



FILE NO: OH099063	COMPANY PICEANCE ENERGY	
WELL PICEANCE 28-07W SURFACE		
API NO: 05077097750000	FIELD VEGA	
	COUNTY MESA	
	STATE COLORADO	
Ver. 4.01 SEC 28 T9S R93W PICEANCE 28-05 PATTERSON 306	LOCATION: SHL: 1551' FNL 1192' FWL BHL: 1625' FNL 873' FWL SEC 28 TWP 9S RGE 93W	OTHER SERVICES NONE
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL ELEVATION 7556 FT KB 24 FT ABOVE P.D. KB	ELEVATIONS: KB 7578 FT DF GL 7556 FT

DATE	06-SEP-2015
RUN	TRIP 1
SERVICE ORDER	US0909063J
DEPTH DRILLER	1582 FT
DEPTH LOGGER	1577 FT
BOTTOM LOGGED INTERVAL	1574 FT
TOP LOGGED INTERVAL	0 FT
CASING DRILLER	16 IN @ 82 FT
CASING LOGGER	82 FT
BIT SIZE	11 IN
TYPE OF FLUID IN HOLE	WATER
DENSITY	8.35 LB/G
PH	NA
SOURCE OF SAMPLE	NA
RM AT MEAS. TEMP.	NA @ NA
RMF AT MEAS. TEMP.	NA @ NA
RMC AT MEAS. TEMP.	NA @ NA
SOURCE OF RMF	NA
RM AT BHT	1.7 OHMM @ 95 DEGF
TIME SINCE CIRCULATION	2 HOURS
MAX. RECORDED TEMP.	95 DEGF
EQUIP. NO.	6685
LOCATION	W. QUIGLEY
RECORDED BY	MR. ROGER FOSTER
WITNESSED BY	

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE 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
11 IN	0 FT	1582 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
16 IN			0 FT	82 FT

### REMARKS

RUN 1 TRIP 1: HDIL ZDL CN GR RAN IN COMBINATION

BVOL CVOL CALCULATED IN CUBIC FT  
CVOL CALCULATED USING PROPOSED 8.625" CASING

RHO MATRIX: 2.68 G/CC  
RHO FLUID: 1.00 G/CC

CN MATRIX: SANDSTONE  
CN RAN DECENTRALIZED

HDIL RAN WITH 1.5" STANDOFFS  
ABC TO CALCULATE MUD CONDUCTIVITY

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES  
CREW: OLSON/COATE/QUIGLEY  
RIG: PATTERSON 306

### EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWVL	3950XA	10119949	FREE
1	1	TTMA	3980XA	10121559	FREE
1	1	FOC TEL	3518FB	10126400	FREE
1	1	GR	3518EB	10126398	FREE
1	1	CN	2436XA	10522099	FREE
1	1	ZDL	2223XA	10102922	CALIPER DEVICE
1	1	KNUCKLE	3930XA	10139400	FREE
1	1	HDIL	1530XA	10415933	FREE

## MAIN LOG 2"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 7

Plotted: Sun Sep 6 14:00:02 2015

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/OH099063/n970m02.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 13.262 ft BOTTOM DEPTH: 1579.794 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)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

#### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	11.000	in	TOP	BOTTOM
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	11.000	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

#### ACCELERATION PROCESSING

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

#### HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC CALCULATE			"	"
	MUD CONDUCTIVITY			"	"

ABC to CALCULATE  
STANDOFF  
TOOL POSITION  
Rmud MULTIPLIER

MUD CONDUCTIVITY  
1.50  
in  
ECCENTERED  
1.000

## CURVE DESCRIPTION REPORT

CURVE NAME CREATION DATE CURVE DESCRIPTION

F1:GR	Sep 6 13:03:10 2015	GAMMA RAY
F1:M0C6	Sep 6 13:03:10 2015	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:M0R2	Sep 6 13:03:10 2015	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:M0R6	Sep 6 13:03:10 2015	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Sep 6 13:03:10 2015	SPONTANEOUS POTENTIAL
F1:TEN	Sep 6 13:03:10 2015	DIFFERENTIAL TENSION

## CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	35.00	M0R2	2.75	SP	1.25		
M0C6	2.75	M0R6	2.75	TEN	0.00		

Presentation : cas6685:/dat1a/OH099063/2IN.fvpdf [2"/100' Scale]  
Plot Interval : -1.5 - 1578 Feet

Data File 1 : F1 : cas6685:/dat1a/OH099063/n970m02\_MAIN.xtf  
Created On : Sep 6 13:03:10 2015  
Company : PICEANCE ENERGY  
Well : PICEANCE 28-07W SURFACE  
Field : VEGA  
File Interval : -23.25 - 1824 Feet  
OCT : n970m

GR BACKUP

GAMMA RAY [gr]

0 200

SP [sp]

-200 50

FEET

0

CSG

100

TOOL STICKING

DEEP [m0r6]

0 100

SHALLOW [m0r2]

0 100 500

AMPLIFIED SHALLOW [m0r2]

0 20

OVERRANGE DEEP [m0r6]

100 1000

OVERRANGE SHALLOW [m0r2]

100 1000

DIFF. TENSION [ten]

4750 -250

60 in. DOI [m0c6]

0 0

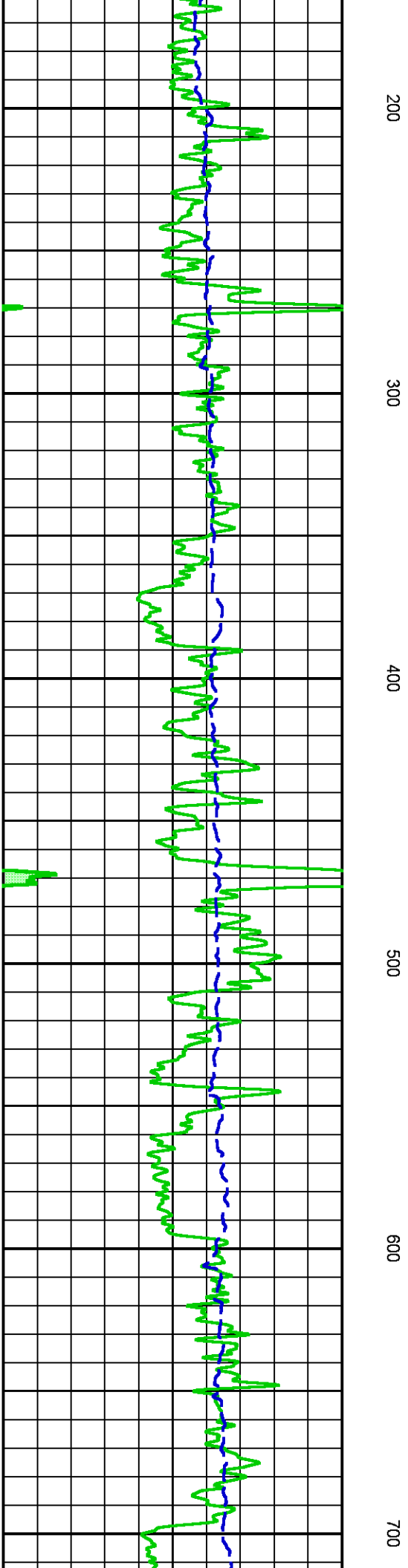
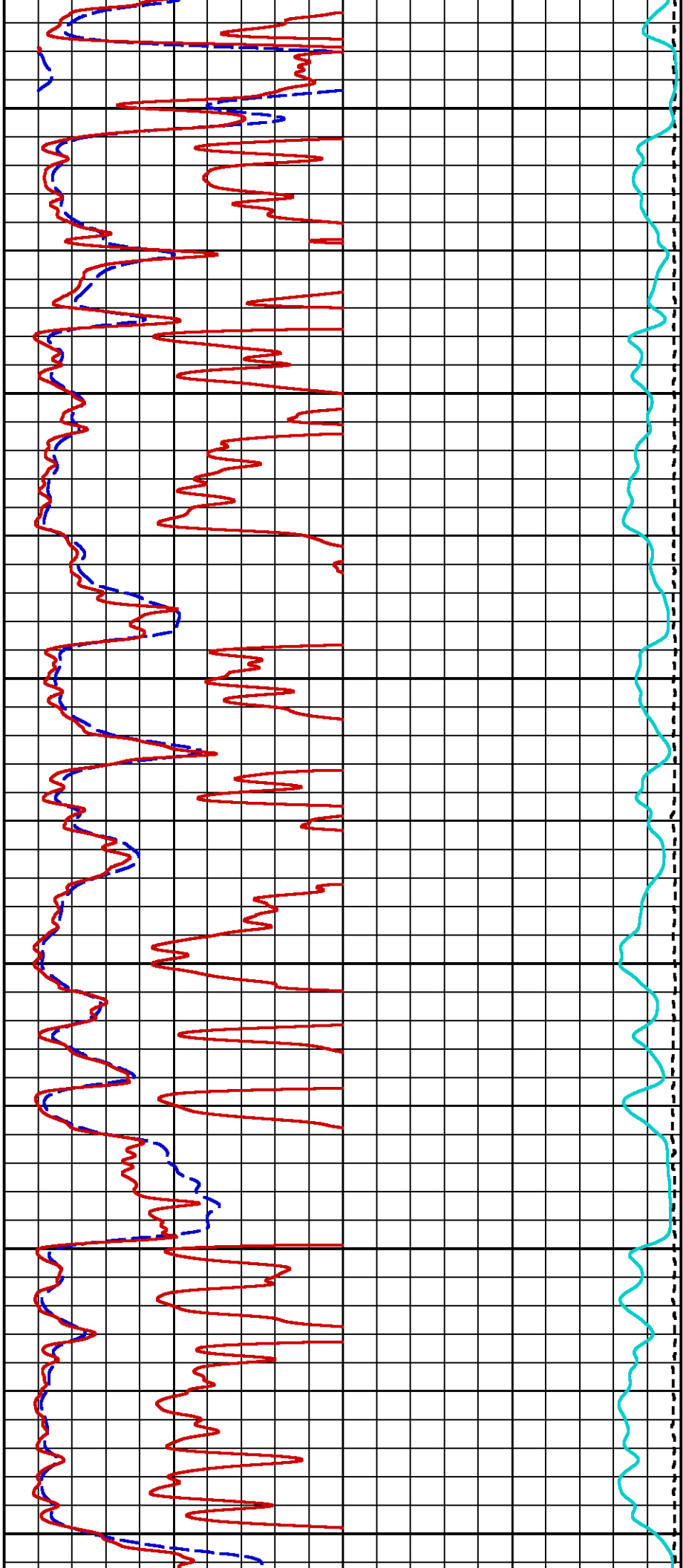
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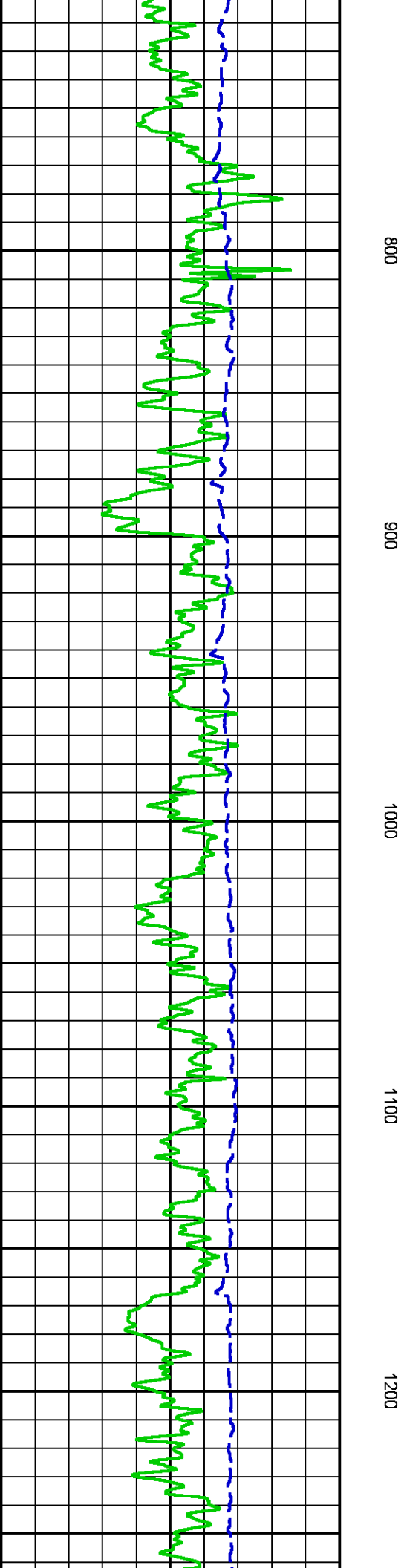
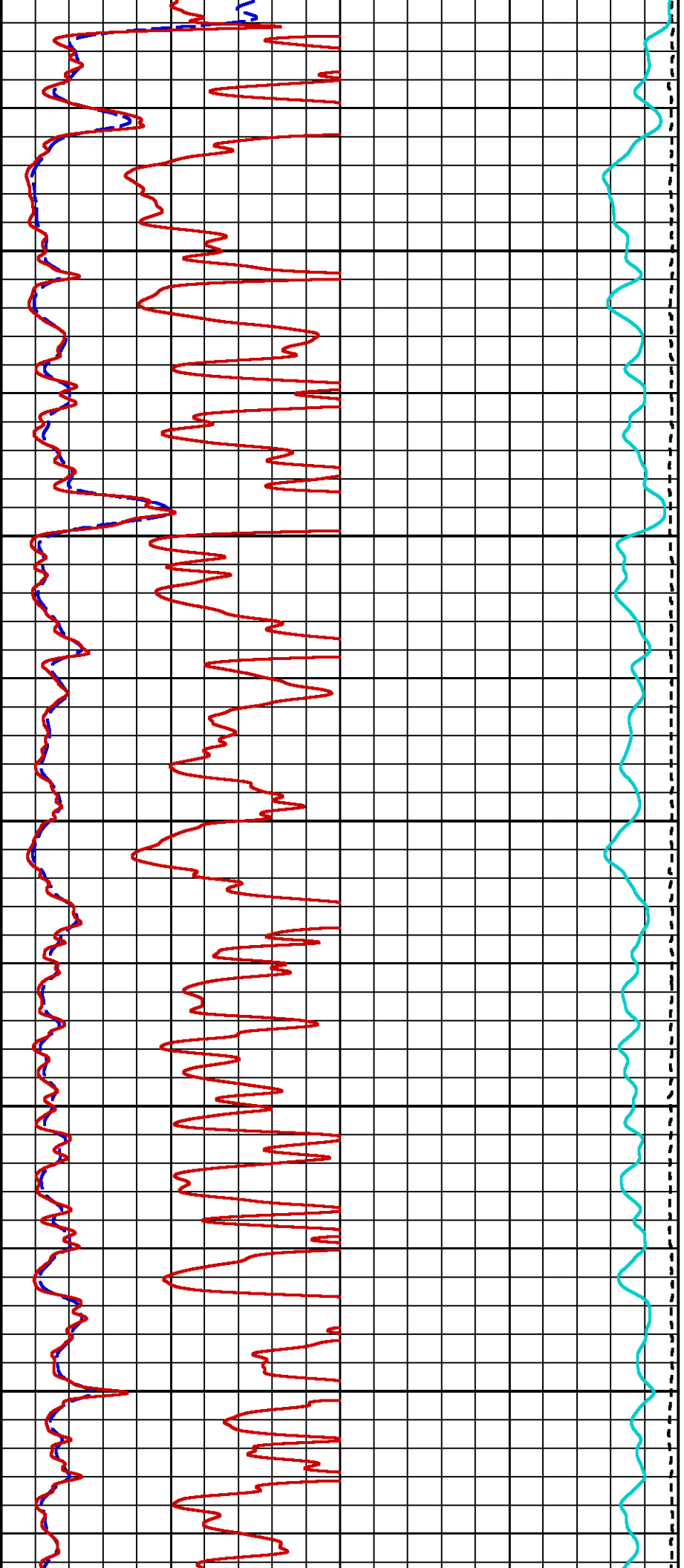
M0R2

