

# WELLSITE GEOLOGIST'S REPORT

J. R. Hustead  
Consulting Geologist



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

Well Name: Blackwell-Peterson No 1-25  
Location: SEC 25-T2S-15W  
License Number: 15-145-21,641-0000  
Spud Date: May-10-2011  
Surface Coordinates: 70' W., 160' S. of C E/2 NE SW

Region: Pawnee  
Drilling Completed: MAY-21-2011

Bottom Hole Coordinates: Vertical Hole

Ground Elevation (ft): 1985'      K.B. Elevation (ft): 1993'  
Logged Interval (ft): 1850'      To: 4199'      Total Depth (ft): 4199'  
Formation: LANSING/KC, ARBUCKLE  
Type of Drilling Fluid: Starch, Chemical Premix (Displaced)

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## OPERATOR:

Company: F.G. HOLL COMPANY LLC  
Address: 9431 E. CENTRAL STE 100  
WICHITA, KANSAS 67206-2563

## DRILLING CONTRACTOR:

Duke Drilling Company, Rig #2  
Drill Pipe 4.5 X H; DRILL COLLARS 6.25 x 2.25, 496' BHA  
BIT #2: 7-7/8" JZ QX20 (3-16); WOB: 32-36; RPM 60-65; KELLY BUSHING 8' ABOVE GROUND  
LEVEL-MIRT-MAY-11-2011

## SURFACE CASING:

Surface casing at 8 5/8 set 944' with total cmt 400 sxs  
Production casing at 4 1/2 set at 4192' with total cmt 225 sxs

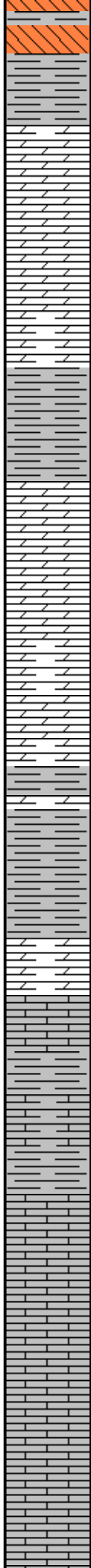
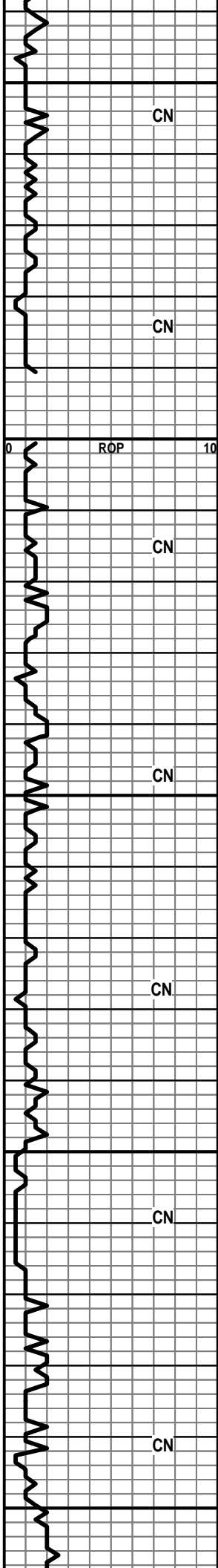
## CIRCULATION SYSTEM:

MUD-PUMP: EWCO-14W-400, DUPLEX, 6.0 x 14, 60 SPM, 266GPM (85%); SPP: 600 PSI; EARTH PITS; MUD-CO/  
SERVICE MUD, INC.; RICK HUGHES

