



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

**Well Name:** McELMO DOME GOODMAN POINT #20 PILOT HOLE  
**Location:** SHL: 853' FSL & 1542' FEL, Section 34, T37N, R18W, NMPM  
**License Number:** API 05-083-06686 **Region:** MONTEZUMA  
**Spud Date:** 02/08/2012 **Drilling Completed:** XX/XX/2012  
**Surface Coordinates:** SHL: 853' FSL & 1542' FEL, Section 34, T37N, R18W, NMPM  
**Bottom Hole Coordinates:** Horizontal Well, 281' FSL & 1401' FWL, 101 degrees azimuth from SHL (2000' lateral extension)  
**Ground Elevation (ft):** 6640' **K.B. Elevation (ft):** 6660'  
**Logged Interval (ft):** 5000' **To:** 8508' **Total Depth (ft):** 8508'  
**Formation:** Leadville  
**Type of Drilling Fluid:** Fresh Water / Brine

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

**OPERATOR**

**Company:** KINDER MORGAN CO2 CO LP  
**Address:**

**GEOLOGIST**

**Name:** KENNEDY RUSWAYI  
**Company:** ABOVE ENTERPRISE  
**Address:** 510 Old Lubbock Hwy  
Snyder Tx 79549

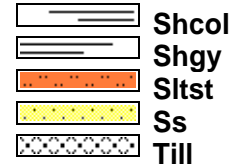
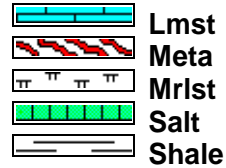
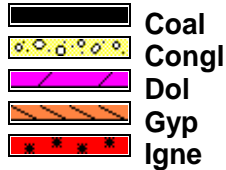
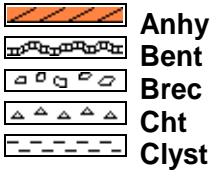
## Cores

## DSTs

## Comments

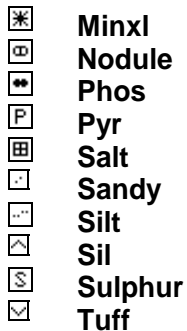
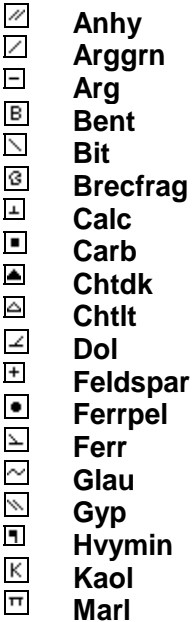
Nabors Rig 148

### ROCK TYPES

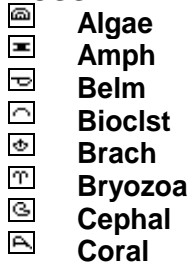


### ACCESSORIES

#### MINERAL



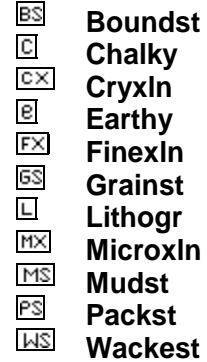
#### FOSSIL



#### STRINGER

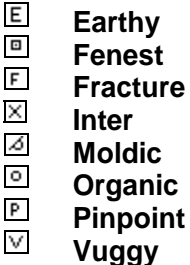


#### TEXTURE



### OTHER SYMBOLS

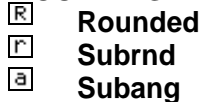
#### POROSITY



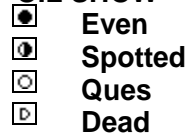
#### SORTING



#### ROUNDING



#### OIL SHOW



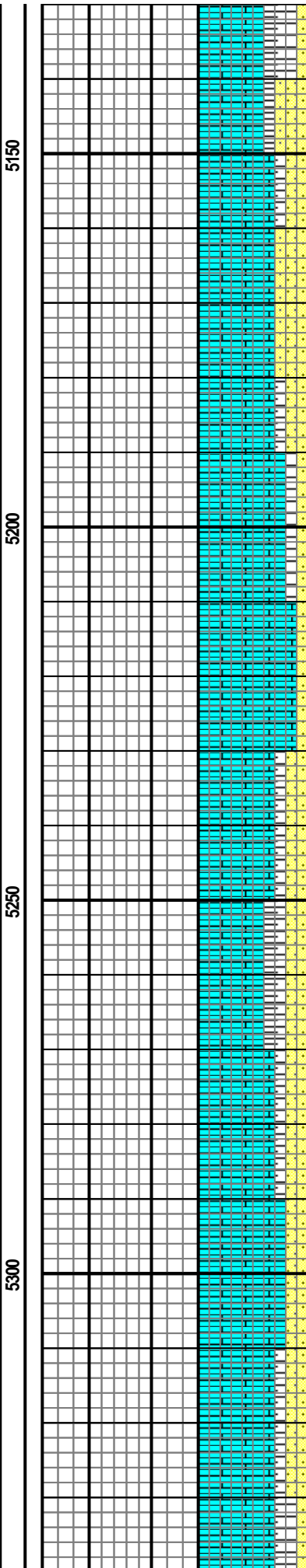
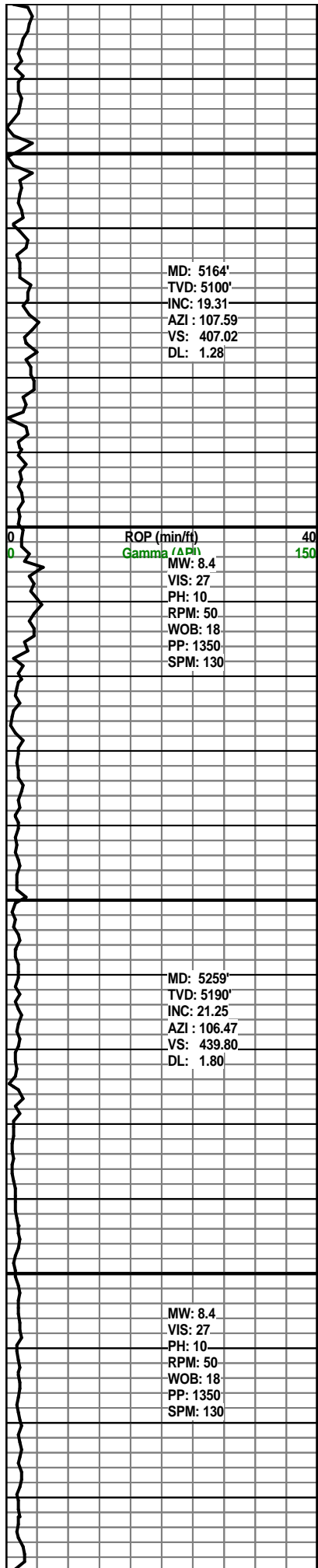
#### INTERVAL



#### EVENT







SL FISS IP, SLTY, ARG MTX,  
 EA, DULL, MOD CALC

SS: LTGY, TN, FRSTD, CLR IP,  
 FRIA-CONS-MOD HD IP,  
 VFN-FN GRN, SBRND-SBANG,  
 MOD-W. SRTD, MOD CALC  
 CMT, NO MIN FLOR, NO SHOW

MIDNIGHT DEPTH @ 5167'

LS: WH-OFFWH-DTYWH -LTGY-  
 GY, SFT-FRM,  
 MICRXLN-FXLN/SMTH/  
 CRYPTXLN IP, SUCROIC DOL  
 TXT/SDY, NO SHOW

SH: BRN-RDBRN, TN IP,  
 SFT-MOD HD, BLKY-S/BLKY,  
 SL FISS IP, SLTY, ARG MTX,  
 EA, DULL, MOD CALC

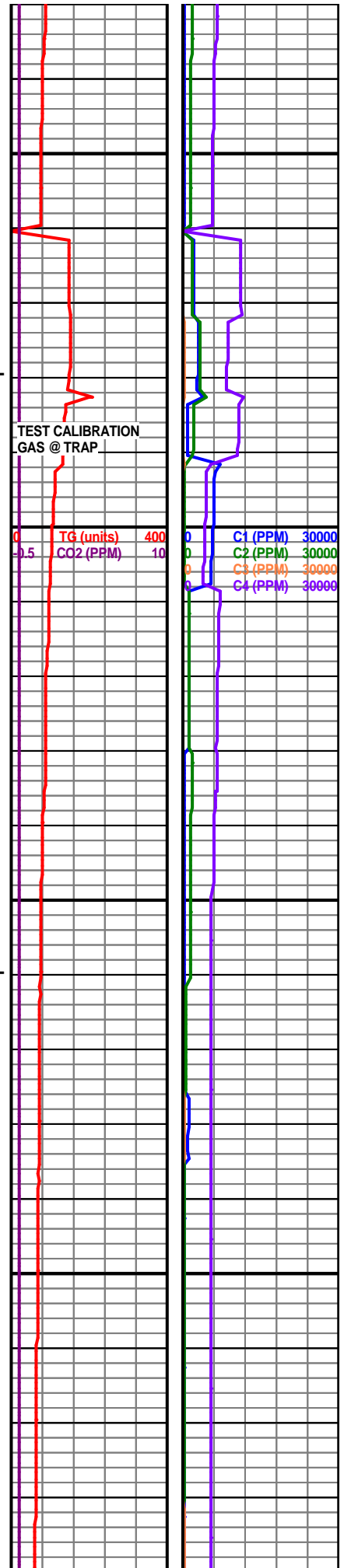
SS: LTGY, TN, OFF WHT IP,  
 FRIA-CONS-MOD HD IP,  
 VFN-FN GRN, SBRND-SBANG,  
 MOD-W. SRTD, MOD CALC  
 CMT, NO MIN FLOR, NO SHOW

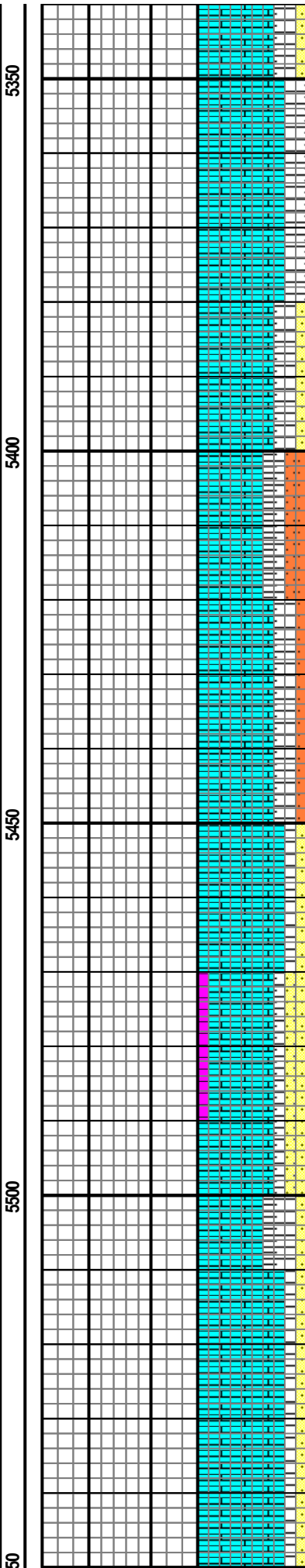
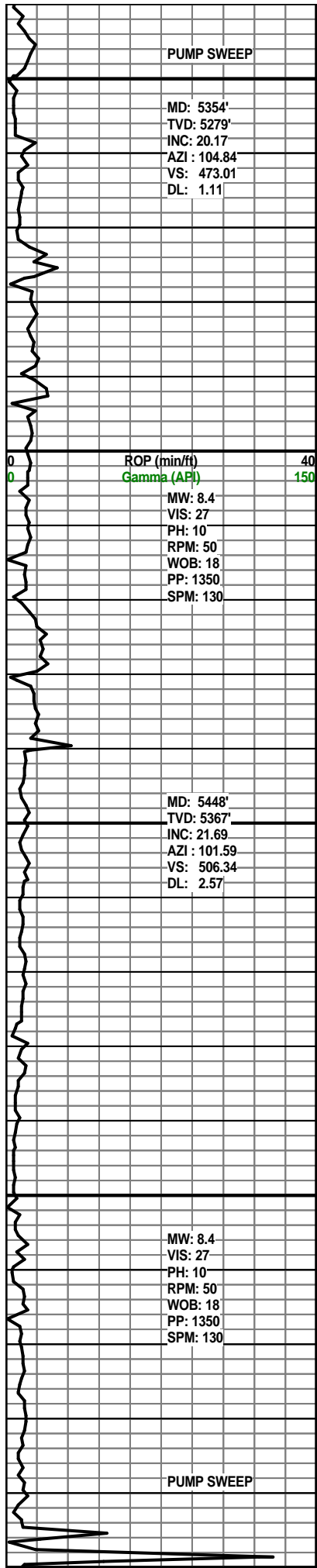
LS: WH-OFFWH-DTYWH -LTGY-  
 GY, SFT-FRM,  
 MICRXLN-FXLN/SMTH/  
 CRYPTXLN IP, SUCROIC DOL  
 TXT/SDY, NO SHOW

