

GEOLOGIC REPORT

DAVID J. GOLDAK

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

Well Name: Freese #1-10
Location: Section 10 - T17S - R33W
License Number: API: 15-171-20981
Spud Date: 10 / 14 / 2013
Surface Coordinates: 1175' FNL and 2305' FEL
Approx. W/2 - W/2 - NE
Region: Scott Co., KS
Drilling Completed: 10 / 24 / 2013
Bottom Hole Coordinates:
Ground Elevation (ft): 2993' K.B. Elevation (ft): 3000'
Logged Interval (ft): 3650' To: 4798' Total Depth (ft): 4798'
Formation: Mississippian - St Louis
Type of Drilling Fluid: Chemical - Mud-Co

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

OPERATOR

Company: Stelbar Oil Corporation
Address: 1625 N. Waterfront Pkwy., Suite 200
Wichita, Kansas 67206-6602

GEOLOGIST

Name: David J. Goldak
Company: D. J. GOLDAK, INC.
Address: 155 N. Market, Suite 710
Wichita, Kansas 67202

General Info

CONTRACTOR: Pickrell Drilling, Rig #10

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ-L116	15-15-15	307	307	5.25
2	7-7/8	JZ-?-PDC	15-14-14	3755	3448	51.25
3	7-7/8	JZ-HA20	15-15-15	4798	1043	61.75

SURVEYS: 307'-1.00, 692'-0.25, 1203'-0.25, 1724'-0.50,
2224'-1.00, 2724'-1.00, 3755'-0.75, 4400'-0.50

GENERAL DRILLING & PUMP INFORMATION:

Drilling with 36,000-38,000 lbs on bit and 70-75 RPM.
Running 8 stands of collars (6.25"x2.25"): 496.18'
Pumping 65 S/M; 8.4 B/M; 750-850 psi from 3755' to 4285'.
Pumping 58 S/M; 7.5 B/M; 650-700 psi below 4285'.

Daily Status

10/14/13 - Spud at 5:15 PM; Set 8-5/8" csg at 305'
 10/15/13 - 307' WOC
 10/16/13 - 1,585' Drilling
 10/17/13 - 2,630' Drilling
 10/18/13 - 3,380' Drilling; Displace mud system at 3,505'
 10/19/13 - 3,815' Drilling
 10/20/13 - 4,255' Drilling
 10/21/13 - 4,400' Running DST #1
 10/22/13 - 4,570' Drilling; DST #2 @ 4,629'
 10/23/13 - 4,665' Drilling
 10/24/13 - 4,798' Waiting on orders

DST #1: 4,382' - 4,400' (Marmaton)
30" - 60" - 60" - 90"

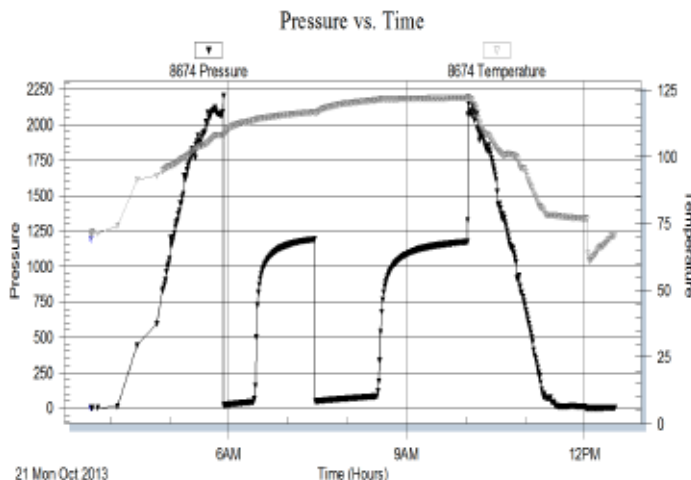
IF: Weak blow, building to 4-1/2 inches
ISI: No blow back
FF: Good blow building to 7 inches
FSI: No blow back

RECOVERY: 149' Total Fluid, consisting of:

10' MCO (97% O, 3% M); Gravity: 34
 15' OMCW (2% O, 78% W, 20% M)
 62' OSMCW (66% W, 34% M)
 62' MCW (86% W, 14% M)

Sampler: 0.1 CFG, Tr O & 1850 ml W @ 350 psi

SIP: 1188-1171; **FP:** 20-43, 47-82; **HP:** 2200-2069; **BHT:** 118



DST #2: 4,600' - 4,629' (Johnson Zone)
30" - 60" - 60" - 90"

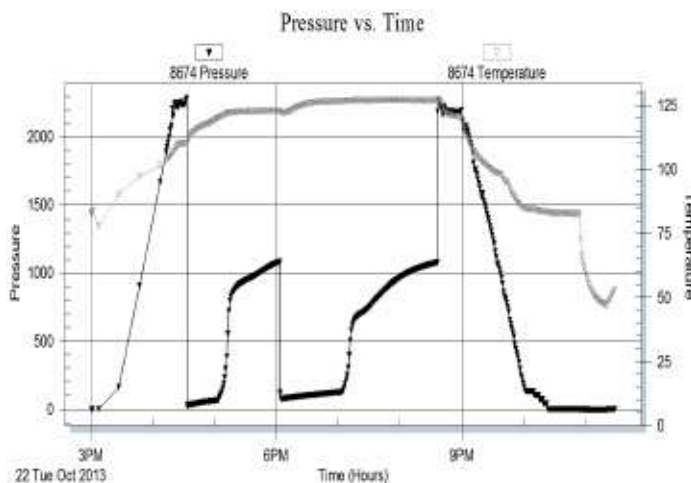
IF: Good blow, building to BOB in 7 minutes
ISI: Blow back building to 5 inches
FF: Good blow building to BOB in 2 minutes
FSI: Blow back building to BOB in 19 minutes

