tan to lt brn, oolitic, fair to gd oomoldic w/scat vug por, lt yel fluor, few gas bubbles, trc. v. spotted lt brn stn. v. faint odor





Vis 67 Wt. 9.5  
WL 9.2 CI 8000  
PH 10.0 LCM 0#

conn

CFS. at 4243'

Scale Change  
ROP (min/ft)  
Gamma (A)

WOB 40K  
PP 1025#  
SPM 56  
RPM 65-70

A.V. = 153.60  
at 56 SPM

conn

Vis 60  
Wt. 9.2  
LCM 1#

conn

WOB 40K  
PP 950#  
SPM 56  
RPM 65

conn

Vis 56  
Wt. 9.3  
LCM 1#

conn

ROP (min/ft)  
Gamma (A)

A.V. = 154.00  
at 56 SPM

DST #1  
K.C. 'I' zone  
4410' - 4427'  
CFS. at 4427'

MudCo. Mud  
Check at 4431'  
Vis 55 Wt. 9.3  
WL 9.0 CI 6000

stn, v. faint odor

LM; lt brn, hd, trc lt gy cht, tite

SH; med gy, gy grn, platy

### LANSING 'B' 4234(-2010)

LM; off wh, lt gy, foss ip, most well cem, no vis stn, no fluor, ns.

### Bit Trip at 4243'

LM; lt gy, rare gy brn, fxl n w/poor interxln and vug por, lt yel fluor, no vis stn, no odor, ns.

LM; off wh, tan, buff, foss ip, scat fair interpart por, minor chalky mtx, no vis stn, no odor, ns.

LM; lt to med brn, blocky, hd, occ brn to gy brn cht, no stn or odor, ns.

LM; off wh, buff, med xln w/some sucrosic text, partly dolomitic, scat vug por, dull to lt yel fluor, no vis stn, no odor, ns.

LM; med brn, dense - micritic, scat tan to med brn/gy brn cht, tite

LM; tan to lt brn, sucrosic text, scat well dev. vug por, bcm chalky w/lrg incr. in chalky mtx, dull yel fluor, ns.

DOL; tan to lt brn, sucrosic, lmy w/fair interxln por, lt yel fluor, interbdd wh to off wh cht, no stn or odor, ns.

LM; off wh, tan, med to cse xln, abnt opaque spar calc xtals, scat fair vug and interxln por, occ chalky, no fluor, no stn or odor, ns.

LM; med brn, foss ip, well cem, no fluor, ns.

### LANSING/K.C. 'H' 4370(-2146)

LM; tan to med brn, oolitic, fair to gd oomoldic por, rare vug por, dull yel fluor, brittle, no stn or odor, no sample shows

LM; tan to buff, most dense, rare off wh cht, tite

SH; med gy, gy grn, platy, foss ip.

LM; off wh, buff, foss, poor to fair interpart w/some p-p por, few pcs. w/spotted lt brn oil stn, v. faint odor, med yel fluor, weak cut, most looks tite

LM; tan to lt brn, hd, cherty ip, tite

### KANSAS CITY 'I' 4417(-2193)

LM; tan to off wh, finely pelletal w/few ooids, fair interpart por, med to occ brite yel fluor, fair odor, spotted/even lt brn stn, SSFO, gas bubbles

### DST #1: K.C. 'I' zone 4410' - 4427'

LM; tan, wh, buff, foss to med xln w/fair p-p and vug por, much soft chalky mtx, fair to strong odor, spotty brite yel fluor, trc FO, spotted to rarely even lt brn stn, mostly barren por, few gas bubbles

Recycle

TG

C2 C1

C3

Gas Test at  
Extractor

10 Unit Incr.

14 Unit Incr.

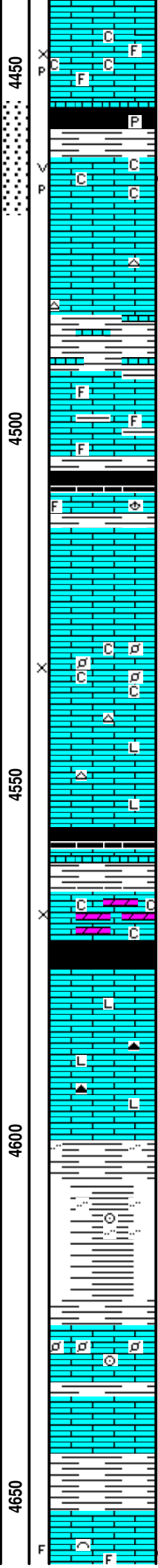
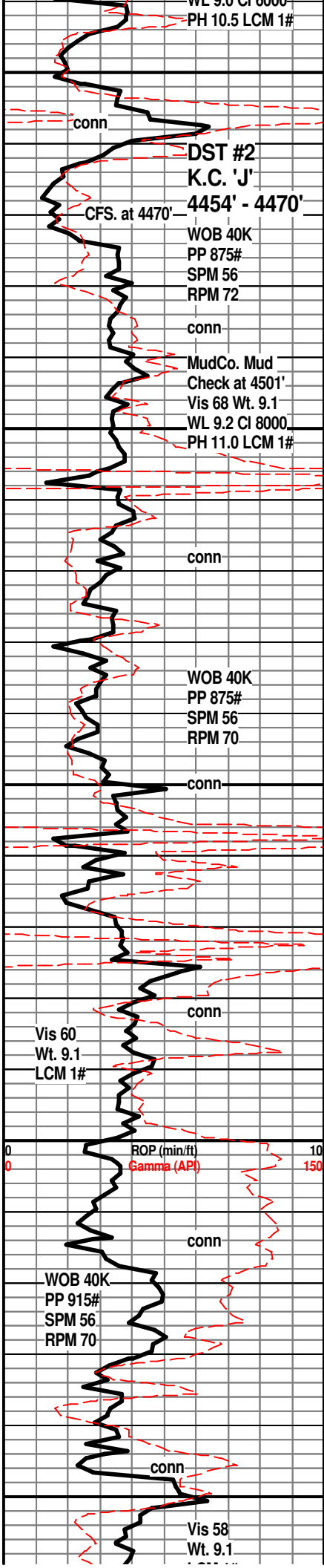
0.5 Poss. Show

