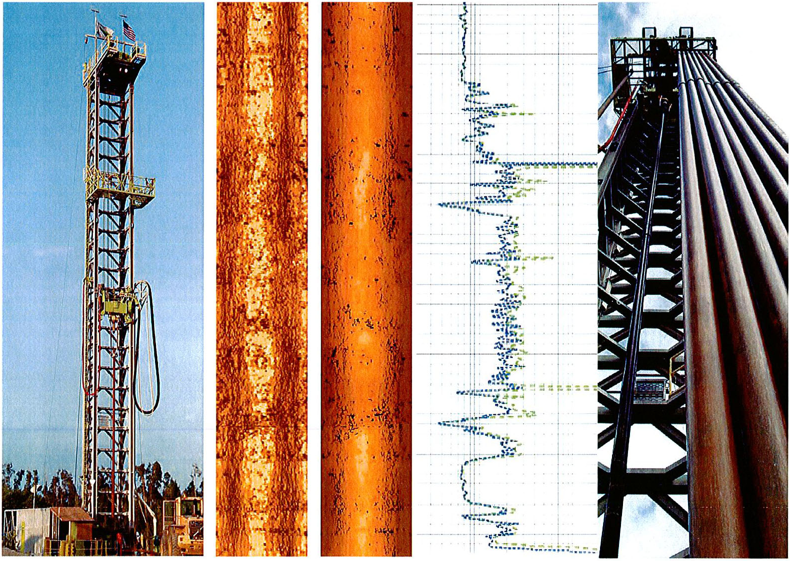
Schlumberger
WATER SERVICES

City of Hialeah
Reverse Osmosis Water Treatment Plant Injection Wells IW-1 & IW-2 and Dual-Zone Monitor Well DZMW-1 Completion Report

APPENDICES
VOLUME 2

November 12, 2010



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YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

DUAL INDUCTION LL3 with SP LOG

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R. O.
County	DADE
State	FL
Location	
Other Services	SEE COMMENTS

Permanent Datum	Elevation	Elevation
Log Measured From		K.B.
Drilling Measured From		D.F.
		G.L.

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R. O.
County	DADE
State	FL

Date	15-NOV-09	
Run Number	TWO	
Depth Driller	1100'	
Depth Logger	1100'	
Bottom Logged Interval	1100'	
Top Log Interval	CASING	
Open Hole Size	12.25"	
Type Fluid	MUD	
Density / Viscosity	NA	
Max. Recorded Temp.	NA	
Estimated Cement Top	NA	
Time Well Ready	1600	
Time Logger on Bottom	1625	
Equipment Number	102	
Location	FT MYERS	
Recorded By	MOREY	
Witnessed By	S. DAY	

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run Number	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Casing String	52"	.375" W.T.	SURFACE	155'
Casing String				
Casing String				
Casing String				

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

X-Y CALIPER
GAMMA RAY

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

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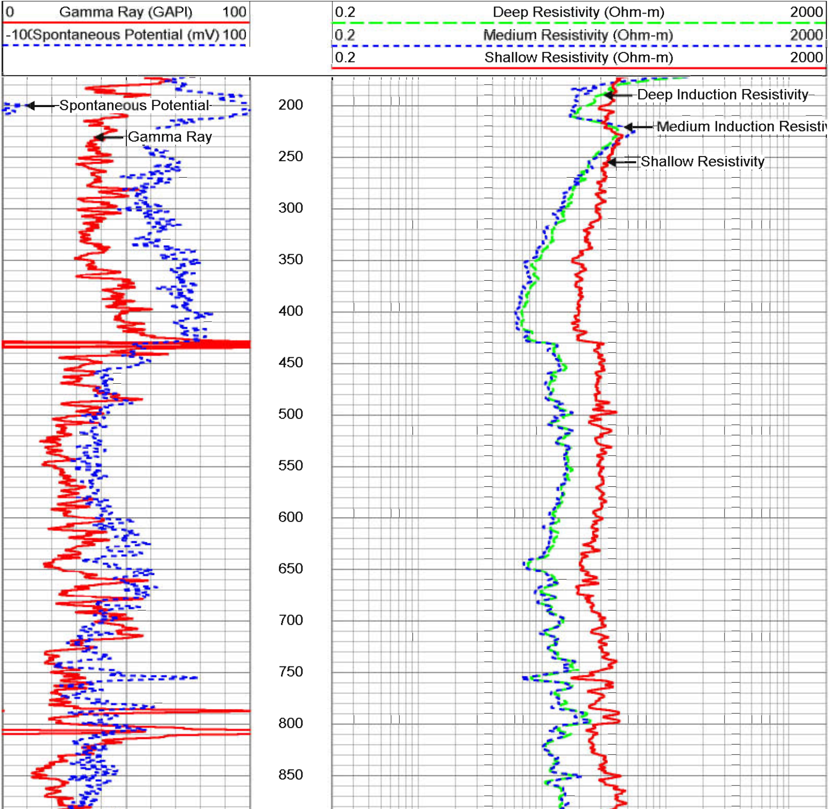

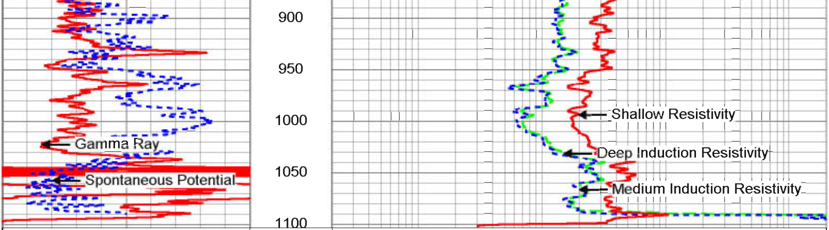

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-10(Spontaneous Potential (mV) 100	0.2 Medium Resistivity (Ohm-m) 2000
	0.2 Shallow Resistivity (Ohm-m) 2000

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

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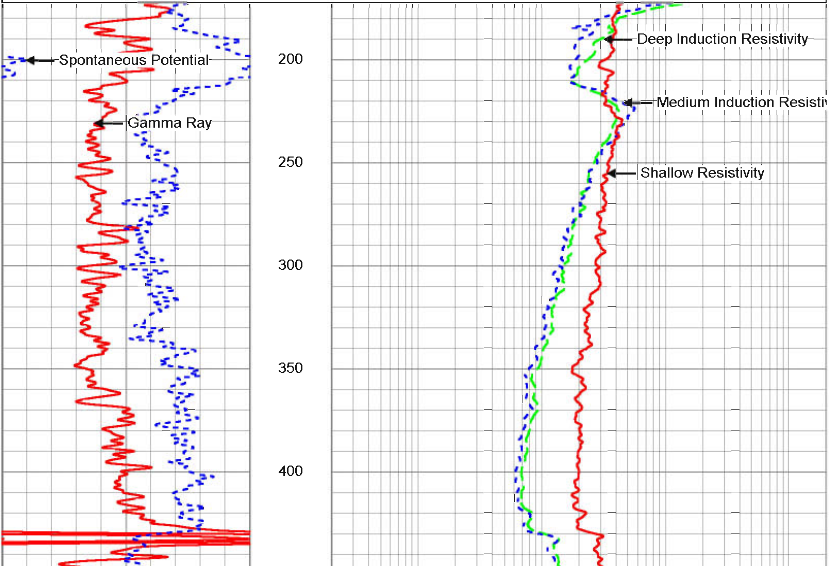

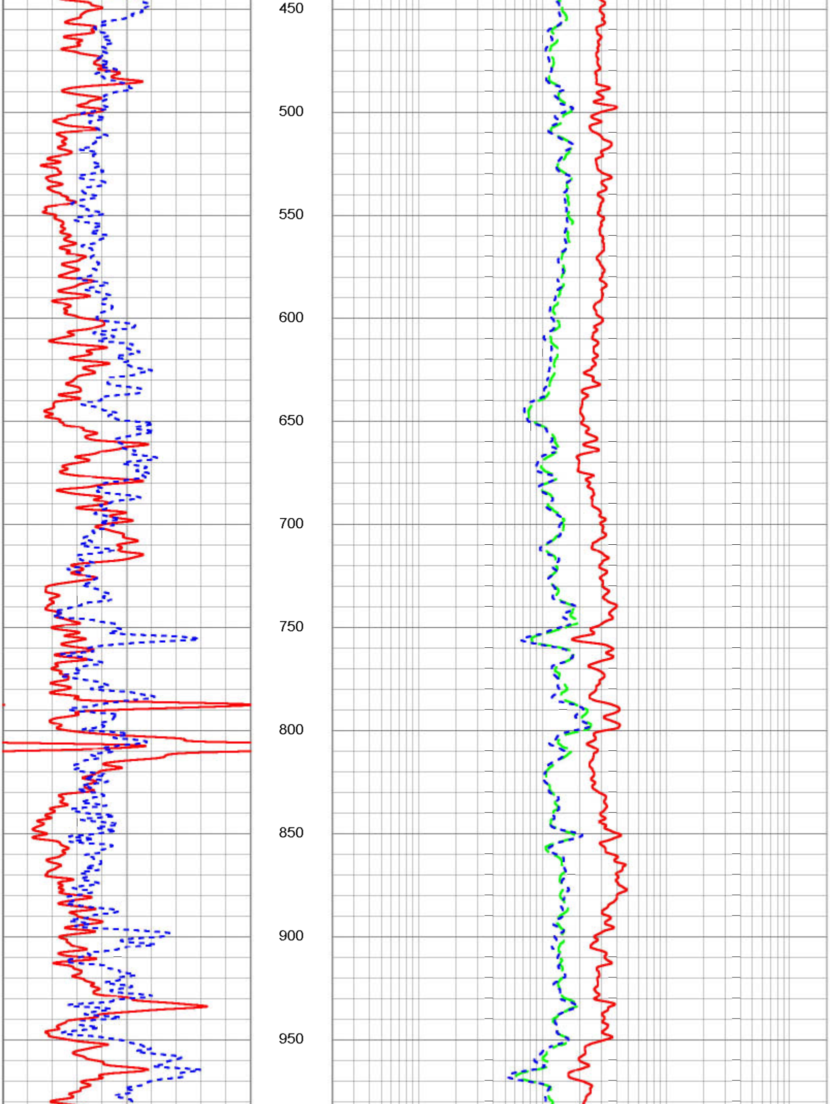

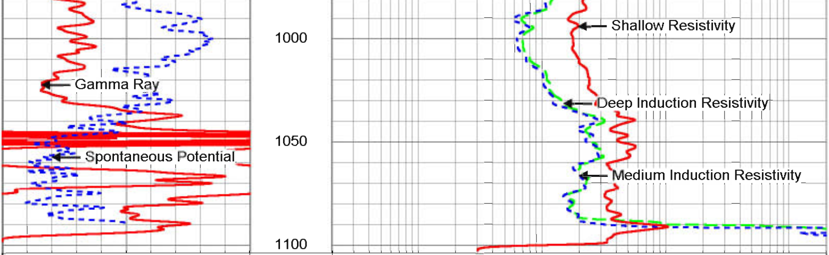

0 Gamma Ray (GAPI) 100

-10(Spontaneous Potential (mV) 100

0.2 Deep Resistivity (Ohm-m) 2000

0.2 Medium Resistivity (Ohm-m) 2000

0.2 Shallow Resistivity (Ohm-m) 2000

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

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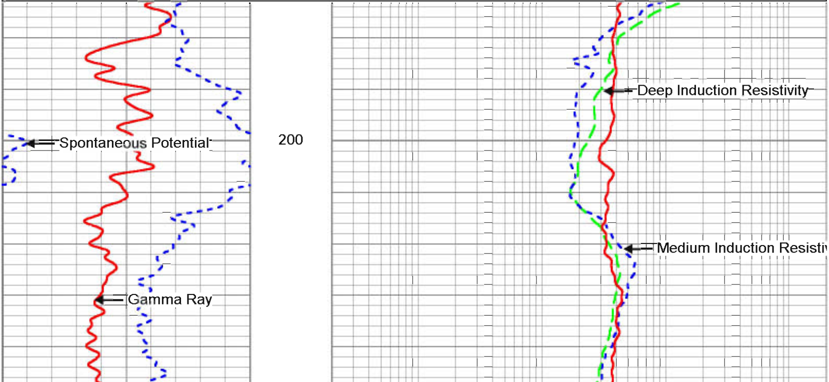
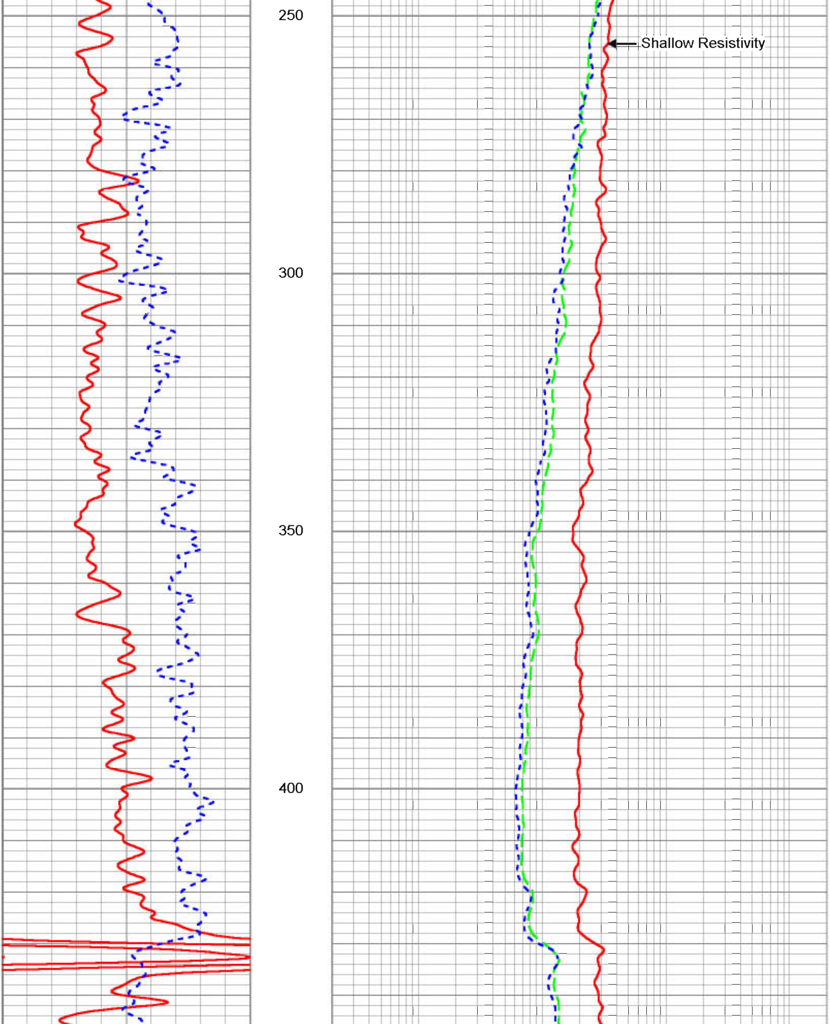
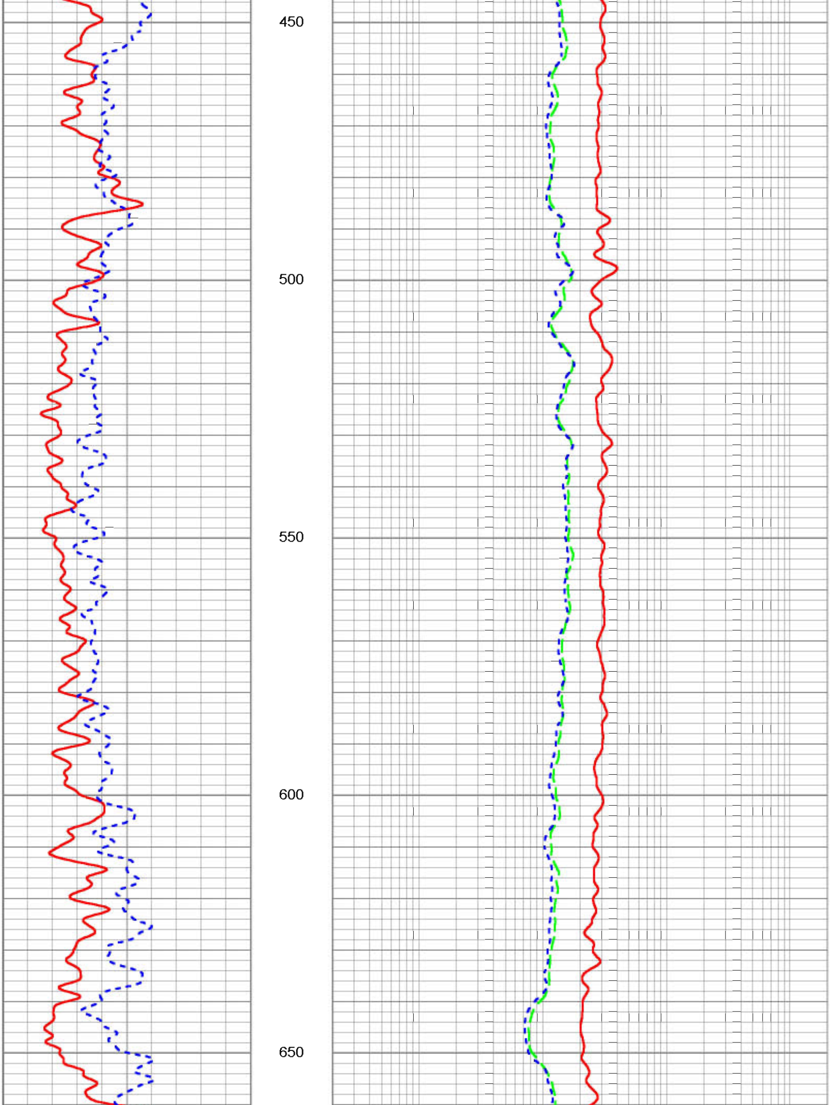
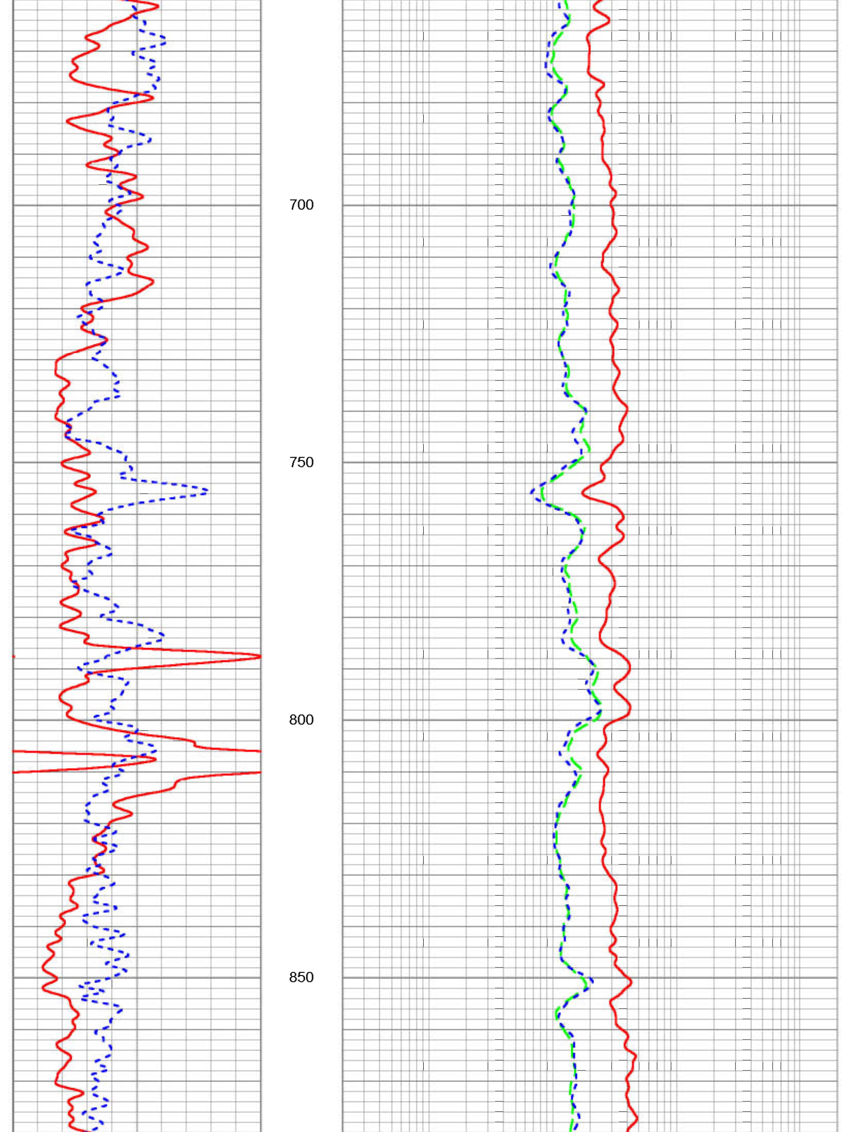
0.2 Medium Resistivity (Ohm-m) 2000

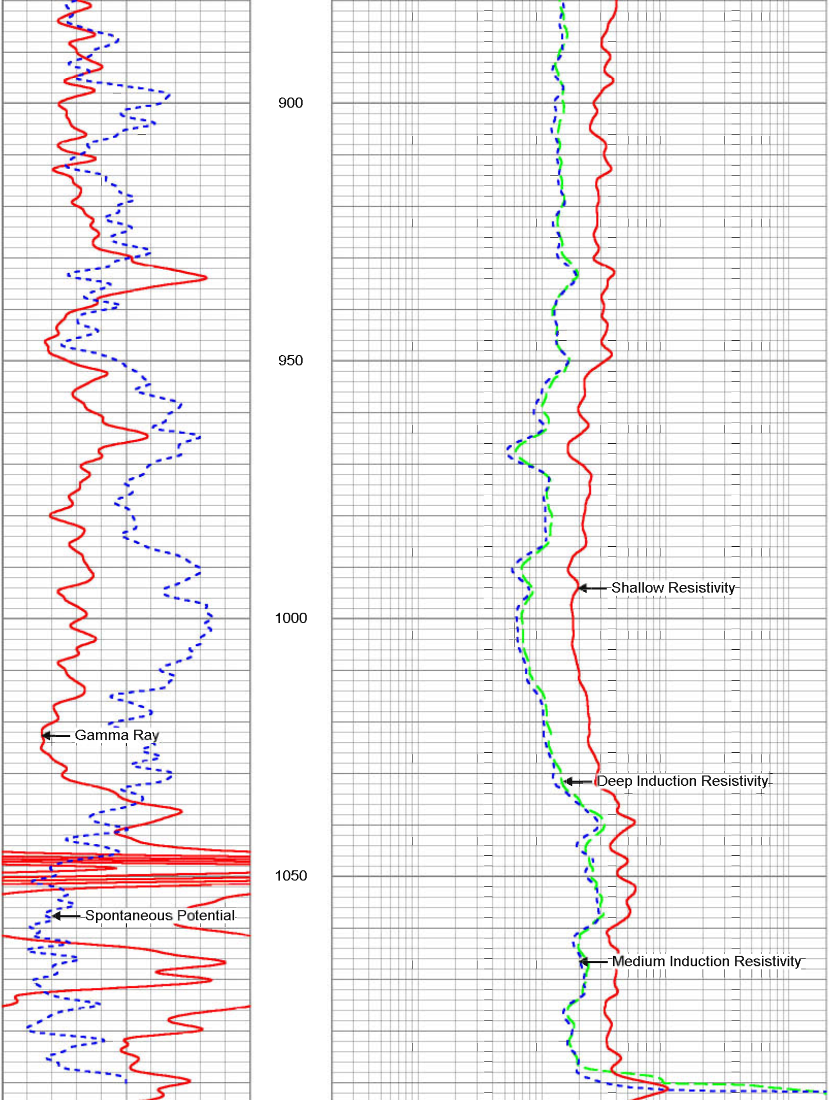
0.2 Shallow Resistivity (Ohm-m) 2000

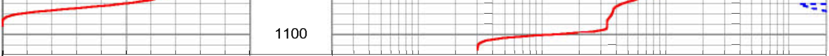












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-10(Spontaneous Potential (mV) 100

0.2 Deep Resistivity (Ohm-m) 2000

0.2 Medium Resistivity (Ohm-m) 2000

0.2 Shallow Resistivity (Ohm-m) 2000

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

REPEAT PASS

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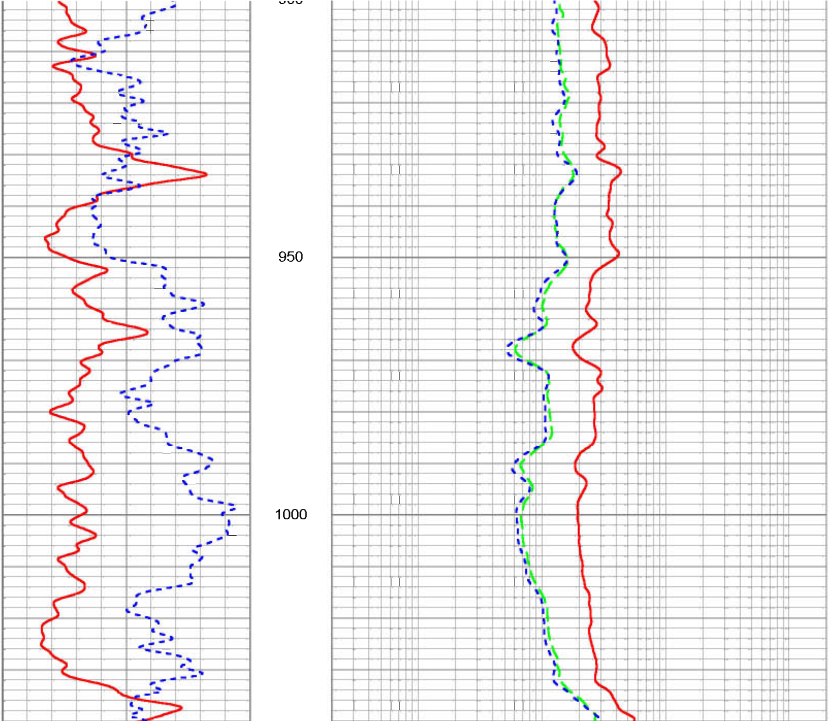
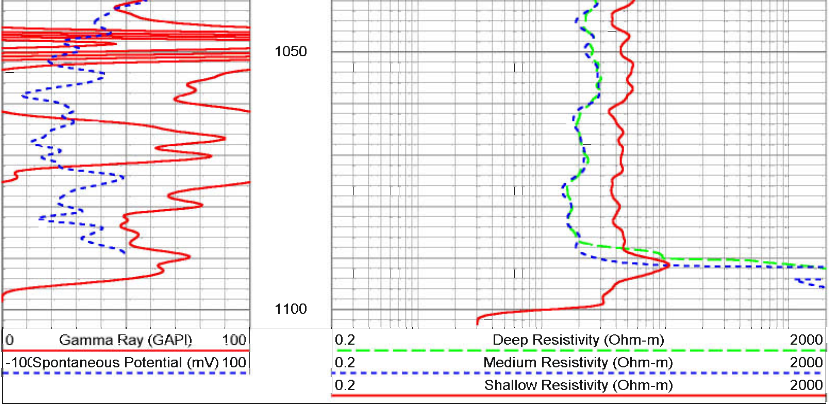
0.2 Medium Resistivity (Ohm-m) 2000

0.2 Shallow Resistivity (Ohm-m) 2000





Dual Induction Calibration Report

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Surface Cal Performed:	Tue Oct 14 15:50:55 2008
Downhole Cal Performed:	Sun Nov 15 17:32:02 2009
After Survey Verification Performed:	Sun Nov 15 18:10:30 2009

Surface Calibration

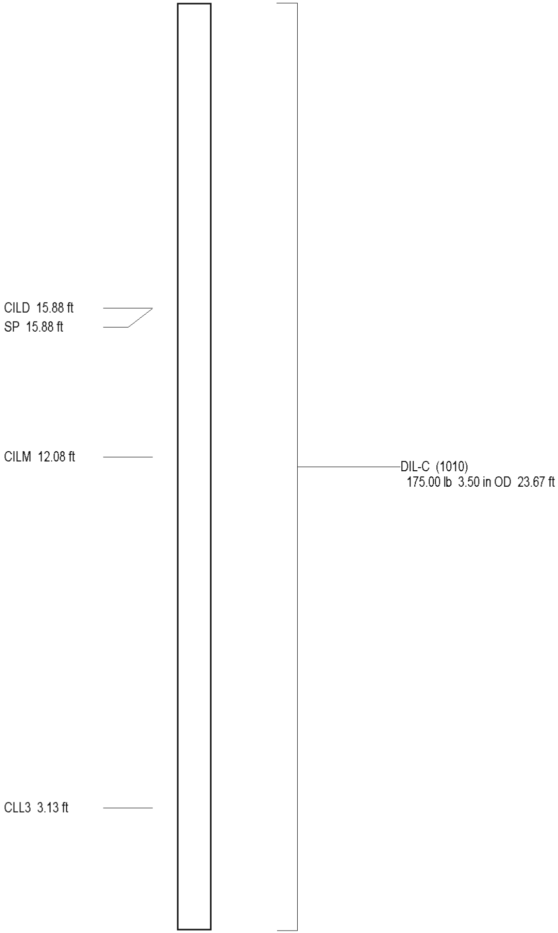
	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.005	0.647	V	0.000	400.000	mmho-m	613.290	3.302
Medium	0.010	0.714	V	0.000	464.000	mmho-m	658.369	-6.281
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.009	0.641	V	8.610	397.880	mmho-m	615.374	3.164
Medium	0.007	0.710	V	-1.120	462.890	mmho-m	659.667	-5.714

Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	4.335	385.702	mmho-m	8.729	396.680	mmho-m	1.017	4.320
Medium	2.668	452.765	mmho-m	-1.696	461.400	mmho-m	1.029	-4.441
Shallow	-1.405	-1.034		3.000	88.900	mmho-m	231.303	328.092

After Survey Verification

	Readings			Targets			Results	
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	4.533	319.353	mmho-m	4.335	385.702	mmho-m	1.017	4.320
Medium	11.963	377.517	mmho-m	2.668	452.765	mmho-m	1.029	-4.441
Shallow	1.921	85.354	mmho-m	3.000	88.900	mmho-m	1.030	1.022



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Total Weight:	175.00 lb
O.D.	3.50 in

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R. O.
County	DADE
State	FL

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

X-Y CALIPER GAMMA RAY LOG

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R. O.
County	DADE
State	FL
Location	
Other Services	SEE COMMENTS

Permanent Datum	Elevation	Elevation
Log Measured From		K.B.
Drilling Measured From		D.F.
		G.L.

Date	15-NOV-09	
Run Number	TWO	
Depth Driller	1100'	
Depth Logger	1100'	
Bottom Logged Interval	1100'	
Top Log Interval	CASING	
Open Hole Size	12.25"	
Type Fluid	MUD	
Density / Viscosity	NA	
Max. Recorded Temp.	NA	
Estimated Cement Top	NA	
Time Well Ready	1600	
Time Logger on Bottom	1625	
Equipment Number	102	
Location	FT MYERS	
Recorded By	MOREY	
Witnessed By	S. DAY	

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run Number	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Casing String	52"	.375" W.T.	SURFACE	155'
Casing String				
Casing String				
Casing String				

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Comments

DUAL INDUCTION
LL3 with SP

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

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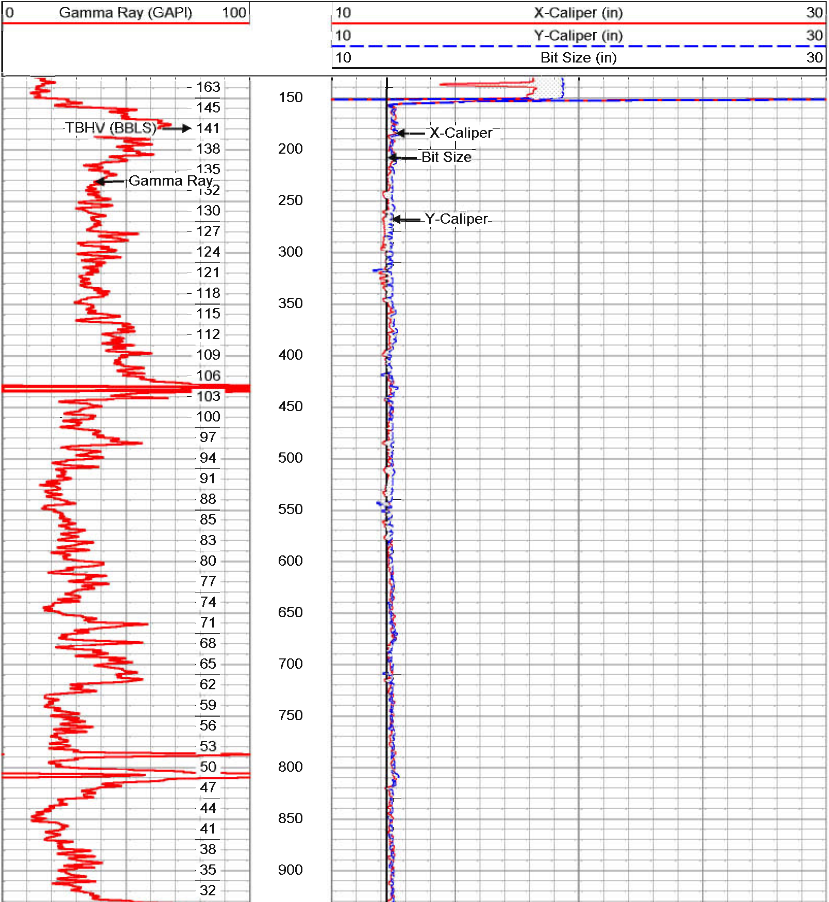

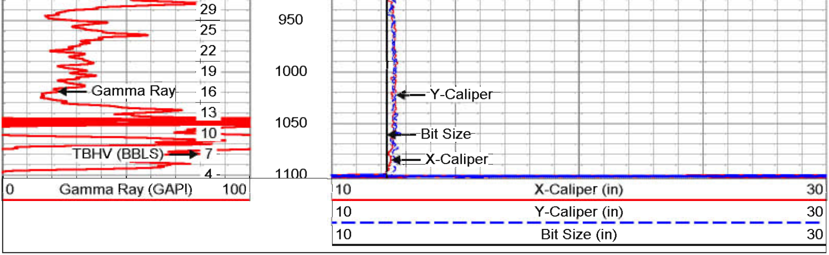

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

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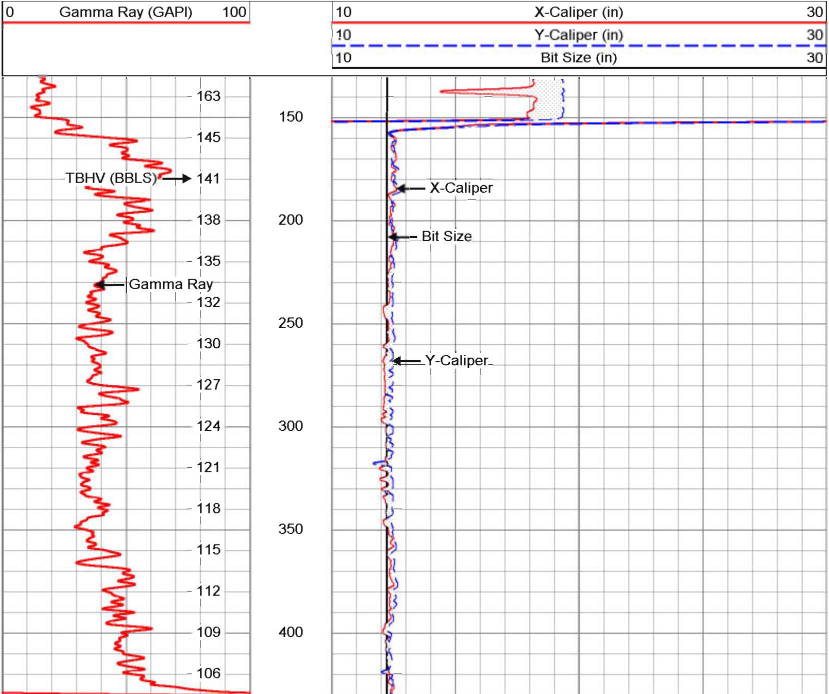

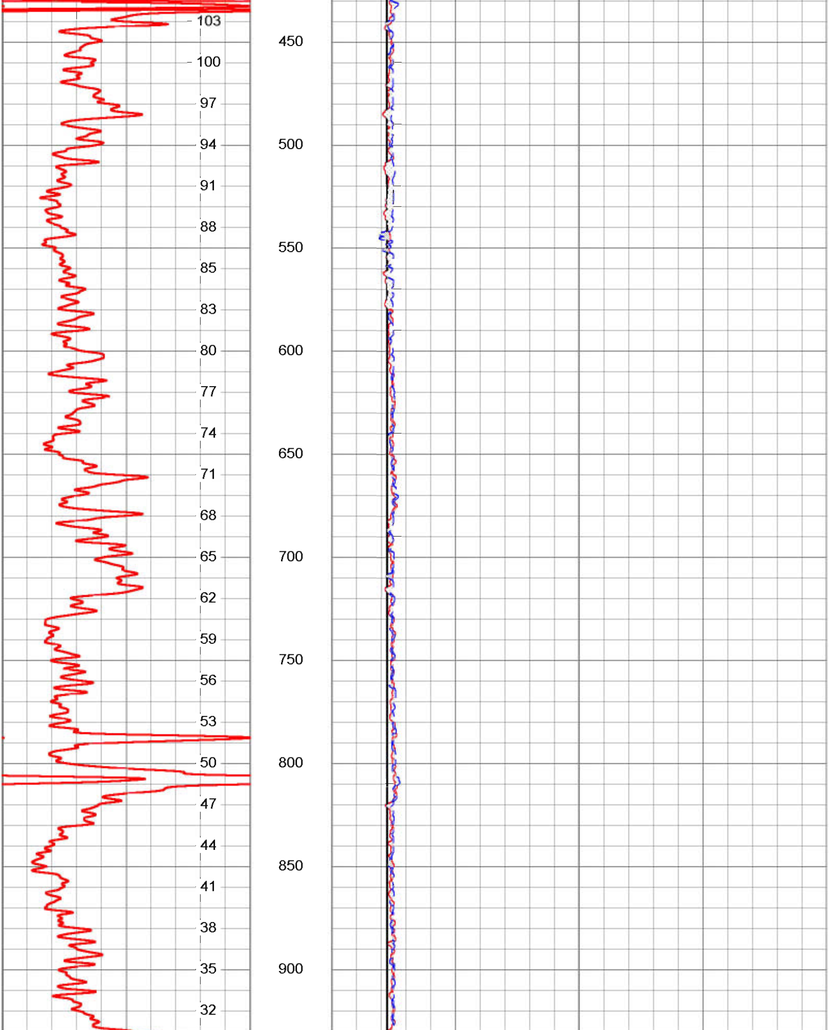

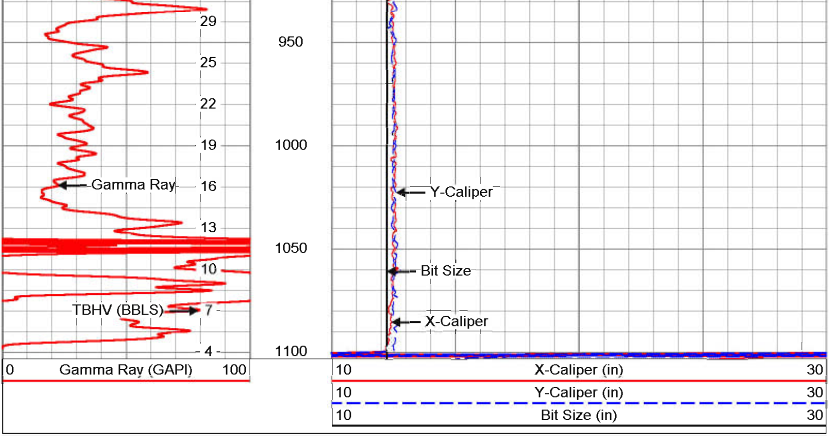

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

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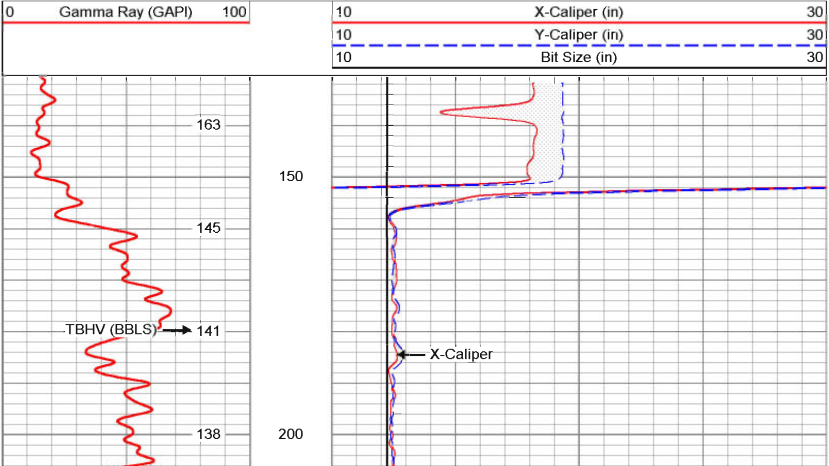

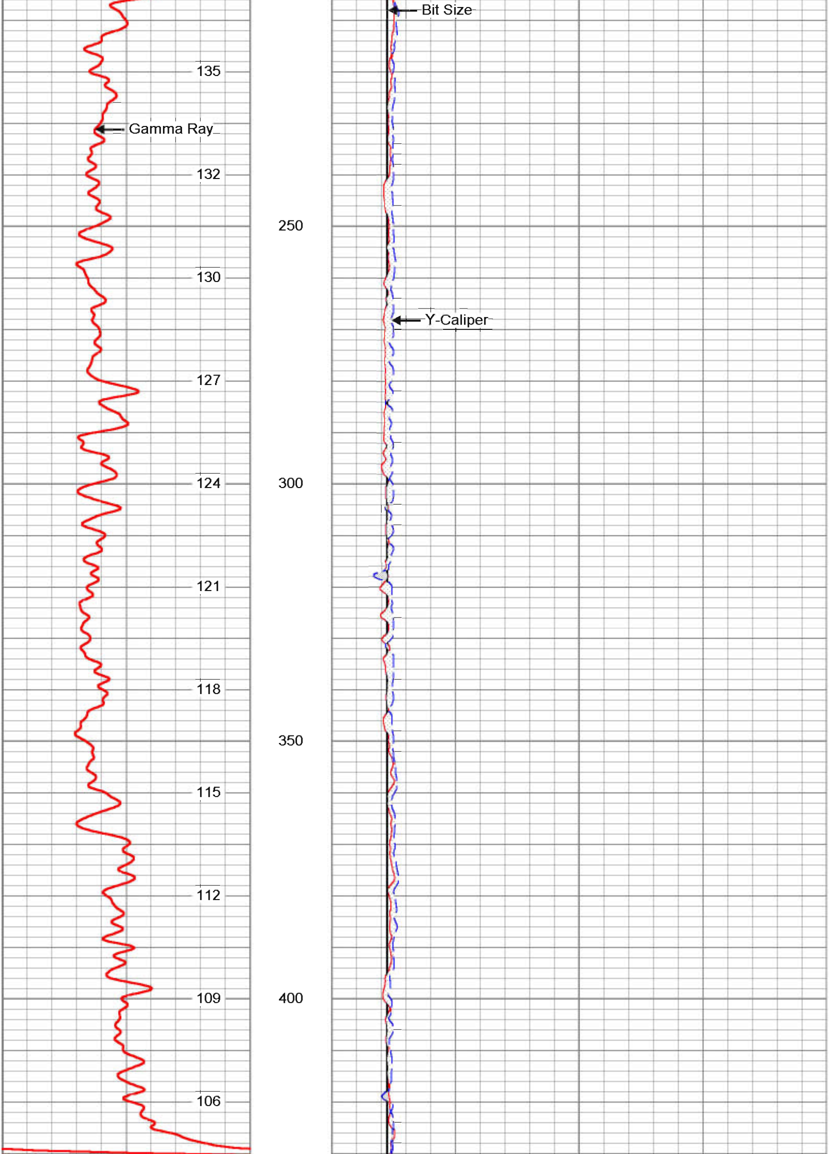

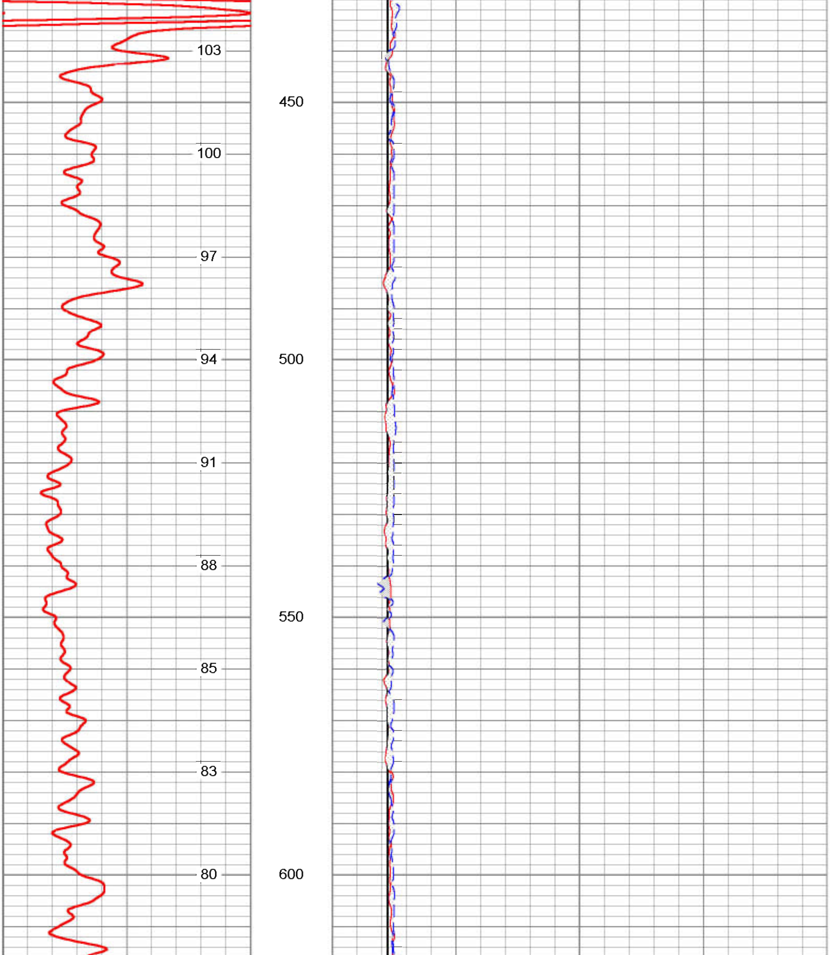

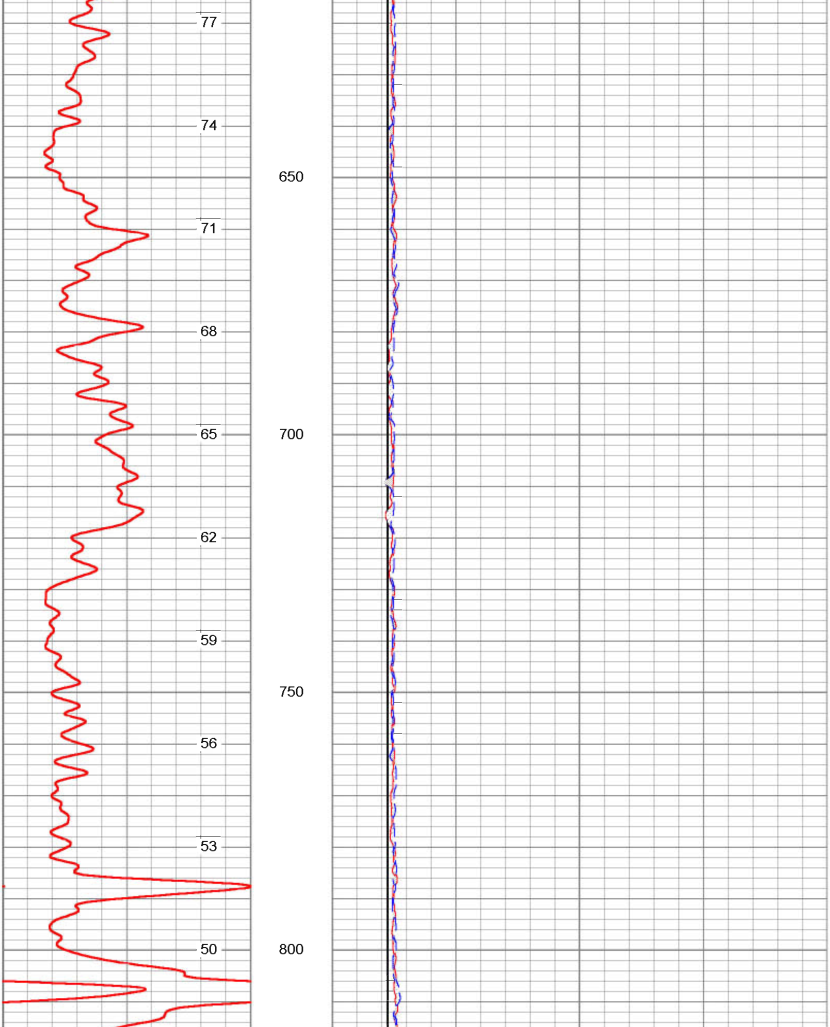

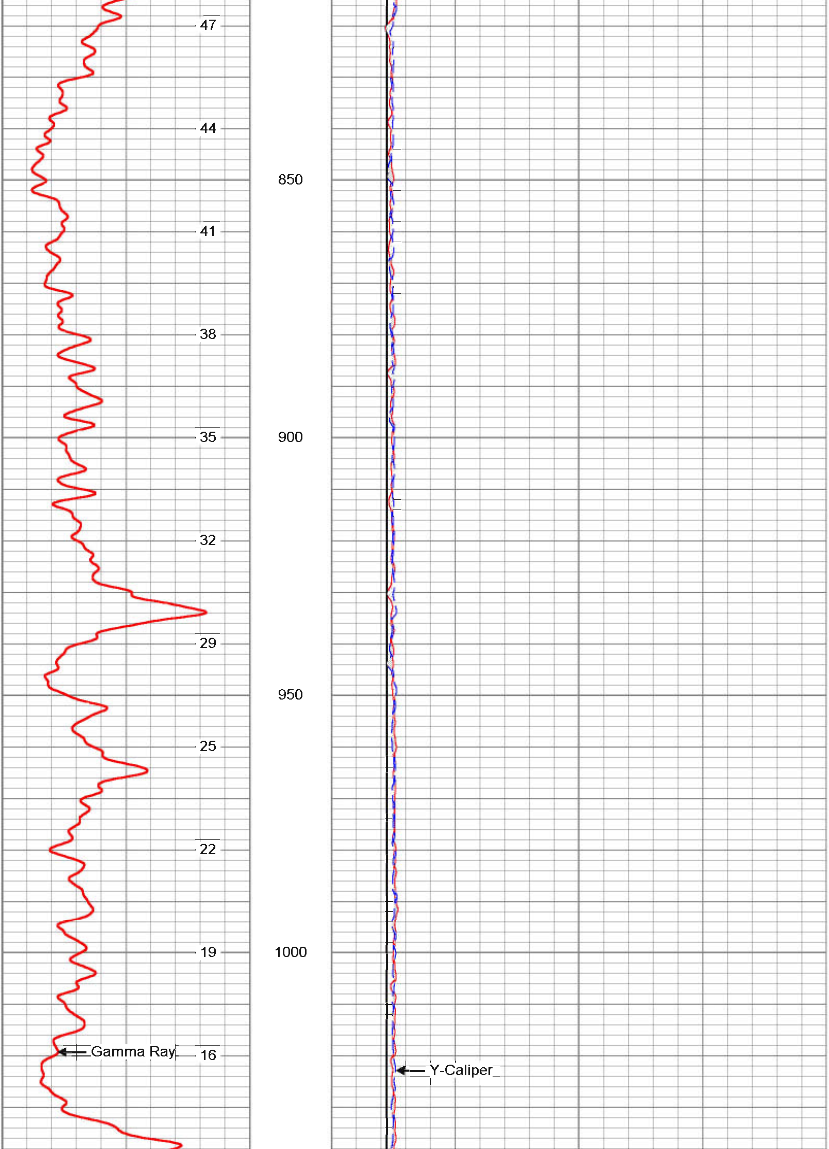

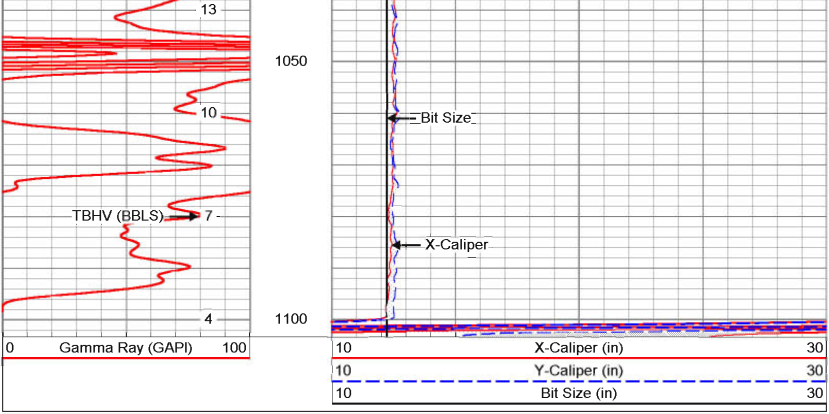

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

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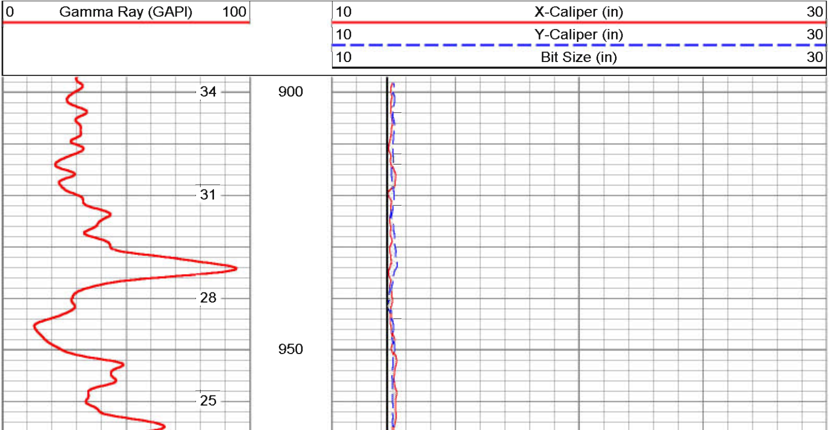

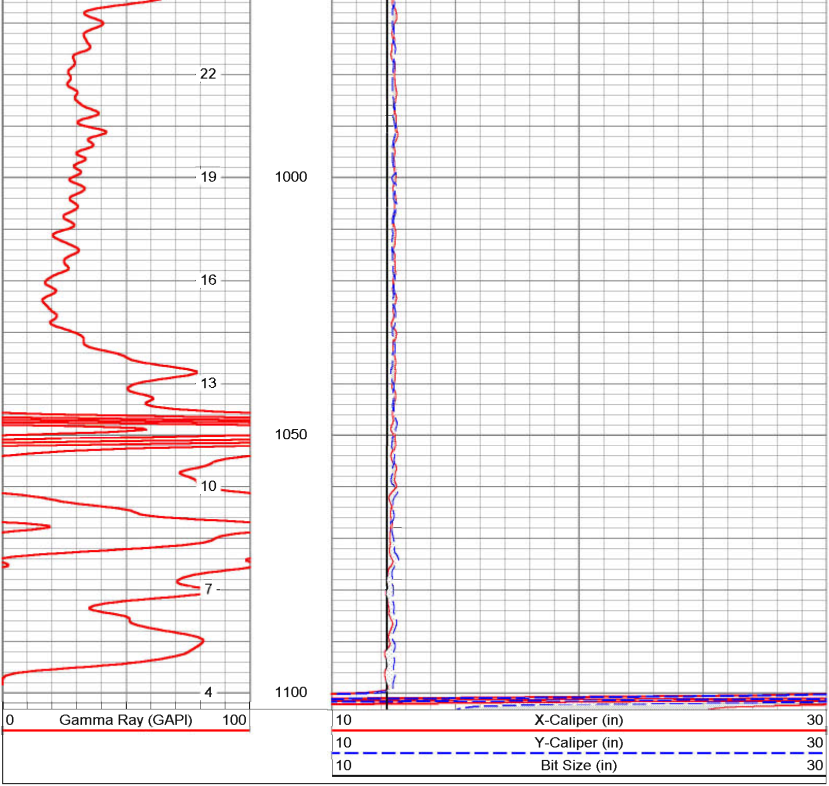

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Performed: Sun Nov 15 16:02:33 2009

Ring			X Caliper		Y Caliper	
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2:	20	in	1015.12	cps	1017.92	cps
3:	30	in	1184.08	cps	1208.21	cps
4:		in		cps		cps
5:		in		cps		cps
6:		in		cps		cps

Gamma Ray Calibration Report

Serial Number:	13	
Tool Model:	GROH	
Performed:	Thu Jul 17 15:55:52 2008	
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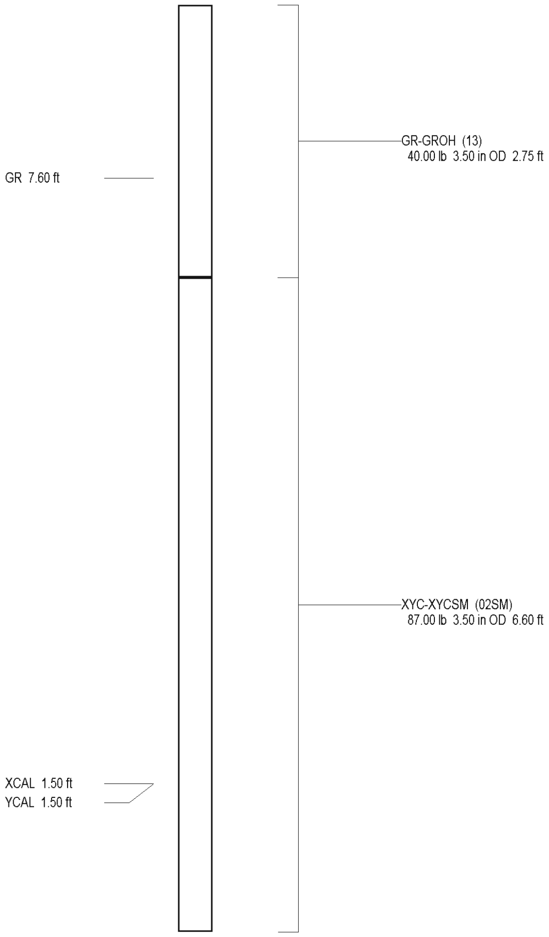
Calibrator Reading:	98.7988	cps
Sensitivity:	1.51173	GAPI/cps



Dataset:	run2/pass2
Total Length:	9.35 ft
Total Weight:	127.00 lb
O.D.	3.50 in

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

BOREHOLE COMPENSATED SONIC with VDL & LOG DERIVED TDS LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R. O.
County DADE
State FL

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL

Location

Other Services
SEE
COMMENTS

Permanent Datum
Log Measured From
Drilling Measured From

Elevation

Elevation
K.B.
D.F.
G.L.