RECOVERY: 1634' GIP & 288' Total Fluid, consisting of:

288' GOCM (25% G, 25% O, 50% M)

Sampler: Failed - no recovery

SIP: 1084-1076; **FP:** 26-66, 73-127; **HP:** 2281-2184;
BHT: 124



ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Congl
	Dol

	Gyp
	Igne
	Lmst
	Meta
	Mrlst
	Salt
	Shale
	Shcol

	Shgy
	Sltst
	Ss
	Till
	Carb sh
	Dol
	Dtd
	Gry sh

	Sandylms
	Shale
	Sltstn
	Shlyslts
	Sltyslh
	Lms

ACCESSORIES

MINERAL

- 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
- Sltly

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram

- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh

- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

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

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

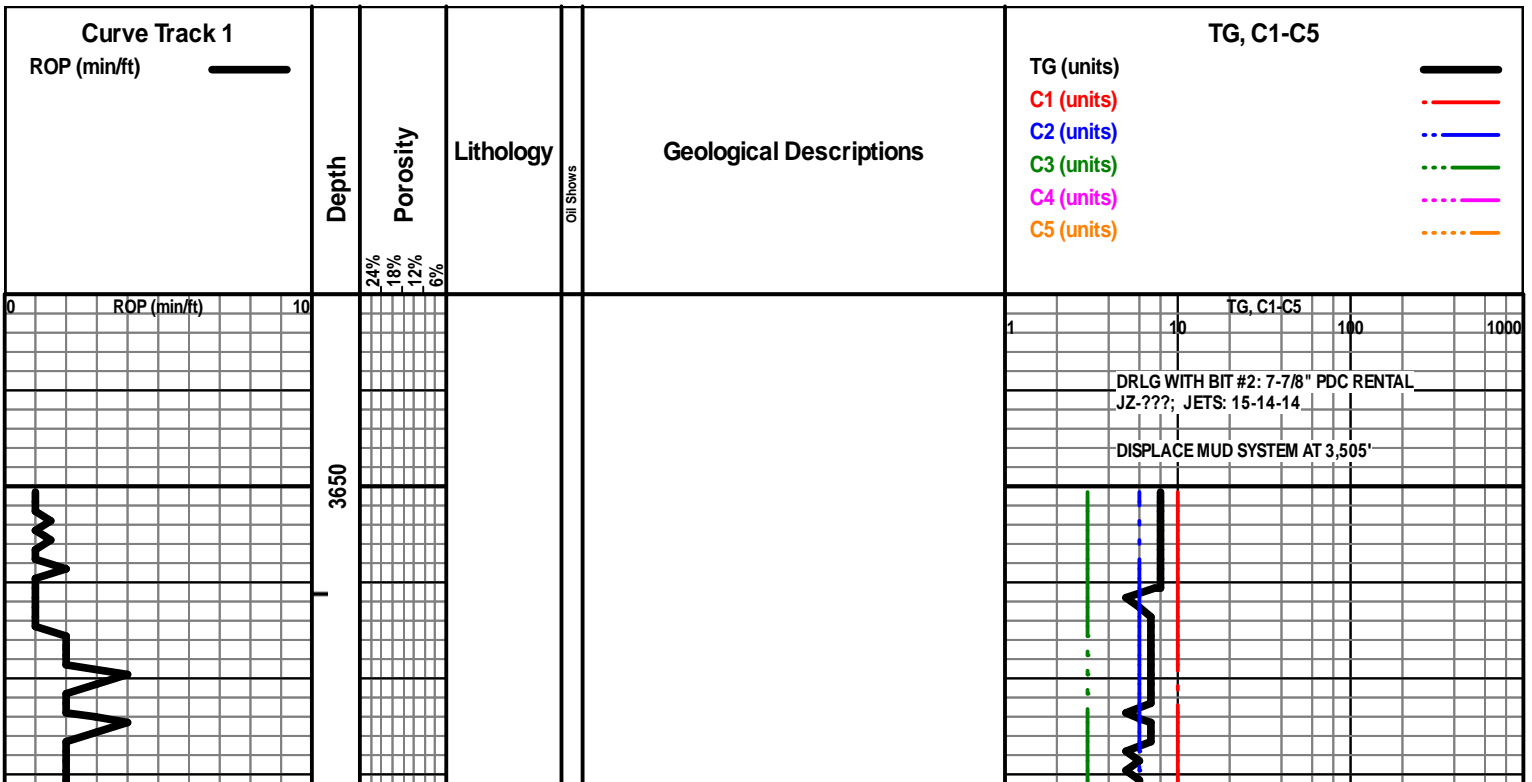
INTERVALS

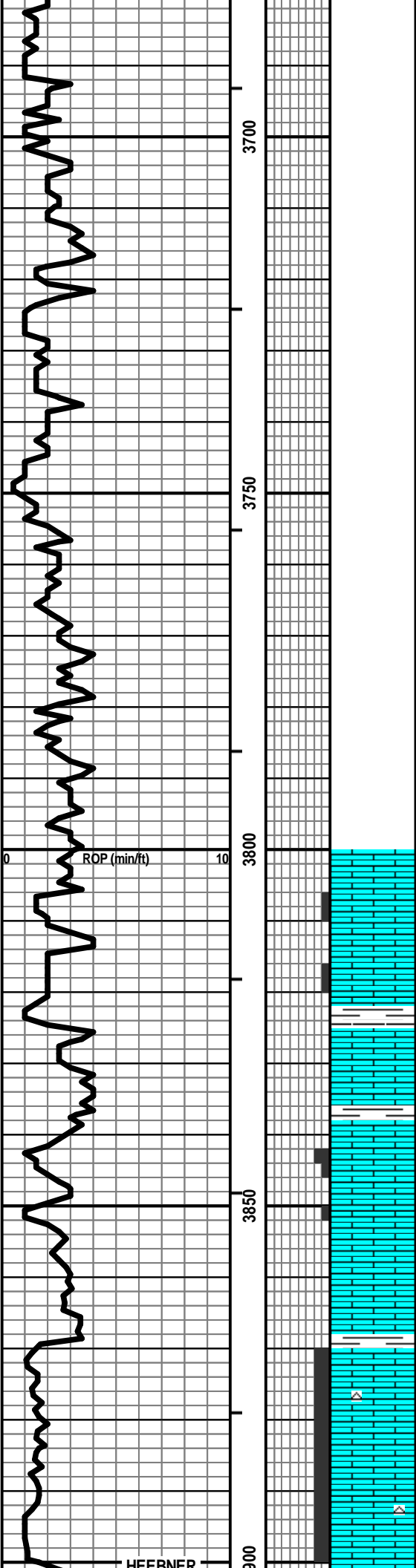
- Core
- Dst

- Dst_1_t
- Dst_1_b
- Dst

EVENTS

- Rft
- Sidewall
- Conn





LS - TAN / CRM, VF / F XLN, FOSS IN PT, TR PINTXLN
POR, SCAT CHKY, PRED DNS, NS

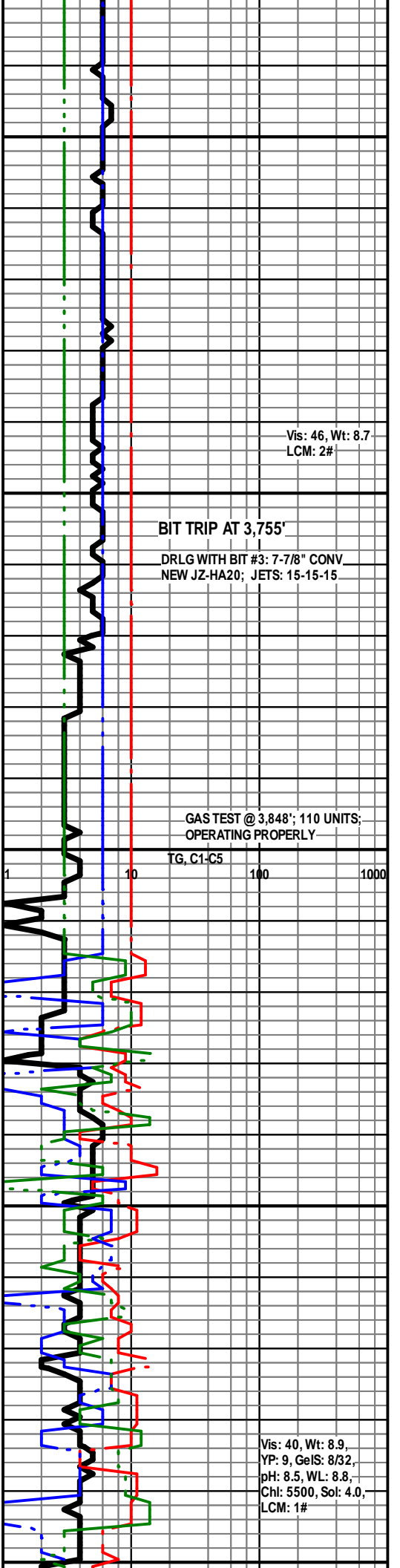
LS - CRM / WHT / TAN, VF / F XLN, FOSS IN PT, SCAT P
INTPART / INTXLN POR, PRED DNS / CHKY, VSSFO, NO
ODOR, SCAT SPTY STN

LS - CRM / TAN, VF / F XLN, FOSS, P / F FOSSMOLD POR
IN PT, SCAT INTXLN POR, PRED DNS / CHKY, NS

LS - ASABOVE, PRED DNS, CHKY IN PT, NS

LS - CRM / WHT / TAN, VF / F XLN, FOSS IN PT, P / F PPT
+ INTXLN POR, CHKY IN PT, SCAT SPTY STN, NSFO, NO
ODOR W/CHT - LT GY / WHT

