

Geologic Report  
**Aaron L. Young**

Drilling Time and Sample Log

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

**Well Name:** Clark Fraley #2-5  
**API:** 15-151-22476  
**Location:** Section 5 - T26S - R11W  
**License Number:** 3180  
**Spud Date:** 07 / 20 / 2018  
**Surface Coordinates:** 2310' FSL and 990' FEL  
Approx. NW - NE - SE  
**Region:** Pratt Co., KS  
**Drilling Completed:** 07 / 26 / 2018

**Bottom Hole  
Coordinates:**  
**Ground Elevation (ft):** 1835'      **K.B. Elevation (ft):** 1842'  
**Logged Interval (ft):** 3300'      **To:** 4200'      **Total Depth (ft):** 4200'  
**Formation:** Kinderhook  
**Type of Drilling Fluid:** Mud-Co

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

**OPERATOR**

**Company:** Deutsch Oil Company  
**Address:** 8100 E 22nd St N, Bldg 600  
Wichita, KS 67226

**GEOLOGIST**

**Name:** Aaron L. Young, M. S.  
**Company:** Young Consulting LLC  
**Address:** 100 S Main Ste 505  
Wichita, KS 67202

**General Info**

**CONTRACTOR:** Pickrell Drilling, Rig #10

**BIT RECORD:**

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	RR	15-15-15	353'	346'	4.25
2	7-7/8	JZ HA23	14-14-14	4200'	3847'	99.00

**Surveys:** 353'-.75, 856'-1, 1361'-1, 1868'-.25, 2371'-.75, 2876'-.75, 4200'-.75

**GENERAL DRILLING AND PUMP INFORMATION:**

Drilling with 36,000 -38,000 lbs. on bit and approx 70-80 RPM.



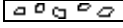

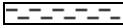







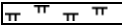

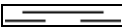

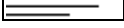





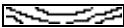







Running 9 stands of collars; 533.15'

Pumping approx 850 psi at standpipe; 50 strokes/min























































































## Daily Status

07/20/18- Spud @ 3:45pm, Drilled 12-1/4" surface hole to 353', ran 7 jts of new 8 5/8" 23# surface casing set @ 305', cemented w/ 325 sx. 60/40 pozmix, 2% gel & 3% CC. Plug down at 3:15am  
 07/21/18 - TD 353' WOC  
 07/22/18 - Drilling, @ 1235'  
 07/23/18 - Drilling, @ 2195'  
 07/24/18 - Drilling, @ 2930'  
 07/25/18 - Drilling, @ 3605'  
 07/26/18 - Drilling, @ 4012' TD 4200', Logged  
 07/27/18 - Ran 105 jts of used 5-1/2", 17#, LT&C, range 3 production casing. Set @ 4199'. Cemented w/175 sx AA-2, 2% defoamer, 10% salt, 5% C-17, 5#/sx gilsonite; 500 gl mud flush; mud flush spacer 3 bbls FW. Cement 35 sx 60/40 poz to plug rat and mouse holes. Plug down at 6:25pm

### ROCK TYPES

 Anhy  Bent  Brec  Cht  Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta  Mrlst  Salt  Shale  Shcol	 Shgy  Slstst  Ss  Till  Carb sh  Dol  Dtd  Gry sh	 Sandylms  Shale  Slststn  Shlyslts  Sltysh  Lms
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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  Chlorite  Dol  Sand  Slty  <b>FOSSIL</b>  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram	 Fossil  Gastro  Oolite  Ostra  Pelec  Pellet  Pisolite  Plant  Strom  Fuss  Oomold  <b>STRINGER</b>  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst  Slststrg  Ssstrg  Carbsh	 Clystn  Dol  Grysh  Gryslt  Lms  Sandylms  Sh  Slststn  <b>TEXTURE</b>  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