TEN

M0R2

M0C6







## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/OH099063/n970m02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 13.262 ft BOTTOM DEPTH: 1579.794 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 (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

## BOREHOLE &amp; CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	8.625	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	11.000	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	11.000	in	"	"
	FIXED DIAMETER (mbh*)	11.000	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

## 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	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	0	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	in	"	"

## ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	Air Filled Borehole	NO		TOP	BOTTOM
	RHOmatrix	2.680	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

## HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"

## CURVE DESCRIPTION REPORT

CURVE NAME      CREATION DATE      CURVE DESCRIPTION

F1:BIT	Sep 6 13:03:10 2015	BIT SIZE
F1:BVOL	Sep 6 13:03:10 2015	BOREHOLE VOLUME
F1:CAL	Sep 6 13:03:10 2015	CALIPER
F1:CNCF	Sep 6 13:03:10 2015	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Sep 6 13:03:10 2015	CEMENT VOLUME
F1:GR	Sep 6 13:03:10 2015	GAMMA RAY
F1:M2R1	Sep 6 13:03:10 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R2	Sep 6 13:03:10 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M2R3	Sep 6 13:03:10 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F1:M2R6	Sep 6 13:03:10 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Sep 6 13:03:10 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Sep 6 13:03:10 2015	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Sep 6 13:03:10 2015	POROSITY FOR SELECTABLE MATRIX
F1:SP	Sep 6 13:03:10 2015	SPONTANEOUS POTENTIAL
F1:TEN	Sep 6 13:03:10 2015	DIFFERENTIAL TENSION
F1:ZCOR	Sep 6 13:03:10 2015	DENSITY CORRECTION

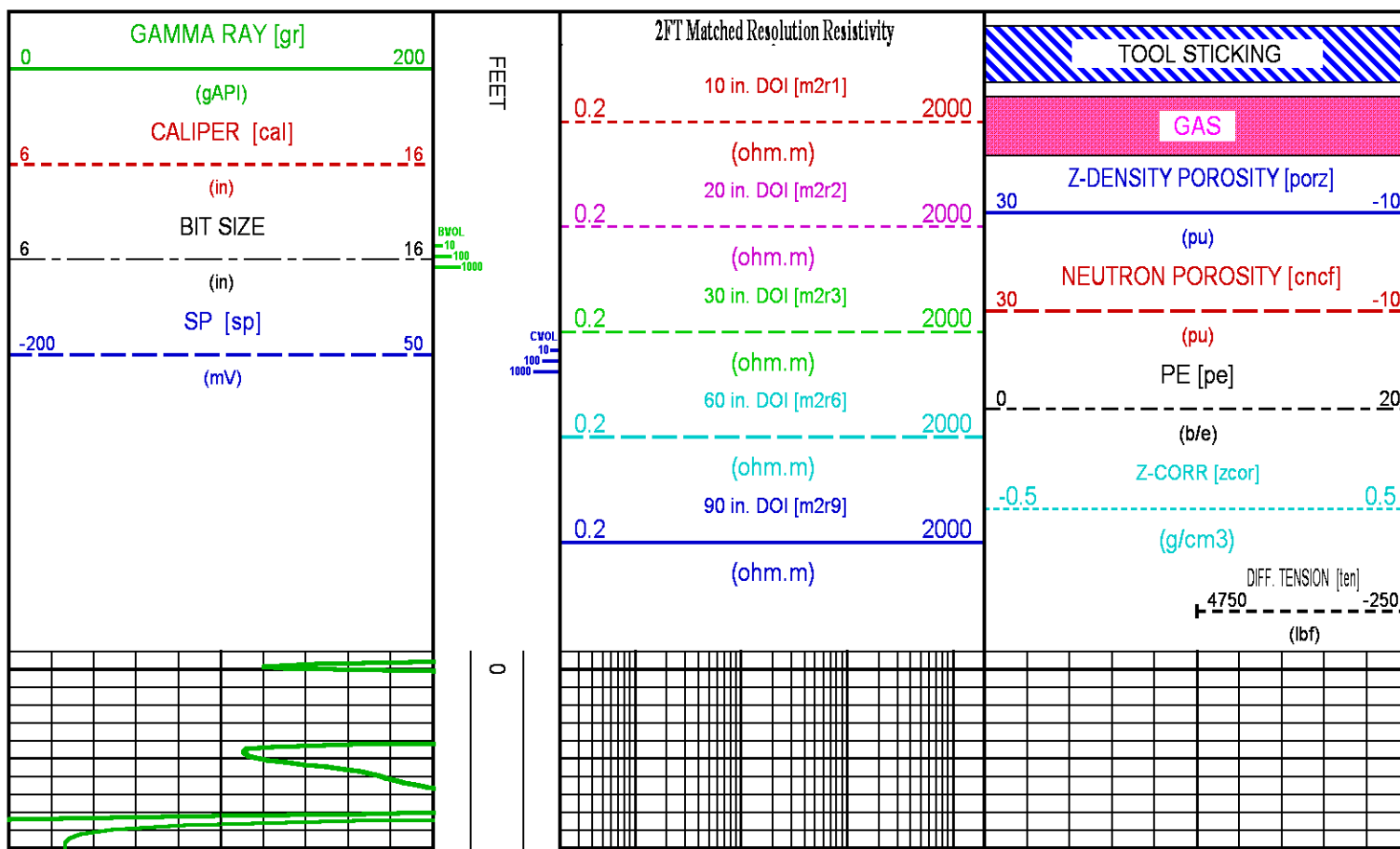
## CURVE MEASURE POINT OFFSET

CURVE      OFFSET (ft)      CURVE      OFFSET (ft)      CURVE      OFFSET (ft)      CURVE      OFFSET (ft)

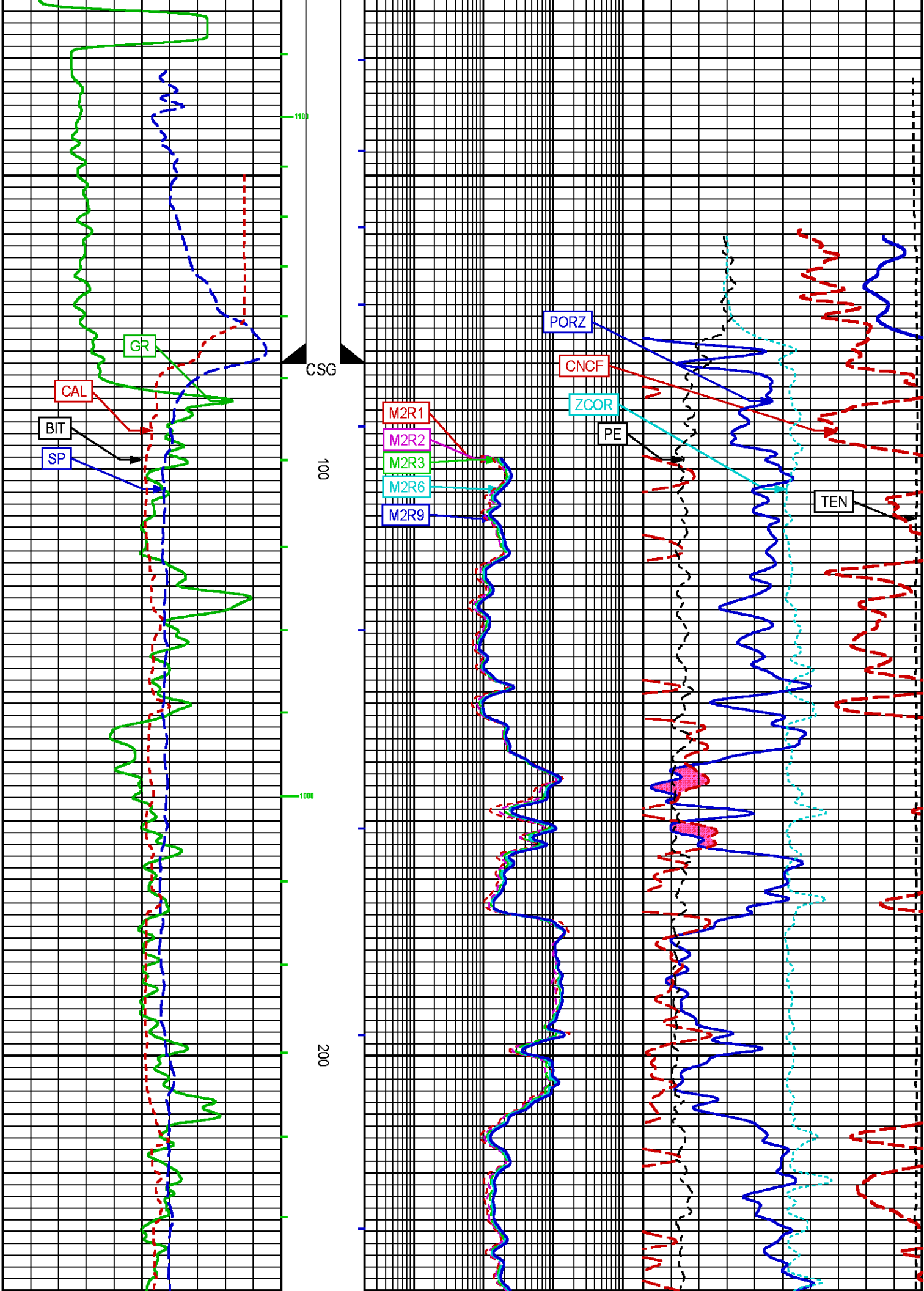
BIT	0.00	M2R1	2.75	M2R9	2.75	TEN	0.00
CAL	18.12	M2R2	2.75	PE	18.00	ZCOR	18.00
CNCF	27.38	M2R3	2.75	PORZ	18.00		
GR	35.00	M2R6	2.75	SP	1.25		