LS - ASABOVE, NS



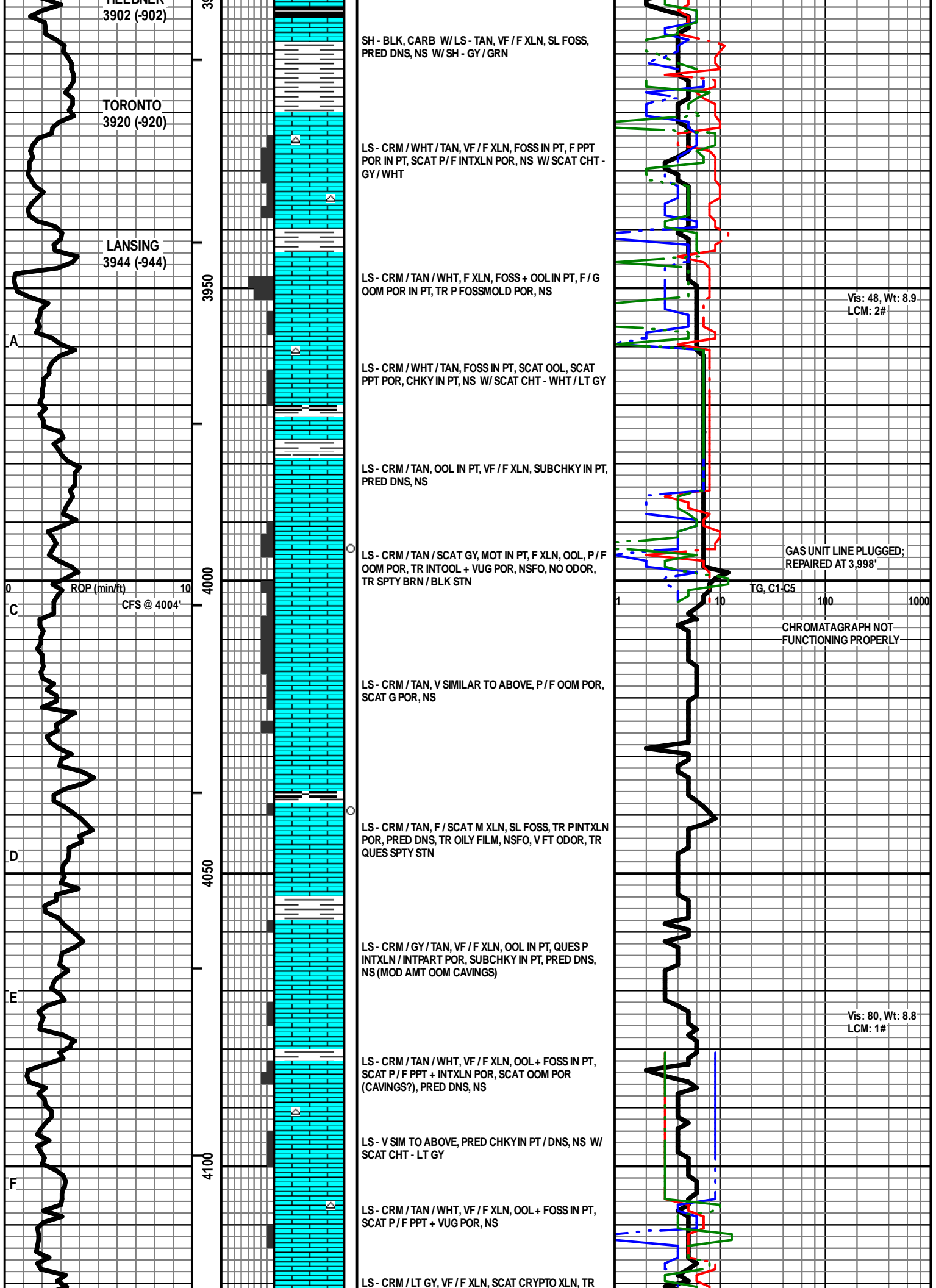
Vis: 46, Wt: 8.7
LCM: 2#

BIT TRIP AT 3,755'
DRLG WITH BIT #3: 7-7/8" CONV
NEW JZ-HA20; JETS: 15-15-15

GAS TEST @ 3,848'; 110 UNITS;
OPERATING PROPERLY

TG, C1-C5 100 1000

Vis: 40, Wt: 8.9,
YP: 9, GelS: 8/32,
pH: 8.5, WL: 8.8,
Chl: 5500, Sol: 4.0,
LCM: 1#



HELDNER
3902 (-902)

TORONTO
3920 (-920)

LANSING
3944 (-944)

SH - BLK, CARB W/LS - TAN, VF / F XLN, SL FOSS,
PRED DNS, NS W/SH - GY / GRN

LS - CRM / WHT / TAN, VF / F XLN, FOSS IN PT, F PPT
POR IN PT, SCAT P / F INTXLN POR, NS W/ SCAT CHT -
GY / WHT

LS - CRM / TAN / WHT, F XLN, FOSS + OOL IN PT, F / G
OOM POR IN PT, TR P FOSSMOLD POR, NS

LS - CRM / WHT / TAN, FOSS IN PT, SCAT OOL, SCAT
PPT POR, CHKY IN PT, NS W/ SCAT CHT - WHT / LT GY

LS - CRM / TAN, OOL IN PT, VF / F XLN, SUBCHKY IN PT,
PRED DNS, NS

LS - CRM / TAN / SCAT GY, MOT IN PT, F XLN, OOL, P / F
OOM POR, TR INTOOL + VUG POR, NSFO, NO ODOR,
TR SPTY BRN / BLK STN