Date	6-DEC-2009		
Run Number	FIVE		
Depth Driller	2156'		
Depth Logger	2156'		
Bottom Logged Interval	2156'		
Top Log Interval	CASING		
Open Hole Size	12.25"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	80 F		
Estimated Cement Top	NA		
Time Well Ready	0300		
Time Logger on Bottom	0330		
Equipment Number	103		
Location	FT MYERS		
Recorded By	CATHEY		
Witnessed By	D. LEGGETT		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String				
Liner				

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Comments

OTHER SERVICES:

X-Y CALIPER / GAMMA RAY
DUAL INDUCTION
FLUID CONDUCTIVITY / TEMP
FLOWMETER
VIDEO

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

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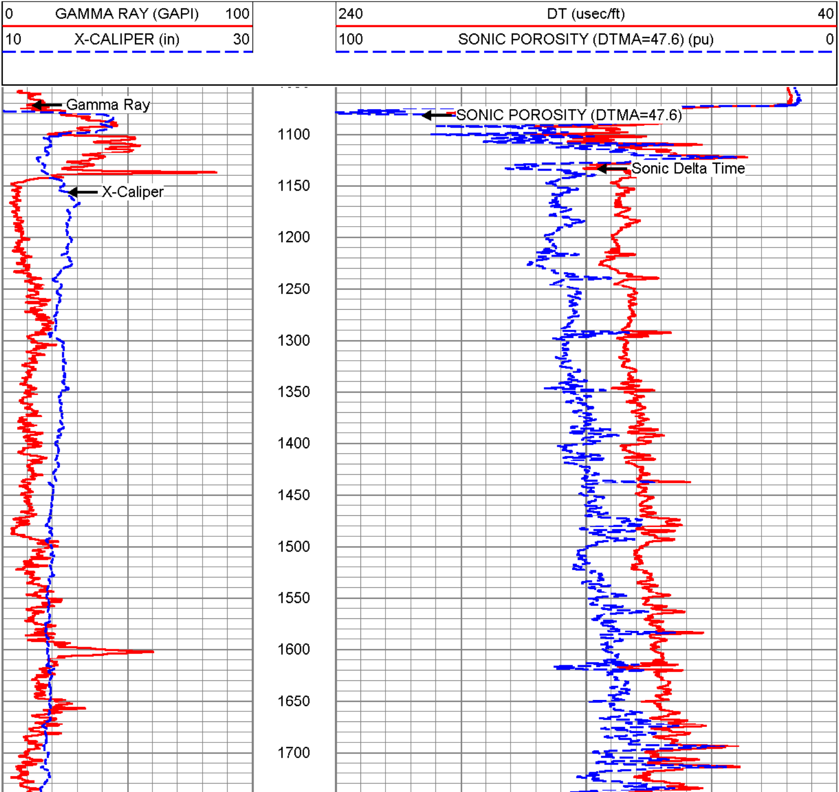

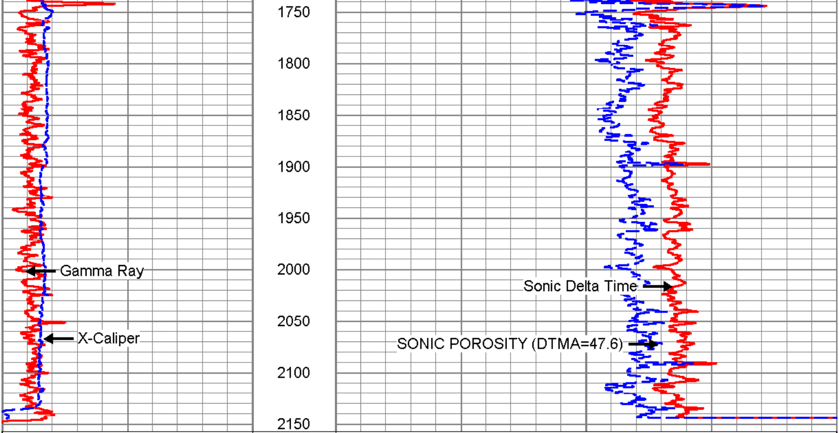

0 GAMMA RAY (GAPI) 100
10 X-CALIPER (in) 30

240 DT (usec/ft) 40
100 SONIC POROSITY (DTMA=47.6) (pu) 0

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File: hiaiw1.db
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Presentation Format: SON_POR
Dataset Creation: Sun Dec 06 05:57:50 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:600

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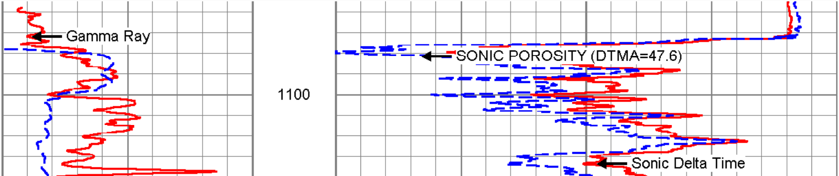
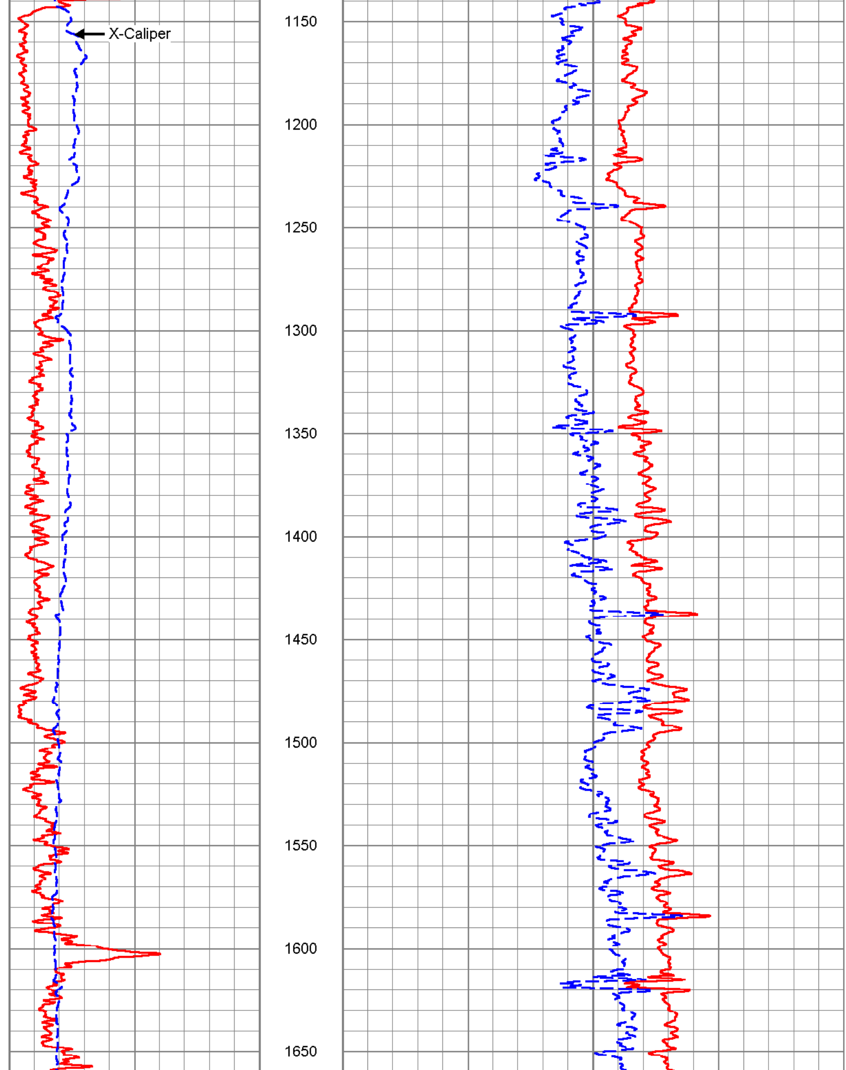
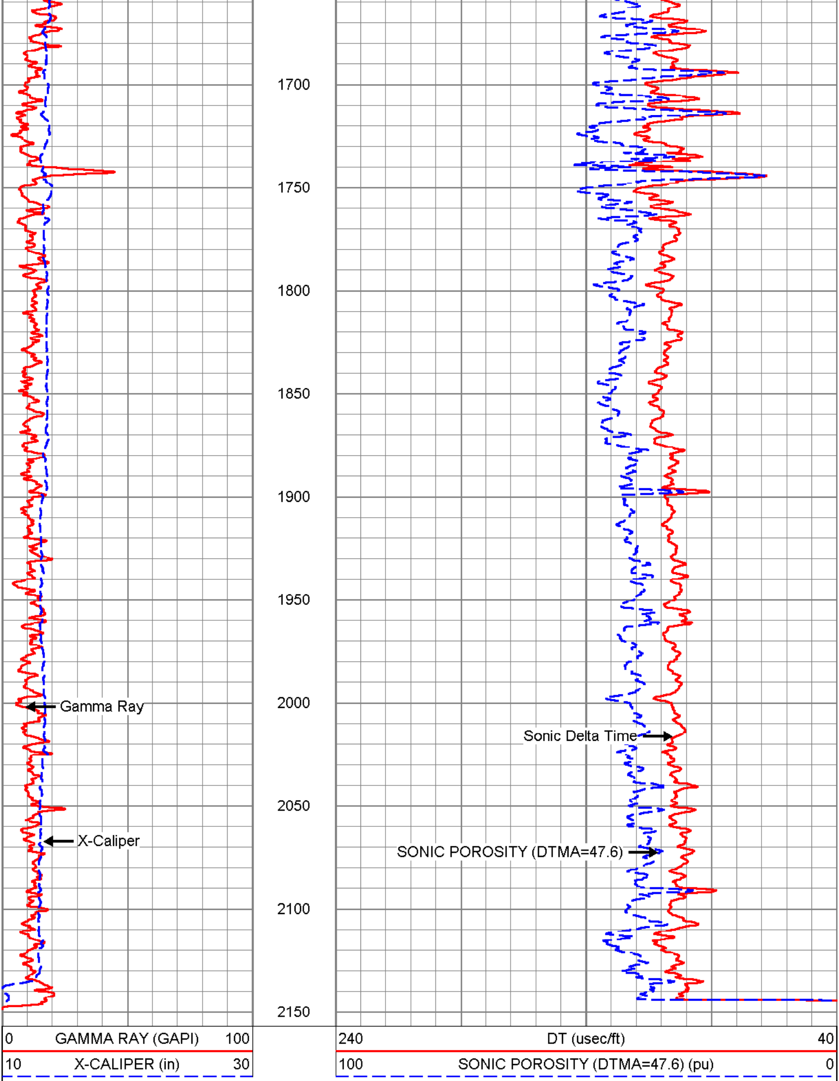
10 X-CALIPER (in) 30

240 DT (usec/ft) 40
100 SONIC POROSITY (DTMA=47.6) (pu) 0





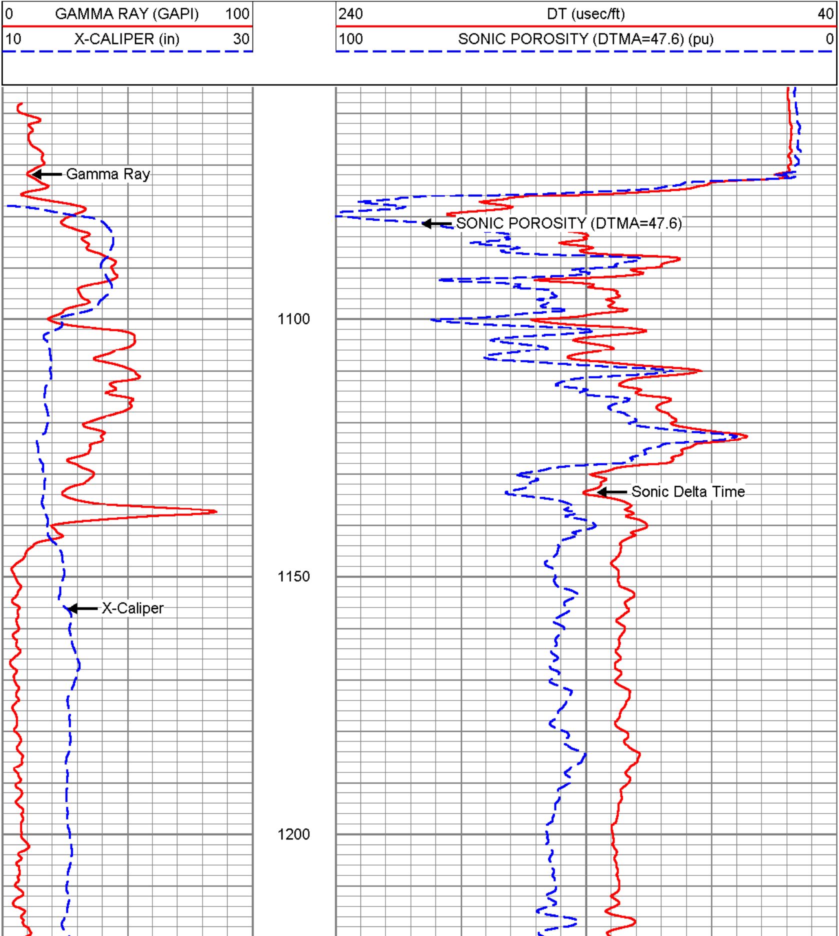


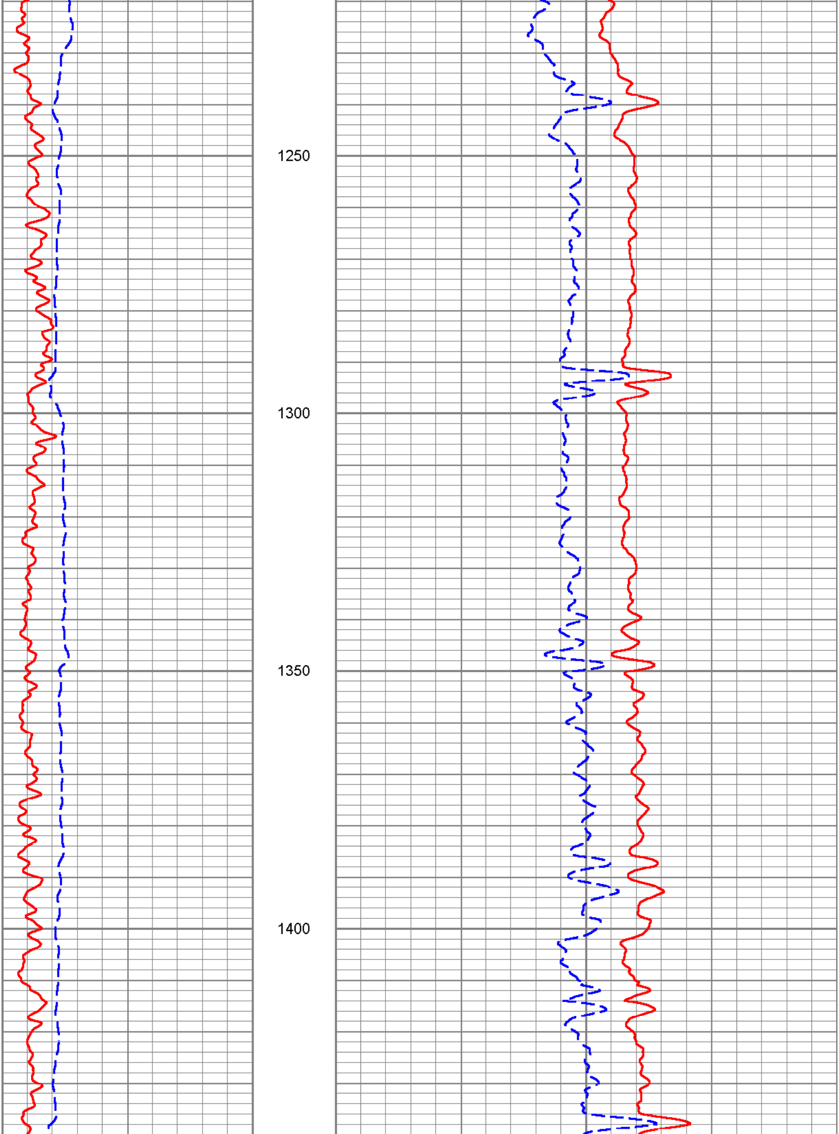
YOUNGQUIST BROTHERS, Inc

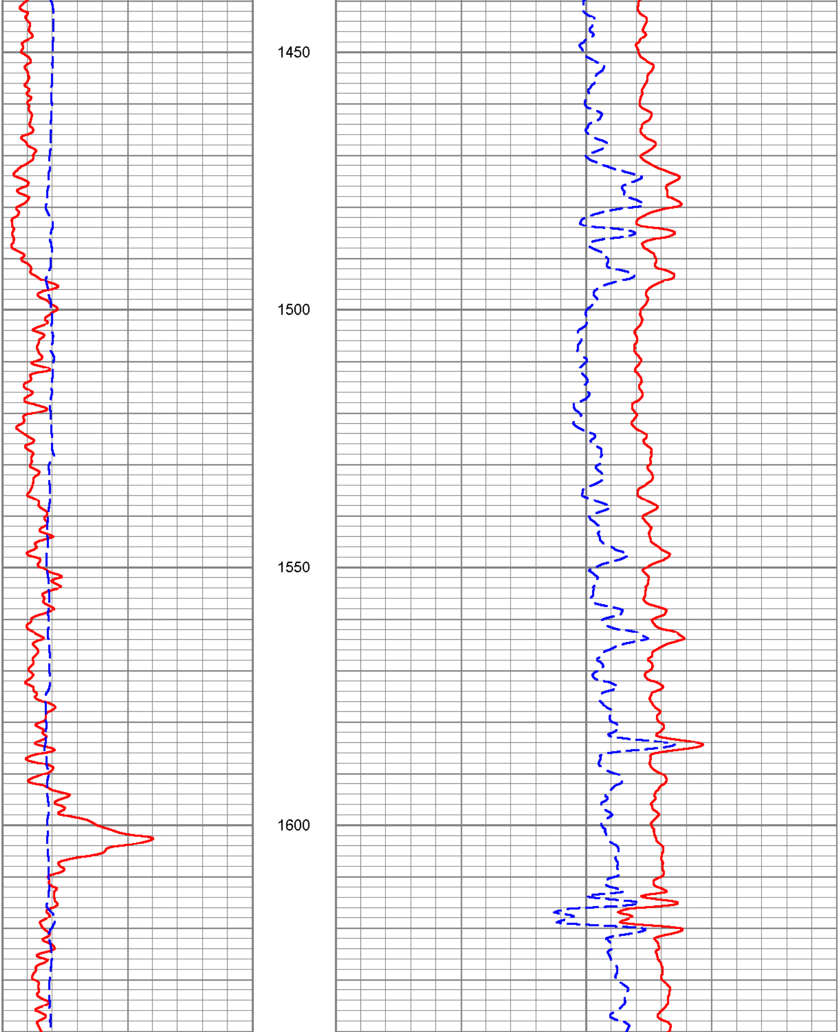
GEOPHYSICAL LOGGING DIVISION

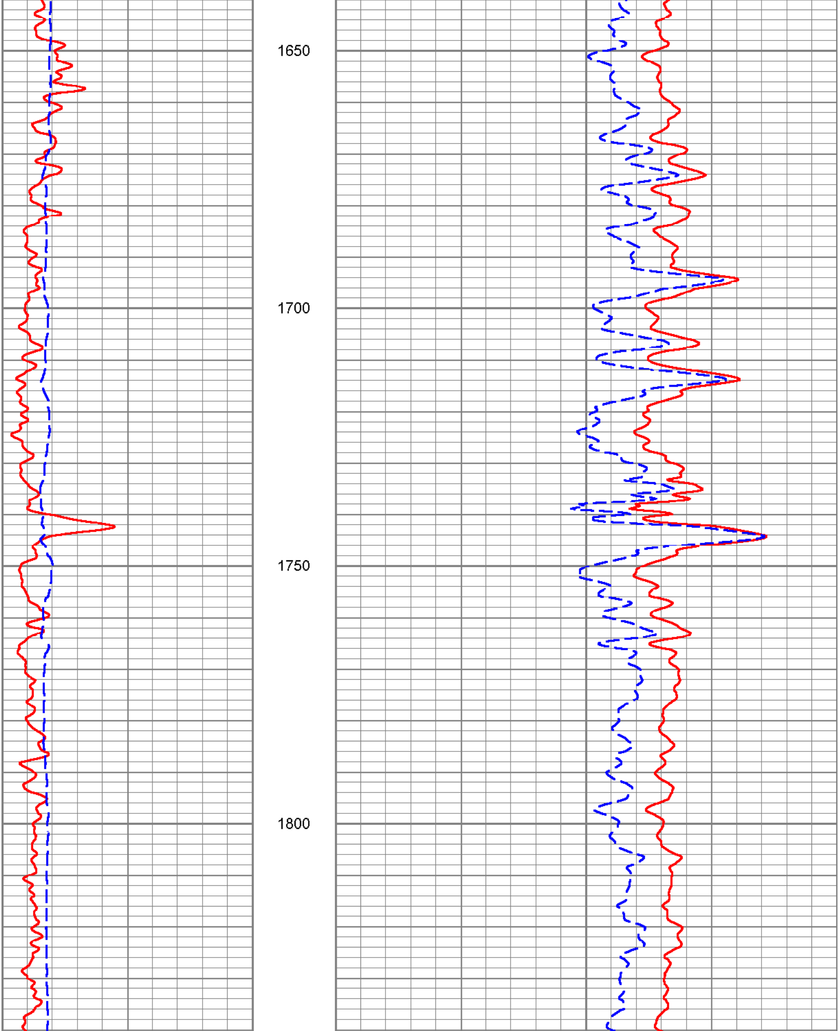
MAIN PASS

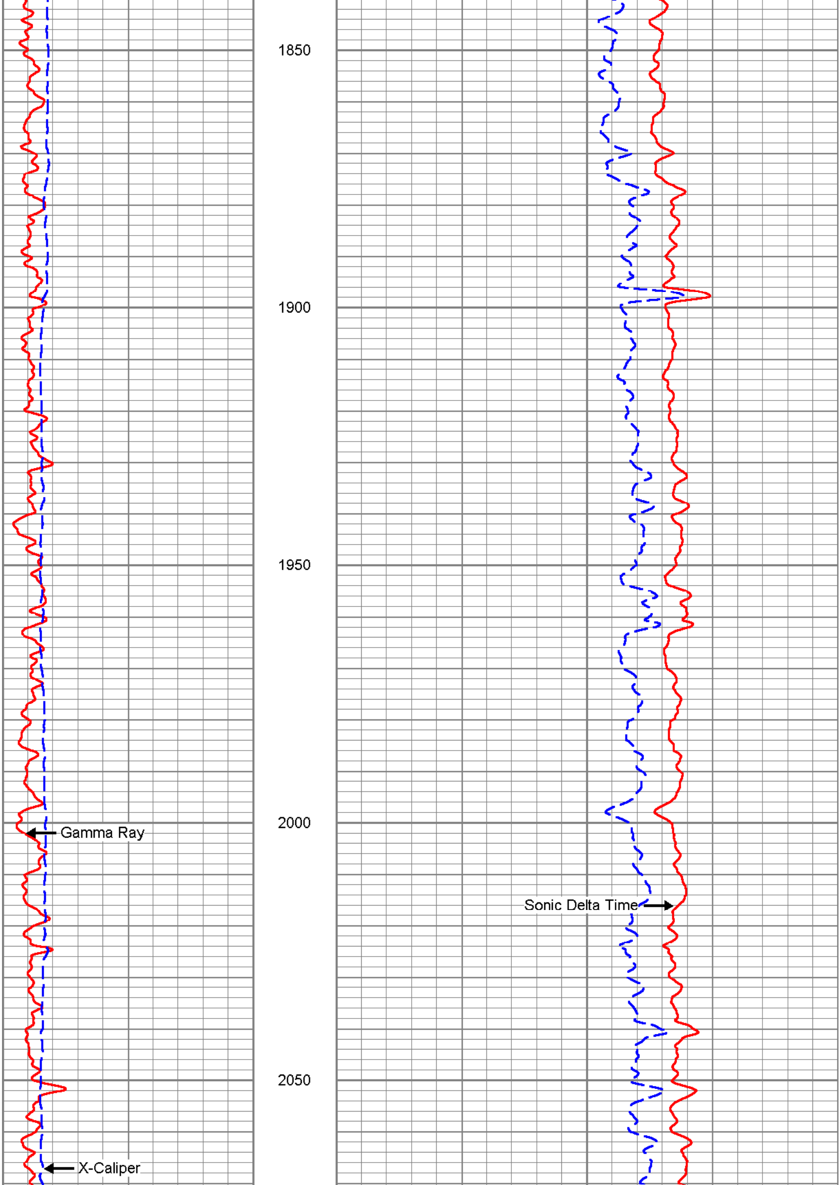
Database File:	hiaiw1.db
Dataset Pathname:	run5/pass8
Presentation Format:	SON_POR
Dataset Creation:	Sun Dec 06 05:57:50 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

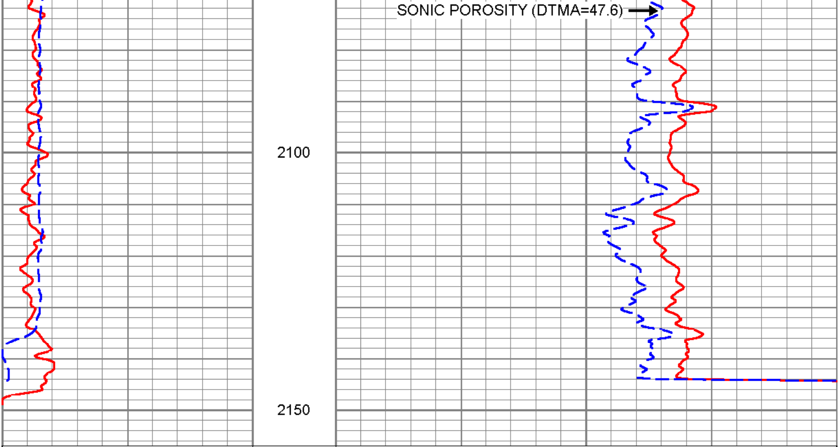












0 GAMMA RAY (GAPI) 100
10 X-CALIPER (in) 30

240 DT (usec/ft) 40
100 SONIC POROSITY (DTMA=47.6) (pu) 0

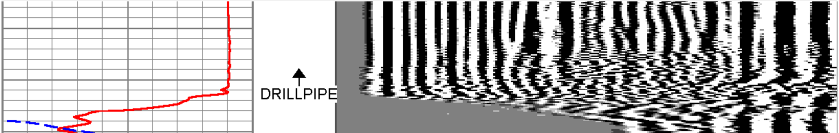
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

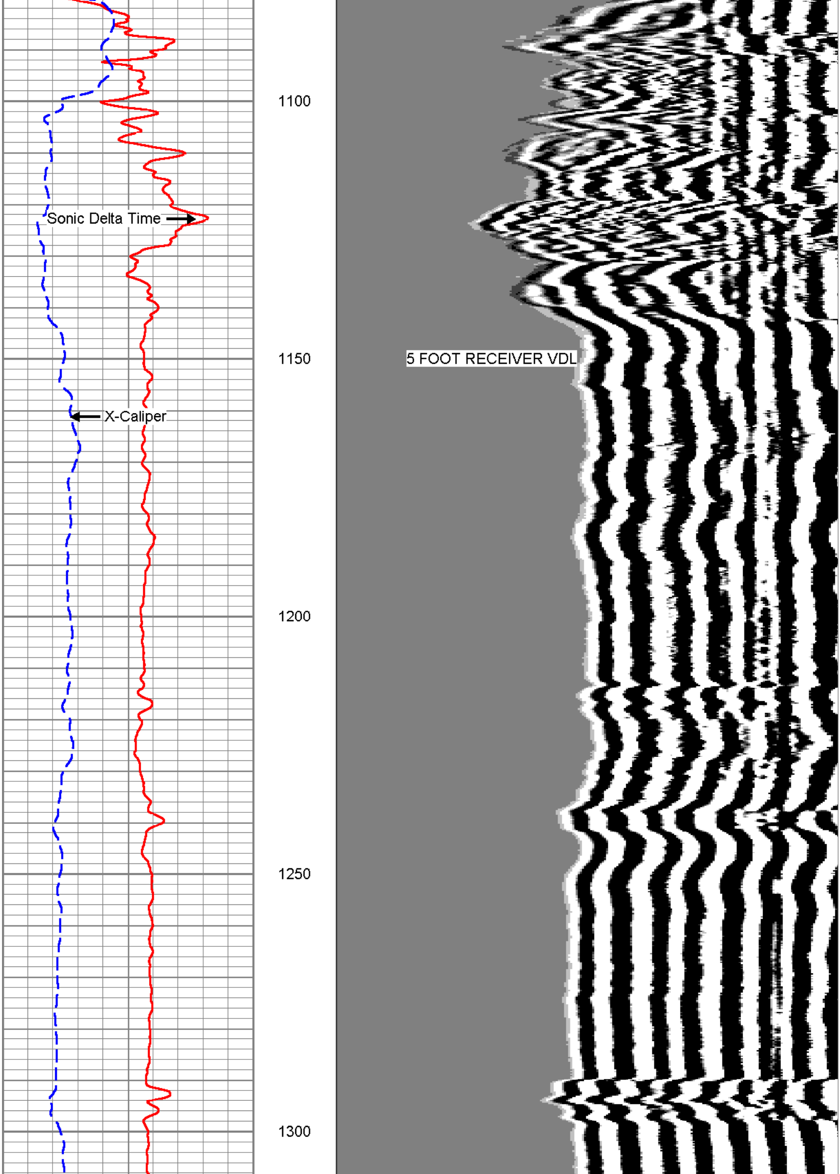
MAIN PASS

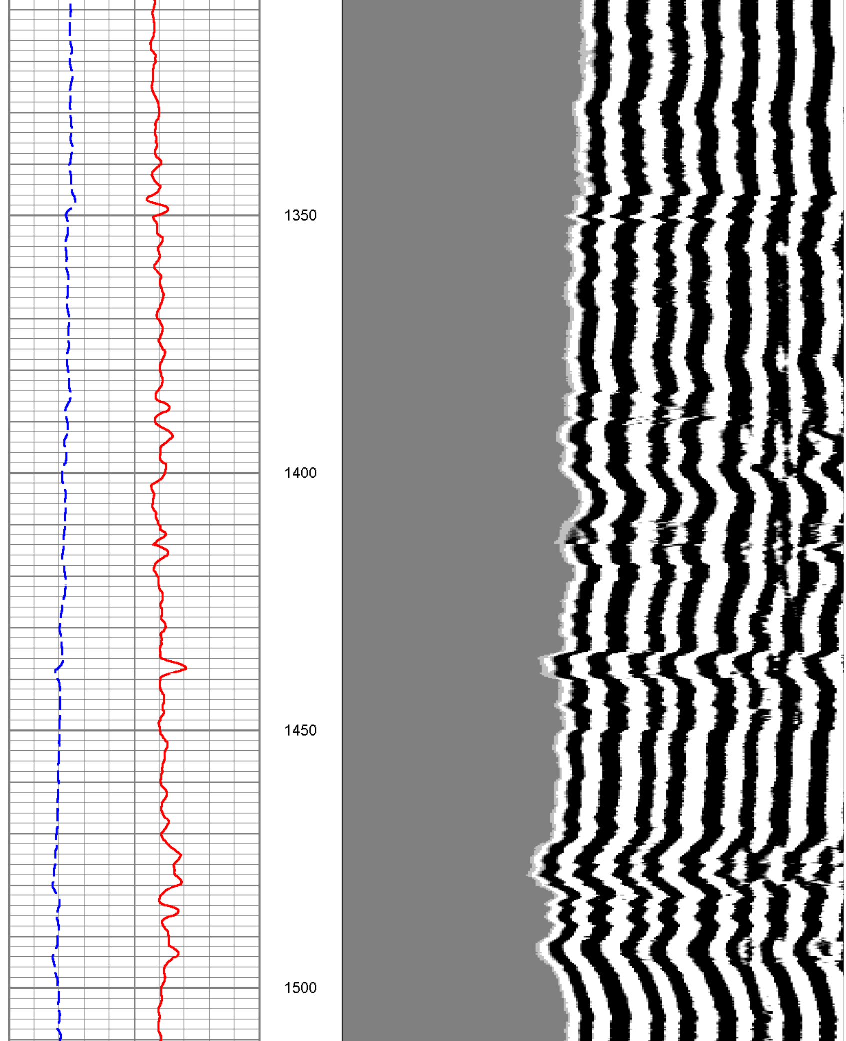
Database File: hiaiw1.db
Dataset Pathname: run5/pass8
Presentation Format: SON_VDL
Dataset Creation: Sun Dec 06 05:57:50 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

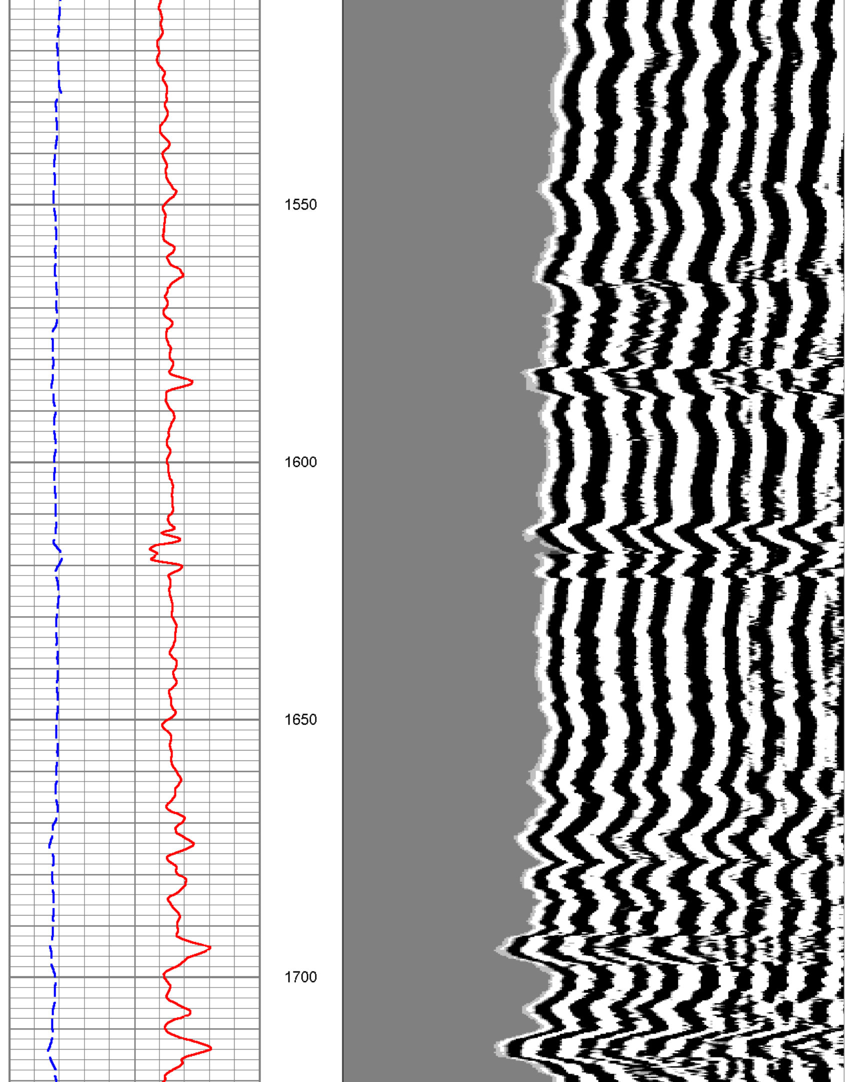
240 DT (usec/ft) 40
10 X-CALIPER (in) 30

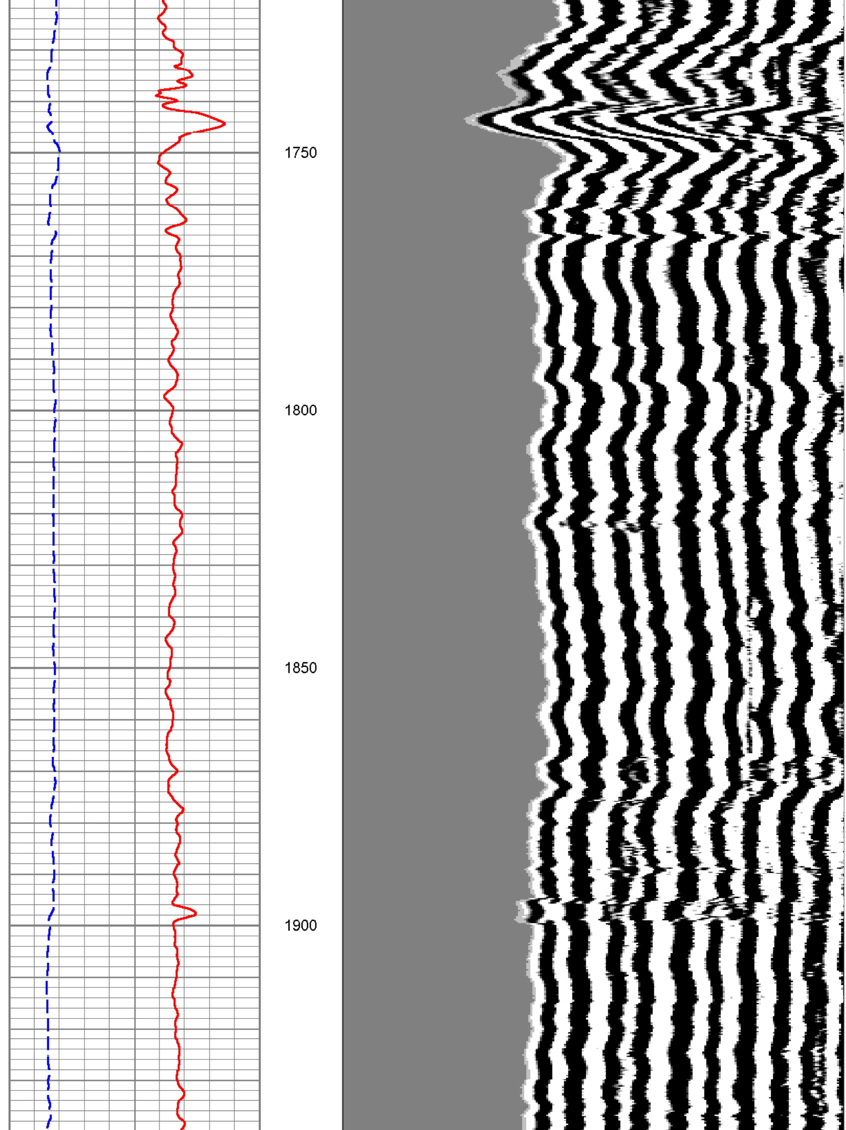
400 5 FOOT RECEIVER VDL 1400

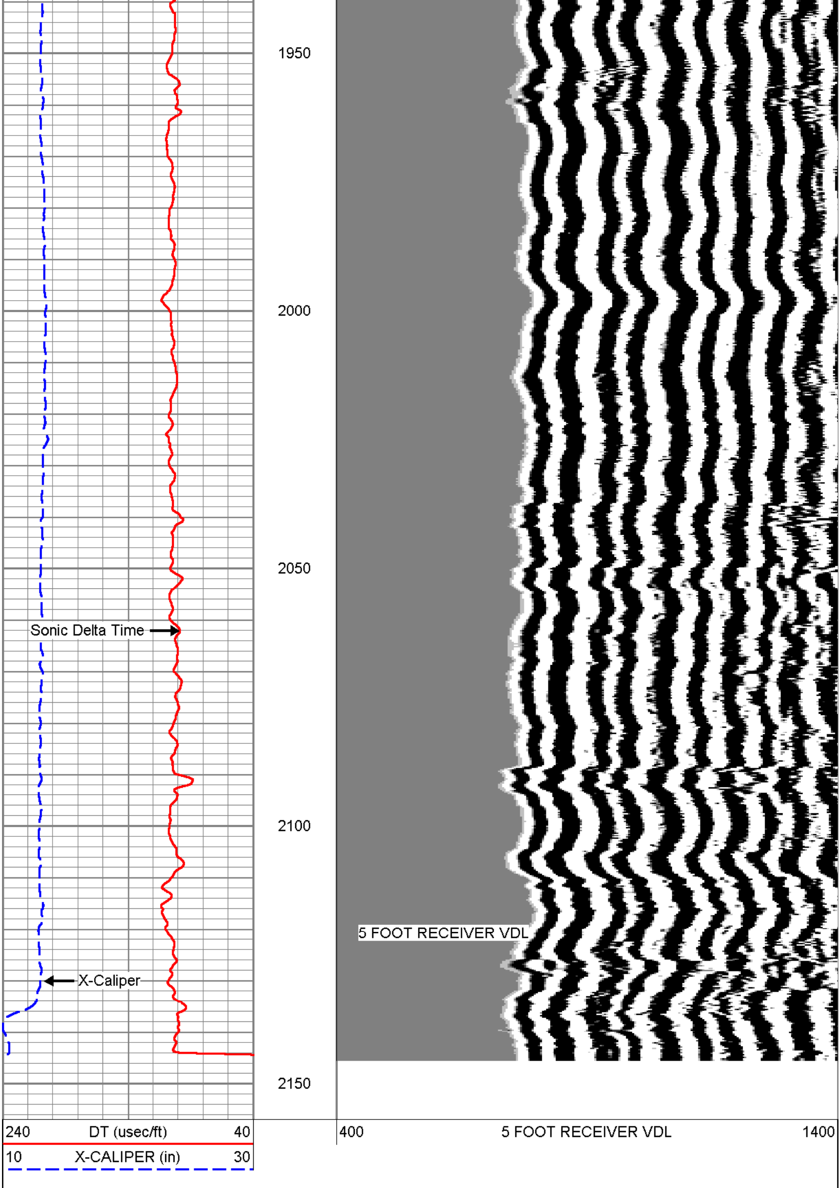










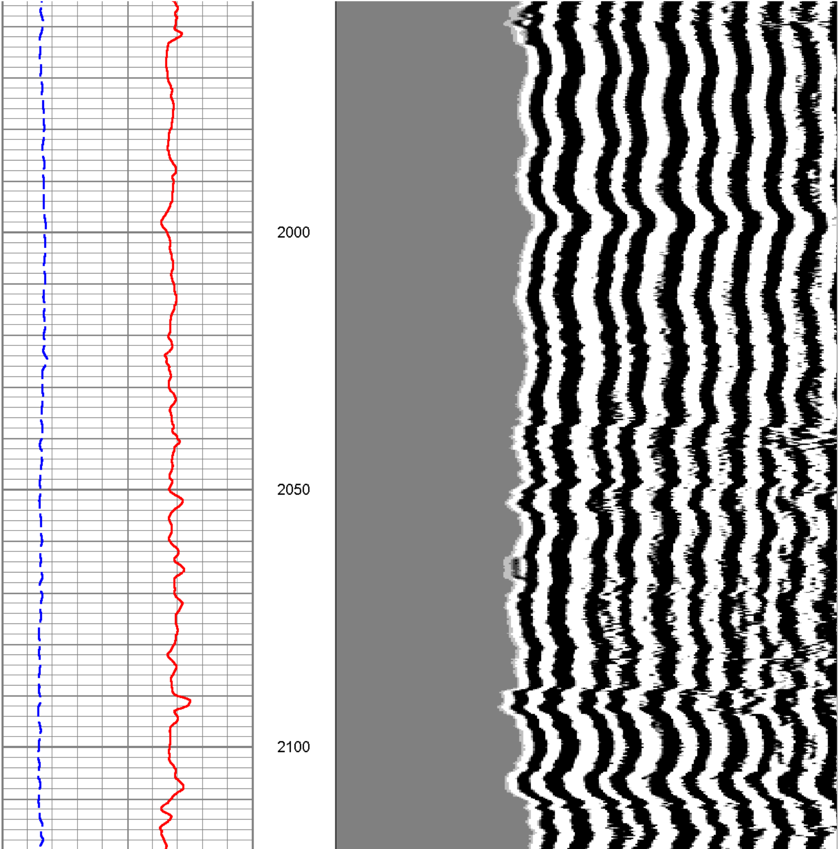


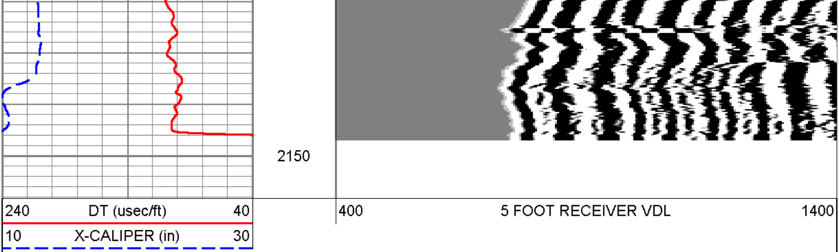
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

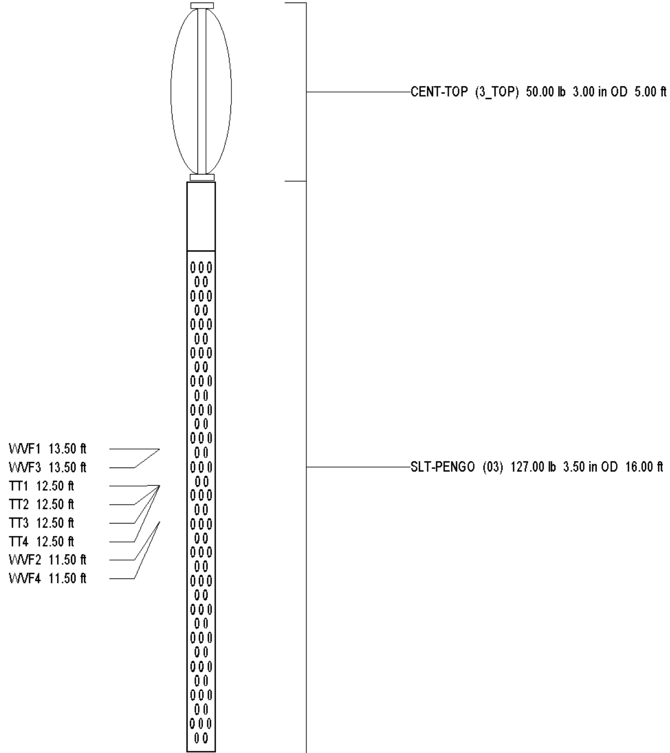
REPEAT PASS

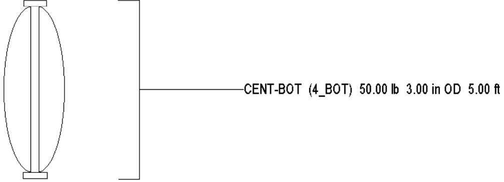
Database File: hiaiw1.db
Dataset Pathname: run5/pass7
Presentation Format: SON_VDL
Dataset Creation: Sun Dec 06 05:49:12 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

240 DT (usec/ft) 40
10 X-CALIPER (in) 30
400 5 FOOT RECEIVER VDL 1400







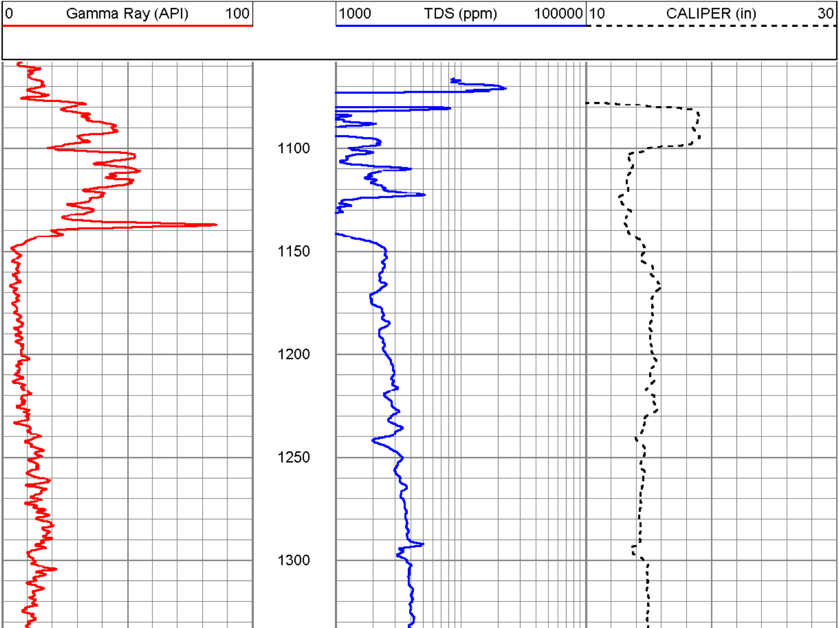


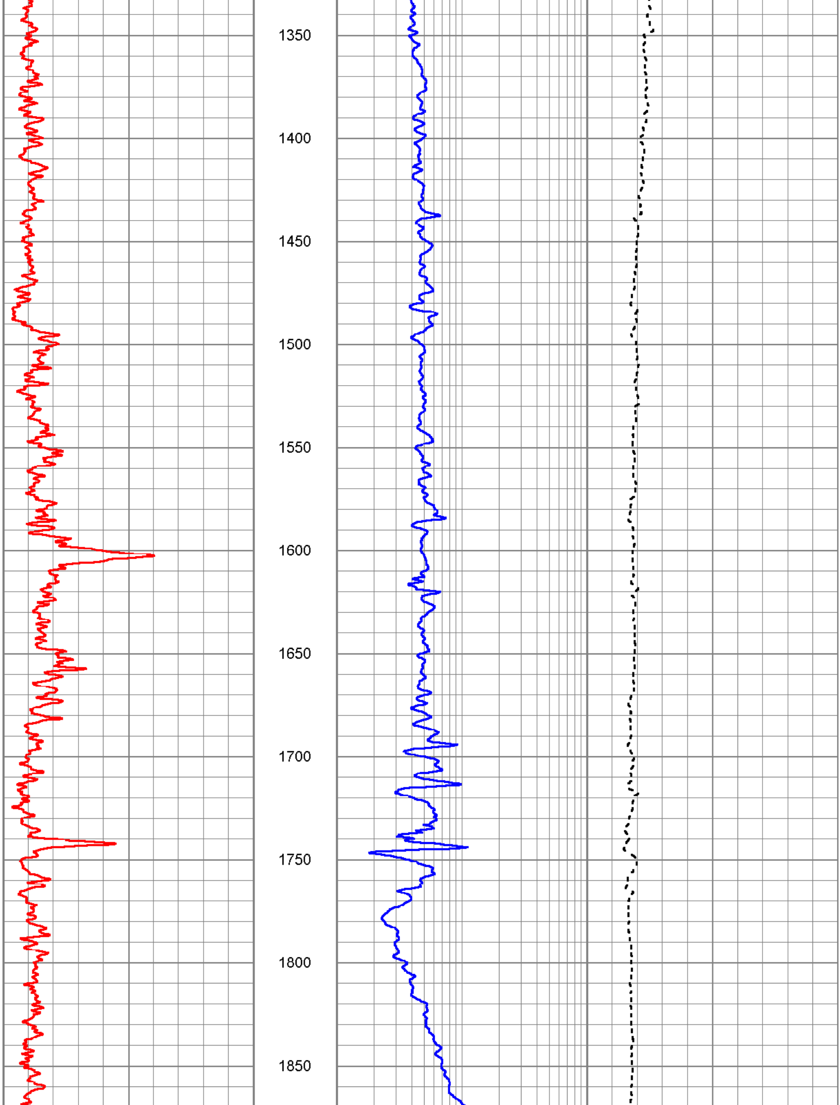
Dataset:	run5/pass8
Total Length:	26.00 ft
Total Weight:	227.00 lb
O.D.	3.50 in

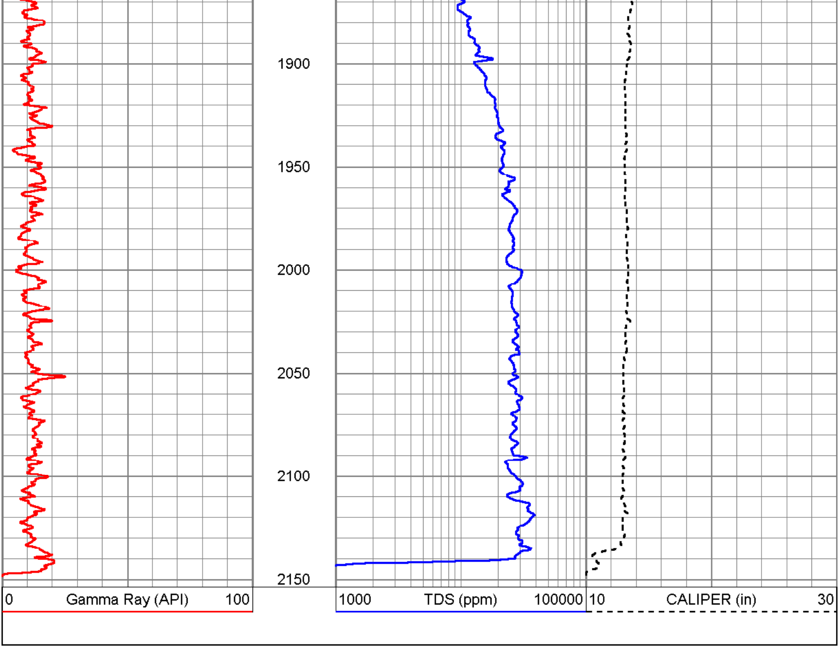
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

LOG DERIVED TDS

Database File:	hiaiw1.db
Dataset Pathname:	run5/TDS
Presentation Format:	TDS
Dataset Creation:	Sun Dec 06 06:30:33 2009
Charted by:	Depth in Feet scaled 1:600




1350
1400
1450
1500
1550
1600
1650
1700
1750
1800
1850


1900
1950
2000
2050
2100
2150
0
Gamma Ray (API)
100
1000
TDS (ppm)
100000
10
CALIPER (in)
30

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

DUAL INDUCTION
LL3 with SP
LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R. O.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location

Other Services
SEE
COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	6-DEC-2009		
Run Number	FIVE		
Depth Driller	2156'		
Depth Logger	2156'		
Bottom Logged Interval	2156'		
Top Log Interval	CASING		
Open Hole Size	12.25"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	80 F		
Estimated Cement Top	NA		
Time Well Ready	0300		
Time Logger on Bottom	0330		
Equipment Number	103		
Location	FT MYERS		
Recorded By	CATHEY		
Witnessed By	D. LEGGETT		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String				
Liner				

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

OTHER SERVICES:

X-Y CALIPER / GAMMA RAY
SONIC
FLUID CONDUCTIVITY / TEMP
FLOWMETER
BOREHOLE TELEVIEWER

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run5/pass5
Presentation Format:	DIL
Dataset Creation:	Sun Dec 06 04:53:37 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:1200

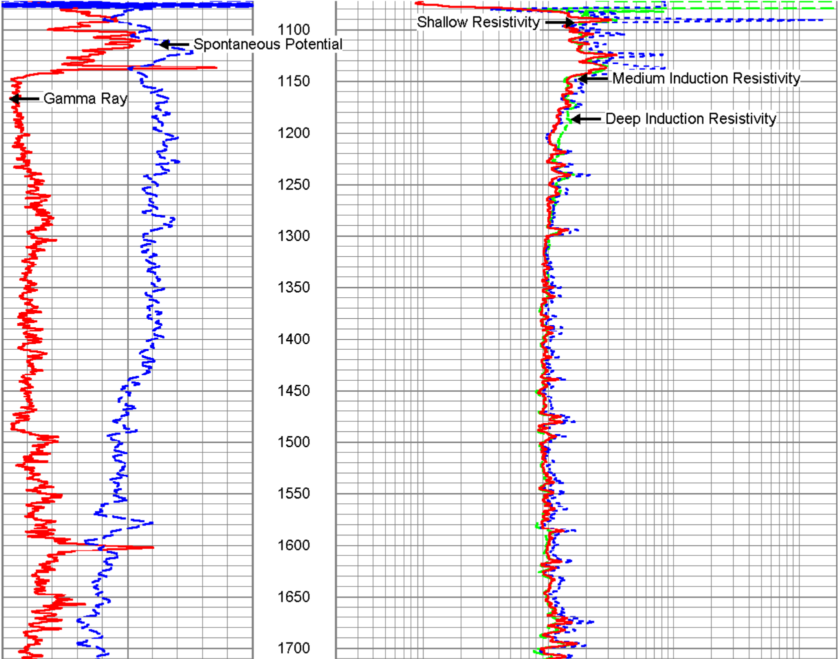
0 Gamma Ray (GAPI) 100

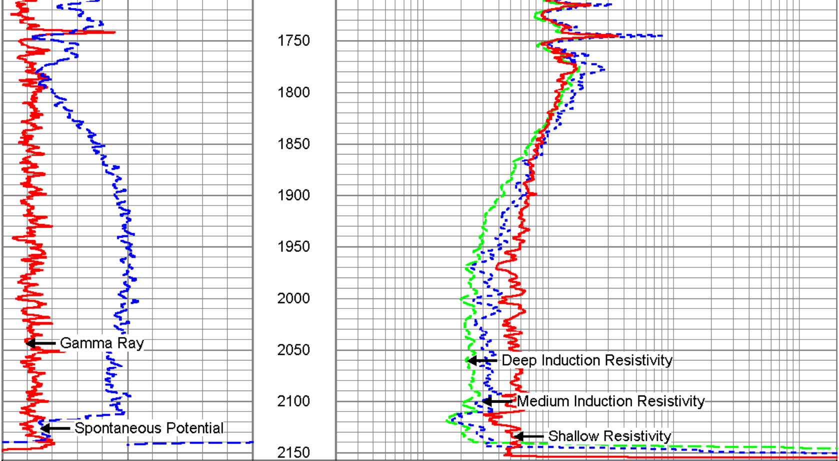
-100 Spontaneous Potential (mV) 100

0.2 Deep Resistivity (Ohm-m) 2000

0.2 Medium Resistivity (Ohm-m) 2000

0.2 Shallow Resistivity (Ohm-m) 2000





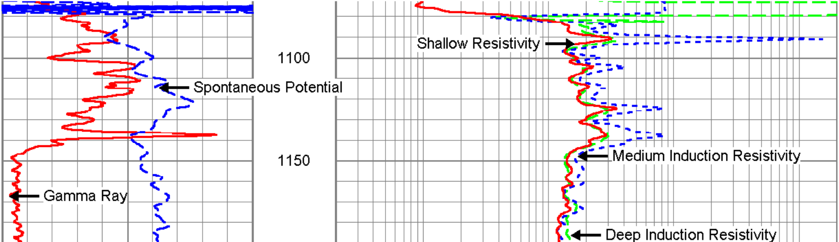
0	Gamma Ray (GAPI)	100	0.2	Deep Resistivity (Ohm-m)	2000
-100	Spontaneous Potential (mV)	100	0.2	Medium Resistivity (Ohm-m)	2000
			0.2	Shallow Resistivity (Ohm-m)	2000