02/26/2012 (SUN) 5:00 AM  
 @ 5290' MD

SH: BRN-RDBRN, TN IP,  
 SFT-MOD HD, BLKY-S/BLKY,  
 SL FISS IP, SLTY, ARG MTX,  
 EA, DULL, MOD CALC

SS: LTGY, TN, OFF WHT IP,  
 FRIA-CONS-MOD HD IP,  
 VFN-FN GRN, SBRND-SBANG,  
 MOD-W. SRTD, MOD CALC





CMT, NO MIN FLOR, NO SHOW

LS: WH-OFFWH-DTYWH -LTGY-GY, SFT-FRM, MICRXLN-FXLN/SMTH/CRYPTXLN IP, SUCROIC DOL TXT/SDY, NO SHOW

SH: BRN-RDBRN, TN IP, SFT-MOD HD, BLKY-S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

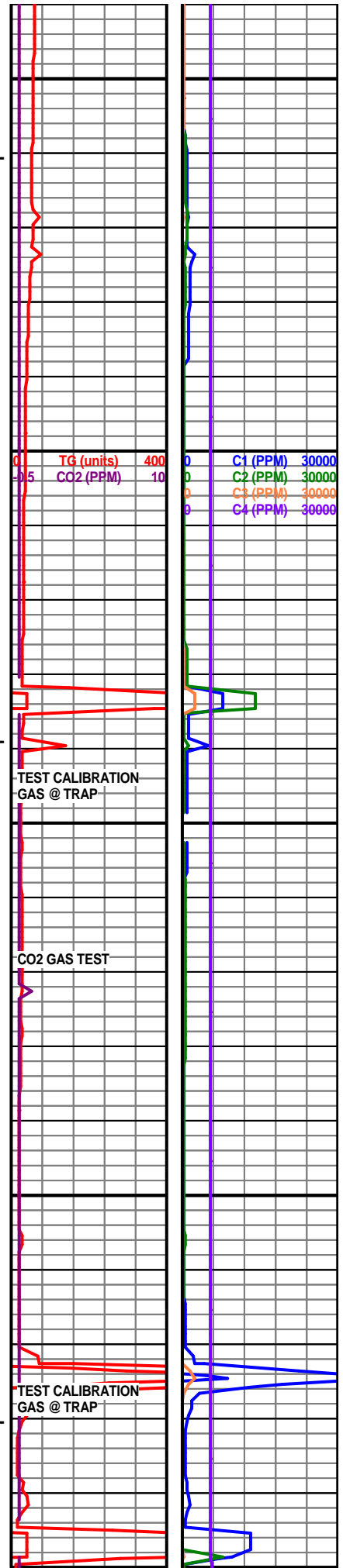
SLST: LTGY-GY, TN, FRIA-CONS-MOD HD IP, VFN GRN, SBRND-SBANG, MOD-W. SRTD, MOD CALC CMT

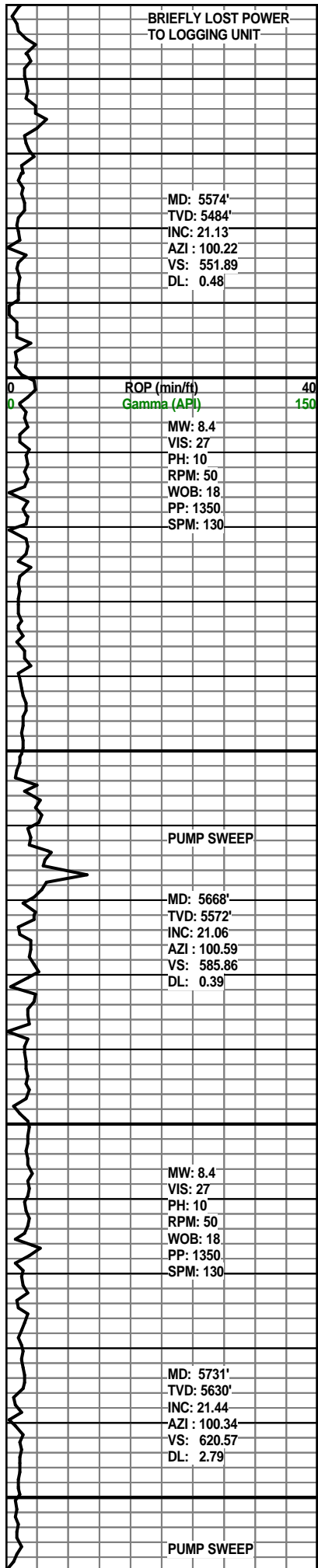
LS: WH-OFFWH-DTYWH -LTGY-GY, SFT-FRM, MICRXLN-FXLN/SMTH/CRYPTXLN IP, SUCROIC DOL TXT/SDY, NO SHOW

SH: BRN-RDBRN, LT GY-GY, SFT-MOD HD, BLKY-S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SS: LTGY, TN, OFF WHT IP, FRIA-CONS-MOD HD IP, VFN-FN GRN, SBRND-SBANG, MOD-W. SRTD, MOD CALC CMT, NO MIN FLOR, NO SHOW

LS: WH-OFFWH-DTYWH -LTGY-GY, SFT-FRM, MICRXLN-FXLN/SMTH/CRYPTXLN IP, SUCROIC DOL TXT/SDY, NO SHOW





BRIEFLY LOST POWER TO LOGGING UNIT

MD: 5574'  
 TVD: 5484'  
 INC: 21.13  
 AZI: 100.22  
 VS: 551.89  
 DL: 0.48

ROP (min/ft) 40  
 Gamma (API) 150

MW: 8.4  
 VIS: 27  
 PH: 10  
 RPM: 50  
 WOB: 18  
 PP: 1350  
 SPM: 130

PUMP SWEEP

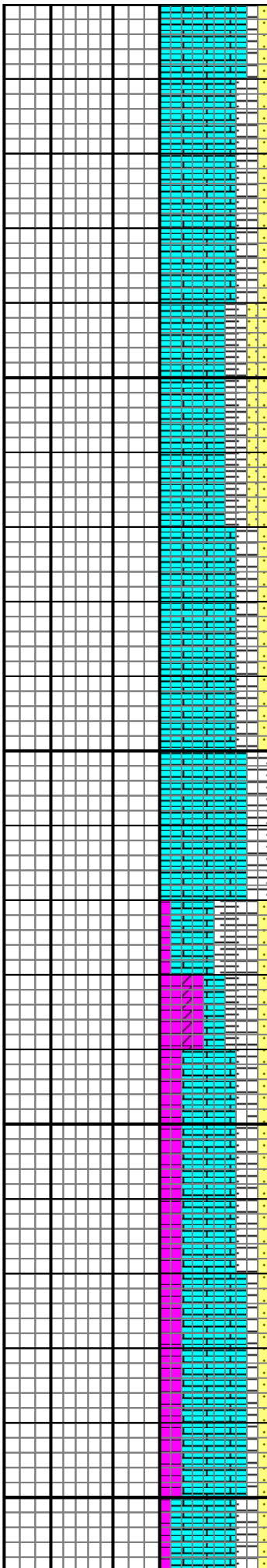
MD: 5668'  
 TVD: 5572'  
 INC: 21.06  
 AZI: 100.59  
 VS: 585.86  
 DL: 0.39

MW: 8.4  
 VIS: 27  
 PH: 10  
 RPM: 50  
 WOB: 18  
 PP: 1350  
 SPM: 130

MD: 5731'  
 TVD: 5630'  
 INC: 21.44  
 AZI: 100.34  
 VS: 620.57  
 DL: 2.79

PUMP SWEEP

5550  
5600  
5650  
5700  
5750



SH: BRN-RDBRN, LT GY-GY,  
 SFT-MOD HD, BLKY-S/BLKY,  
 SL FISS IP, SLTY, ARG MTX,  
 EA, DULL, MOD CALC

SS: LTGY, TN, OFF WHT IP,  
 FRIA-CONS-MOD HD IP,  
 VFN-FN GRN, SBRND-SBANG,  
 MOD-W. SRTD, MOD CALC  
 CMT, NO MIN FLOR, NO SHOW

MIDNIGHT DEPTH @ 5660'

LS: WH-OFFWH-DTYWH -LTGY-  
 GY, SFT-FRM, S/BLKY-S/FLKY,  
 MICRXLN-  
 FXLN/SMTH/ CRYPTXLN IP,  
 SUCROIC DOL TXT/SDY, NO  
 SHOW

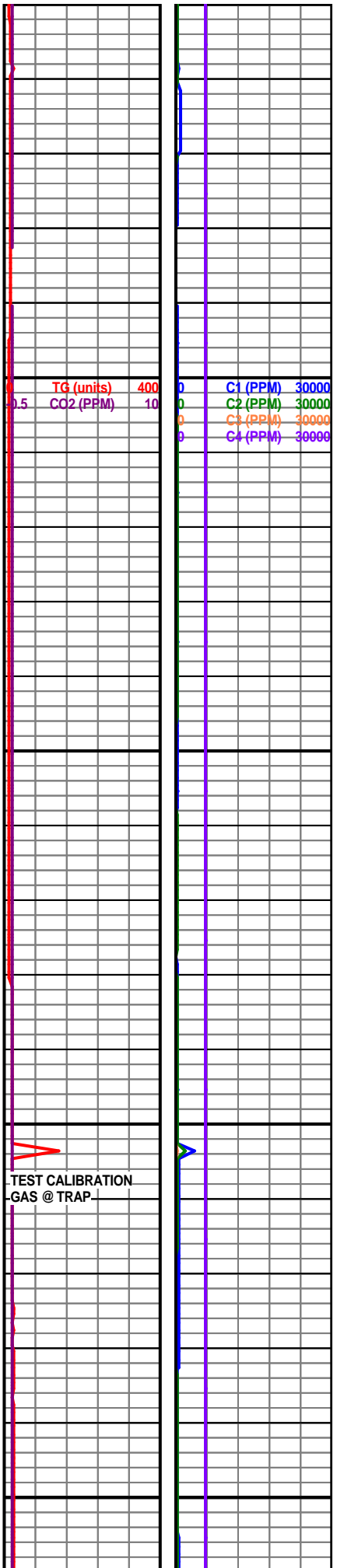
SH: BRN-RDBRN, LT GY-GY,  
 SFT-MOD HD, BLKY-S/BLKY,  
 SL FISS IP, SLTY, ARG MTX,  
 EA, DULL, MOD CALC

DOL: OFF WHT-WHT, TN IP,  
 MOD HD-HD, CRYPTXLN-  
 VFXLN, MICRXLN IP,  
 SUCROSIC TXT IP, TR INFER  
 FRAC-INTRXLN POR, LT BRT  
 CRM MIN FLOR, NO CUT

LS: WH-OFFWH-DTYWH -LTGY-  
 GY, SFT-FRM, S/BLKY-S/FLKY,  
 MICRXLN-  
 FXLN/SMTH/ CRYPTXLN IP,  
 SUCROIC DOL TXT/SDY, NO  
 SHOW