## GAS DETECTION SYSTEM:

MBC WELL LOGGING AND LEASING  
ANALOG HOTWIRE AND CHROMATOGRAPH





1950  
2000  
2050  
2100  
2150

**HERINGTON 1955' (+38)**

POOR SAMPLES

GAS DETECTOR NOT WORKING

POOR SAMPLES

**WINFIELD 2006' (-13')**

POOR SAMPLES

WT. 9.0  
VIS 45

POOR SAMPLES

POOR SAMPLES

**TOWANDA 2070' (-77')**

SH-DK GRY-WAXY

DOLO-LT GRY-V-F-GRN-HD-DNS W/ LOTS OF  
CHRT-GRY-OPQ-FRSH IN TRAY

**FT RILEY 2106' (-113')**

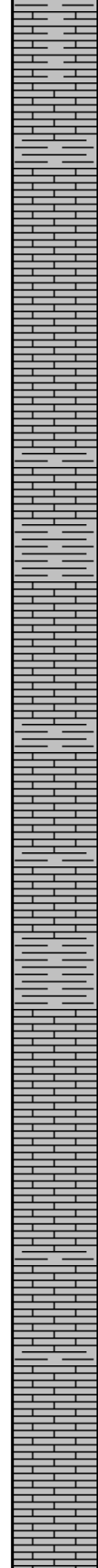
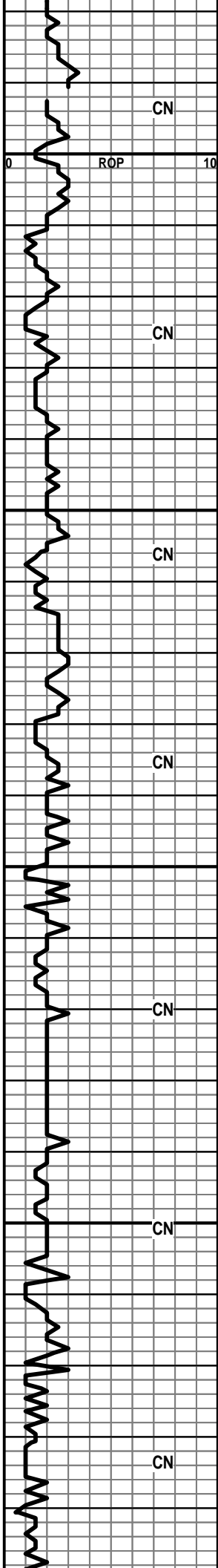
POOR SAMPLE

POOR SAMPLE

LS-TN-F-XLN-OOL-FR TO GD OOLMOLDIC POR-DULL  
WHT FLOR

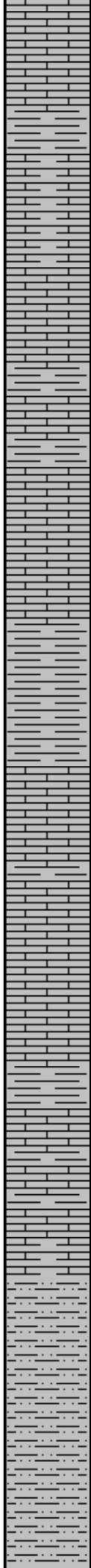
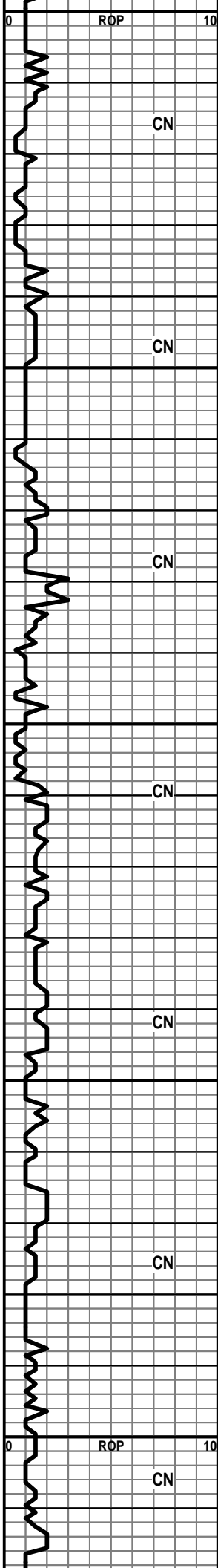
LS-TN-F-XLN-SM OOL-HD-DNS