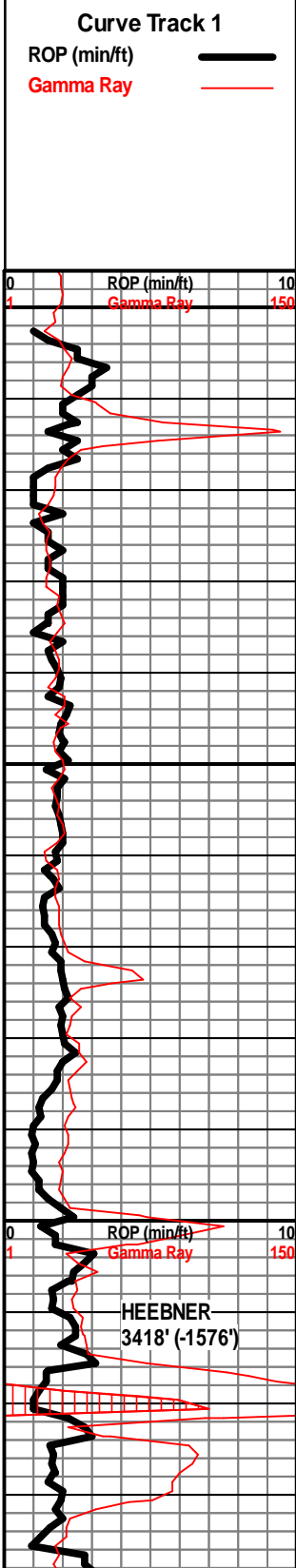
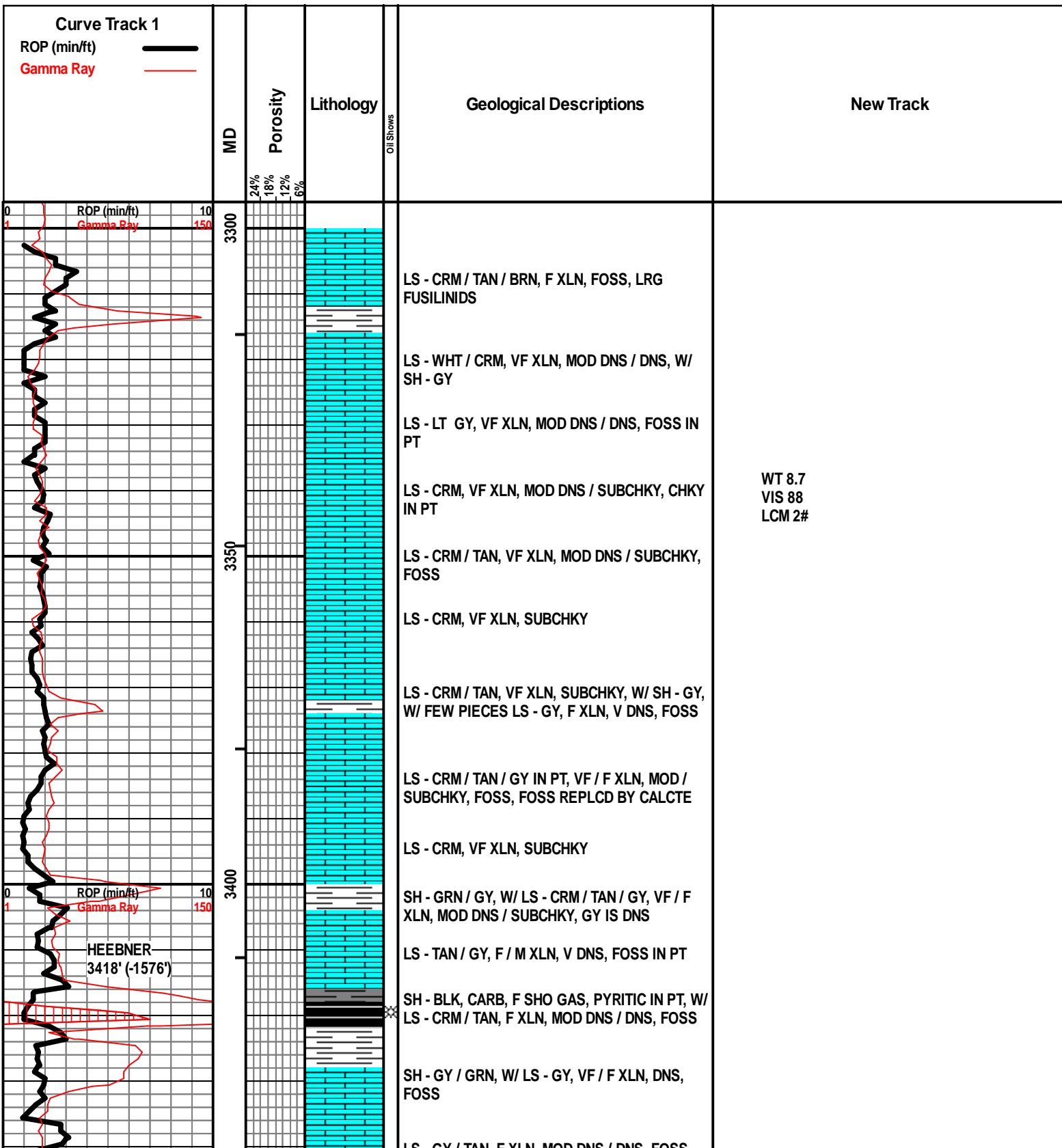
INTERVALS

