

# BAKER HUGHES



Baker Atlas

FILE NO: \_\_\_\_\_ COMPANY: **KINDER MORGAN**  
 API NO: \_\_\_\_\_ WELL: **SAND CANYON #8**  
 FIELD: **MCELMO DOME**  
 COUNTY: **MONTEZUMA** STATE: **COLORADO**

Ver. 3.87

LOCATION: **SITE: Z712' PML & 1803' FSL**

OTHER SERVICES  
 RTDX/MLL/GR  
 GR/CCL  
 BHP

SEC **7** TRIP **30N** RGE **18W**

PERMANENT DATUM: **G.L.** ELEVATION: **6397 FT**  
 LOG MEASURED FROM: **K.B.** **19.5 FT** ABOVE P.D.  
 DRILL MEAS. FROM: **KELLY BUSHING**

ELEVATIONS:  
 KB: **6416.5 FT**  
 DF: **6415.5 FT**  
 OL: **6397.0 FT**

DATE	22-AUG-2010
RUN	1
SERVICE ORDER	576762
DEPTH DRILLER	7942 FT
DEPTH LOGGER	7942 FT
BOTTOM LOGGED INTERVAL	7942 FT
TOP LOGGED INTERVAL	7500 FT
CASING DRILLER	7.625 IN
CASING LOGGER	7794 FT
BIT SIZE	8.5 IN
TYPE OF FLUID IN HOLE	WATER
DENSITY	N/A
PH	N/A
SOURCE OF SAMPLE	N/A
RM AT MEAS. TEMP.	N/A
RMF AT MEAS. TEMP.	N/A
RMC AT MEAS. TEMP.	N/A
SOURCE OF RMF	N/A
RM AT BHT	1.949 CHHM
TIME SINCE CIRCULATION	8 HOURS
MAX. RECORDED TEMP.	128 DEGF
EQUIP. NO.	HL-6741
RECORDED BY	DONALDSON
WITNESSED BY	KONERAY

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

## BOREHOLE RECORD

BIT SIZE	FROM	TO
8.5 IN	7761 FT	7942 FT

## CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
7.625 IN	28 LB/F	K-55	0 FT	4000 FT

## REMARKS

- RUN 1 TRIP 1:
- \* ZDL MATRIX: 2.71
  - \* CN MATRIX: LIMESTONE
  - \* NO RMF OR RMC DUE THE FACT WELL FILLED WITH FRESH WATER
  - \* LOG CORRELATED TO SCHLUMBERGER OPEN HOLE LOG 30-NOV-1990
  - \* CREW: MCCORMICK/COATE
  - \* THANK YOU FOR CHOOSING BAKER ATLAS

## EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SNVEL	3650VA	10407878	FREE
1	1	TDMA	3680VA	10403225	FREE
1	1	CCL	2334VA	10114233	FREE
1	1	TELEMETRY	3518EB	10141286	FREE
1	1	GR	3518EG	10411082	FREE
1	1	CN	2436VA	10362459	DECENTRALIZED
1	2	SNVEL	3650VA	10407878	FREE
1	2	TDMA	3680VA	10403225	FREE
1	2	CCL	2334VA	10114233	FREE
1	2	TELEMETRY	3518EB	10141286	FREE
1	2	GR	3518EG	10411082	FREE
1	2	CN	2436VA	10362459	DECENTRALIZED
1	2	ZDL	2223VA	10088925	RAD. DEVICE

## MAIN LOG 1"/100FT SCALE

ECLIPS 6.01 Feb 21, 2008  
Updates: 1,39,40 Patches: 1,2,4,5,6

Mon Aug 23 00:44:00 2010

Perpllt /main/62

Cplot

Pdf\_Cpp /main/16

Fileview 5.42

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/578762/k970aEQ02.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 7428.500 ft BOTTOM DEPTH: 7962.574 ft

## SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ( )	medium (1)		TOP	BOTTOM
CALIPER	FILTER ( )	medium (1)		"	"
TENSION	FILTER ( )	medium (1)		"	"
CN MED RES	FILTER ( )	medium (1)		"	"

## BOREHOLE &amp; CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	0.000	1n	TOP	BOTTOM
	CASING THICKNESS	0.000	1n	"	"
BIT SIZE	BIT SIZE	8.500	1n	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.500	1n	"	"

## ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

## CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	LIMESTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1000	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	1n	"	"

## PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/578762/k970aEQ04.prm

LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 7515.332 ft BOTTOM DEPTH: 7968.711 ft

### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ( )	medium (1)		TOP	BOTTOM
CALIPER	FILTER ( )	medium (1)		"	"
TENSION	FILTER ( )	medium (1)		"	"
CN MED RES	FILTER ( )	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soft*)	medium		"	"
ZDL HIGH RES	FILTER (hrd1*)	light		"	"
	FILTER (hrd1a*)	light		"	"
	FILTER (hrd2*)	light		"	"
	FILTER (hrd2a*)	light		"	"

### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	0.000	1n	TOP	BOTTOM
	CASING THICKNESS	0.000	1n	"	"
BIT SIZE	BIT SIZE	8.500	1n	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.500	1n	"	"

### ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

### CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2438 MATRIX	LIMESTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1000	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	1n	"	"