2400  
 LS-OFF WHT-F-XLN-HD-DNS  
 SH-SFT-GUMMY  
 LS-GRY-F-XLN-HD-DNS-TR SM FOSS FRAGS  
 LS-OFF WHT-F-XLN-CHLKY-V-FOSS-FR INTER/INTRA PRT POR  
 LS-TN-F-XLN-HD-DNS  
 SH-GRY-SFT-GUMMY  
 LS-OFF WHT/GRY-F-XLN-BRIT TO HD-CHLKY IP  
 LS-GRY-F-XLN-HD-SHLY-FOSS  
 2450  
 SH-RED-GUMMY  
**NEVA 2474' (-481')**  
 POOR SAMPLE  
 LS-TN-F-XLN-FOSS-OOL-HD-DNS  
 SH-DK GRY-FRM-BLKY-FOSS  
 2500  
 SH-LT GRY-F-GRN- SLTY  
 LS-GRY-F-XLN-BRIT-CHLKY  
 SH-GRY/RD-GUMMY  
**RED EAGLE 2538' (-545')**  
 LS-TN-F-GRN-CHLKY-FOSS-W/ CHRT-TN-OPQ-FRSH  
 LS A.A. W/ PYR IMBD  
 LS-OFF WHT-F-GRN-CHLKY  
 IP-V-FOSS-OOL-FR-INTER-GRN/PP POR-TR LT BRN  
 STN-NO VIS FLOR-NO VIS CUT  
 2550  
 LS-GRY/OFF  
 WHT-MOTT-F-XLN-FOSS-OOL-CHLKY-IP-NO VIS  
 POR-DULL WHT MIN FLOR-NO VIS CUT  
 LS-TN-F-XLN-SM OOL-BRIT TO HD-NO VIS POR  
 LS-GRY-F-XLN-RIT-OOL-SHLY-TR OOL-MOLDIC  
 POR-DULL WHT MIN FLOR-NO VIS SHOW  
 LS-GRY-F-XLN-SNDY TEX-BRIT-SHLY-NO VIS POR  
 0 LS-TN-F-XLN-OOL-TR-OOL-MOLDIC-POR-DULL-WHT

WT9.5  
 VIS 48'



2600  
 LS-TN-F-XLN-OOL-TR OOL-MEDIC POR-DULL WH  
 MIN FLOR

SH-GRY-BLKY-LMY-FOSS

LS-GRY-F-XLN-BRIT-OOL-FOSS-SHLY-CHLKY-NO VIS  
 POR

LS A.A. CHLKY/SHLY

LS-GRY-F-XLN-HD-DNS TR PYR XLS

2650  
 SH-GRY-BLKY-FOSS

SH-GRY-FRM-BLKY-WAXY

LS-LT GRY-F-XLN-BRIT-SHLY-FOSS

LS-GRY-F-GRN/XLN-FOSS FRAGS-HD-DNS

SH-GRY-SLTY-FOSS

SH-LT GRY-SFT-SLTY-

2700

LS-LT GRY-F-XLN-FOSS-TR OOL-HD-DNS-W/  
 CHRT-TN-OPQ-FOSS-FRSH

LS-TN-F-XLN-HD-DNS-W/ CHRT-GRY-OPQ-FRSH

LS-TN-F-XLN-HD-DNS-FOSS

2750  
 SH-LT GRY-BLKY-FOSS-LMY

LS-GRY-F-XLN-BRIT-FOSS-SHLY

**ROOT SHALE 2776' (-783')**

SLTSS-FRSTY GRY-F-GRN-V-SHLY-TR HEM

SH-LT GRY-V-SLTY

SLTSS AND SH A.A.

2800  
 SH-RD-FRM-BLKY

LS-OFF WHT-F-XLN-SNDY-HD-DNS

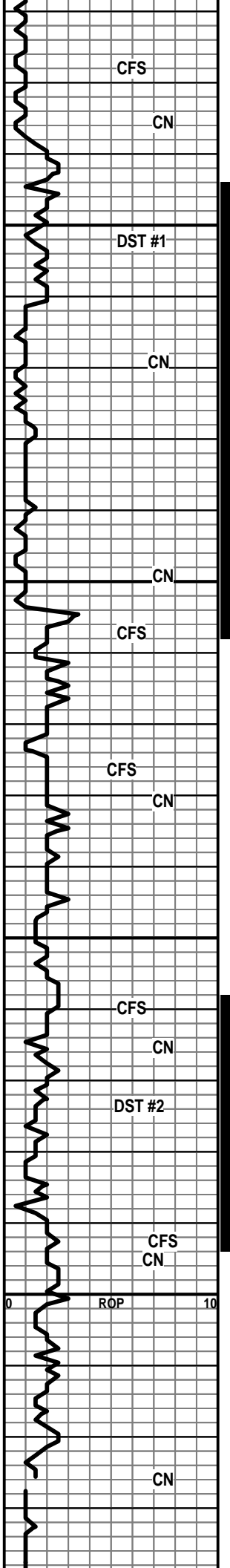
MUD DATA @ 2,648'  
 WT 8.75  
 VIS 49  
 FIL 8.0