02/27/2012 (MON) 5:00 AM  
 @ 5729' MD

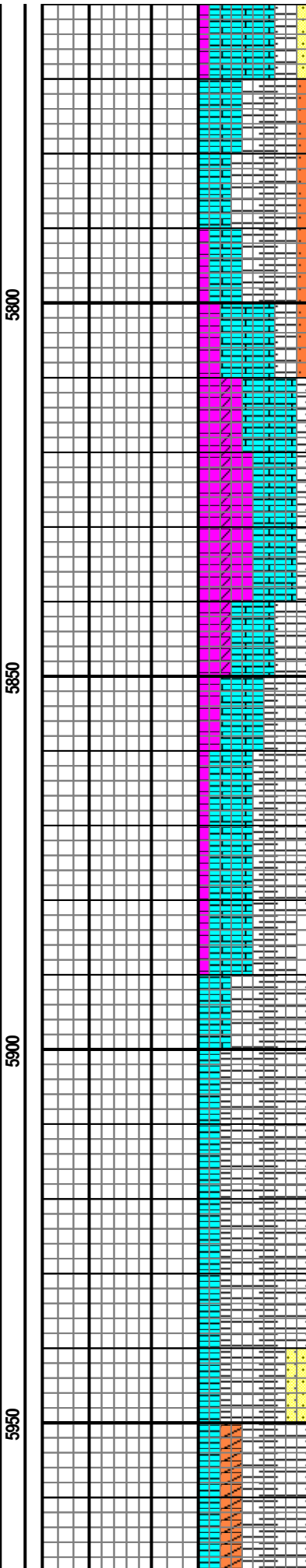
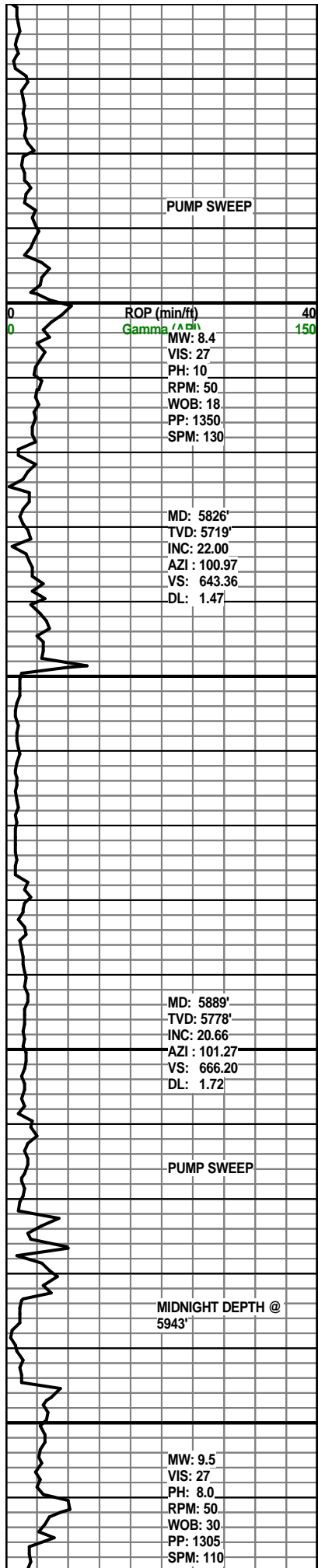
DOL: OFF WHT-WHT, TN IP,  
 MOD HD-HD, CRYPTXLN-  
 VFXLN, MICRXLN IP,  
 SUCROSIC TXT IP, TR INFER  
 FRAC-INTRXLN POR, LT BRT



TG (units) 400  
 CO2 (PPM) 10

C1 (PPM) 30000  
 C2 (PPM) 30000  
 C3 (PPM) 30000  
 C4 (PPM) 30000

TEST CALIBRATION  
 GAS @ TRAP



FRAC-INTRXLN POR, LT BRT CRM MIN FLOR, NO CUT

SLST: LTGY-GY-DKGY, FRIA-CONS-MOD HD IP, VFN GRN, SBRND-SBANG, MOD-W. SRTD, MOD CALC CMT

SH: GY-DKGY-BLK, SFT-MOD HD, BLKY-S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD-V. CALC>> MARL

DOL: OFF WHT-WHT, TN IP, MOD HD-HD, CRYPTXLN-VFXLN, MICRXLN IP, SUCROSIC TXT IP, TR INFER FRAC-INTRXLN POR, LT BRT CRM MIN FLOR, NO CUT

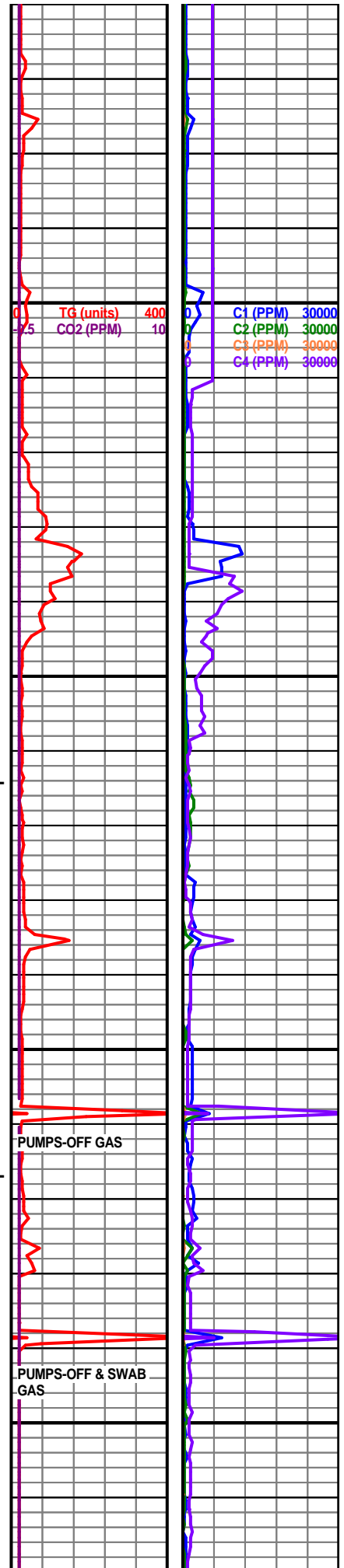
LS: WH-OFFWH-DTYWH-LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW

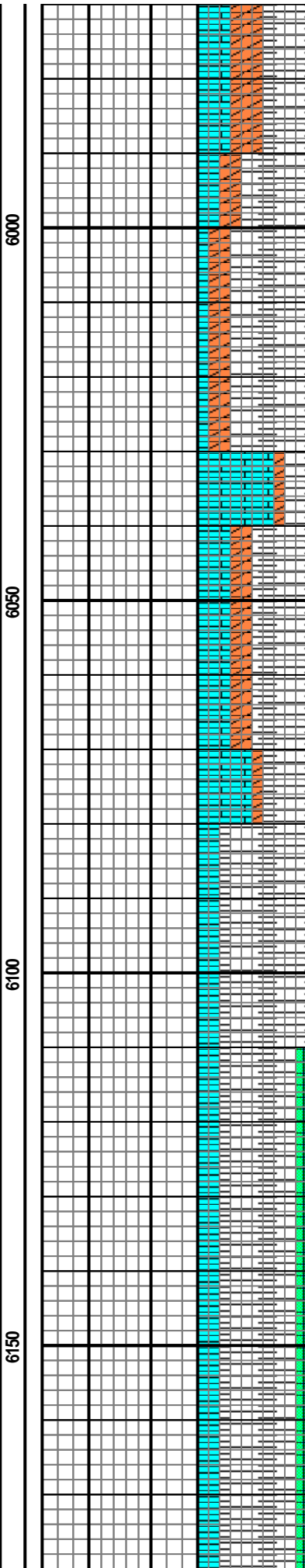
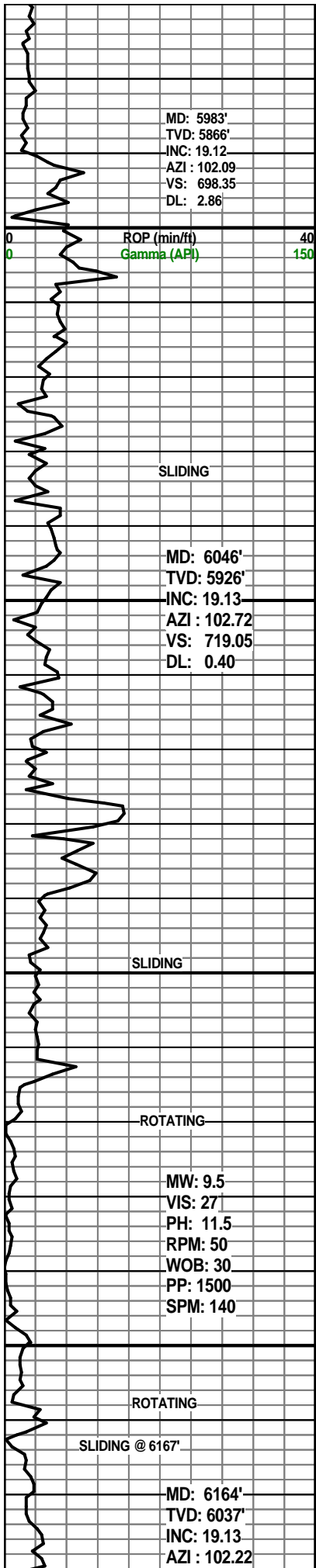
SH: GY-DKGY-BLK, SFT-MOD HD, BLKY-S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD-V. CALC>> MARL

LS: WH-OFFWH-DTYWH-LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW

**DISPLACE FRESH WATER WITH BRINE @ 5943'**

ANHY: LYGY, OFF WHT, TN, FRM-MOD HD, SHINY SUGARY ENCRST TXL FXLN NO SHOW





FN GRN TXT, FXLN, NO SHOW

02/28/2012 (TUE) 6:00 AM  
@ 5984' MD

SH: GY-DKGY-BLK, SFT-MOD HD, BLKY-S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD-V. CALC>> MARL

LS: WH-OFFWH-DTYWH -LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW

ANHY: LYG, OFF WHT, TN, FRM-MOD HD, BLK VEINS, SHINY SUGARY FN GRN TXT, FXLN, NO SHOW

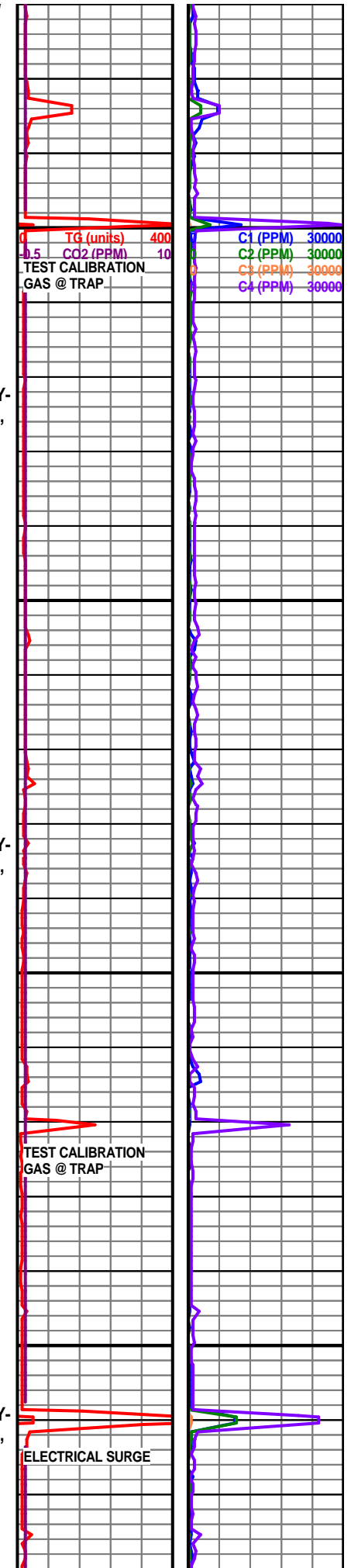
SH: GY-DKGY-BLK, SFT-MOD HD, BLKY-S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD-V. CALC>> MARL