- Core
- Dst

- Dst

EVENTS

- Rft
- Sidewall
- Conn



DOUGLAS  
3446' (-1604')

3450

SH - GY, W/ LS - CRM / TAN, VF / F XLN, MOD DNS / DNS, FOSS

SH - LT GY / LT GRN

SH - GRN / GY

SH - LT GRN / LT GY

3500

WT 8.8  
VIS 50  
LCM 1#

SH - GY / GRN

SH - GY, SNDY IN PT

SH - GY

WT 8.9  
VIS 51  
LCM 1.5#

3550

SH - LT GRN / LT GY, SLTY

SH - PRED GRN, GY IN PT

WT 8.9  
VIS 51  
LCM 1.5#

BROWN LIME  
3591' (-1749')

3600

LS - TAN / BRN, F XLN, DNS, FOSS

SH - LT GY / GY

SH - GY / BRN / RD

ROP (min/ft) 10  
Gamma Ray 150

LANSING  
3622' (-1780')

3650

LS - CRM / TAN, VF / F XLN, SUBCHKY / MOD DNS, FOSS IN PT

SH - GY, W/ LS - GY / BRN / TAN, F / M XLN, MOD DNS / DNS, FOSS

LS - TAN / CRM, VF / F XLN, MOD DNS / SUBCHKY, FOSS IN PT

LS - BRN / GY, F / M XLN, MOD DNS / DNS, FOSS IN PT, W/ SH - GY



3700

3750

3800

3850

LS - TAN / GY, F XLN, MOD DNS / DNS, FOSS, W/ SH - RD / GRN / GY

LS - CRM / TAN, F XLN, MOD DNS, FOSS

LS - TAN / CRM, PRED DNS, SUBCHKY IN PT, FOSS

LS - TAN / GY, F XLN, MOD DNS / DNS, FOSS IN PT

SH - BLK, SLI CARB, W/ SH - RD / GRN / GY, W/ LS - CRM / TAN, VF XLN, MOD DNS / SUBCHKY