DISPLACED STARCH  
 TO CHEMICAL MUD @  
 2650'

WT. 8.8  
 VIS 48

WT. 8.8  
 VIS 47

WT. 8.8  
 VIS 47



SH-LT GRY-V-SFT-GUMMY-SLTY

SH-DK GRY-BLKY-SLTY

**STOTLER 2840' (-847')**

LS-LT GRY-F-XLN-HD-DNS

LS-GRY-F-XLN-HD-TR FOSS-DNS

SS-FRSTY GRY-F-M-GRN-V-FRI-FR SRTEG-RNDED-TR  
HEM TR GLAC-FR INTER-GRN POR-DK BLK STN IP-N  
VIS FLOR-NO VIS CUT-TR GAS BUB

SH-LT GRY-V-F-SLTY

SS A.A. W/ SH-GRY-SLTY

**TARKIO 2904' (-911')**

LS-LT GRY-V-F-XLN-FOSS-HD-DNS

LS-OFF WHT-V-F-XLN-TR FOSS-HD-DNS

LS-OFF WHT/GRY-F-XLN-CHLKY-BRIT-OOL-  
FOSS-DULL WHT MIN FLOR-NO VIS CUT

LS-OFF WHT/GRY-MOTT-F-XLN-BRIT-FOSS  
FRAGS-SHLY-NO VIS POR-NO VIS FLOR-NO VIS  
CUT-NO ODOR

LS-OFF WHT-F-XLN-BRIT-SNDY TEX-FOSS-OOL-BRIT  
YEL FLOR-NO VIS CUT

LS-LT GRY-F-XLN-HD-DNS-CHRTY-NO VIS POR

POOR SAMPLE

LS-CRM-F-XLN-SNDY-FOSS-BRIT TO HD-TR  
INTER-GRN POR IP TO NO VIS POR-BRITE WHT  
FLOR-NO VIS CUT-NO ODOR

LS-LT GRY-F-XLN-SM BLK OOL-HD-DNS

LS-DK GRY-F-XLN-BLK FOSS FRAGS-TR INTER-GRN  
POR-NO VIS FLOR-NO VIS CUT

LS-GRY-F-XLN-HD-FOSS-DNS

SH-LT GRY-GUMMY-SLTY

SH-LT GRY-SFT-SLTY-GUMMY

WT. 8.8  
VIS 44

DST #1  
2844'-2907'

IB-GD BLW BOB IN 30  
SECS  
FBLW-STRNG BLW  
BOB IN 15 SECS

WT. 8.9  
VIS 44

REC 150'  
-DRILLING-MUD  
60'-MUDDY WATER  
150' WATER

FLOW 2 /CHOKE .13

MIN	PSIA	MCF/D
15	35.8	13.4
25	33.25	12.45
35	27.00	10.11
40	23.25	8.70

STRAP-  
2397.75 PIPE  
535.93 COLLARS  
2933.68 BOARD  
2932.49 MEASURE  
1.19 1 FT SHORT TO  
BOARD

MUD DATA @ 2,907  
WT. 9.1  
VIS 66  
FIL 8.8

WT. 8.9  
VIS 52

DST #2  
2958'-2994'

INITIAL BLW-FR BLW  
BLT TO 6 IN INTO THE  
H2O  
FINAL BLW-STRNG  
BLW BLT TO THE BOB  
IN 2 SEC AND DEC  
REC-35 FT. DRILLING  
MUD  
5/60/30/60  
SIP-1050.95-1024.25  
IFP-37.28-40.30  
FFP-46.54-48.32  
IH-1486.27-1450.95