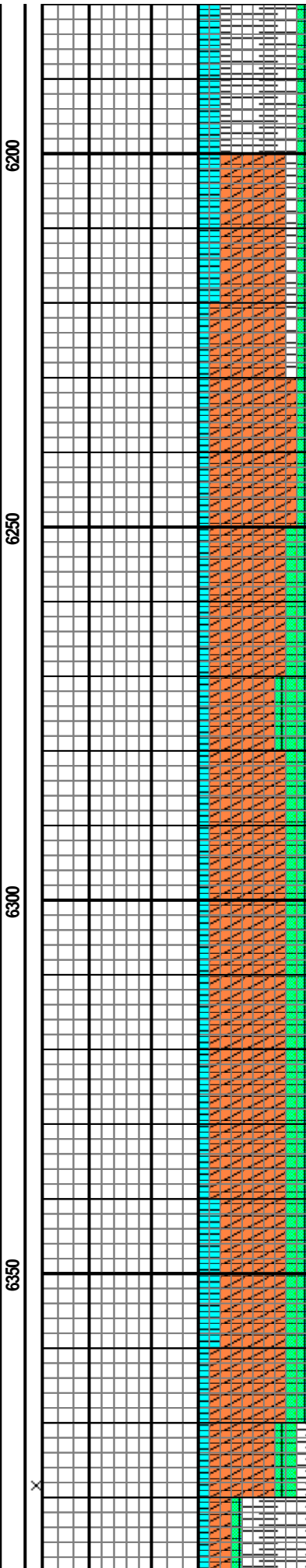
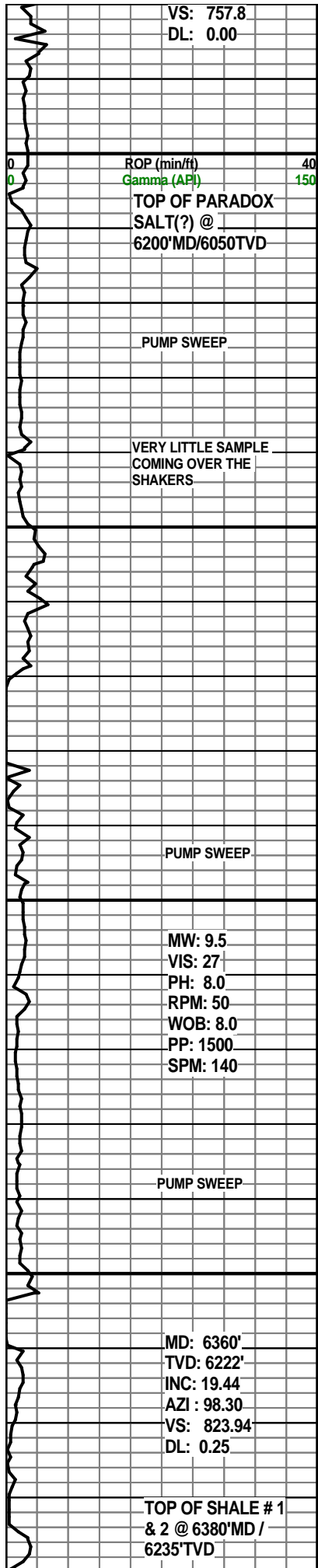
LS: WH-OFFWH-DTYWH -LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW

SA: OFFWH-WH-TRNSLCNT CLR, FRM-BRITTLE, BLKY -SPLNTRY, CRYPTXLN, SMOOTH

SH: GY-DKGY-BLK, SFT-MOD HD, BLKY-S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD-V. CALC>> MARL

LS: WH-OFFWH-DTYWH -LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW





SA: OFFFWH-WH-TRNSLCNT CLR, FRM-BRITTLE, BLKY -SPLNTRY, CRYPTXLN, SMOOTH  
02/29/2012 (WED) 6:00 AM @ 6195' MD

ANHY: TRNSL, TRNSP, TN, OFF WHT, FRM-MOD HD, SHINY SUGARY VFN GRN TXT, CRYPTOXLN-VFXLN, NO SHOW

LS: WH-OFFFWH-DTYWH -LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW

SA: OFFFWH-WH-TRNSLCNT CLR, FRM-BRITTLE, BLKY -SPLNTRY, CRYPTXLN, SMOOTH

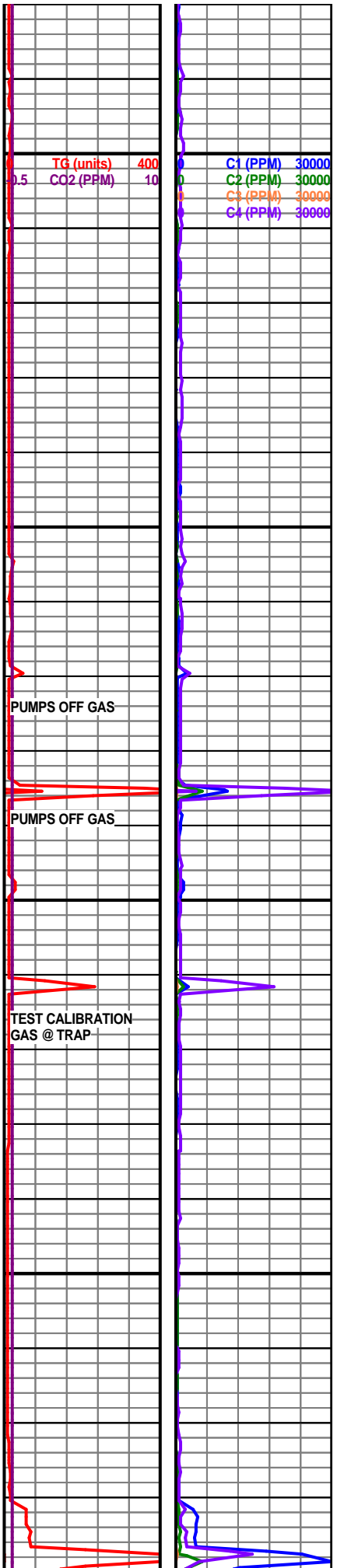
ANHY: TRNSL, TRNSP, TN, OFF WHT, FRM-MOD HD, SHINY SUGARY VFN GRN TXT, CRYPTOXLN-VFXLN, NO SHOW

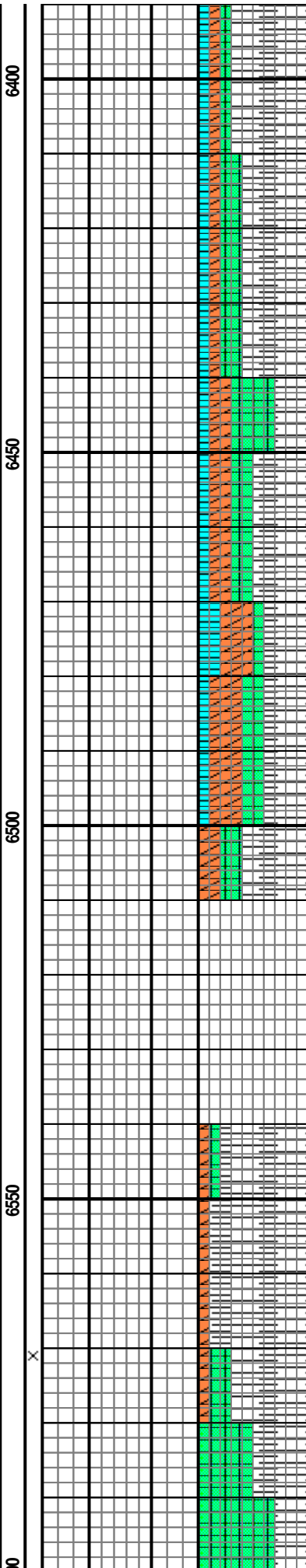
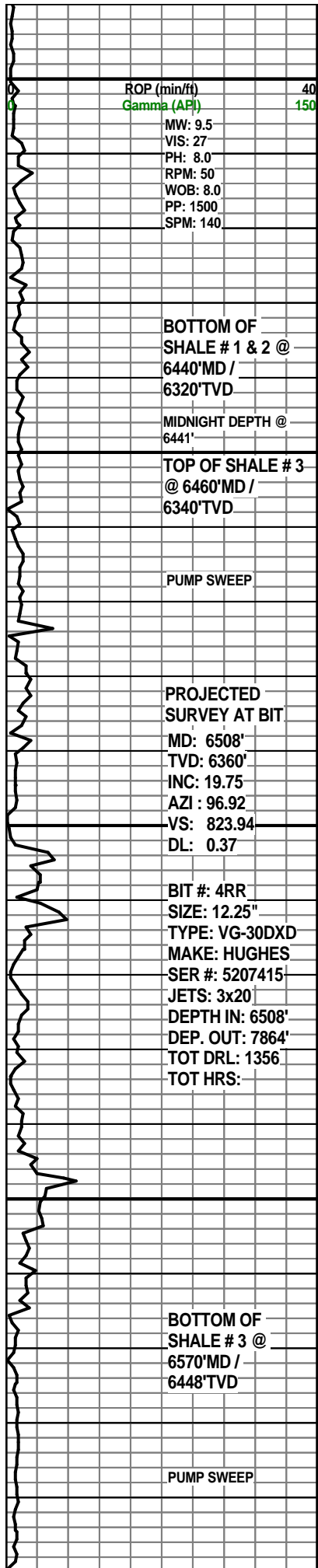
LS: WH-OFFFWH-DTYWH -LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW

SA: OFFFWH-WH-TRNSLCNT CLR, FRM-BRITTLE, BLKY -SPLNTRY, CRYPTXLN, SMOOTH

ANHY: TRNSL, TRNSP, TN, OFF WHT, FRM-MOD HD, SHINY SUGARY VFN GRN TXT, CRYPTOXLN-VFXLN, NO SHOW

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC





SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SA: OFFWH-WH-TRNSLCNT CLR, FRM-BRITTLE, BLKY -SPLNTRY, CRYPTXLN, SMOOTH

LS: WH-OFFWH-DTYWH -LTGY-GY, SFT-FRM, S/BLKY-S/FLKY, MICRXLN-FXLN/SMTH/ CRYPTXLN IP, MARL IP, NO SHOW

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SA: OFFWH-WH-TRNSLCNT CLR, FRM-BRITTLE, BLKY -SPLNTRY, CRYPTXLN, SMOOTH

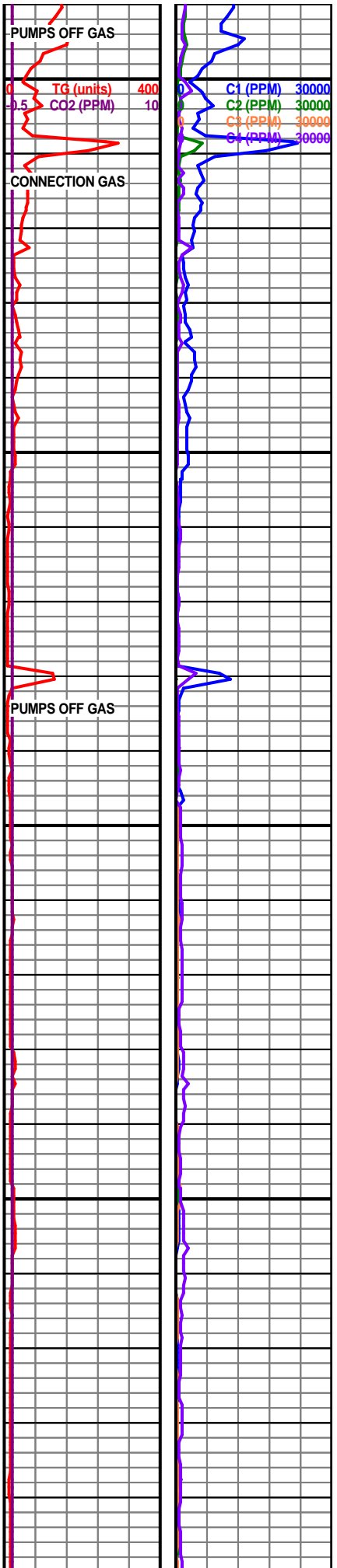
TOOH @ 6508' TO L/D DIRECTIONAL TOOLS. P/U NEW BHA & TIH