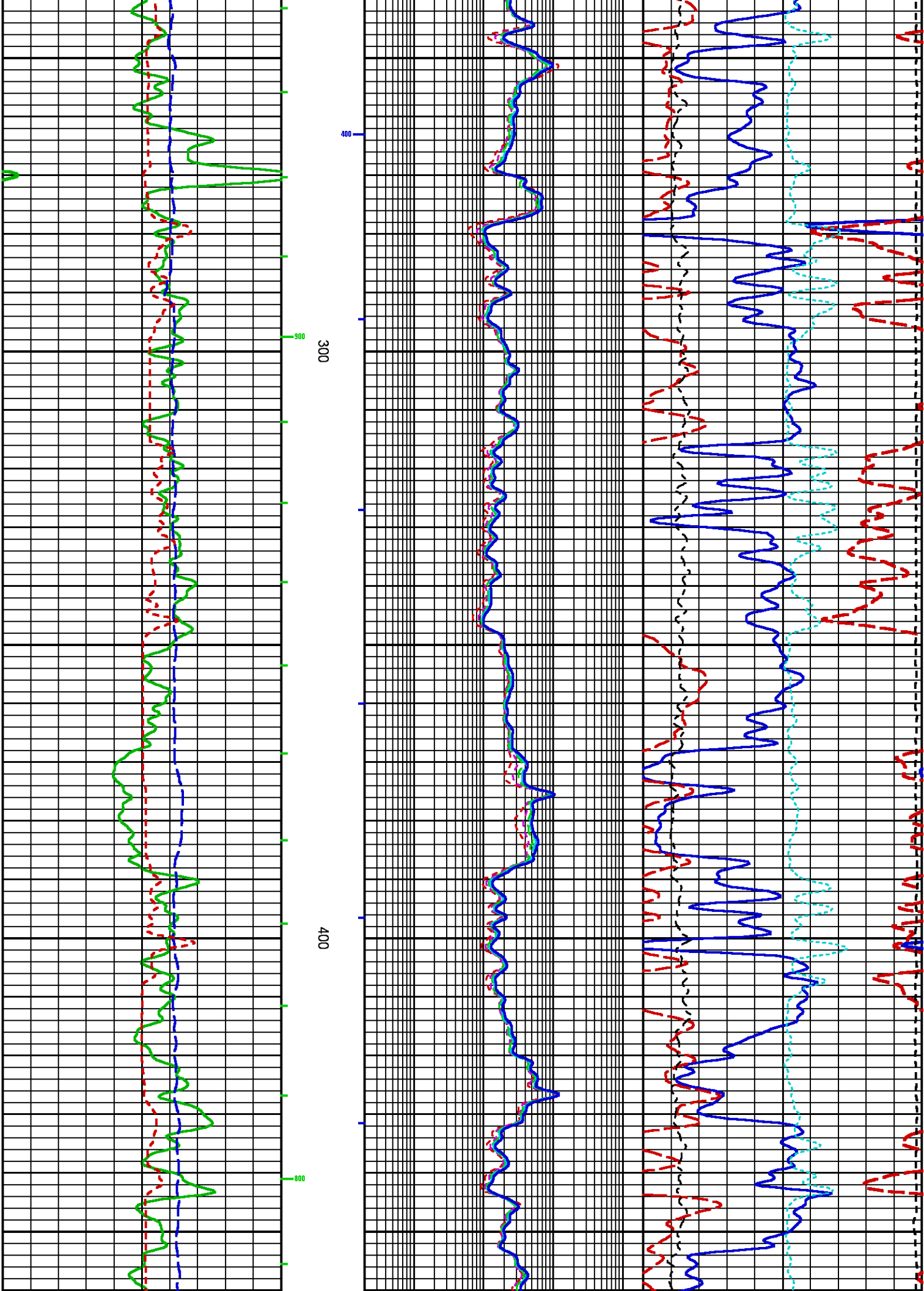
Presentation : cas6685:/dat1a/OH099063/MAIN.fvpdf [5"/100' Scale]  
Plot Interval : -1.5 - 1582.75 Feet

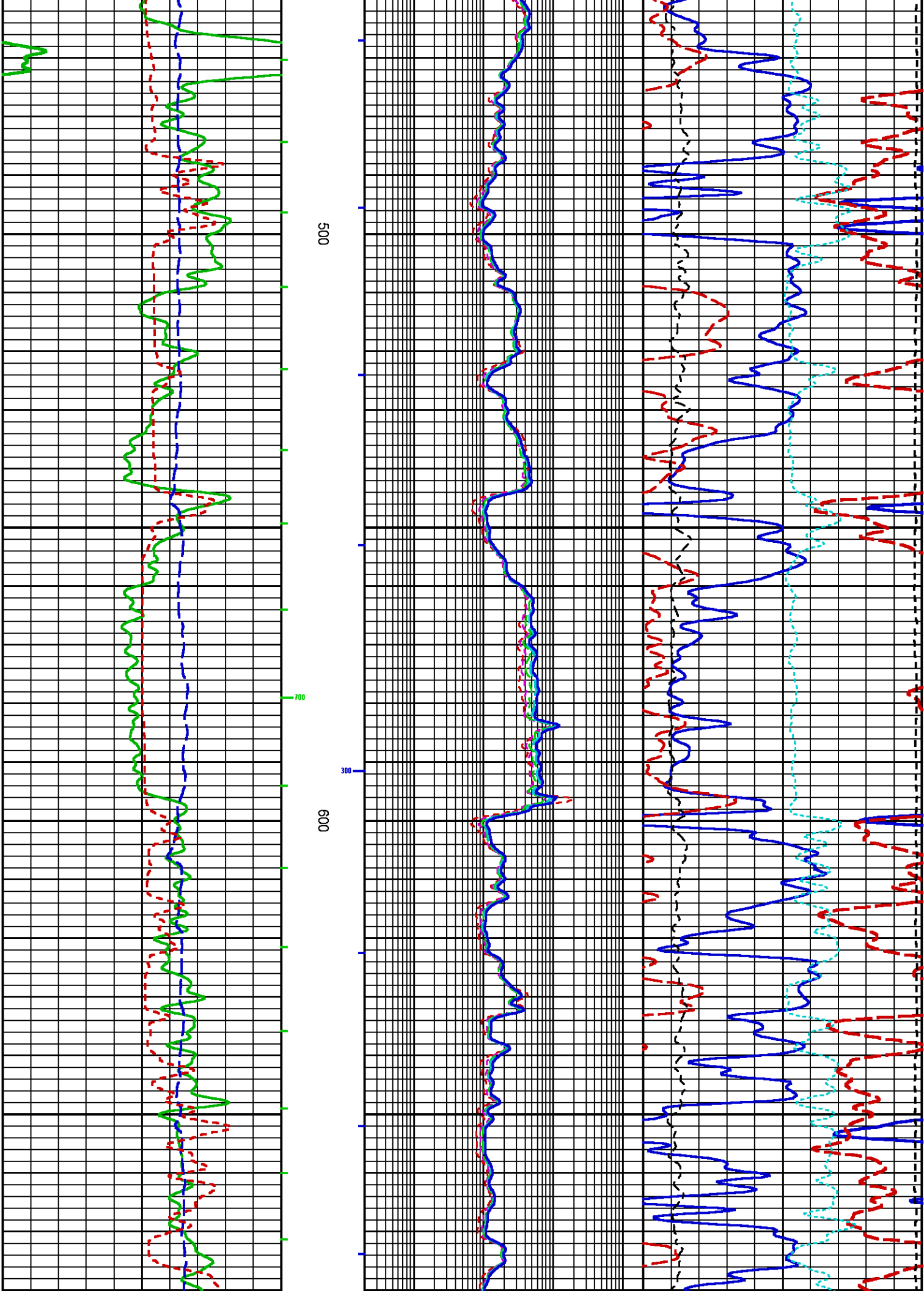
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Created On : Sep 6 13:03:10 2015  
Company : PICEANCE ENERGY  
Well : PICEANCE 28-07W SURFACE  
Field : VEGA  
File Interval : -23.25 - 1824 Feet  
OCT : n970m

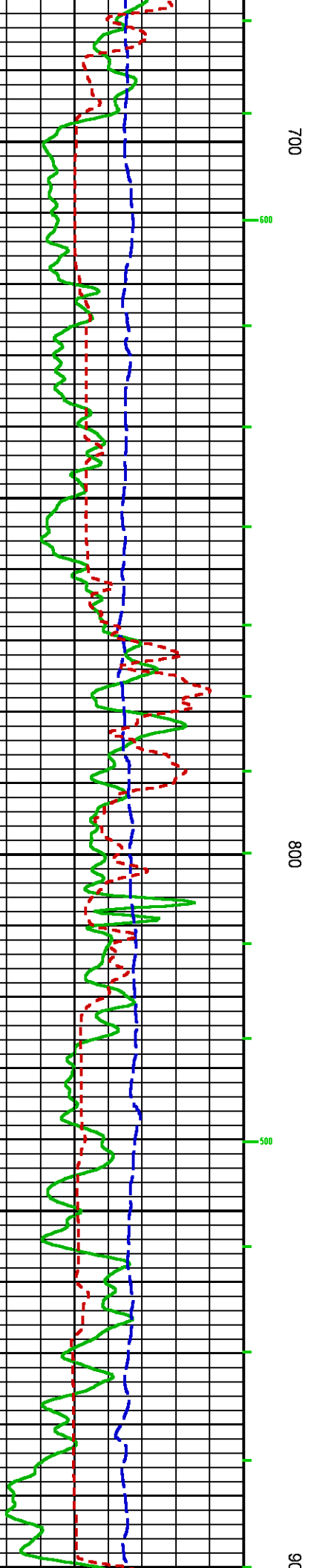
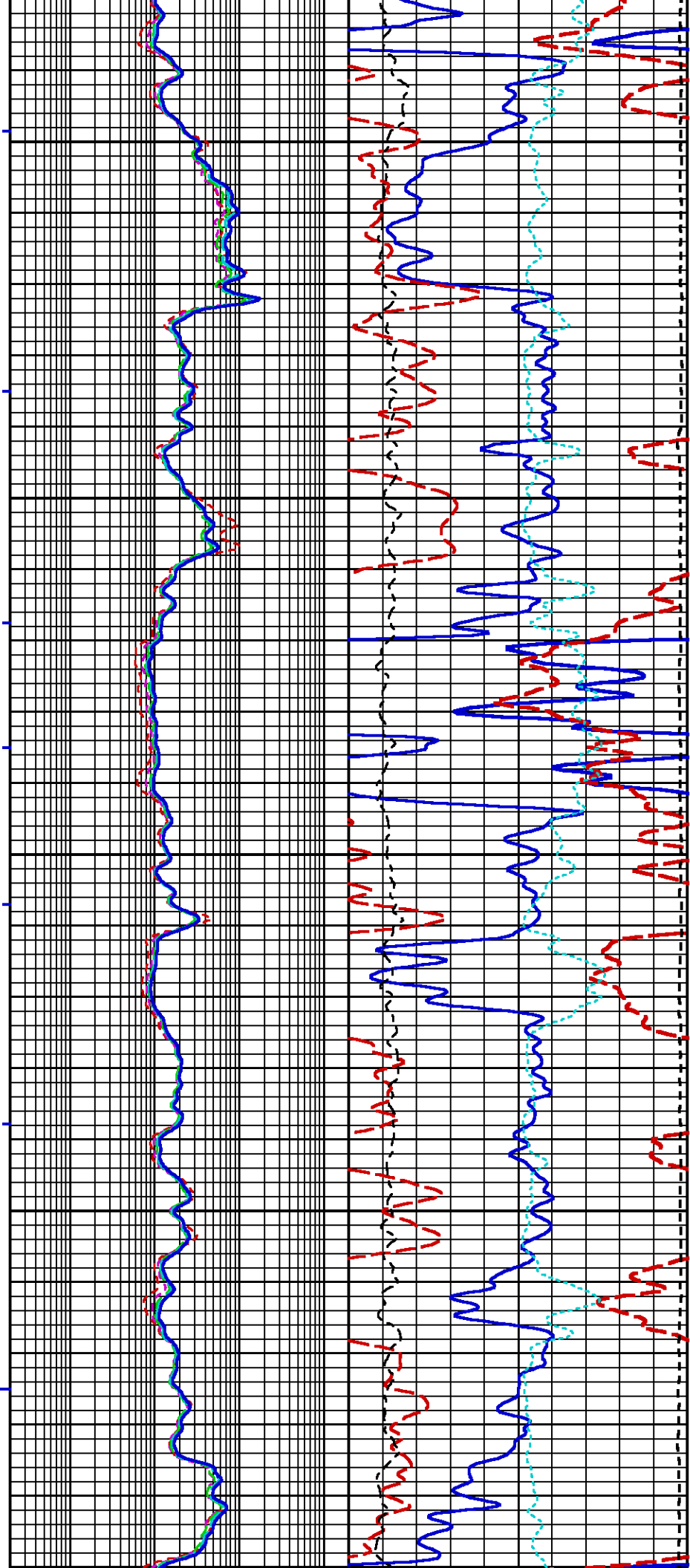