LS - CRM / TAN, V SIMILAR TO ABOVE, P / F OOM POR,
SCAT G POR, NS

LS - CRM / TAN, F / SCAT M XLN, SL FOSS, TR PINTXLN
POR, PRED DNS, TR OILY FILM, NSFO, V FT ODOR, TR
QUES SPTY STN

LS - CRM / GY / TAN, VF / F XLN, OOL IN PT, QUES P
INTXLN / INTPART POR, SUBCHKY IN PT, PRED DNS,
NS (MOD AMT OOM CAVINGS)

LS - CRM / TAN / WHT, VF / F XLN, OOL + FOSS IN PT,
SCAT P / F PPT + INTXLN POR, SCAT OOM POR
(CAVINGS?), PRED DNS, NS

LS - V SIM TO ABOVE, PRED CHKY IN PT / DNS, NS W/
SCAT CHT - LT GY

LS - CRM / TAN / WHT, VF / F XLN, OOL + FOSS IN PT,
SCAT P / F PPT + VUG POR, NS

LS - CRM / LT GY, VF / F XLN, SCAT CRYPTO XLN, TR

Vis: 48, Wt: 8.9
LCM: 2#

GAS UNIT LINE PLUGGED;
REPAIRED AT 3,998'

TG, C1-C5
1 10 100 1000

CHROMATAGRAPH NOT
FUNCTIONING PROPERLY

Vis: 80, Wt: 8.8
LCM: 1#

A

C

D

E

F

ROP (min/ft)
CFS @ 4004'

3950

4000

4050

4100

3900

3910

3920

3930

3940

3950

3960

3970

3980

3990

4000

4010

4020

4030

4040

4050

4060

4070

4080

4090

4100

4110

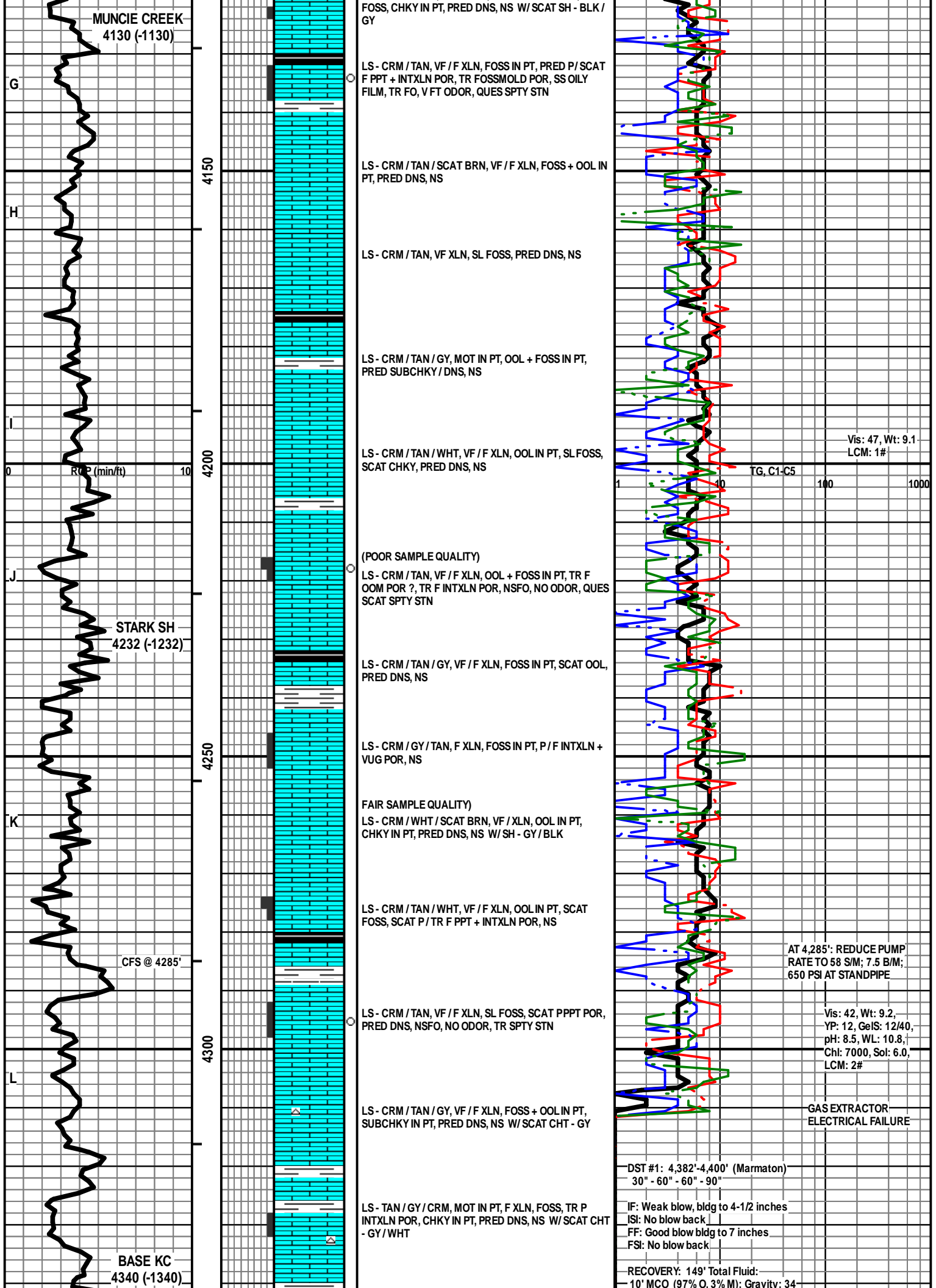
4120

4130

4140

4150

4160



MUNCIE CREEK
4130 (-1130)