50 Unit Incr.  
SHOW

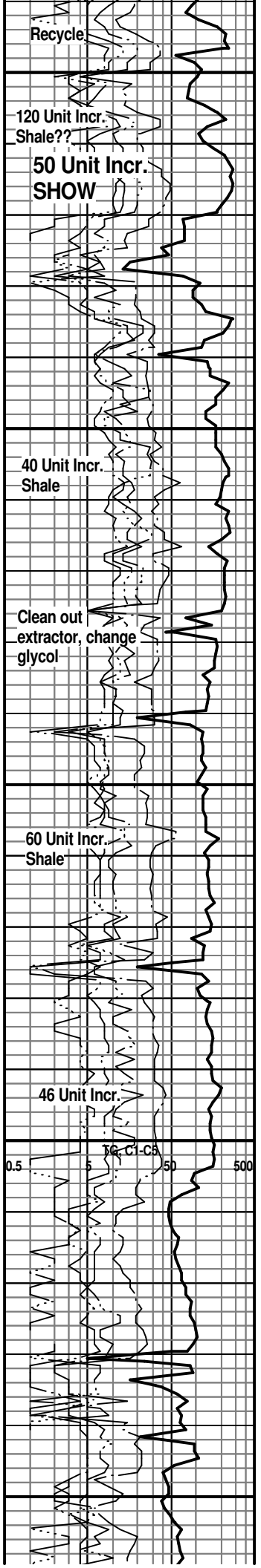
Gas/Oil in Mud

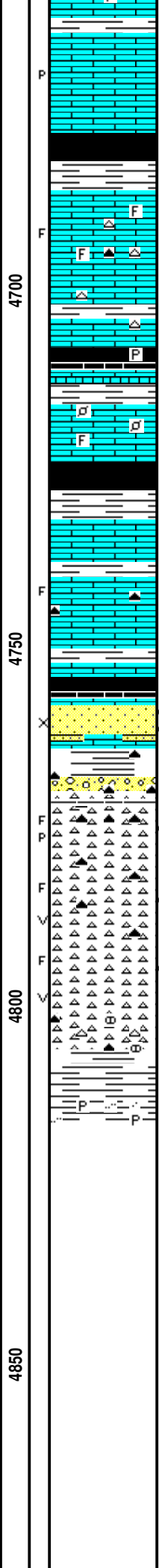
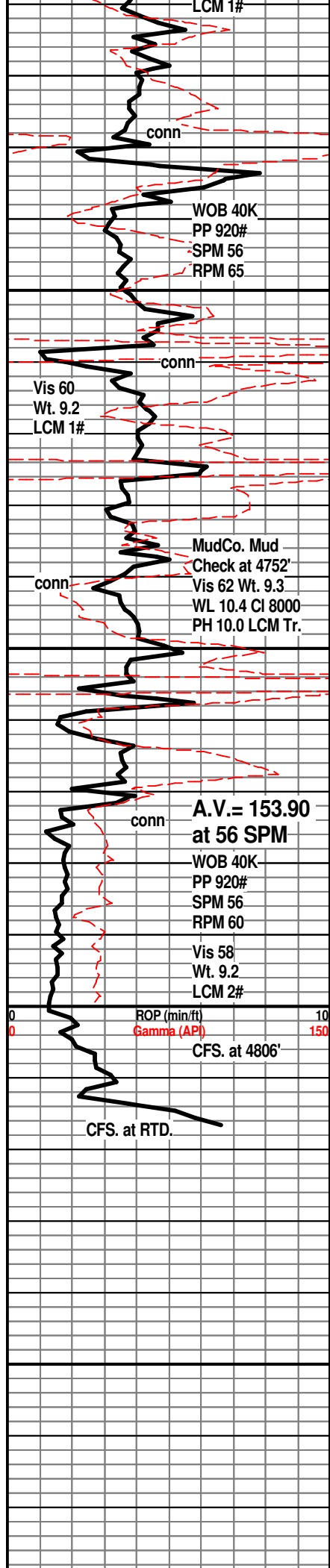
60 Unit Incr.