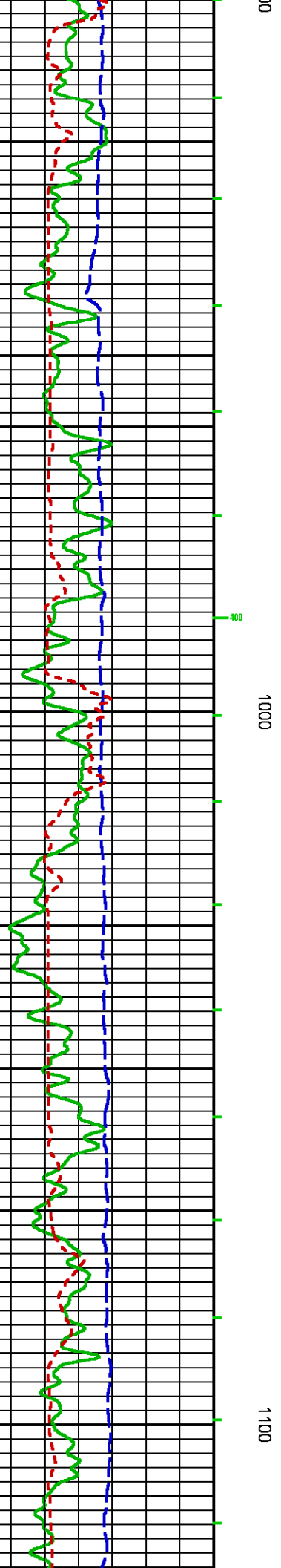
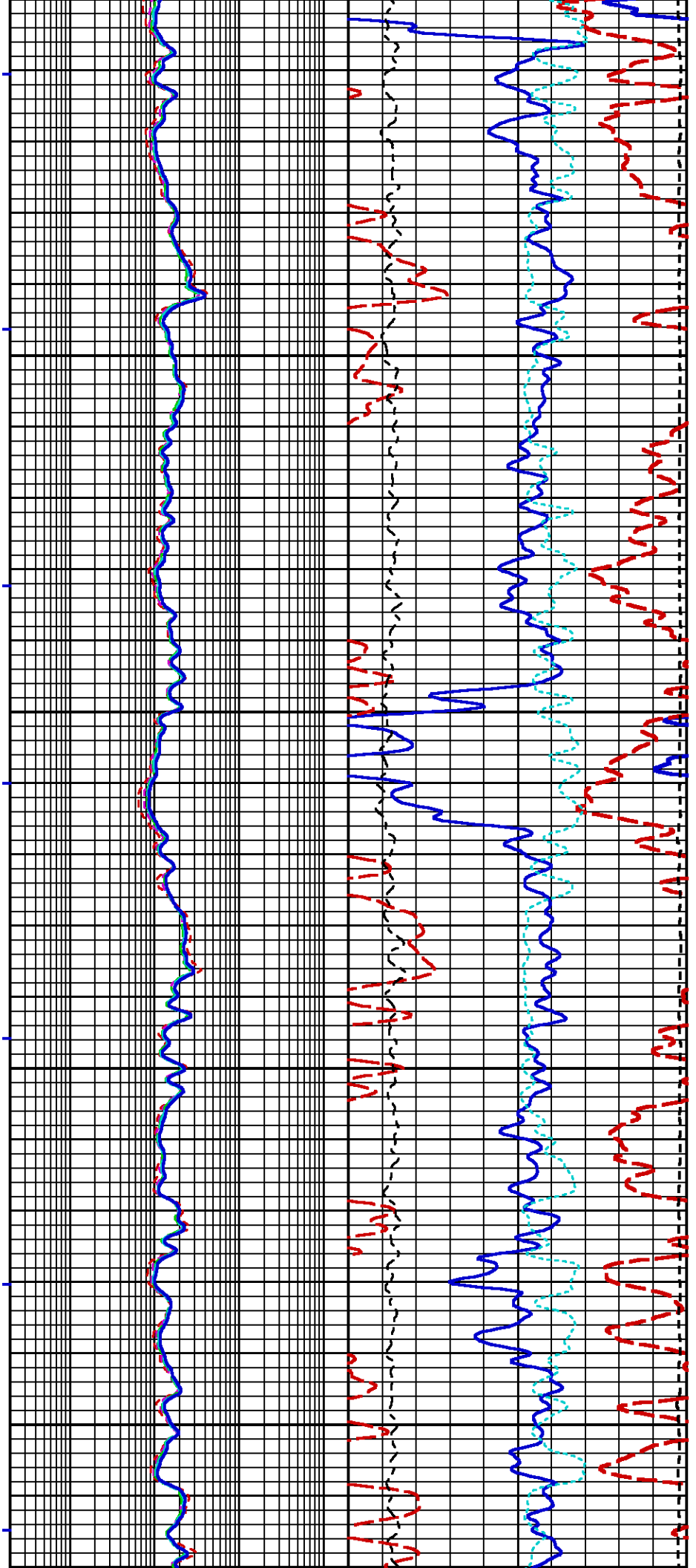


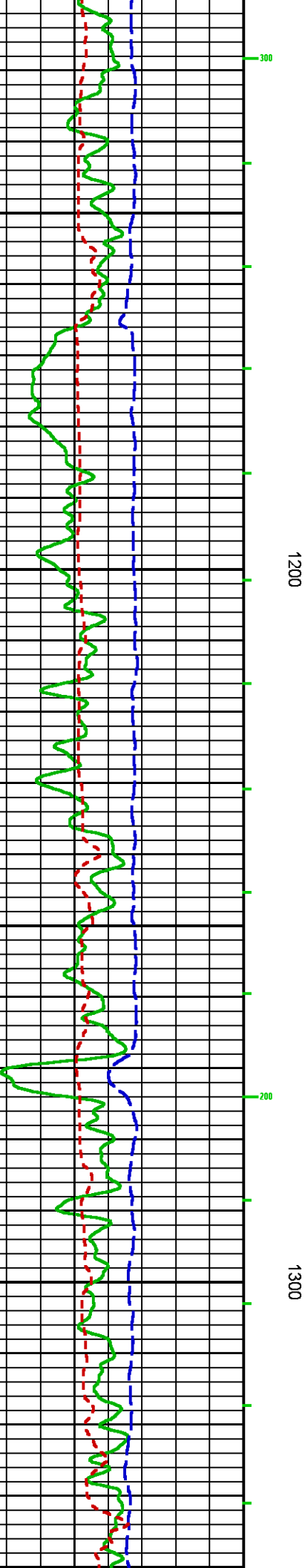
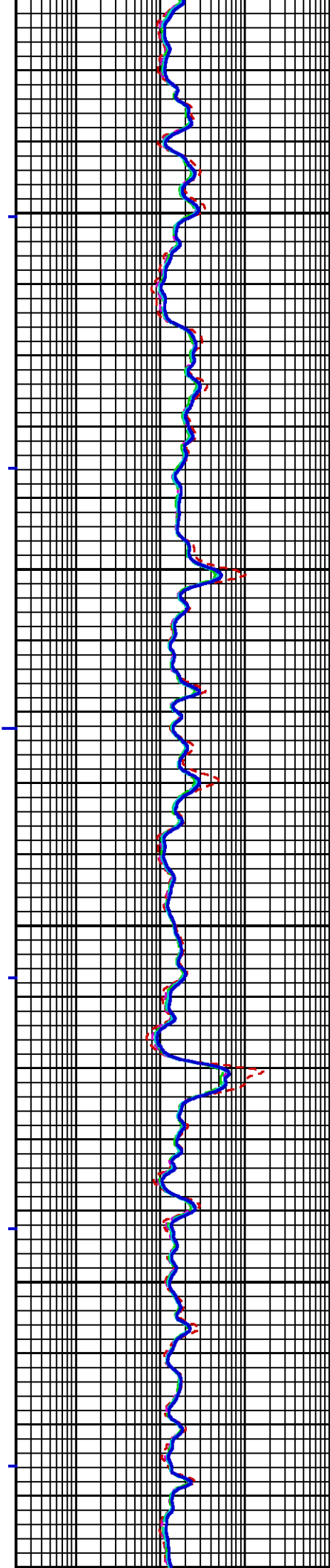
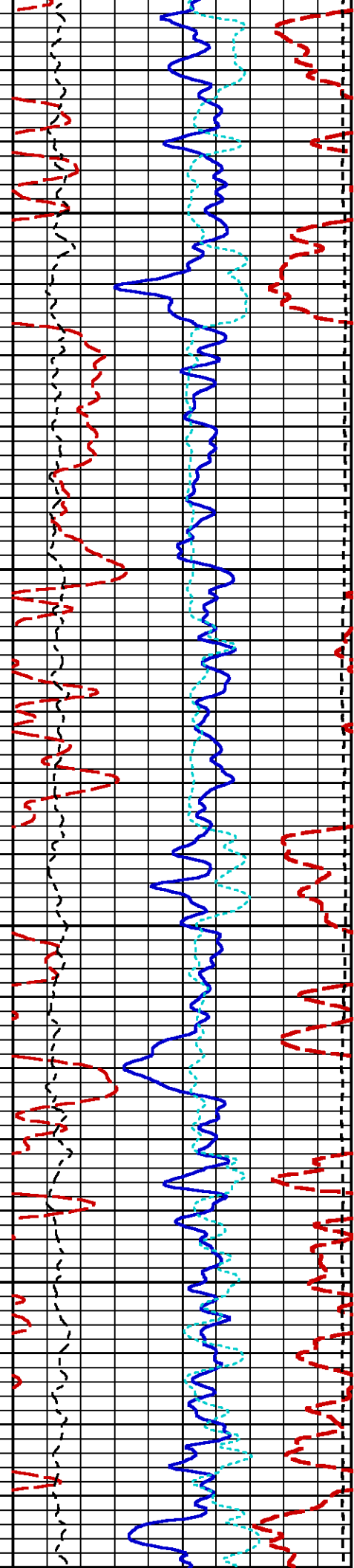