FOSS, CHKY IN PT, PRED DNS, NS W/ SCAT SH - BLK / GY

LS - CRM / TAN, VF / F XLN, FOSS IN PT, PRED P / SCAT F PPT + INTXLN POR, TR FOSSMOLD POR, SS OILY FILM, TR FO, V FT ODOR, QUES SPTY STN

LS - CRM / TAN / SCAT BRN, VF / F XLN, FOSS + OOL IN PT, PRED DNS, NS

LS - CRM / TAN, VF XLN, SL FOSS, PRED DNS, NS

LS - CRM / TAN / GY, MOT IN PT, OOL + FOSS IN PT, PRED SUBCHKY / DNS, NS

LS - CRM / TAN / WHT, VF / F XLN, OOL IN PT, SL FOSS, SCAT CHKY, PRED DNS, NS

Vis: 47, Wt: 9.1
LCM: 1#

(POOR SAMPLE QUALITY)
LS - CRM / TAN, VF / F XLN, OOL + FOSS IN PT, TR F OOM POR ?, TR F INTXLN POR, NSFO, NO ODOR, QUES SCAT SPTY STN

STARK SH
4232 (-1232)

LS - CRM / TAN / GY, VF / F XLN, FOSS IN PT, SCAT OOL, PRED DNS, NS

LS - CRM / GY / TAN, F XLN, FOSS IN PT, P / F INTXLN + VUG POR, NS

FAIR SAMPLE QUALITY
LS - CRM / WHT / SCAT BRN, VF / XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS W/ SH - GY / BLK

LS - CRM / TAN / WHT, VF / F XLN, OOL IN PT, SCAT FOSS, SCAT P / TR F PPT + INTXLN POR, NS

CFS @ 4285'

LS - CRM / TAN, VF / F XLN, SL FOSS, SCAT PPPT POR, PRED DNS, NSFO, NO ODOR, TR SPTY STN

AT 4,285': REDUCE PUMP RATE TO 58 S/M; 7.5 B/M; 650 PSI AT STANDPIPE

Vis: 42, Wt: 9.2,
YP: 12, GelS: 12/40,
pH: 8.5, WL: 10.8,
Chl: 7000, Sol: 6.0,
LCM: 2#

LS - CRM / TAN / GY, VF / F XLN, FOSS + OOL IN PT, SUBCHKY IN PT, PRED DNS, NS W/ SCAT CHT - GY

GAS EXTRACTOR ELECTRICAL FAILURE

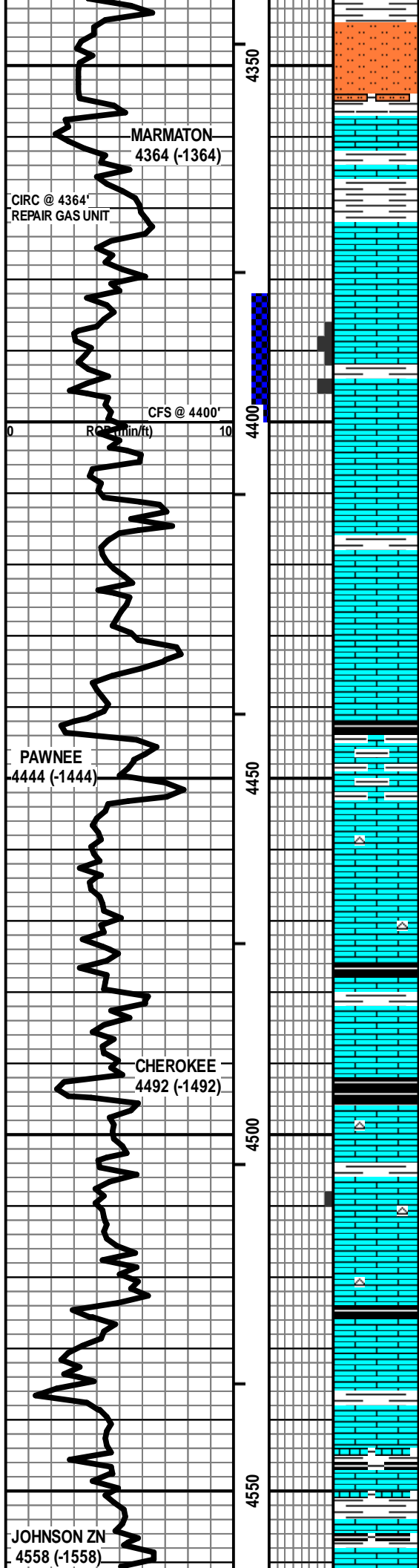
DST #1: 4,382'-4,400' (Marmaton)
30" - 60" - 60" - 90"

IF: Weak blow, bldg to 4-1/2 inches
IS: No blow back
FF: Good blow bldg to 7 inches
FS: No blow back

BASE KC
4340 (-1340)