WT. 8.9  
VIS 50

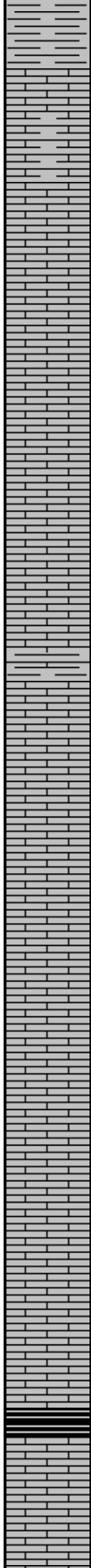
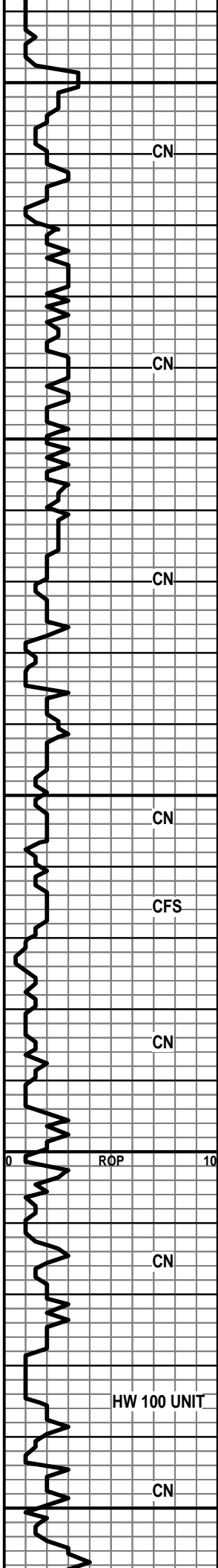
2850

2900

2950

3000

0 ROP 10



**HOWARD 3048' (-1055')**

3050 LS-GRY-F-XLN-HD-DNS

LS A.A. SHLY

LS-CRM-F-XLN-BRIT-FOSS-CHLKY IP-DULL WHT FLOR-NO VIS CUT

LS-GRY-F-XLN-FOSS FRAGS-SHLY-HD-DNS

LS-CRM/GRY-F-XLN-FOSS-SHELL-HD-DNS

3100

LS-GRY-F-XLN-SHLY-HD-DNS

LS A.A.