### CURVE DESCRIPTION REPORT

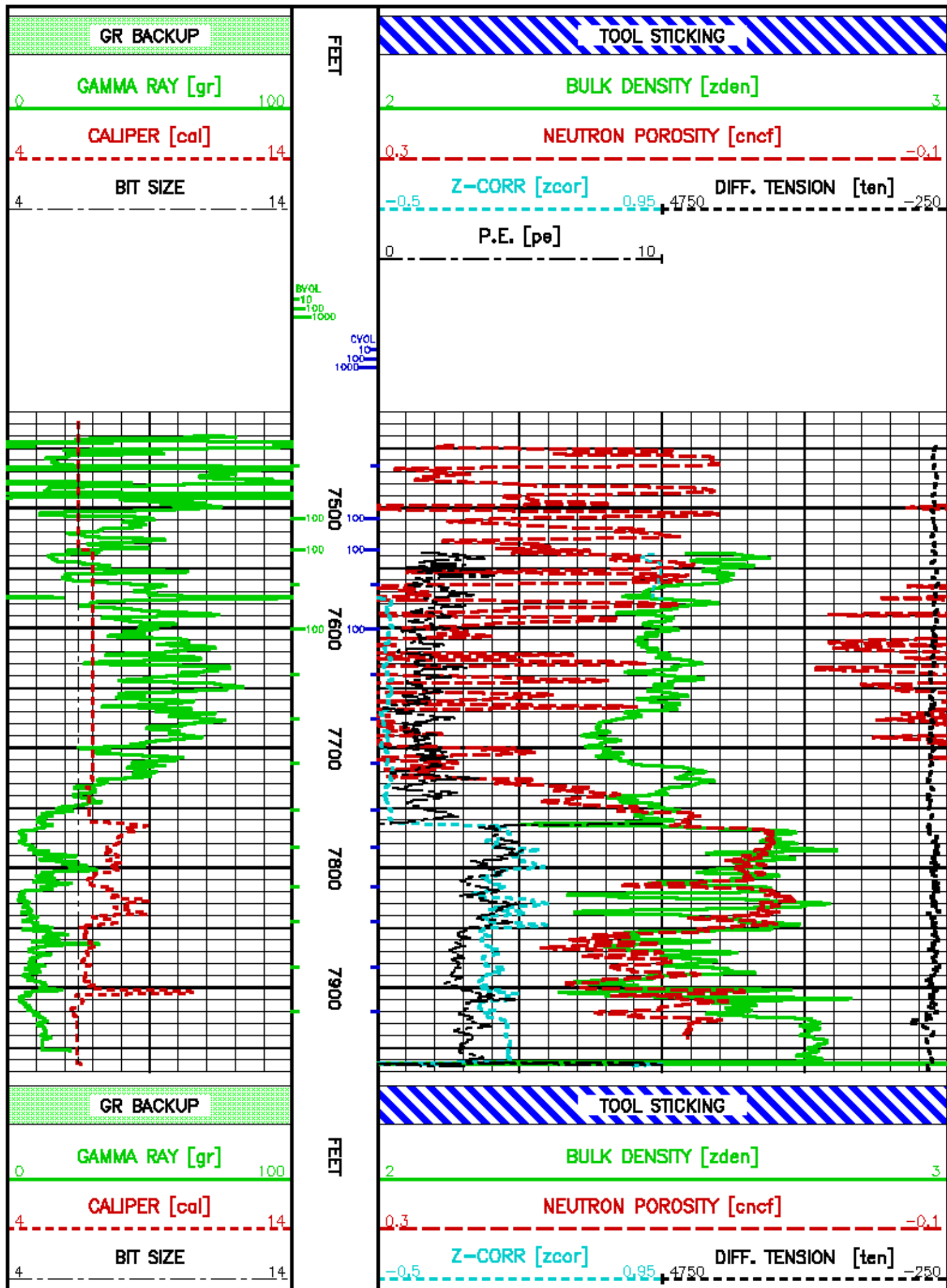
CURVE NAME	CURVE ALIAS	CREATION DATE	CURVE DESCRIPTION
F1:BIT	BIT	Aug 22 22:56:33 2010	BIT SIZE
F1:BVOL	BVOL	Aug 22 22:56:33 2010	BOREHOLE VOLUME
F1:CAL	CAL	Aug 22 22:56:33 2010	CALIPER
F1:CNCF	CNCF	Aug 22 22:56:33 2010	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	CVOL	Aug 22 22:56:33 2010	CEMENT VOLUME
F1:GR	GR	Aug 22 22:56:33 2010	GAMMA RAY
F1:PE	PE	Aug 23 00:28:58 2010	PHOTO ELECTRIC CROSS-SECTION
F1:TEN	TEN	Aug 22 22:56:33 2010	DIFFERENTIAL TENSION
F1:ZCOR	ZCOR	Aug 23 00:28:58 2010	DENSITY CORRECTION
F1:ZDEN	ZDEN	Aug 23 00:28:58 2010	FORMATION BULK DENSITY

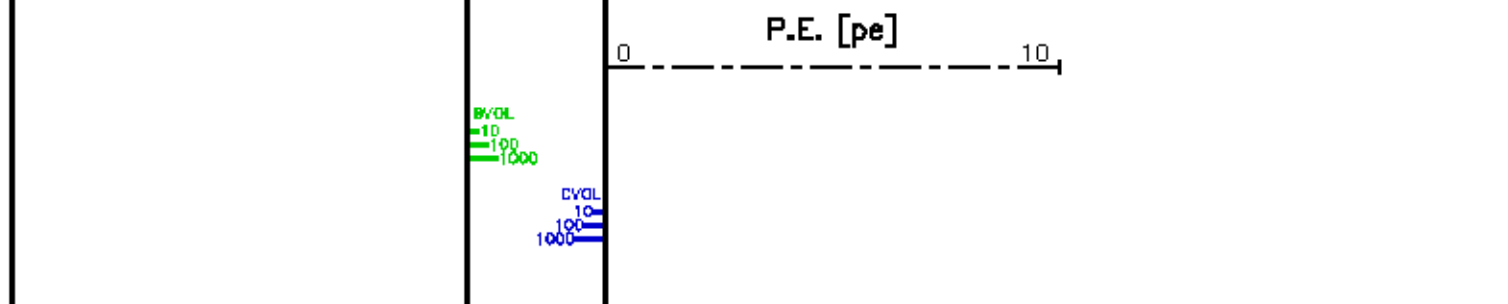
### CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	CNCF	1.50	PE	1.75	ZCOR	1.75
CAL	20.75	GR	9.00	TEN	0.00	ZDEN	1.75

Presentation : mfg1:/data/575762/KINDER\_BULK\_1.pdf [1"/100' Scale]  
 Plot Interval : 7428.25 - 7967.75 Feet

Data File 1 : F1 : mfg1:/data/575762/k070aEG02\_CN\_MM.xtf  
 Created On : Aug 22 22:56:33 2010  
 Company : KINDER MORGAN  
 Well : SAND CANYON #8  
 Field : MCLEMO DOME  
 File Interval : 0 - 7968 Feet





## MAIN LOG 2"/100FT SCALE

ECLIPS 6.01 Feb 21, 2008  
Updates: 1,39,40 Patches: 1,2,4,5,6

Mon Aug 23 00:44:28 2010

Perplf /main/62

Cplot

Pdf\_Cpp /main/16

Fileview 5.42

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/576762/k870aEG02.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 7428.500 ft BOTTOM DEPTH: 7962.574 ft

#### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ()	medium (1)		TOP	BOTTOM
CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
CN MED RES	FILTER ()	medium (1)		"	"

#### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	0.000	1in	TOP	BOTTOM
	CASING THICKNESS	0.000	1in	"	"
BIT SIZE	BIT SIZE	6.500	1in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	6.500	1in	"	"

#### ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

#### CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	LIMESTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1000	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSMB	7.675	1in	"	"

### PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/576762/k870aEG04.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 7515.332 ft BOTTOM DEPTH: 7968.711 ft

#### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ( )	medium (1)		TOP	BOTTOM
CALIPER	FILTER ( )	medium (1)		"	"
TENSION	FILTER ( )	medium (1)		"	"
CN MED RES	FILTER ( )	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soft*)	medium		"	"
ZDL HIGH RES	FILTER (hrd1*)	light		"	"
	FILTER (hrd1a*)	light		"	"
	FILTER (hrd2*)	light		"	"
	FILTER (hrd2a*)	light		"	"

### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	0.000	1in	TOP	BOTTOM
	CASING THICKNESS	0.000	1in	"	"
BIT SIZE	BIT SIZE	6.500	1in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	6.500	1in	"	"

### ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

### CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	LIMESTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1000	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	1in	"	"

### CURVE DESCRIPTION REPORT

CURVE NAME	CURVE ALIAS	CREATION DATE	CURVE DESCRIPTION
F1:BIT	BIT	Aug 22 22:58:33 2010	BIT SIZE
F1:BVOL	BVOL	Aug 22 22:58:33 2010	BOREHOLE VOLUME
F1:CAL	CAL	Aug 22 22:58:33 2010	CALIPER
F1:CNCF	CNCF	Aug 22 22:58:33 2010	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	CVOL	Aug 22 22:58:33 2010	CEMENT VOLUME
F1:GR	GR	Aug 22 22:58:33 2010	GAMMA RAY
F1:PE	PE	Aug 23 00:28:58 2010	PHOTO ELECTRIC CROSS-SECTION
F1:TEN	TEN	Aug 22 22:58:33 2010	DIFFERENTIAL TENSION
F1:ZCOR	ZCOR	Aug 23 00:28:58 2010	DENSITY CORRECTION
F1:ZDEN	ZDEN	Aug 23 00:28:58 2010	FORMATION BULK DENSITY