LS - TAN / GY / CRM, MOT IN PT, F XLN, FOSS, TR P INTXLN POR, CHKY IN PT, PRED DNS, NS W/ SCAT CHT - GY / WHT

RECOVERY: 149' Total Fluid:
10' MCO (97% O, 3% M): Gravity: 34



SH + SLTST - GY / GRN, CALC IN PT

(GOOD SAMPLE QUALITY)
LS - CRM / TAN, VF / F XLN, OOL, NO VIS POR, PRED DNS, NS W/ SH - GY / SCAT GRN

LS - CRM / TAN / SCAT BRN, SL FOSS, SUBCHKYIN PT, PRED DNS, NS W/ SCAT SH - GY / SCAT GRN

LS - CRM / TAN, F XLN, OOL, SL FOSS, P / F INTPART + PPT POR, SCAT P / G VUG POR, SL / F SFO, F ODOR, SPTY / SCAT SAT STN, G FLUOR + CUT

(FAIR SAMPLE QUALITY)
LS - CRM / TAN, F / CRYPTO XLN, SCAT REXLN CALC, SL FOSS, CHKY IN PT, PRED DNS, NS

LS - ASABOVE, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, PRED DNS, NS

ABNT SH - PRED GY / GRN W/ LS - CRM / TAN / SCAT BRN, VF / F XLN, PRED DNS, NS

(GOOD SAMPLE QUALITY)
LS - CRM / TAN, VF / F XLN, SL FOSS IN PT, CHKY IN PT, PRED DNS, NO VIS POR, NS, NO ODOR W/ CHT - LT GY / WHT / TAN

LS - TAN / BRN / GY, MOT IN PT, VF / F XLN, SL FOSS, SUBCHKYIN PT, PRED DNS, NS

SH - BLK, CARB W/ LS - TAN / BRN, VF / F XLN, FOSS IN PT, PRED DNS, NS W/ SCAT CHT - WHT / LT GY

LS - CRM / TAN / SCAT GY, MOT IN PT, VF / F XLN, OOL IN PT, FOSS IN PT, TR P INTPART POR, PRED DNS, NSFO, NO ODOR, TR SPTY STN W/ SCAT CHT - WHT / LT GY

LS - TAN / CRM, VF / CRYPTO XLN, SL FOSS IN PT, SUBCHKYIN PT, PRED DNS, NO VIS POR, NS

LS - TAN / GY / BRN, MOT IN PT, VF / F XLN, SL FOSS IN PT, PRED DNS, NS W/ SH - GY / BLK

LS - CRM / TAN / SCAT BRN, VF / F XLN, SL FOSS, OOL IN PT, SUBCHKY / DNS, NS W/ SH - GY / BLK

15' OMCW (2% O, 78% W, 20% M)
62' OSMCW (66% W, 34% M)
62' MCW (86% W, 14% M)
Sampler: 0.1 CFG, Tr O & 1850 ml W

SIP: 1188-1171 HP: 2200-2069
FP: 20-43, 47-82 BHT: 118

GAS UNIT REPAIRED AND OPERATING PROPERLY

Vis: 61, Wt: 9.3,
YP: 22, GeIS: 20/60,
pH: 10.0, WL: 10.0,
Cht: 7000, Sol: 6.6,
LCM: 2#

TC, C1-C5

SHALE GAS RECYCLE?

Vis: 52, Wt: 9.2
LCM: 1#

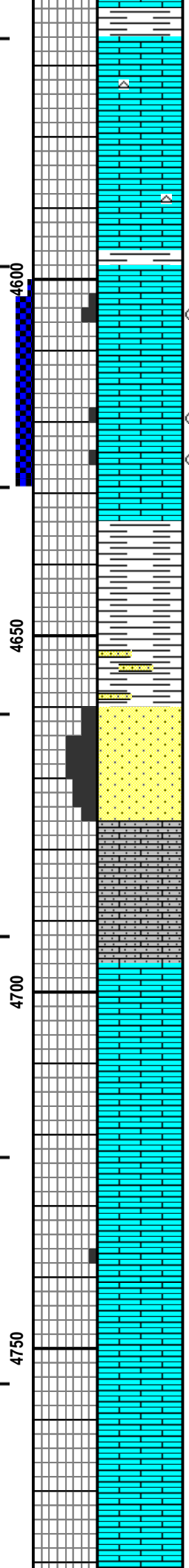
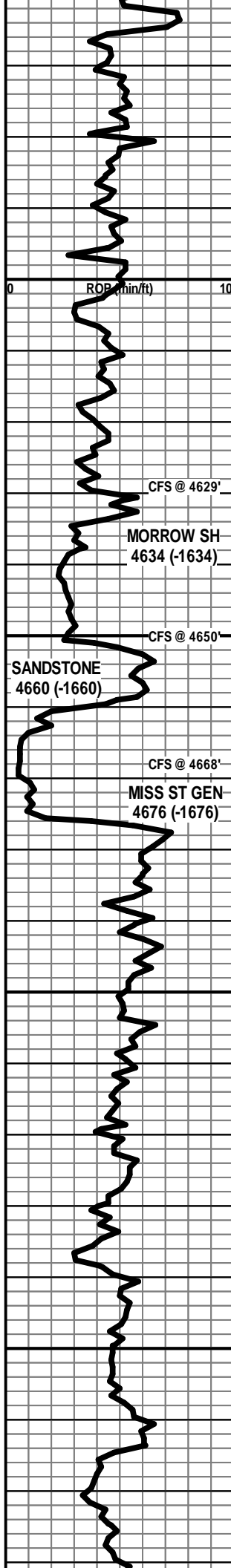
SHALE GAS RECYCLE?