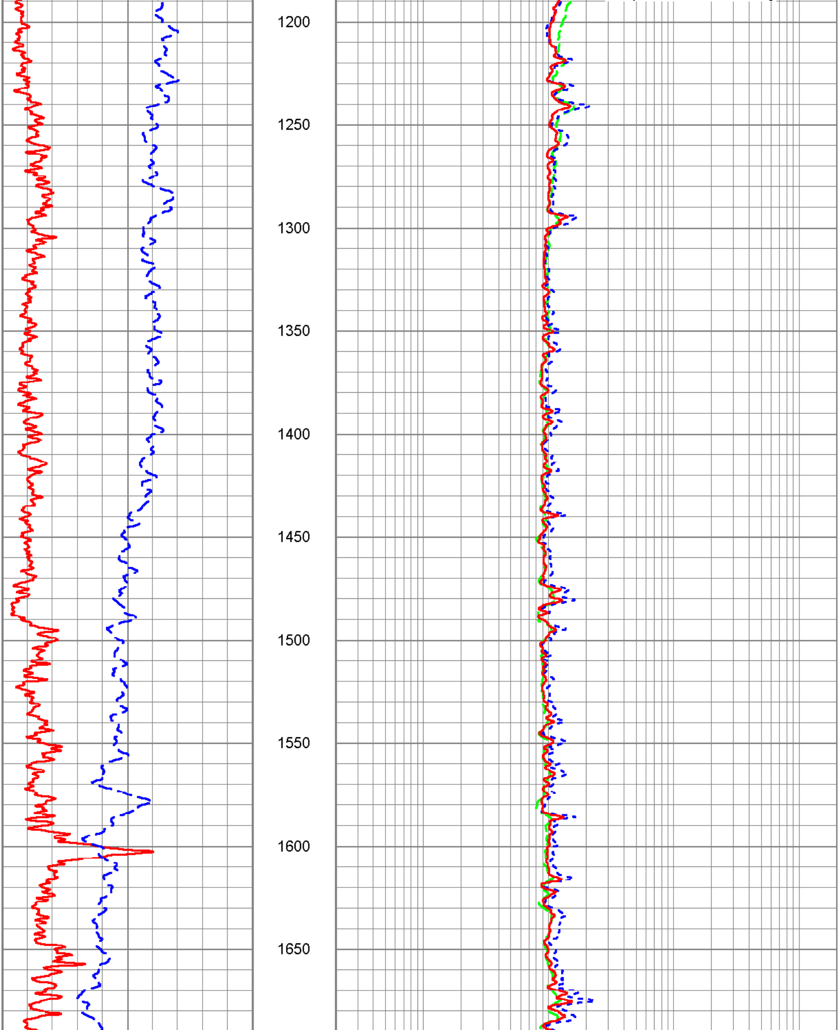
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

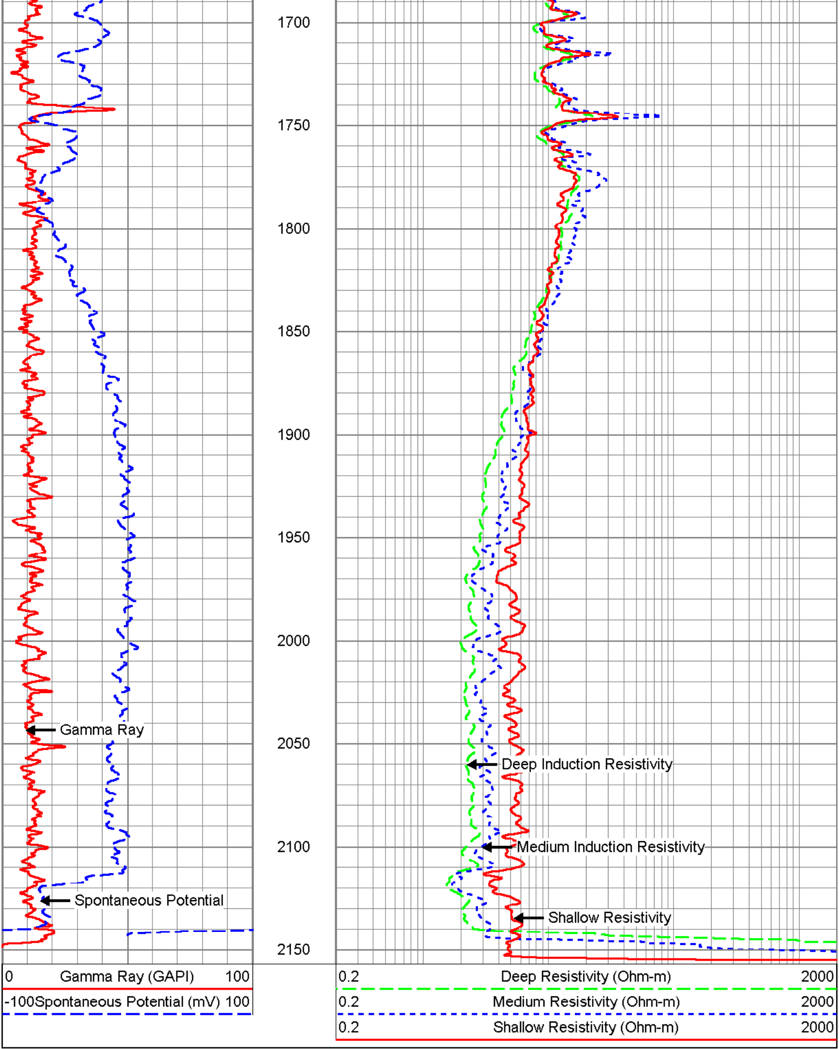
MAIN PASS

Database File: hiaiw1.db
Dataset Pathname: run5/pass5
Presentation Format: DIL
Dataset Creation: Sun Dec 06 04:53:37 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	100	0.2	Deep Resistivity (Ohm-m)	2000
-100	Spontaneous Potential (mV)	100	0.2	Medium Resistivity (Ohm-m)	2000
			0.2	Shallow Resistivity (Ohm-m)	2000



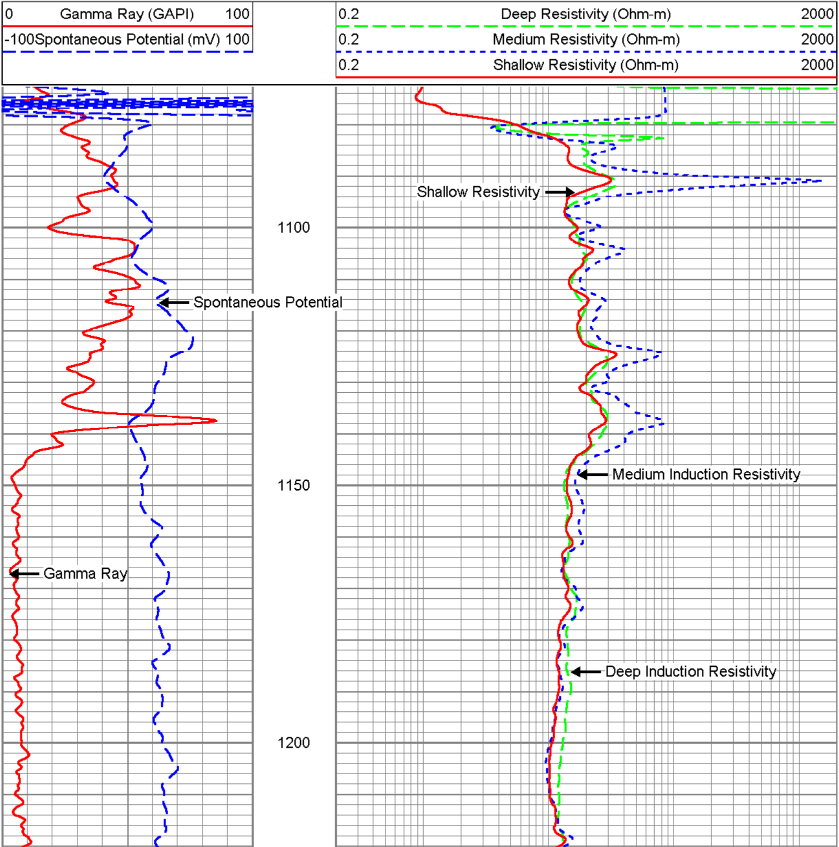


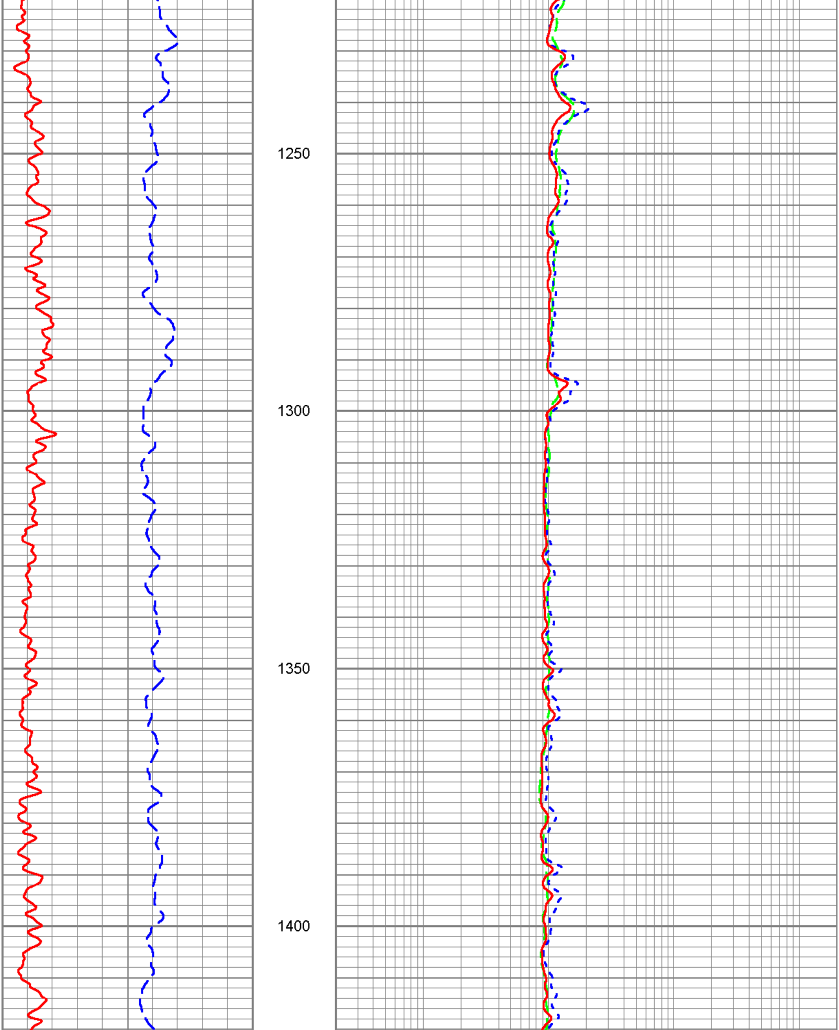


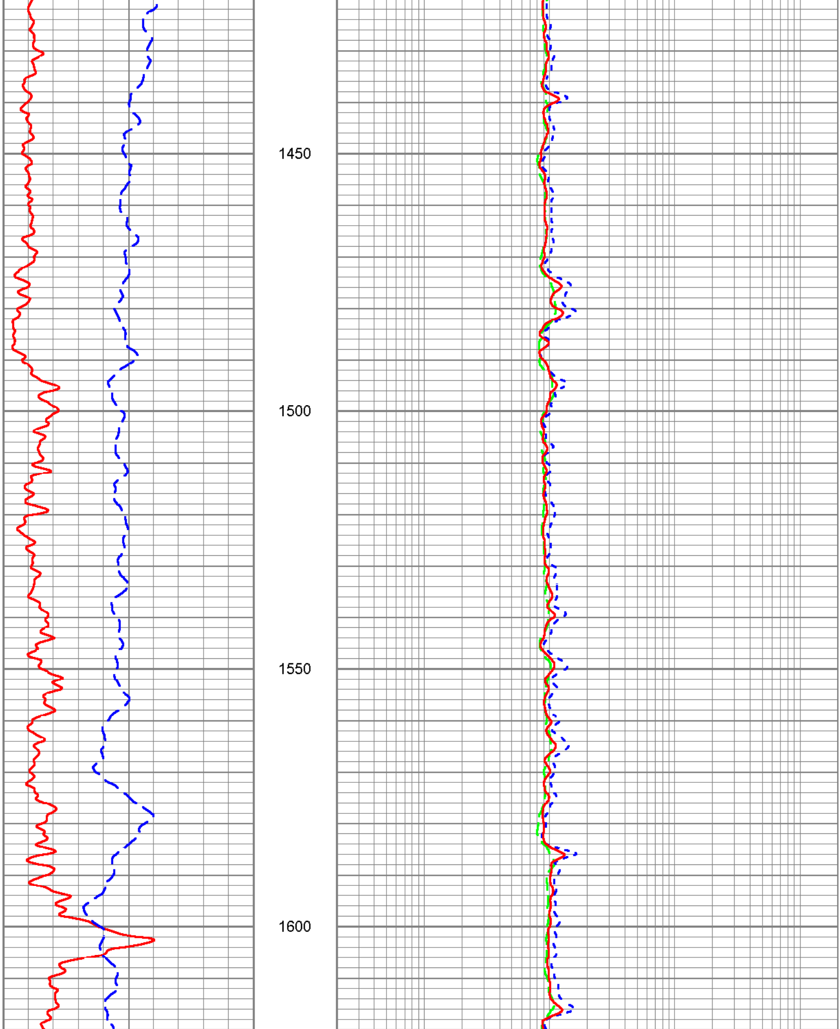
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

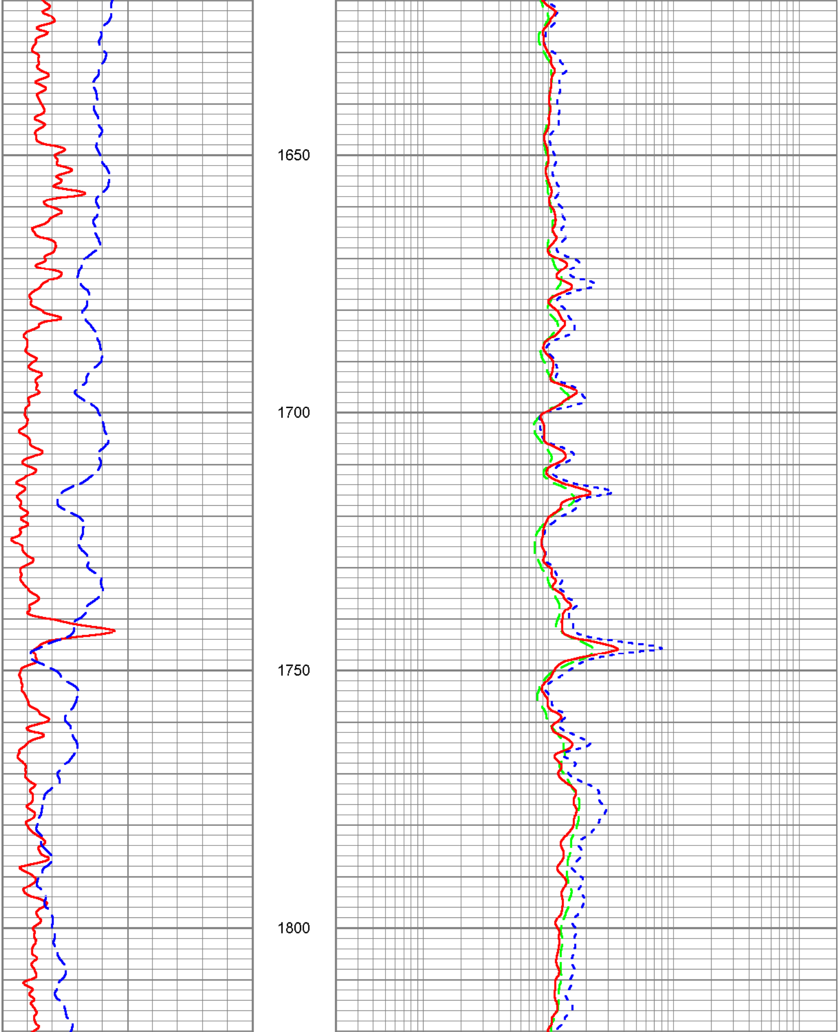
MAIN PASS

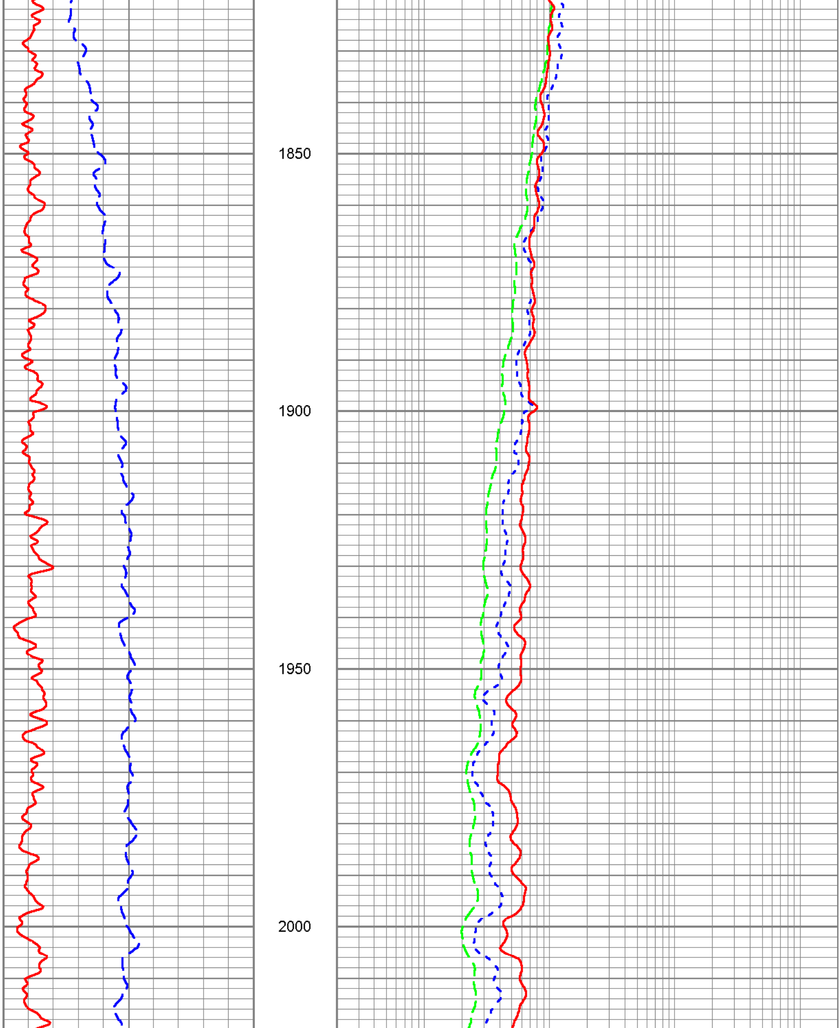
Database File: hiaiw1.db
Dataset Pathname: run5/pass5
Presentation Format: DIL
Dataset Creation: Sun Dec 06 04:53:37 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

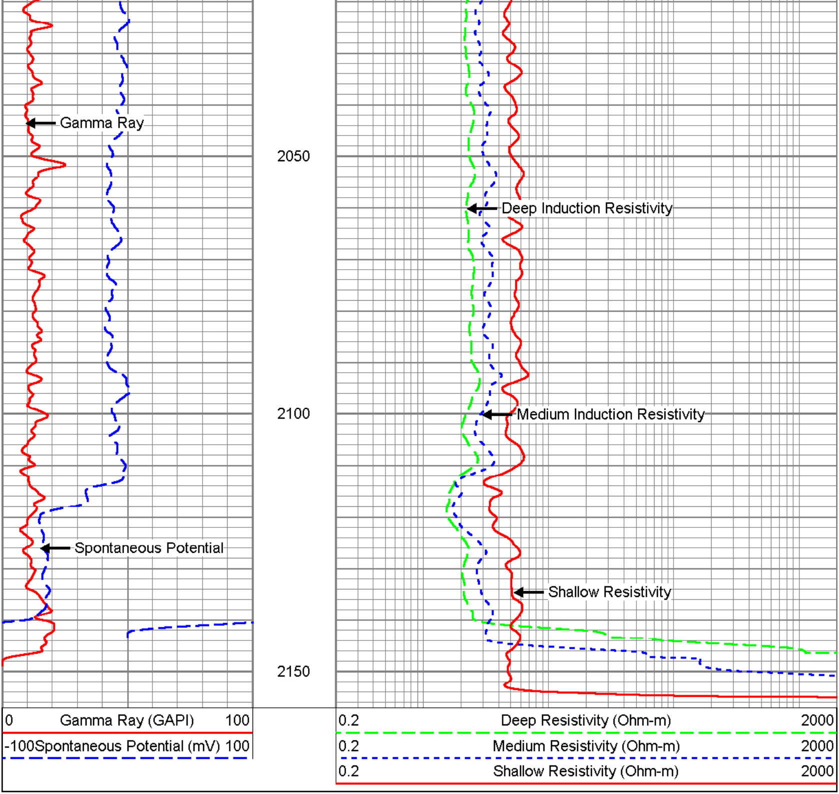








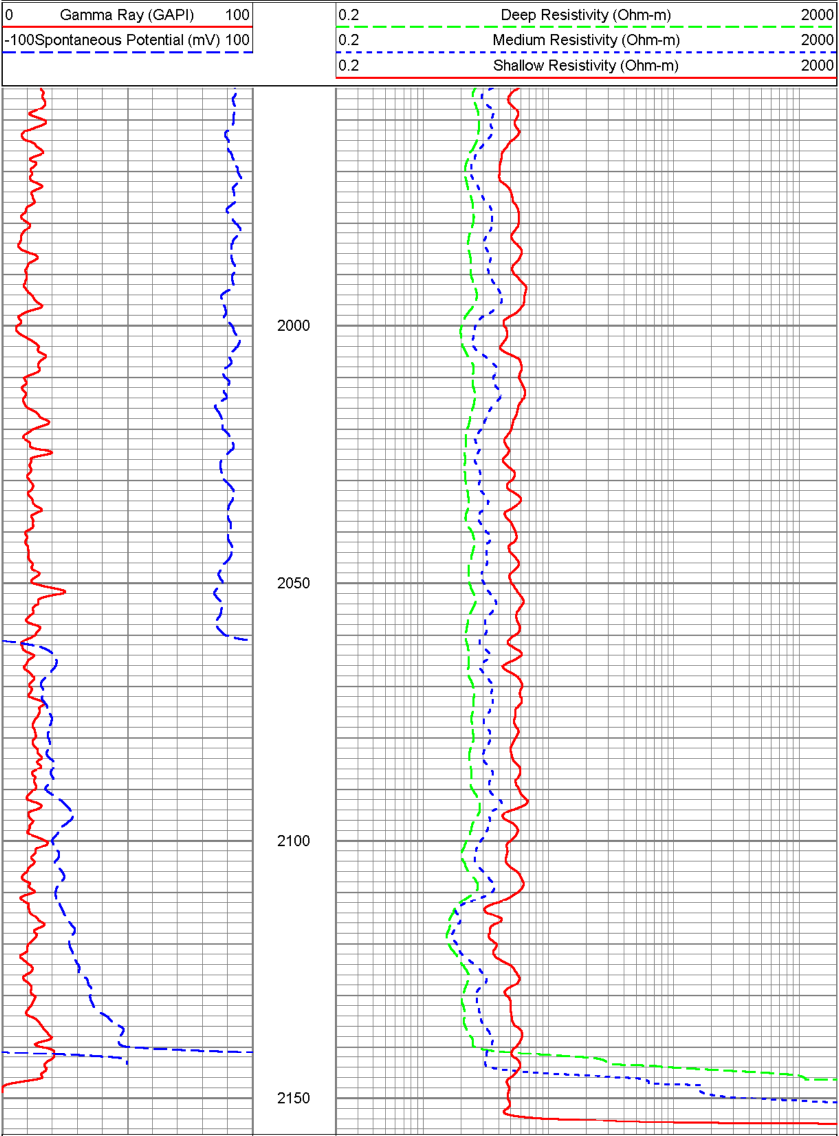




YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

REPEAT PASS

Database File: hiaiw1.db
Dataset Pathname: run5/pass4
Presentation Format: DIL
Dataset Creation: Sun Dec 06 04:48:40 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240



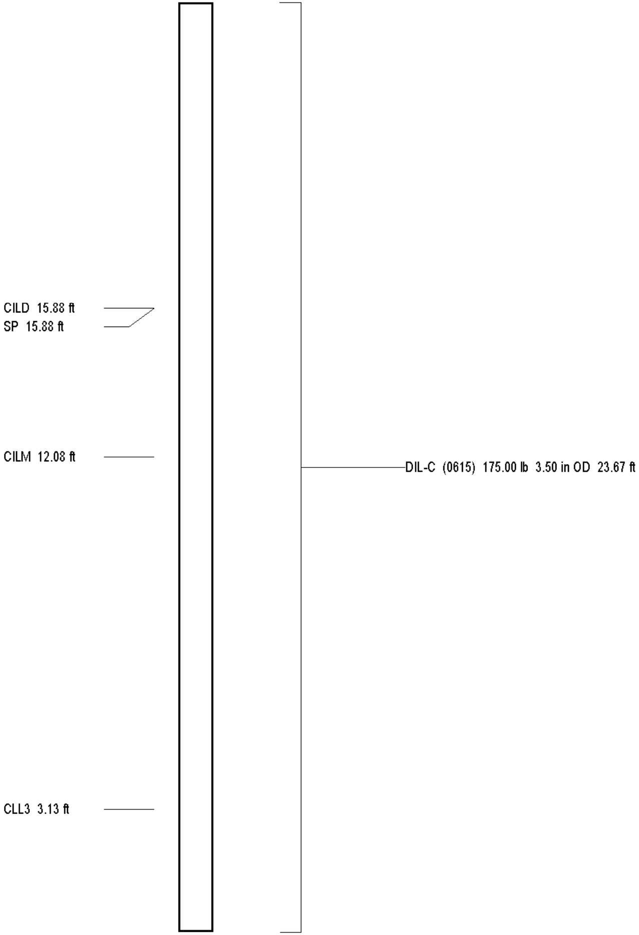
0 Gamma Ray (GAPI) 100

-100 Spontaneous Potential (mV) 100

0.2 Deep Resistivity (Ohm-m) 2000

0.2 Medium Resistivity (Ohm-m) 2000

0.2 Shallow Resistivity (Ohm-m) 2000



Dataset:	run5/pass5
Total Length:	23.67 ft
Total Weight:	175.00 lb
O.D.	3.50 in

Dual Induction Calibration Report

Serial-Model:	0615-C
Surface Cal Performed:	Tue Feb 27 11:10:16 2007
Downhole Cal Performed:	Sun Dec 06 04:30:24 2009
After Survey Verification Performed:	Sun Dec 06 05:08:25 2009

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.027	0.643	V	0.000	400.000	mmho-m	596.926	16.177
Medium	-0.012	0.799	V	0.000	464.000	mmho-m	572.063	6.865
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.008	0.617	V	20.920	384.470	mmho-m	596.864	16.145
Medium	0.012	0.736	V	12.740	427.710	mmho-m	573.084	5.863

Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	20.873	391.059	mmho-m	19.129	374.400	mmho-m	0.960	-0.903
Medium	11.215	434.222	mmho-m	13.743	419.743	mmho-m	0.960	2.979
Shallow	0.025	0.413		5.000	182.730	mmho-m	458.052	-6.636

After Survey Verification

	Readings			Targets			Results	
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	20.880	392.316	mmho-m	20.873	391.059	mmho-m	0.960	-0.903
Medium	11.083	435.863	mmho-m	11.215	434.222	mmho-m	0.960	2.979
Shallow	7.768	185.621	mmho-m	5.000	182.730	mmho-m	0.999	-2.762

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

FLUID CONDUCTIVITY TEMPERATURE LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R. O.
County DADE
State FL

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL

Location

Other Services
SEE
COMMENTS

Permanent Datum	Elevation	Elevation
Log Measured From		K.B.
Drilling Measured From		D.F.
		G.L.

Date	6-DEC-2009		
Run Number	FIVE		
Depth Driller	2156'		
Depth Logger	2156'		
Bottom Logged Interval	2156'		
Top Log Interval	CASING		
Open Hole Size	12.25"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	80 F		
Estimated Cement Top	NA		
Time Well Ready	0300		
Time Logger on Bottom	0330		
Equipment Number	103		
Location	FT MYERS		
Recorded By	CATHEY		
Witnessed By	B. PECK		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String				
Liner				

<<< Fold Here >>>

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Comments

OTHER SERVICES:

X-Y CALIPER / GAMMA RAY
DUAL INDUCTION
SONIC
FLOWMETER
VIDEO

DYNAMIC FLOWRATE = 320 GPM

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MERGED FCT

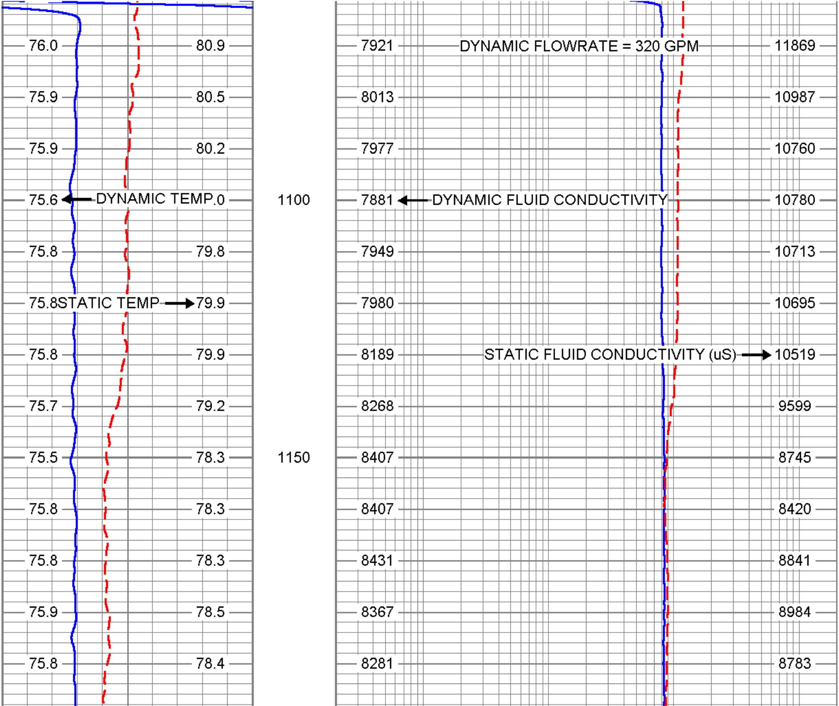
Database File:	hiaiw1.db
Dataset Pathname:	run5/pass13
Presentation Format:	FRT_MG
Dataset Creation:	Sun Dec 06 12:38:59 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

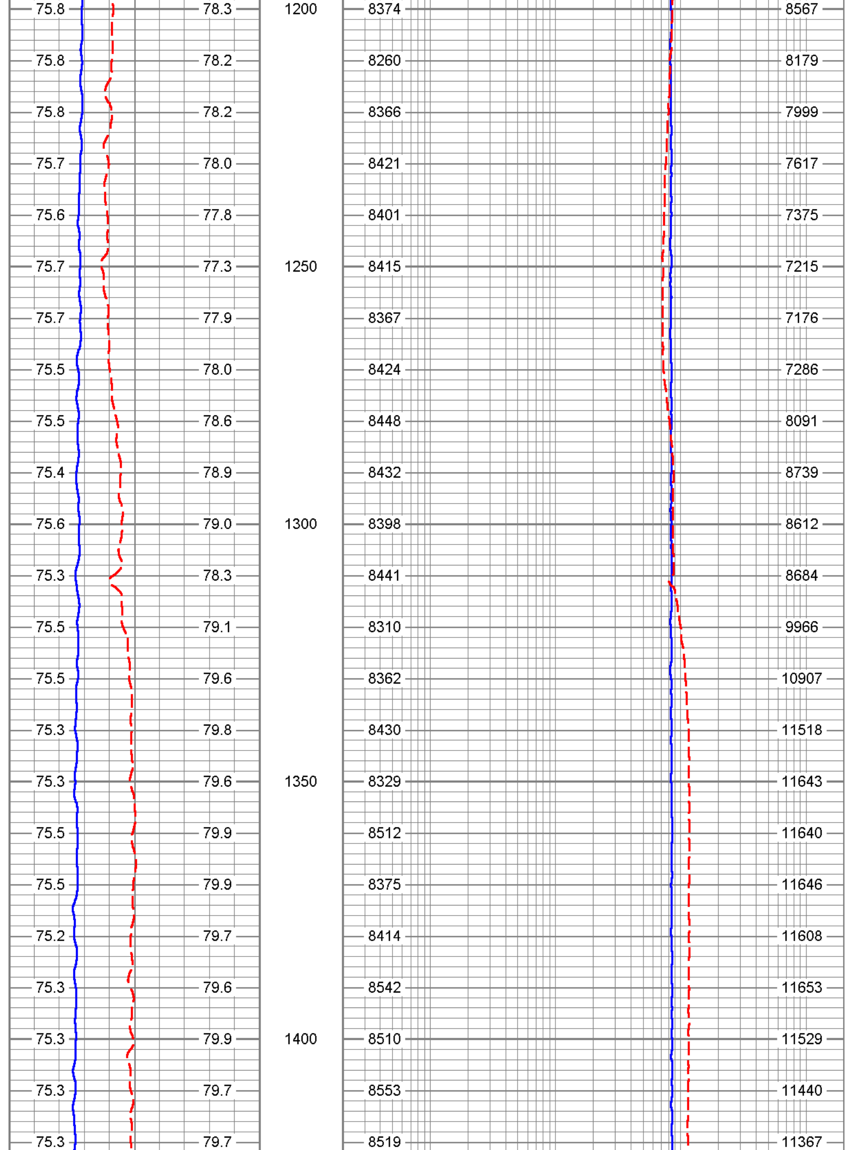
70 DYNAMIC TEMP (degF) 90

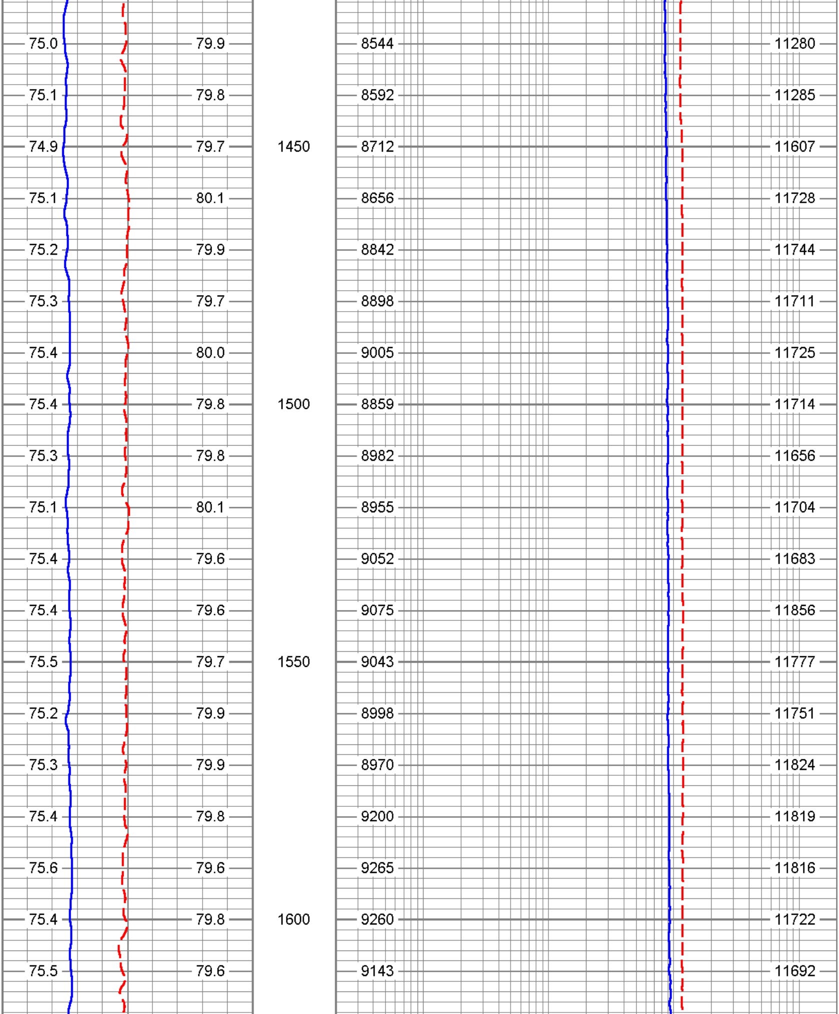
70 STATIC TEMP (degF) 90

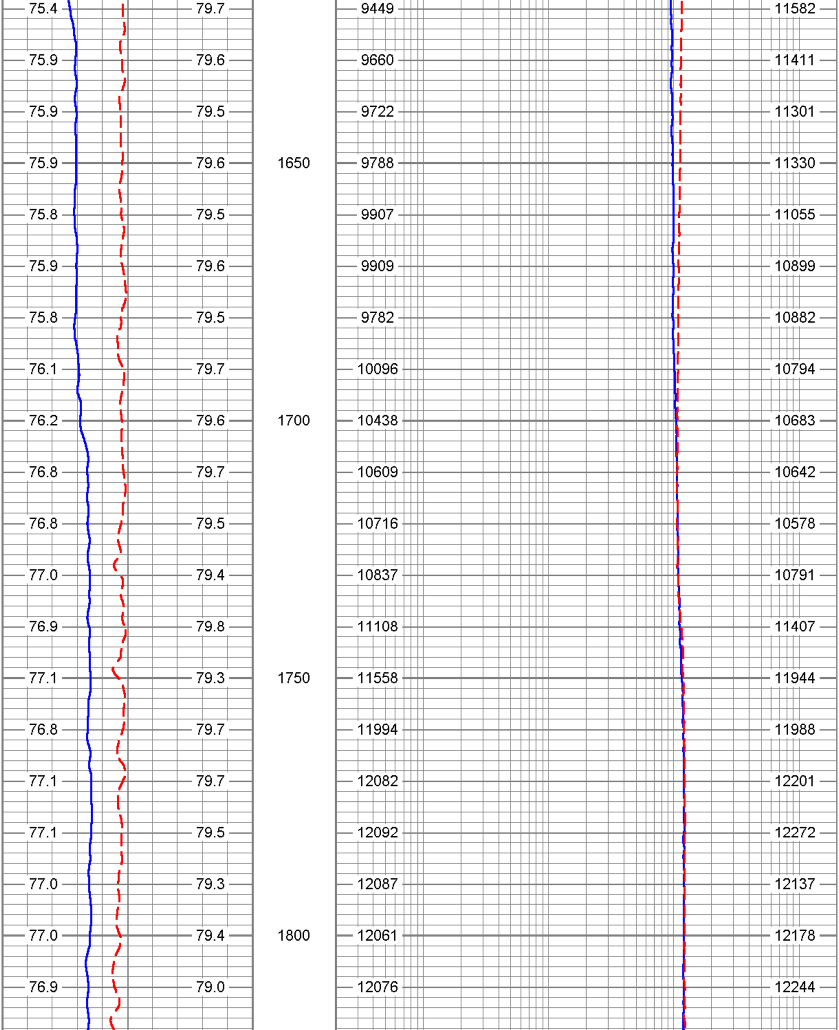
20 DYNAMIC FLUID CONDUCTIVITY (uS) 200000

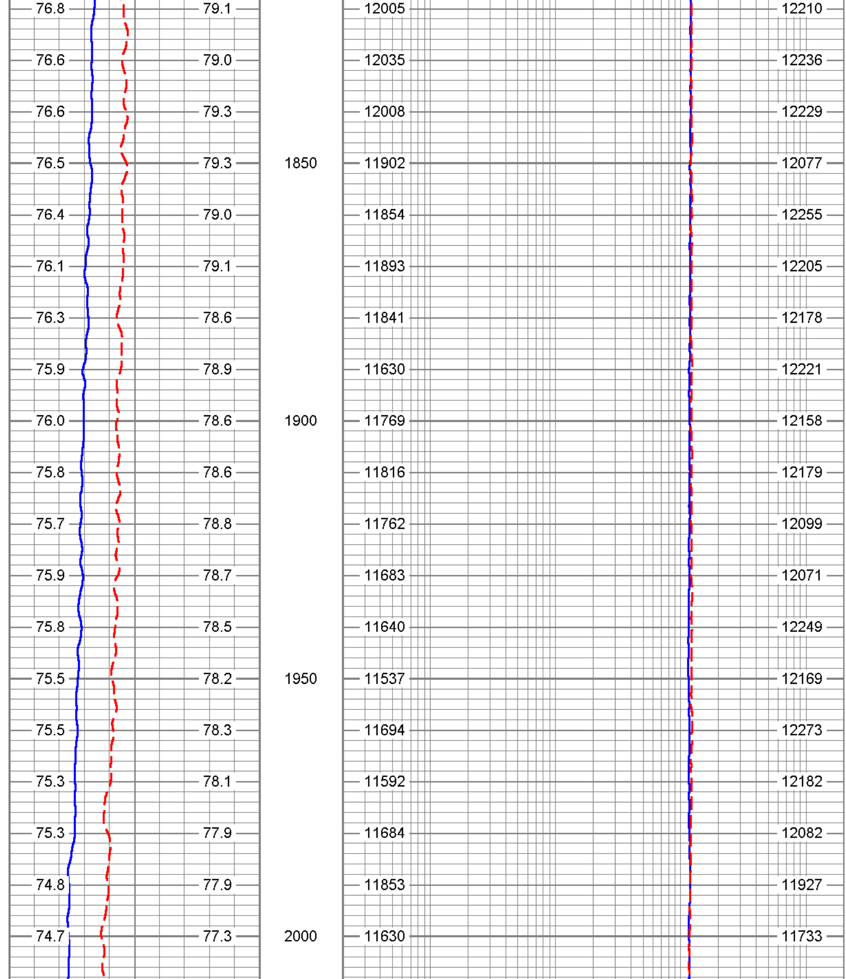
20 STATIC FLUID CONDUCTIVITY (uS) 200000

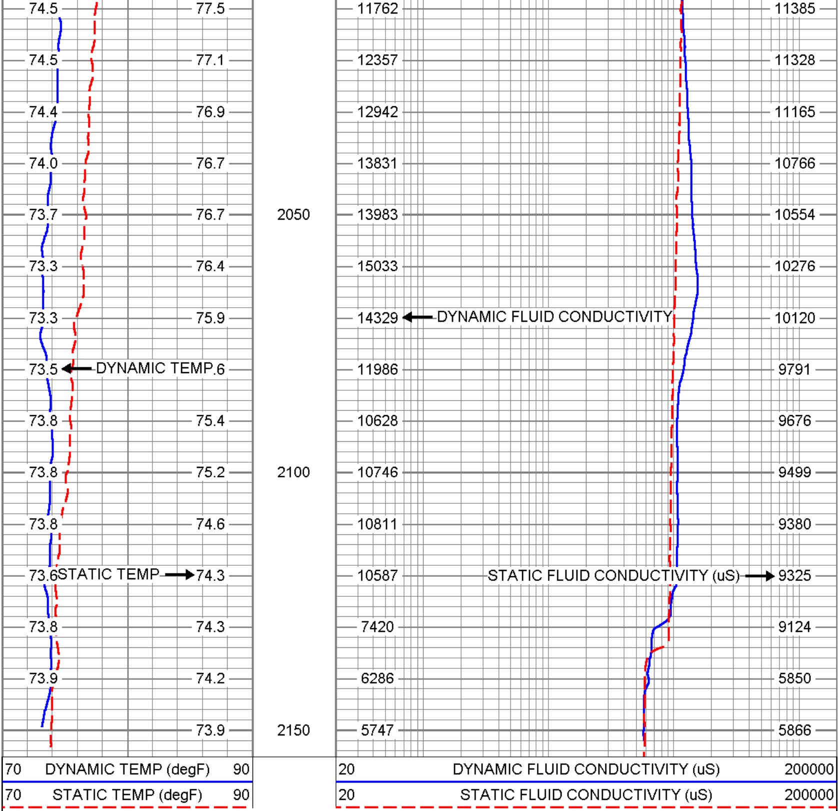












FRT Calibration Report

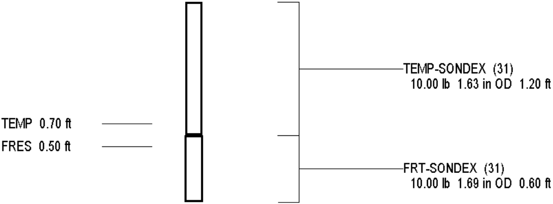
Serial Number: 31
Tool Model: SONDEX
Performed: Thu May 07 11:24:43 2009

Point #	Reading		Reference
1	31.558	cps	1000.000
2	177.254	cps	10000.000
3	449.141	cps	25000.000
4	974.013	cps	50000.000
5		cps	
6		cps	

Temperature Calibration Report

Serial Number: 31
Tool Model: SONDEX
Performed: Thu May 07 11:36:30 2009

Point #	Reading		Reference	
1	114.403	cps	38	degF
2	325.061	cps	81	degF
3	694.843	cps	156	degF



Dataset: run5/pass1
Total Length: 1.80 ft
Total Weight: 20.00 lb
O.D. 1.69 in

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

FLOWMETER LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R. O.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location

Other Services
SEE
COMMENTS

Permanent Datum
Log Measured From
Drilling Measured From

Elevation

Elevation
K.B.
D.F.
G.L.

Date	6-DEC-2009		
Run Number	FIVE		
Depth Driller	2156'		
Depth Logger	2156'		
Bottom Logged Interval	2130'		
Top Log Interval	CASING		
Open Hole Size	12.25"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	80 F		
Estimated Cement Top	NA		
Time Well Ready	0300		
Time Logger on Bottom	0330		
Equipment Number	103		
Location	FT MYERS		
Recorded By	CATHEY		
Witnessed By	B. PECK		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String				
Liner				

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Comments

OTHER SERVICES:

X-Y CALIPER / GAMMA RAY
DUAL INDUCTION
SONIC
FLUID CONDUCTIVITY / TEMP
VIDEO

DYNAMIC FLOWRATE = 320 GPM

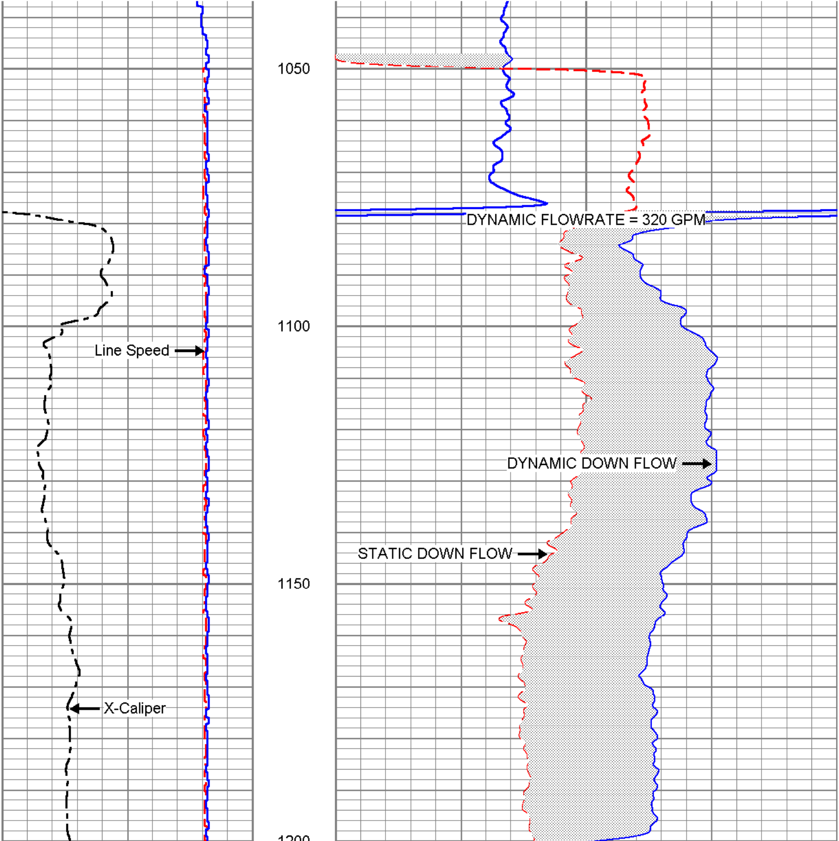
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

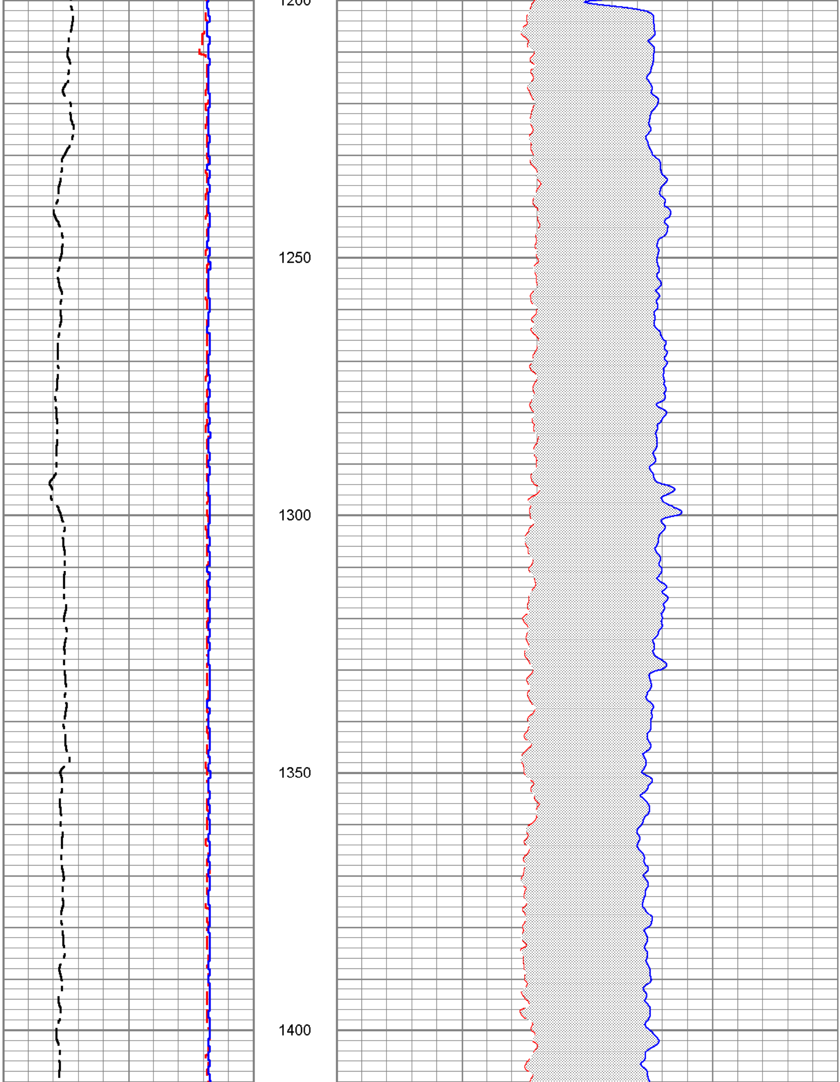
MERGED FLOWMETER

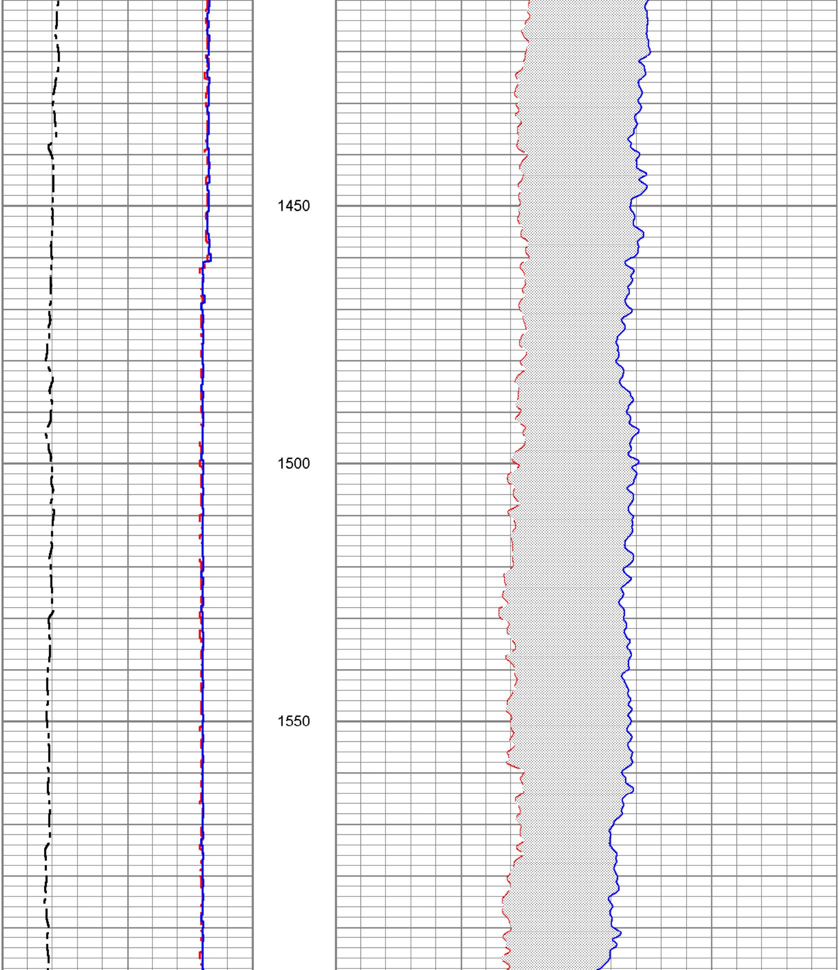
Database File: hiaiw1.db
Dataset Pathname: run5/pass12
Presentation Format: FM_DNMG
Dataset Creation: Sun Dec 06 11:50:49 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

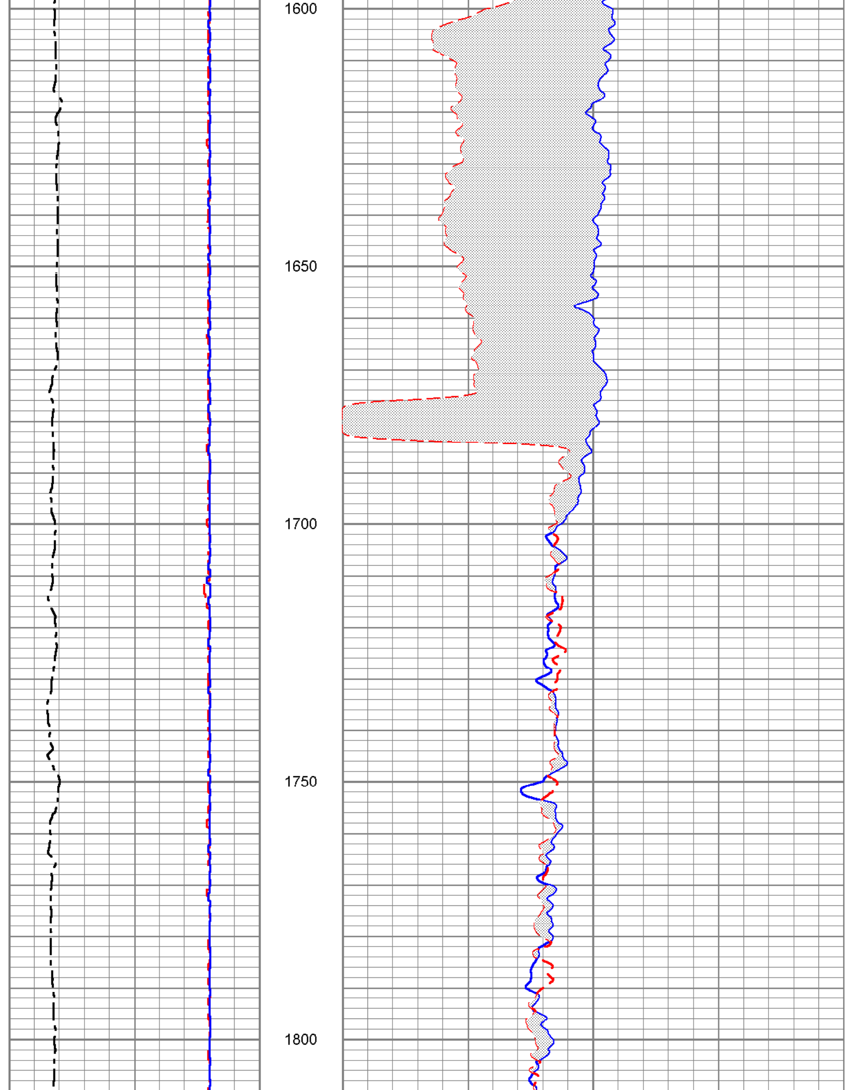
0	L.S STATIC DOWN (ft/min)	-100
0	L.S DYNAMIC DOWN (ft/min)	100
10	XCAL (in)	30