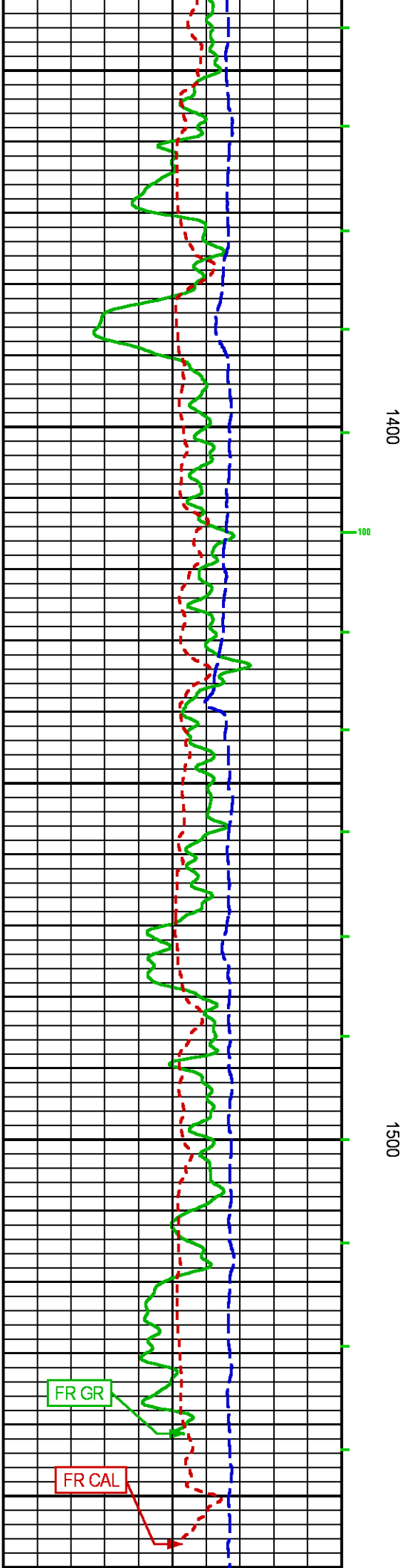
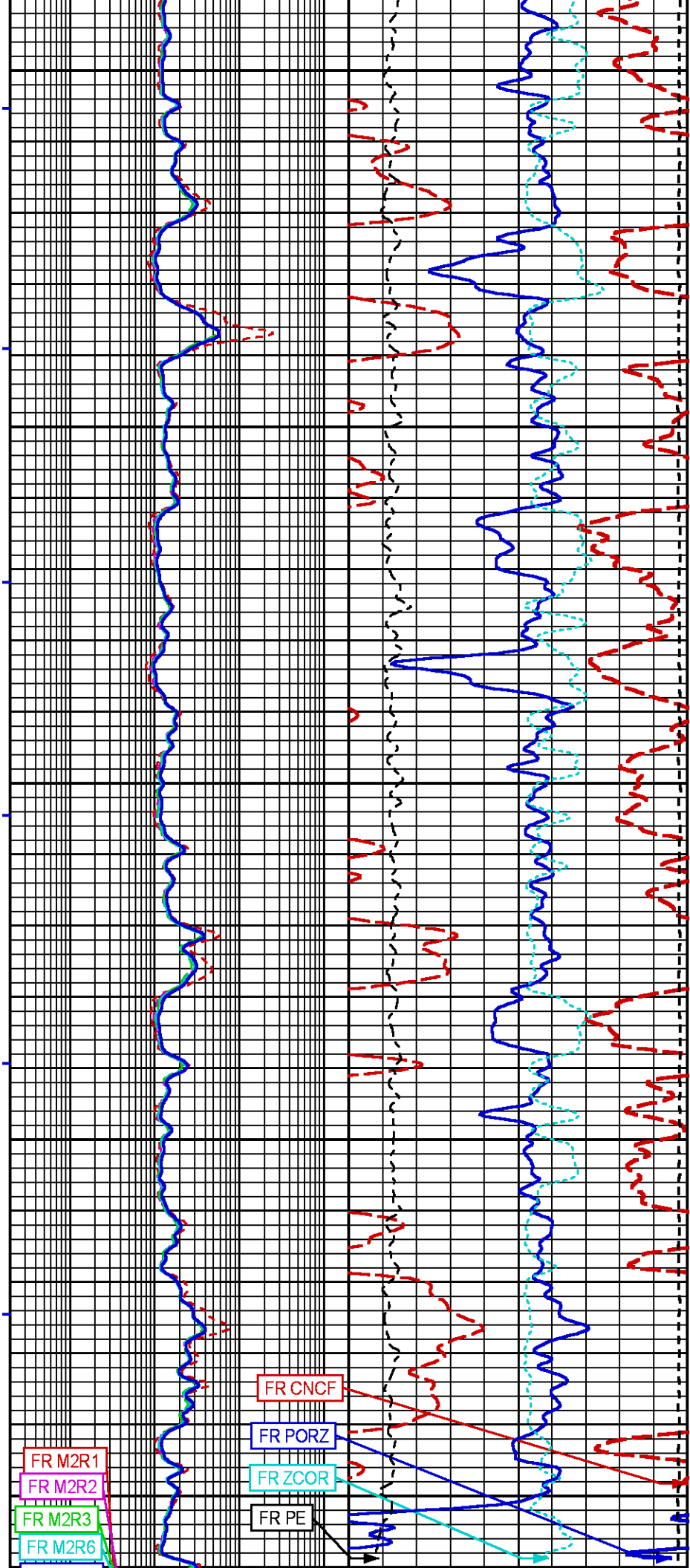


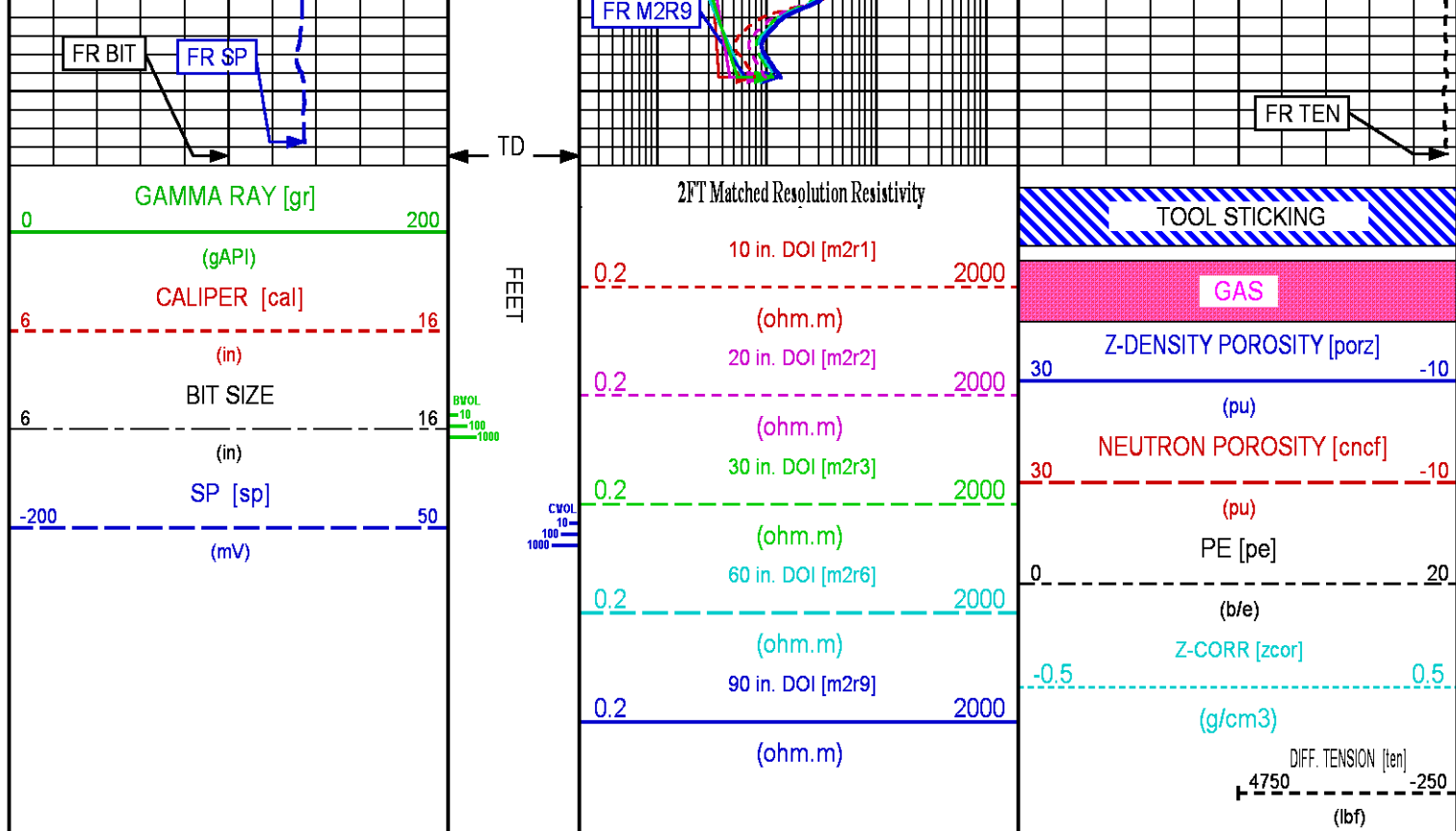












REPEAT LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 7

Plotted: Sun Sep 6 14:00:26 2015

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/OH099063/n970m01.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 1304.750 ft BOTTOM DEPTH: 1581.406 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 (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER ( )	medium (1)		"	"

### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	8.625	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"



BIT SIZE	BIT SIZE	11.000	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	11.000	in	"	"
	FIXED DIAMETER (mbh*)	11.000	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

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	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	0	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	in	"	"

ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	Air Filled Borehole	NO		TOP	BOTTOM
	RHOmatrix	2.680	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Sep 6 12:52:34 2015	BIT SIZE
F1:BVOL	Sep 6 12:52:34 2015	BOREHOLE VOLUME
F1:CAL	Sep 6 12:52:34 2015	CALIPER
F1:CNCF	Sep 6 12:52:34 2015	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Sep 6 12:52:34 2015	CEMENT VOLUME
F1:GR	Sep 6 12:52:34 2015	GAMMA RAY
F1:M2R1	Sep 6 12:52:34 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R2	Sep 6 12:52:34 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M2R3	Sep 6 12:52:34 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F1:M2R6	Sep 6 12:52:34 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Sep 6 12:52:34 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Sep 6 12:52:34 2015	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Sep 6 12:52:34 2015	POROSITY FOR SELECTABLE MATRIX
F1:SP	Sep 6 12:52:34 2015	SPONTANEOUS POTENTIAL
F1:TEN	Sep 6 12:52:34 2015	DIFFERENTIAL TENSION
F1:ZCOR	Sep 6 12:52:34 2015	DENSITY CORRECTION

CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	M2R1	2.75	M2R9	2.75	TEN	0.00
CAL	18.12	M2R2	2.75	PE	18.00	ZCOR	18.00
CNCF	27.38	M2R3	2.75	PORZ	18.00		
CVOL	66.00	M2R6	2.75	SP	18.00		
GR	66.00	M2R9	2.75	TEN	0.00		