DST #2: 4,600'-4,629' (Johnson Zone)
30" - 60" - 60" - 90"

IF: Good blow, bldg to BOB in 7 min.
IS: Blow back building to 5 inches
FF: Good blow bldg to BOB in 2 min.
FSI: Blow back building to BOB in 19 min.

RECOVERY: 1634' GIP & 288' Total Fluid.
288' GOCM (25% G, 25% O, 50% M)
Sampler: Failed - no recovery

SIP: 1084-1076 HP: 2281-2184
FP: 26.66 73.127 BHT: 124



LS - CRM / TAN, VF / F XLN, SCAT CRYPTO XLN, SCAT OOL + FOSS, SUBCHKY / DNS, NS W / SCAT CHT - TAN / GY

LS - CRM / TAN / SCAT BRN, VF / F XLN, SCAT OOL + FOSS, PRED DNS, NS W / SCAT CHT - GY / TAN

LS - CRM / TAN, PRED VF / F XLN, TR M XLN, SL FOSS, P / F INTXLN + PPT POR, SL / F SFO, SSGB, F ODOR, PRED SPTY STN / TR SAT, P / G FLUOR, F / G CUT

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, SCAT PRED P INTXLN / INTPART POR, TR F POR (CAVINGS?), SSFO, FT ODOR, SCAT SPTY STN, P / G FLUOR + CUT

(POOR SAMPLE QUALITY)
PRED SH - GY / GRN, SLTY IN PT W / LS - ASABOVE, PRED DNS, NS

PRED SH - GY / GRN / RED / YEL W / SCAT SS CLSTRS - GRN / GY, VF QTZ GR, W SR TD, SA / SR, SIL CEM, DNS, VP / NO VIS POR, NS

(POOR SAMPLE QUALITY)
SS CLSTRS - LT GY, VF / F / M QTZ GR, W / F SR TD, SR / R, SIL CEM, F / G INTGR POR, FRI, NS, NO ODOR, NO STN, NO FLUOR / CUT

LS (ST GEN) - WHT / CRM, VF XLN, V AREN, VF QTZ GR, SUBCHKY / DNS, NS

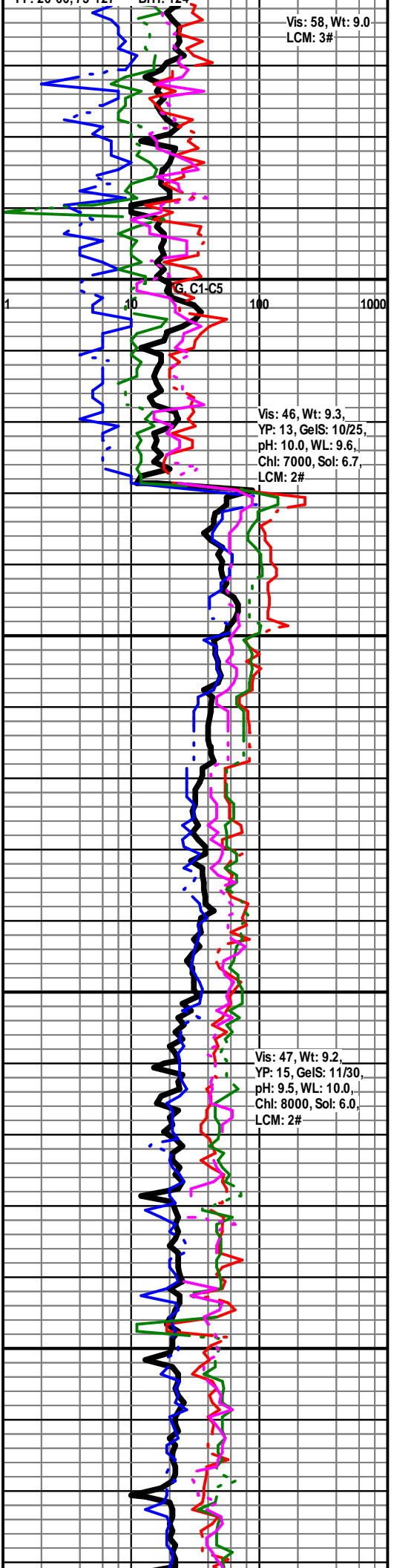
(FAIR SAMPLE QUALITY)
LS - ASABOVE W / SCAT LS - CRM / SCAT WHT / TAN, VF / F XLN, OOL IN PT, PRED DNS, NS

(GOOD SAMPLE QUALITY)
LS - CRM / TAN, VF / F XLN, OOL IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, OOL, SCAT P INTOOL POR, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN / SCAT GY, VF / F XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F / CRYPTO XLN, OOL IN PT, SCAT CHKY, PRED DNS, NS



Vis: 58, Wt: 9.0
LCM: 3#

Vis: 46, Wt: 9.3,
YP: 13, GeIS: 10/25,
pH: 10.0, WL: 9.6,
Chl: 7000, Sol: 6.7,
LCM: 2#

Vis: 47, Wt: 9.2,
YP: 15, GeIS: 11/30,
pH: 9.5, WL: 10.0,
Chl: 8000, Sol: 6.0,
LCM: 2#

LS - CRM / TAN, VF / F / CRYPTO XLN, OOL IN PT, SCAT
CHKY, PRED DNS, NS

TOTAL DEPTH 4798 (-1798)

Vis: 57, Wt: 9.0
LCM: 1#