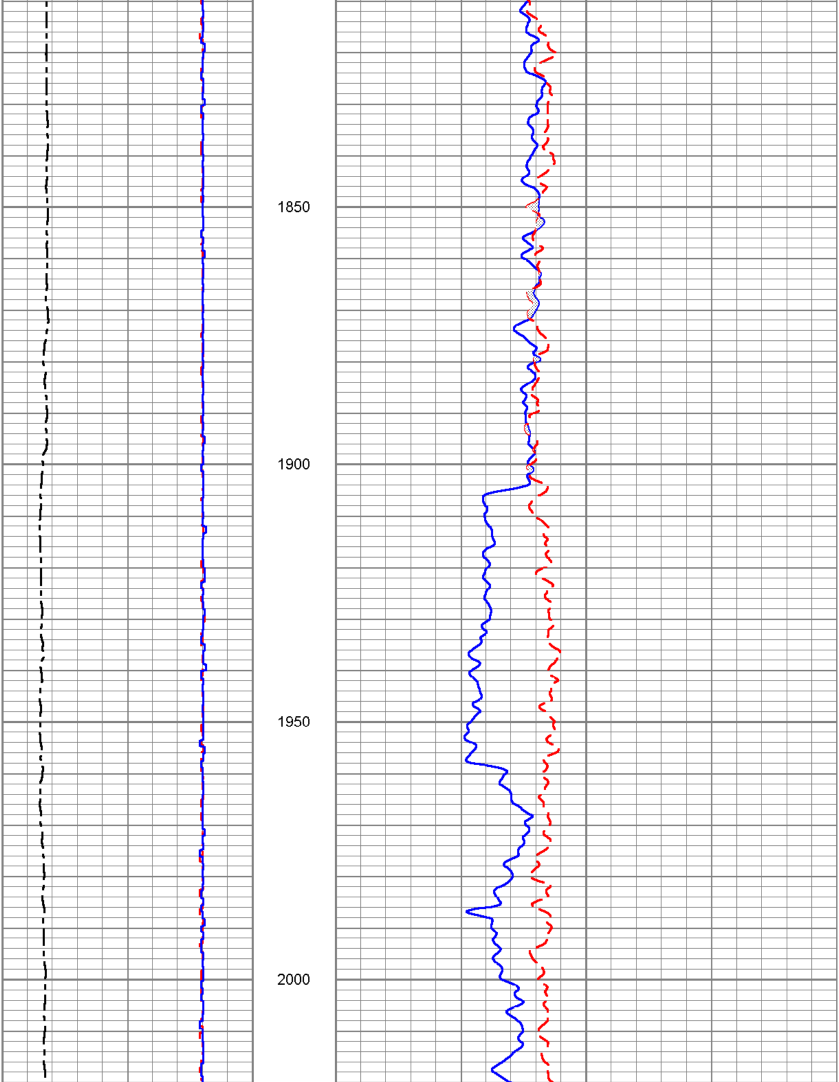
0	DYNAMIC DOWN FLOW (cps)	60
0	STATIC DOWN FLOW (cps)	60

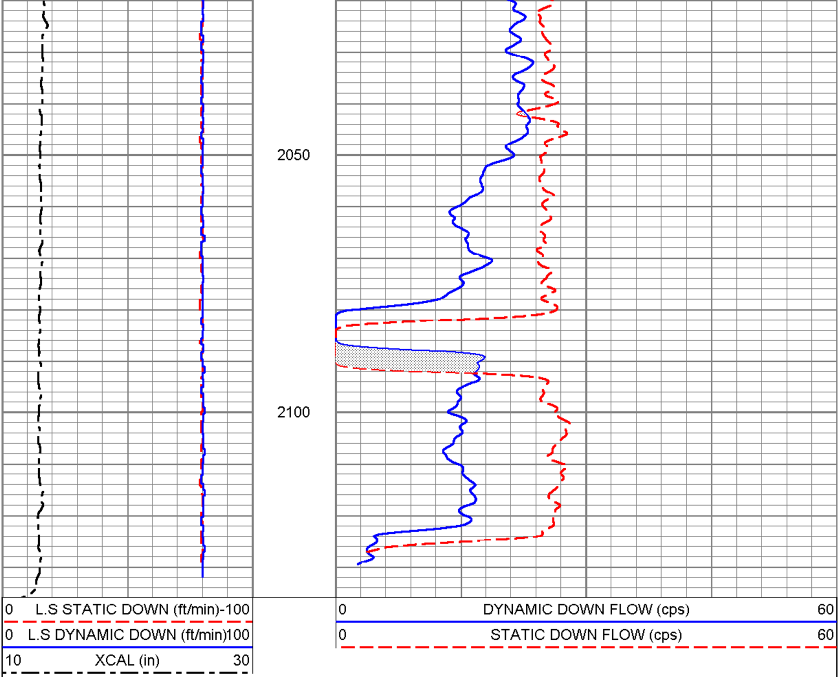












YOUNGQUIST BROTHERS, Inc

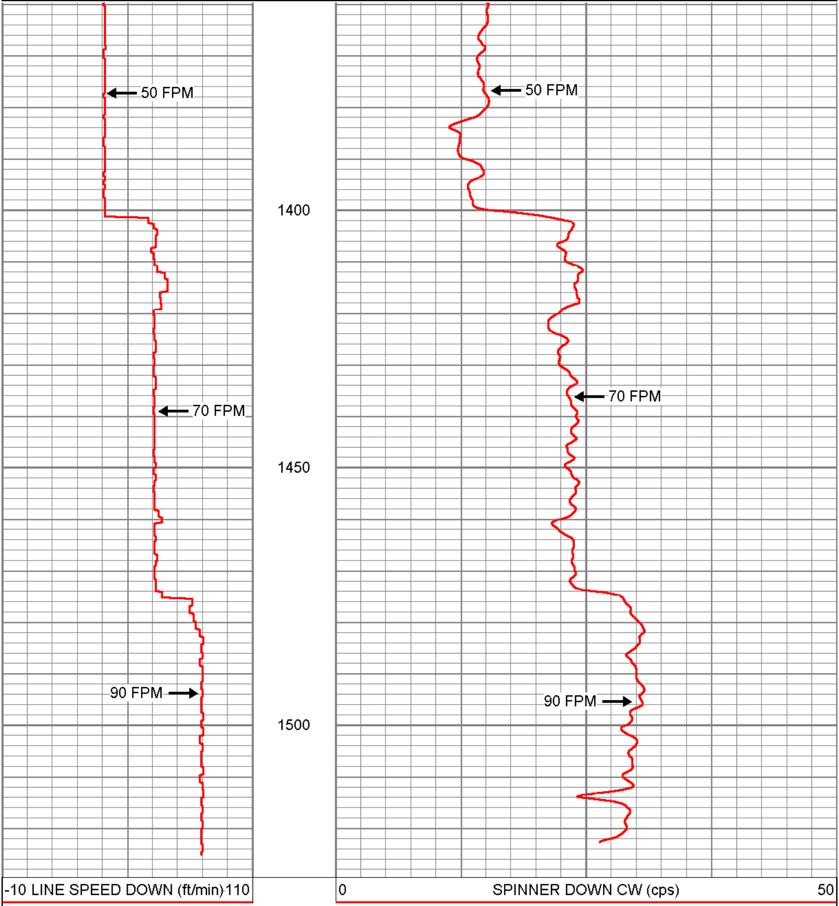
GEOPHYSICAL LOGGING DIVISION

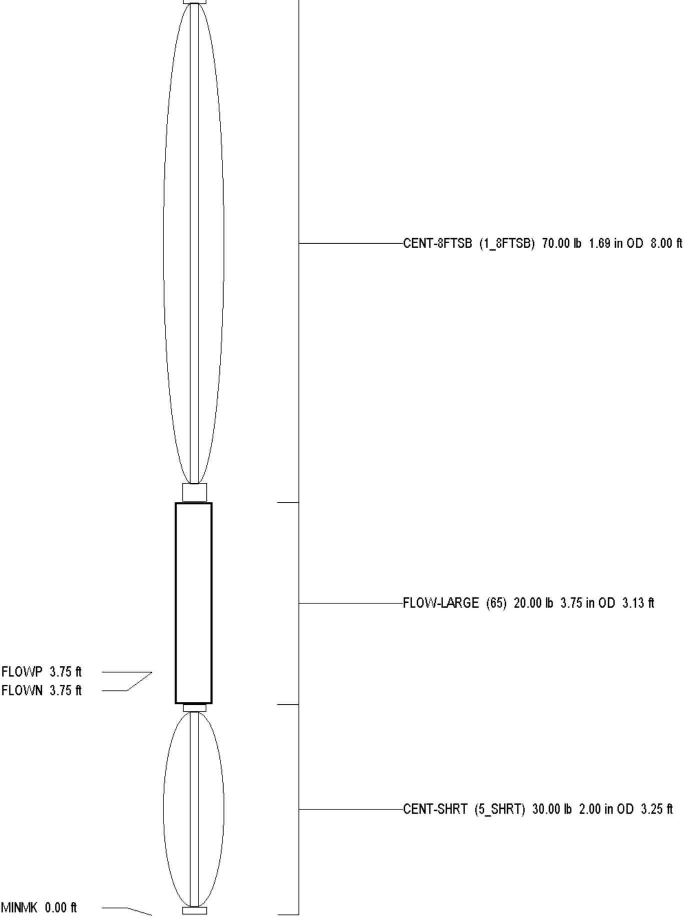
FLOWCALS 50,70,90 FPM

Database File:	hiaiw1.db
Dataset Pathname:	run5/pass11
Presentation Format:	FLOWCALS
Dataset Creation:	Sun Dec 06 11:37:41 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

-10 LINE SPEED DOWN (ft/min) 110

0 SPINNER DOWN CW (cps) 50




CENT-8FTSB (1_8FTSB) 70.00 lb 1.69 in OD 8.00 ft
FLOW-LARGE (65) 20.00 lb 3.75 in OD 3.13 ft
FLOWP 3.75 ft
FLOWN 3.75 ft
CENT-SHRT (5_SHRT) 30.00 lb 2.00 in OD 3.25 ft
MINMK 0.00 ft

Dataset:	run5/pass12
Total Length:	14.38 ft
Total Weight:	120.00 lb
O.D.	3.75 in

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

X-Y CALIPER
GAMMA RAY
LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R. O.
County DADE
State FL

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL

Location

Other Services
SEE
COMMENTS

Permanent Datum	Elevation	Elevation
Log Measured From		K.B.
Drilling Measured From		D.F.
		G.L.

Date	6-DEC-2009		
Run Number	FIVE		
Depth Driller	2156'		
Depth Logger	2156'		
Bottom Logged Interval	2156'		
Top Log Interval	CASING		
Open Hole Size	12.25"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	80 F		
Estimated Cement Top	NA		
Time Well Ready	0300		
Time Logger on Bottom	0330		
Equipment Number	103		
Location	FT MYERS		
Recorded By	CATHEY		
Witnessed By	D. LEGGETT		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String				
Liner				

<<< Fold Here >>>

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Comments

OTHER SERVICES:

DUAL INDUCTION
SONIC
FLUID CONDUCTIVITY / TEMP
FLOWMETER
BOREHOLE TELEVIEWER

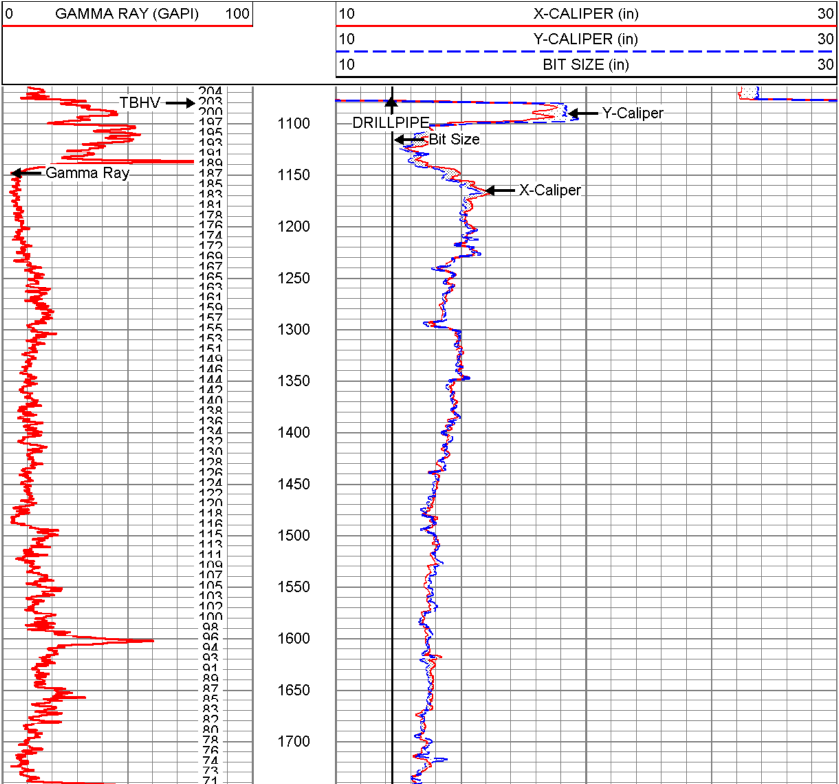
BOREHOLE VOLUME IN BARRELS

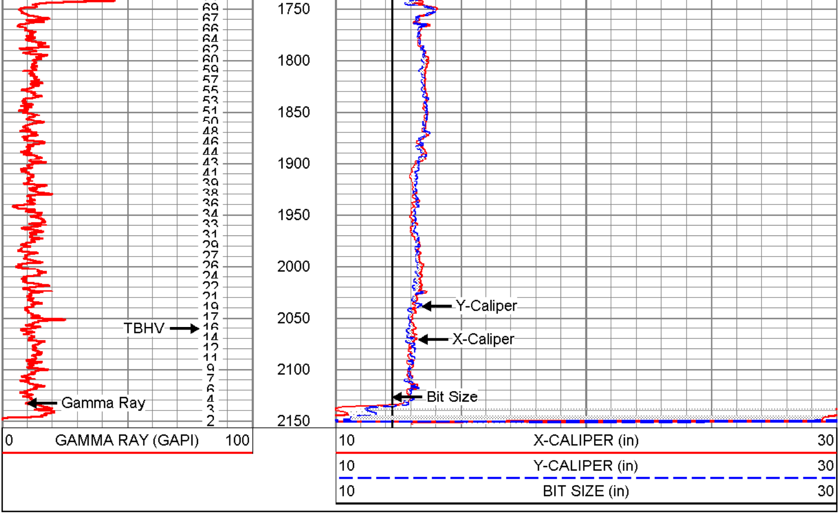
YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File: hiaiw1.db
Dataset Pathname: run5/pass3
Presentation Format: GRXYC
Dataset Creation: Sun Dec 06 03:40:58 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:1200

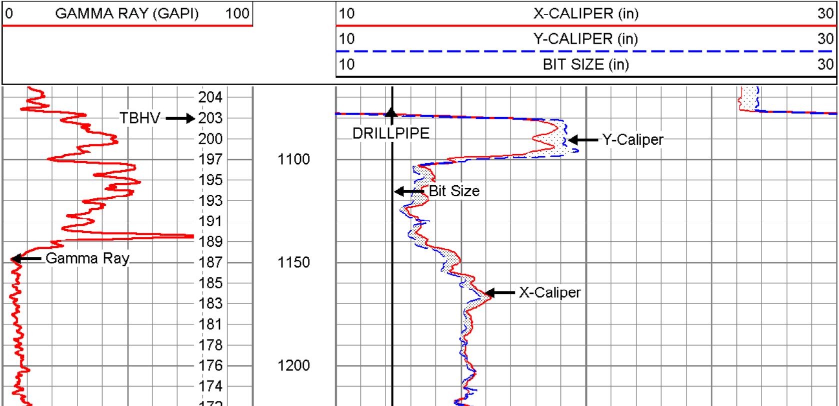


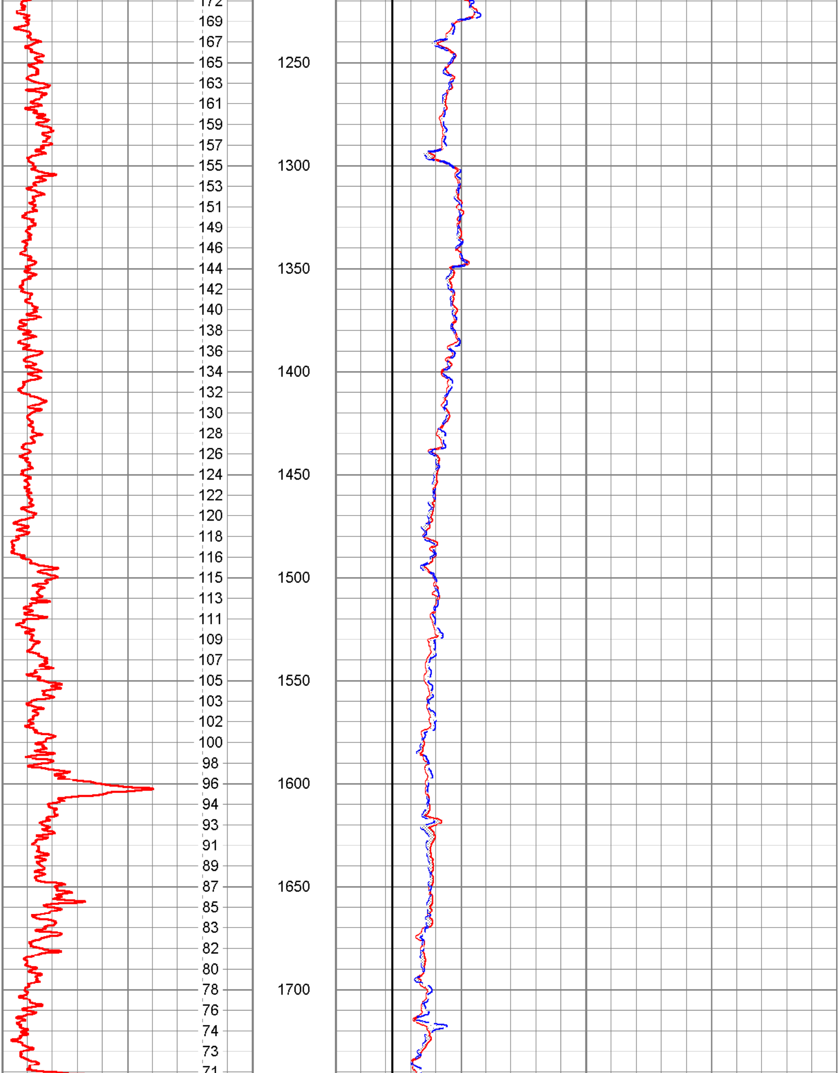


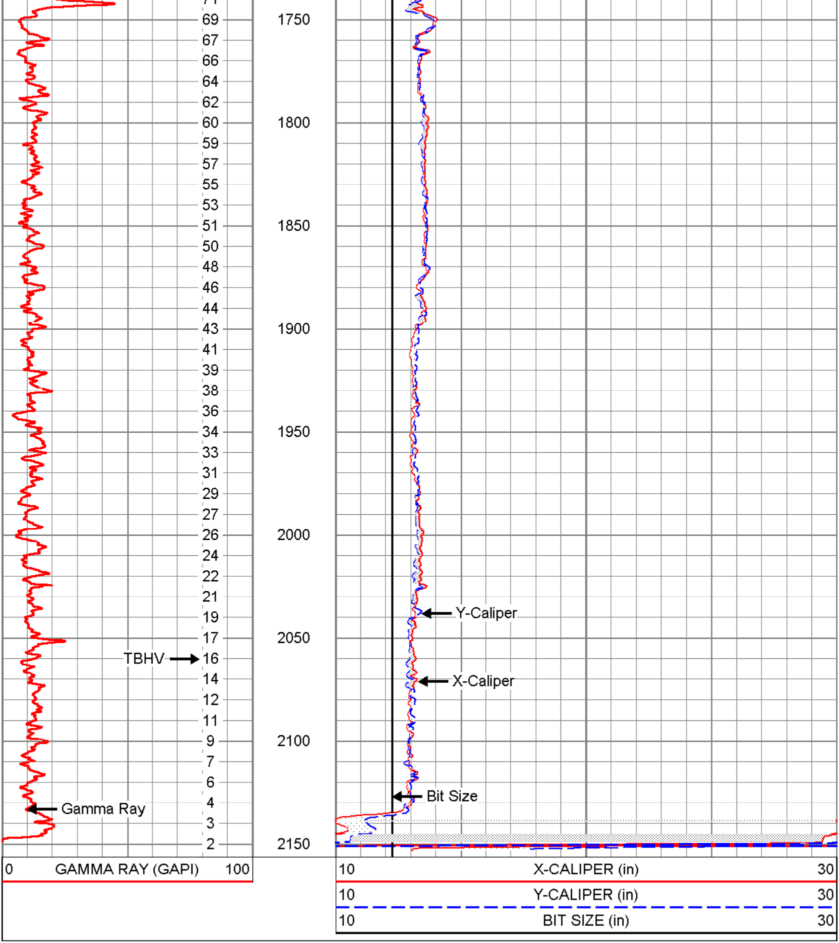
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File: hiaiw1.db
Dataset Pathname: run5/pass3
Presentation Format: GRXYC
Dataset Creation: Sun Dec 06 03:40:58 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:600



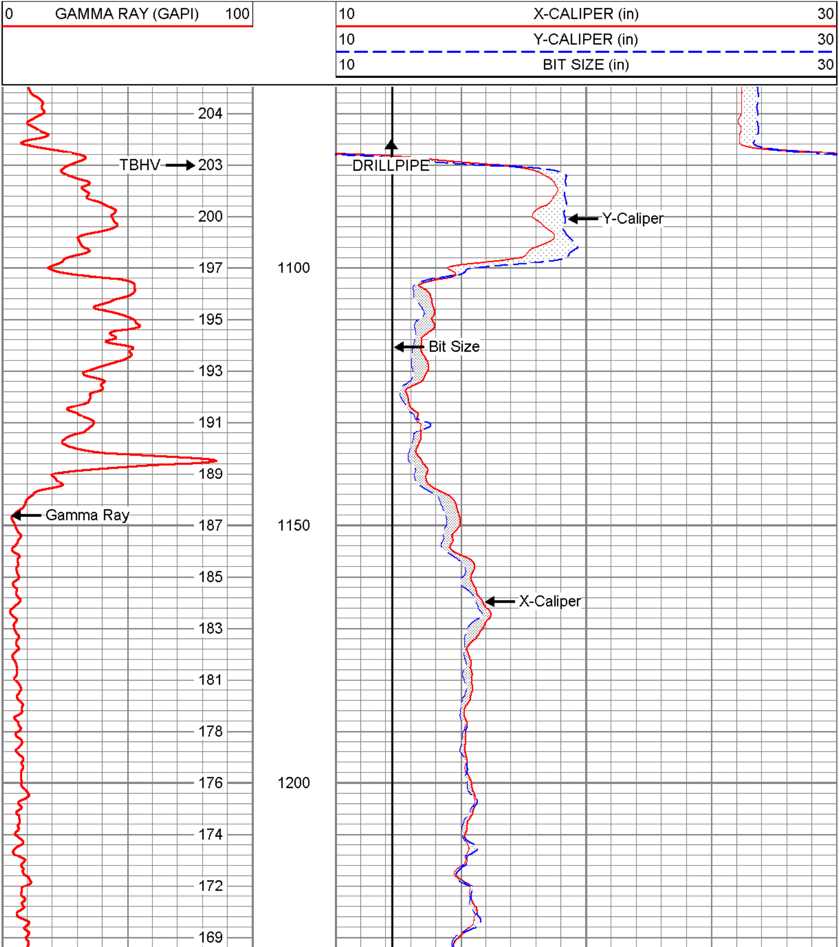


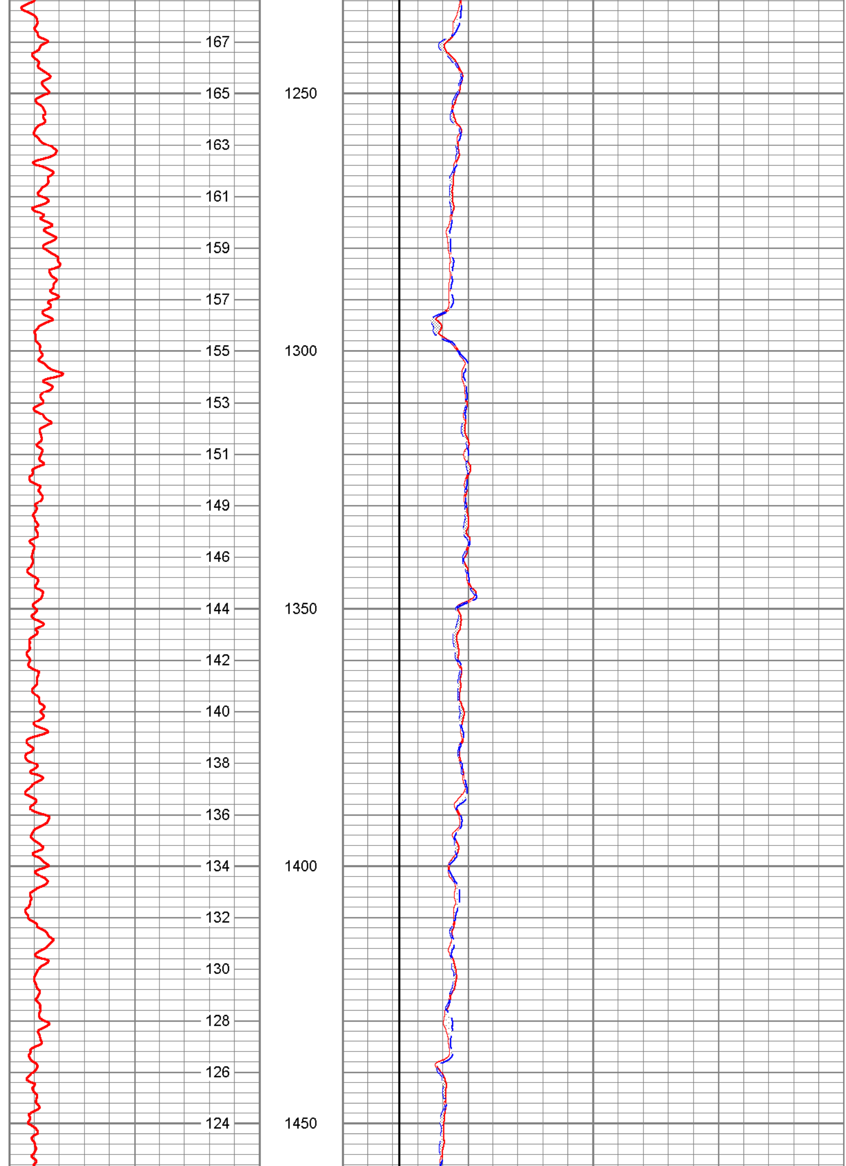


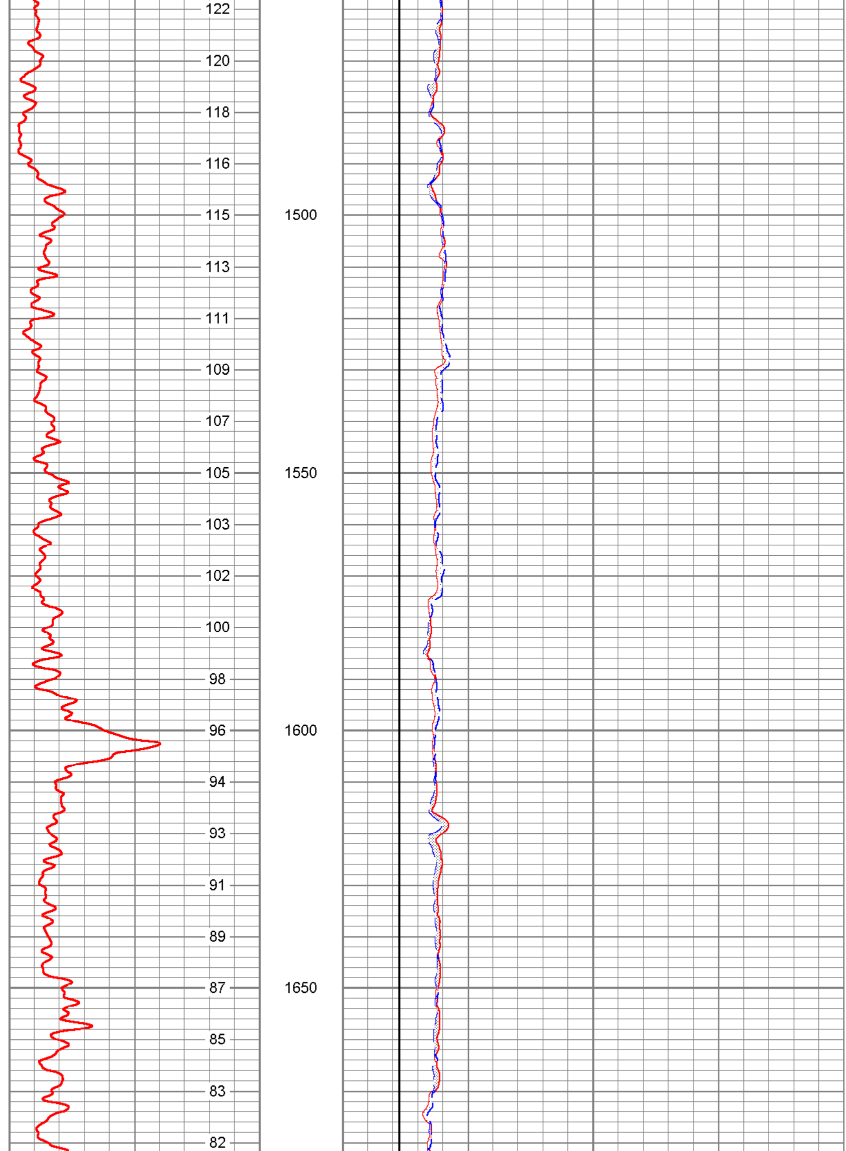
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

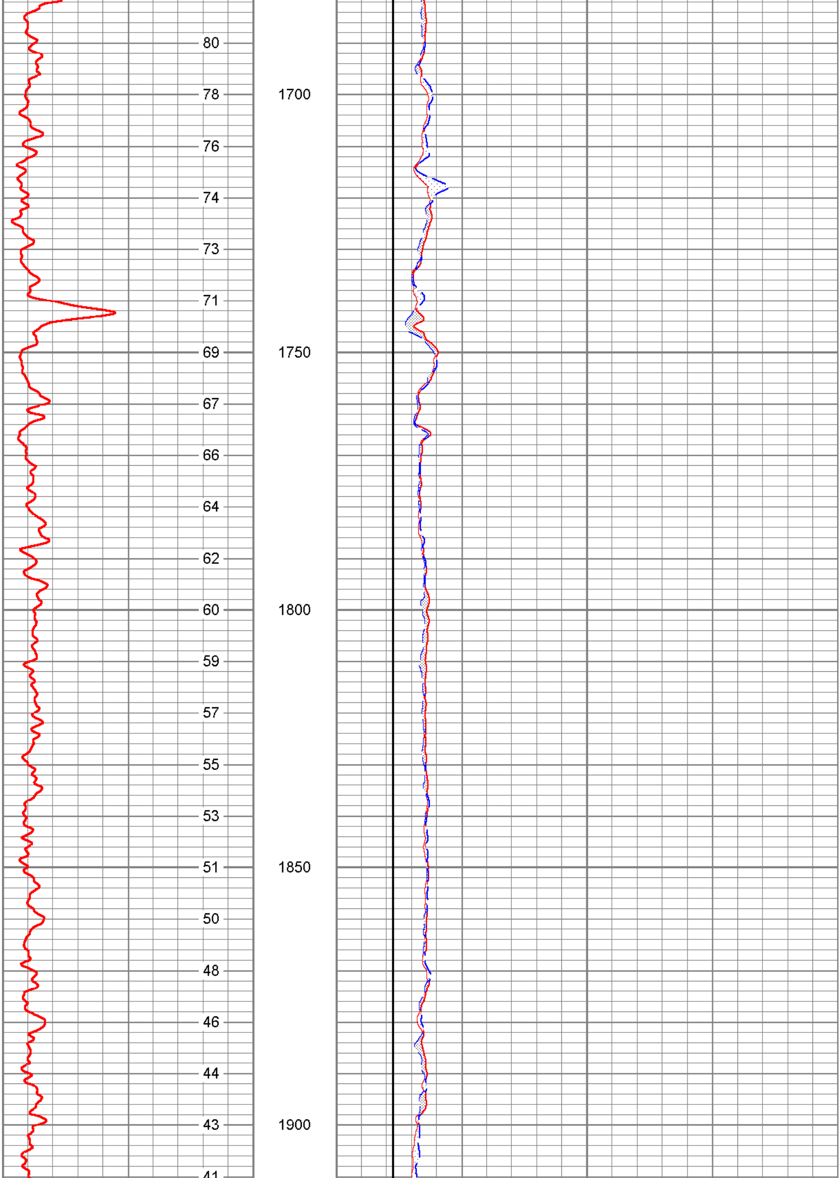
MAIN PASS

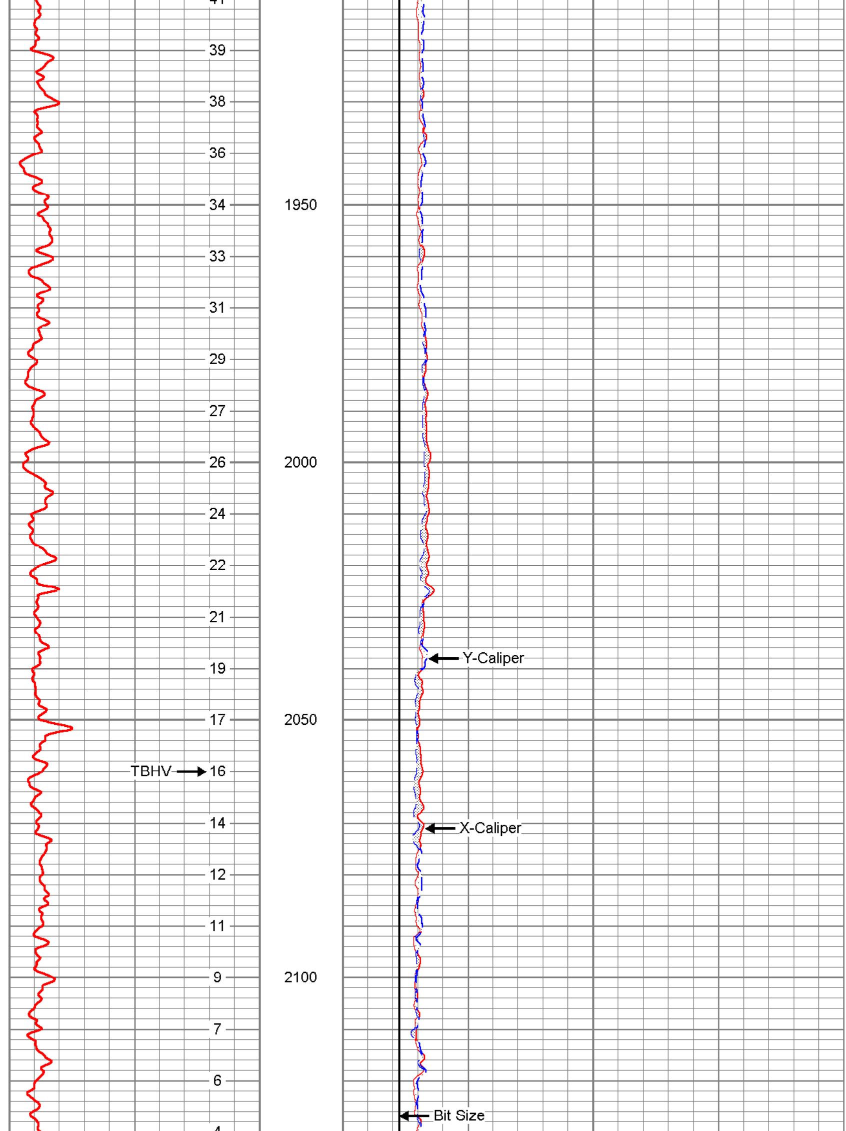
Database File:	hiaiw1.db
Dataset Pathname:	run5/pass3
Presentation Format:	GRXYC
Dataset Creation:	Sun Dec 06 03:40:58 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

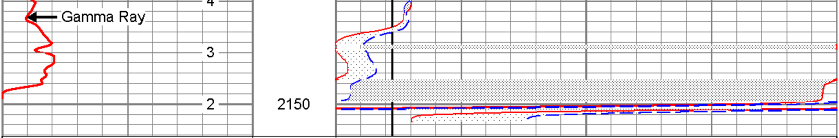












0 GAMMA RAY (GAPI) 100

10 X-CALIPER (in) 30

10 Y-CALIPER (in) 30

10 BIT SIZE (in) 30

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

REPEAT PASS

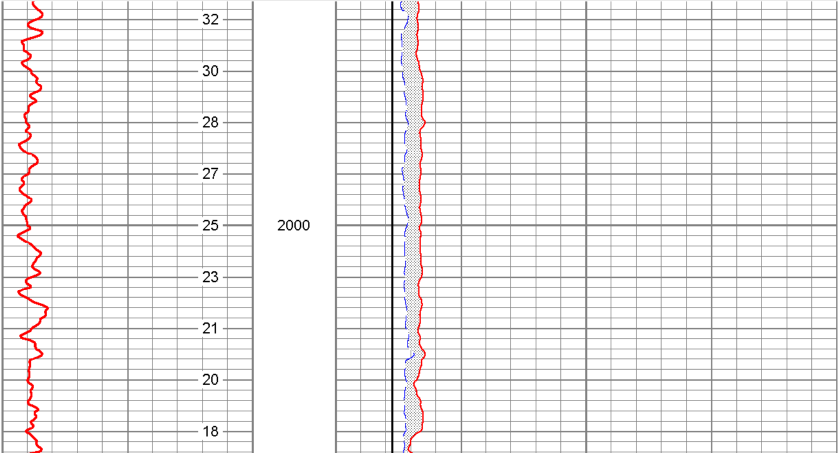
Database File:	hiaiw1.db
Dataset Pathname:	run5/pass2
Presentation Format:	GRXYC
Dataset Creation:	Sun Dec 06 03:29:33 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

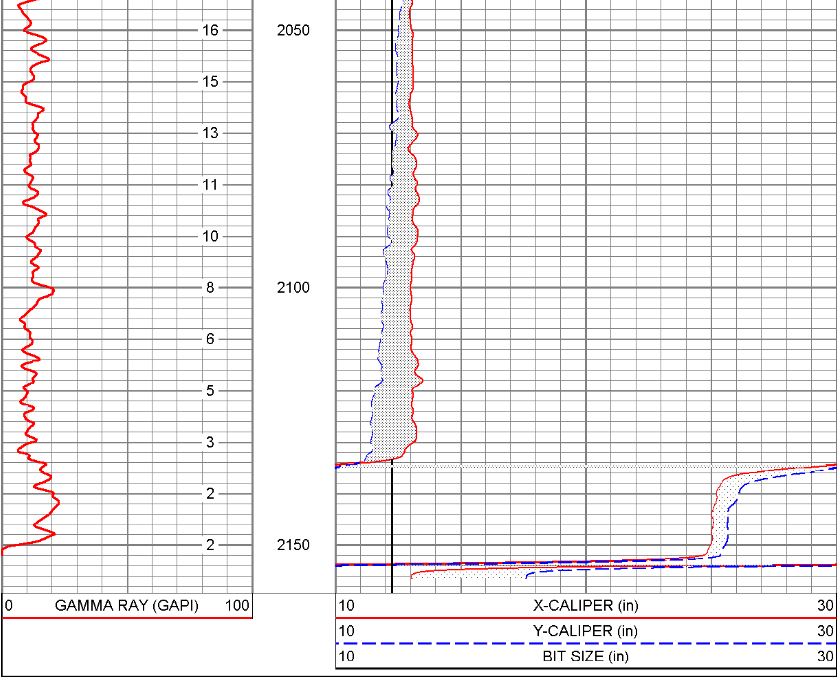
0 GAMMA RAY (GAPI) 100

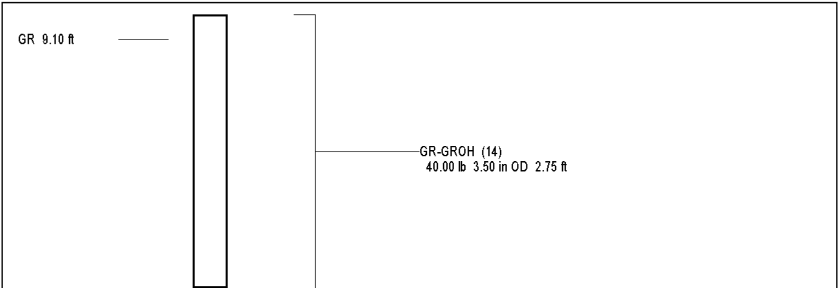
10 X-CALIPER (in) 30

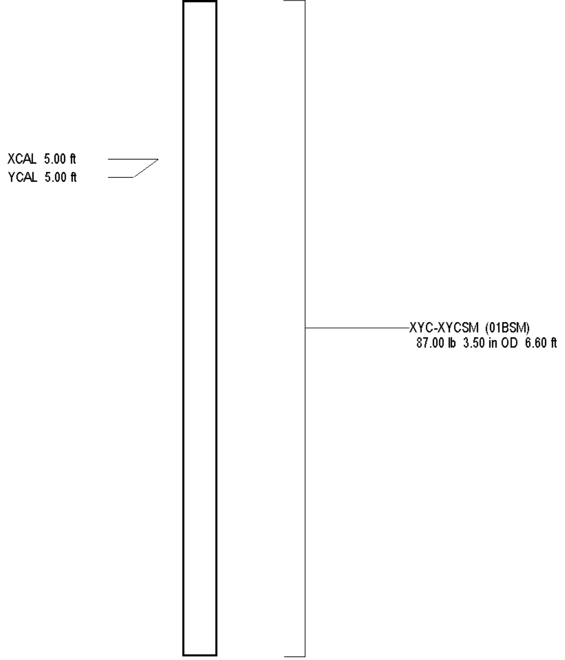
10 Y-CALIPER (in) 30

10 BIT SIZE (in) 30









Dataset:	run5/pass2
Total Length:	9.35 ft
Total Weight:	127.00 lb
O.D.	3.50 in

XY Caliper Calibration Report

Serial Number/Model:	01BSM-XYCSM
Performed:	Sat Dec 05 17:41:33 2009

	Ring		X Caliper		Y Caliper	
1:	5.81	in	475.676	cps	487.287	cps
2:	13.4	in	585.786	cps	618.299	cps
3:	24	in	771.1	cps	800.1	cps
4:	36	in	1028.64	cps	1020.93	cps
5:		in		cps		cps
6:		in		cps		cps

Gamma Ray Calibration Report

Serial Number:	14	
Tool Model:	GROH	
Performed:	Wed May 21 13:24:48 2008	
Calibrator Value:	120	GAPI
Background Reading:	45.4454	cps
Calibrator Reading:	204.505	cps
Sensitivity:	0.8754	GAPI/cps

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

BOREHOLE COMPENSATED SONIC with VDL LOG

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL
Location	
Other Services	SEE COMMENTS

Permanent Datum		Elevation
Log Measured From		K.B.
Drilling Measured From		D.F.
		G.L.

Date	24-JAN-2010	
Run Number	EIGHT	
Depth Driller	3500'	
Depth Logger	3500'	
Bottom Logged Interval	3500'	
Top Log Interval	CASING	
Open Hole Size	12.25"	
Type Fluid	WATER	
Density / Viscosity	NA	
Max. Recorded Temp.	N/A	
Estimated Cement Top	NA	
Time Well Ready	0830	
Time Logger on Bottom	0925	
Equipment Number	103	
Location	FT MYERS	
Recorded By	FULLER	
Witnessed By	R. STROSS	

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner				

<<< Fold Here >>>

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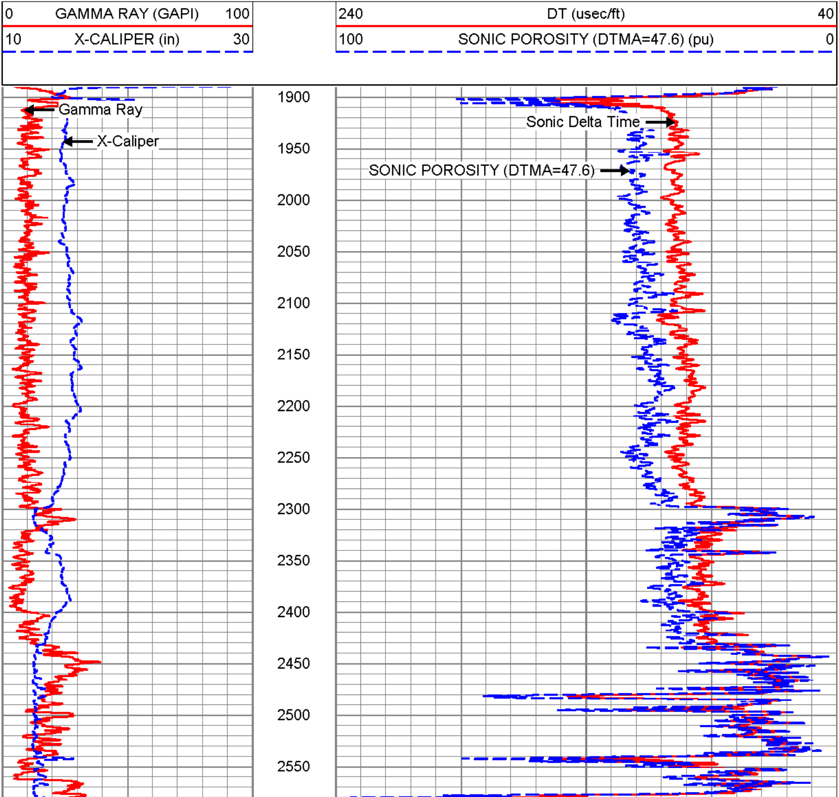
Comments

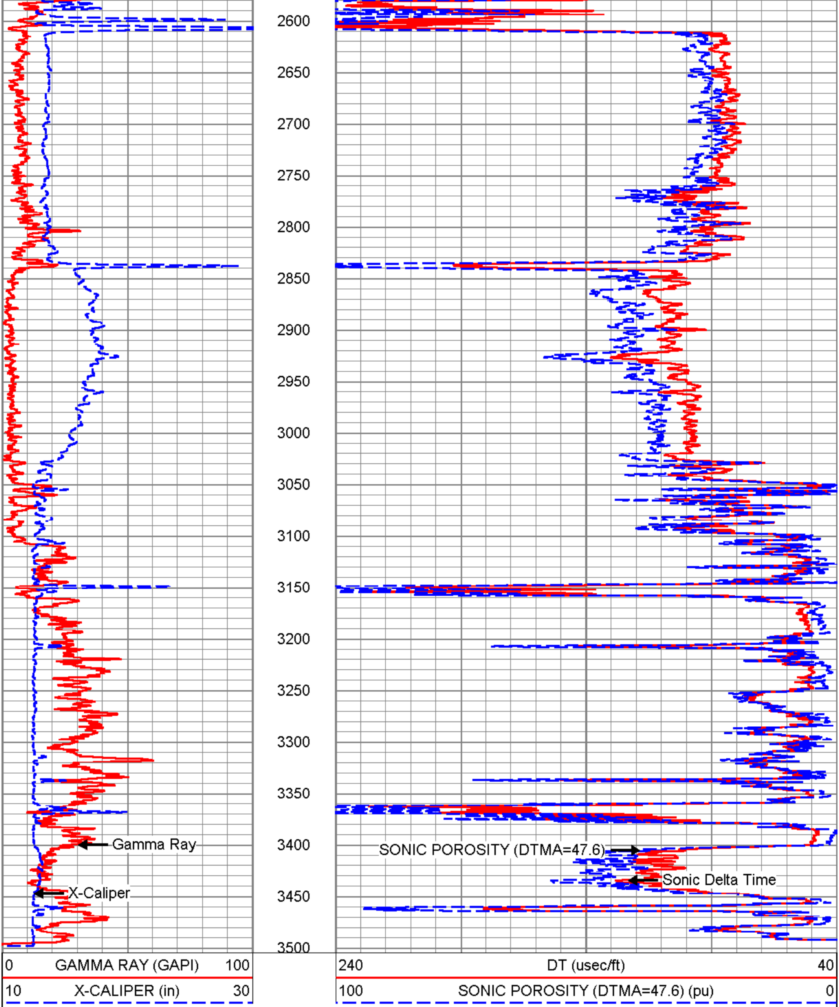
FLUID CONDUCTIVITY/TEMP
X-Y CALIPER/GAMMA RAY
DUAL INDUCTION
FLOW
VIDEO

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run8/pass11
Presentation Format:	SON_POR
Dataset Creation:	Sun Jan 24 13:41:08 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:1200

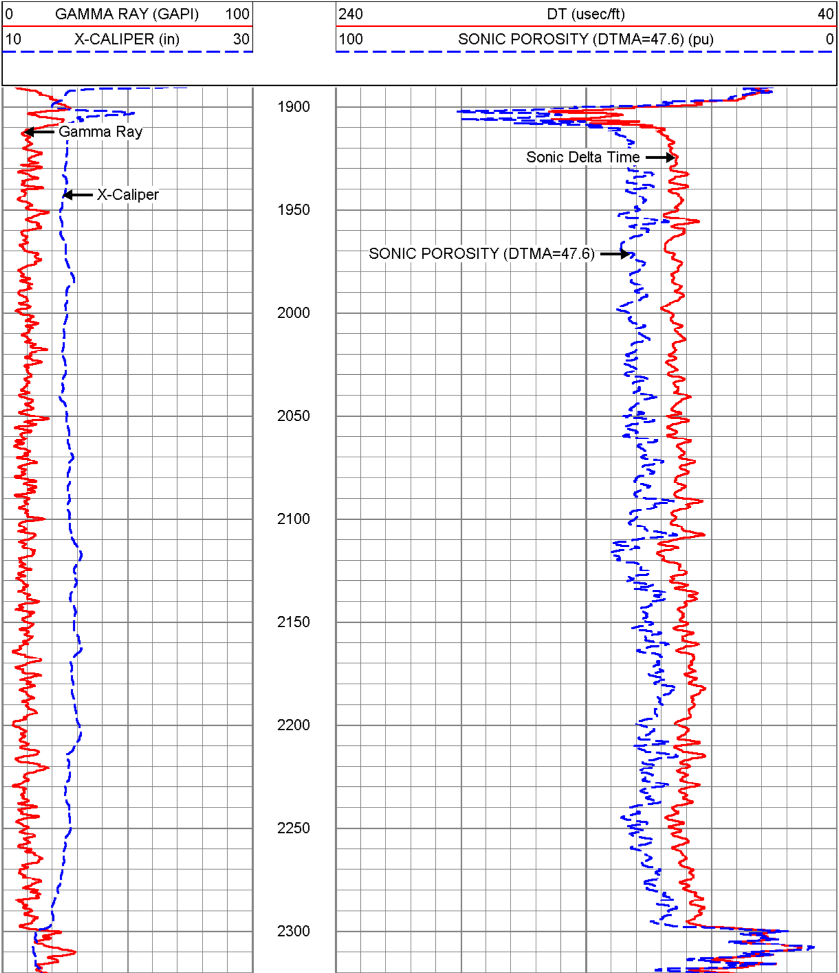


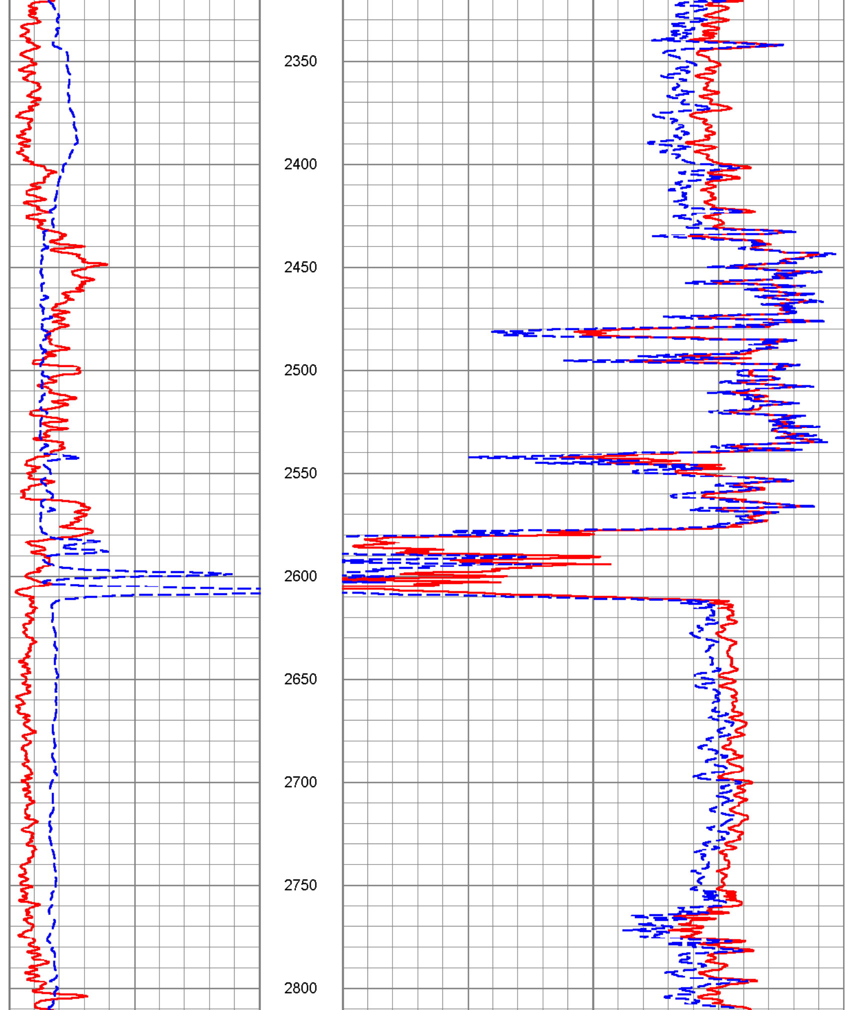


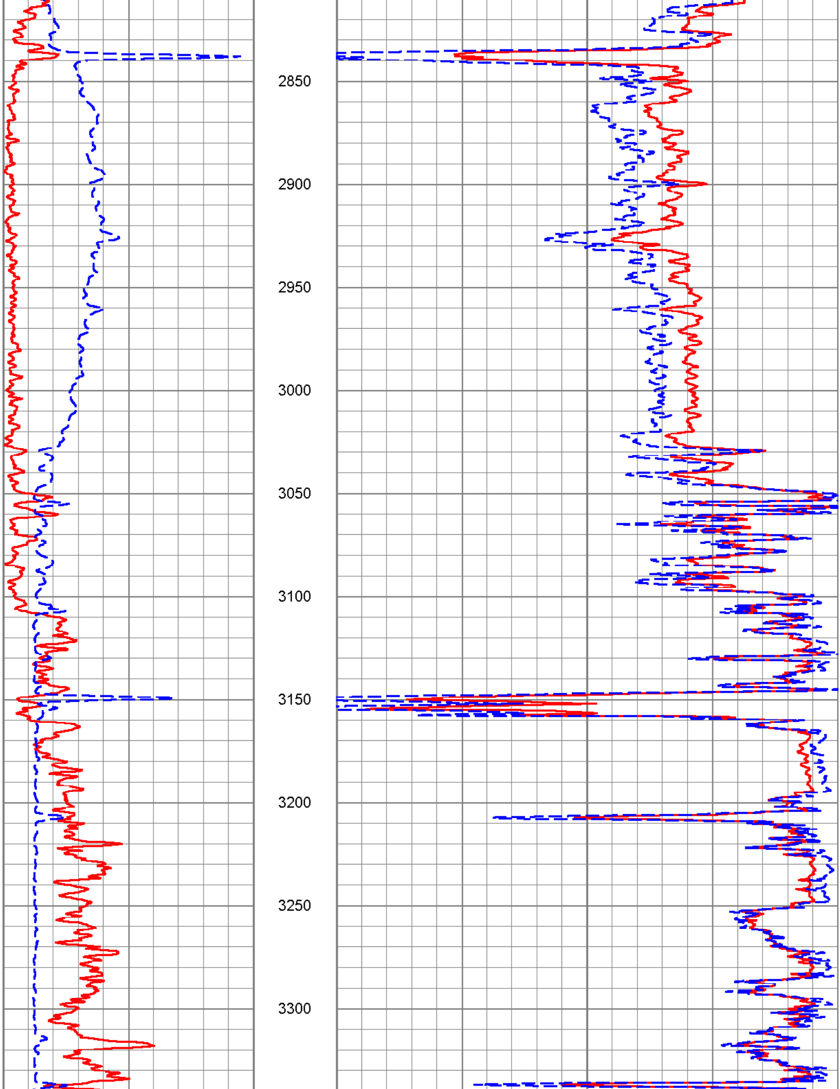
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