### CURVE MEASURE POINT OFFSET

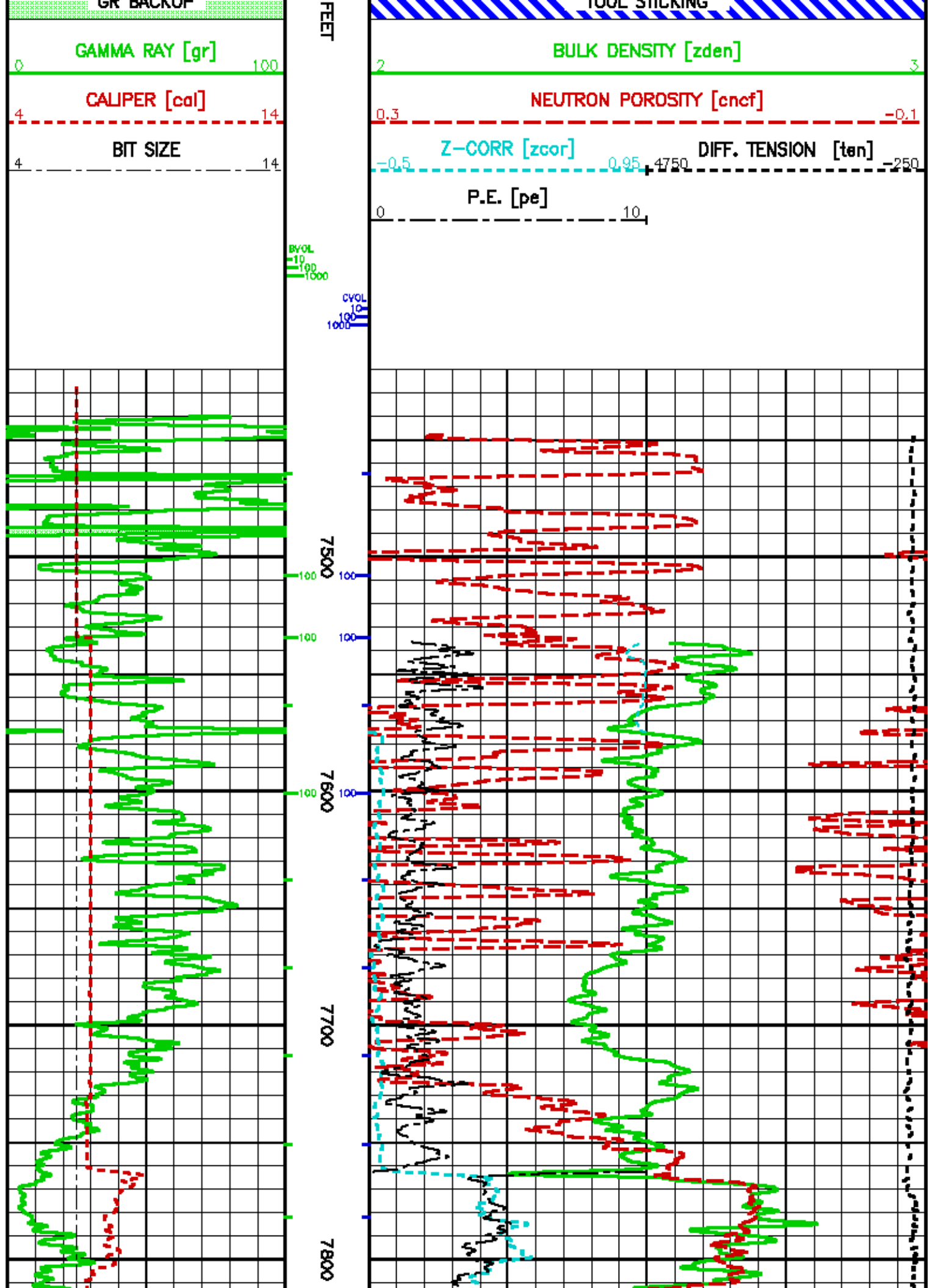
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	CNCF	1.50	PE	1.75	ZCOR	1.75
CAL	20.75	GR	9.00	TEN	0.00	ZDEN	1.75

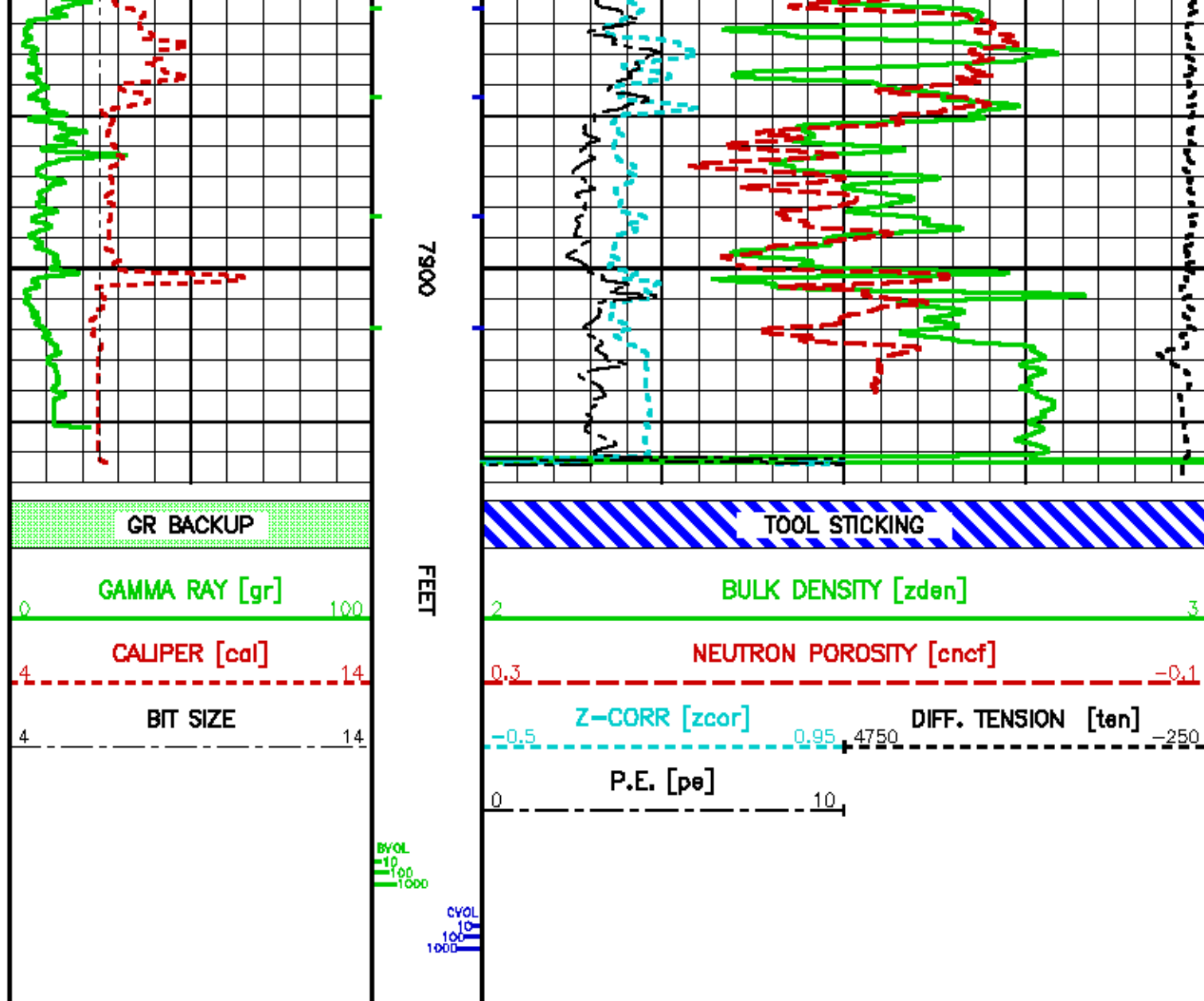
Presentation : mfg1:/data/576782/KINDER\_BULK\_2.pdf [2"/100' Scale]  
 Plot Interval : 7428.25 - 7987.75 Feet