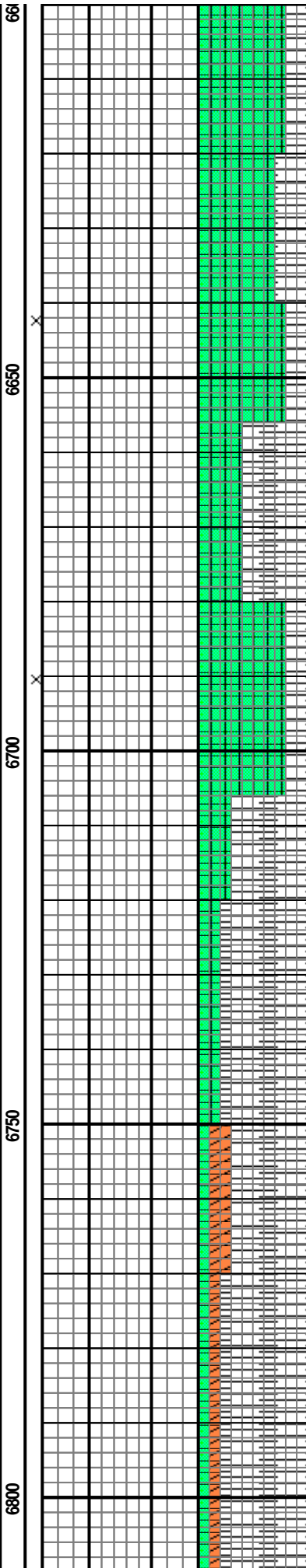
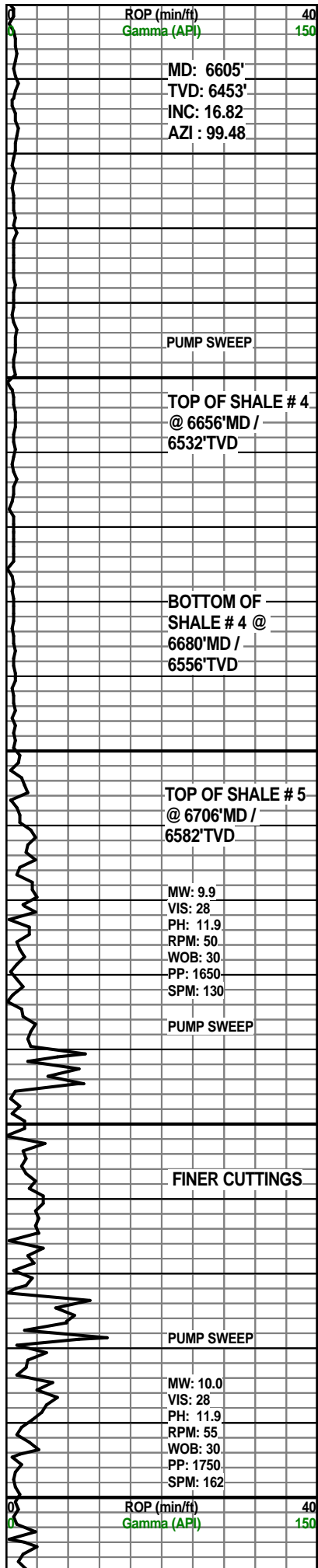
NO CUTTINGS SAMPLES FROM 6510' TO XX' DUE TO BY-PASSING POSSUM-BELLY/SHAKERS

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

ANHY: TRNSL, TRNSP, TN, OFF WHT, FRM-MOD HD, SHINY SUGARY VFN GRN TXT, CRYPTOXLN-VFXLN, NO SHOW

SA: OFFWH-WH-TRNSLCNT CLR, BLK IP, FRM-BRITTLE, BLKY -SPLNTRY, CRYPTXLN, SMOOTH





SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SA: OFFFWH-WH-TRNSLCNT CLR, BLK IP, FRM-BRITTLE, BLKY-SPLNTRY, CRYPTXLN, SMOOTH

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SA: OFFFWH-WH-TRNSLCNT CLR, BLK IP, FRM-BRITTLE, BLKY-SPLNTRY, CRYPTXLN, SMOOTH

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

03/03/2012 (SAT) 6:00 AM @ 6725' MD

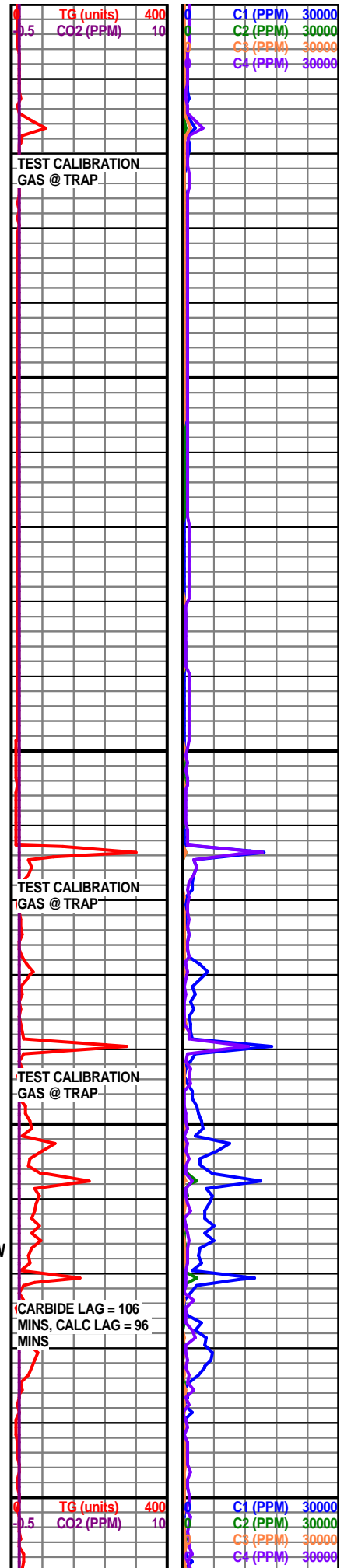
SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

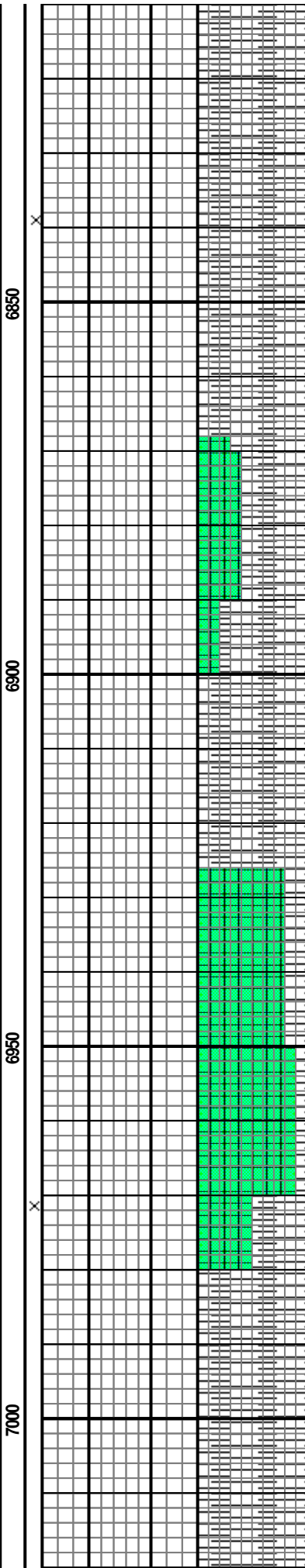
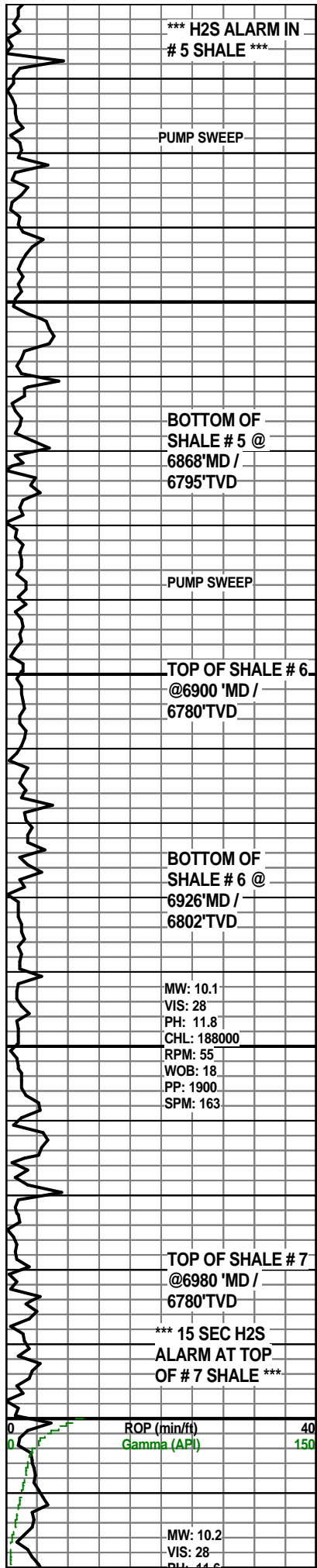
ANHY: TRNSL, TRNSP, TN, OFF WHT, FRM-MOD HD, SHINY SUGARY VFN GRN TXT, CRYPTOXLN-VFXLN, NO SHOW

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

03/04/2012 (SUN) 6:00 AM @ 6796' MD

SH: RI K-ORGANIC, SFT-MOD





SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC, LESS FINER CUTTINGS

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC, LESS FINER CUTTINGS

SA: OFFWH-WH-TRNSLNT CLR, BLK IP, FRM-BRITTLE, BLKY-SPLNTRY, CRYPTXLN, SMOOTH

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC, LESS FINER CUTTINGS

03/05/2012 (MON) 6:00 AM @ 6920' MD

SA: OFFWH-WH-TRNSLNT CLR, BLK IP, FRM-BRITTLE, BLKY-SPLNTRY, CRYPTXLN, SMOOTH

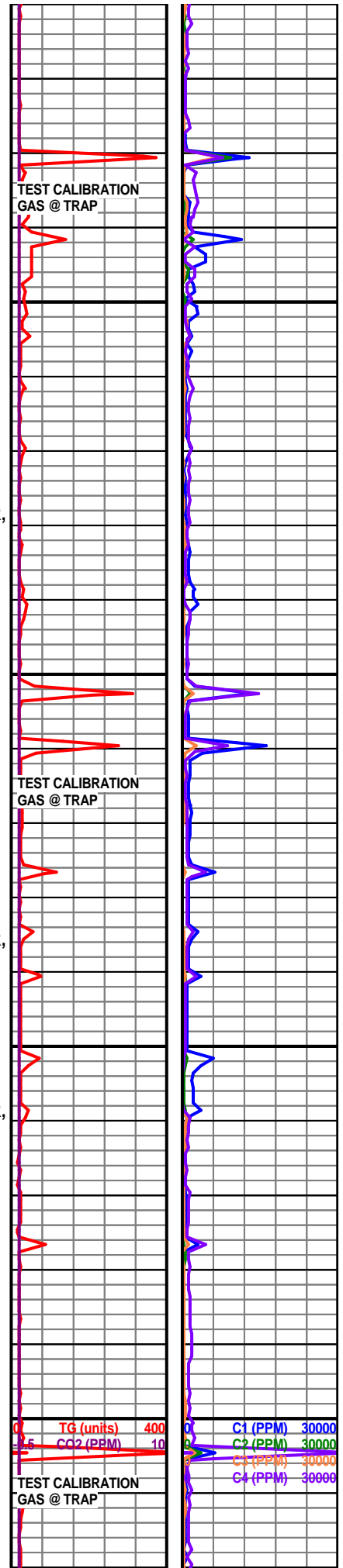
SA: OFFWH-WH-TRNSLNT CLR, BLK IP, FRM-BRITTLE, BLKY-SPLNTRY, CRYPTXLN, SMOOTH

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SH: BLK-ORGANIC, SFT-MOD HD, S/BLKY-SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