SH - BLK, CARB, W/ SH - GY / GRN / RD, W/ LS - CRM / TAN, VF XLN, SUBCHKY / MOD DNS

SH - RD-ORNG / RD / MAR, GRN / GY, W/ LS - CRM / TAN, VF / F XLN, MOD DNS / SUBCHKY, FOSS IN PT

LS - CRM / TAN, F XLN, DNS / V DNS, ABUND FOSS

SH - BLK, BRN STRIATIONS IN BED PLNS, W/ LS - CRM, SUBCHKY, FOSS

LS - CRM / TAN, VF / F XLN, MOD DNS, FOSS IN PT

LS - TAN / BRN, F XLN, P INTXLN POR IN PT, SSFO WHEN BROKN, V TARRY OIL, V SLI ODOR, NO FLUOR, ABUND FOSS

LS - TAN, VF / F XLN, MOD DNS / SUBCHKY, FOSS IN PT

LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS, W/ SH - GRN / RD

SH - GY, W/ LS - CRM, VF XLN, SUBCHKY / MOD DNS

SH - RD / GRN / GY, W/ LS - CRM, VF / F XLN, MOD DNS

LS - CRM, VF XLN, SUBCHKY

LS - CRM / TAN, VF XLN, SUBCHKY / CHKY

LS - CRM / GY, VF / F XLN, MOD DNS / SUBCHKY

SH - BLK, SLI CARB, W/ SH - GY

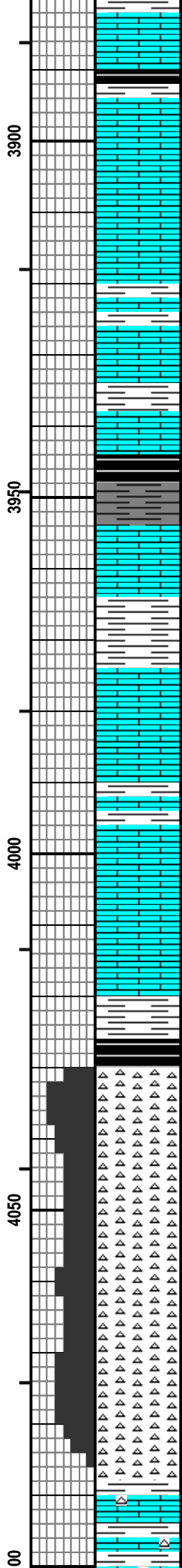
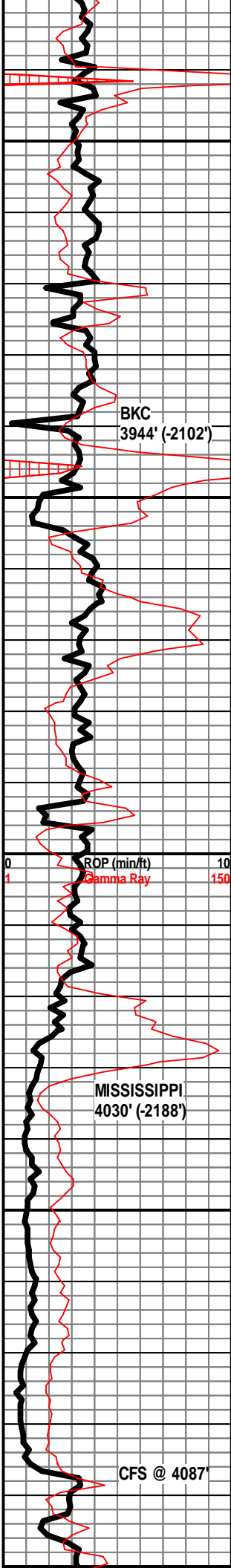
LS - CRM / TAN, F XLN, MOD DNS / DNS / SUBCHKY IN PT, P INTXLN POR IN PT, NS, NO ODOR, ABUND OF FOSS FRAG, LRG FUSILINIDS, DULL YEL-GRN FLUOR IN PT