Poss. Show



mostly barren ip, new gas bubbles  
 LM; off tan, foss ip, poor to fair interpart w/some p-p por, v. sl. odor, rare med yel fluor, no vis oil stn, no vis gas bubb, occ chalky  
 SH; blk, carb, pyr ip.  
**KANSAS CITY 'J' 4462(-2238)**  
 LM; tan to cream, buff, f to med xln, fair p-p and scat vug por, few pcs w/spotted lt brn stn, faint odor, occ med yel fluor, few gas bubbles, some barren por, chalky ip.  
**DST #2: K.C. 'J' zone 4454' - 4470'(Corrected Depths to Log)**  
 SH; med gy, gy brn, lmy ip, firm  
 LM; med to dk brn, gy brn, foss ip, some argil, no vis por, ns.  
**STARK SHALE 4506(-2282)**  
 SH; blk, carb ip, platy  
**SWOPE 4514(-2290)**  
 LM; off wh, tan, buff, fxln to micritic, most blocky, no vis por, no fluor, ns.  
 LM; off wh, tan, lt brn, med xln to foss, scat small pellets ip, loosely cem - fair interpart por, chalky mtx, fairly soft, dull yel fluor, no stn or odor, ns.  
 LM; tan to buff, fxln to micritic, some litho, hd, rare gy cht, tite  
 SH; blk, carb, platy  
**HERTHA 4565(-2341)**  
 LM; off wh, buff, fxln w/scat sucrosic text, partly dolomitic, occ lt yel min fluor, poor to fair interxln por, occ chalky mtx, no stn, ns.  
 LM; med to dk brn, hd, litho ip, dense, scat brn to rarely smoky cht, tite  
**BASE KANSAS CITY 4600(-2376)**  
 SH; grn, gy grn, platy, silty ip.  
 SH; med gy, gy grn, rare rust red/yel, platy, occ silty, foss ip.  
**PLEASANTON 4626(-2402)**  
 LM; off wh, lt gy brn, foss ip, scat rnd pellets, few crin, most well cem, dull yel fluor, no stn or odor, no gas kick, ns.  
**MARMATON 4636(-2412)**  
 LM; lt brn, rare lt grn tint, some argil, blocky, no vis por, no fluor, ns.  
 SH; grn, gy grn, platy, firm  
**ALTAMONT 4652(-2428)**  
 LM; off wh, buff, fxln, rare foss mat, trc frags w/dk brn spotty oil stn, v. faint odor, med yel fluor, no live





shows, no gas kick

LM; off wh, tan, buff, fxl, most micritic, blocky, few pcs w/v. poor p-p por, spotty dk brn to blk oil stn, v. faint odor(poss. from above zone), med yel fluor, no live shows

SH; blk, v. dk gy, platy

**PAWNEE 4686(-2462)**  
 LM; lt brn, fxl, w/scat foss mat, most well cem, rare lt brn/amber cht w/occ edge stn, no odor, no other por dev, no gas kick, looks tite

LM; med brn, hd, blocky, occ gy cht, tite

SH; blk, carb ip, platy, occ pyr

LM; lt to med brn, rare gy brn, foss ip - occ pellets and hash, well cem, no vis por, ns.

**CHEROKEE SHALE 4724(-2500)**  
 SH; blk, carb ip, platy

LM; lt to med brn, blocky, hd - sharp, no vis por, ns.

LM; tan to lt brn, fxl, scat amber cht, few pcs w/blk tar/gils, poss. frags, most tite, no fluor, no odor, no live shows

LM; med gy brn, most dense, trc blk tar, tite

**CHEROKEE SAND 4758(-2534)**  
 SS; clr, lt gy, f to occ med gr qtz, clusters, some w/gd intergran por, some tite, spotted to even med brn stn, fair odor, dull yel fluor, few gas bubbles, gd cut, Trc lite FO droplets

**MISSISSIPPI CHERT 4772(-2548)**  
 CHT; org, org/grn, off wh, most fresh, frags, occ trip cht w/spotted live med brn stn, scat blk tar/gils, poor p-p por, dull yel fluor, no odor

CHT; off wh, lt gy, org/brn, most fresh, scat vug por w/qtz overgrowths, frags in some, rare med brn live stn, no odor, dull yel fluor

CHT; wh, off wh, fresh w/scat trip, better por than above, frags w/dk brn edge stn, scat vug por, no odor, trc gas bubbles

CHT; varic, red foss cht, some nodular cht, grn gritty cht

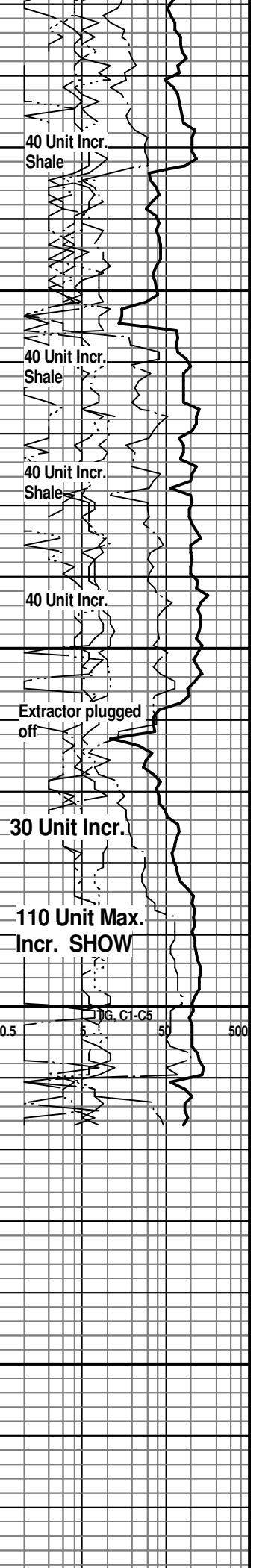
**KINDERHOOK SHALE 4809(-2585)**  
 SH; med gy, gy grn, silty to occ sandy, pyr ip.