Data File 1 : F1 : mfg1:/data/576782/k870aEG02\_CN\_MM.xtf  
 Created On : Aug 22 22:58:33 2010  
 Company : KINDER MORGAN  
 Well : SAND CANYON JB  
 Field : MCCELMO DOME  
 File Interval : 0 - 7988 Feet  
 Oct : k870aEG

GR BACKUP

TOOL STICKING





## MAIN LOG 5"/100FT SCALE

ECLIPS 6.01 Feb 21, 2008  
Updates: 1,39,40 Patches: 1,2,4,5,6

Mon Aug 23 00:43:20 2010

Perpllt /main/62

Cplot

Pdf\_Cpp /main/16

Fileview 5.42

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/578762/k570aE002.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 7428.500 ft BOTTOM DEPTH: 7962.574 ft

### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ( )	medium (1)		TOP	BOTTOM
CALIPER	FILTER ( )	medium (1)		"	"
TENSION	FILTER ( )	medium (1)		"	"



CN MED RES	FILTER ( )	medium (1)	''	''
<b>BOREHOLE &amp; CEMENT</b>				
<b>MEASUREMENT TYPE</b>	<b>PARAMETER</b>	<b>VALUE</b>	<b>UNITS</b>	<b>INTERVAL (ft)</b>
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	0.000	1in	TOP BOTTOM
	CASING THICKNESS	0.000	1in	'' ''
BIT SIZE	BIT SIZE	8.500	1in	'' ''
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		'' ''
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.500	1in	'' ''
<b>ACCELERATION PROCESSING</b>				
<b>MEASUREMENT TYPE</b>	<b>PARAMETER</b>	<b>VALUE</b>	<b>UNITS</b>	<b>INTERVAL (ft)</b>
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP BOTTOM
<b>CN PROCESSING</b>				
<b>MEASUREMENT TYPE</b>	<b>PARAMETER</b>	<b>VALUE</b>	<b>UNITS</b>	<b>INTERVAL (ft)</b>
CN MATRIX	2436 MATRIX	LIMESTONE		TOP BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1000	ppm	'' ''
	BOREHOLE CORRECTION	ON		'' ''
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		'' ''
	BIT SIZE BEHIND CSNG	7.875	1in	'' ''

<b>CURVE DESCRIPTION REPORT</b>			
<b>CURVE NAME</b>	<b>CURVE ALIAS</b>	<b>CREATION DATE</b>	<b>CURVE DESCRIPTION</b>
F1:BIT	BIT	Aug 22 22:56:33 2010	BIT SIZE
F1:BVOL	BVOL	Aug 22 22:56:33 2010	BOREHOLE VOLUME
F1:CAL	CAL	Aug 22 22:56:33 2010	CALIPER
F1:CNCF	CNCF	Aug 22 22:56:33 2010	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	CVOL	Aug 22 22:56:33 2010	CEMENT VOLUME
F1:GR	GR	Aug 22 22:56:33 2010	GAMMA RAY
F1:PE	PE	Aug 23 00:28:58 2010	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	PORZ	Aug 23 00:28:58 2010	POROSITY FOR SELECTABLE MATRIX
F1:TEN	TEN	Aug 22 22:56:33 2010	DIFFERENTIAL TENSION
F1:ZCOR	ZCOR	Aug 23 00:28:58 2010	DENSITY CORRECTION

<b>CURVE MEASURE POINT OFFSET</b>							
<b>CURVE</b>	<b>OFFSET (ft)</b>	<b>CURVE</b>	<b>OFFSET (ft)</b>	<b>CURVE</b>	<b>OFFSET (ft)</b>	<b>CURVE</b>	<b>OFFSET (ft)</b>
BIT	0.00	CNCF	1.50	PE	1.75	TEN	0.00
CAL	20.75	GR	9.00	PORZ	1.75	ZCOR	1.75

Presentation	: mfg1:/data/576762/KINDER_COMP_MAIN.pdf [3"/100' Scale]
Plot Interval	: 7340 - 7967.75 Feet
Data File 1	: F1 : mfg1:/data/576762/k970aEG02_CN_MM.xtf
Created On	: Aug 22 22:56:33 2010
Company	: KINDER MORGAN
Well	: SAND CANYON #8
Field	: MCILMO DOME
File Interval	: 0 - 7969 Feet
Out	: k970aEG

GR BACKUP		FEET	TOOL STICKING	
GAMMA RAY [gr]			GAS	
0	100		0.3	-0.1
4	14		0.3	-0.1
4	14		-0.5	-250
CALIPER [cal]			Z-DENSITY POROSITY [porz]	
BIT SIZE			NEUTRON POROSITY [cncl]	
			Z-CORR [zcor]	
			DIFF. TENSION [ten]	

P.E. [pe]