LS - CRM, VF / F XLN, MOD DNS / SUBCHKY, FOSS

WT 9.1  
VIS 54  
LCM 2#

WT 9.2  
VIS 62  
LCM 2#

ROP (min/ft) 10  
Gamma Ray 150



SH - GY / GRN, W/ LS - CRM, VF / F XLN, MOD DNS / SUBCHKY, FOSS IN PT

SH - DK GY / BLK, CARB IN PT, W/ LS - CRM / TAN, VF / F XLN, MOD DNS / DNS, FOSS

LS - CRM / TAN / GY, F XLN, MOD DNS / DNS, ABUND FOSS, ABUND FUSILINIDS, NO VIS POR, NS

LS - CRM / TAN / GY / BRN IN PT, F XLN, MOD DNS / DNS, FOSS, W/ SH - GY / GRN / RD

LS - CRM, VF / F XLN, SUBCHKY / MOD DNS, W/ SH - RD / GRN / GY

SH - MAR / RD / GRN / GY, W/ LS - CRM / TAN, VF / F XLN, MOD DNS

LS - CRM / TAN, VF / F XLN, MOD DNS, W/ SH - RD / GRN / GY

SH - BLK, CARB

SH - RD / GRN / GY, W/ LS - CRM / TAN, SUBCHKY / MOD DNS, FEW PIEC CHKY

SH - GY / RD / GRN, W/ LS - TAN / BRN, F XLN, MOD DNS / DNS, FOSS

SH - GRNISH-GY, W/ LS - CRM / TAN, VF / F XLN, MOD DNS

LS - CRM / TAN / GY IN PT, VF XLN, SUBCHKY / CHKY

SH - RD / GRN / GY, W/ LS - CRM / TAN, F XLN, MOD DNS, FOSS IN PT, STYLOLITIZED IN PT

LS - BRN / TAN / CRM, F XLN, MOD DNS / DNS, FOSS IN PT

SH - BLK, SLI CARB

CHT - WHT / CRM, OPAQ, G WEATH POR, FSFO, V LT BRN OIL, G SHO GAS, BRI YEL-GRN FLUOR

CHT - CRM / WHT / GY, OPAQ & TRANSLUCNT, PRED WEATH, FRSH IN PT, F / G WEATH POR, SSFO, V G SHO GAS, F ODOR, BRI YEL-GRN FLUOR

CHT - CRM / WHT / GY, OPAQ & TRANSLUCNT, PRED WEATH, FRSH IN PT, F / G WEATH POR, GSFO, G SHO GAS, G ODOR, BRI YEL-GRN FLUOR

CHT - CRM / WHT, OPAQ & TRANSLUCNT, PRED WEATH, G WEATH POR, GSFO, INCREASING OIL SHO W/ DEPTH, G SHO OF GAS, G ODOR, BRI YEL-GRN FLUOR

SH - GY

LS - CRM, VF / F XLN, MOD DNS / DNS, FOSS IN PT W/ CHT - GY FRSH TRANSLUCNT

WT 9.2  
VIS 59  
LCM 2#

WT 9.3  
VIS 59  
LCM 1#

WT 9.1  
VIS 54  
LCM 2#

WT 9.5  
VIS 52  
LCM 2#

DECREASING GAS SHOW WITH DEPTH

INCREASING OIL SHOW WITH DEPTH

WT 9.3  
VIS 48  
LCM 2#

FI, W/ CRT - GY, FRSH, TRANSLUCENT

LS - CRM / TAN / BRN, VF / F XLN, MOD DNS / SUBCHKY, FOSS IN PT

LS - TAN / BRN, F XLN, MOD DNS / DNS, FOSS

SH - GY / GRN / RD

SH - RD / RD-ORNG / GRN / GY

SH - MAR / RD / GRN / GY

SH - LT GY / GY, V SOFT IN PT

SH - GY

SH - RD / GRN / GY

RTD 4200'

WT 9.3  
VIS 52  
LCM 2#

DRILL TIME SLID  
DOWN 2' TO  
MATCH LOGS

KINDERHOOK  
4142' (-2300')

4150

4200

ROP (min/ft) 10  
Gamma Ray 150