RTD. 4820' at 11:10 AM. on 6/12/15

LTD. 4820'

Halliburton ACRT, NEU/DEN with PE, Microlog

**NOTE: This log was shifted upward by 3' to 4' for correlation purposes with the Halliburton Logs.**







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

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

**21-27s-18w**  
**BANTA "F" 1-21**  
Job Ticket: 57876 **DST#: 1**  
Test Start: 2015.06.10 @ 03:32:54

## GENERAL INFORMATION:

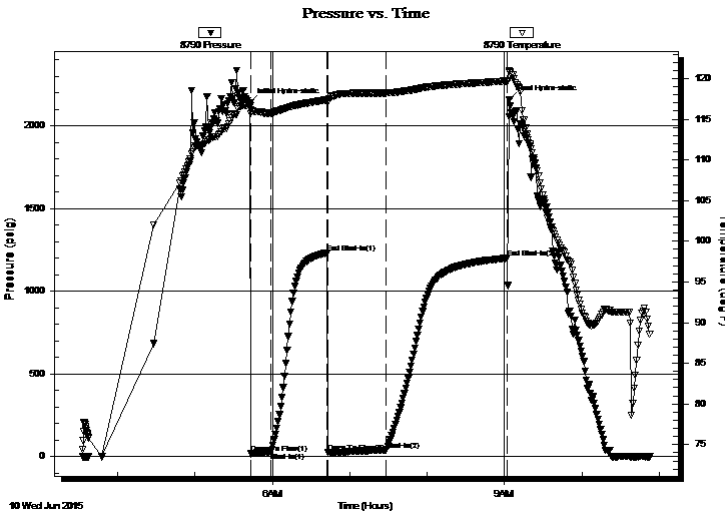
Formation: **KC "I"**  
Deviated: No Whipstock: 0.00 ft (KB)  
Time Tool Opened: 05:43:09  
Time Test Ended: 10:53:09  
Interval: **4414.00 ft (KB) To 4431.00 ft (KB) (TVD)**  
Total Depth: 4431.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Ryan Reynolds  
Unit No: 68  
Reference Elevations: 2224.00 ft (KB)  
2211.00 ft (CF)  
KB to GR/CF: 13.00 ft

## Serial #: 8790

Press@RunDepth: 38.68 psig @ 4420.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.06.10 End Date: 2015.06.10 Last Calib.: 2015.06.10  
Start Time: 03:32:59 End Time: 10:53:08 Time On Btm: 2015.06.10 @ 05:42:54  
Time Off Btm: 2015.06.10 @ 09:03:54

TEST COMMENT: IF: Good blow . surf. - 11"  
IS: No blow .  
FF: Strong blow . BOB immed. No GTS.  
FS: No blow .

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2142.42	116.67	Initial Hydro-static
1	16.66	115.73	Open To Flow (1)
16	26.52	115.71	Shut-In(1)
60	1231.52	117.38	End Shut-In(1)
61	22.76	117.08	Open To Flow (2)
106	38.68	118.21	Shut-In(2)
200	1199.71	119.71	End Shut-In(2)
201	2159.31	120.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	GWOCM 33%g, 17%w, 20%o, 30%m	0.30
45.00	GOWCM 22%g, 10%o, 17%w, 51%m	0.63
0.00	1685' GIP	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.

**21-27s-18w**

P.O. Box 838  
Lawrenceville, IL 62439

**BANTA "F" 1-21**

Job Ticket: 57876

**DST#: 1**

ATTN: Jon Christensen

Test Start: 2015.06.10 @ 03:32:54

### 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:

42000 ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 0.08 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GWOCM 33%g, 17%w, 20%o, 30%m	0.304
45.00	GOWCM 22%g, 10%o, 17%w, 51%m	0.631
0.00	1685' GIP	0.000