GR

35.00

M2R6

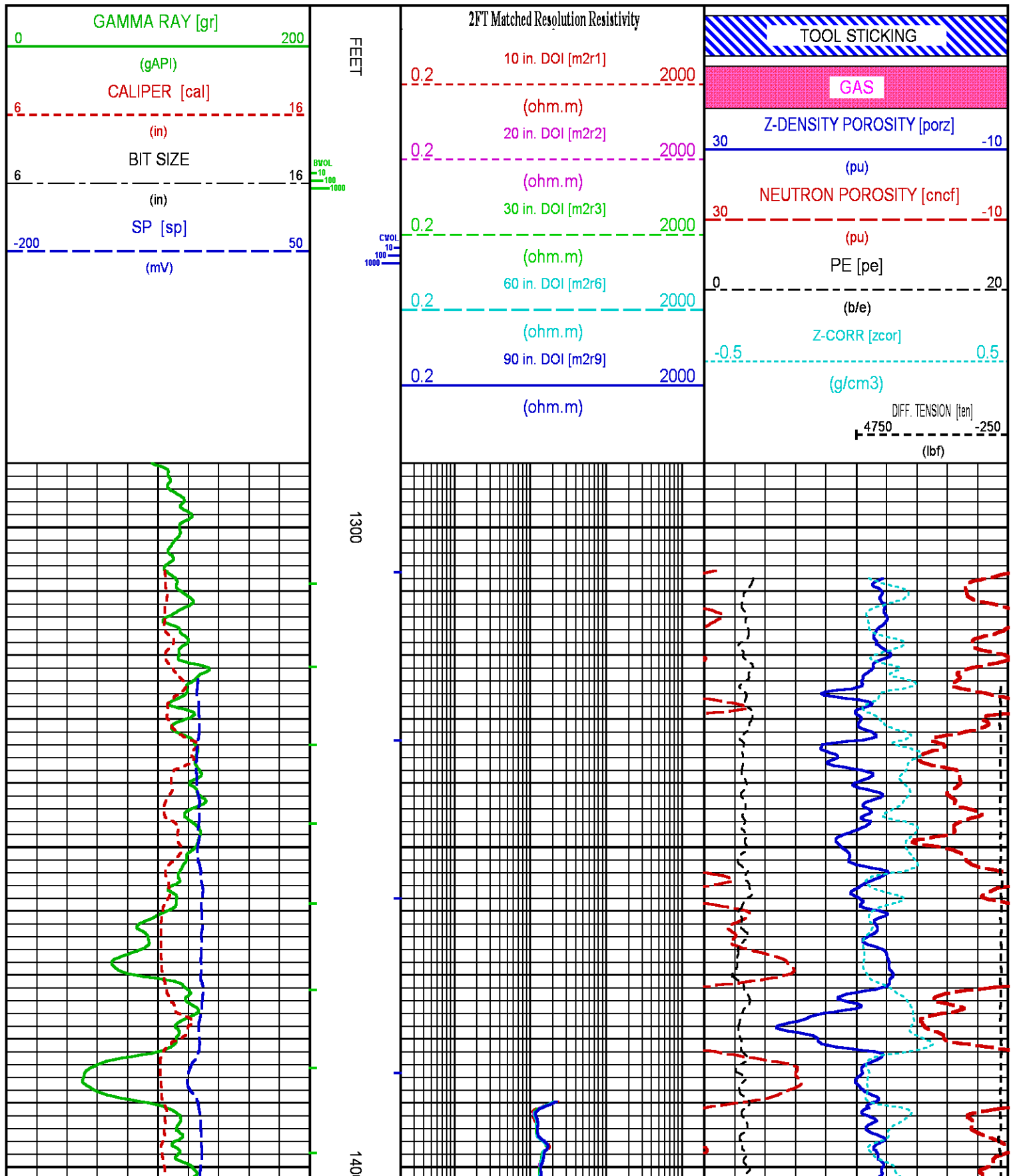
2.75

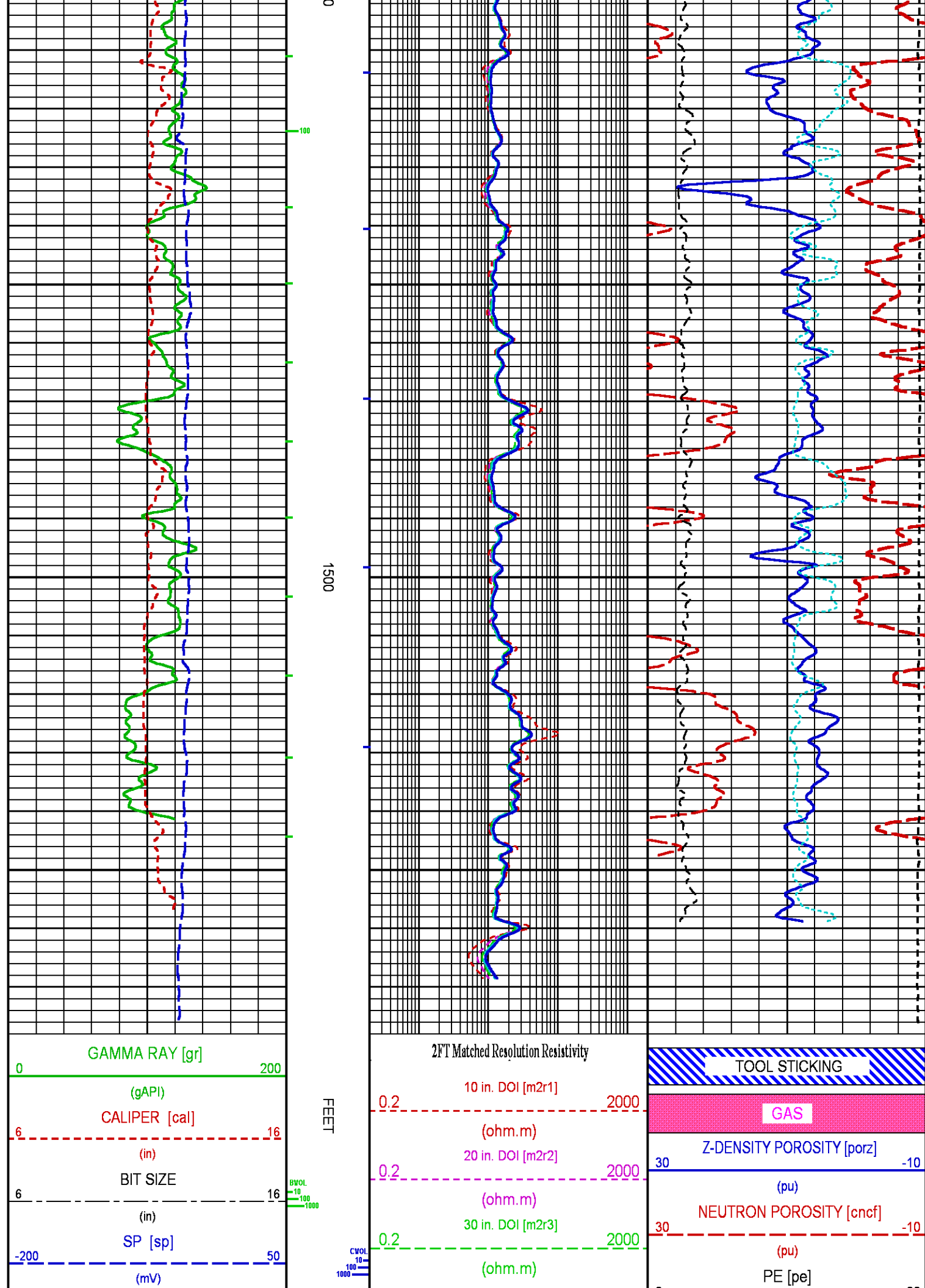
SP

1.25

Presentation : cas6685:/dat1a/OH099063/REPEAT.fvpdf [5"/100' Scale]  
Plot Interval : 1290 - 1582.75 Feet

Data File 1 : F1 : cas6685:/dat1a/OH099063/n970m01\_REPEAT.xtf  
Created On : Sep 6 12:52:34 2015  
Company : PICEANCE ENERGY  
Well : PICEANCE 28-07W SURFACE  
Field : VEGA  
File Interval : 0 - 1584 Feet  
OCT : n970m





		0.2	60 in. DOI [m2r6]	2000	0	(b/e)	20
			(ohm.m)			Z-CORR [zcor]	
		0.2	90 in. DOI [m2r9]	2000	-0.5		0.5
			(ohm.m)			(g/cm3)	
						DIFF. TENSION [ten]	
						4750	-250
						(lbf)	

## CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/OH099063/n970m.tp1

### TTMA PRIMARY CALIBRATION SUMMARY

TOOL #: 3980XA 10121559

DATE/TIME PERFORMED: Sun Sep 6 08:34:21 2015

UNIT #: 3885TC 6685

ACCEL #: 3980XA 10121559

ACCEL CAL DATE: 13:40 06/07/2004

GAIN  
Rm K Factors 0.14570

OFFSET  
(ohm.m)  
-0.01679

	Sig Low (ohm)	Sig High (ohm)	Mult Factor	Add Factor	Engr Low (ohm)	Engr High (ohm)
Rm Measurements	0.25	9.99	1.001267	-0.000138	0.25	10.00
	0.20 0.30	8.00 12.00				

### TTMA BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3980XA 10121559

DATE/TIME PERFORMED: Sun Sep 6 08:34:51 2015

DAYS SINCE CAL: 0

UNIT #: 3885TC 6685

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	19454	500.08	9.99	1000.46
	18659 20259	489.20 503.60	8.00 12.00	980.00 1020.00
ZERO	-24412	-436.02	0.250	1000.660
	-25212 -23612	-443.20 -428.80	0.200 0.300	980.000 1020.000

### TTMA AFTER LOG VERIFICATION SUMMARY

TOOL #: 3980XA 10121559

DATE/TIME PERFORMED: Sun Sep 6 13:33:58 2015

DAYS SINCE CAL: 0

UNIT #: 3885TC 6685

UNIT #:

3885TC 6685

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	19461	501.02	9.98	1000.11
	18659 20259	489.20 503.60	8.00 12.00	980.00 1020.00
ZERO	-24412	-436.02	0.250	1000.132
	-25212 -23612	-443.20 -428.80	0.200 0.300	980.000 1020.000

GR PRIMARY CALIBRATION SUMMARY

Tool #:
3518EG 10126398

DATE/TIME PERFORMED:
Sun Sep 6 08:56:20 2015

Unit #:
3885TC 6685

Jig Series:
4702NK VBA-905

Background	Calibrator ON	Jig Value (gAPI)	Mult	Background (gAPI)	Calibrator ON (gAPI)
109.23	887.19	185	0.238	25.97	210.97
			0.230 0.280		

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #:
3518EG 10126398

DATE/TIME PERFORMED:
Sun Sep 6 08:56:39 2015

DAYS SINCE CAL:
0

UNIT #:
3885TC 6685

Jig:
INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	66.21	1361.74
929.00 1027.00	536.00	1237.00 1512.00

GR AFTER LOG VERIFICATION SUMMARY

TOOL #:
3518EG 10126398

DATE/TIME PERFORMED:
Sun Sep 6 13:34:01 2015

DAYS SINCE CAL:
0

UNIT #:
3885TC 6685

Jig:
INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.33	96.72	1363.96
929.00 1027.00	536.00	1237.00 1512.00

CN PRIMARY CALIBRATION SUMMARY

TOOL #:
2436XA 10522099

DATE/TIME PERFORMED:
Thu Jul 23 11:28:34 2015

UNIT #:
3885TD MI4230

CALIBRATOR #:
2437XB 112674

SOURCE #:
4718XA S35012

SSN	LSN	SSN/LSN	MCF	CNRATIO	CN
DT CPS	DT CPS				PU
1913.74	328.05	5.83364	0.98343	5.73700	0.252
			0.95000 1.05000		

## CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10522099 DATE/TIME PERFORMED: Sun Sep 6 08:34:54 2015 DAYS SINCE CAL: 44

UNIT #: 3885TC 6685 CALIBRATOR #: INTRNL N/A

SSN	LSN	SSN/LSN	TEMP	HV	LV
DT CPS	DT CPS		(degF)	(V)	(V)
991.74	993.76	0.99797	57.0	1322.0	4.624
		0.95000 1.05000	280.4	1250.0 1450.0	4.300 5.000

## CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10522099 DATE/TIME PERFORMED: Sun Sep 6 13:34:38 2015 DAYS SINCE CAL: 45

UNIT #: 3885TC 6685 CALIBRATOR #: INTRNL N/A

SSN	LSN	SSN/LSN	TEMP	HV	LV
DT CPS	DT CPS		(degF)	(V)	(V)
991.74	993.75	0.99797	94.0	1322.0	4.624
		0.95000 1.05000	280.4	1250.0 1450.0	4.300 5.000

## CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 10102922 DATE/TIME PERFORMED: Fri Sep 4 09:51:32 2015

UNIT #: 3885TC 6685

	SIZE	VALUE	MULTIPLIER	ADD
	(in)			
SMALL RING (Arm)	7.000	1412.0		
LARGE RING (Arm)	11.000	2676.0	0.00316	2.53165
PAD CLOSED		1524.0	0.00250	-3.81000

## ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2223XA 10102922 DATE/TIME PERFORMED: Fri Sep 4 10:28:20 2015

SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)
225.8	223.9	1223.5	1346.2
220.0230.0	220.0230.0		

	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	35070.2	11914.3	0.751	1.679	0.000	1.900
			0.7200.890			
AL	22075.8	1348.3		2.667	-0.016	
AL + SHIM	29456.1	2359.1		2.558	0.098	
MG + SHIM (HI PE)	17323.8	5661.1	0.296			8.550
			0.2800.360			
RATIO AL + SHIM/AL	1.33	1.75				
	1.301.40	1.601.80				
RATIO MG/AL	1.59	8.84				
	1.581.70	8.559.55				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10102922

DATE/TIME PERFORMED: Sun Sep 6 08:35:27 2015

DAYS SINCE CAL: 1

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	224.9	1349.0
	3332.13352.1	220.0230.0	1250.01550.0
SS	22354.8	224.2	1326.0
	22344.822364.8	220.0230.0	1250.01550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	68.8	
	4.85.2	50.0120.0	

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10102922

DATE/TIME PERFORMED: Sun Sep 6 13:34:58 2015

DAYS SINCE CAL: 2

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	220.5	1431.9
	3332.13352.1	220.0230.0	1250.01550.0
SS	22355.0	222.5	1337.9
	22344.822364.8	220.0230.0	1250.01550.0

LV PAD CURRENT  
(V) (mA)

5.0	68.2
4.8 5.2	50.0 120.0

## HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1530XA 10415933

DATE/TIME PERFORMED: Tue Jun 30 07:53:32 2015

UNIT #: 3885TC 6685

GRCOND ID & DATE: 86 101801

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.0017 -0.2000 0.2000	0.0005 -0.1000 0.1000	0.0000 -0.1000 0.1000	0.0009 -0.1000 0.1000	-0.0004 -0.1000 0.1000	-0.0002 -0.1000 0.1000	0.0001 -0.1000 0.1000	-0.0008 -0.1000 0.1000
Coil 0 Q	-0.0009 -0.5000 0.5000	0.0004 -0.2000 0.2000	0.0012 -0.1000 0.1000	0.0003 -0.1000 0.1000	0.0003 -0.1000 0.1000	0.0006 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0004 -0.1000 0.1000
Coil 1 R	-0.0005 -0.2000 0.2000	-0.0002 -0.1000 0.1000	0.0009 -0.1000 0.1000	0.0027 -0.1000 0.1000	-0.0003 -0.1000 0.1000	0.0003 -0.1000 0.1000	-0.0011 -0.1000 0.1000	-0.0020 -0.1000 0.1000
Coil 1 Q	-0.0077 -0.5000 0.5000	-0.0024 -0.2000 0.2000	0.0019 -0.1000 0.1000	0.0028 -0.1000 0.1000	-0.0021 -0.1000 0.1000	-0.0015 -0.1000 0.1000	-0.0007 -0.1000 0.1000	-0.0005 -0.1000 0.1000
Coil 2 R	0.0005 -0.2000 0.2000	-0.0032 -0.1000 0.1000	0.0025 -0.1000 0.1000	0.0029 -0.1000 0.1000	-0.0019 -0.1000 0.1000	0.0013 -0.1000 0.1000	0.0018 -0.1000 0.1000	-0.0016 -0.1000 0.1000
Coil 2 Q	0.0029 -0.5000 0.5000	-0.0005 -0.2000 0.2000	0.0027 -0.1000 0.1000	-0.0032 -0.1000 0.1000	0.0012 -0.1000 0.1000	0.0017 -0.1000 0.1000	-0.0013 -0.1000 0.1000	0.0005 -0.1000 0.1000
Coil 3 R	0.0151 -0.3000 0.3000	-0.0024 -0.1000 0.1000	0.0059 -0.1000 0.1000	-0.0046 -0.1000 0.1000	0.0042 -0.1000 0.1000	-0.0008 -0.1000 0.1000	-0.0009 -0.1000 0.1000	-0.0031 -0.1000 0.1000
Coil 3 Q	-0.0117 -0.5000 0.5000	0.0033 -0.2000 0.2000	-0.0054 -0.1000 0.1000	-0.0020 -0.1000 0.1000	0.0047 -0.1000 0.1000	0.0037 -0.1000 0.1000	-0.0011 -0.1000 0.1000	0.0029 -0.1000 0.1000
Coil 4 R	-0.0069 -0.5000 0.5000	0.0014 -0.2000 0.2000	0.0050 -0.2000 0.2000	-0.0007 -0.2000 0.2000	0.0121 -0.2000 0.2000	0.0011 -0.2000 0.2000	-0.0022 -0.2000 0.2000	0.0014 -0.2000 0.2000
Coil 4 Q	-0.0108 -1.0000 1.0000	-0.0053 -0.4000 0.4000	-0.0070 -0.2000 0.2000	0.0005 -0.2000 0.2000	-0.0021 -0.2000 0.2000	0.0078 -0.2000 0.2000	-0.0000 -0.2000 0.2000	0.0121 -0.2000 0.2000
Coil 5 R	0.0243 -1.2000 1.2000	0.0175 -0.4000 0.4000	-0.0146 -0.4000 0.4000	0.0328 -0.4000 0.4000	-0.0136 -0.4000 0.4000	-0.0018 -0.4000 0.4000	-0.0087 -0.4000 0.4000	-0.0134 -0.4000 0.4000
Coil 5 Q	-0.0147 -1.5000 1.5000	-0.0077 -0.8000 0.8000	0.0042 -0.4000 0.4000	-0.0148 -0.4000 0.4000	-0.0123 -0.4000 0.4000	0.0093 -0.4000 0.4000	-0.0047 -0.4000 0.4000	0.0049 -0.4000 0.4000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	163.36 136.00 186.00	161.97 134.00 184.00	159.17 131.00 181.00	155.00 126.00 176.00	149.42 122.00 170.00	142.55 118.00 161.00	134.32 112.00 150.00	124.93 105.00 139.00
Coil 0 P	7.751 6.000 9.000	25.548 21.000 30.000	42.916 35.000 50.000	60.258 49.000 71.000	77.639 63.000 91.000	95.046 77.000 109.000	112.509 92.000 130.000	129.981 106.000 151.000
Coil 1 M	285.73 238.00 328.00	283.01 235.00 325.00	277.56 230.00 320.00	269.53 225.00 312.00	259.04 218.00 302.00	246.39 208.00 288.00	231.61 196.00 266.00	215.04 184.00 244.00
Coil 1 P	7.779 6.000 9.000	25.655 21.000 30.000	43.064 35.000 51.000	60.393 49.000 71.000	77.698 63.000 92.000	94.952 78.000 112.000	112.194 93.000 130.000	129.374 107.000 151.000
Coil 2 M	584.09 479.00 659.00	578.61 474.00 654.00	567.66 463.00 643.00	551.64 450.00 622.00	530.72 432.00 602.00	505.34 412.00 572.00	475.61 390.00 540.00	442.00 359.00 499.00
Coil 2 P	7.831 6.000 9.000	25.813 21.000 31.000	43.326 35.000 51.000	60.764 49.000 71.000	78.187 63.000 92.000	95.599 76.000 115.000	112.998 92.000 135.000	130.399 105.000 155.000
Coil 3 M	934.04	925.92	909.50	884.96	852.71	812.92	765.62	711.94





Coil 4 M	0.998	0.999	0.999	0.998	0.998	0.997	0.996	0.996
	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100
Coil 4 P	0.038	0.052	0.093	0.127	0.188	0.205	0.235	0.258
	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500
Coil 5 M	0.999	0.999	0.999	0.999	0.999	0.998	0.997	0.996
	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100	0.900 1.100
Coil 5 P	0.020	0.050	0.080	0.111	0.180	0.278	0.238	0.270
	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500	-1.500 1.500
<div> <div>PARMS</div> <div>TCID 0</div> <div>TCID 1</div> <div>Cal Temp (degF)</div> <div>T Factor</div> </div> <div> <div>IDs</div> <div>3.659</div> <div>0.987</div> <div>79.5</div> <div>1.00</div> </div>								

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #:	1530XA 10415933	DATE/TIME PERFORMED:	Sun Sep 6 08:36:05 2015	DAYS SINCE CAL:	68
UNIT #:		3885TC 6685			

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.002	-0.001	0.000	0.001	0.000	-0.000	0.000	0.000
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 0 Q	-0.003	-0.001	0.001	-0.000	0.000	0.000	0.000	-0.000
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 1 R	-0.001	0.000	0.000	-0.000	0.000	-0.000	0.001	0.002
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 1 Q	-0.008	0.001	-0.004	0.002	-0.000	0.000	-0.000	0.000
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 2 R	0.003	-0.002	0.003	0.001	0.000	-0.004	0.003	-0.001
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 2 Q	-0.002	-0.000	-0.002	-0.003	0.005	0.000	-0.000	0.003
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 3 R	0.012	0.003	0.001	0.003	0.002	-0.001	-0.003	-0.001
	-0.300 0.300	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 3 Q	-0.007	0.005	0.008	0.002	-0.001	0.007	-0.003	-0.003
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 4 R	-0.013	0.007	0.003	0.002	0.004	0.001	0.008	0.005
	-0.500 0.500	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200
Coil 4 Q	0.010	0.003	-0.002	-0.015	0.010	0.002	0.000	-0.003
	-1.000 1.000	-0.400 0.400	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200
Coil 5 R	0.016	-0.005	-0.002	0.011	0.007	0.011	-0.012	0.015
	-1.200 1.200	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400
Coil 5 Q	-0.010	-0.020	-0.003	0.014	-0.002	-0.008	-0.002	0.004
	-1.500 1.500	-0.800 0.800	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400
ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	163.46	162.08	159.26	155.06	149.51	142.56	134.37	124.92
	136.00 186.00	134.00 184.00	131.00 181.00	126.00 176.00	122.00 170.00	118.00 161.00	112.00 150.00	105.00 139.00
Coil 0 P	7.821	25.562	42.911	60.243	77.612	95.012	112.464	129.921
	-1.000 12.000	19.000 30.000	35.000 50.000	49.000 71.000	63.000 91.000	77.000 110.000	92.000 130.000	105.000 151.000
Coil 1 M	285.85	283.12	277.66	269.59	259.13	246.38	231.63	214.97

Coil 1 P	237.00	327.00	235.00	325.00	230.00	320.00	225.00	312.00	218.00	302.00	208.00	288.00	196.00	266.00	184.00	244.00
	7.846	25.670	43.059	60.379	77.674	94.920	112.152	129.308								
	-1.000	12.000	19.000	30.000	35.000	51.000	49.000	71.000	63.000	92.000	77.000	112.000	92.000	132.000	105.000	153.000
Coil 2 M	585.11	579.66	568.69	552.52	531.57	505.92	476.24	442.37								
	479.00	659.00	474.00	654.00	463.00	643.00	450.00	622.00	432.00	602.00	412.00	572.00	390.00	540.00	359.00	499.00
Coil 2 P	7.904	25.826	43.317	60.744	78.153	95.553	112.956	130.322								
	-1.000	12.000	19.000	31.000	35.000	51.000	49.000	71.000	63.000	92.000	77.000	114.000	92.000	135.000	105.000	156.000
Coil 3 M	934.94	926.85	910.44	885.74	853.52	813.29	766.23	711.95								
	772.00	1060.00	764.00	1050.00	752.00	1030.00	728.00	1010.00	700.00	970.00	665.00	925.00	628.00	868.00	589.00	799.00
Coil 3 P	7.901	25.778	43.260	60.712	78.162	95.652	113.140	130.619								
	-2.000	13.000	19.000	31.000	35.000	52.000	49.000	72.000	63.000	93.000	77.000	114.000	92.000	135.000	105.000	156.000
Coil 4 M	1502.0	1488.6	1460.9	1419.8	1366.0	1299.7	1222.4	1134.3								
	1210.0	1700.0	1205.0	1690.0	1180.0	1650.0	1140.0	1590.0	1120.0	1530.0	1070.0	1450.0	1000.0	1350.0	942.0	1240.0
Coil 4 P	7.924	25.971	43.591	61.153	78.716	96.276	113.817	131.321								
	-2.000	13.000	19.000	31.000	35.000	52.000	49.000	73.000	63.000	93.000	78.000	114.000	92.000	135.000	105.000	156.000
Coil 5 M	3027.8	3000.7	2942.8	2858.0	2747.2	2611.0	2454.6	2275.5								
	2450.0	3450.0	2420.0	3400.0	2410.0	3320.0	2350.0	3200.0	2280.0	3080.0	2150.0	2950.0	2020.0	2750.0	1870.0	2570.0
Coil 5 P	8.088	26.409	44.302	62.142	79.963	97.760	115.561	133.337								
	-2.000	13.000	19.000	31.000	35.000	52.000	49.000	73.000	63.000	94.000	79.000	114.000	93.000	135.000	106.000	156.000