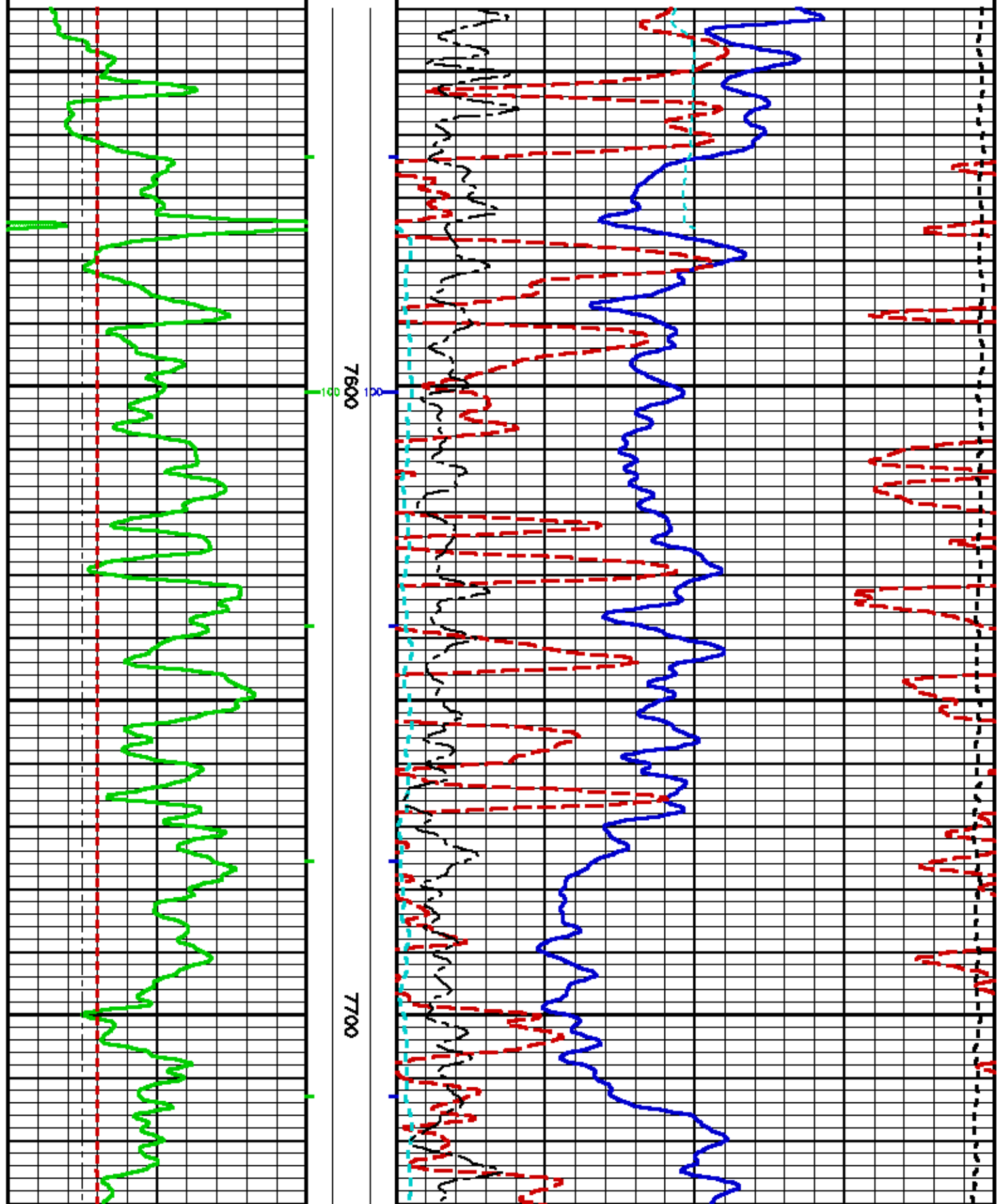
0 10

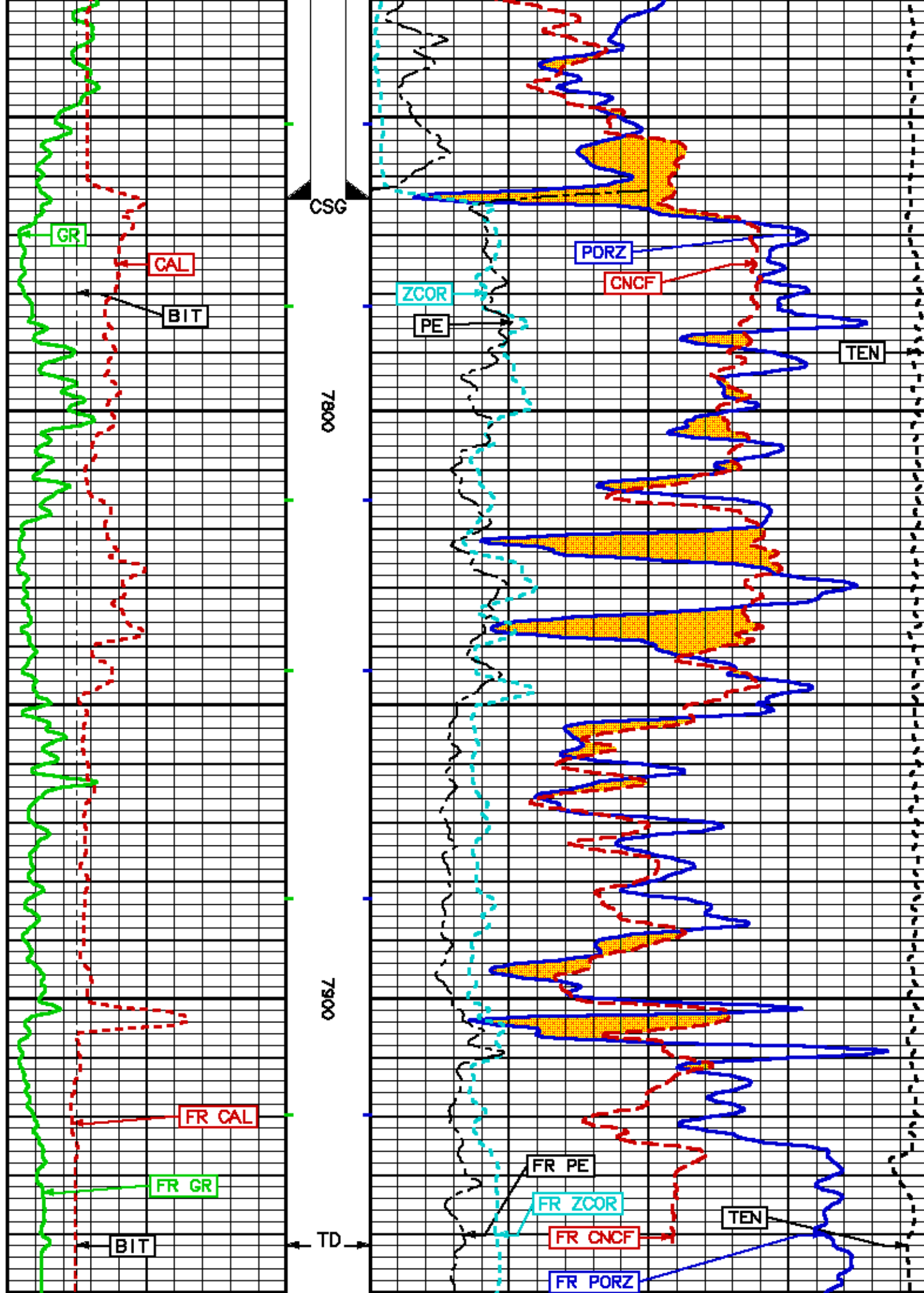
BYOL  
10  
100  
1000

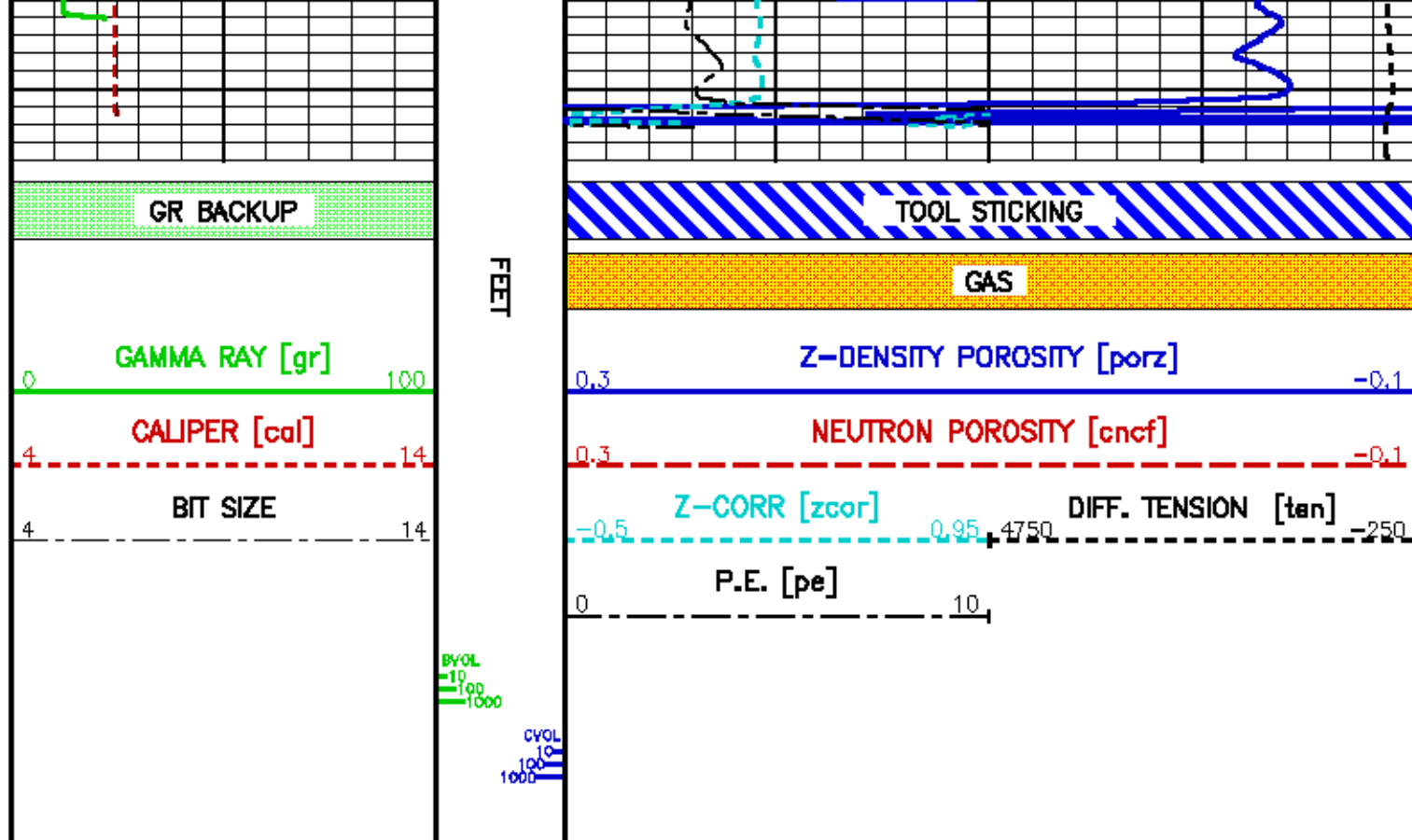
CVOL  
10  
100  
1000

7600

7700







REPEAT LOG 5"/100FT SCALE

ECLIPS 6.01 Feb 21, 2008  
Updates: 1,39,40 Patches: 1,2,4,5,6

Mon Aug 23 00:26:28 2010

Perplf /main/62

Cplot

Pdf\_Cpp /main/16

Fileview 5.42