Total Length: 105.00 ft

Total Volume: 0.935 bbl

Num Fluid Samples: 0

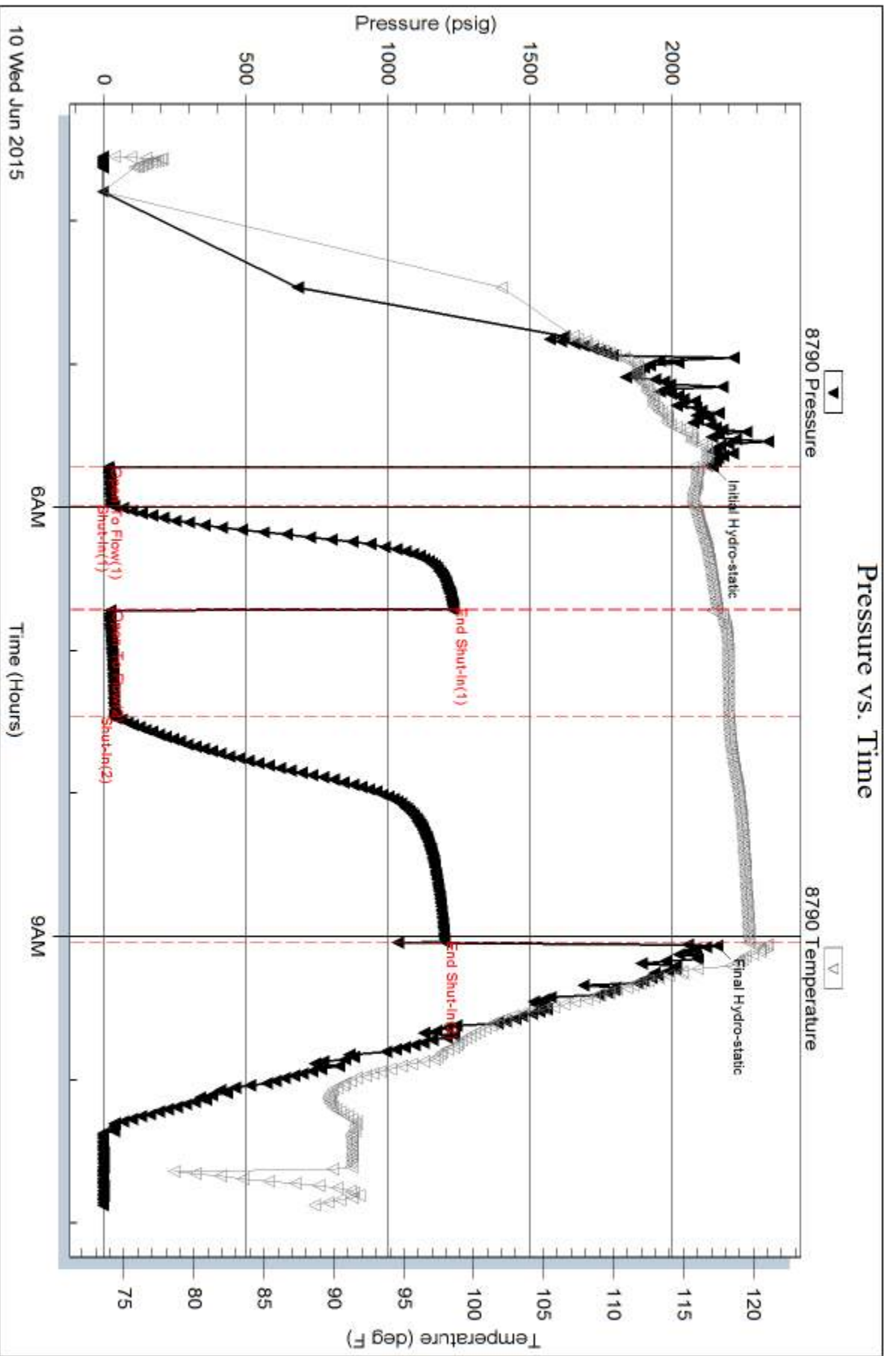
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

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

**21-27s-18w**  
**BANTA "F" 1-21**  
 Job Ticket: 57877      **DST#: 2**  
 Test Start: 2015.06.10 @ 19:15:19

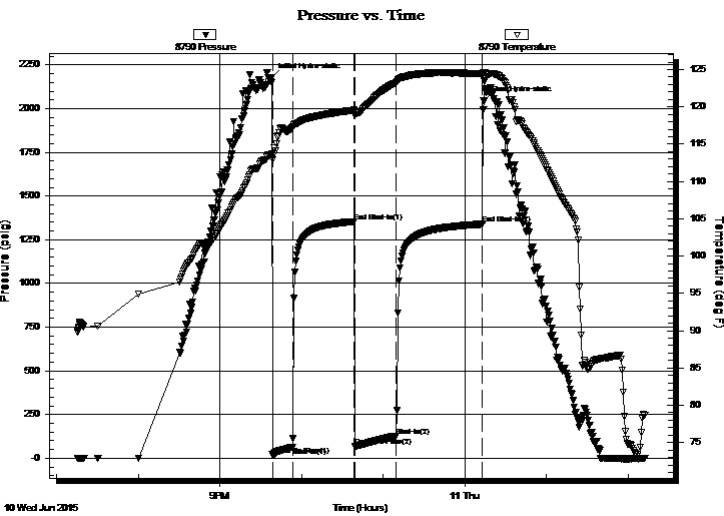
## GENERAL INFORMATION:

Formation: **KC "J"**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 21:38:34  
 Time Test Ended: 02:12:49  
 Interval: **4458.00 ft (KB) To 4474.00 ft (KB) (TVD)**  
 Total Depth: 4474.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ryan Reynolds  
 Unit No: 68  
 Reference Elevations: 2224.00 ft (KB)  
 2211.00 ft (CF)  
 KB to GR/CF: 13.00 ft

## Serial #: 8790

Press@RunDepth: 127.54 psig @ 4464.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2015.06.10      End Date: 2015.06.11      Last Calib.: 2015.06.11  
 Start Time: 19:15:24      End Time: 02:12:48      Time On Btm: 2015.06.10 @ 21:38:19  
 Time Off Btm: 2015.06.11 @ 00:14:04

TEST COMMENT: IF: Fair blow . surf. - 6"  
 IS: No blow .  
 FF: Good blow . surf. - 8"  
 FS: No blow .