SH: BLK-ORGANIC, SFT-MOD



ROP (min/ft) 40  
Gamma (API) 150

MW: 10.2  
VIS: 28  
PH: 11.8

TG (units) 400  
CO2 (PPM) 10

C1 (PPM) 30000  
C2 (PPM) 30000  
C3 (PPM) 30000  
C4 (PPM) 30000

TEST CALIBRATION GAS @ TRAP

FR: 11.0  
 CHL: 179000  
 RPM: 65  
 WOB: 18  
 PP: 1900  
 SPM: 163

**BOTTOM OF  
 SHALE # 7 @  
 7058'MD /  
 6931'TVD**

MD: 7077'  
 TVD: 6914'  
 INC: 7.51  
 AZI : 93.52

MW: 10.2  
 VIS: 28  
 PH: 11.6  
 CHL: 179000  
 RPM: 65  
 WOB: 18  
 PP: 1900  
 SPM: 163

MD: 7171'  
 TVD: 7007'  
 INC: 5.98  
 AZI : 92.93

ROP (min/ft) 40  
 Gamma (API) 150

MW: 10.2  
 VIS: 28  
 PH: 11.6

7050

7100

7150

7200

HD, S/BLKY-SL FISS IP, SLTY,  
 ARG MTX, EA, DULL, MOD  
 CALC

SH: BLK-ORGANIC, SFT-MOD  
 HD, S/BLKY-SL FISS IP, SLTY,  
 ARG MTX, EA, DULL, MOD  
 CALC

SA: OFFFWH-WH-TRNSLNT CLR,  
 BLK IP, FRM-BRITTLE,  
 BLKY-SPLNTRY, CRYPTXLN,  
 SMOOTH

03/06/2012 (TUE) 6:00 AM  
 @ 7085' MD

SH: BLK-ORGANIC, SFT-MOD  
 HD, S/BLKY-SL FISS IP, SLTY,  
 ARG MTX, EA, DULL, MOD  
 CALC

SA: OFFFWH-WH-TRNSLNT CLR,  
 BLK IP, FRM-BRITTLE,  
 BLKY-SPLNTRY, CRYPTXLN,  
 SMTH

SA: OFFFWH-WH-TRNSLNT CLR,  
 BLK IP, FRM-BRITTLE,  
 BLKY-SPLNTRY, CRYPTXLN,  
 SMTH

SA: OFFFWH-WH-TRNSLNT CLR,  
 BLK IP, FRM-BRITTLE,  
 BLKY-SPLNTRY, CRYPTXLN,  
 SMTH

SA: OFFFWH-WH-TRNSLNT CLR,  
 BLK IP, FRM-BRITTLE,  
 BLKY-SPLNTRY, CRYPTXLN,  
 SMTH

SA: OFFFWH-WH-TRNSLNT CLR,  
 BLK IP, FRM-BRITTLE,  
 BLKY-SPLNTRY, CRYPTXLN,  
 SMTH

TG (units) 400  
 CO2 (PPM) 10

C1 (PPM) 30000  
 C2 (PPM) 30000  
 C3 (PPM) 30000  
 C4 (PPM) 30000

CHL: 179000  
RPM: 65  
WOB: 18  
PP: 1900  
SPM: 163

MD: 7266'  
TVD: 7102'  
INC: 4.53  
AZI: 87.16

TOP OF SHALE # 8  
@7318 'MD /  
7186'TVD

BOTTOM OF  
SHALE # 8 @  
7348'MD /  
7215'TVD

MD: 7360'  
TVD: 7196'  
INC: 3.27  
AZI: 81.14

ROP (min/ft) 40  
Gamma (API) 150

MW: 10.1  
VIS: 28  
PH: 12.4  
CHL: 189000  
RPM: 65  
WOB: 30  
PP: 1880  
SPM: 160

7250

7300

7350

7400

SMTH

SA: OFFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

SA: OFFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

SA: OFFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

SH: BLK-ORGANIC, SFT-MOD  
HD, S/BLKY-SL FISS IP, SLTY,  
ARG MTX, EA, DULL, MOD  
CALC

SA: OFFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

SH: BLK-ORGANIC, SFT-MOD  
HD, S/BLKY-SL FISS IP, SLTY,  
ARG MTX, EA, DULL, MOD  
CALC

SA: OFFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

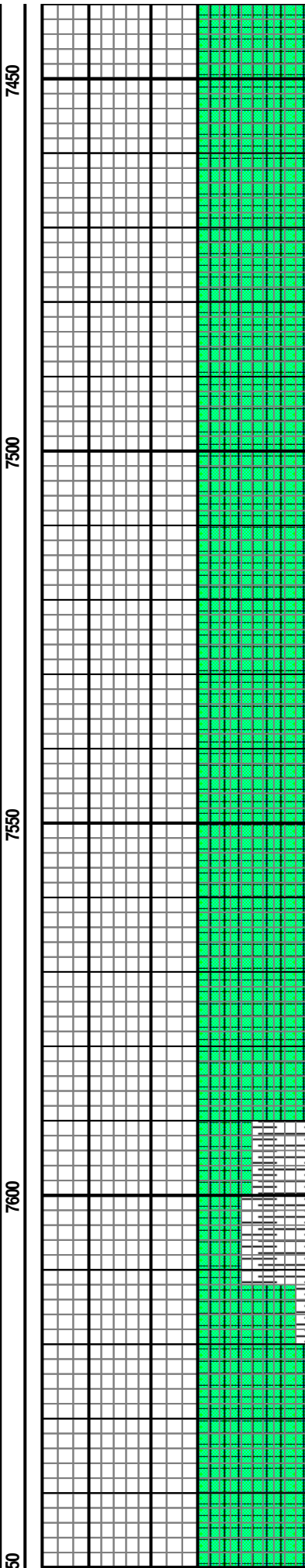
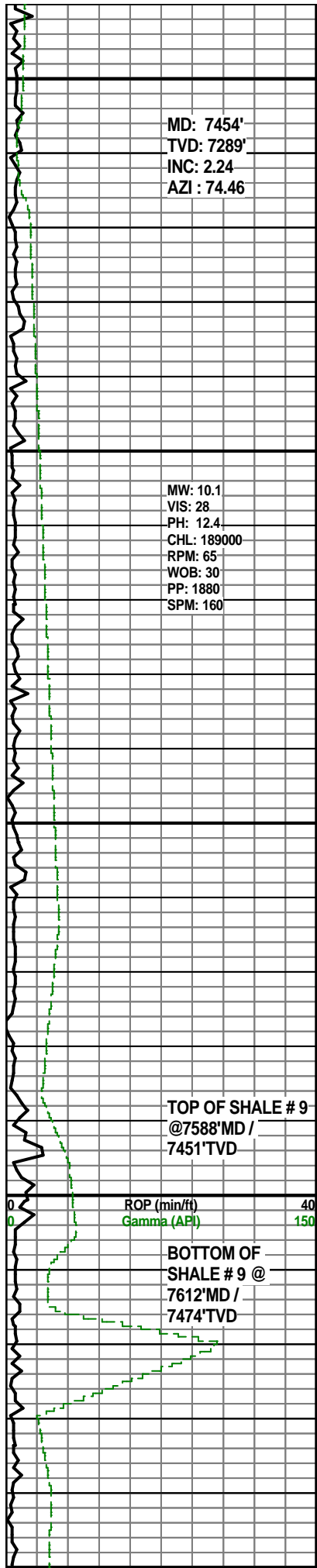
SA: OFFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

03/07/2012 (WED) 6:00 AM  
@ 7424' MD

TG (units) 400  
CO2 (PPM) 10

TEST CALIBRATION  
GAS @ TRAP

C1 (PPM) 30000  
C2 (PPM) 30000  
C3 (PPM) 30000  
C4 (PPM) 30000



SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, CRYPTXLN,  
SMTH

SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR

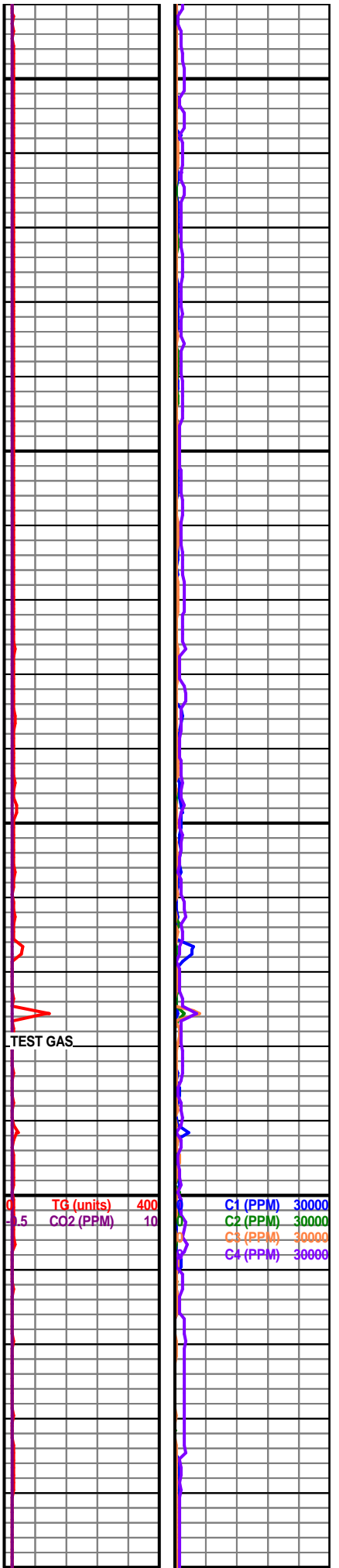
SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR

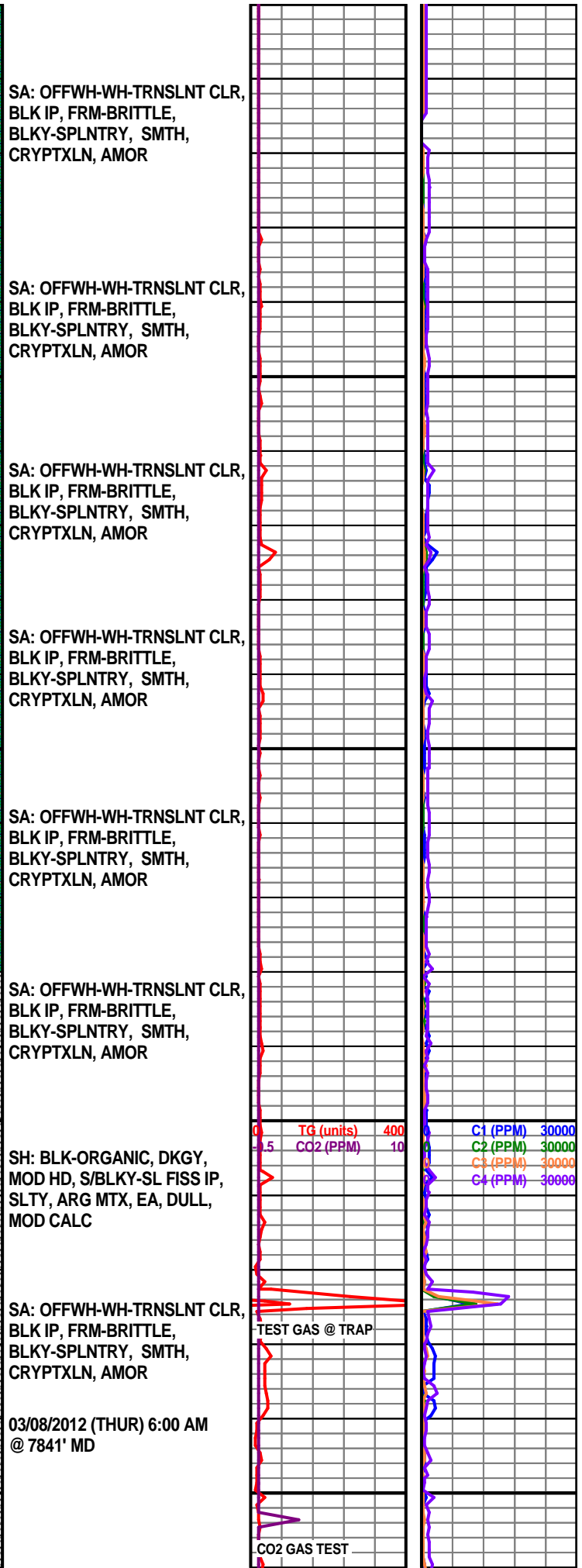
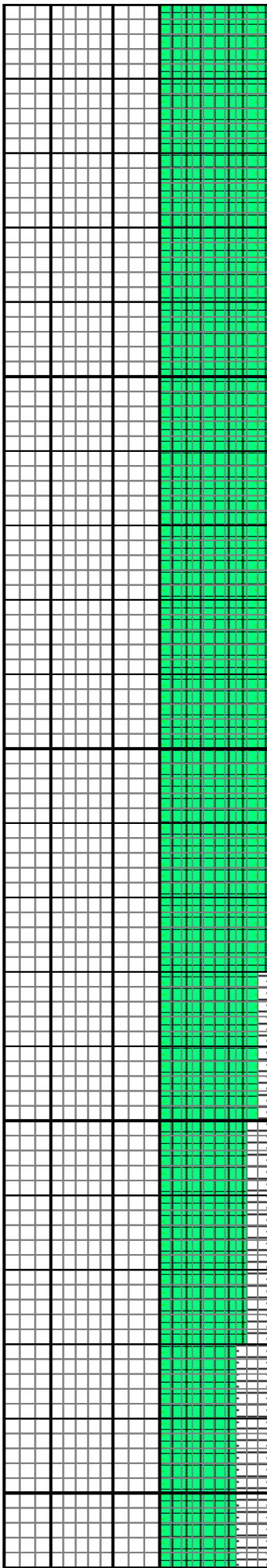
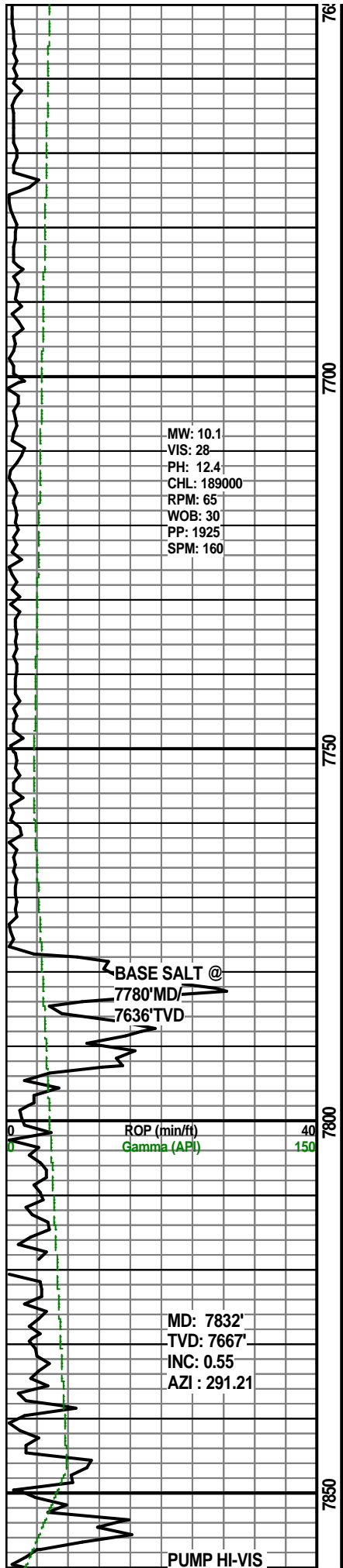
SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR

SH: BLK-ORGANIC, SFT-MOD  
HD, S/BLKY-SL FISS IP, SLTY,  
ARG MTX, EA, DULL, MOD  
CALC

SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR

SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR





**SWEEP & TOO**

BIT #: 5  
SIZE: 12.25"  
TYPE: RX-30  
MAKE:  
SER #: BX-3136  
JETS: 3x20  
DEPTH IN: 7864'  
TOT DRL: 461'  
TOT HRS: 45

7900

7950

8000

8050

ROP (min/ft)  
Gamma (API)

MW: 10.1  
VIS: 28  
PH: 12.1  
CHL: 189000  
RPM: 60  
WOB: 40  
PP: 1880  
SPM: 160

TOOH @ 7864' MD TO P/U  
GYRO/GAMMA SURVEY BHA

03/09/2012 (FRI) 6:00 AM  
@ 7864'. P/U NEW BHA & TIH  
03/10/2012 (SAT) 6:00 AM  
@ 7864'. TIH BIT DEPTH @  
7574'. DRILLING AHEAD @  
1000HRS

SH: GY-DKGY-BLK, SFT-MOD  
HD, BLKY-S/BLKY, SL FISS IP,  
SLTY, ARG MTX, EA, DULL,  
MOD CALC

LS: WH-OFFWH-DTYWH -LTGY-  
GY, FRM-MOD HD,  
S/BLKY-S/FLKY, FXLN/ SMTH,  
CRYPTXLN IP, DOL TXT, NO  
MIN FLUOR

SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR

SH: GY-DKGY-BLK, SFT-MOD  
HD, BLKY-S/BLKY, SL FISS IP,  
SLTY, ARG MTX, EA, DULL,  
MOD CALC

LS: WH-OFFWH-DTYWH -LTGY-  
GY, FRM-MOD HD,  
S/BLKY-S/FLKY, FXLN/ SMTH,  
CRYPTXLN IP, DOL TXT, NO  
MIN FLUOR

SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR

03/11/2012 (SUN) 6:00 AM  
@ 8020' MD

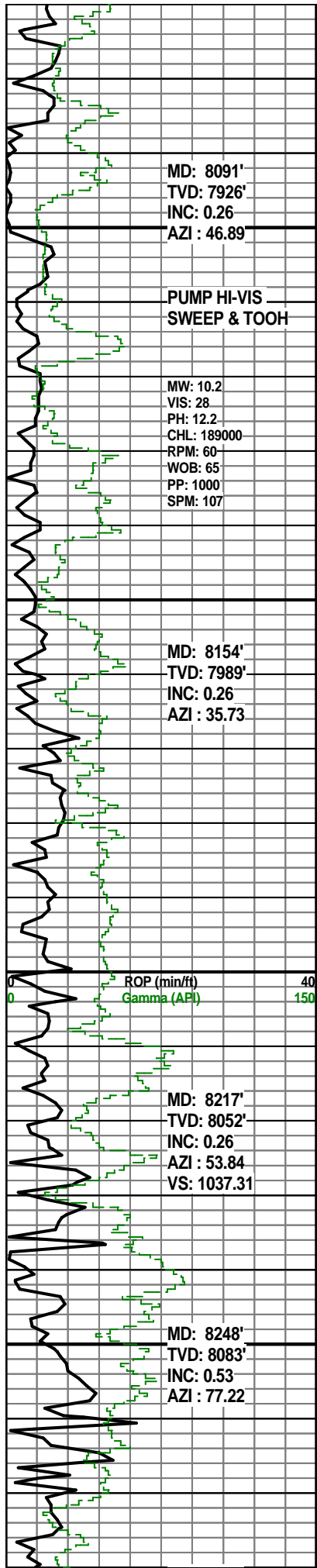
SA: OFFWH-WH-TRNSLNT CLR,  
BLK IP, FRM-BRITTLE,  
BLKY-SPLNTRY, SMTH,  
CRYPTXLN, AMOR

SH: GY-DKGY-BLK, SFT-MOD  
HD, BLKY-S/BLKY, SL FISS IP,  
SLTY, ARG MTX, EA, DULL,  
MOD CALC

TEST GAS @ TRAP

TG (units) 400  
CO2 (PPM) 10

C1 (PPM) 30000  
C2 (PPM) 30000  
C3 (PPM) 30000  
C4 (PPM) 30000



MD: 8091'  
 TVD: 7926'  
 INC: 0.26  
 AZI : 46.89

PUMP HI-VIS  
 SWEEP & TOOH

MW: 10.2  
 VIS: 28  
 PH: 12.2  
 CHL: 189000  
 RPM: 60  
 WOB: 65  
 PP: 1000  
 SPM: 107

MD: 8154'  
 TVD: 7989'  
 INC: 0.26  
 AZI : 35.73

ROP (min/ft) 40  
 Gamma (API) 150

MD: 8217'  
 TVD: 8052'  
 INC: 0.26  
 AZI : 53.84  
 VS: 1037.31

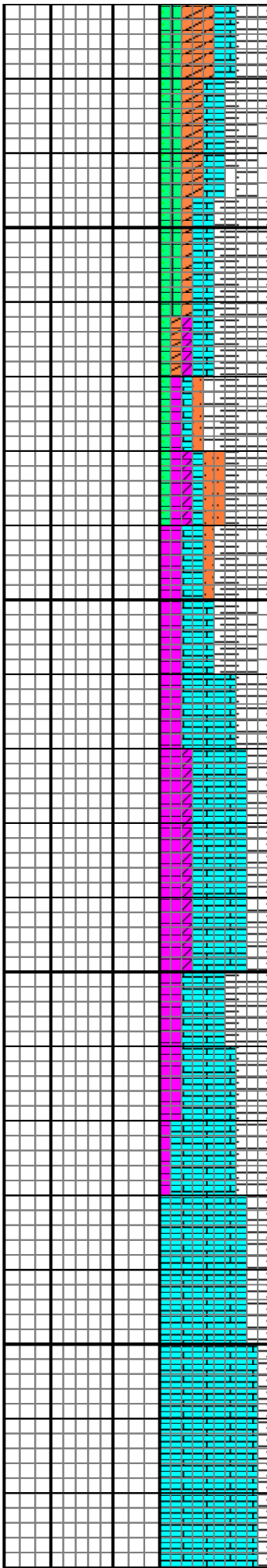
MD: 8248'  
 TVD: 8083'  
 INC: 0.53  
 AZI : 77.22

8100

8150

8200

8250



LS: DTYWH -LTGY- GY,  
 FRM-MOD HD, S/BLKY -S/FLKY,  
 FXLN/ SMTH, CRYPTXLN IP,  
 DOL TXT, NO MIN FLUOR

TOOH @ 8112' MD TO P/U  
 NEW DIR/GAMMA TOOLS  
 SINCE DOWNHOLE TOOLS  
 WERE NOT COMMUNICATING

03/12/2012 (MON) 6:00 AM  
 @ 8112' MD

SLST: LTGY-GY-DKGY, TN,  
 DTYWH, FRIA-CONS-MOD HD  
 IP, VFN GRN, SBRND-SBANG,  
 MOD-W. SRTD, MOD CALC CMT

DOL: LTGY, TN, OFFWH,  
 MOD HD-HD, CRYPTXLN-  
 VFXLN, MICRXLN IP, TR INFER  
 FRAC-INTRXLN POR, NO  
 SHOW

LS: WH-OFFWH-DTYWH -LTGY-  
 GY, FRM-MOD HD,  
 S/BLKY-S/FLKY, FXLN/ SMTH,  
 CRYPTXLN IP, DOL TXT, NO  
 MIN FLUOR

10% LT PINK LIMESTONE

03/13/2012 (TUE) 6:00 AM  
 @ 8200' MD

SH: GY-DKGY-BLK, SFT-MOD  
 HD, BLKY-S/BLKY, SL FISS IP,  
 SLTY, ARG MTX, EA, DULL,  
 MOD CALC

TR-10% PINK LIMESTONE

TR SALT

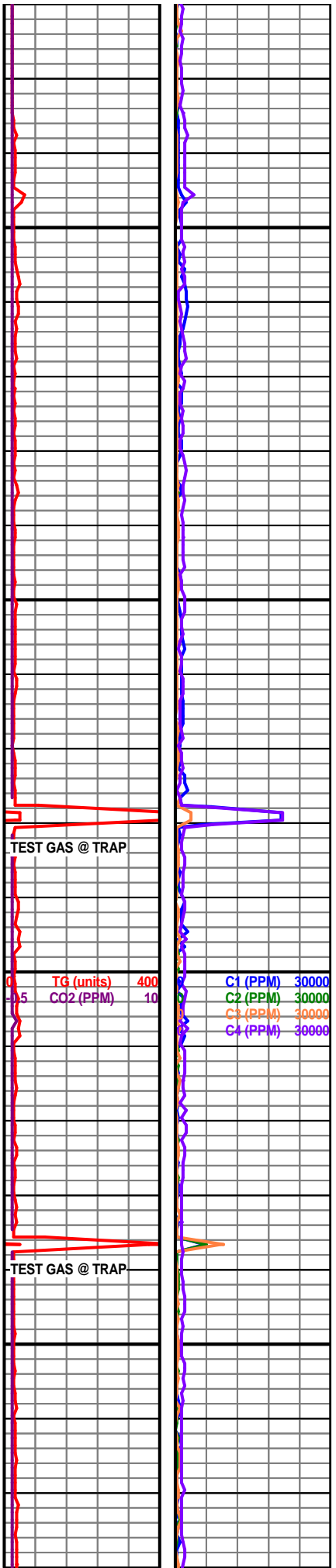
LS: 30% PINK LS, OFFWH, TN,  
 LT GY, FRM-MOD HD, S/FLKY,  
 FXLN-MICROXLN, TR DOL