SH-GRY-BLKY-LMY

**TOPEKA 3134' (-1141')**

LS-CRM-F-XLN-FOSS-HD-DNS

3150

LS-OFF WHT-F-XLN-V-CHLKY-SFT-FOSS-NO VIS POR-DULL WHT MIN FLOR-NO VIS CUT

SH-BLK-CARB

POOR SAMPLE

LS-CRM/GRY-F-XLN-BRIT-FOSS-SHLY-TR FRAC POR-SCATT YEL FLOR-NO VIS CUT

LS-OFF WHT-F-XLN-CHLKY-SFT-FOSS-NO VIS POR-DULL WHT FLOR-NO VIS CUT

3200

LS-CRM-F-XLN-HD-DNS CHR TY

LS-OFF WHT-F-XLN-CHLKY-GUMMY-NO VIS POR-DULL WHT MIN FLOR-NO VIS CUT

LS-LT GRY-F-XLN-FOSS-HD-DNS W/ LOTS OF CHLK IN SAMPLE

LS-CRM-M-GRN-BRIT-FOSS-FR INTER-GRN POR-SCATT YEL FLOR-NO VIS CUT

SH-BLK-CARB

3250

LS-GRY-F-XLN-FOSS-HD-DNS-CHR TY

SH-GRY-WAXY

MUD DATA @ 3,107'  
WT. 9.1  
VIS 78  
FIL 8.0

WT. 9.0  
VIS 56

WT. 9.0  
VIS 58

WT. 9.1  
VIS 59

CN

CN

CN

CN

CFS

CN

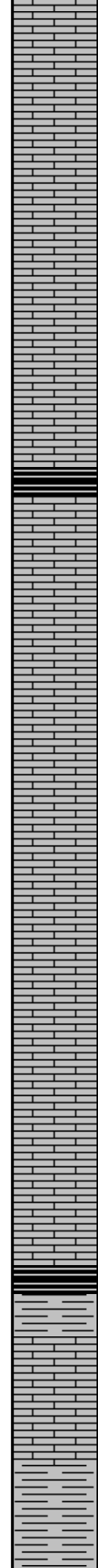
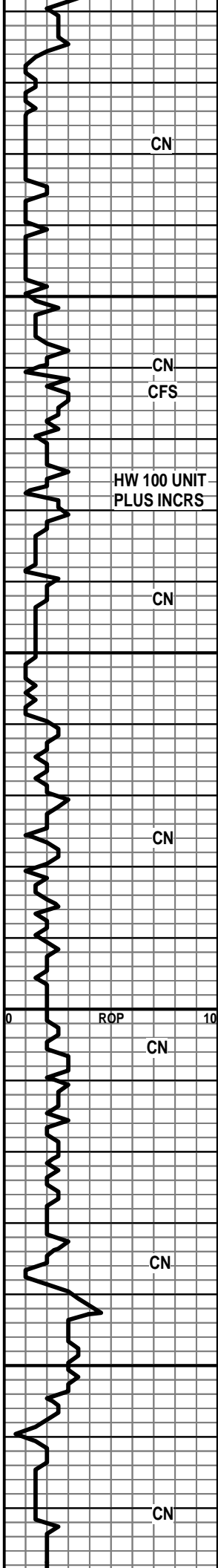
CN

HW 100 UNIT

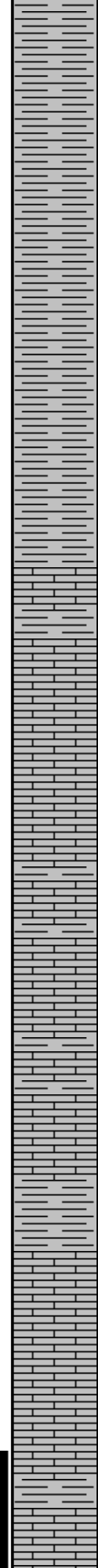
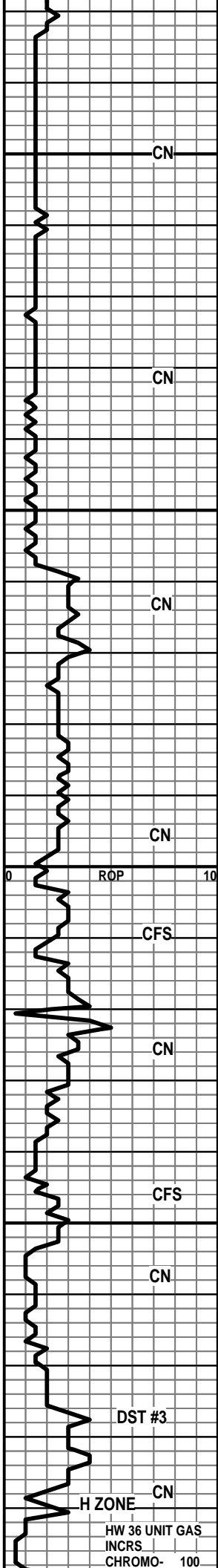
CN