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2177.50	113.63	Initial Hydro-static
1	19.33	112.92	Open To Flow (1)
15	64.12	117.18	Shut-In(1)
61	1353.45	119.55	End Shut-In(1)
61	69.73	118.82	Open To Flow (2)
91	127.54	123.23	Shut-In(2)
155	1339.55	124.41	End Shut-In(2)
156	2043.56	124.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
190.00	MCW 10%m, 90%w	2.13

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Herman L. Loeb LLC.

**21-27s-18w**

P.O. Box 838  
Lawrenceville, IL 62439

**BANTA "F" 1-21**

Job Ticket: 57877

**DST#: 2**

ATTN: Jon Christensen

Test Start: 2015.06.10 @ 19:15:19

## 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:

75000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.08 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
190.00	MCW 10%m, 90%w	2.128

Total Length: 190.00 ft

Total Volume: 2.128 bbl

Num Fluid Samples: 0

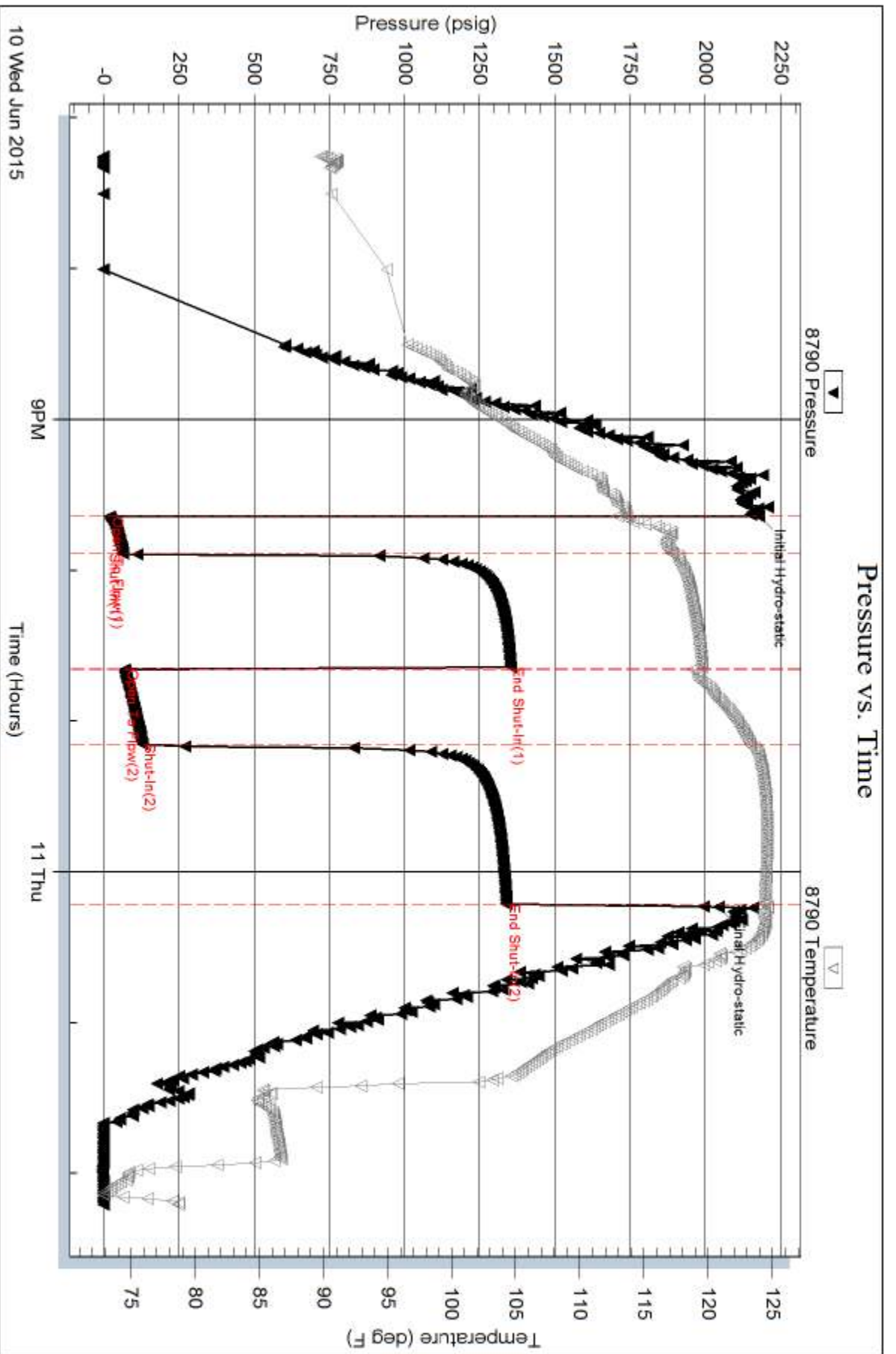
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1007589	1718	06/08/2015
<b>INVOICE NUMBER</b>			
<b>91828330</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 Banta F 1-21  
**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	
40847349	19843		Net - 30 days	07/08/2015	
		<b>QTY</b>	<b>U of M</b>	<b>UNIT PRICE</b>	<b>INVOICE AMOUNT</b>
<i>For Service Dates: 06/05/2015 to 06/05/2015</i>					
0040847349					
171812265A Cement-New Well Casing/Pi 06/05/2015					
A-Con Blend Common		200.00	EA	10.80	2,160.00 T
Common Cement		200.00	EA	9.60	1,920.00 T
Celloflake		100.00	EA	2.22	222.00 T
Calcium Chloride		940.00	EA	0.63	592.20 T
"Top Rubber Cmt Plug, 8 5/8""		1.00	EA	135.00	135.00
"8 5/8"" Guide Shoe (Red)"		1.00	EA	330.00	330.00
"Baffle Plate Alum., 8 5/8"" (Blue)"		1.00	EA	102.00	102.00
"8 5/8"" Basket (Blue)"		1.00	EA	189.00	189.00
"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		658.00	EA	1.50	987.00
Depth Charge; 0-500'		1.00	EA	600.00	600.00
Blending & Mixing Service Charge		400.00	BAG	0.84	336.00
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**  
 59548  
 JUN 16 2015  
**SCANNED**