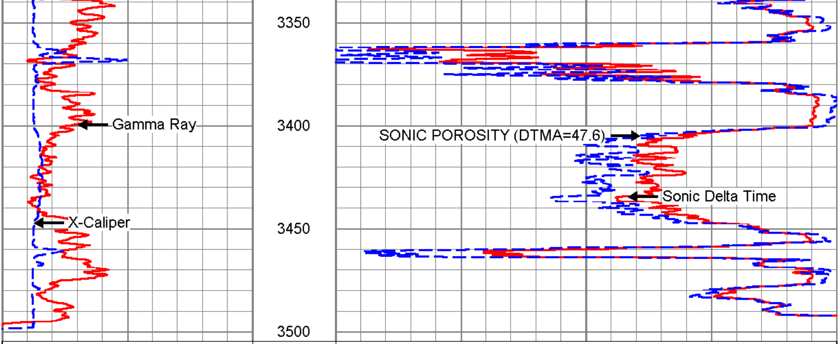
MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run8/pass11
Presentation Format:	SON_POR
Dataset Creation:	Sun Jan 24 13:41:08 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:600









0	GAMMA RAY (GAPI)	100	240	DT (usec/ft)	40
10	X-CALIPER (in)	30	100	SONIC POROSITY (DTMA=47.6) (pu)	0

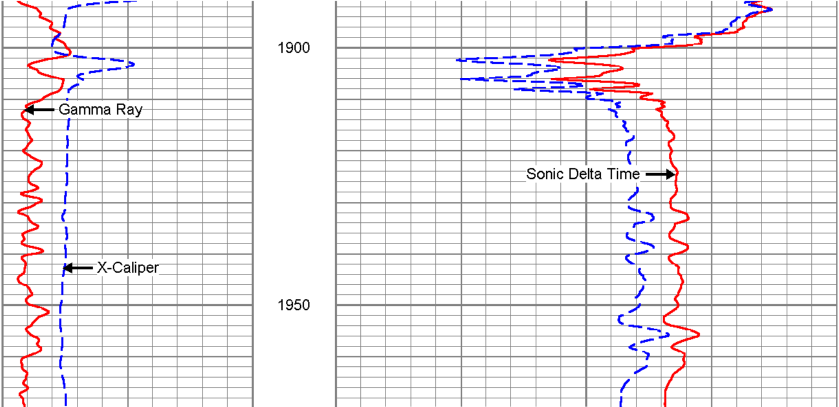
YOUNGQUIST BROTHERS, Inc

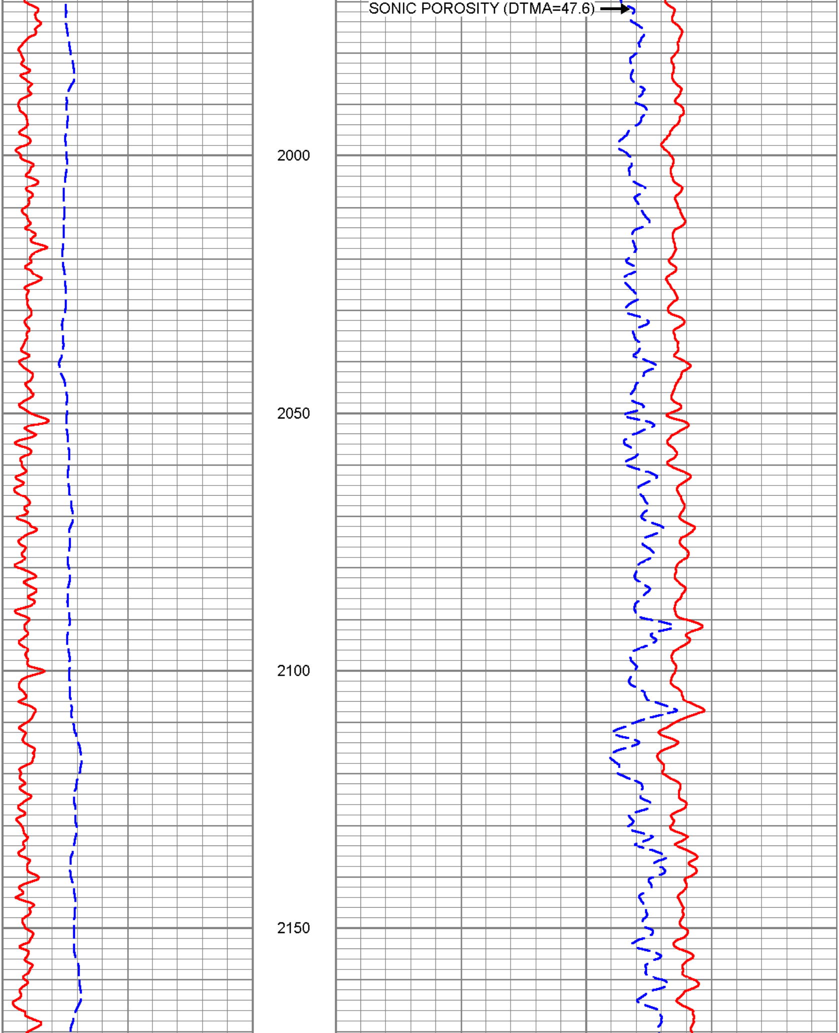
GEOPHYSICAL LOGGING DIVISION

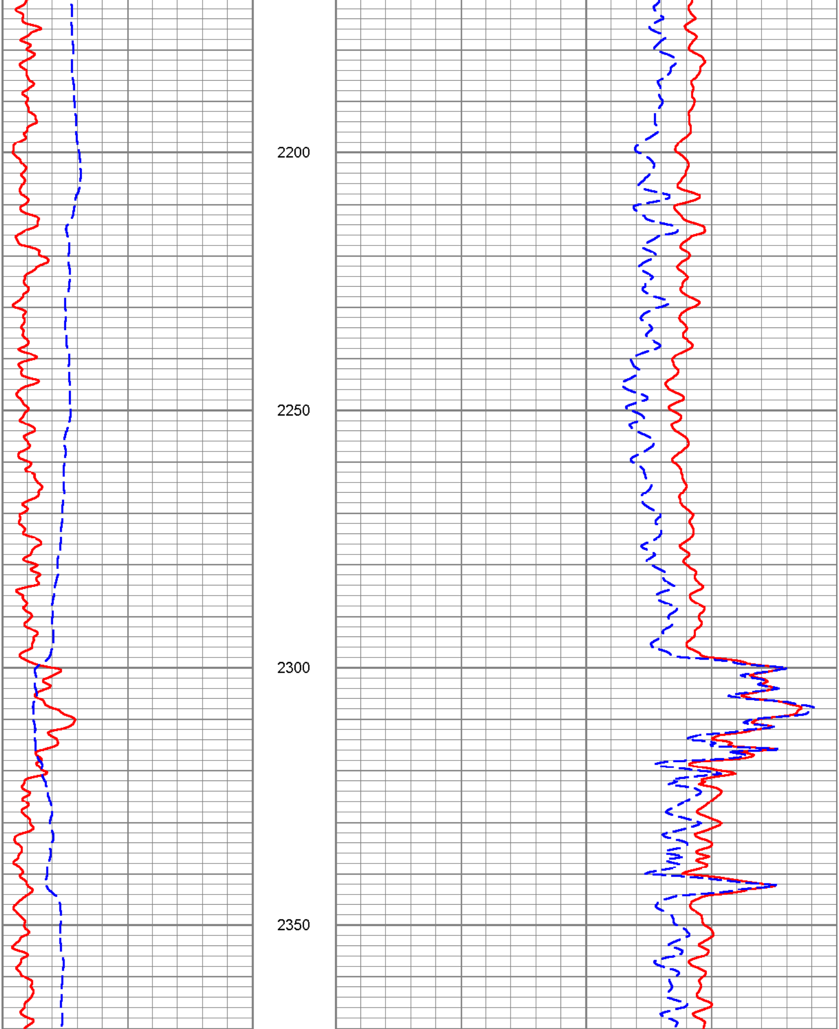
MAIN PASS

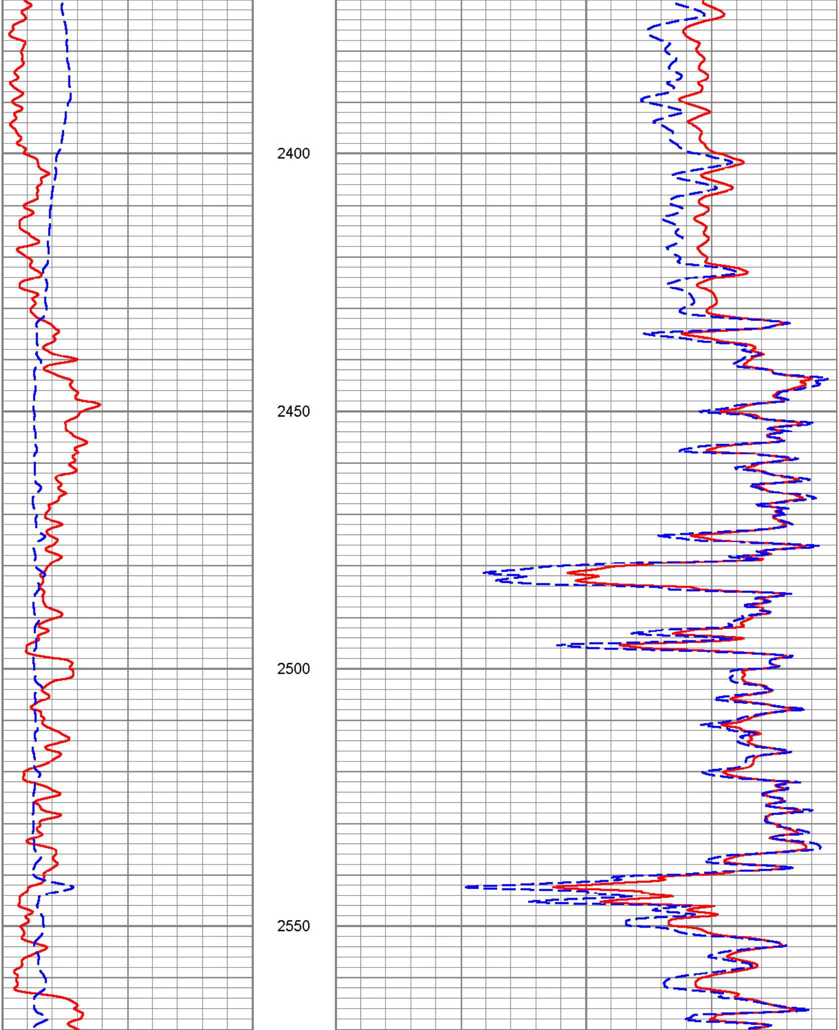
Database File:	hiaiw1.db
Dataset Pathname:	run8/pass11
Presentation Format:	SON_POR
Dataset Creation:	Sun Jan 24 13:41:08 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

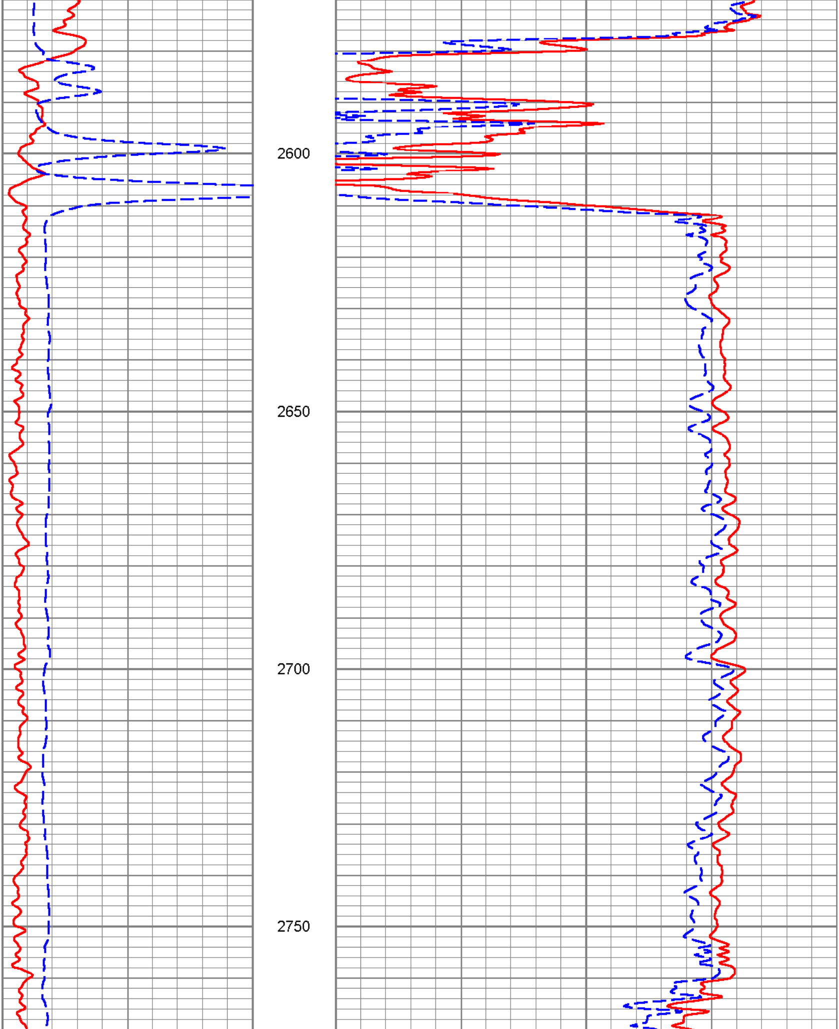
0	GAMMA RAY (GAPI)	100	240	DT (usec/ft)	40
10	X-CALIPER (in)	30	100	SONIC POROSITY (DTMA=47.6) (pu)	0

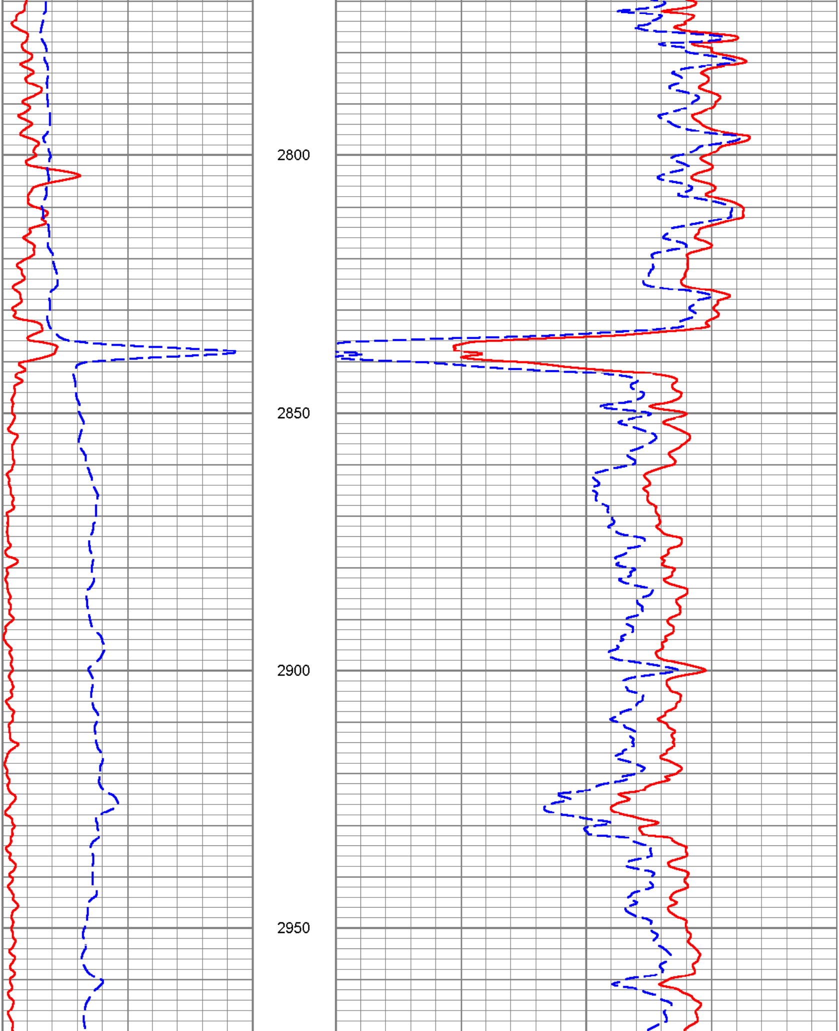


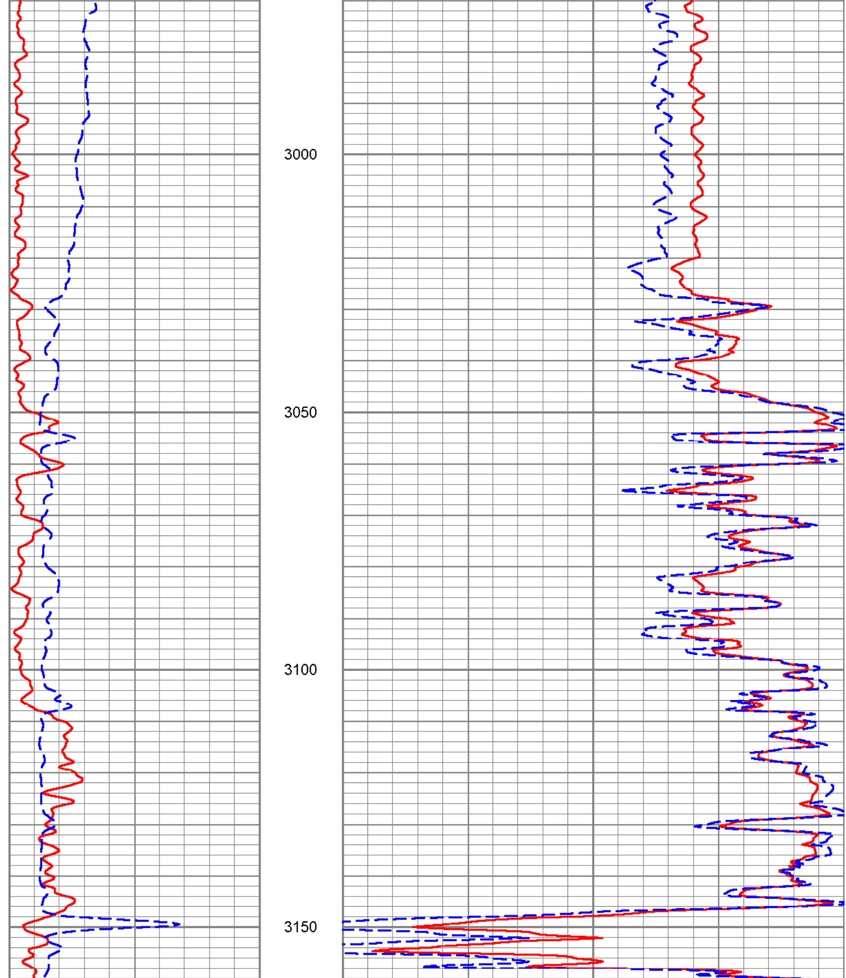


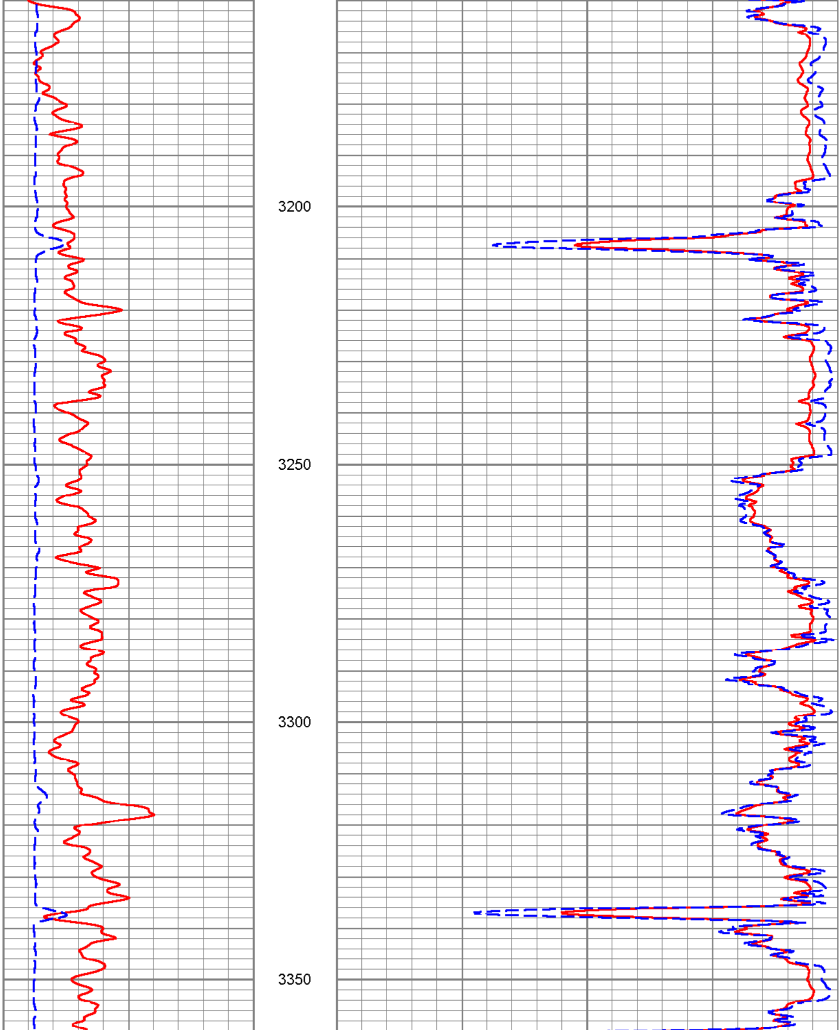


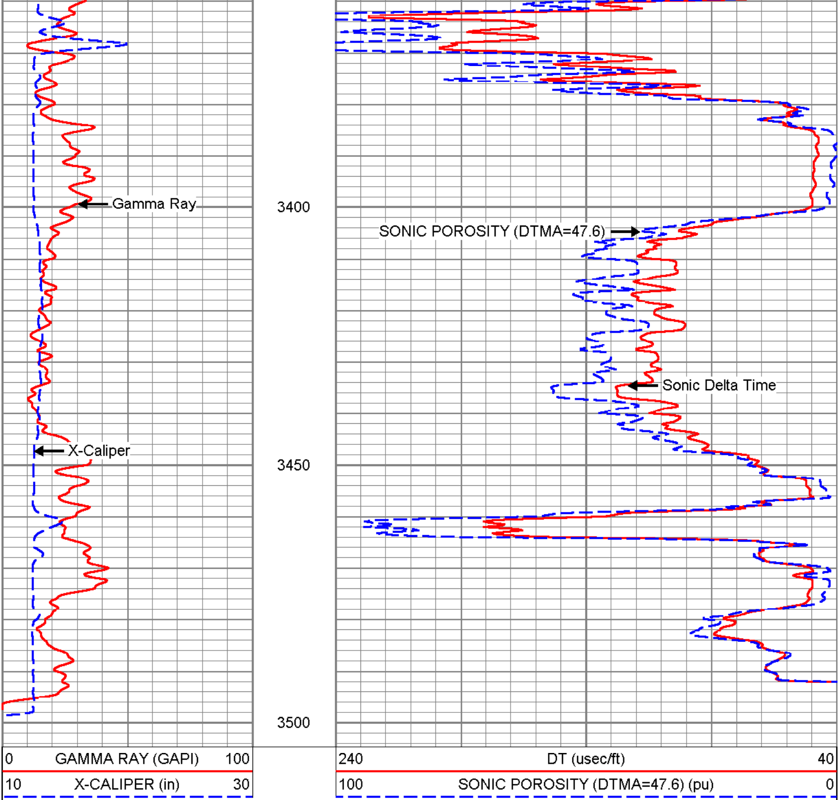








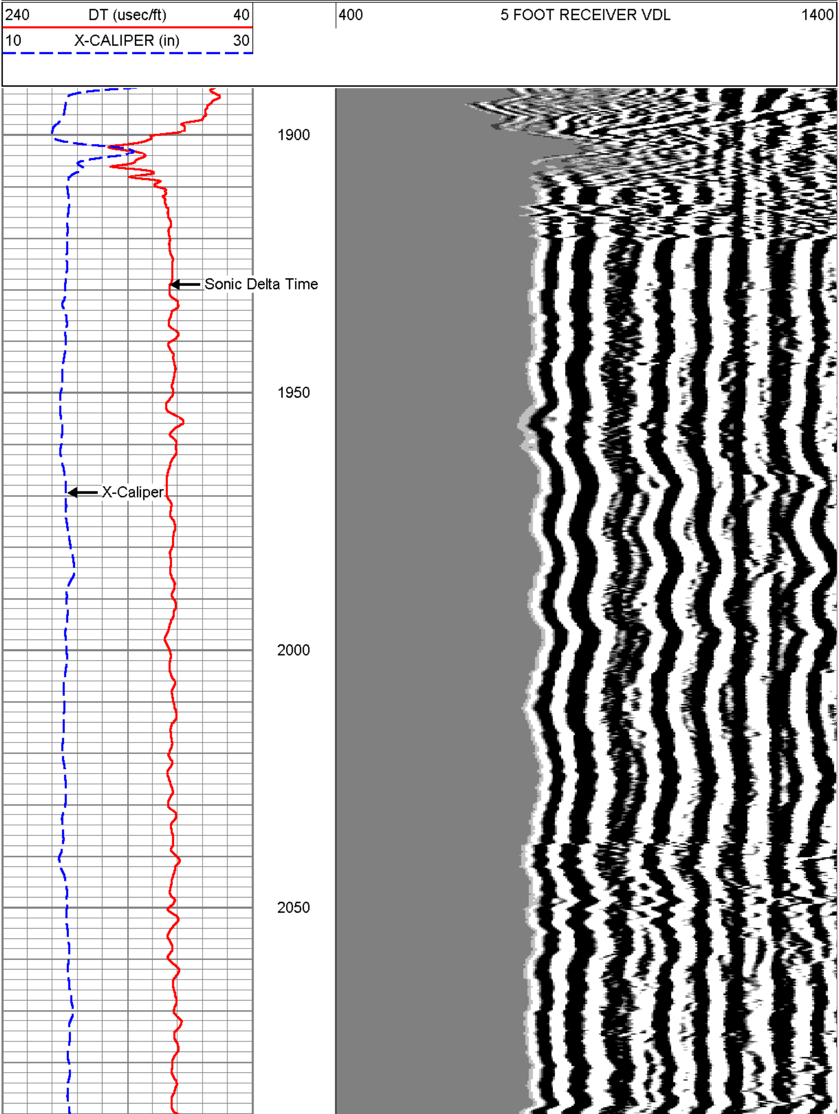


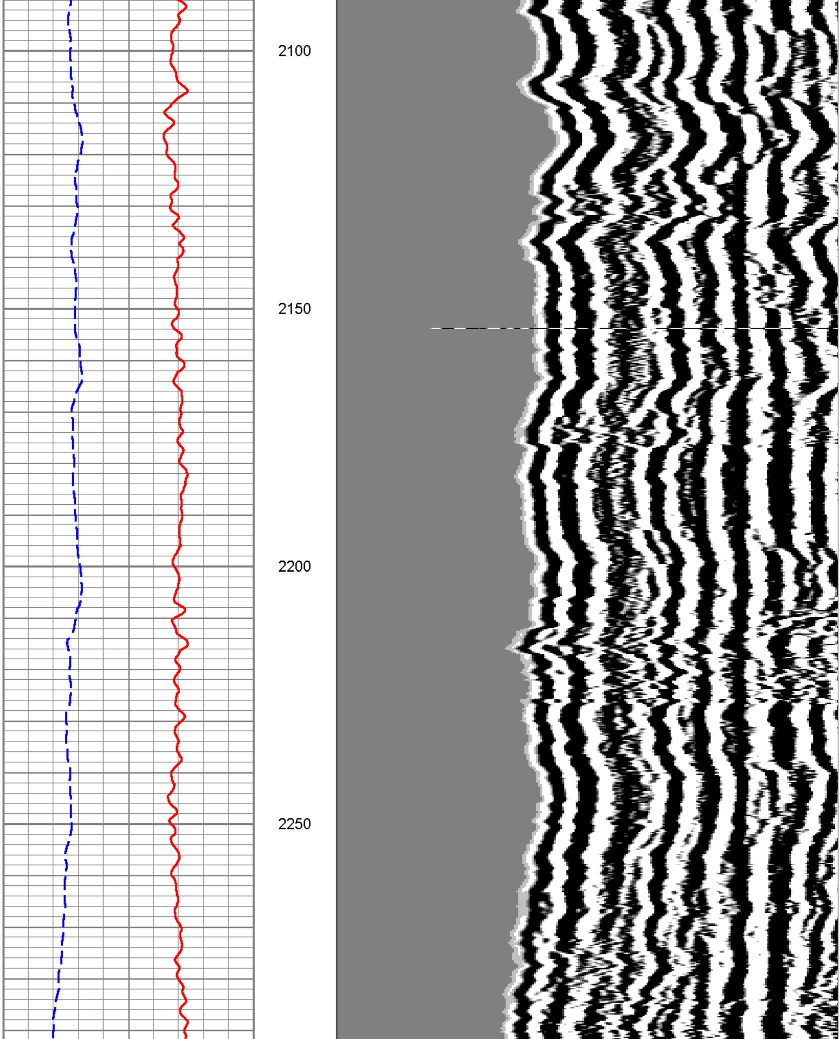


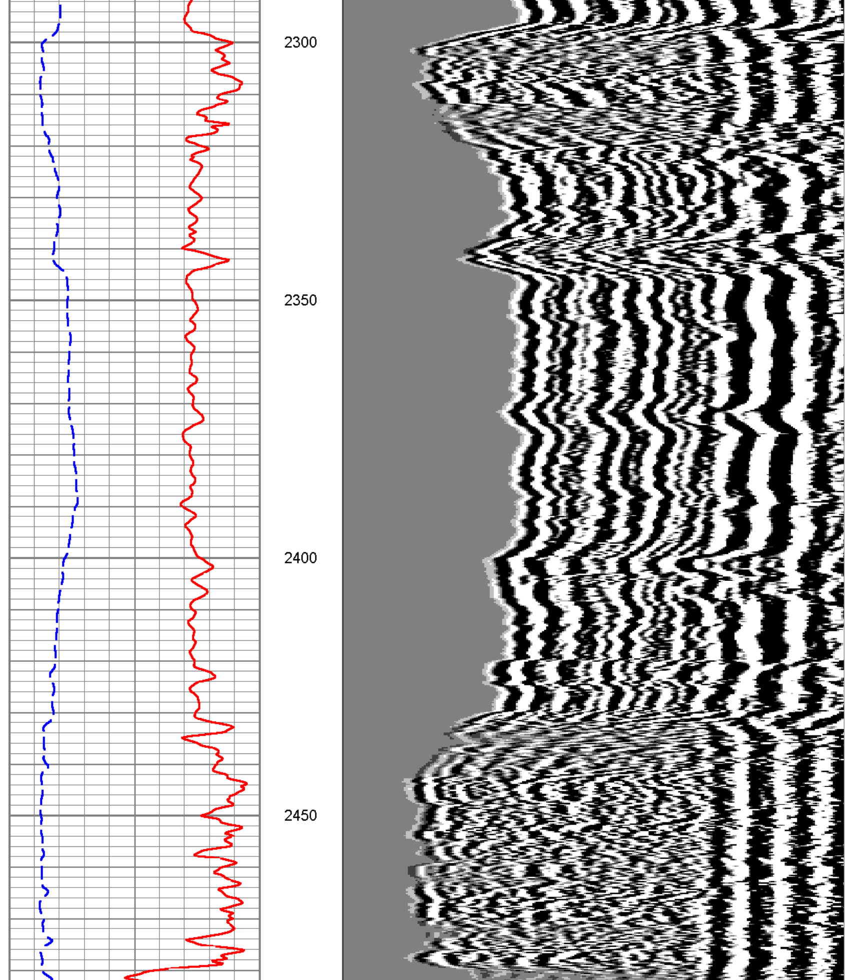
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

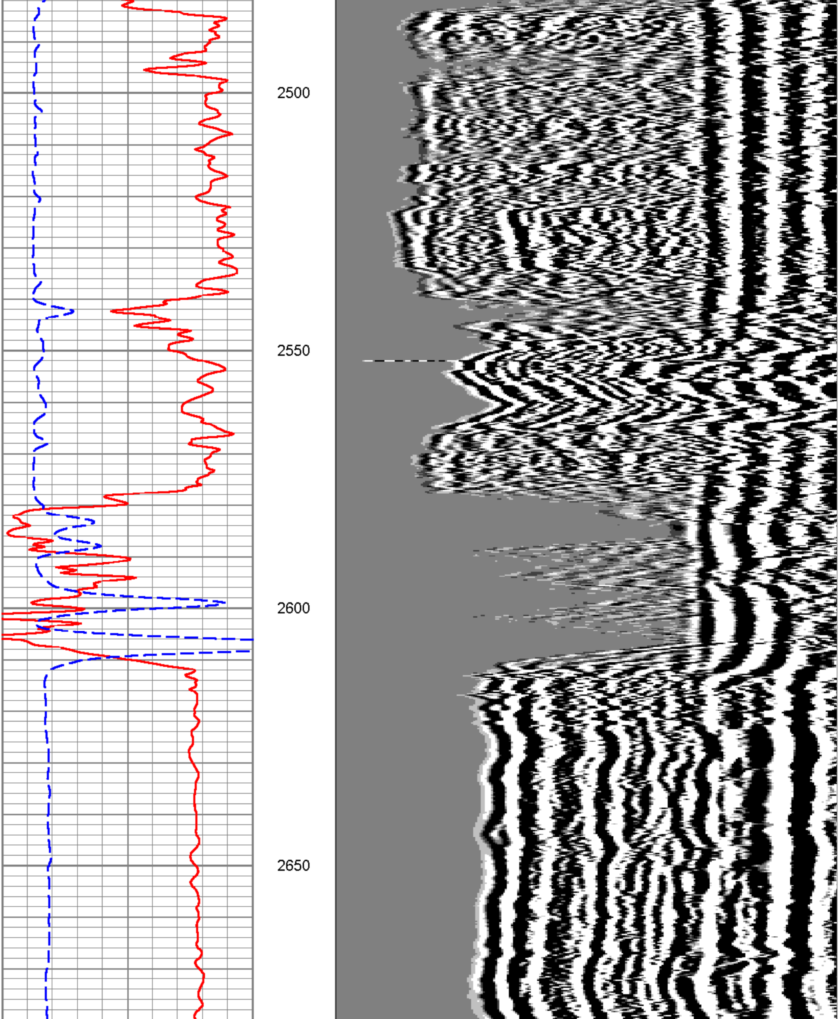
MAIN PASS

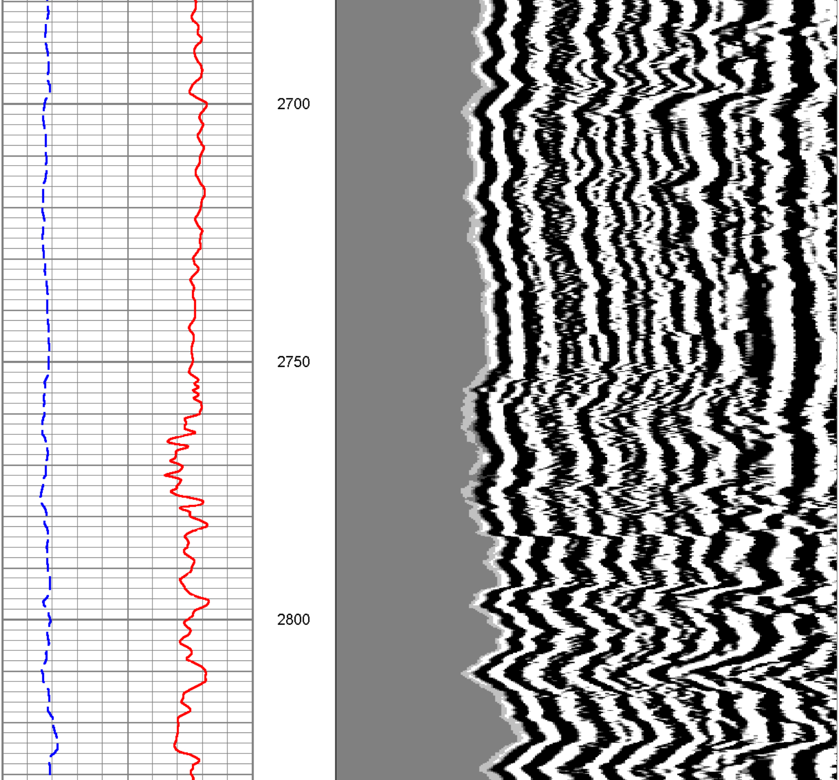
Database File: hiaiw1.db
Dataset Pathname: run8/pass11
Presentation Format: SON_VDL
Dataset Creation: Sun Jan 24 13:41:08 2010 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

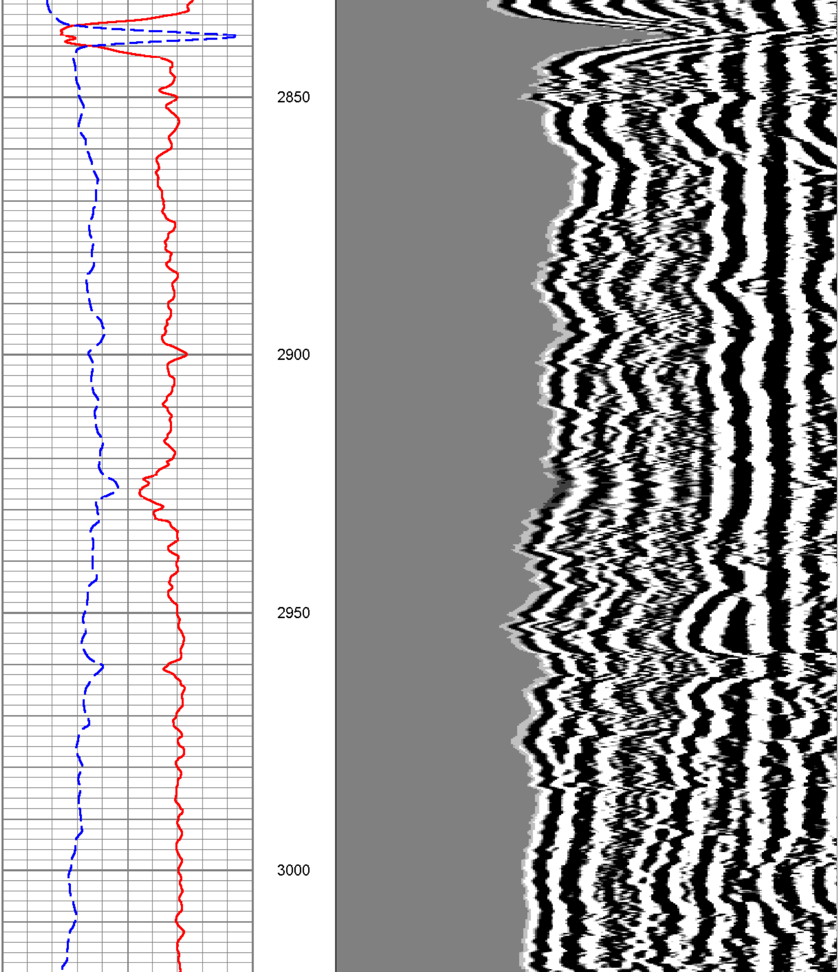


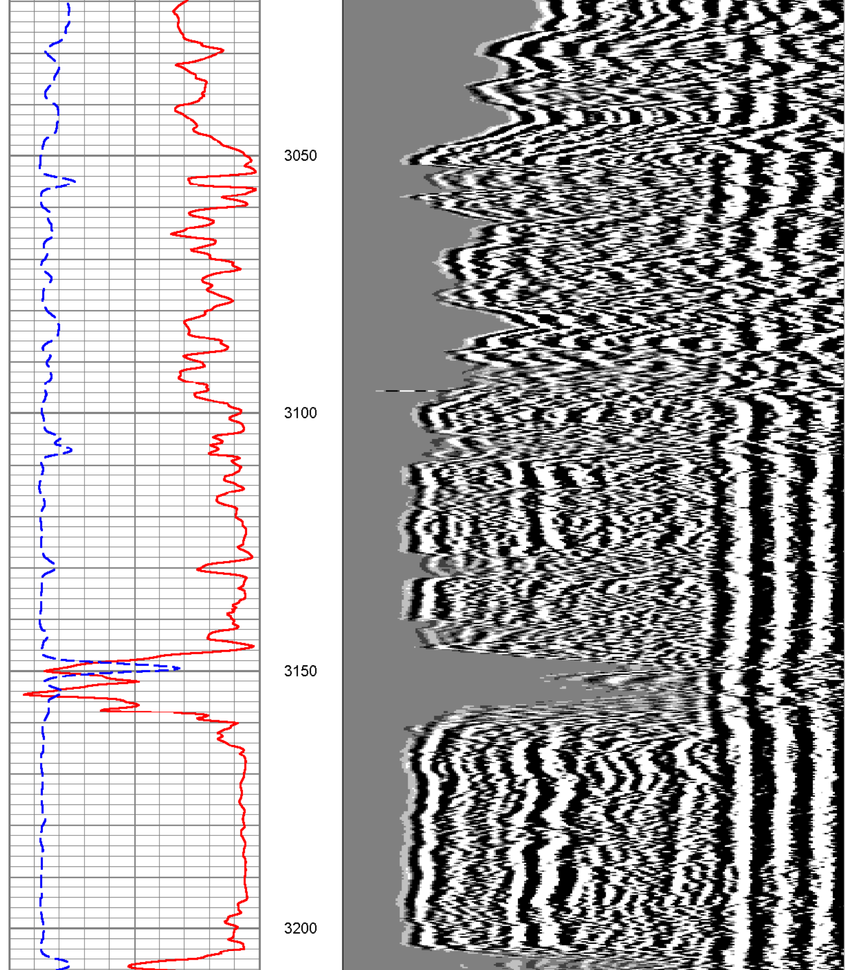


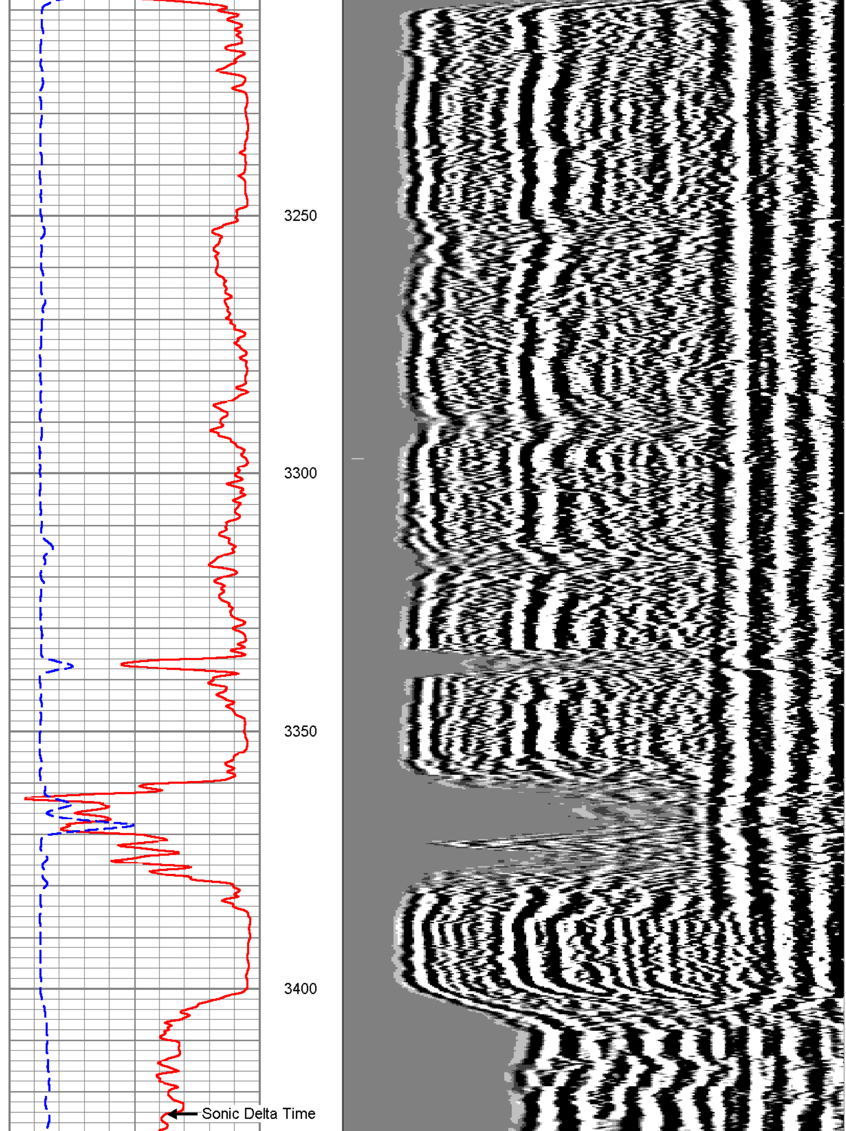


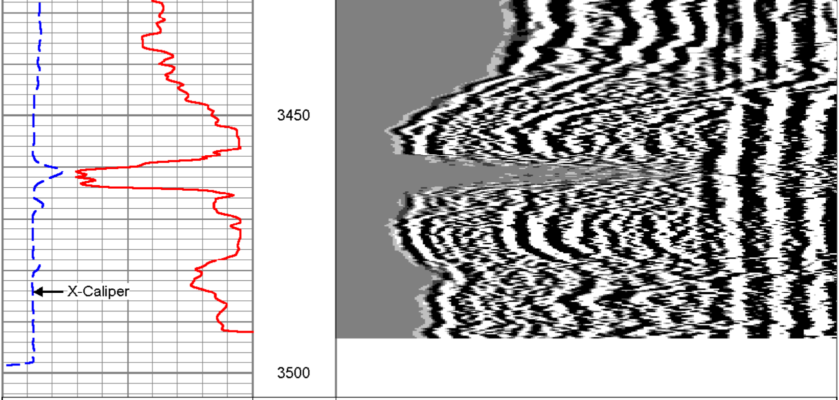












240 DT (usec/ft) 40

10 X-CALIPER (in) 30

400 5 FOOT RECEIVER VDL 1400

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

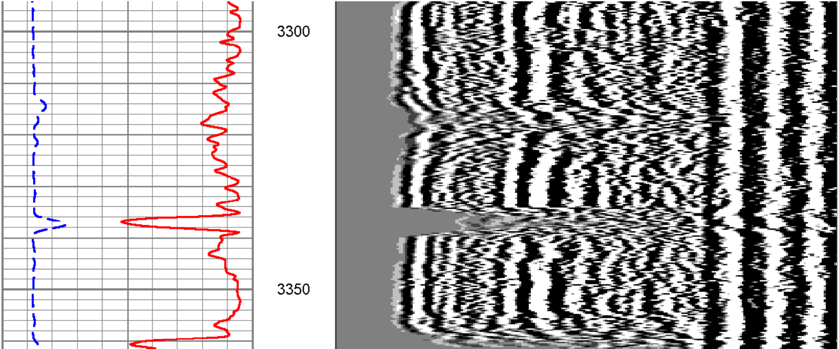
REPEAT PASS

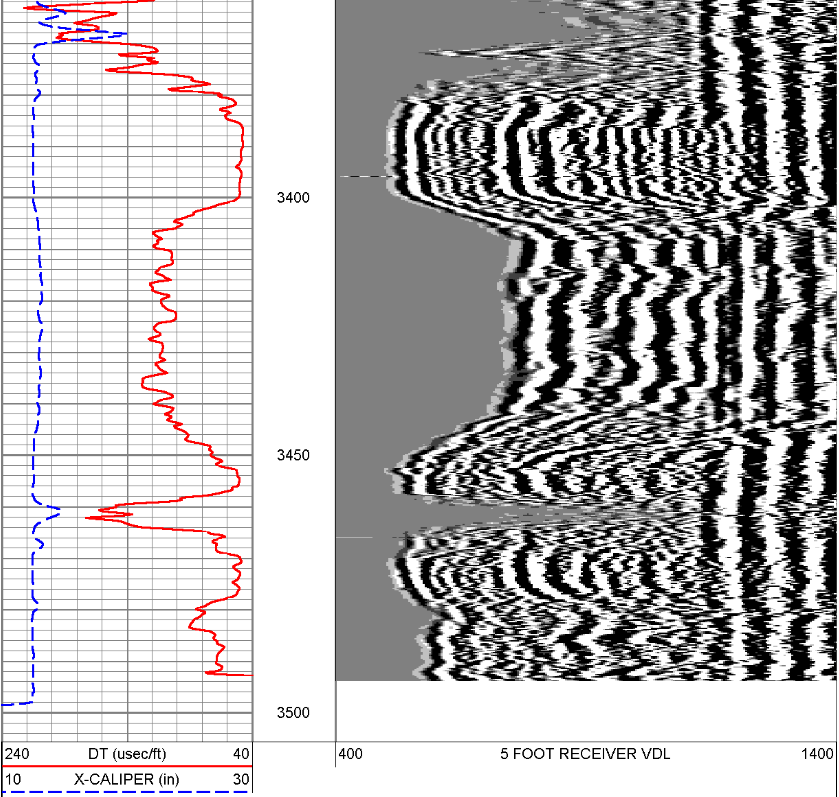
Database File:	hiaiw1.db
Dataset Pathname:	run8/pass10
Presentation Format:	SON_VDL
Dataset Creation:	Sun Jan 24 13:30:07 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

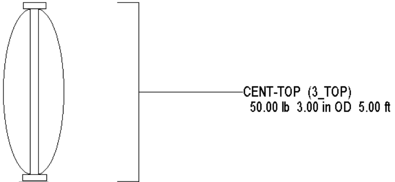
240 DT (usec/ft) 40

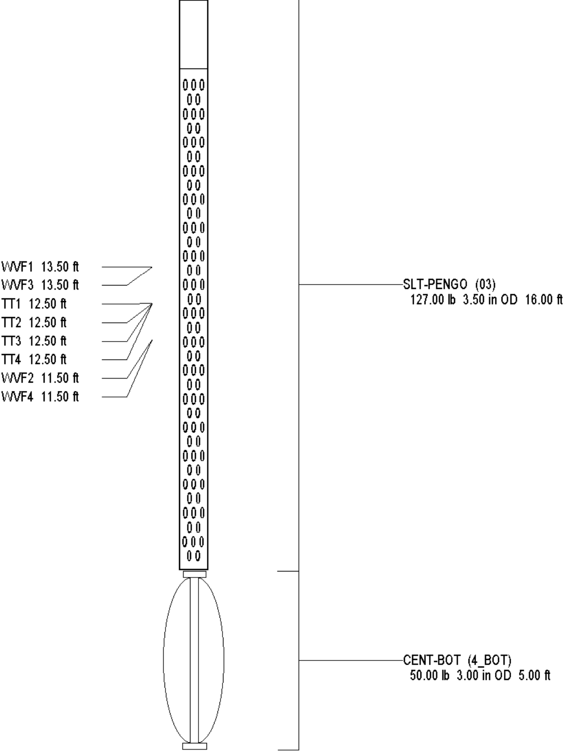
10 X-CALIPER (in) 30

400 5 FOOT RECEIVER VDL 1400






CENT-TOP (3_TOP)
50.00 lb 3.00 in OD 5.00 ft


WVF1 13.50 ft
WVF3 13.50 ft
TT1 12.50 ft
TT2 12.50 ft
TT3 12.50 ft
TT4 12.50 ft
WVF2 11.50 ft
WVF4 11.50 ft
SLT-PENGO (03)
127.00 lb 3.50 in OD 16.00 ft
CENT-BOT (4_BOT)
50.00 lb 3.00 in OD 5.00 ft

Dataset:	run8/pass11
Total Length:	26.00 ft
Total Weight:	227.00 lb
O.D.	3.50 in

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

DUAL INDUCTION
LL3 with SP
LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location

Other Services
SEE
COMMENTS

Permanent Datum
Log Measured From
Drilling Measured From

Elevation

Elevation
K.B.
D.F.
G.L.