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/576762/1c670aEG01.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 7712.000 ft BOTTOM DEPTH: 7966.156 ft

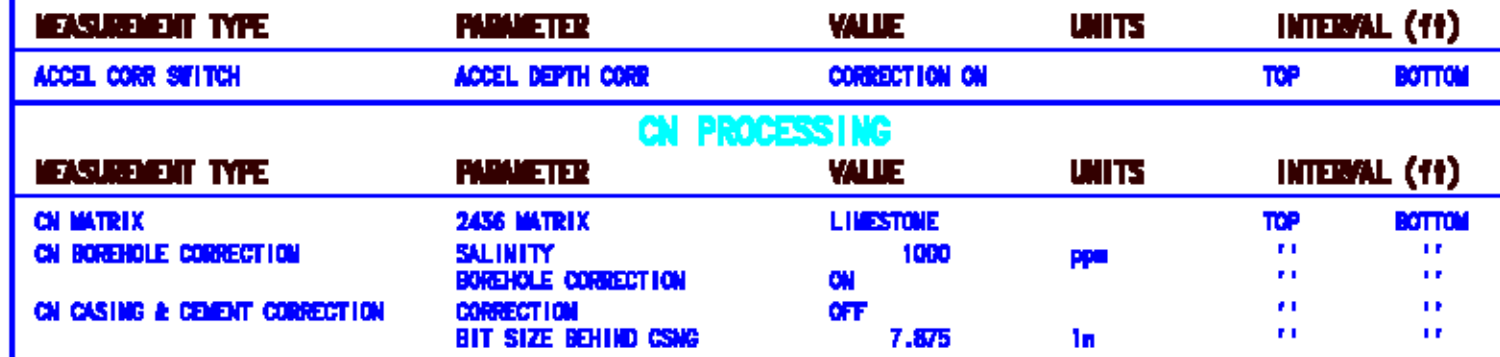
#### SYMMETRIC FILTER

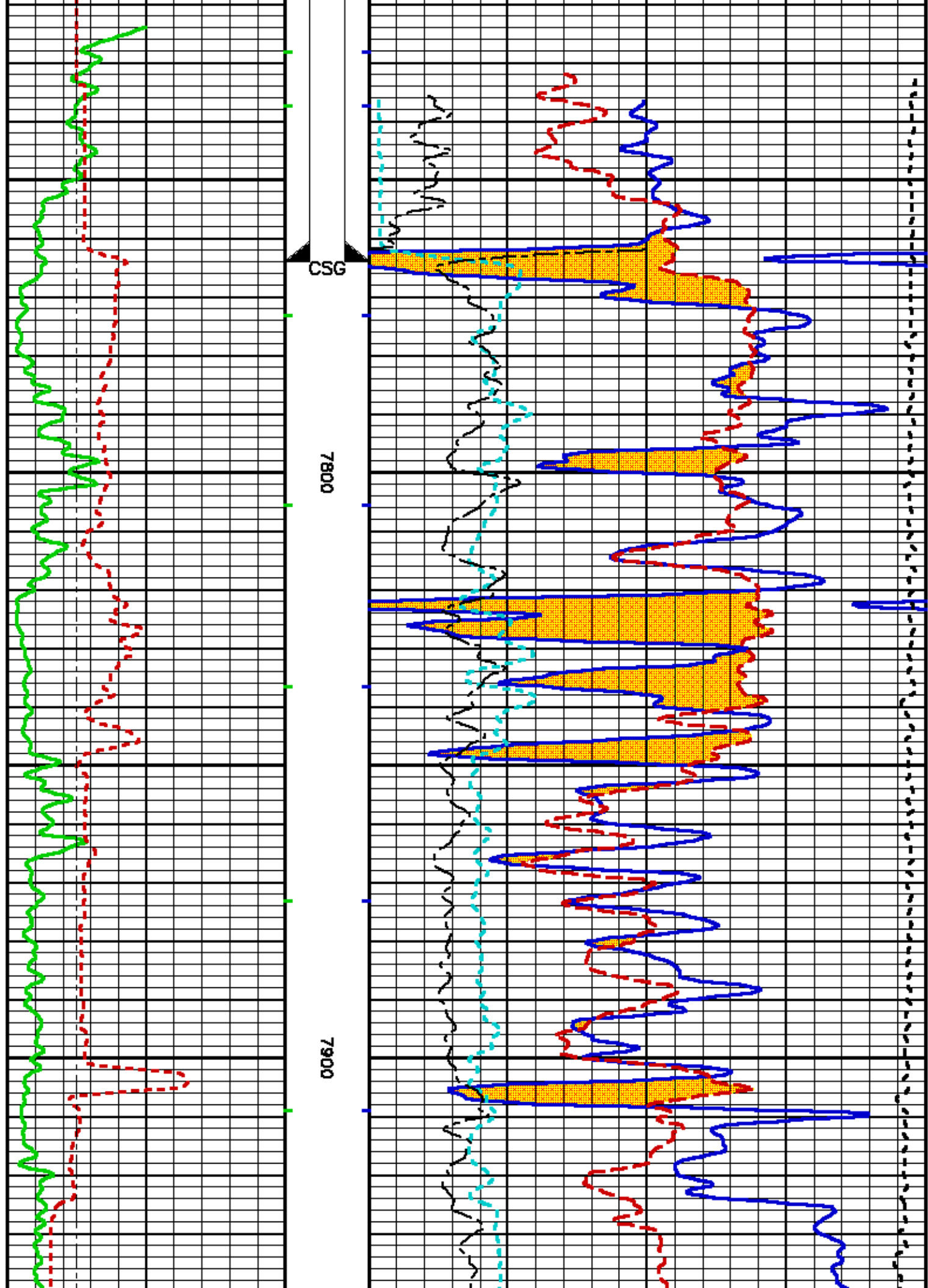
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ( )	medium (1)		TOP	BOTTOM
CALIPER	FILTER ( )	medium (1)		"	"
TENSION	FILTER ( )	medium (1)		"	"
CN MED RES	FILTER ( )	medium (1)		"	"