<b>PLEASE REMIT TO:</b>	<b>SEND OTHER CORRESPONDENCE TO:</b>	<b>SUB TOTAL</b>	<b>8,237.70</b>
<b>BASIC ENERGY SERVICES, LP</b>	<b>BASIC ENERGY SERVICES, LP</b>	<b>TAX</b>	<b>349.94</b>
<b>PO BOX 841903</b>	<b>801 CHERRY ST, STE 2100</b>	<b>INVOICE TOTAL</b>	<b>8,587.64</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 12285 A

21-275-18w

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

DATE OF JOB: 6-6-2015		DISTRICT: P1911111		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: Heiman & Loeb				LEASE: Bsn19 F						
ADDRESS:				WELL NO. 121						
CITY:				COUNTY: Kiowa STATE: KS						
STATE:				SERVICE CREW: Dren, J.A., Bosch						
AUTHORIZED BY:				JOB TYPE: CNW/SUITCASE 8 3/8						
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
19843	1						6-6			8:00
19862	3/4									
ARRIVED AT JOB							6-6			10:30
START OPERATION							6-6			11:30
FINISH OPERATION							6-6			12:30
RELEASED							6-6			1:30
MILES FROM STATION TO WELL							39			

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: Alan Little  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP101	A con Blend	SK	200		3,600 00
CP100C	Common Cement	SK	200		3,200 00
CC102	Cellulofibre	Lb	100		370 00
CC109	Calcium Chloride	Lb	940		987 00
CI105	Top Rubber Plug 8 3/8	Fs	1		225 00
CI203	Guide Shoe (Red) 8 3/8	Fs	1		550 00
CI753	BASIC Pipe Aluminum, 8 3/8	Fs	1		170 00
CI1903	8 3/8 Bssk+ (Blue)	Fs	1		315 00
F100	un + mlesse cherge - P chips, small usk usis	M.	35		157 50
F101	Hesuy Equipmen+ Mlesse	M.	70		525 00
F113	Propose - 522 Bulk Delivery Cherges, per, unit	1000	658		1,645 00
CF200	Depin Cherge; @ 500	4hr	1		1,000 00
CF210	Blendins + Mixing Service Cherge	SK	400		560 00
CF301	Plus conts per vt 1250 on Cherge	Job	1		250 00
S003	Secure Supervisoy, P. 15+ 8 hrs on loc	Fs	1		170 00
SUB TOTAL					13,729 50

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$		
MATERIALS	%TAX ON \$		
Discount		TOTAL	8,237 70

SERVICE REPRESENTATIVE: <u>Darren Little</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>Alan Little</u>
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)	

FIELD SERVICE ORDER NO.

Customer Hermes L. Looh		Lease No.		Date 6-6-2015	
Lease BSN+ "F"		Well # 1-21			
Field Order # 12265	Station Pratt, KS	Casing 8 5/8	Depth 545'	County Kiowa	State KS
Type Job CNW/ 8 5/8 SURFSEA			Formation TD-550	Legal Description	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
8 5/8							
Depth 545	Depth	From	To	Pre Pad	Max		5 Min.
Volume 34 3/4	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 501	Packer Depth	From	To	Flush Freshwater	Gas Volume		Total Load

Customer Representative AIGN	Station Manager Kevin Gordley	Treater Darin Franklin
---------------------------------	----------------------------------	---------------------------

Service Units	92911	84981	19843	19960	19862				
Driver Names	Darin	Ed	Ed	Bosney	Bosney				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:30 AM					ON LOCATION / Safety meeting Basket - # 2 501'
					200SK A-con Blend, 3%DC, 1/4# Cell flocc
					12 PPS, 2.47 veils, 14.45 wster
					200 SK Common, 2%DC, 1/4# Cell flocc
					15.6 PPS, 1.70 veils, 5.23 wster
11:30 AM	200		88	5 1/2	PUMP 3 bbls wster
	200		43	5 1/2	mix 200SK lead cement
				5 1/2	mix 200SK 19.1 cement
					Shut down
					Release plug
	200		0	3	Start displacement
	200		33	3	Bump plug
12:30 PM					Shut in
					Cement did circulate 10 bbls
					Job complete / Darin & crew
					Thank you!!!