Date	24-JAN-2010		
Run Number	EIGHT		
Depth Driller	3500'		
Depth Logger	3500'		
Bottom Logged Interval	3500'		
Top Log Interval	CASING		
Open Hole Size	12.25"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	N/A		
Estimated Cement Top	NA		
Time Well Ready	0830		
Time Logger on Bottom	0925		
Equipment Number	1003		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	R. STROSS		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner				

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

FLUID CONDUCTIVITY/TEMP
X-Y CALIPER/GAMMA RAY
BOREHOLE SONIC
FLOW
VIDEO

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run8/pass8
Presentation Format:	DIL
Dataset Creation:	Sun Jan 24 12:14:10 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:1200

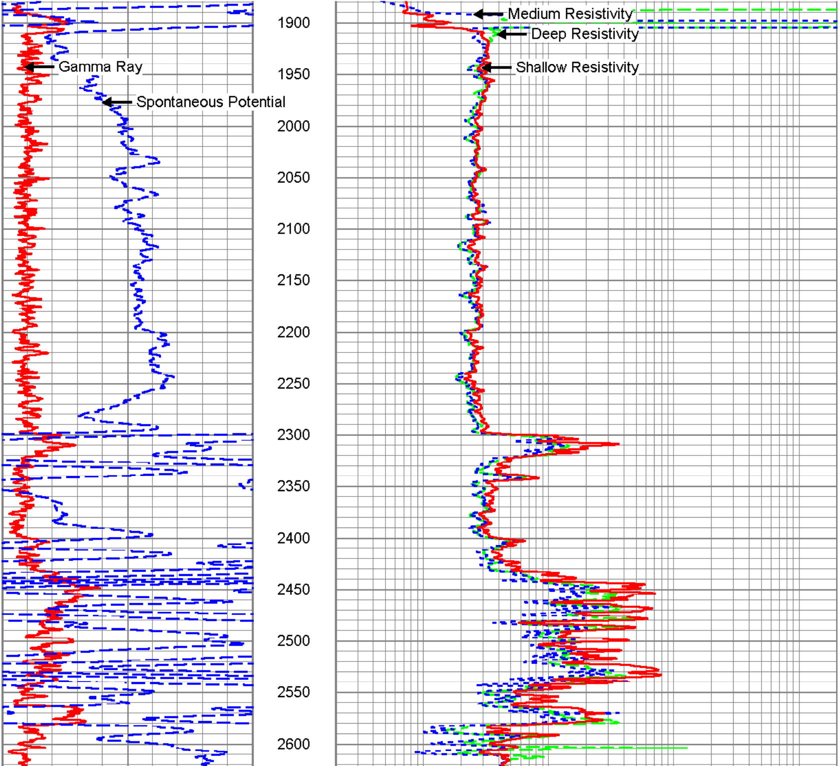
0 Gamma Ray (GAPI) 100

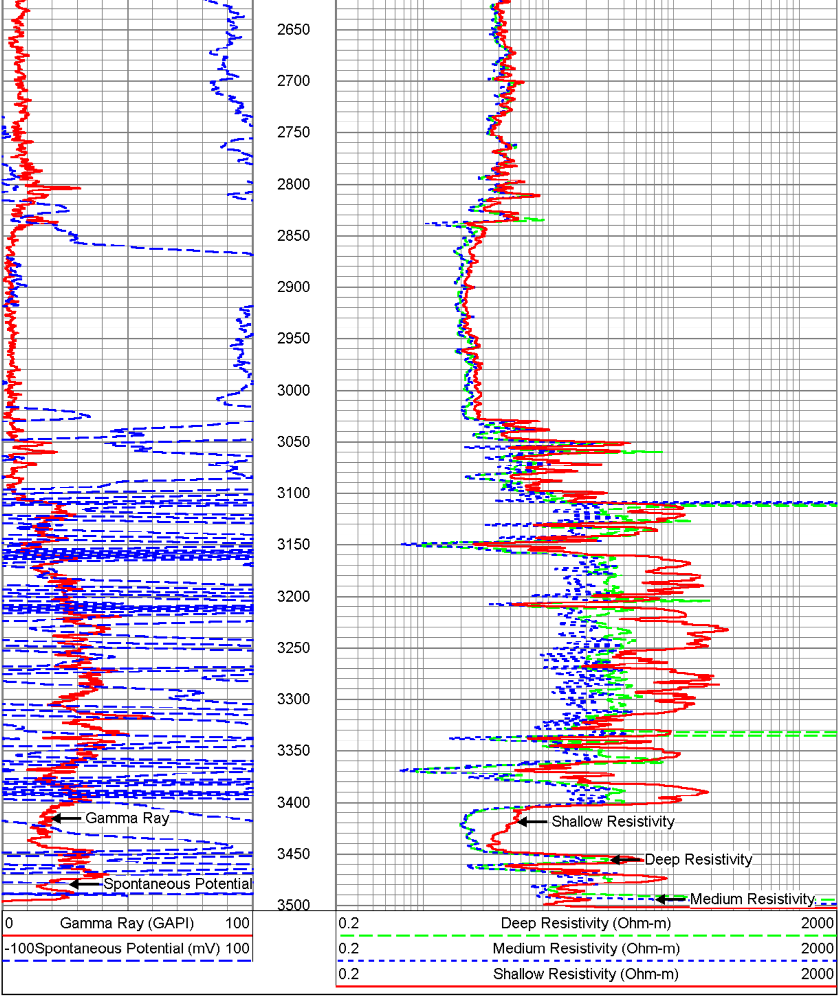
-100 Spontaneous Potential (mV) 100

0.2 Deep Resistivity (Ohm-m) 2000

0.2 Medium Resistivity (Ohm-m) 2000

0.2 Shallow Resistivity (Ohm-m) 2000





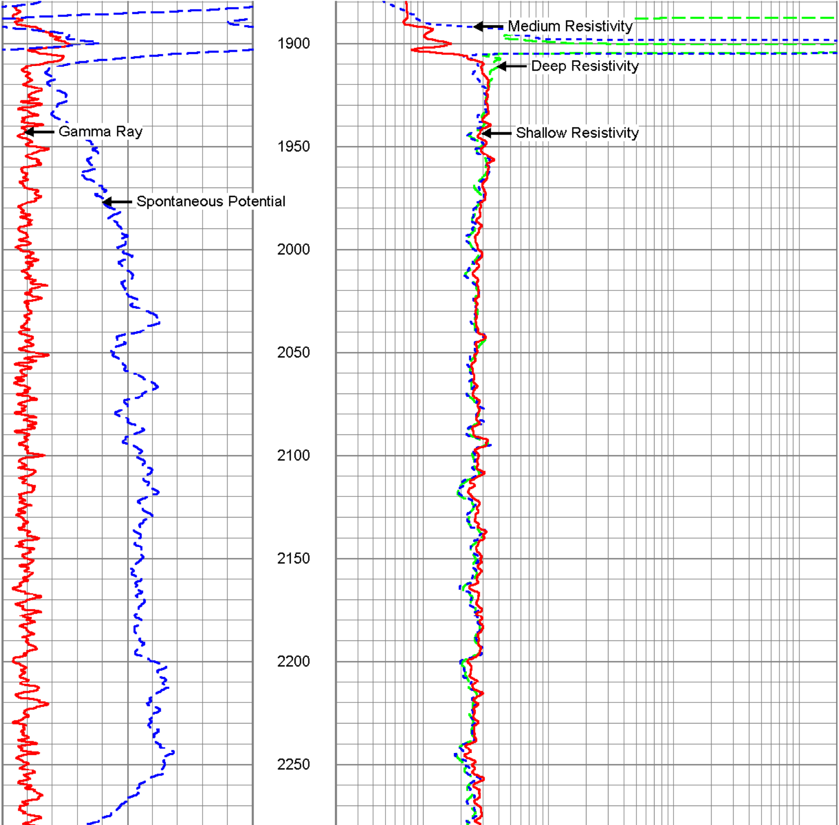
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

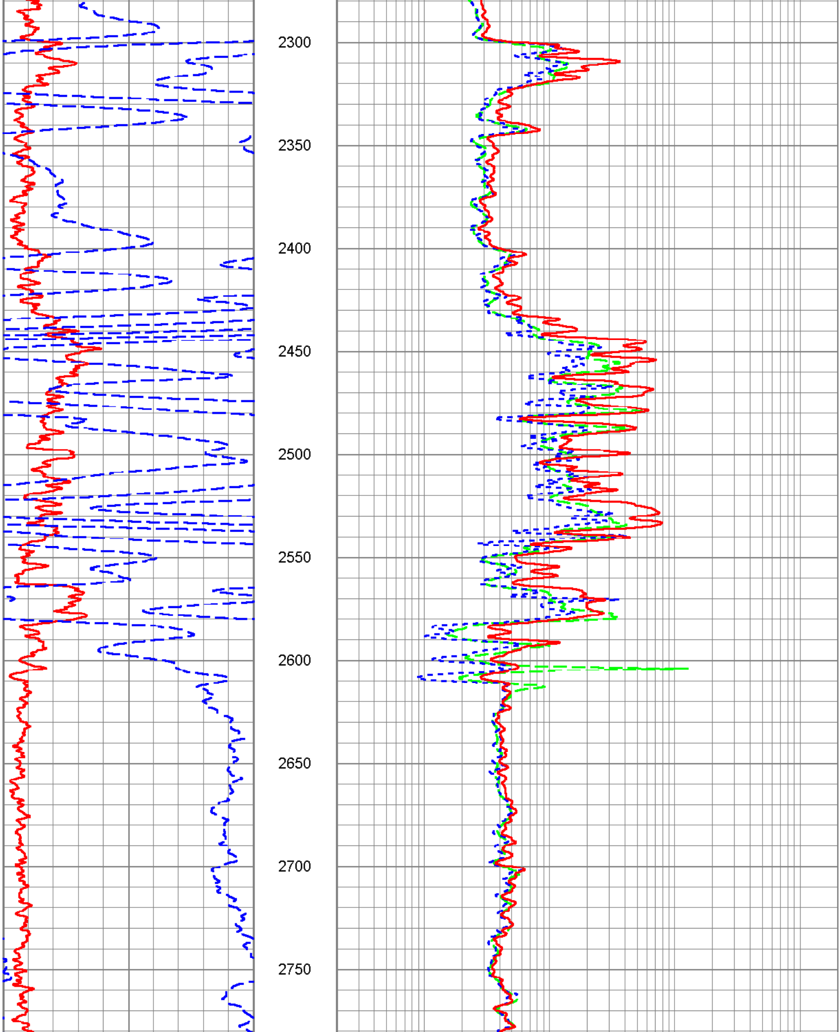
MAIN PASS

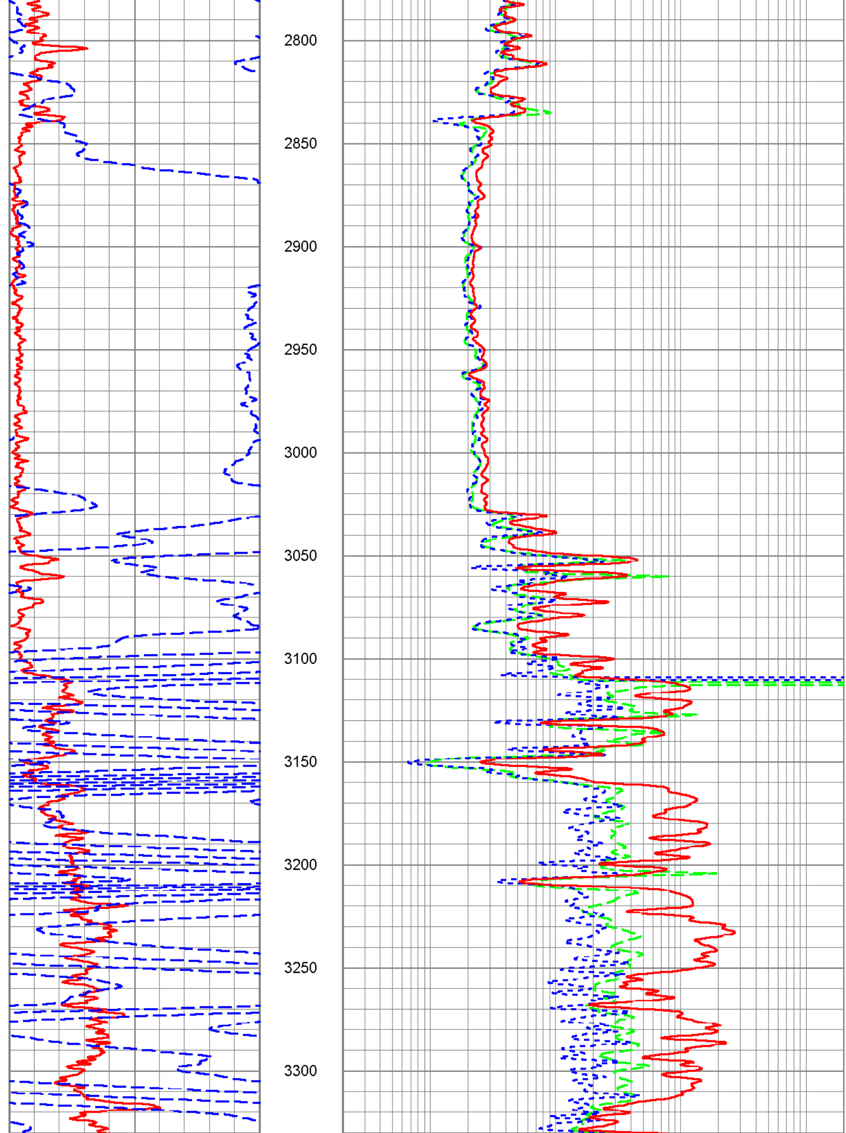
Database File:	hiaiw1.db
Dataset Pathname:	run8/pass8
Presentation Format:	DIL
Dataset Creation:	Sun Jan 24 12:14:10 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:600

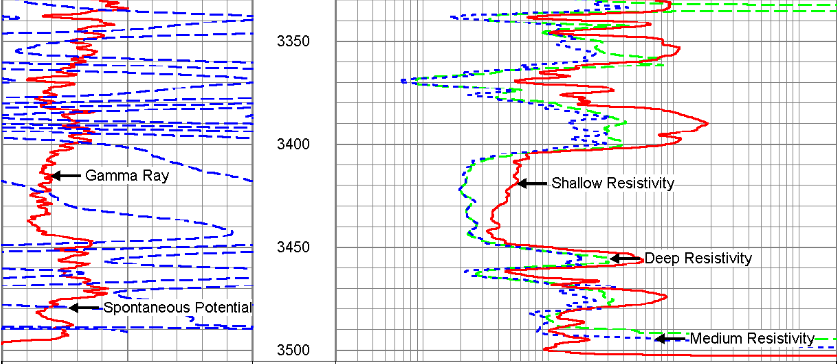
0 Gamma Ray (GAPI) 100
-100 Spontaneous Potential (mV) 100

0.2 Deep Resistivity (Ohm-m) 2000
0.2 Medium Resistivity (Ohm-m) 2000
0.2 Shallow Resistivity (Ohm-m) 2000









0 Gamma Ray (GAPI) 100
-100Spontaneous Potential (mV) 100

0.2 Deep Resistivity (Ohm-m) 2000
0.2 Medium Resistivity (Ohm-m) 2000
0.2 Shallow Resistivity (Ohm-m) 2000

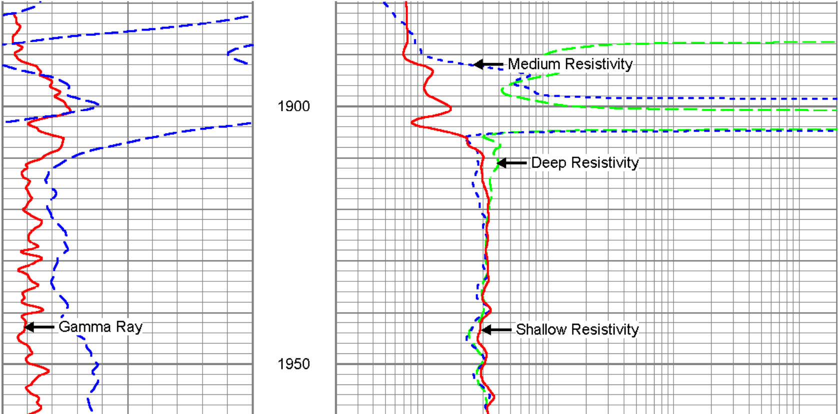
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

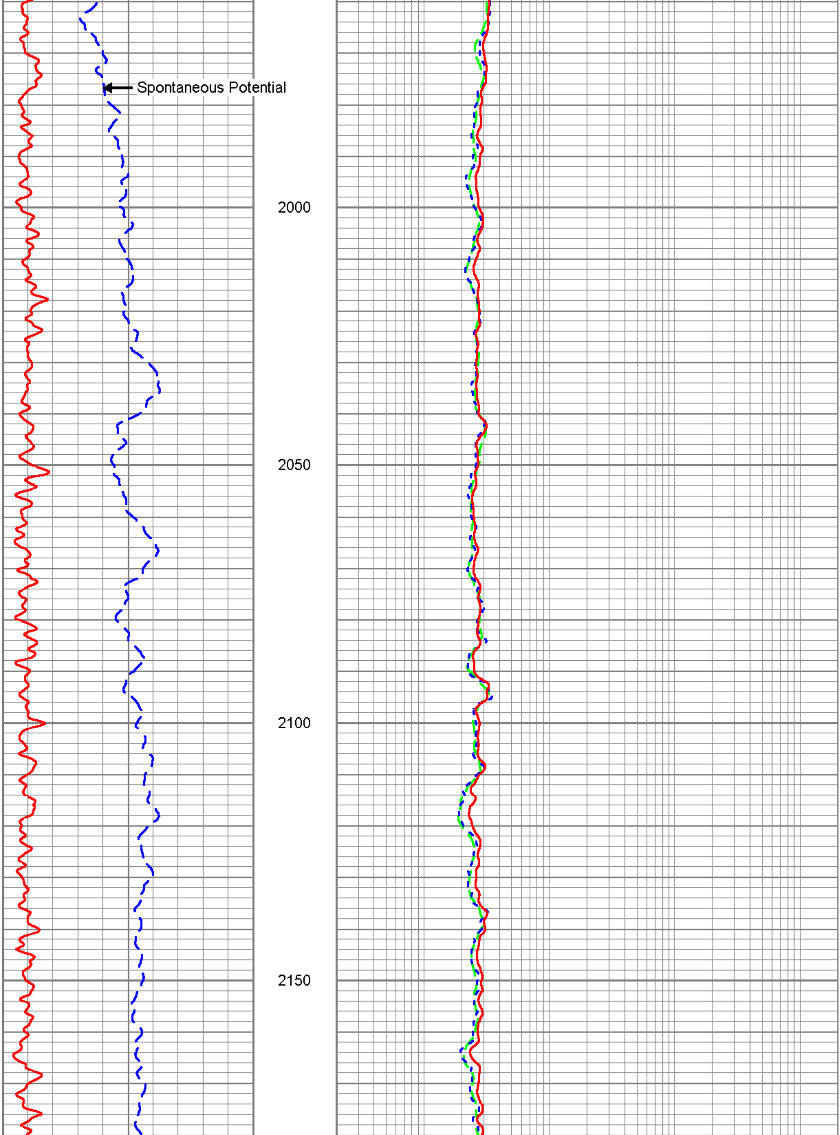
MAIN PASS

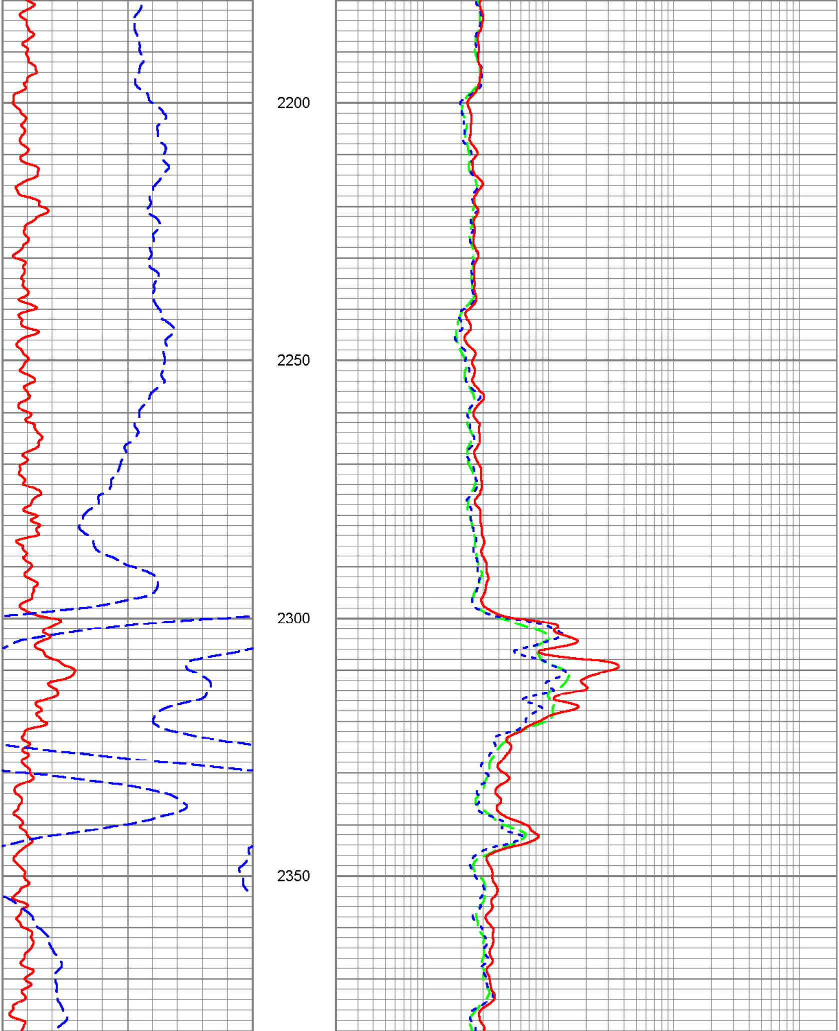
Database File: hiaiw1.db
Dataset Pathname: run8/pass8
Presentation Format: DIL
Dataset Creation: Sun Jan 24 12:14:10 2010 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

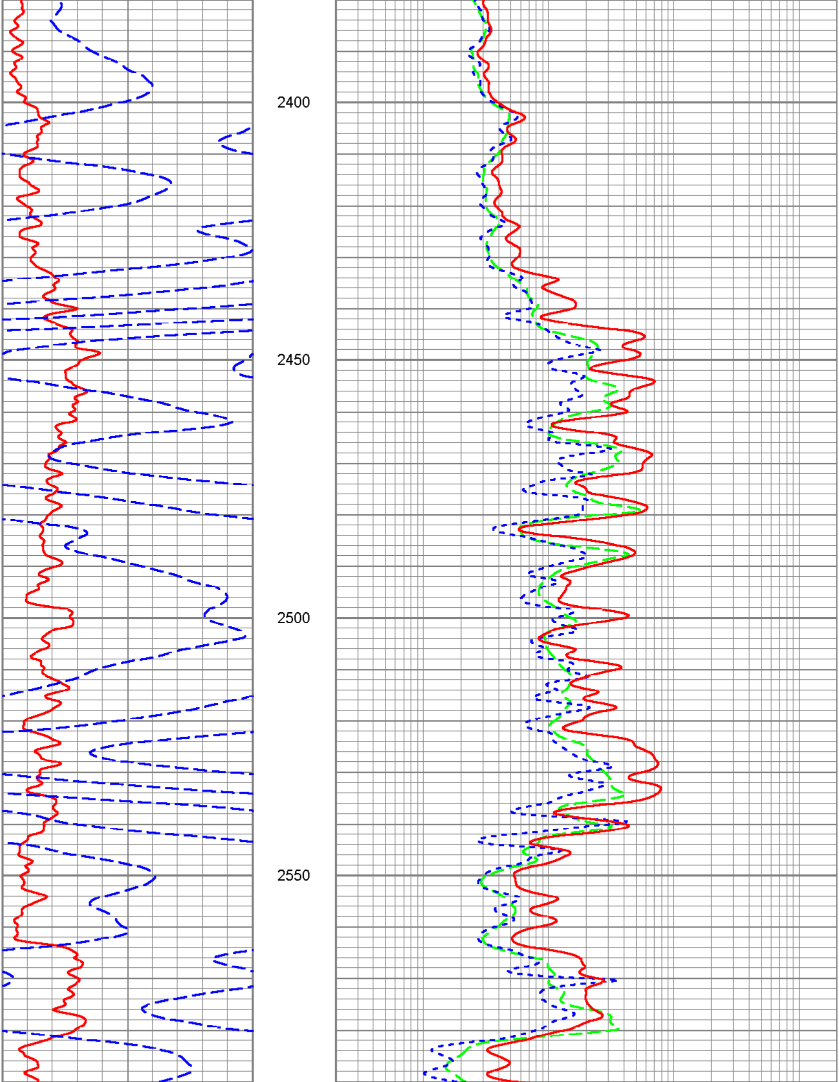
0 Gamma Ray (GAPI) 100
-100Spontaneous Potential (mV) 100

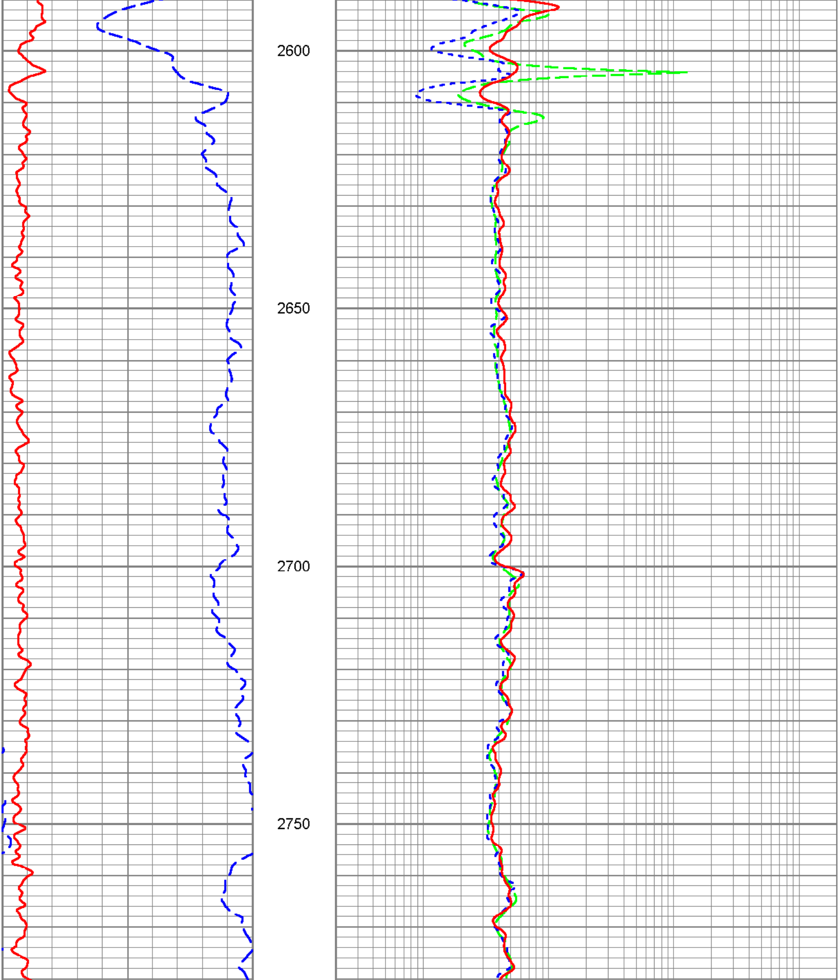
0.2 Deep Resistivity (Ohm-m) 2000
0.2 Medium Resistivity (Ohm-m) 2000
0.2 Shallow Resistivity (Ohm-m) 2000

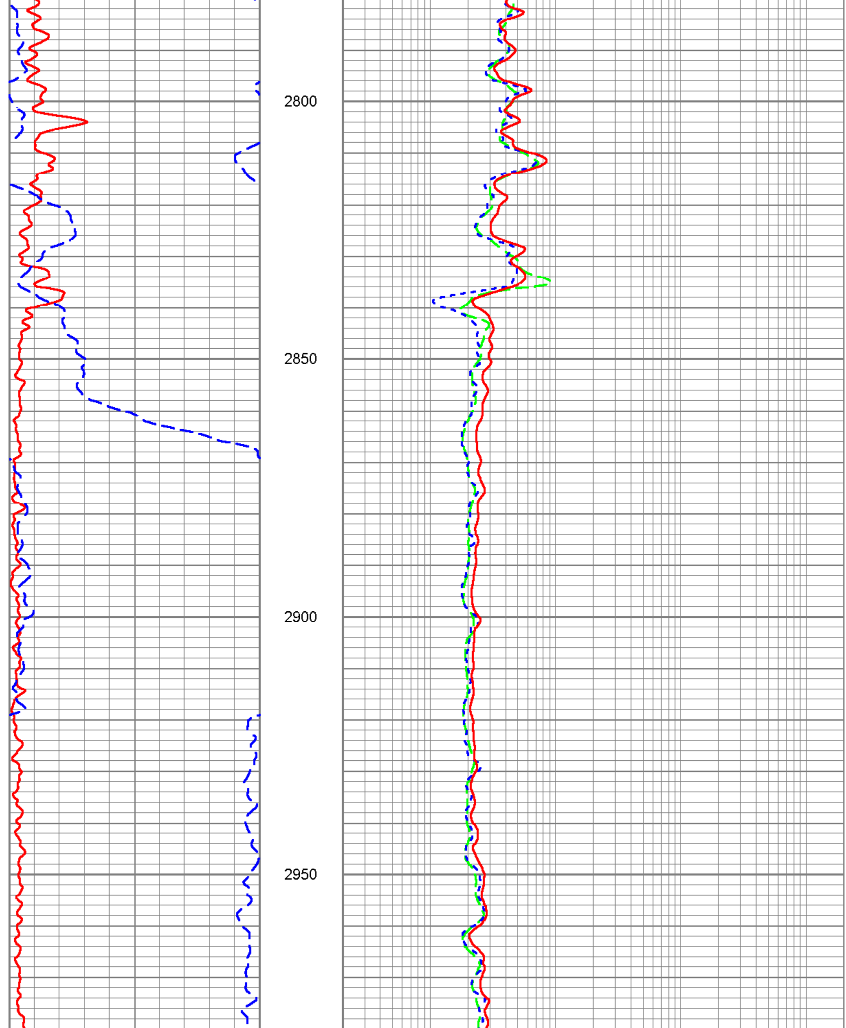


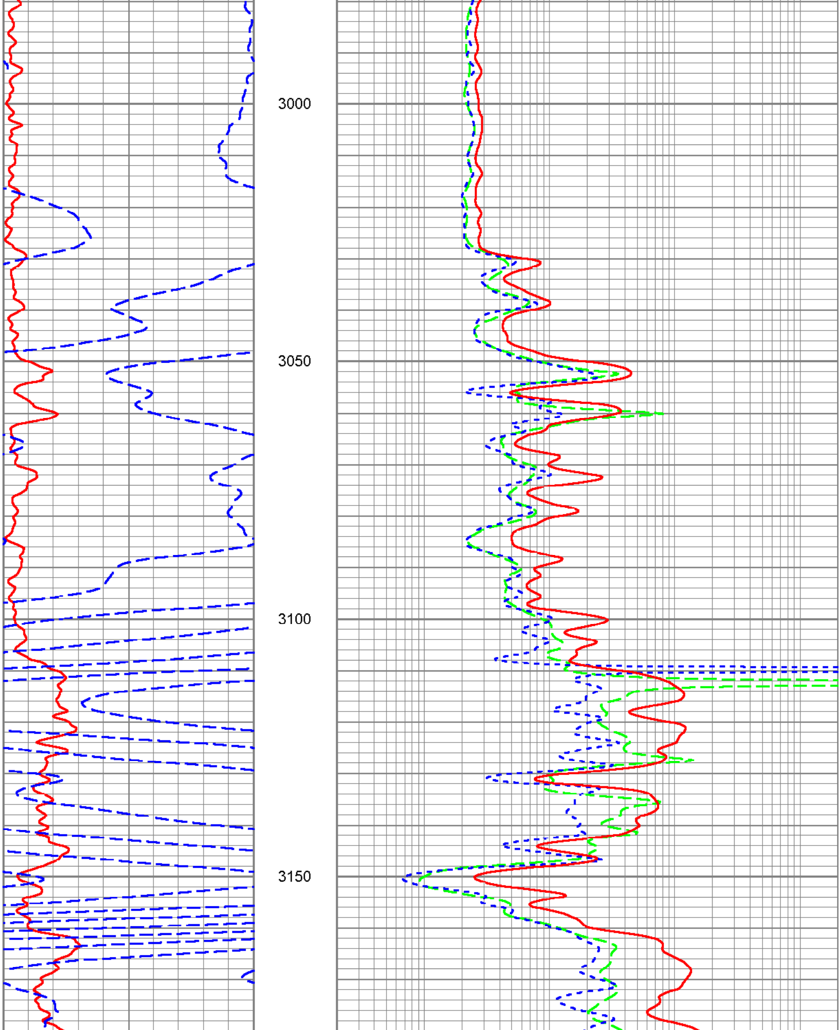


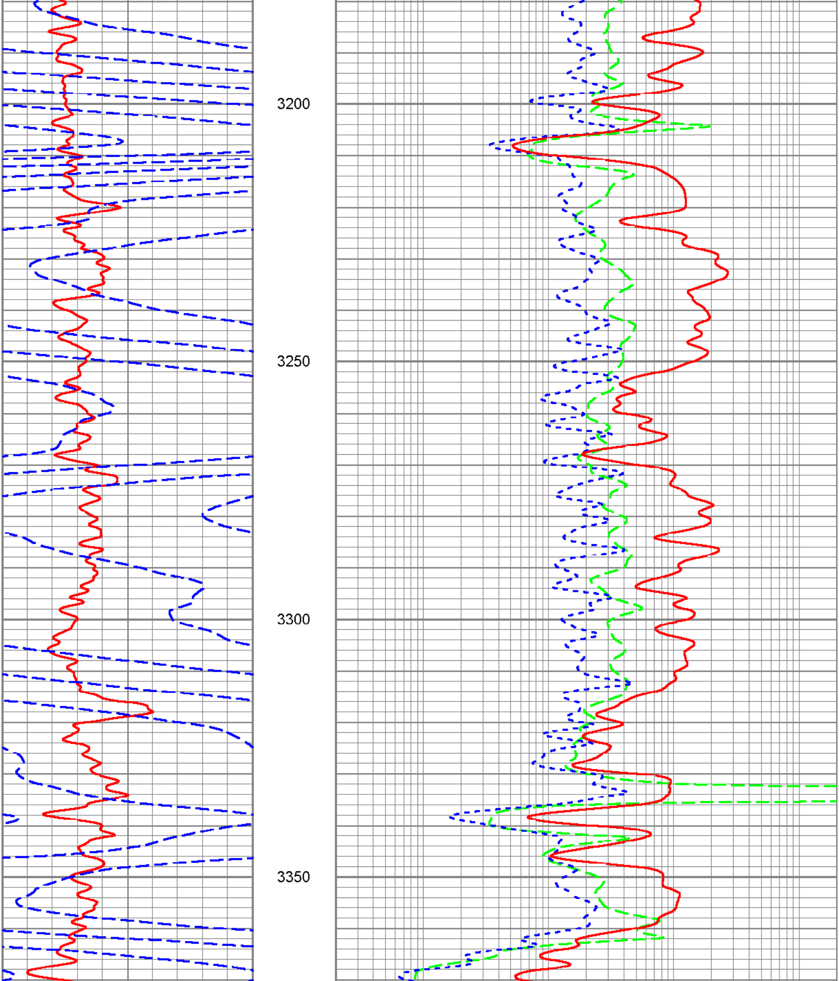


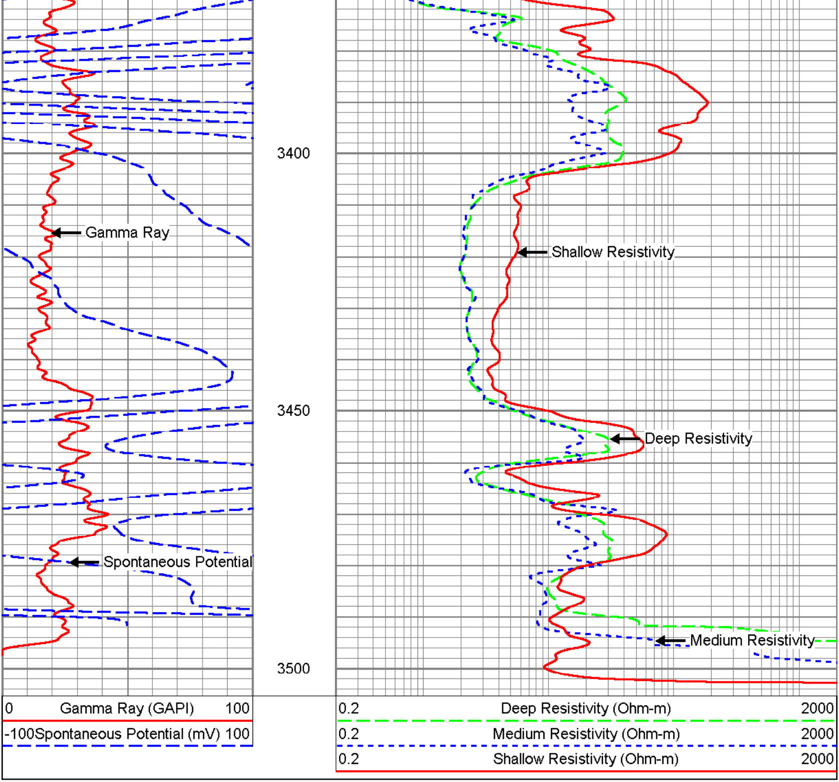








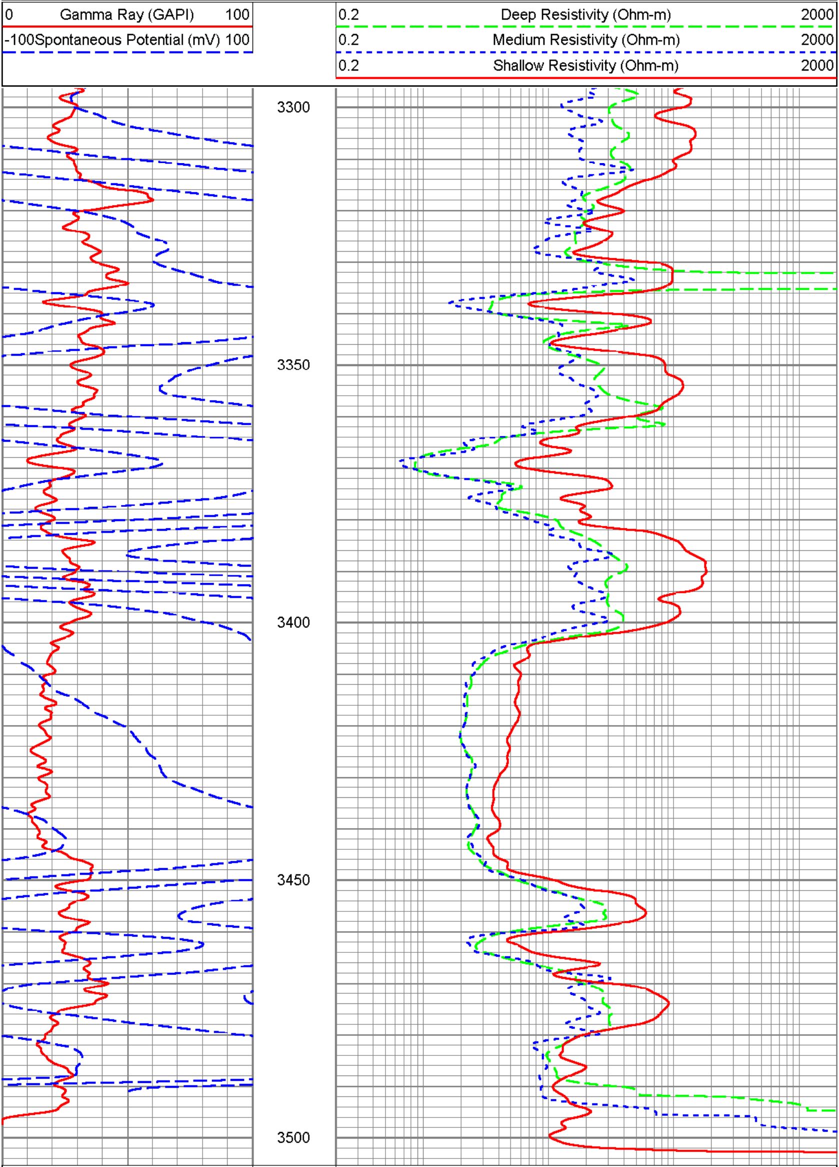




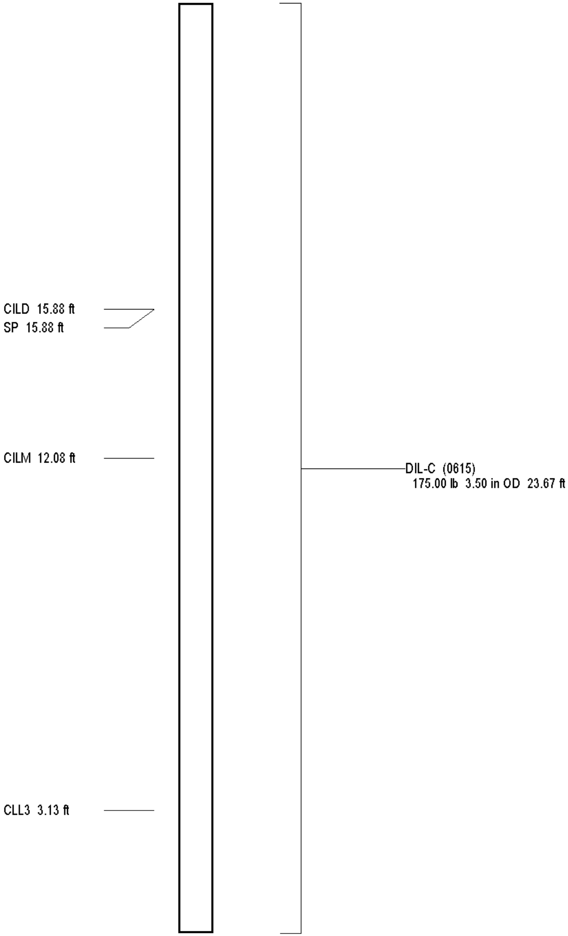
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

REPEAT PASS

Database File: hiaiw1.db
Dataset Pathname: run8/pass7
Presentation Format: DIL
Dataset Creation: Sun Jan 24 12:08:10 2010 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240



Left	Curve	Right
0	Gamma Ray (GAPI)	100
-100	Spontaneous Potential (mV)	100
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000



Dataset:	run8/pass9
Total Length:	23.67 ft
Total Weight:	175.00 lb
O.D.	3.50 in

Dual Induction Calibration Report

Serial-Model:	0615-C
Surface Cal Performed:	Tue Feb 27 11:10:16 2007
Downhole Cal Performed:	Sun Jan 24 11:19:16 2010
After Survey Verification Performed:	Sun Jan 24 12:34:04 2010

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.027	0.643	V	0.000	400.000	mmho-m	596.926	16.177
Medium	-0.012	0.799	V	0.000	464.000	mmho-m	572.063	6.865
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.008	0.617	V	20.920	384.470	mmho-m	596.864	16.145
Medium	0.012	0.736	V	12.740	427.710	mmho-m	573.084	5.863

Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	21.609	403.439	mmho-m	19.129	374.400	mmho-m	0.930	-0.977
Medium	9.176	420.273	mmho-m	13.743	419.743	mmho-m	0.988	4.681
Shallow	0.026	0.414		5.000	182.730	mmho-m	458.124	-7.051

After Survey Verification

	Readings			Targets			Results	
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	21.565	401.902	mmho-m	21.609	403.439	mmho-m	0.930	-0.977
Medium	11.034	414.516	mmho-m	9.176	420.273	mmho-m	0.988	4.681
Shallow	19.551	194.681	mmho-m	5.000	182.730	mmho-m	1.015	-14.842

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

FLUID CONDUCTIVITY TEMPERATURE LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL
Location

Other Services
SEE COMMENTS

Permanent Datum
Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	24-JAN-2010	
Run Number	EIGHT	
Depth Driller	3500'	
Depth Logger	3500'	
Bottom Logged Interval	3500'	
Top Log Interval	CASING	
Open Hole Size	12.25"	
Type Fluid	WATER	
Density / Viscosity	NA	
Max. Recorded Temp.	N/A	
Estimated Cement Top	NA	
Time Well Ready	0830	
Time Logger on Bottom	0925	
Equipment Number	103	
Location	FT MYERS	
Recorded By	FULLER	
Witnessed By	R. STROSS	

Borehole Record

Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner				

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

X-Y CALIPER/GAMMA RAY
DUAL INDUCTION
BOREHOLE SONIC
FLOW
VIDEO

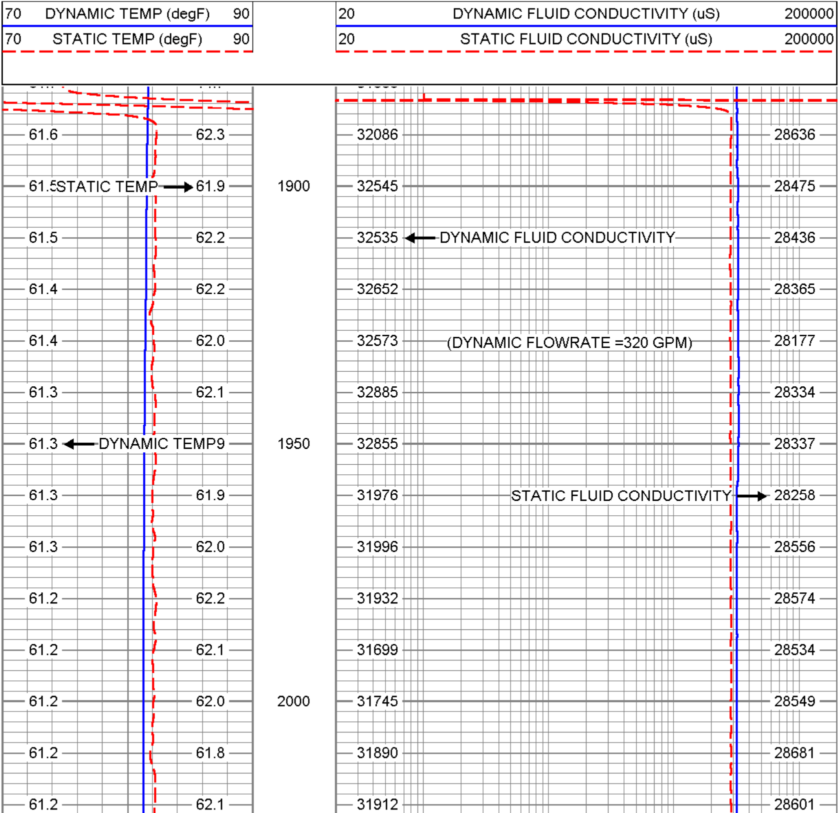
(DYNAMIC FLOWRATE = 320 GPM)

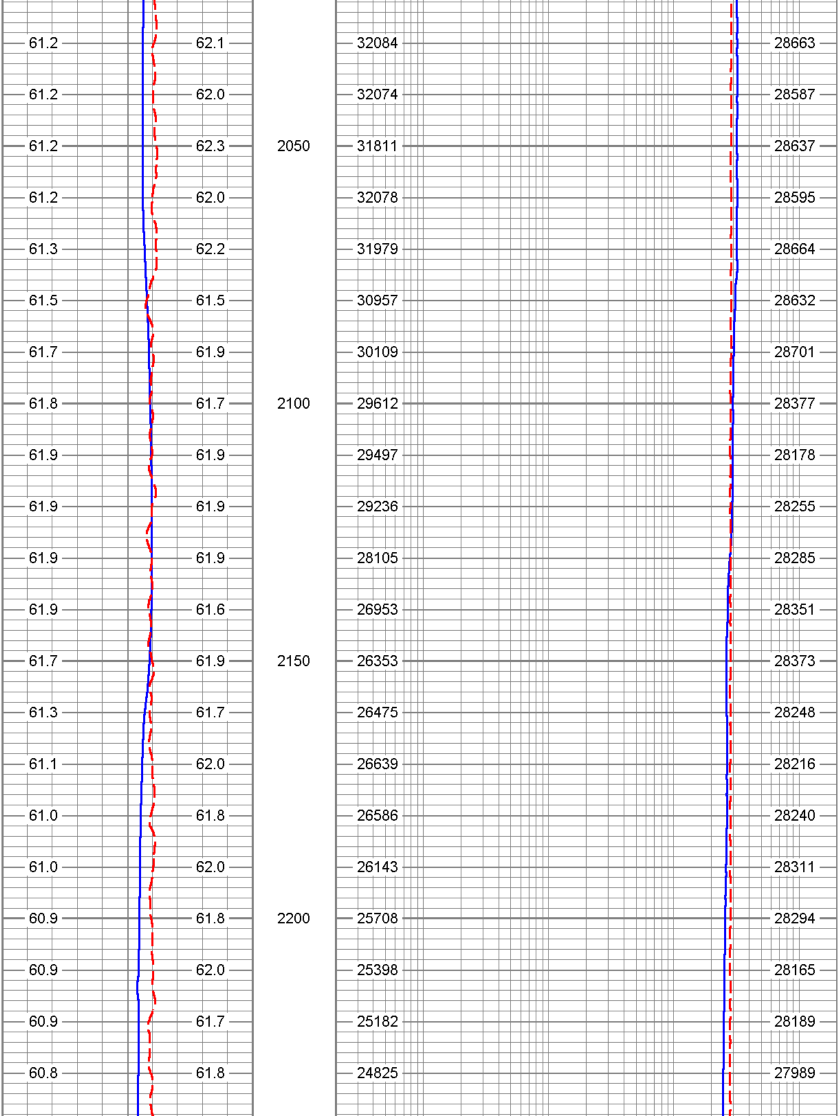
YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

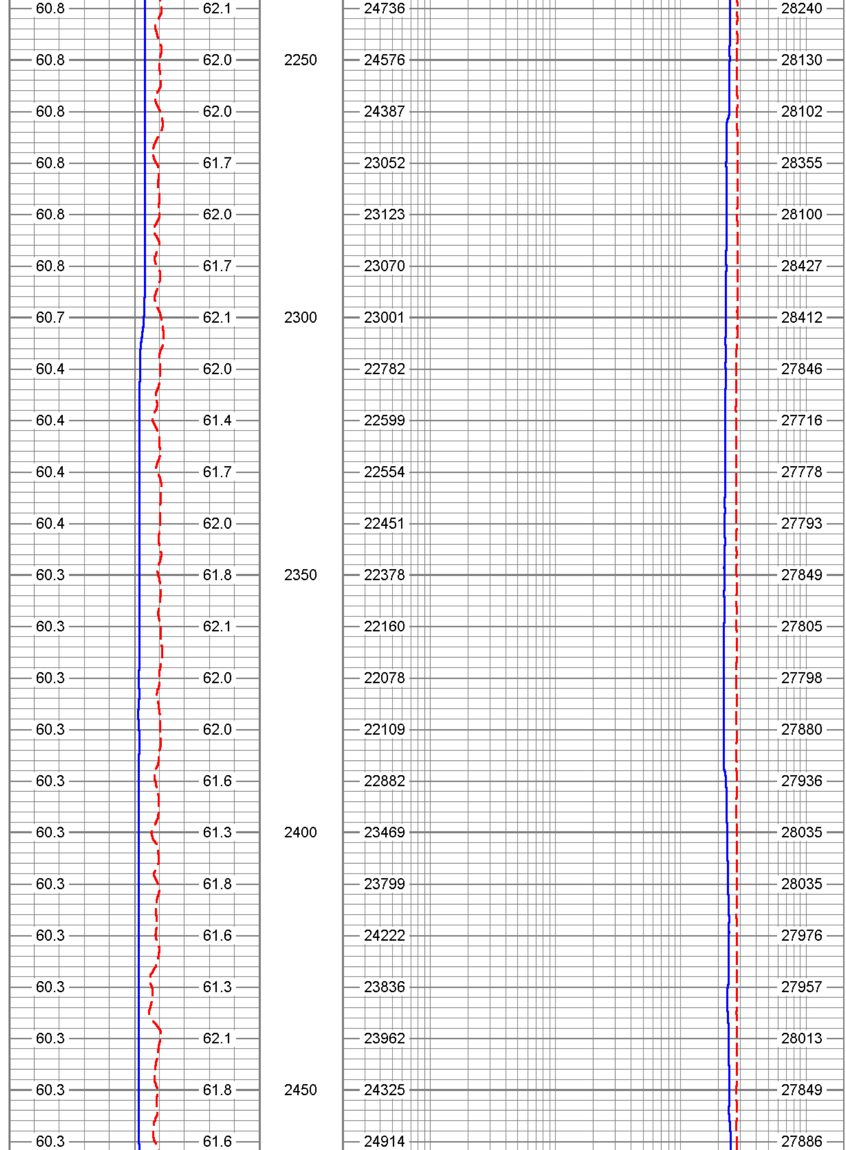
MERGED FCT

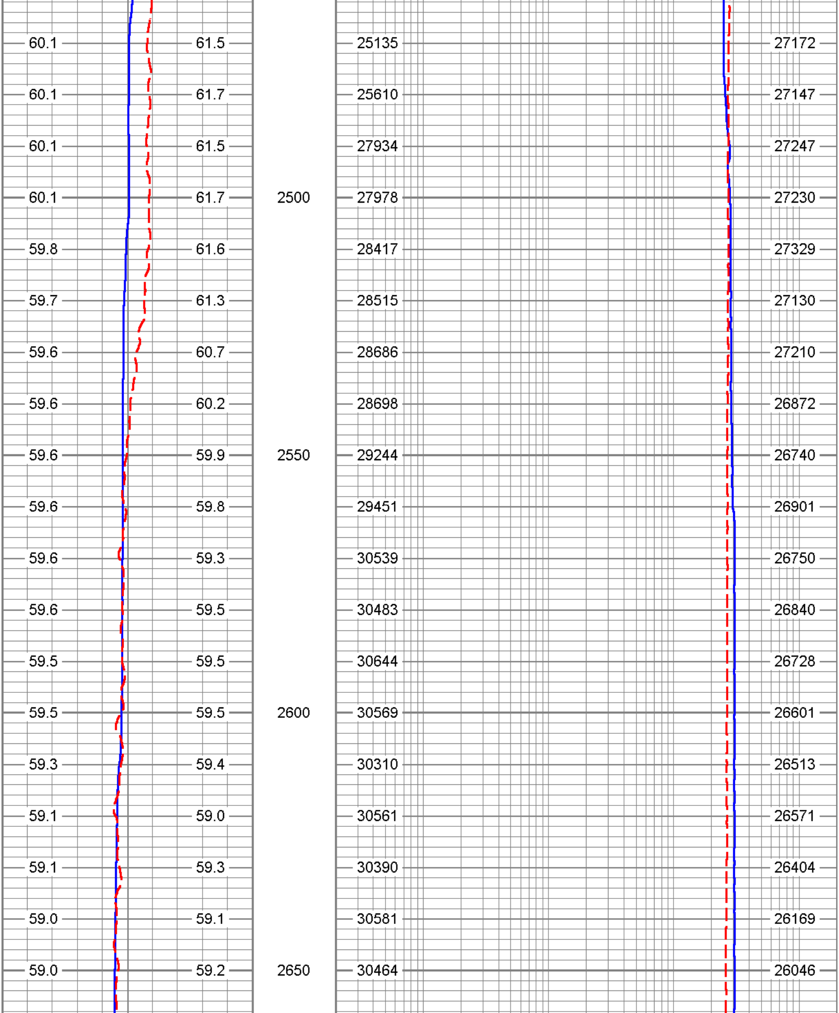
Database File:	hiaiw1.db
Dataset Pathname:	run8/pass14
Presentation Format:	FRT_MG
Dataset Creation:	Sun Jan 24 17:30:43 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

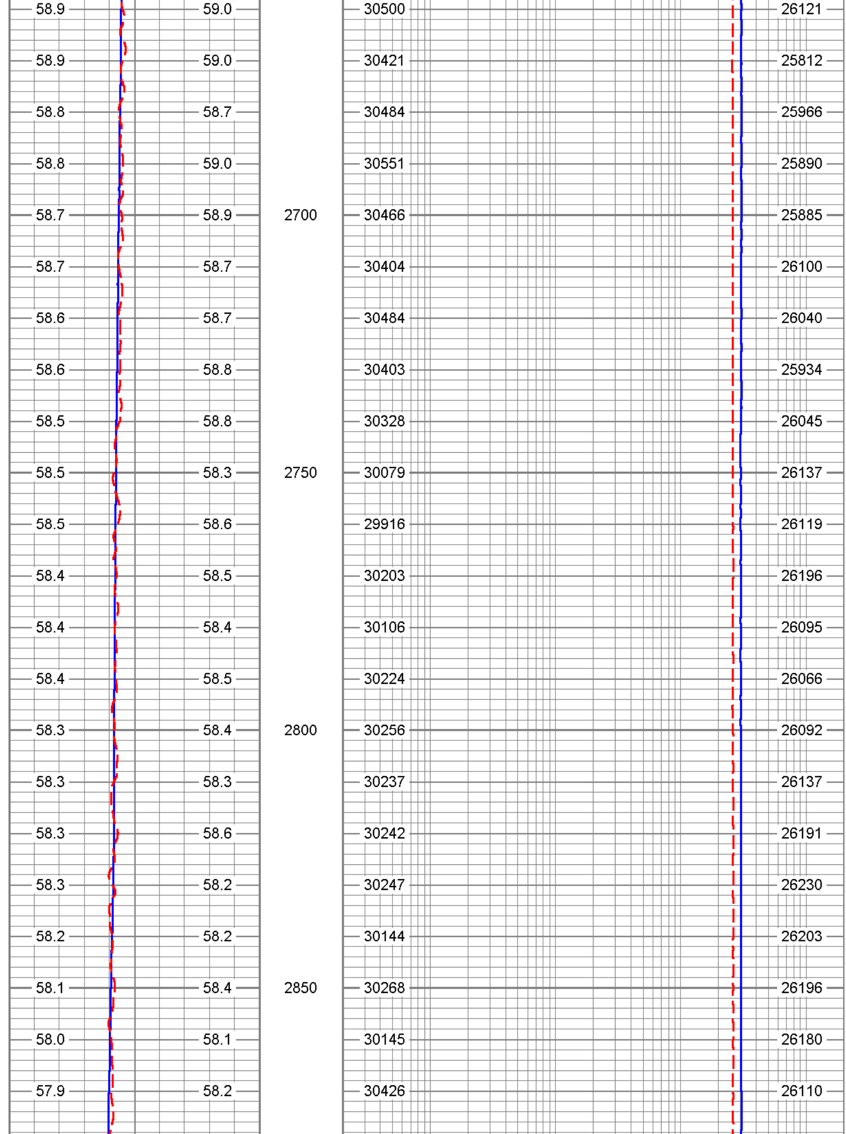


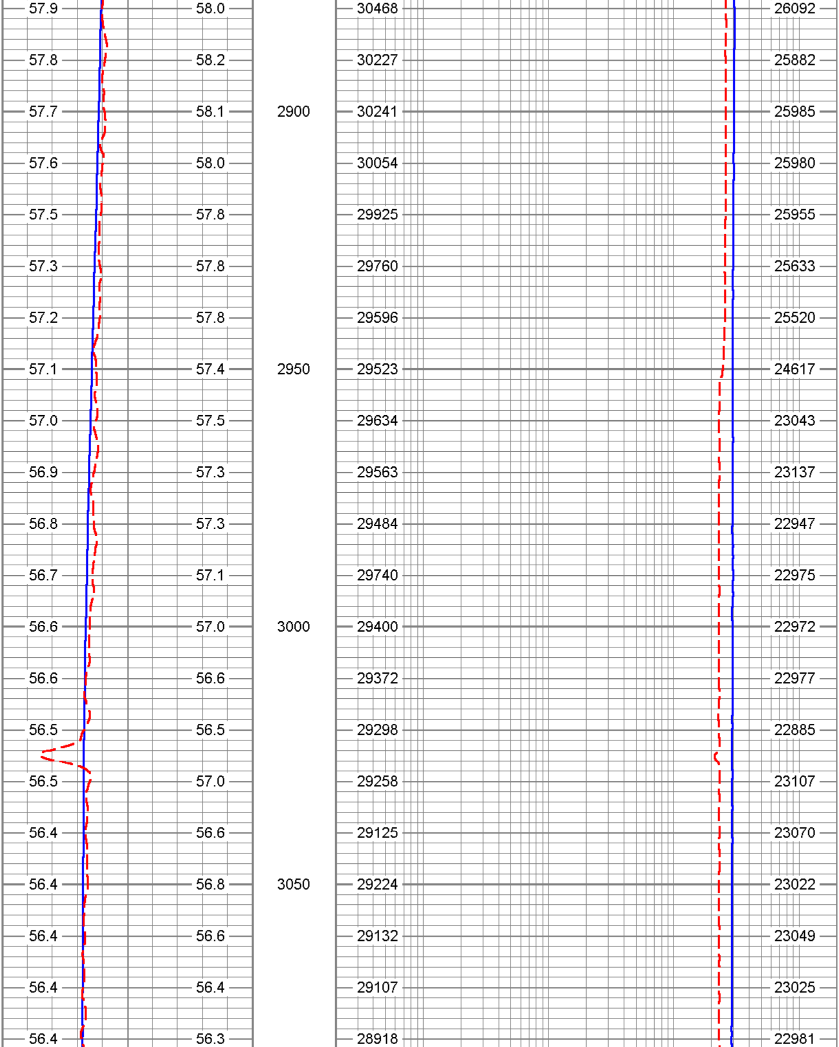


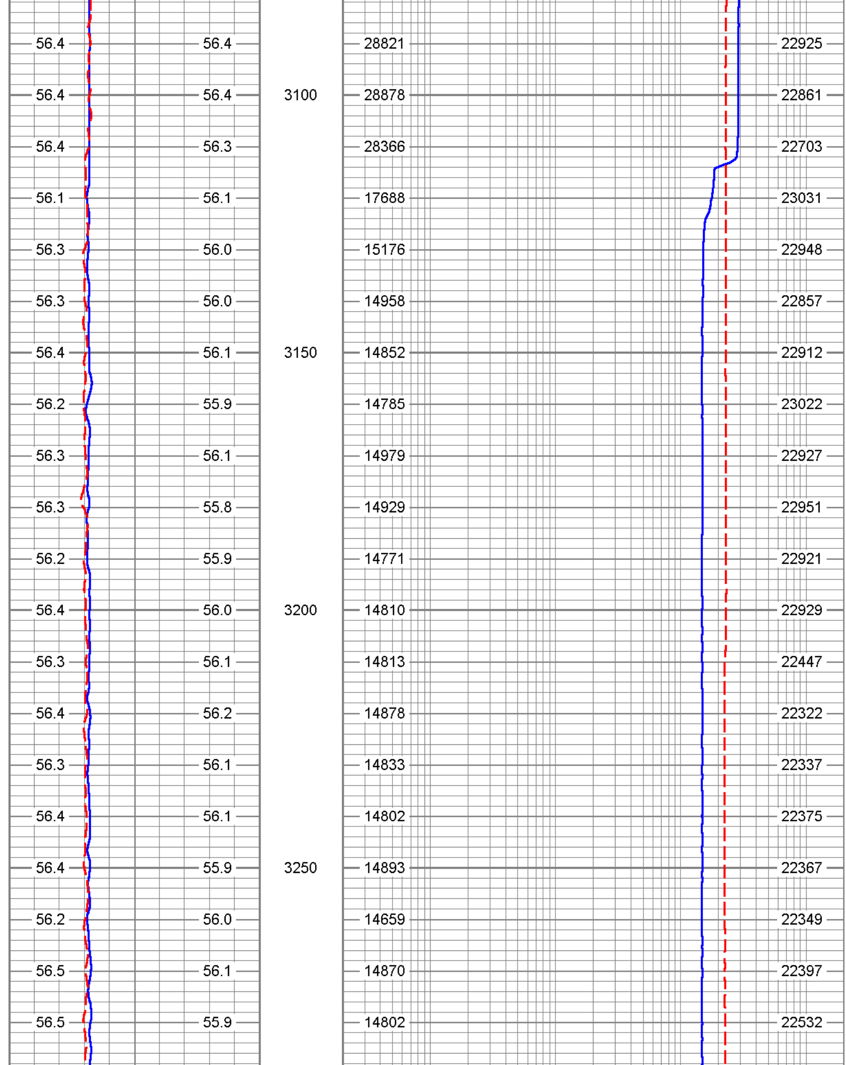
61.2	62.1		32084	28663
61.2	62.0		32074	28587
61.2	62.3	2050	31811	28637
61.2	62.0		32078	28595
61.3	62.2		31979	28664
61.5	61.5		30957	28632
61.7	61.9		30109	28701
61.8	61.7	2100	29612	28377
61.9	61.9		29497	28178
61.9	61.9		29236	28255
61.9	61.9		28105	28285
61.9	61.6		26953	28351
61.7	61.9	2150	26353	28373
61.3	61.7		26475	28248
61.1	62.0		26639	28216
61.0	61.8		26586	28240
61.0	62.0		26143	28311
60.9	61.8	2200	25708	28294
60.9	62.0		25398	28165
60.9	61.7		25182	28189
60.8	61.8		24825	27989