0 ROP 10





	LS-TN-F-XLN-HD-DNS W/ CHRT-GRY-OPQ-FOSS	
	LS-TN-F-XLN-BRIT-FOSS-OOL-CHLKY IP-NO VIS POR-NO VIS SHOW	
	LS-A.A. CHLKY	WT. 8.9 VIS 51
	LS-CRM-F-XLN-FOSS-TR FN OOL-MOLDIC POR-NO VIS FLOR-NO VIS CUT	
	SH-BLK-CARB	
3300	LS-CRM-M-GRN-BRIT-FOSS-TR SH-FR INTER-GRN POR-NO VIS FLOR-NO VIS CUT	
	LS-CRM-F-XLN-CHLKY-OOL-FOSS-SCATT YEL FLOR-NO VIS CUT	
	LS A.A.	
	LS-CRM-F-XLN-FOSS-PR TO FR VUG POR-NO VIS FLOR-NO VIS CUT-NO VIS GAS BUB	WT. 9.0 VIS 49
	LS-GRY-F-XLN-TR FOSS-HD-DNS	
3350	LS-LT BRN-F-XLN-BRIT-OOL-FR INTER-GRN POR-SCATT YEL FLOR-NO VIS CUT	
	SH-BLK-CARB	WT. 9.0 VIS 53
	LS-TN-F-XLN-TR FOSS-HD-DNS	
	LS-TN-F-XLN-HD-DNS W/ CHLK IN TRAY	
	LS-OFF WHT-F-XLN-BRIT-CHLKY-FOSS-TR SH IMBD	WT. 9.0 VIS 53
3400	LS-TN-F-XLN-FOSS-OOL-HD-DNS TR OF CHLK IN TRAY	
	LS-GRY-F-XLN-FOSS FRAGS-HD-DNS	
	LS-OFF WHT F-XLN-CHLKY IP-BRIT TO HD-DNS-DULL WHT FLOR-NO VIS CUT	
	LS-TN-F-XLN-HD-DNSW/SH-BLK ON EDGE	WT. 9.3 VIS 60
	<b>HEEBNER 3433' (-1440')</b>	
	SH-BLK-CARB	HW 100 UNIT GAS INCRS/CHROMO 100 UNIT GAS INCRS
	<b>TORONTO 3453' (-1460')</b>	
3450	LS-DK TN-F-XLN-HD-DNS	
	<b>DOUGLAS SH 3472' (-1479')</b>	
	SLTSS-LT GRY-F-GRN-V-SHLY-TR HEM	WT. 9.3 VIS 68



3500

SH-LT GRY-SFT-SLTY

CN

SH-LT GRY-SFT-SLTY

WT. 9.2  
VIS 61

CN

SH-LT GRY-SFT-SLTY

3550

SH-LT GRY-SFT-SLTY

**BROWN LS 3558' (-1565')**

WT. 9.2  
VIS 62

CN

LS-DK BRN-F-XLN-FOSS-HD-DNS

**LANSING/KC 3568' (-1575')**

LS-OFF WHT-TN-F-XLN-CHLKY IP-BRIT TO HD-NO VIS  
POR-DULL WHT FLOR-NO VIS CUT

LS-OFF WHT-F-XLN-HD-DNS W/ CHRT-LT  
BRN-TRANS-FOSS-FRSH

CN

LS-GRY-F-XLN-HD-DNS TR CHLK-TR  
CHRT-TN-OPQ-FRSH

3600

WT. 9.3  
VIS 58

ROP 10

CFS

LS-GRY-F-XLN-OOL-FOSS-SHLY-BRITE YEL FLOR-NO  
VIS SHOW

CN

LS-OFF WHT-F-XLN-HD-DNS

WT. 9.3  
VIS 52

LS-OFF WHT-F-XLN-BRIT-CHLKY IP-NO VIS POR-NO  
VIS SHOW

CFS

3650

SH-GRY-FRM-BLKY-LMY

CN

LS-OFF WHT-F-XLN-BRIT-OOL-FOSS-CHLKY-TR LT  
BRN SH STN IP-DULL WHT MIN FLOR-NO VIS CUT

MUD DATA @ 3,658

LS A.A.

DST#3  
3683-3702  
REC-30FT HEAVY OIL,  
60' OIL CUT MUDDY  
H2O-10% OIL-15%  
MUD-75% H2O  
150'-SLI OIL CUT  
MUDDY H2O-5%  
OIL-5% MUD-90% H2O  
30/60/45/90  
SIP-922.18-905.08  
IFP-44.56-92.21  
FFP-122.61-147.06