**BASIC**  
ENERGY SERVICES

6076  
9438  
771 BANTA F  
(1-21)

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1007589	1718	06/17/2015
<b>INVOICE NUMBER</b>			
<b>91836978</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** Banta F 1-21  
**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
40849960	86779		Net - 30 days	07/17/2015
<b>For Service Dates: 06/13/2015 to 06/13/2015</b>				
0040849960				
171812324A Cement-New Well Casing/Pi 06/13/2015				
Cement 5 1/2" Longstring				
50/50 POZ	250.00	EA	6.60	1,649.88 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" (Blue)"	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
"Unit Mileage Chg (PU, cars one way)"	35.00	MI	2.70	94.49
Heavy Equipment Mileage	70.00	MI	4.50	314.97
"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

**PAID**  
59762  
**JUN 23 2015**  
**SCANNED**

<b>PLEASE REMIT TO:</b>	<b>SEND OTHER CORRESPONDENCE TO:</b>	<b>SUB TOTAL</b>	<b>9,386.01</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>9,732.92</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 12324 A

DATE 21-27-18 TICKET NO. \_\_\_\_\_

DATE OF JOB <u>6/13/15</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 L Lock</u>		LEASE <u>Bunka 'F'</u>	WELL NO. <u>1-21</u>						
ADDRESS		COUNTY <u>Kiowa</u>	STATE <u>KS</u>						
CITY	STATE	SERVICE CREW <u>Scott, Shawn, Aaron</u>							
AUTHORIZED BY <u>Michael Polley</u>	JOB TYPE: <u>5 1/2 Long string (CNG)</u>								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM PM	TIME
<u>86-779</u>	<u>.5</u>					ARRIVED AT JOB	<u>6/13/15</u>	AM PM	<u>7:30</u>
<u>19866</u>	<u>.25</u>					START OPERATION	<u>6/13/15</u>	AM PM	<u>12:46</u>
						FINISH OPERATION	<u>6/13/15</u>	AM PM	<u>1:45</u>
						RELEASED	<u>6/13/15</u>	AM PM	<u>2:36</u>
						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 P02	SK	200		2200 00
CP104	50/50 P02	SK	50		550 00
CC102	Cellotape	lb	63		233 10
CC113	Gypsum	lb	1050		787 50
CC179	FLA-322	lb	105		787 50
CC201	Gelsolite	lb	1500		1005 00
C700	1 lb Potassium Chloride	lb	566		849 00
CF607	Latch down Plug + Baffle 5 1/2	EA	1		400 00
CF1251	Auto fill Float Shoe 5 1/2	EA	1		360 00
CF1651	Turbolizer 5 1/2	EA	17		1320 00
CF1901	5 1/2 Basket	EA	2		580 00
CF <del>2001</del> 1704	Claymox KCl Substitute	Gal	5		175 00
CC151	Mud Flush	Gal	1000		1500 00
E100	Unit Make-up Charge Pickups	MI	35		157 50
E101	Heavy Component Make-up	MI	70		575 00
E113	Pipe + Bulk Delivery	TM	368		918 75
CE205	Depth Charge 4001-5000	4hr	1		2520 00
CE240	Blending + mixing service	SK	250		350 00
CE504	Plug Container Utilization	Job	1		250 00
15003	Service Supervisor	EA	1		175 00
				SUB TOTAL	175 00

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		<u>15,143.19</u>
		<u>9,386.01</u>

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)
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FIELD SERVICE ORDER NO.

Customer <i>Herman L Loeb</i>		Lease No.		Date <i>6/13/15</i>	
Lease <i>Branta F</i>		Well # <i>1-71</i>			
Field Order # <i>17374A</i>	Station <i>Pratt</i>	Casing <i>5 1/4</i>	Depth <i>4818</i>	County <i>KLING</i>	State <i>KS</i>
Type Job <i>5 1/2 Longstring CNW</i>			Formation	Legal Description <i>71-27-14</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		Max		5 Min.
Depth <i>4807</i>	Depth	From	To	Pad		Min		10 Min.
Volume <i>114.4</i>	Volume	From	To	Frac		Avg		15 Min.
Max Press <i>7000</i>	Max Press	From	To			HHP Used		Annulus Pressure
Well Connection <i>5 1/2</i>	Annulus Vol.	From	To	Flush		Gas Volume		Total Load
Plug Depth	Packer Depth	From	To					

Customer Representative <i>Michael Polley</i>		Station Manager <i>Kevin Crowley</i>		Treater <i>Scott Givens</i>	
Service Units	<i>38470</i>	<i>28482</i>	<i>19405</i>		
Driver Names	<i>Scott</i>	<i>Shawn</i>	<i>Arnell</i>		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
7:30					On location Safety Meeting Rig up
8:30					Run Front Equipment Baskets 2412
					Turbos 1, 2, 3, 4, 6, 8, 10, 12, 14, 20, 24
9:30					28. Break Circulation JF #40
10:15					Recirculation JF #80
11:30					Break Circulation on bottom
12:45				5	Pump H <sub>2</sub> O spacer
12:46			5	5.2	Pump 1000 gallons Mud flush
12:52			74	5.5	Pump H <sub>2</sub> O spacer
12:53	125		5	5.5	Mix 200 SKS 50/50 POZ 14 ppb
1:05	0		48.2		shut down
					wash pump + lines clean
1:10	0			5.8	Release Plug Start Displacement
1:24	400		77	5.7	1.1-1 pressure
1:30	700		35	3.6	Plug landed
1:51	1500			3	Pressure up on plug
1:51	0				Release Pressure NO Returns
1:40	0		9	3	Plug out hole 20 sks 50/50 POZ
1:45	0		7	3	Plug Mouse hole 20 sks 50/50 POZ
					shut down
					Job Complete