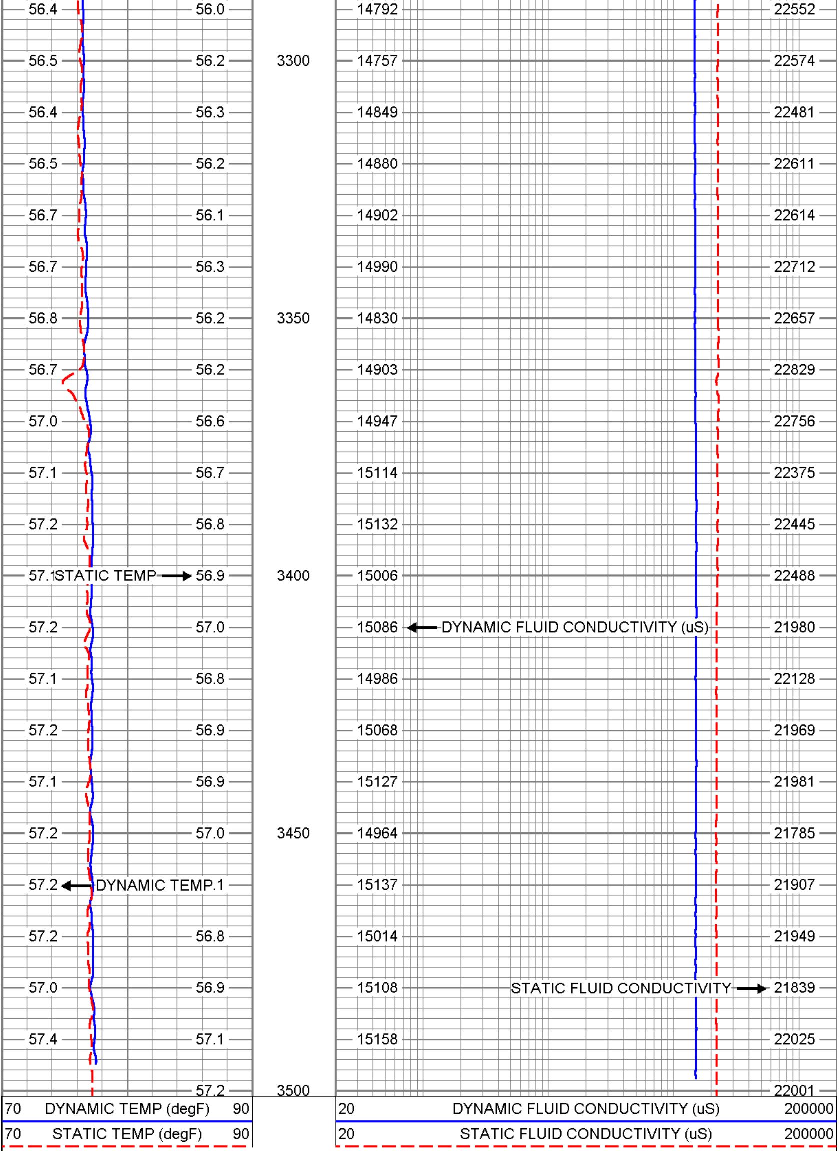












FRT Calibration Report

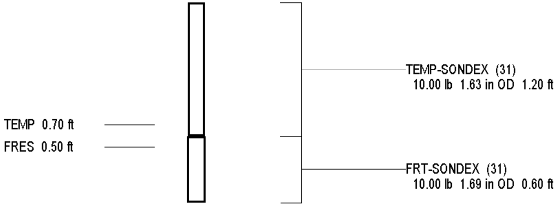
Serial Number: 31
Tool Model: SONDEX
Performed: Thu May 07 11:24:43 2009

Point #	Reading		Reference
1	31.558	cps	1000.000
2	177.254	cps	10000.000
3	449.141	cps	25000.000
4	974.013	cps	50000.000
5		cps	
6		cps	

Temperature Calibration Report

Serial Number: 31
Tool Model: SONDEX
Performed: Thu May 07 11:36:30 2009

Point #	Reading		Reference	
1	114.403	cps	38	degF
2	325.061	cps	81	degF
3	694.843	cps	156	degF



Dataset: run8/pass14
Total Length: 1.80 ft
Total Weight: 20.00 lb
O.D. 1.69 in

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

FLOWMETER LOG

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL
Location	
Other Services	SEE COMMENTS

Permanent Datum
Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	24-JAN-2010
Run Number	EIGHT
Depth Driller	3500'
Depth Logger	3500'
Bottom Logged Interval	3500'
Top Log Interval	CASING
Open Hole Size	12.25"
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	N/A
Estimated Cement Top	NA
Time Well Ready	0830
Time Logger on Bottom	0925
Equipment Number	103
Location	FT MYERS
Recorded By	FULLER
Witnessed By	R. STROSS

Borehole Record

Run Number	Bit	From	To
ONE	60.5"	SURFACE	160'
TWO	12.25"	CASING	1100'
THREE	50.5"	CASING	1079'
FOUR	42.5"	CASING	1905'

Borehole Record

Run No.	Bit	From	To
FIVE	12.25"	CASING	3500'

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner				

<<< Fold Here >>>

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Comments

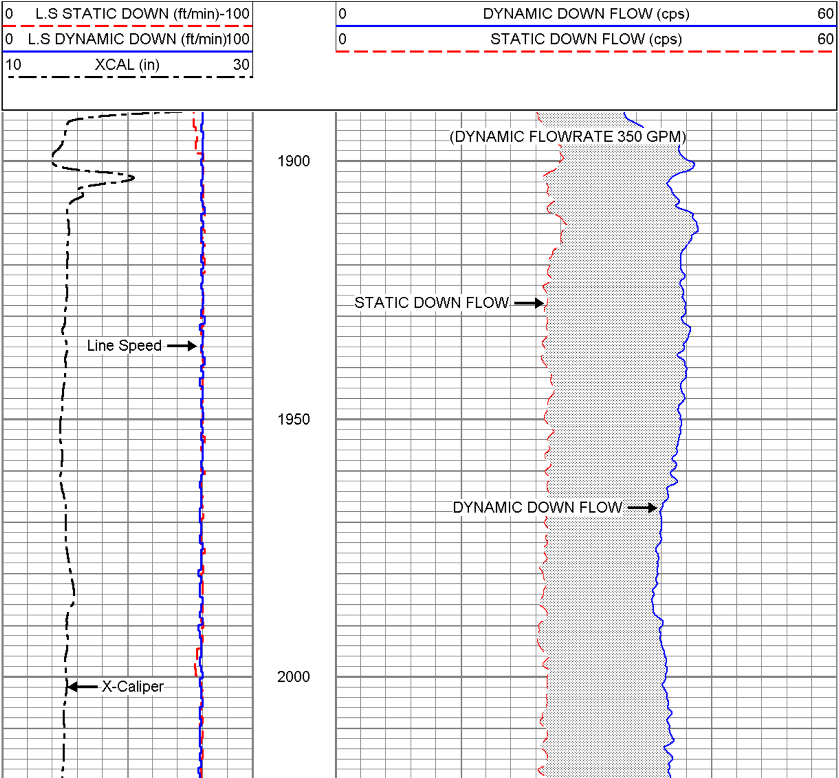
FLUID CONDUCTIVITY/TEMP
X-Y CALIPER/GAMMA RAY
DUAL INDUCTION
BOREHOLE SONIC
VIDEO

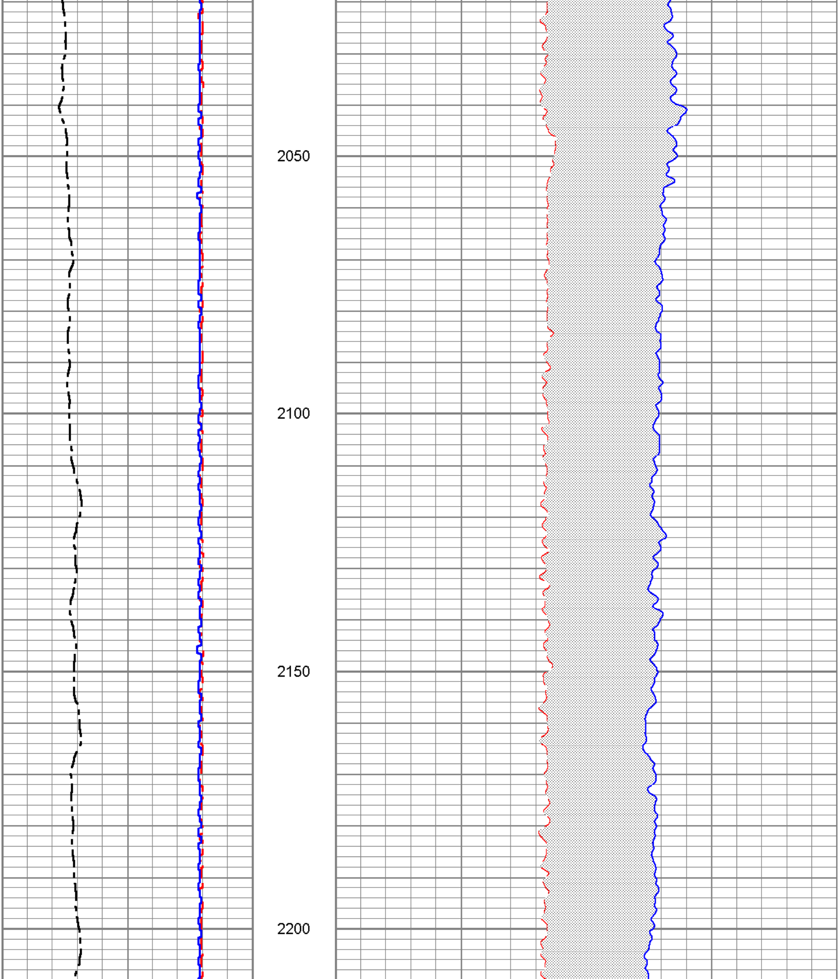
(DYNAMIC FLOW RATE = 350 GPM)

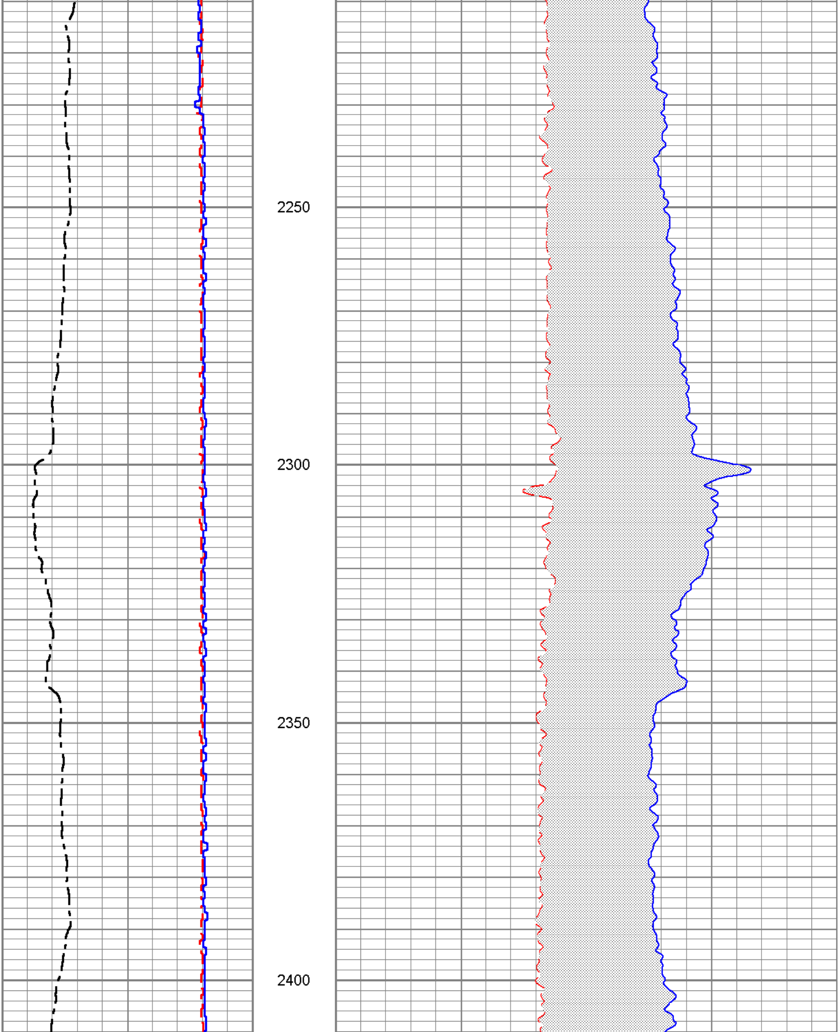
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

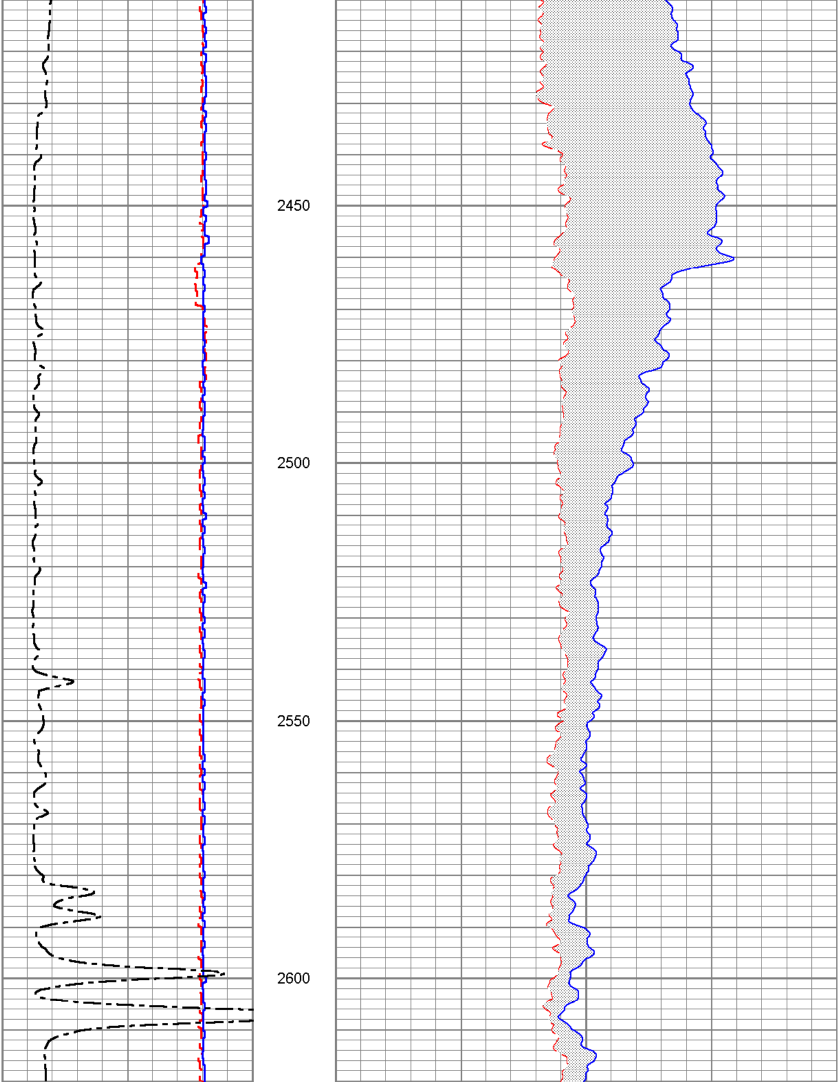
MERGED FLOWMETER

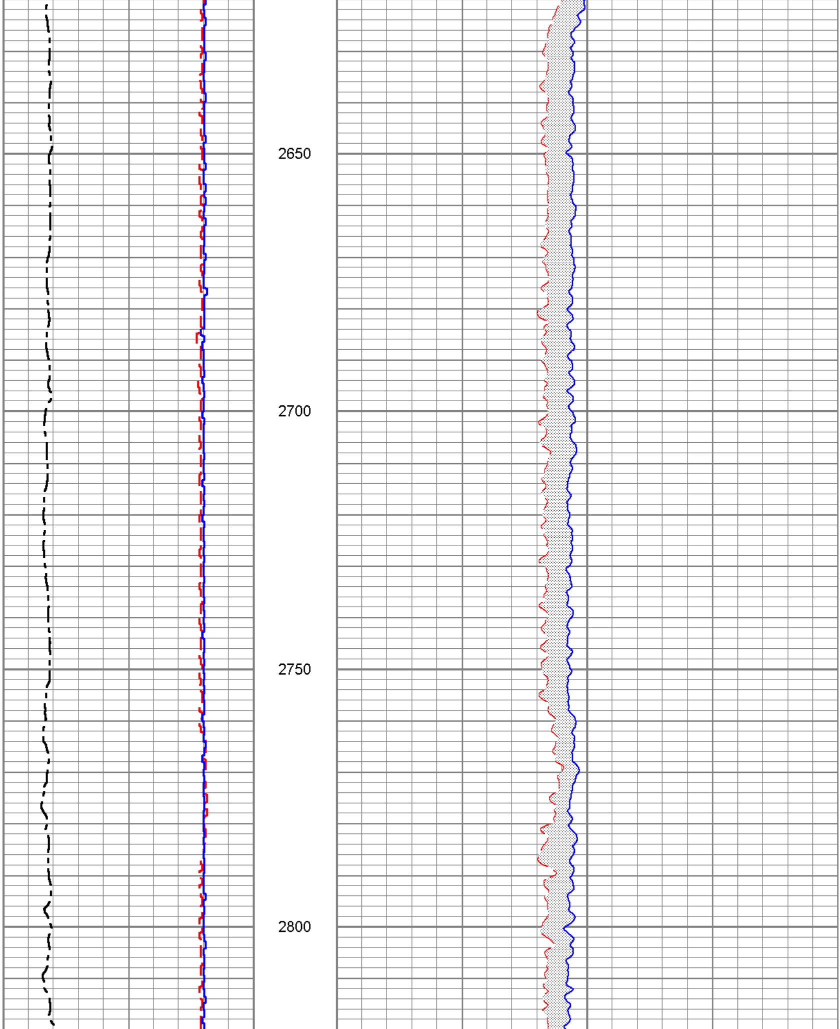
Database File:	hiaiw1.db
Dataset Pathname:	run8/pass13
Presentation Format:	FM_DNMG
Dataset Creation:	Sun Jan 24 16:14:06 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

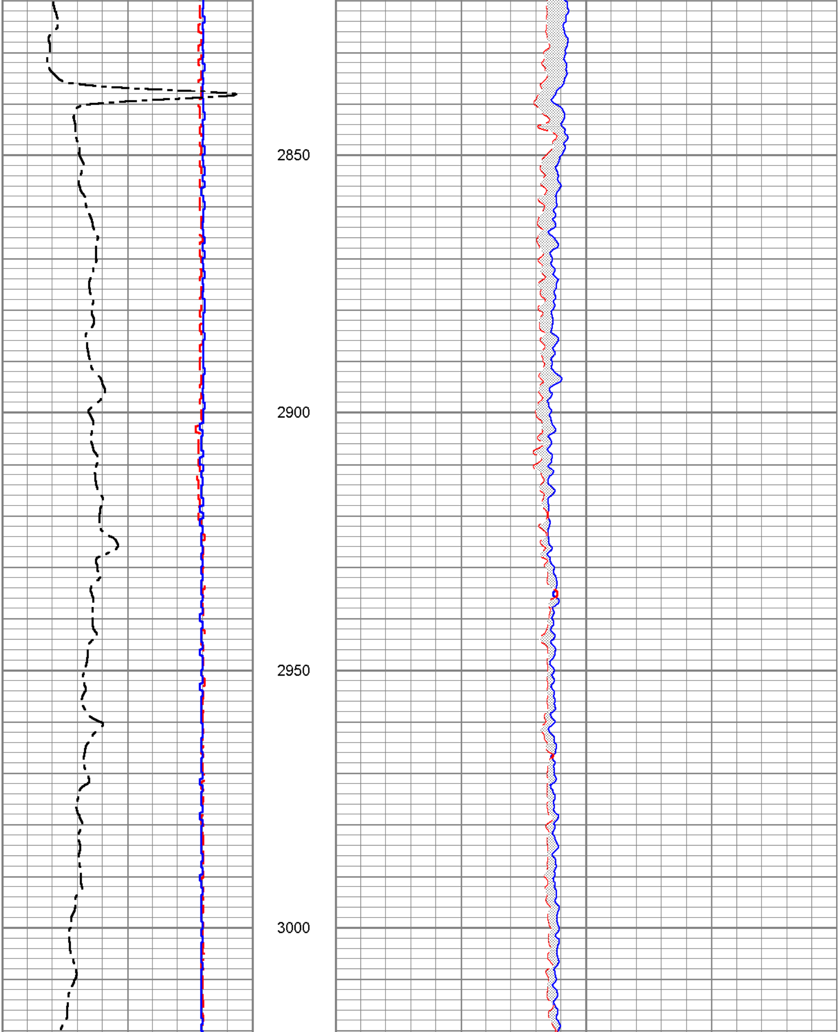


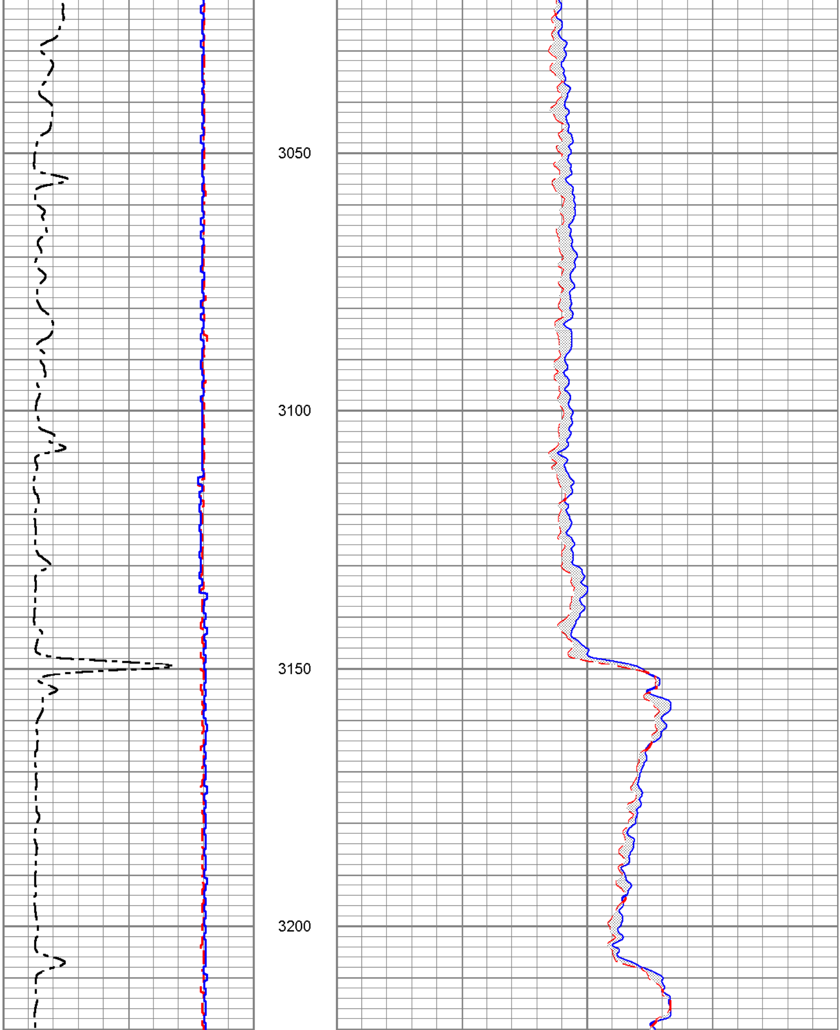


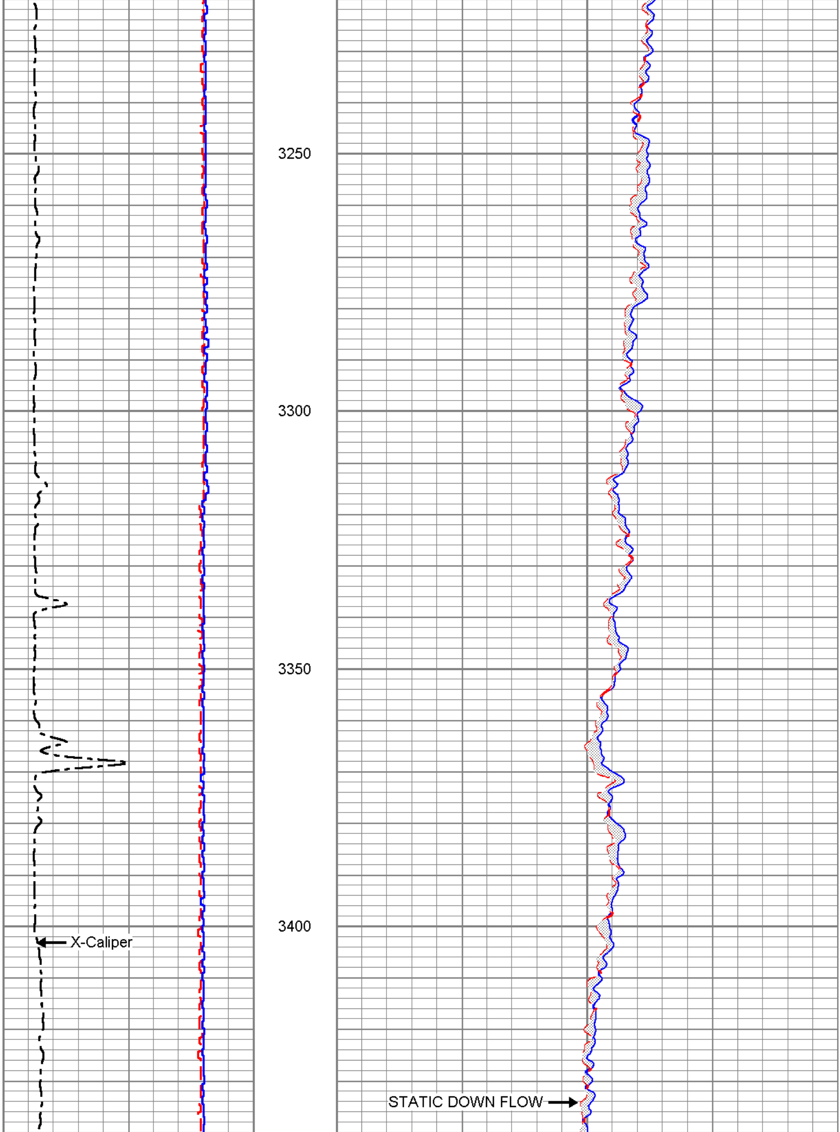


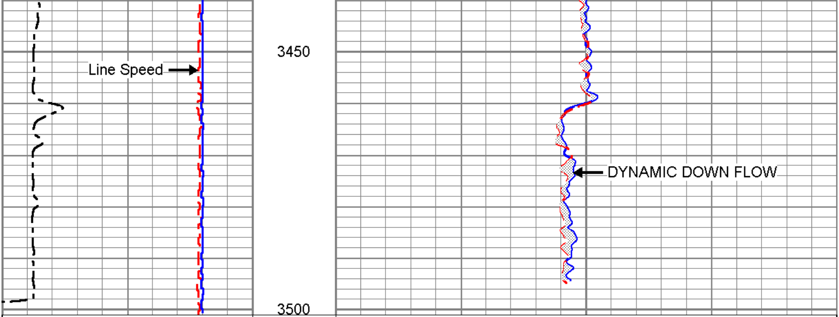












0 L.S STATIC DOWN (ft/min)-100

0 L.S DYNAMIC DOWN (ft/min)100

10 XCAL (in) 30

0 DYNAMIC DOWN FLOW (cps) 60

0 STATIC DOWN FLOW (cps) 60

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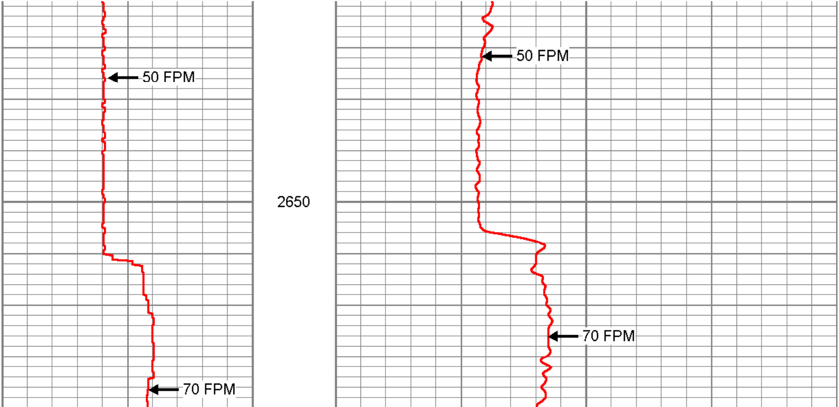
GEOPHYSICAL LOGGING DIVISION

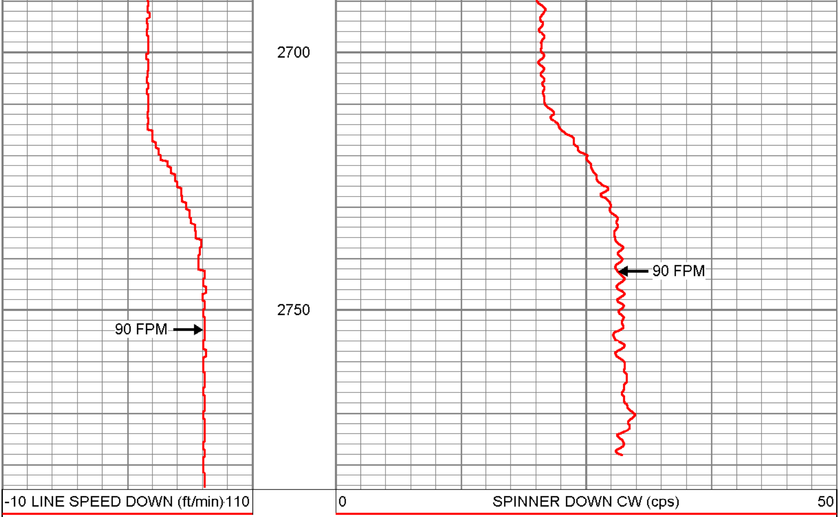
FLOW CALS (50, 70, 90 FPM)

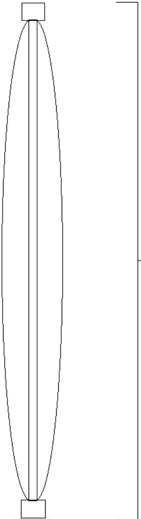
Database File:	hiaiw1.db
Dataset Pathname:	run8/CALS
Presentation Format:	FLOWCALS
Dataset Creation:	Sun Jan 24 15:44:29 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

-10 LINE SPEED DOWN (ft/min) 110

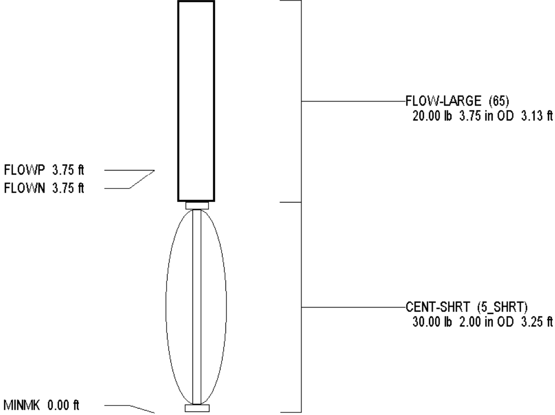
0 SPINNER DOWN CW (cps) 50







CENT-8FTSB (1_8FTSB)
70.00 lb 1.69 in OD 8.00 ft



Dataset:	run8/pass13
Total Length:	14.38 ft
Total Weight:	120.00 lb
O.D.	3.75 in

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

X-Y CALIPER
GAMMA RAY
LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location

Other Services
SEE
COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	24-JAN-2010		
Run Number	EIGHT		
Depth Driller	3500'		
Depth Logger	3500'		
Bottom Logged Interval	3500'		
Top Log Interval	CASING		
Open Hole Size	12.25"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	N/A		
Estimated Cement Top	NA		
Time Well Ready	0830		
Time Logger on Bottom	0925		
Equipment Number	1003		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	R. STROSS		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No.	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner				

<<< Fold Here >>>

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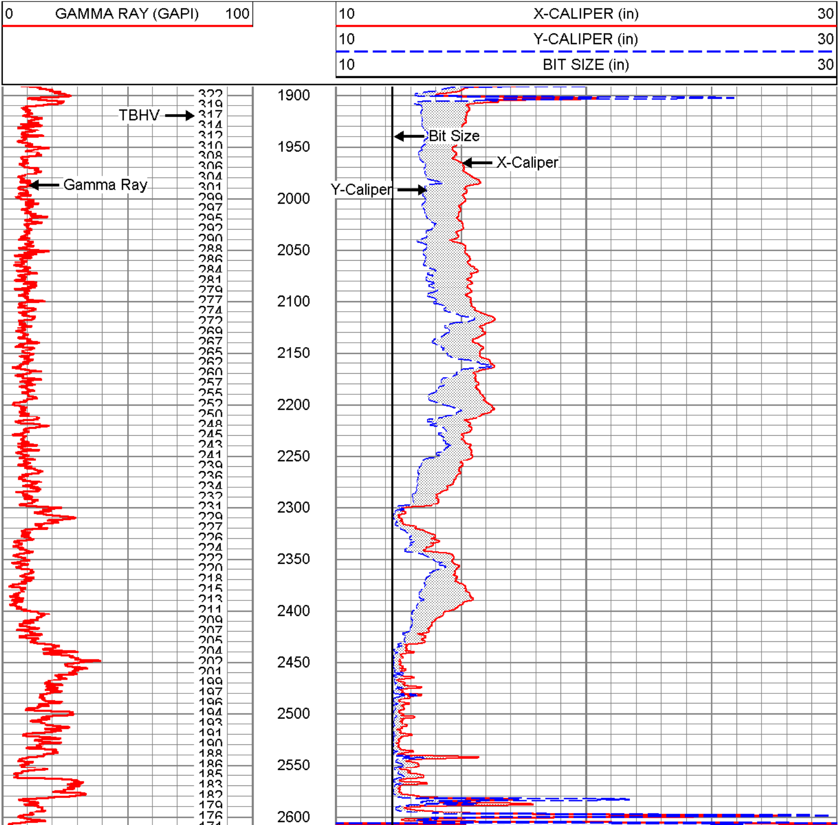
Comments

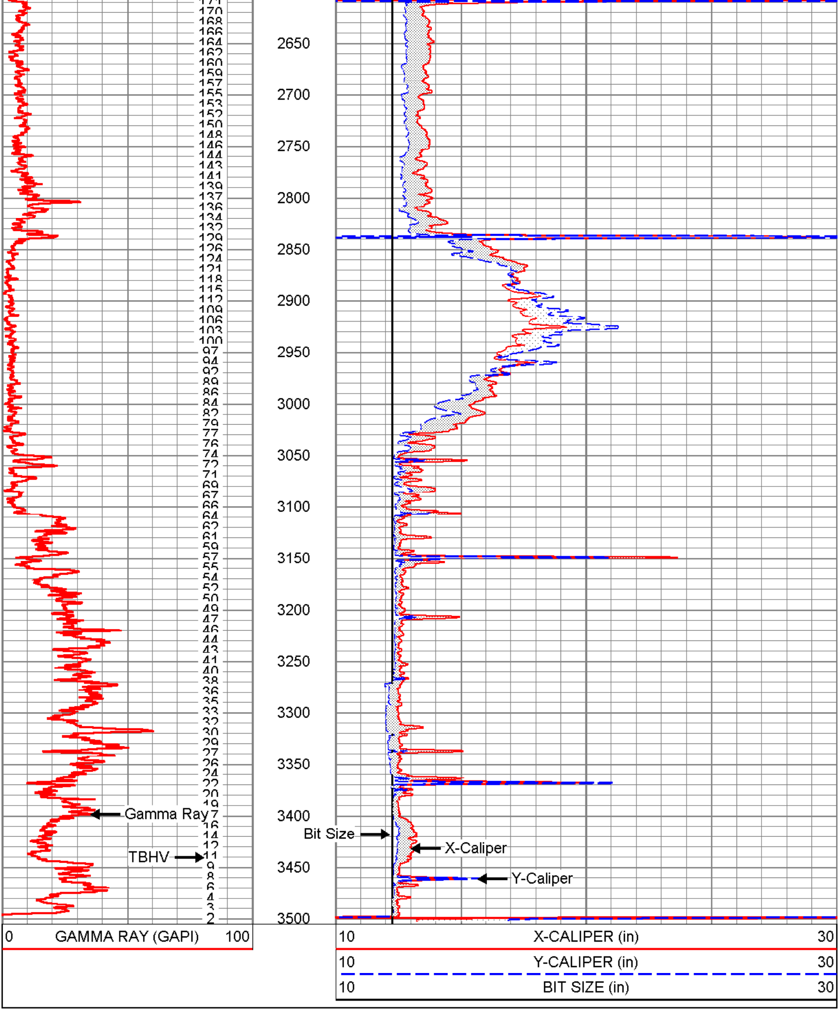
FLUID CONDUCTIVITY/TEMP
DUAL INDUCTION
BOREHOLE SONIC
FLOW
VIDEO

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run8/pass4
Presentation Format:	GRXYC
Dataset Creation:	Sun Jan 24 10:09:14 2010 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:1200

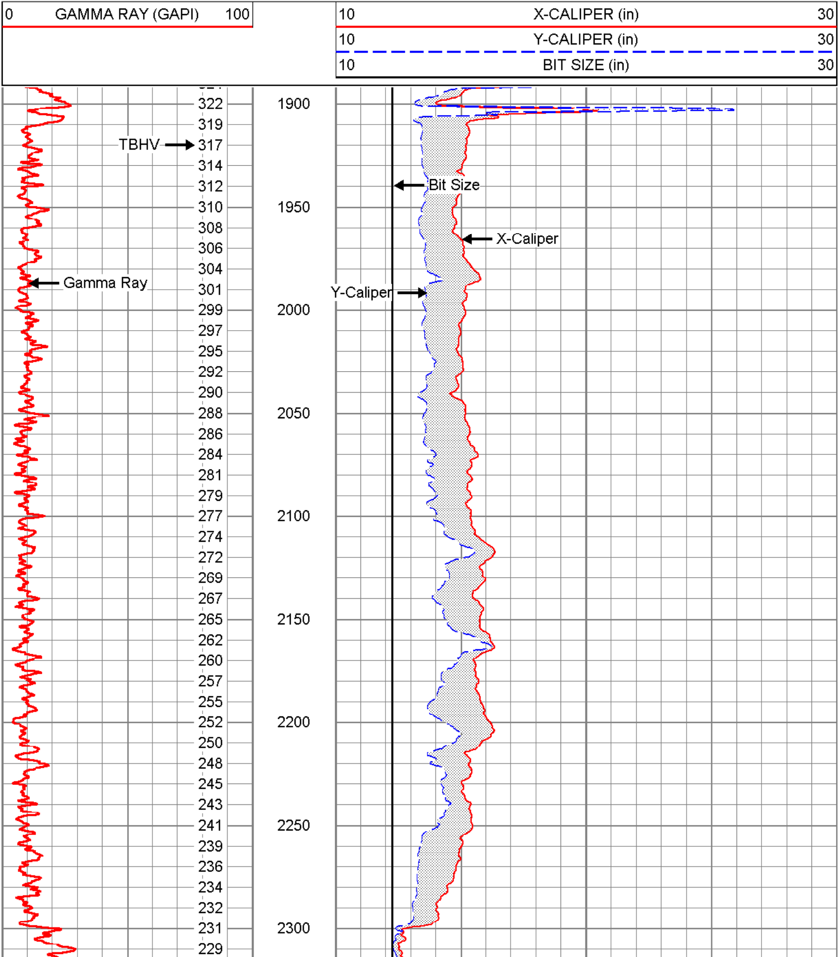


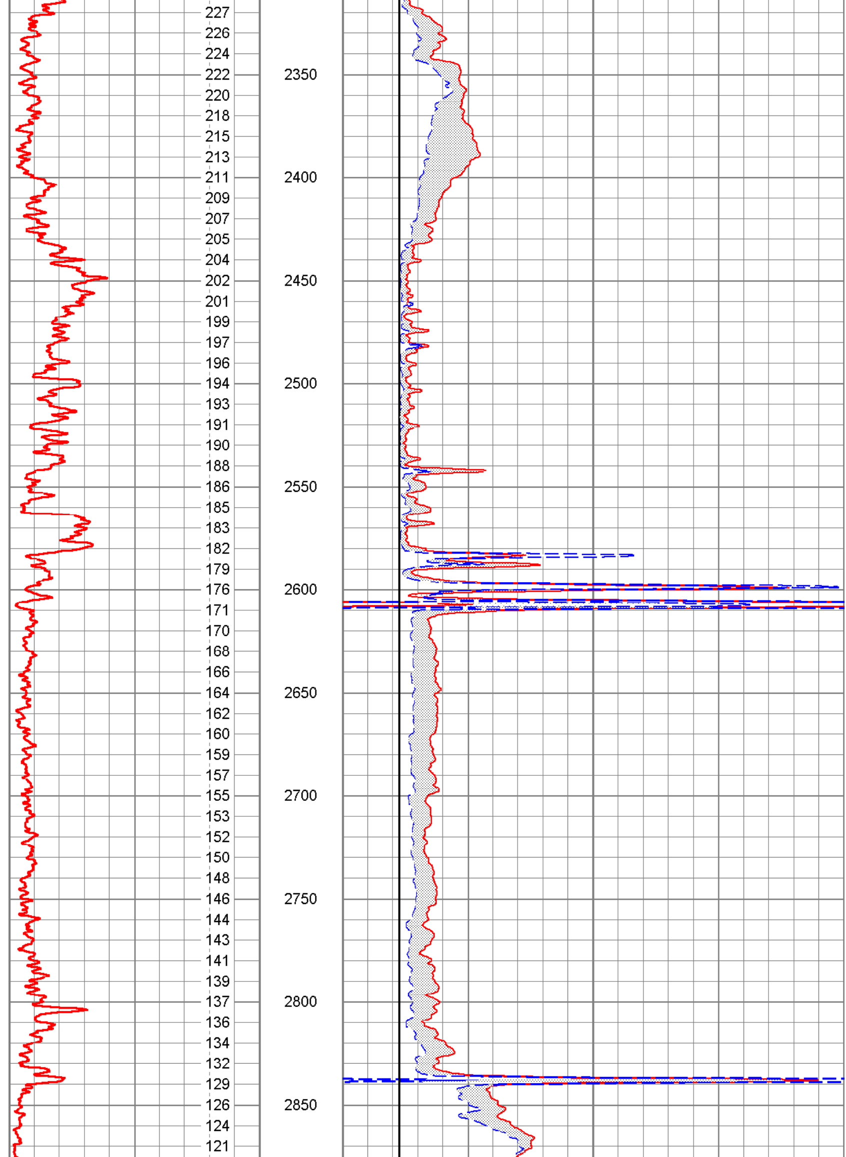


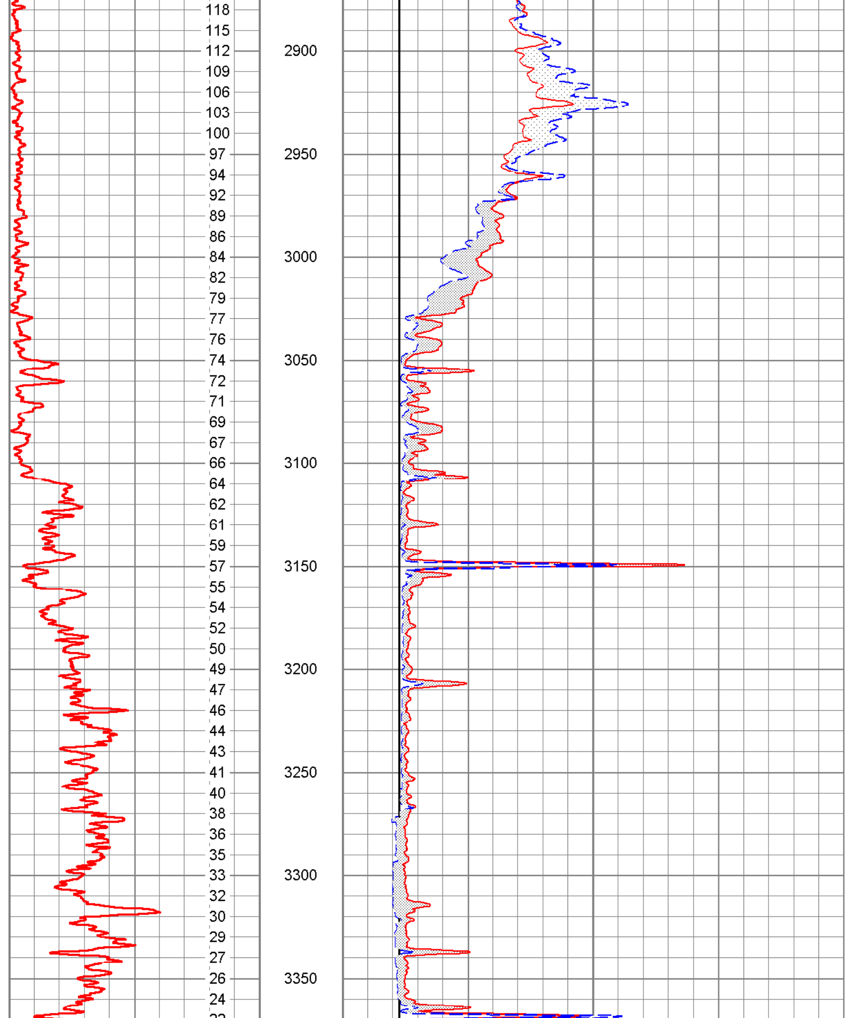
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

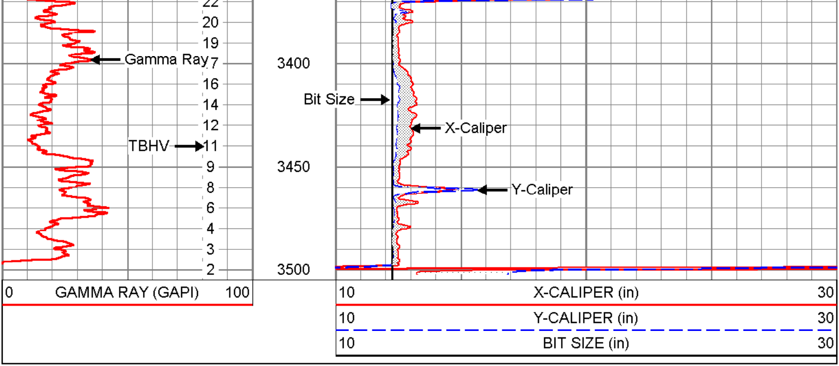
MAIN PASS

Database File: hiaiw1.db
Dataset Pathname: run8/pass4
Presentation Format: GRXYC
Dataset Creation: Sun Jan 24 10:09:14 2010 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:600









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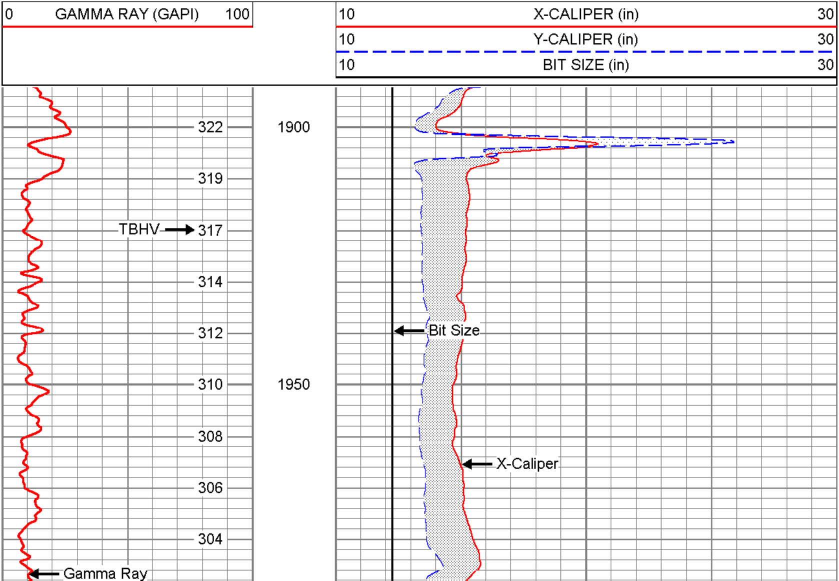
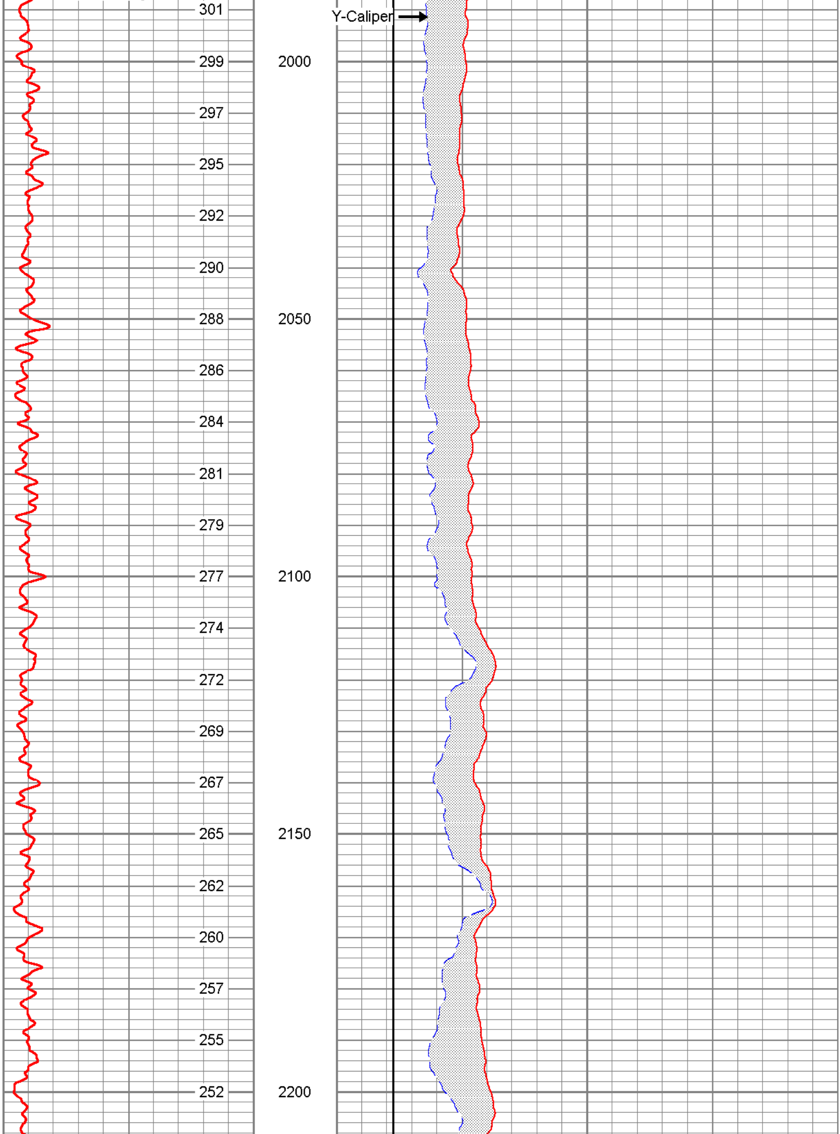
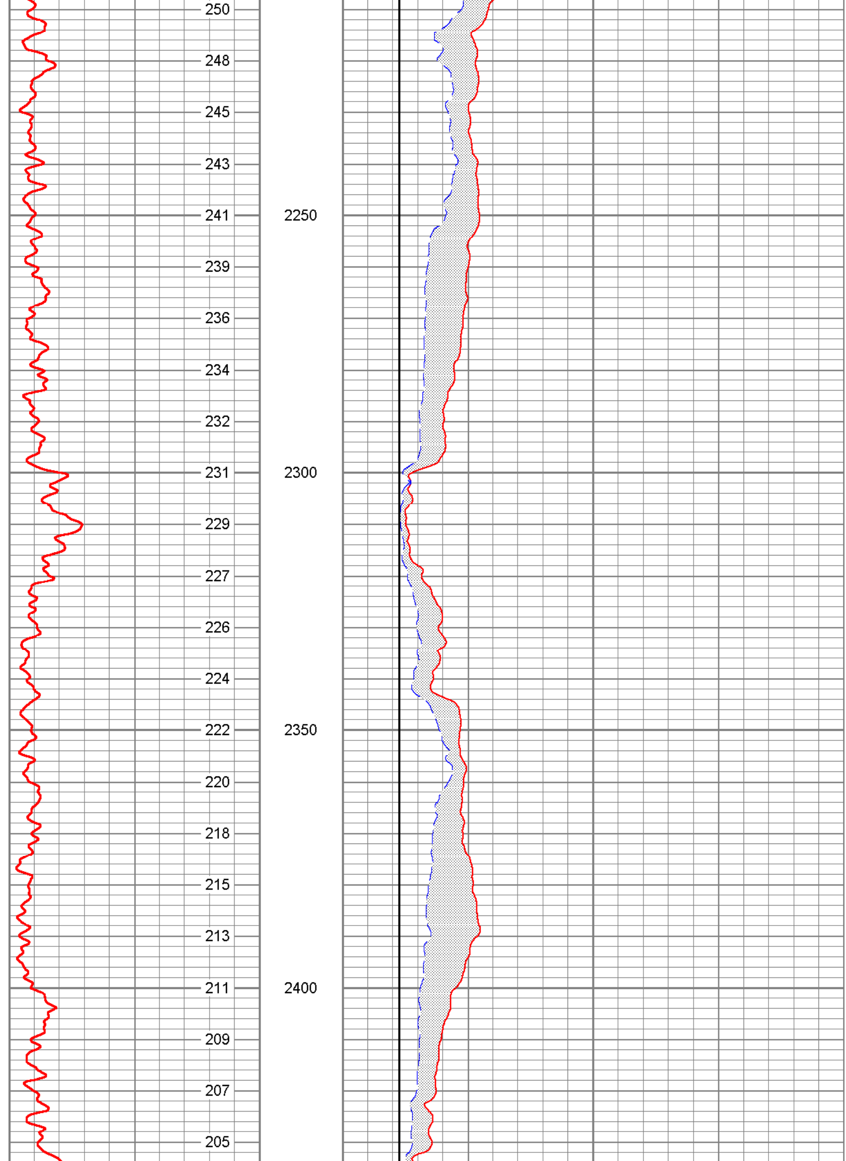
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