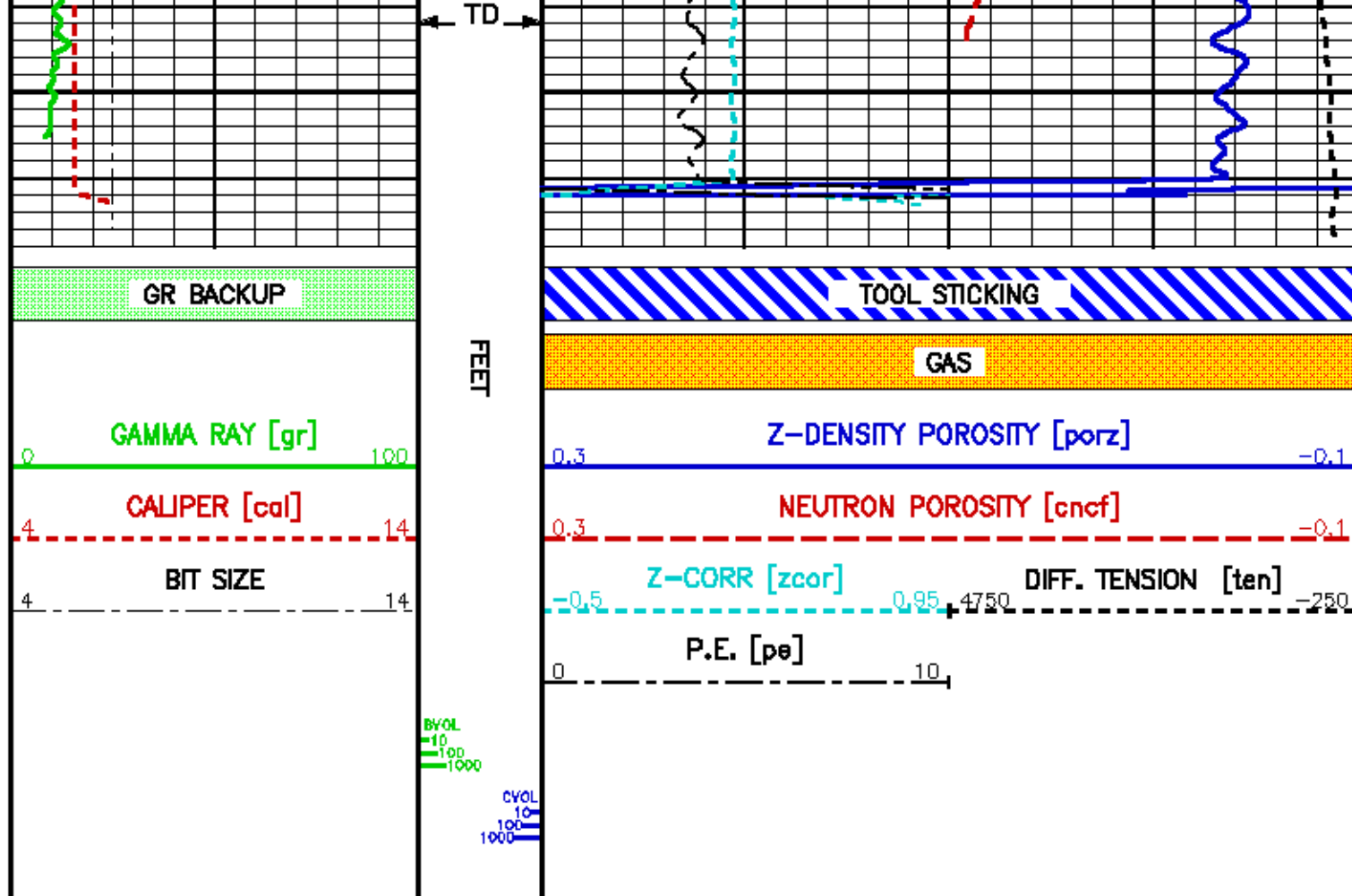
#### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	0.000	1n	TOP	BOTTOM
	CASING THICKNESS	0.000	1n	"	"
BIT SIZE	BIT SIZE	6.500	1n	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	6.500	1n	"	"

#### ACCELERATION PROCESSING







## CALIBRATION / VERIFICATION SUMMARY

Source File: /cd11a/876782/1070a00.t01

### GR PRIMARY CALIBRATION SUMMARY

Tool #: 3518EG 10411092 DATE/TIME PERFORMED: Sun Aug 8 17:40:04 2010

Unit #: 3880TA HL6741 Jlg Series: 4702NK BA-858

Background	Calibrator ON	Jlg Value (gAPI)	Mult	Background (gAPI)	Calibrator ON (gAPI)
121.56	789.23	186	0.277 0.230 0.230	33.68	218.68

### GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10411092 DATE/TIME PERFORMED: Sun Aug 22 22:24:16 2010 DAYS SINCE CAL: 14

UNIT #: 3880TA HL6741 Jlg: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67 929.00 1027.00	77.86 830.00	1361.74 1237.00 1612.00

### GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10411092 DATE/TIME PERFORMED: Sun Aug 22 23:07:04 2010 DAYS SINCE CAL: 14

UNIT #: 3880TA HL6741 Jlg: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67 929.00 1027.00	123.01 830.00	1365.44 1237.00 1612.00



### CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2436XA 10362459

DATE/TIME PERFORMED: Fri Jul 9 14:16:19 2010

UNIT #: 3880TA HL6741

CALIBRATOR #: 2437XB 112674

SOURCE #: 4718XA N-0945

SSN DT CPS	LSN DT CPS	SSN/LSN	MCF	CNRATIO	CN PU
4749.92	832.53	5.70541	1.00554 0.99000 1.00000	5.73700	25.241

### CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10362459

DATE/TIME PERFORMED: Sun Aug 22 22:24:13 2010

DAYS SINCE CAL: 44

UNIT #: 3880TA HL6741

CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.41	994.44	0.99797 0.99000 1.00000	62.5 280.4	1348.9 1280.0 1450.0	4.848 4.200 5.000

### CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10362459

DATE/TIME PERFORMED: Sun Aug 22 23:06:50 2010

DAYS SINCE CAL: 44

UNIT #: 3880TA HL6741

CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.08	994.10	0.99797 0.99000 1.00000	109.4 280.4	1345.9 1280.0 1450.0	4.848 4.200 5.000

### CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 10086225

DATE/TIME PERFORMED: Fri Jul 23 13:53:57 2010

UNIT #: 3880TA HL6741

	SIZE (in)	VALUE	MULTIPLIER	ADD
SMALL RING (Arm)	7.000	1396.0		
LARGE RING (Arm)	11.000	2636.0	0.00323	2.49677
PAD CLOSED		1112.0	0.00250	-2.78000

### CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10086225

DATE/TIME PERFORMED: Sun Aug 22 23:53:49 2010

DAYS SINCE CAL: 30

UNIT #: 3880TA HL6741

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1319.8	0.00323	2.49677	6.8
PAD	1436.0	0.00250	-2.78000	0.8
DIAMETER (arm+pad)	ACTUAL (in) 7.000	MEASURED (in) 6.8		7.0

### CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10086225

DATE/TIME PERFORMED: Mon Aug 23 00:37:39 2010

DAYS SINCE CAL: 30

UNIT #: 3880TA HL6741

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1364.0	0.00323	2.49677	7.0
PAD	1308.0	0.00250	-2.78000	0.8

ACTUAL MEASURED



DIAMETER (arm+pad) (in) 7.000 7.0  
4.6 7.4

## ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2223XA 10088225

DATE/TIME PERFORMED: Sat Jul 24 13:23:13 2010

UNIT: 3880TA HL6741

CALB BLKS: 2225XA 094292F

CS SRC: 4705XA 16068B

PAD TYPE: PADTYP 7.5" PAD

	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)		
	223.8	225.5	1313.8	1365.3		
	220.0	220.0	220.0	220.0		
	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	40240.9	14854.3	0.766	1.679	0.000	1.900
			0.725	0.260		
AL	25492.8	1728.9		2.687	-0.016	
AL + SHIM	33884.4	3018.6		2.558	0.098	
MG + SHIM (HI PE)	19895.3	7045.6	0.294			5.550
			0.285	0.290		
RATIO AL + SHIM/AL	1.33	1.75				
	1.30	1.40	1.60	1.30		
RATIO MG/AL	1.58	8.60				
	1.28	1.70	8.85	8.65		

## ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10088225

DATE/TIME PERFORMED: Sun Aug 22 23:51:58 2010

DAYS SINCE CAL: 29

UNIT #: 3880TA HL6741

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	224.9	1359.0
	3332.1	220.0	1280.0
	3352.1	230.0	1550.0
SS	22354.8	224.2	1448.0
	22344.8	220.0	1420.0
	22364.8	228.0	1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	76.4	
	4.6	80.0	120.0

## ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10088225

DATE/TIME PERFORMED: Mon Aug 23 00:37:42 2010

DAYS SINCE CAL: 29

UNIT #: 3880TA HL6741

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	224.8	1397.9
	3332.1	220.0	1280.0
	3352.1	230.0	1580.0
SS	22355.0	224.1	1503.2
	22344.8	220.0	1480.0
	22364.8	228.0	1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	85.8	
	4.6	90.0	120.0

## INSTRUMENT CONFIGURATION

Source File: /data/876782/1070a000-10a

FOCUS CARLHEAD  
Series: z CARL31B  
Memoria: z CSH

FOCUS RELVEL  
Series: z 3850KA

FOCUS TEN/TEMP/MJD RES/ACCEL  
Series: z 3850KA  
Memoria: z TTVA



27.31'

Diameter : 3.13"

**COLLAR LOCATOR**  
 Series : 2334XA

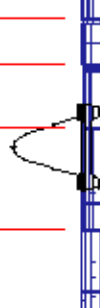
**FOCUS TELEMETRY (POWER SECTION)**  
 Series : 3018FB  
 Monsonic : TMR

**FOCUS EB/EG TELEMETRY GAMMA RAY**  
 Series : 3018ED  
 Monsonic : GR  
 Diameter : 3.12"  
 Weight : 63 lbs  
 Length : 8.83"

**FOCUS COMPENSATED NEUTRON**  
 Series : 2438XA  
 Monsonic : CN  
 Diameter : 3.13"  
 Weight : 66 lbs

**BULL PLUG 3 1/8**

TOTAL LENGTH: 27.31'  
 TOTAL WEIGHT: 366 lbs  
 MAX DIAMETER: 0'S.40"



CCL MP : 15.44'

GR MP : 9.28'

LSN MP : 2.14'

SEN MP : 0.00'

## INSTRUMENT CONFIGURATION

Source File : \\slla\876782\876782 -tda

**FOCUS CARLHEAD**  
 Series : CARL31B  
 Monsonic : OBLH

**FOCUS SWIVEL**  
 Series : 3050XA

**FOCUS TEN/TEMP/MUD RES/ADCEL**  
 Series : 3050XA  
 Monsonic : TTA  
 Diameter : 3.13"

**COLLAR LOCATOR**  
 Series : 2334XA

**FOCUS TELEMETRY (POWER SECTION)**  
 Series : 3018FB  
 Monsonic : TMR

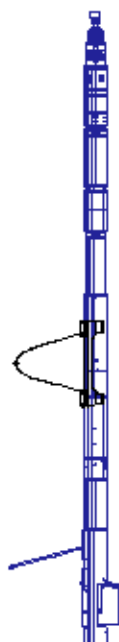
**FOCUS EB/EG TELEMETRY GAMMA RAY**  
 Series : 3018ED  
 Monsonic : GR  
 Diameter : 3.12"  
 Weight : 63 lbs  
 Length : 8.83"

**FOCUS COMPENSATED NEUTRON**  
 Series : 2438XA  
 Monsonic : CN  
 Diameter : 3.13"  
 Weight : 66 lbs

**FOCUS Z-DENSILOG**  
 Series : 2223XA  
 Monsonic : ZDL  
 Diameter : 3.75"  
 Weight : 200 lbs  
 Length : 8.55"  
 Measure Point: 4.33' : CR1 MP  
 Measure Point: 1.88' : LSO MP  
 Measure Point: 1.88' : CR2 MP

**BULL PLUG 3 1/8**

TOTAL LENGTH: 36.89'  
 TOTAL WEIGHT: 866 lbs  
 MAX DIAMETER: 0'S.75"



36.89'

CCL MP : 26.03'

GR MP : 16.88'

LSN MP : 11.73'

SEN MP : 11.27'

CR1 MP : 4.56'

LSO / CR2 MP : 1.91'

SEN MP : 1.82'

0.00'



COMPANY  
WELL  
FIELD  
COUNTY

KINDER MORGAN  
SAND CANYON #B  
MCELMO DOME  
MONTEZUMA

STATE COLORADO

FILE NO:

API NO:

05083852700000

LOCATION:

SHL: 2712' FWL & 1803' FSL

ELEVATIONS:

KB 6418.5 FT

DF 6415.5 FT

GL 6397.0 FT

SEC 7 TWP 36N RGE 18W

DATE 22-AUG-2010

Baker Atlas