HDIL AFTER LOG VERIFICATION SUMMARY			
TOOL #:	1530XA 10415933	DATE/TIME PERFORMED:	Sun Sep 6 13:35:06 2015
		DAYS SINCE CAL:	68
		UNIT #:	3885TC 6685

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.001	-0.000	-0.001	0.000	-0.000	-0.001	0.000	-0.000
	-0.078 0.082	-0.061 0.059	-0.030 0.030	-0.029 0.031	-0.030 0.030	-0.030 0.030	-0.030 0.030	-0.030 0.030
Coil 0 Q	0.000	-0.000	0.000	0.002	-0.000	0.001	-0.001	-0.000
	-0.043 0.037	-0.121 0.119	-0.029 0.031	-0.030 0.030	-0.030 0.030	-0.030 0.030	-0.030 0.030	-0.030 0.030
Coil 1 R	-0.001	0.000	-0.001	0.001	0.000	-0.002	0.001	0.001
	-0.081 0.079	-0.050 0.050	-0.030 0.030	-0.030 0.030	-0.030 0.030	-0.030 0.030	-0.029 0.031	-0.028 0.032
Coil 1 Q	-0.006	0.001	0.001	-0.001	-0.001	0.001	0.001	0.002
	-0.408 0.392	-0.099 0.101	-0.034 0.026	-0.028 0.032	-0.030 0.030	-0.030 0.030	-0.030 0.030	-0.030 0.030
Coil 2 R	0.002	-0.000	-0.001	0.002	0.001	0.003	0.002	0.001
	-0.067 0.073	-0.032 0.028	-0.027 0.033	-0.029 0.031	-0.030 0.030	-0.034 0.026	-0.027 0.033	-0.031 0.029
Coil 2 Q	0.002	0.004	-0.005	-0.000	-0.000	0.000	0.002	-0.003
	-0.352 0.348	-0.100 0.100	-0.032 0.028	-0.033 0.027	-0.025 0.035	-0.030 0.030	-0.030 0.030	-0.027 0.033
Coil 3 R	0.005	-0.012	0.002	-0.011	-0.001	0.001	0.001	0.001
	-0.028 0.052	-0.037 0.043	-0.039 0.041	-0.037 0.043	-0.038 0.042	-0.041 0.039	-0.043 0.037	-0.041 0.039
Coil 3 Q	-0.009	-0.003	0.004	-0.002	-0.005	-0.003	0.004	0.002
	-0.207 0.193	-0.075 0.085	-0.032 0.048	-0.038 0.042	-0.041 0.039	-0.033 0.047	-0.043 0.037	-0.043 0.037
Coil 4 R	-0.004	-0.013	0.020	0.000	-0.001	-0.014	0.003	-0.003
	-0.073 0.047	-0.053 0.067	-0.057 0.063	-0.058 0.062	-0.056 0.064	-0.059 0.061	-0.052 0.068	-0.055 0.065
Coil 4 Q	-0.009	-0.007	0.002	0.006	0.005	-0.008	-0.007	0.003
	-0.290 0.310	-0.097 0.103	-0.062 0.058	-0.075 0.045	-0.050 0.070	-0.058 0.062	-0.060 0.060	-0.063 0.057
Coil 5 R	0.018	-0.007	-0.008	-0.006	0.000	0.018	-0.009	-0.007
	-0.104 0.136	-0.125 0.115	-0.122 0.118	-0.109 0.131	-0.113 0.127	-0.109 0.131	-0.132 0.108	-0.105 0.135
Coil 5 Q	-0.033	0.000	-0.014	-0.004	0.014	-0.009	-0.014	-0.009
	-0.610 0.590	-0.270 0.230	-0.123 0.117	-0.106 0.134	-0.122 0.118	-0.128 0.112	-0.122 0.118	-0.116 0.124
ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz

Coil 0 M	163.15		161.76		158.97		154.80		149.25		142.37		134.18		124.79	
	160.19	166.73	158.84	165.32	156.08	162.45	151.96	158.16	146.52	152.50	139.71	145.42	131.68	137.06	122.42	127.42
Coil 0 P	7.636		25.549		42.960		60.342		77.754		95.213		112.704		130.206	
	4.821	10.821	22.562	28.562	39.911	45.911	57.243	63.243	74.612	80.612	92.012	98.012	109.464	115.464	126.921	132.921
Coil 1 M	285.76		283.01		277.57		269.57		259.10		246.37		231.63		215.02	
	280.13	291.56	277.46	288.79	272.10	283.21	264.20	274.98	253.95	264.31	241.45	251.30	226.99	236.26	210.67	219.27
Coil 1 P	7.670		25.658		43.108		60.471		77.809		95.110		112.387		129.584	
	4.846	10.846	22.670	28.670	40.059	46.059	57.379	63.379	74.674	80.674	91.920	97.920	109.152	115.152	126.308	132.308
Coil 2 M	582.90		577.43		566.56		550.55		529.70		504.34		474.58		441.14	
	573.41	596.82	568.07	591.26	557.31	580.06	541.47	563.57	520.93	542.20	495.80	516.03	466.72	485.77	433.52	451.21
Coil 2 P	7.704		25.810		43.370		60.847		78.304		95.757		113.199		130.622	
	4.904	10.904	22.826	28.826	40.317	46.317	57.744	63.744	75.153	81.153	92.553	98.553	109.956	115.956	127.322	133.322
Coil 3 M	933.57		925.48		909.14		884.55		852.45		812.62		765.22		711.38	
	916.24	953.64	908.32	945.39	892.23	928.65	868.03	903.46	836.45	870.59	797.03	829.56	750.90	781.55	697.71	726.18
Coil 3 P	7.708		25.763		43.314		60.813		78.327		95.857		113.407		130.912	
	4.901	10.901	22.778	28.778	40.260	46.260	57.712	63.712	75.162	81.162	92.652	98.652	110.140	116.140	127.619	133.619
Coil 4 M	1501.8		1488.3		1460.8		1419.8		1366.0		1300.0		1223.0		1135.2	
	1471.9	1532.0	1458.8	1518.4	1431.7	1490.1	1391.4	1448.2	1338.7	1393.3	1273.7	1325.7	1197.9	1246.8	1111.6	1157.0
Coil 4 P	7.738		25.968		43.650		61.283		78.894		96.514		114.110		131.648	
	4.924	10.924	22.971	28.971	40.591	46.591	58.153	64.153	75.716	81.716	93.276	99.276	110.817	116.817	128.321	134.321
Coil 5 M	3022.2		2994.8		2938.1		2853.9		2744.2		2608.8		2453.0		2274.9	
	2967.2	3088.4	2940.7	3060.7	2883.9	3001.7	2800.9	2915.2	2692.2	2802.1	2558.8	2663.2	2405.5	2503.7	2230.0	2321.1
Coil 5 P	7.925		26.408		44.380		62.245		80.128		97.960		115.826		133.687	
	5.088	11.088	23.409	29.409	41.302	47.302	59.142	65.142	76.963	82.963	94.760	100.760	112.561	118.561	130.337	136.337

## INSTRUMENT CONFIGURATION

Source File: /dat1a/OH099063/n970m--tdg

**CABLEHEAD**  
 Diameter : 3.38"  
 Length : 5.50'  
 Weight : 24 lbs  
 Series : CABL338  
 Mnemonic : CBLH  
 Measure Point: 2.75': CABLEHEAD TOP

**WTS ADAPTOR**  
 Diameter : 3.62"

**FOCUS SWIVEL**  
 Diameter : 3.13"  
 Length : 2.58'  
 Weight : 50 lbs  
 Series : 3950XA  
 Mnemonic : SWVL

**FOCUS TEN/TEMP/MUD RES/ACCEL**  
 Diameter : 3.13"  
 Length : 4.31'  
 Weight : 61 lbs  
 Series : 3980XA  
 Mnemonic : TTMA

**FOCUS TELEMETRY (POWER SECTION)**  
 Diameter : 3.13"  
 Length : 3.71'  
 Weight : 48 lbs  
 Series : 3518FB  
 Mnemonic : TMGR

**FOCUS EB/EG TELEMETRY GAMMA RAY**  
 Diameter : 3.12"  
 Length : 5.83'  
 Weight : 63 lbs

54.15'  
 CABLEHEAD TOP 51.40'

GR MP 35.47'

Series : 3518EG  
Mnemonic : GR  
Measure Point: 4.24': GR MP

#### FOCUS COMPENSATED NEUTRON

Diameter : 3.13"  
Length : 4.81'  
Weight : 65 lbs  
Series : 2436XA  
Mnemonic : CN  
Measure Point: 1.92': LSN MP  
Measure Point: 1.46': SSN MP

LSN MP 28.33'  
SSN MP 27.88'

#### FOCUS Z-DENSILOG

Diameter : 3.75"  
Length : 9.58'  
Weight : 200 lbs  
Series : 2223XA  
Mnemonic : ZDL  
Measure Point: 4.33': CR1 MP  
Measure Point: 1.69': LSD / CR2 MP  
Measure Point: 1.29': SSD MP

CR1 MP 21.17'

LSD / CR2 MP 18.52'  
SSD MP 18.13'

#### FOCUS KNUCKLE JOINT

Diameter : 3.13"  
Length : 1.50'

#### FOCUS KNUCKLE JOINT

Diameter : 3.13"  
Length : 1.50'

#### FOCUS HIGH DEFINITION INDUCTION TOOL

Diameter : 3.13"  
Length : 13.33'  
Weight : 115 lbs  
Series : 1530XA  
Mnemonic : HDIL  
Measure Point: 7.17': COIL 5 MP  
Measure Point: 5.67': COIL 4 MP  
Measure Point: 4.17': COIL 3 MP  
Measure Point: 3.67': COIL 2 MP  
Measure Point: 3.17': COIL 1 MP  
Measure Point: 2.67': COIL 0 MP  
Measure Point: 1.14': SP MP

COIL 5 MP 7.67'

COIL 4 MP 6.17'

COIL 3 MP 4.67'  
COIL 2 MP 4.17'  
COIL 1 MP 3.67'  
COIL 0 MP 3.17'

SP MP 1.64'

0.00'

#### FOCUS PINEAPPLE / CABBAGE

TOTAL LENGTH: 54.15'  
TOTAL WEIGHT: 756 lbs  
MAX DIAMETER: 0'6.13'



COMPANY

PICEANCE ENERGY

WELL

PICEANCE 28-07W SURFACE

FIELD

VEGA

COUNTY

MESA

STATE COLORADO

LOCATION:

SHL: 1551' FNL 1192' FWL  
BHL: 1625' FNL 873' FWL

ELEVATIONS:

KB 7578 FT  
DF  
GL 7556 FT

FILE NO:

OH099063

API NO:

05077097750000

SEC 28 T9S R93W  
PICEANCE 28-05  
PATTERSON 306

SEC 28 TWP 9S RGE 93W

DATE 06-SEP-2015