40% PINK LIMESTONE

40% PINK LIMESTONE

50% PINK LIMESTONE

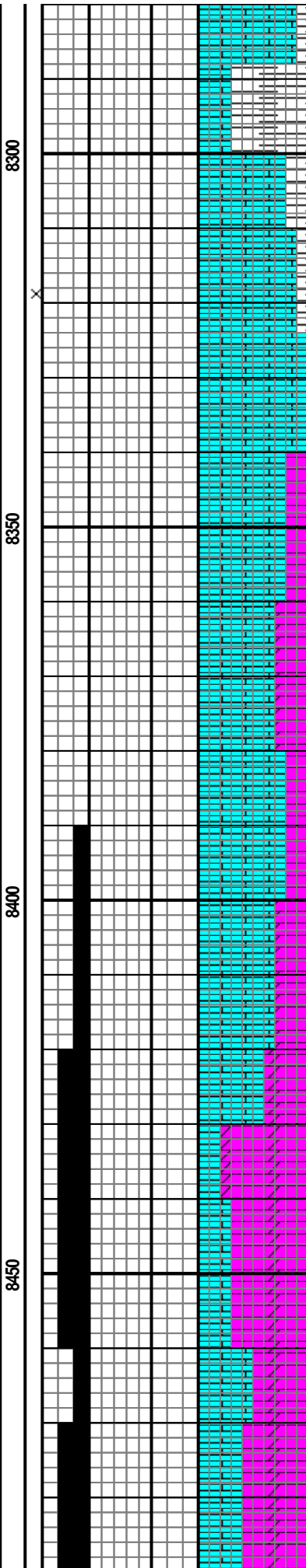
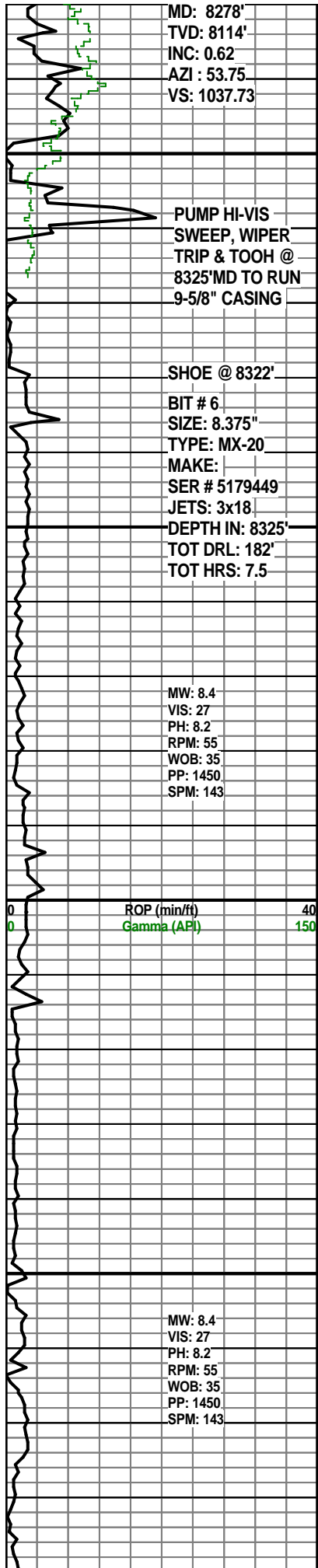
TOP OF LEADVILLE  
 @8276'MD/8113'TVD



TEST GAS @ TRAP

TG (units)	400	C1 (PPM)	30000
CO2 (PPM)	10	C2 (PPM)	30000
		C3 (PPM)	30000
		C4 (PPM)	30000

TEST GAS @ TRAP



SH: LTGY-GY, MOD HD, BLKY -S/BLKY, SL FISS IP, SLTY, ARG MTX, EA, DULL, MOD CALC

LS: WH-OFFWH-DTYWH -LTGY-GY, FRM-MOD HD, S/BLKY-S/FLKY, FXLN/ SMTH, CRYPTXLN IP, DOL TXT, NO MIN FLUOR

03/14/2012 (WED) 6:00 AM @ 8325' MD

CLEAN HOLE & RUN 9-5/8" CASING F/03/14/2012 T/ 03/18/2012. F/03/18/2012 T/03/19/2012 WORK ON TOPDRIVE

**DISPLACE BRINE WITH FRESH WATER @ 8325'**

LS: WH-OFFWH-TN-LTGY, FRM-MOD HD, S/FLKY, FXLN/ SMTH, CRYPTXLN IP, DOL TXT, NO MIN FLUOR

03/20/2012 (TUE) 6:00 AM @ 8377' MD

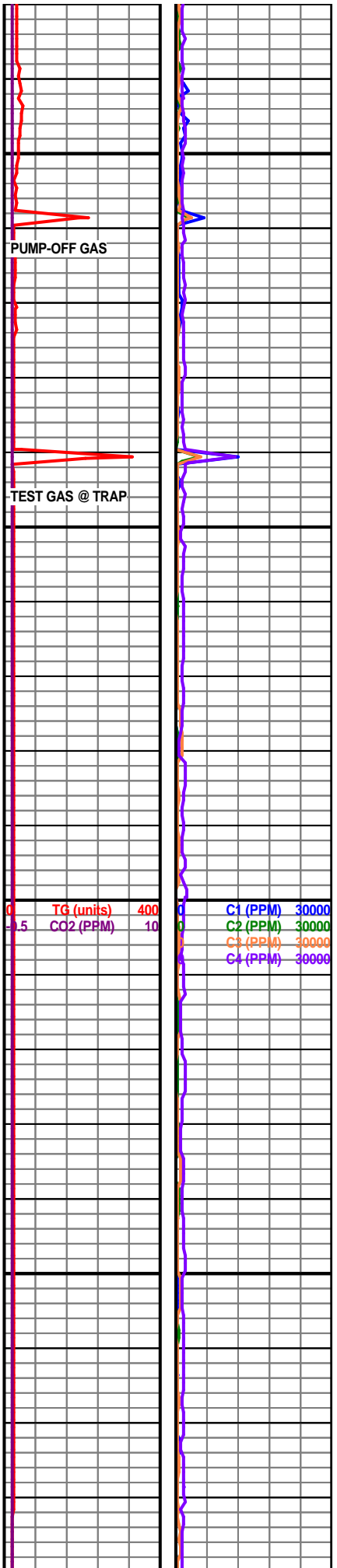
DOL: OFF WHT-WHT, TN IP, MOD HD-HD, MICRXLN, SUCROSIC TXT, TR INFER VUGGY-INTRXLN-CHLKY POR, NO CO2 KICK

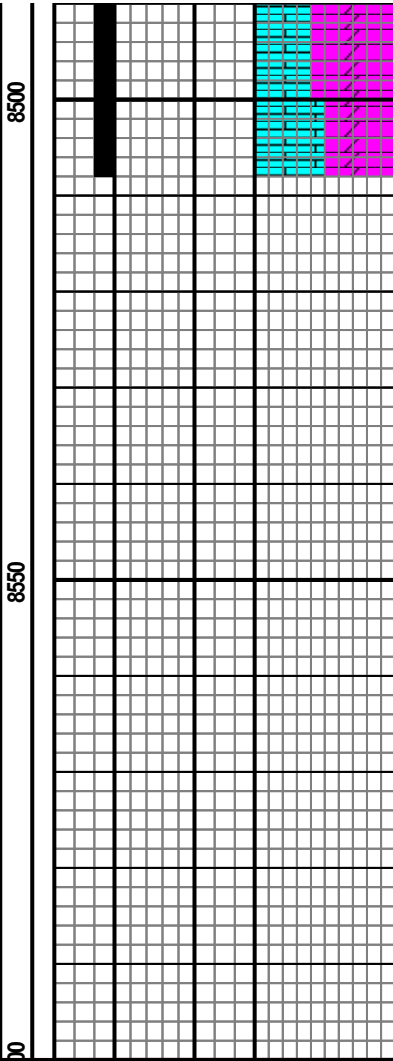
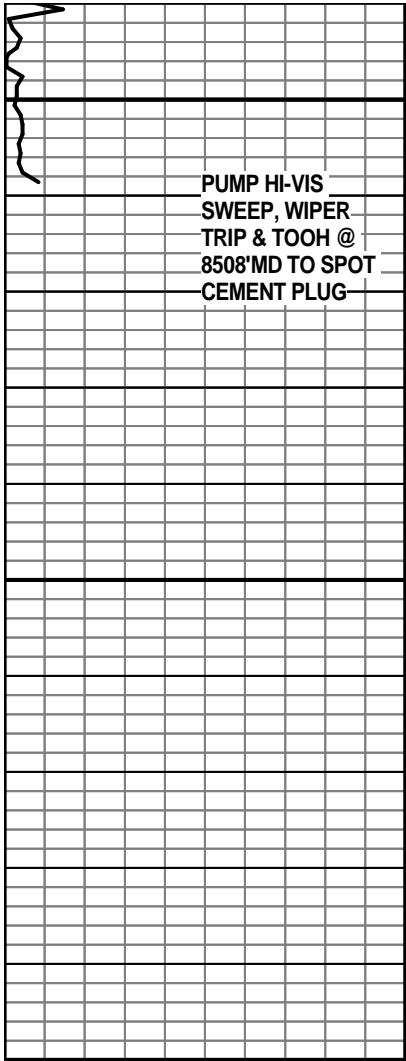
LS: WH-OFF WHT-TN-LTGY, FRM-MOD HD, S/FLKY, FXLN/ SMTH, CRYPTXLN IP, DOL TXT, NO MIN FLUOR

DOL: LT GY-GY, TN, OFFWH -WHT IP, MOD HD-HD, MICRXLN, SUCROSIC TXT, SM VIS VUGGY-INTRXLN-CHLKY POR, NO GAS KICK

LS: WH-OFF WHT-TN-LTGY, FRM-MOD HD, S/FLKY, FXLN/ SMTH, CRYPTXLN IP, DOL TXT, NO MIN FLUOR

DOL: LT GY-GY, TN, OFFWH -WHT IP, MOD HD-HD, MICRXLN, SUCROSIC TXT, SM VIS VUGGY-INTRXLN-CHLKY POR, NO GAS KICK





LS: WH-OFF WHT-TN-LTGY,  
FRM-MOD HD, S/FLKY, FXLN/  
SMTH, CRYPTXLN IP, DOL TXT,  
NO MIN FLUOR

**FINAL T.D. FOR PILOT  
HOLE @ 8508' ON  
03/20/2012 @ 1530  
HRS. TOOH TO RUN  
CEMENT PLUG FOR  
KOP OF LATERAL  
SECTION.**