DST #3

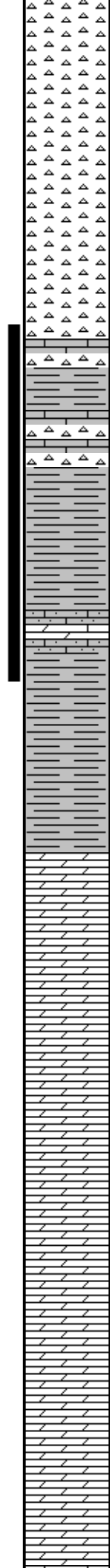
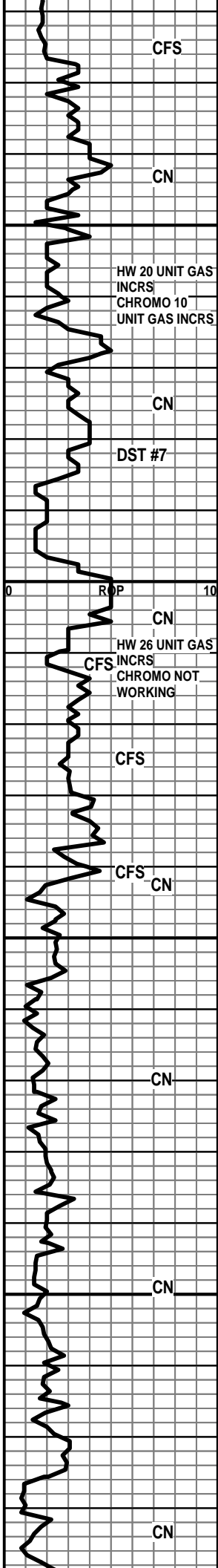
LS-GRY-TN-F-XLN-HD-DNS W/ CHRT-TN-OPQ-FRSH

H ZONE CN

HW 36 UNIT GAS  
INCRS  
CHROMO- 100

0





CHRT A.A.

3950  
CHRT-VARIG-MOSTLY OPQ-FRSH-TR TRIP -W/ DK BLK STN-PP POR-FREE OIL -GD ODOR

SH-VARIG-CHRT-VARIG-TR CHRT-TRIP-PP POR-DK BLK STN-FREE OIL-GD ODOR

SH-VARIG-CHRT-VARIG-CHRT-OFF WHT-TRIP-PP POR-TR LT BRN BUT MOSTLY DK BLK STN-NO VIS FLOR-TR STRM CUT-TR FREE OIL

**SIMPSON SHALE 3985' (-1992')**

SH-LT BLU-V-SFT-GUMMY-SLTY-W/SH VARIG-CHRT-VARIG

4000  
**SIMPSON SAND 4003' (2010')**

SS-LT BRN-V-F-GRN-FRI TO HD-RNDED-WELL SRTE-DOLO CMT-ABUNDT DK BRN OIL STN-NO VIS FLOR-GD STRM CUT-FREE OIL-GD ODOR

SH-RED-GRN-BLU-BLK-SPLNTY-CHRT-VARIG-TR CHRT-OFF WHT-TRIP-PP POR-DK BLK STN-TR LG SND GRNS-LG PYR XLS

**ARBUCKLE 4038' (-2045')**

DOLO-TN-V-F-GRN-HD-DNS

DOLO-TN-V-F-GRN-BRIT-SLI CHLKY-TR INTER-GRN POR-NO VIS FLOR-NO VIS CUT

DOLO-TN-F-GRN-HD-DNS

DOLO-TN-F-XLN-OOL IP-NO VIS FLOR-NO VIS SHOW W/ CHRT-TN-OPQ-FRSH

DOLO-TN-F-XLN-OOL-HD-DNS-NO VIS FLOR-NO VIS SHOW

DOLO-CRM-F-XLN-OOL-HD-DNS

DOLO-CRM-F-XLN-OOL-HD DNS-W/ CHRT-GRY-OPQ-FRSH

4050  
DOLO-CRM-CRS GRN-FR INTER-GRN/VUG POR-DULL WHT FLOR-NO VIS CUT

DOLO-TN-F-GRN-OOL-HD-DNS

DOLO-TN-F-GRN-SNDY TEX-CHLKY IP-PR-TNTER-GR POR/TR OOL-MOLDIC POR IP-DULL MIN FLOR-NO VIS SHOW

4100

WT. 9.0  
VIS 59

DST #7  
3964-4014'  
IBLW-WK BLW FOR 4 MIN AND DIED  
FBLW-NO BLW  
REC-2%OIL-98% MUD  
SIP-415.79-393.18  
IBLW-54.33-53.11  
FBLW-54.19-54.05  
HP-1946.54-1987.24

WT. 9.2  
VIS 61

WT. 9.2  
VIS 57

WT. 9.0  
VIS 60

WT. 90  
VIS 52

NO GAS INCRS

WT. 9.0  
VIS 48