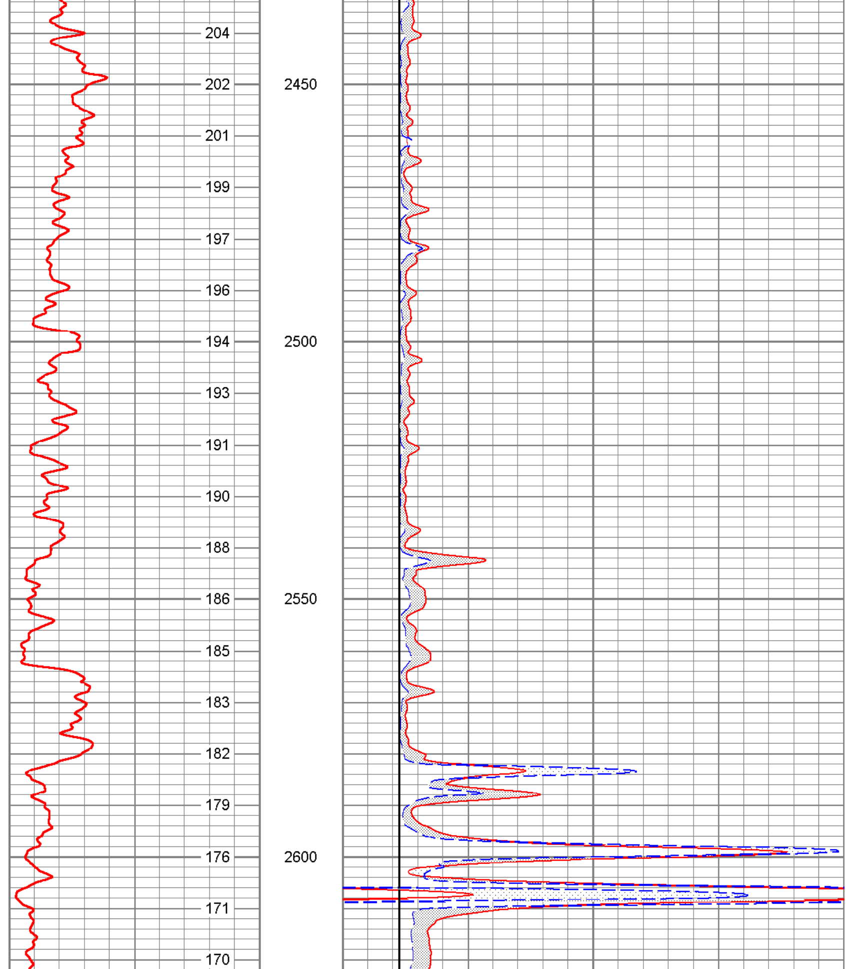
MAIN PASS

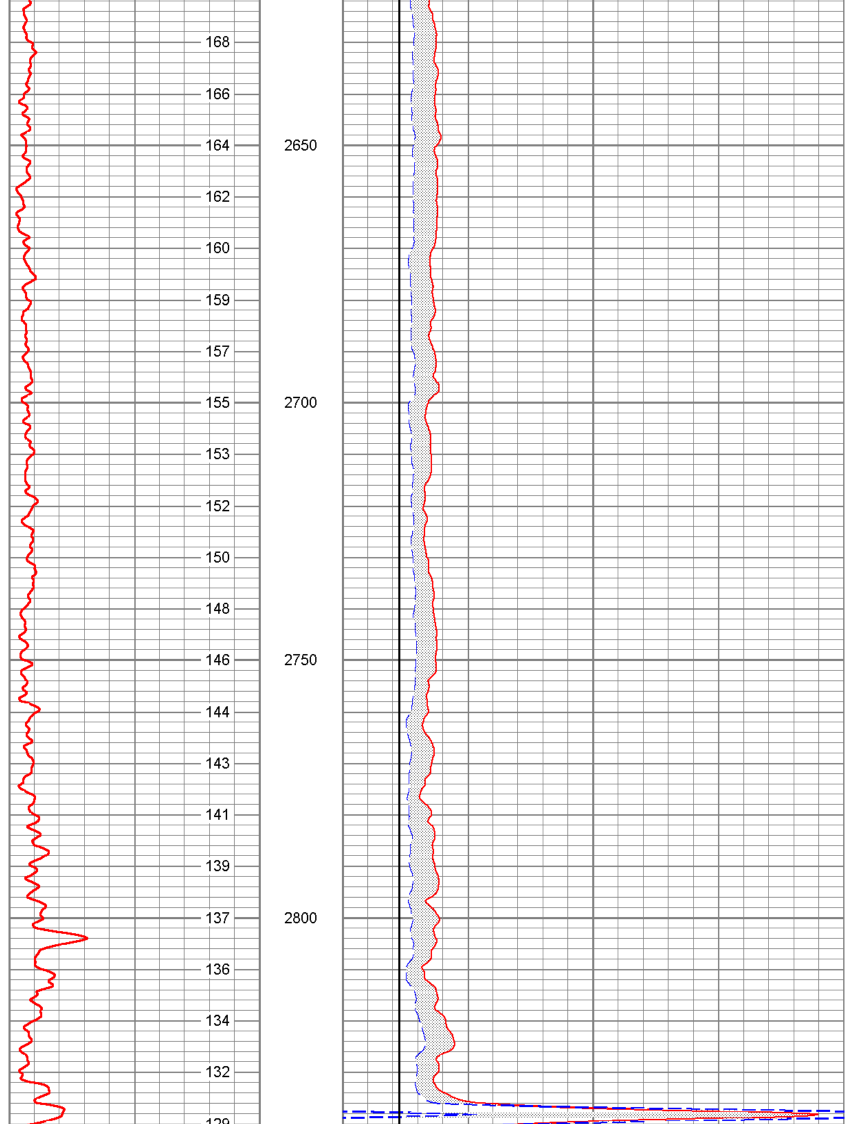
Database File: hiaiw1.db
Dataset Pathname: run8/pass4
Presentation Format: GRXYC
Dataset Creation: Sun Jan 24 10:09:14 2010 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

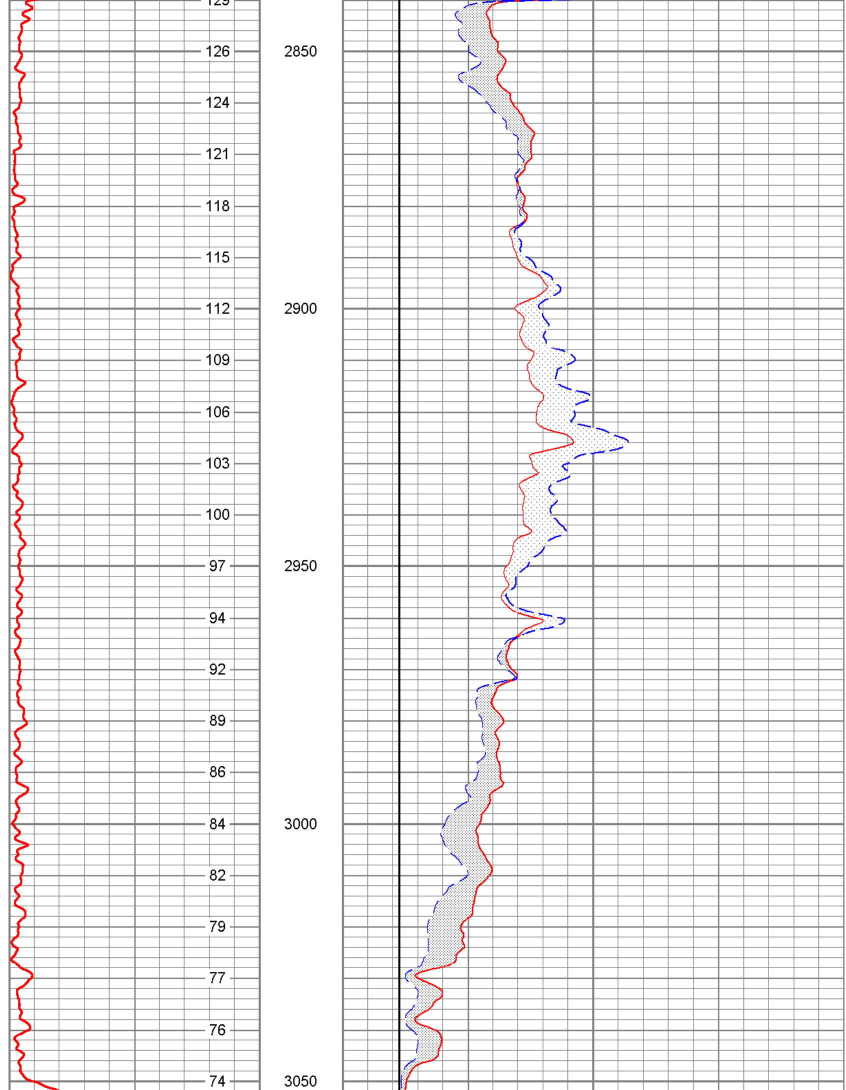


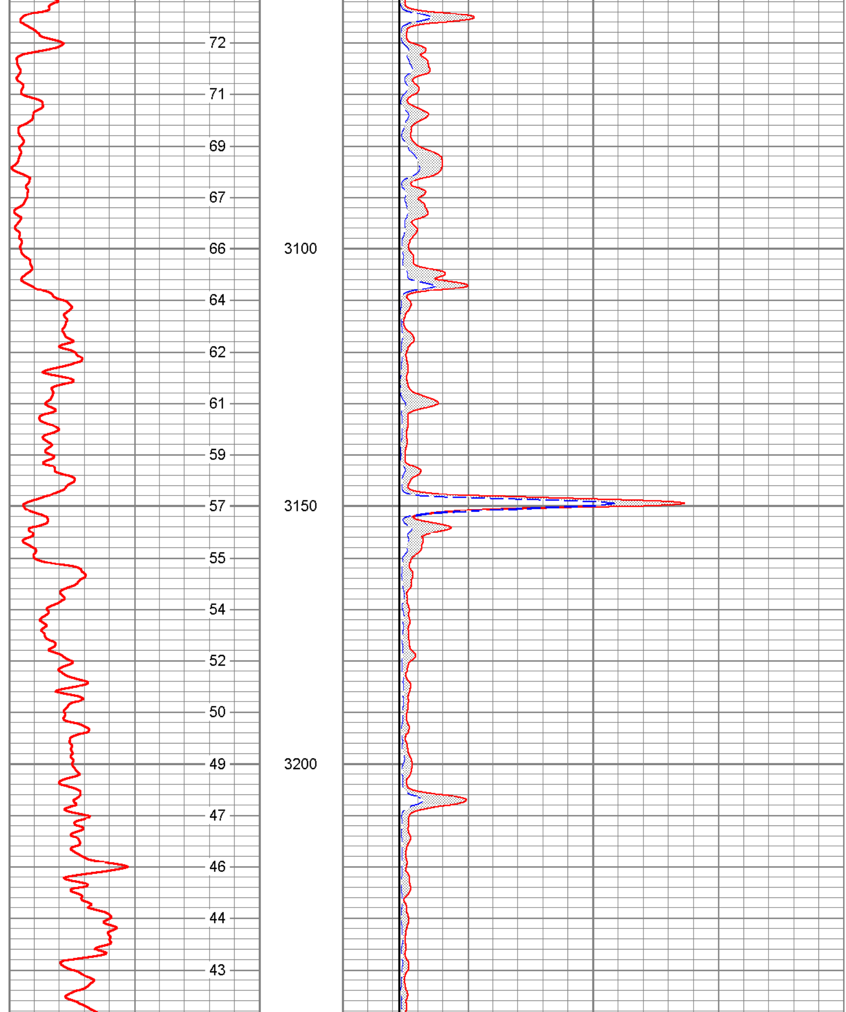


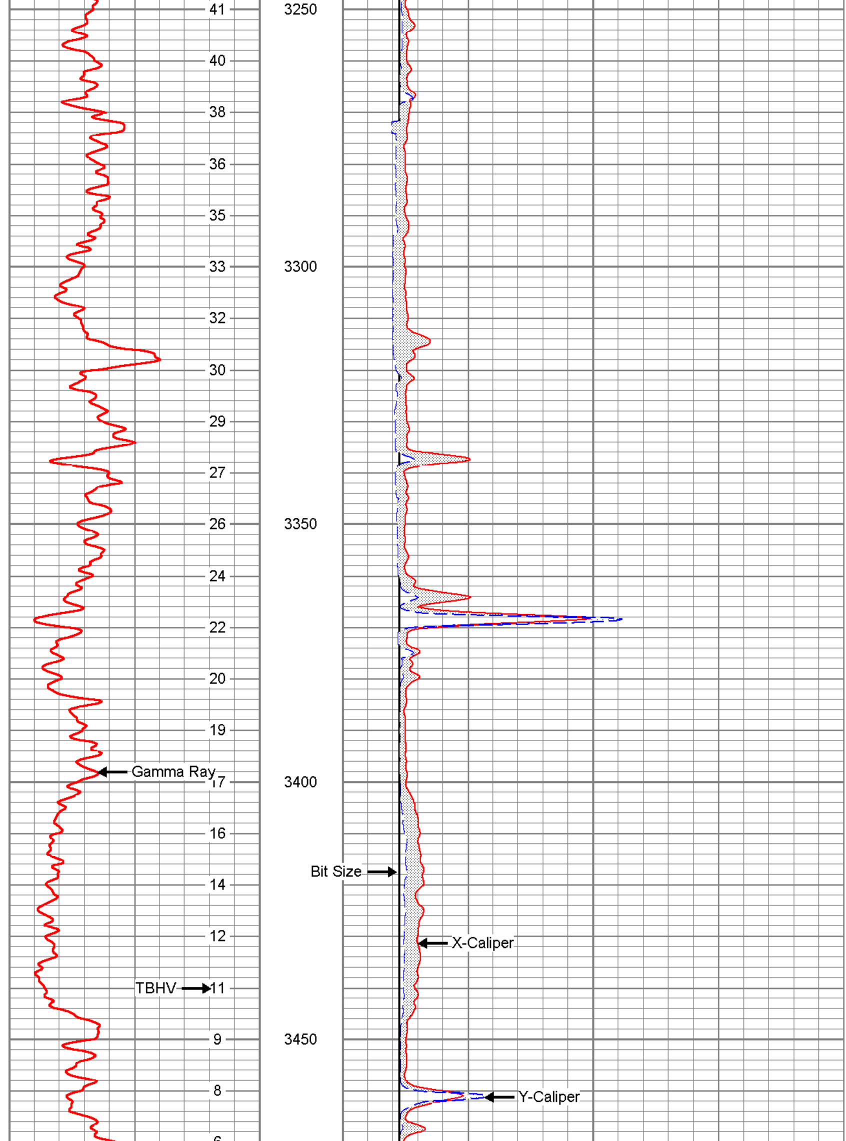


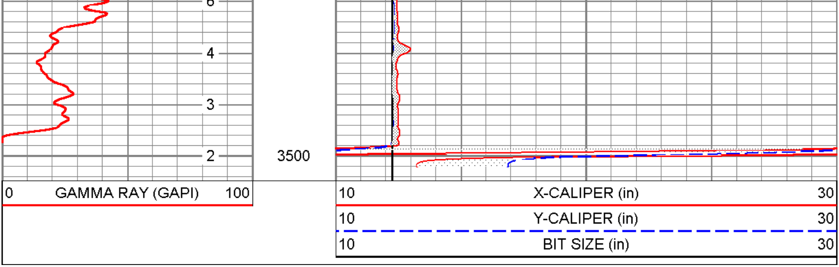












YOUNGQUIST
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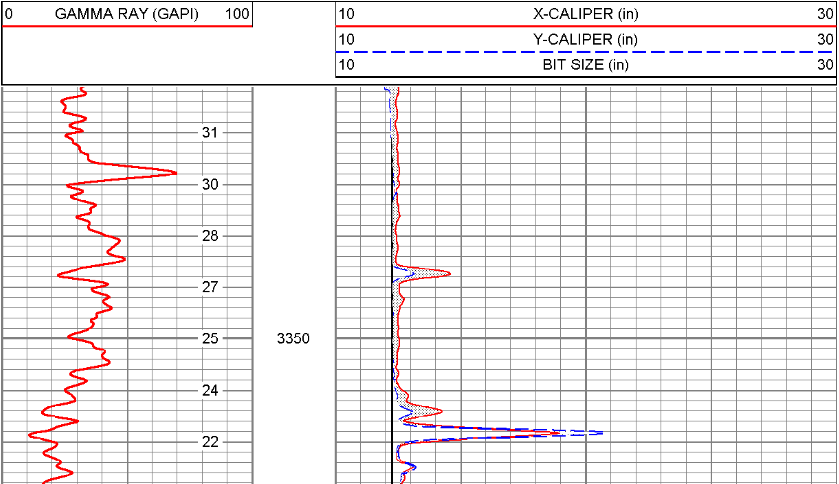
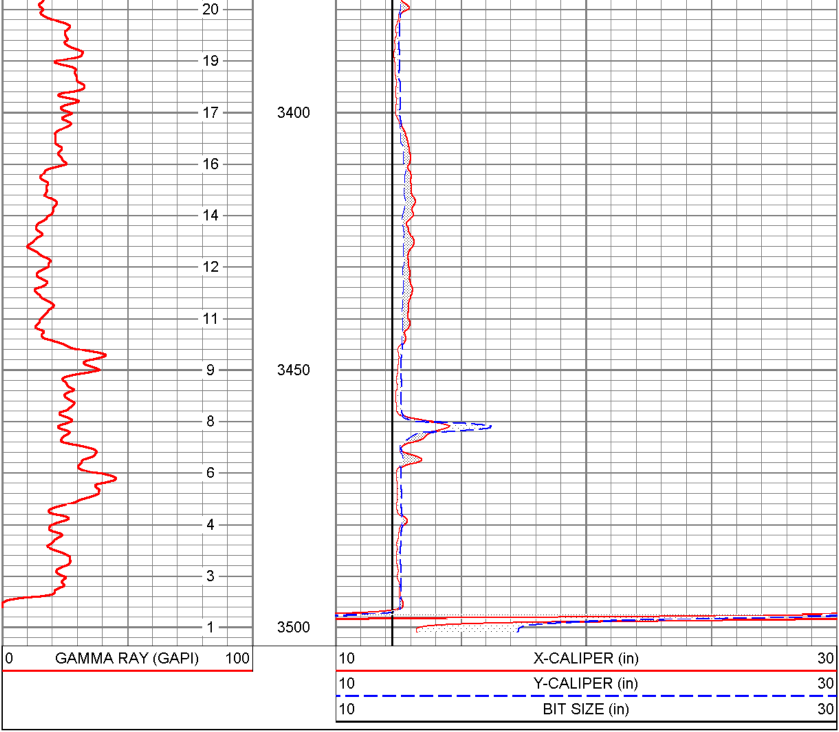
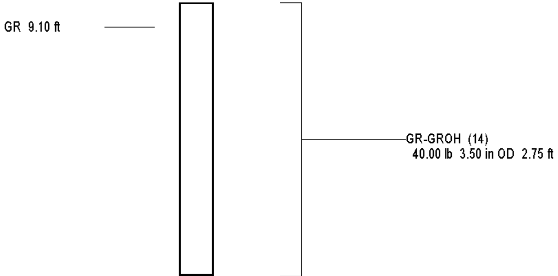
GEOPHYSICAL LOGGING DIVISION

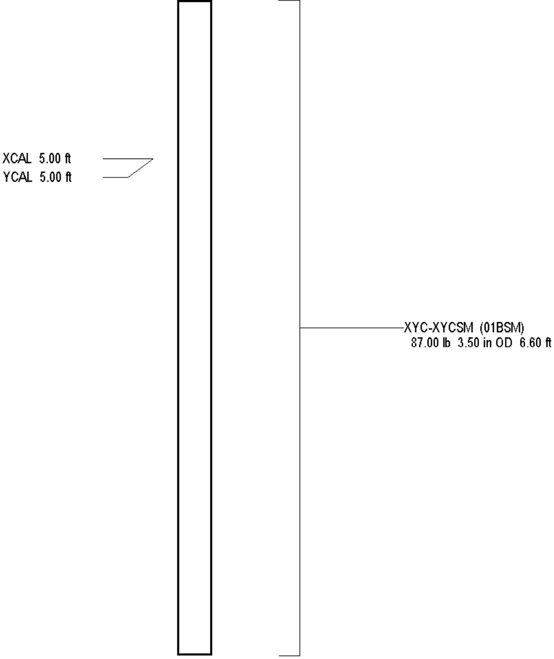
REPEAT PASS

Database File: hiaiw1.db
Dataset Pathname: run8/pass3
Presentation Format: GRXYC
Dataset Creation: Sun Jan 24 09:54:54 2010 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240









Dataset:	run8/pass4
Total Length:	9.35 ft
Total Weight:	127.00 lb
O.D.	3.50 in

XY Caliper Calibration Report

Serial Number/Model: 01BSM-XYCSM
Performed: Sun Jan 24 08:45:37 2010

Ring			X Caliper		Y Caliper	
1:	5.81	in	474.975	cps	346.847	cps
2:	13.4	in	585.586	cps	428.128	cps
3:	36	in	1051.15	cps	921.421	cps
4:		in		cps		cps
5:		in		cps		cps
6:		in		cps		cps

Gamma Ray Calibration Report

Serial Number:	14	
Tool Model:	GROH	
Performed:	Wed May 21 13:24:48 2008	
Calibrator Value:	120	GAPI
Background Reading:	45.4454	cps
Calibrator Reading:	204.505	cps
Sensitivity:	0.8754	GAPI/cps

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

X-Y CALIPER
GAMMA RAY
LOG

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location: API # :

SEC TWP RGE

Other Services
SEE
COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	05-MAR-2010		
Run Number	NINE		
Depth Driller	3505'		
Depth Logger	3505'		
Bottom Logged Interval	3505'		
Top Log Interval	CASING		
Open Hole Size	32.5", 22"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	N/A		
Estimated Cement Top	NA		
Time Well Ready	0000		
Time Logger on Bottom	0030		
Equipment Number	104		
Location	FT MYERS		
Recorded By	MOREY		
Witnessed By	R. STROSS		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'	SIX	32.5"	CASING	2970'
THREE	50.5"	CASING	1079'	SEVEN	22"	CASING	3505'
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner				

<<< Fold Here >>>

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Comments

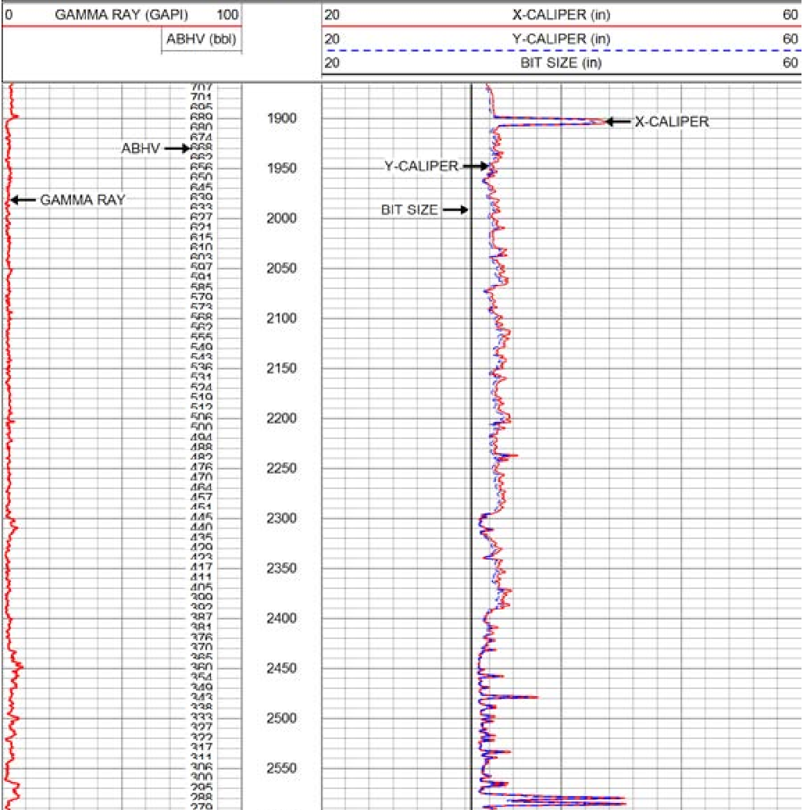
ANNULAR BOREHOLE VOLUME
CALCULATED IN BARRELS FOR 24" CASING

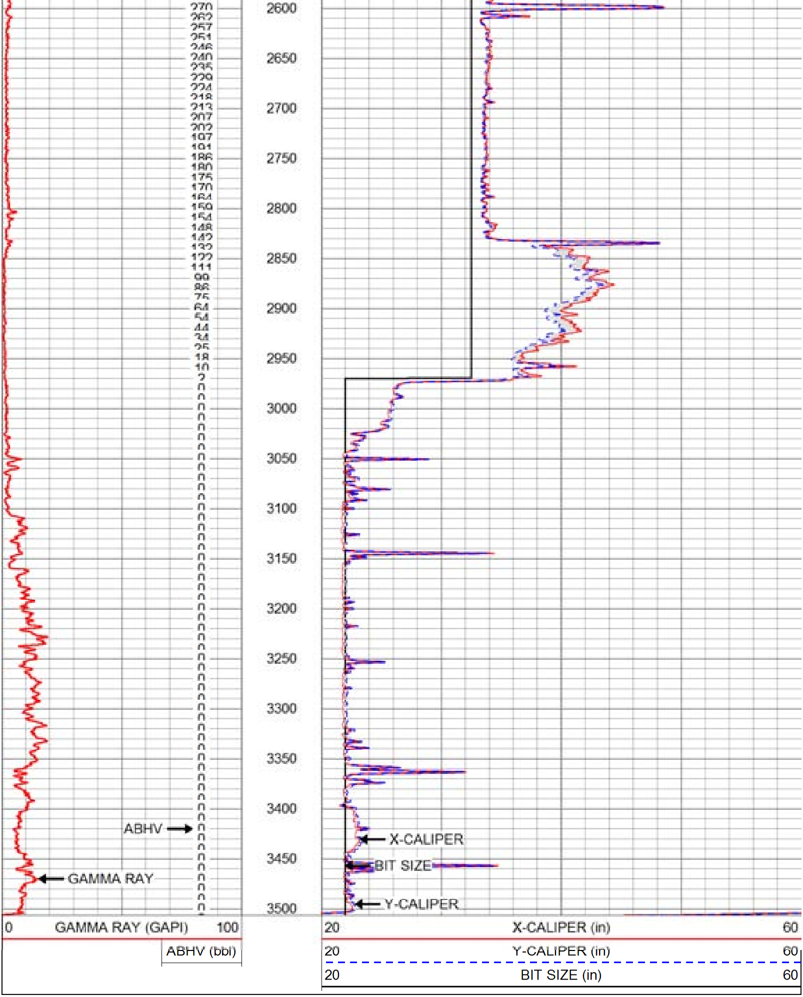
YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run9/pass2.1
Presentation Format:	grxy-ahv
Dataset Creation:	Fri Mar 05 02:09:37 2010 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:1200

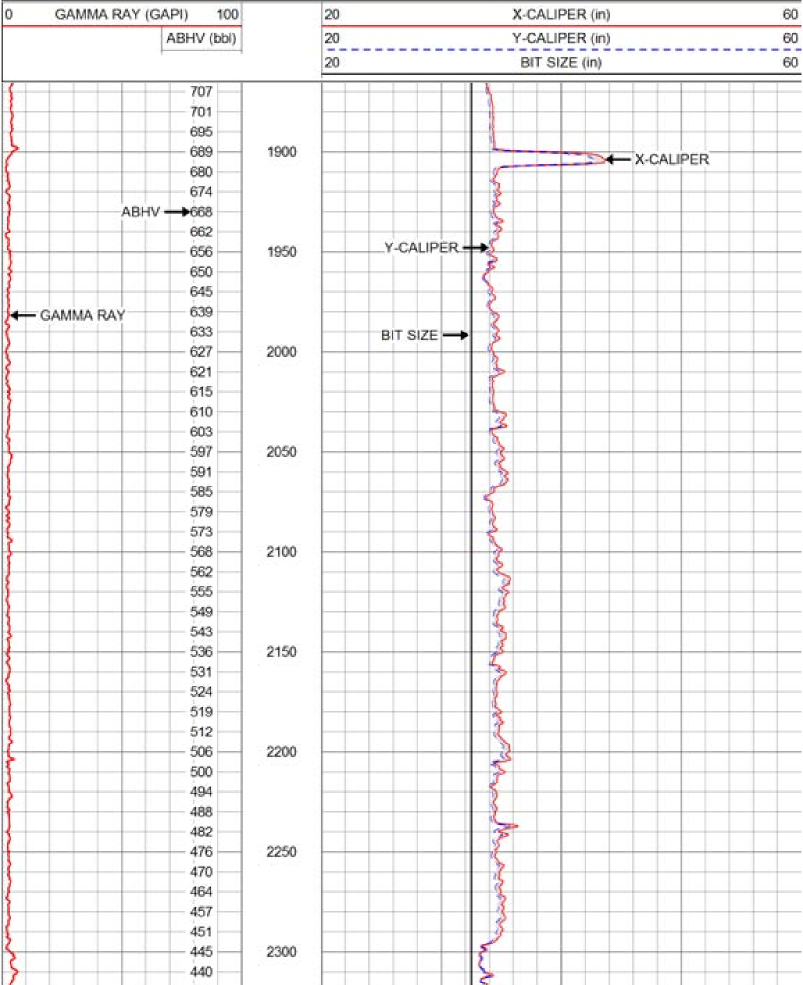


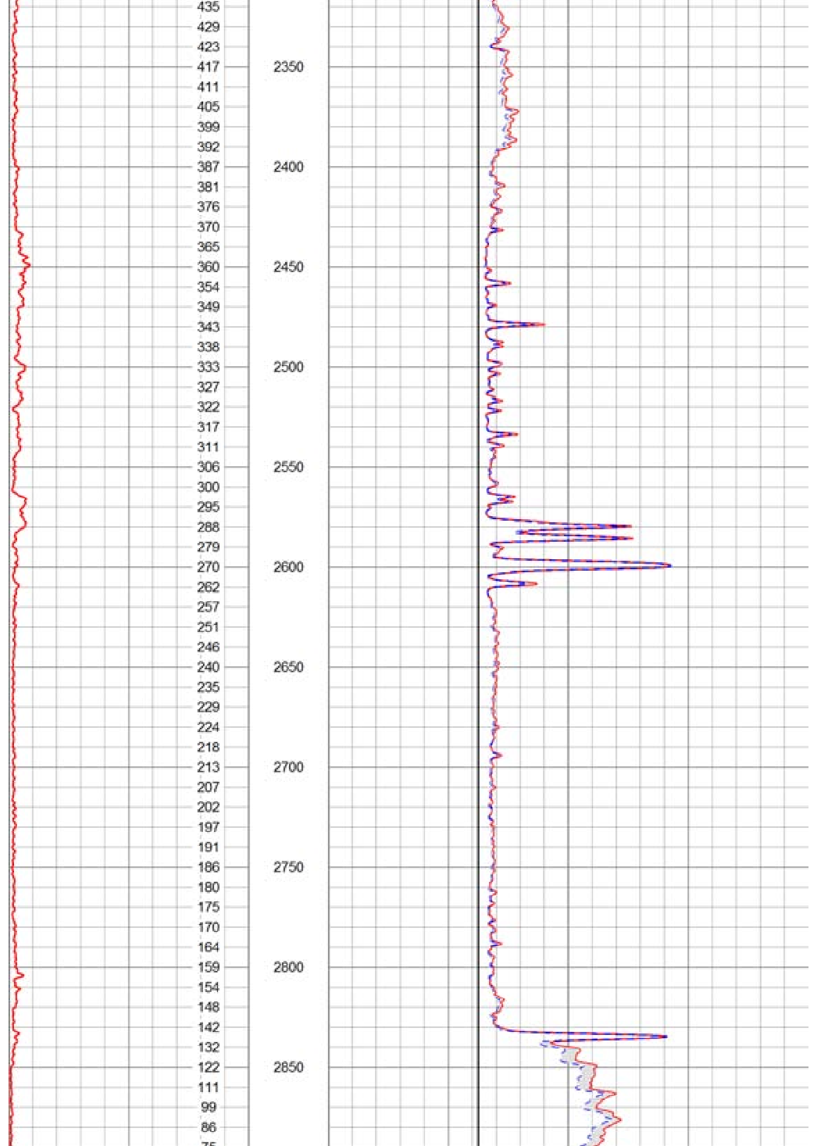


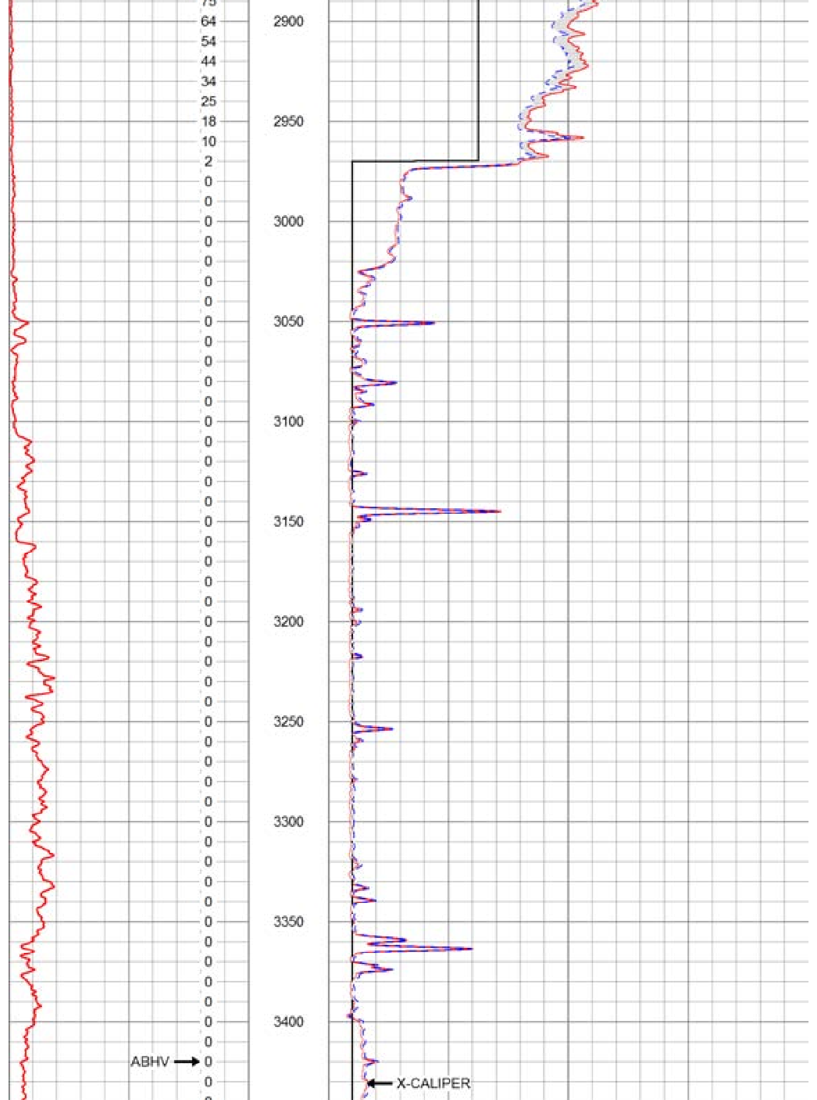
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

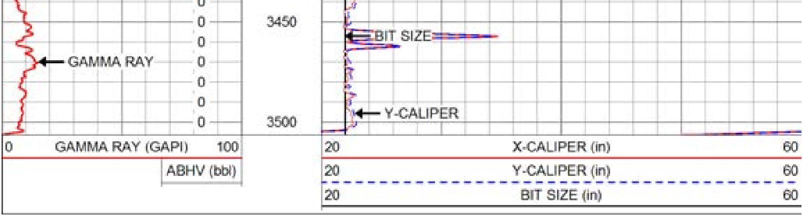
MAIN PASS

Database File: hiaiw1.db
Dataset Pathname: run9/pass2.1
Presentation Format: grxy-ahv
Dataset Creation: Fri Mar 05 02:09:37 2010 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:600





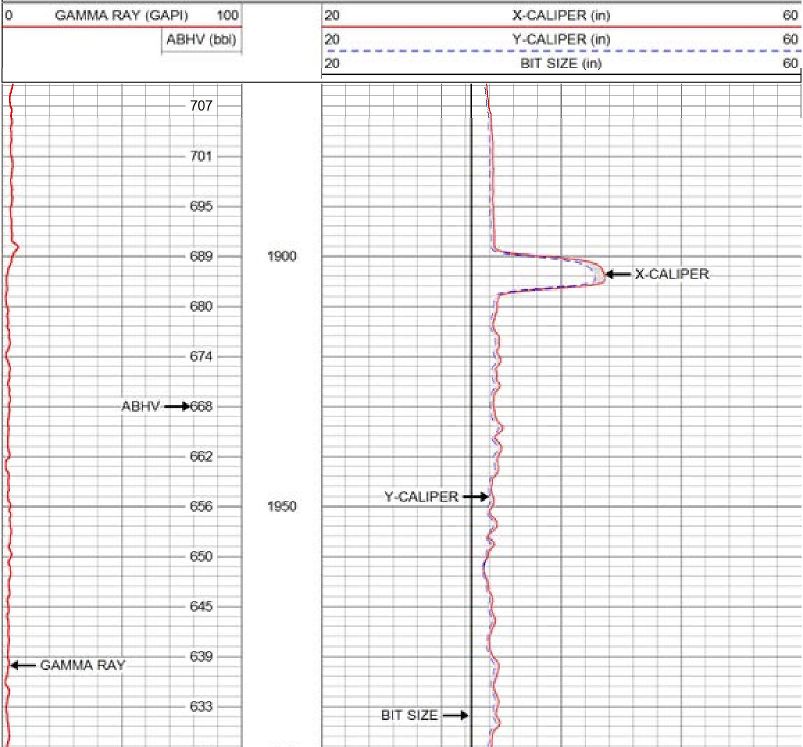


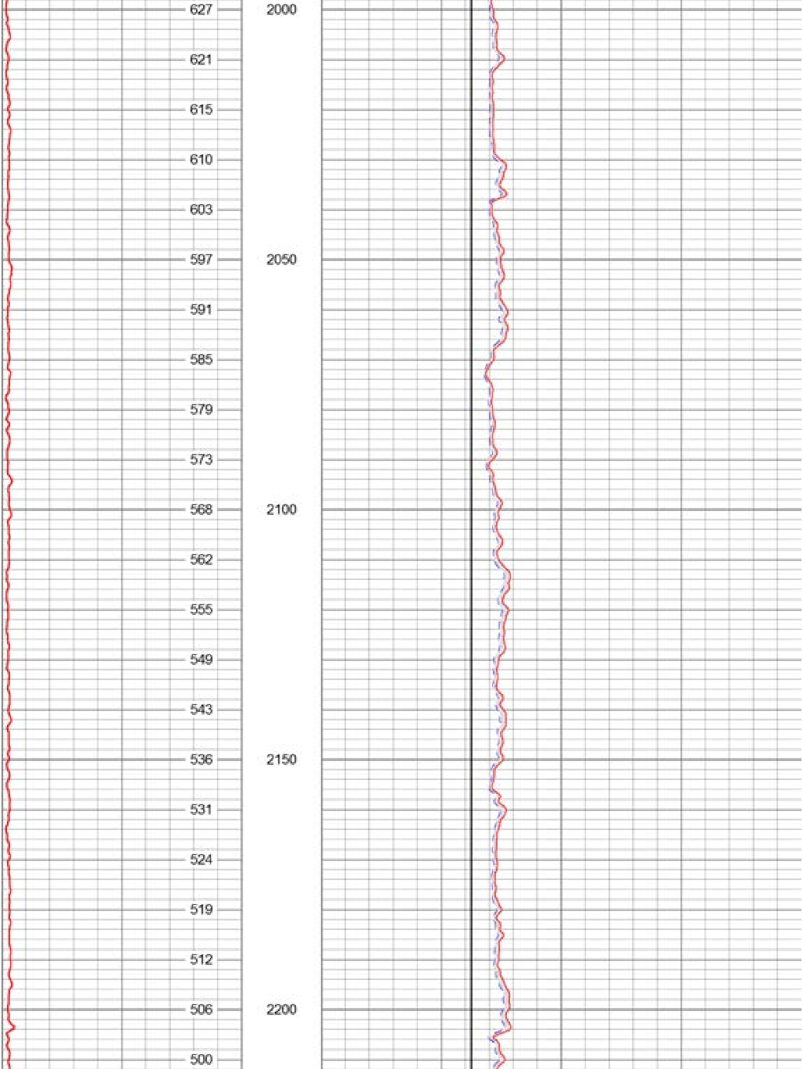


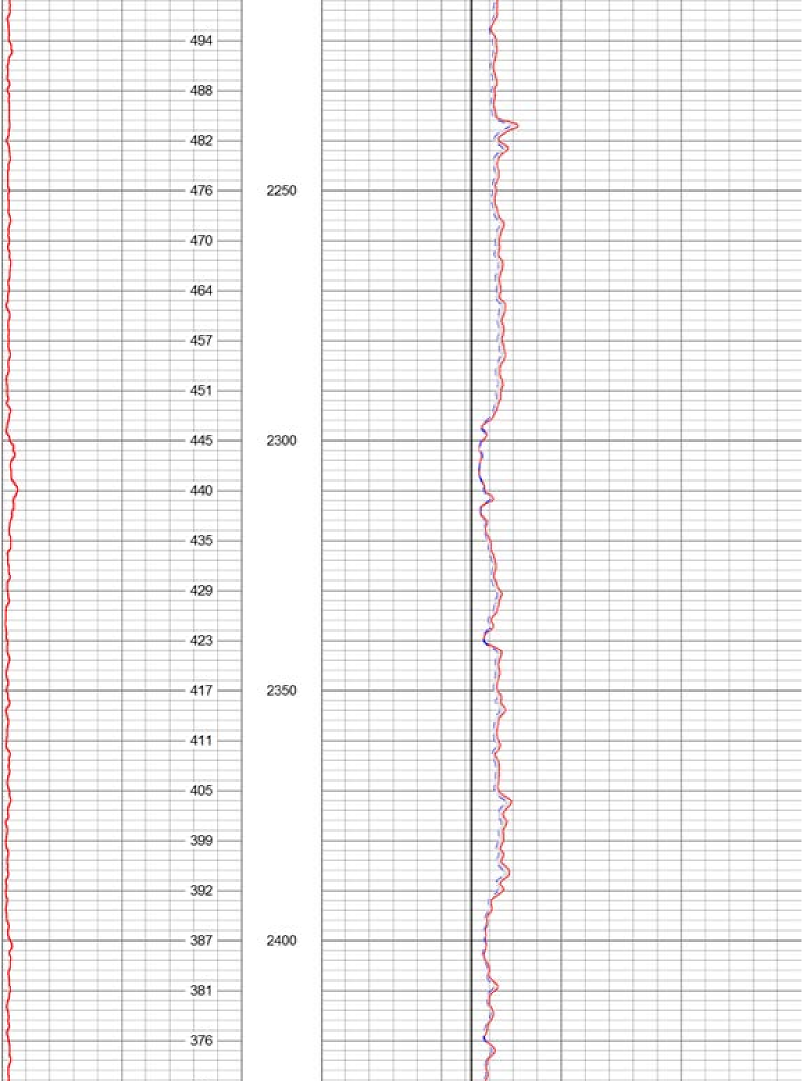
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

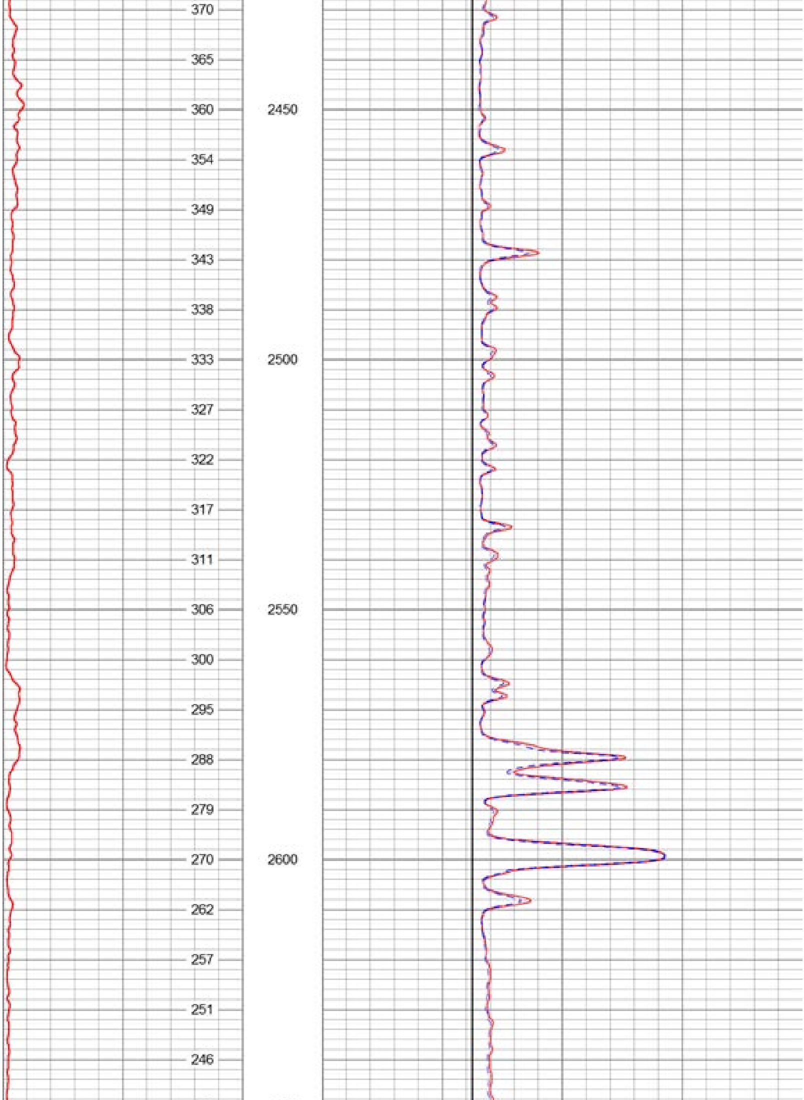
MAIN PASS

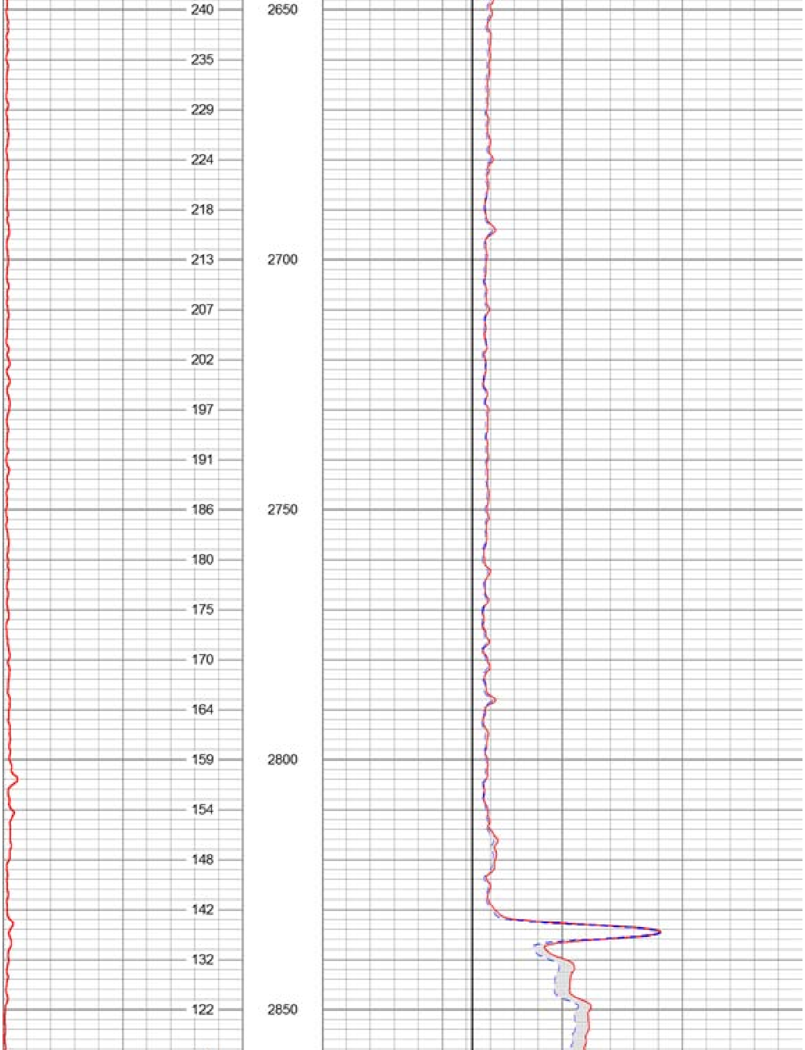
Database File:	hiaiw1.db
Dataset Pathname:	run9/pass2.1
Presentation Format:	grxy-ahv
Dataset Creation:	Fri Mar 05 02:09:37 2010 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

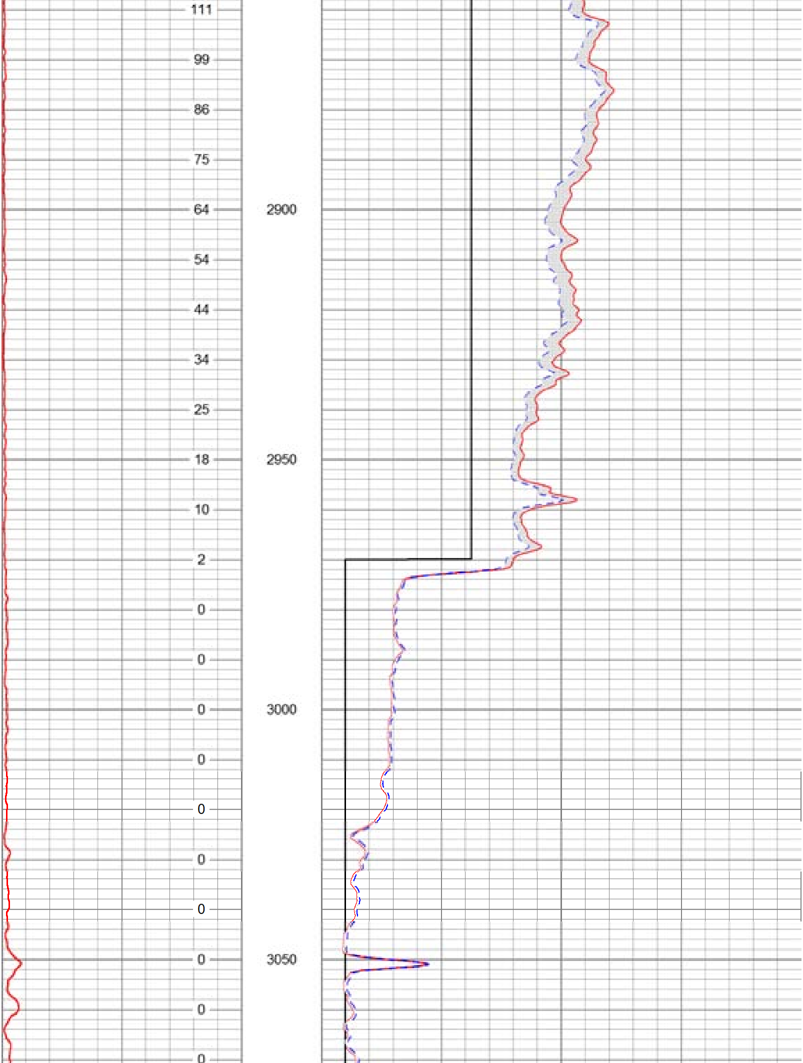


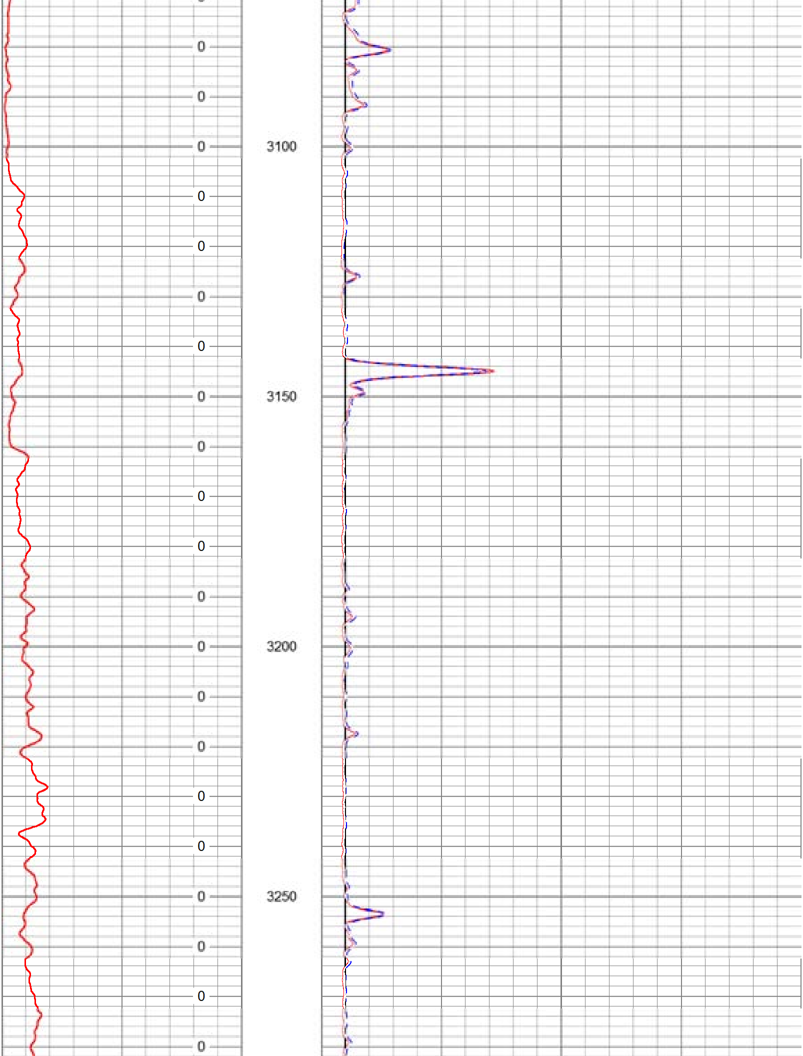


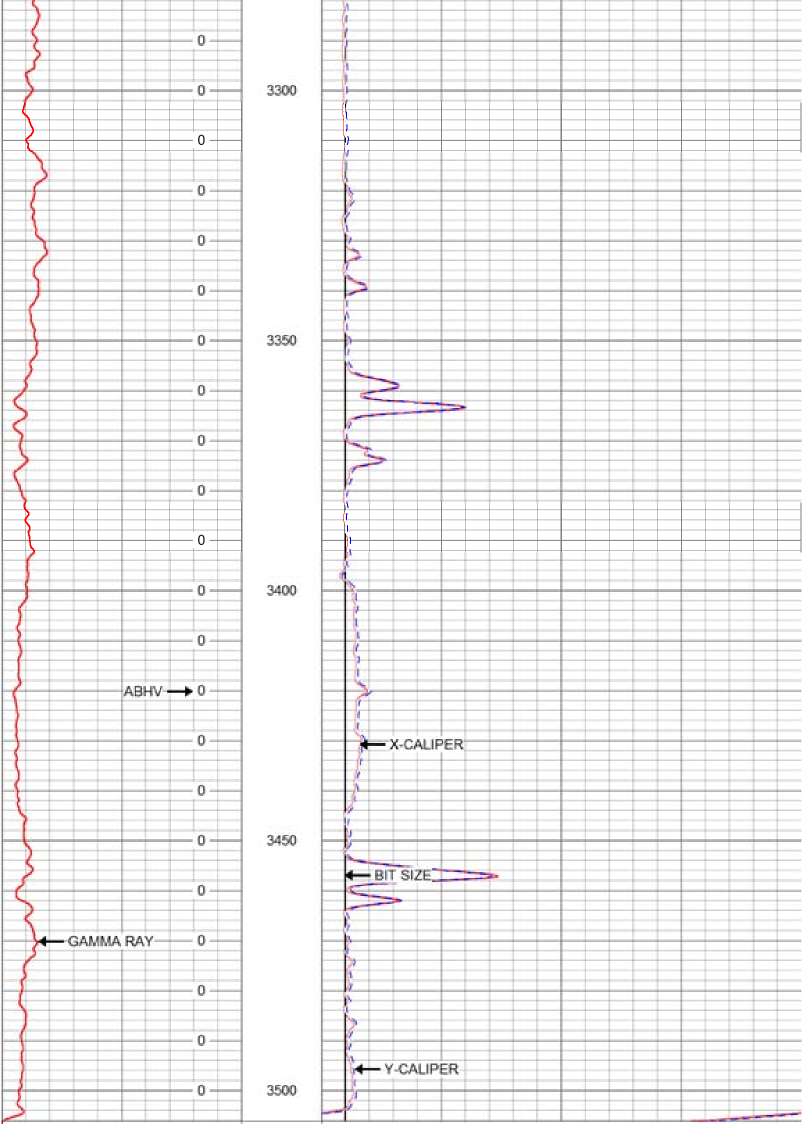












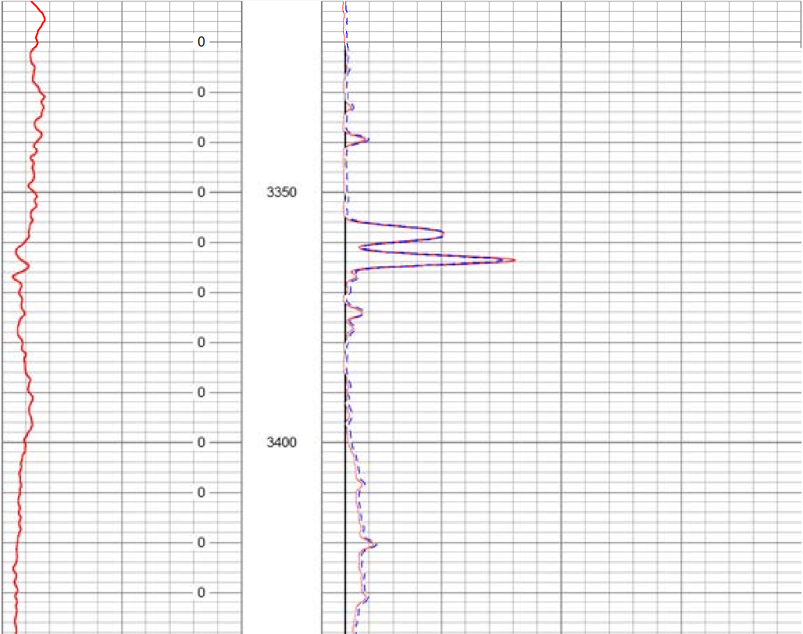
0 GAMMA RAY (GAPI) 100
ABHV (bbl)
20 X-CALIPER (in) 60
20 Y-CALIPER (in) 60
20 BIT SIZE (in) 60

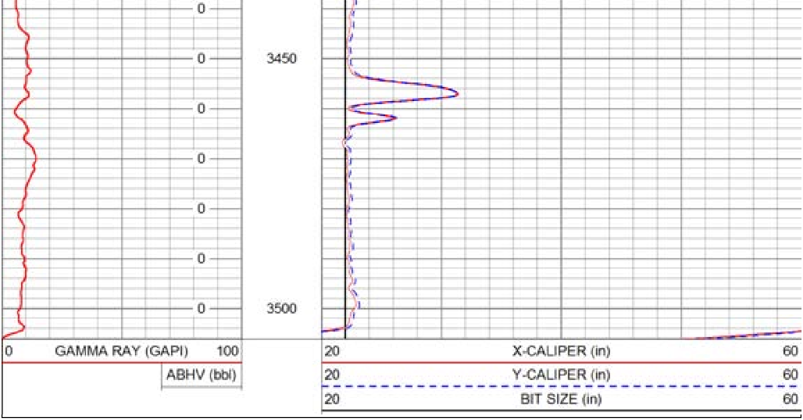
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

REPEAT PASS

Database File: hiaiw1.db
Dataset Pathname: run9/pass1.1
Presentation Format: grxy-ahv
Dataset Creation: Fri Mar 05 02:26:28 2010 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0 GAMMA RAY (GAPI) 100
ABHV (bbl)
20 X-CALIPER (in) 60
20 Y-CALIPER (in) 60
20 BIT SIZE (in) 60





Calibration Report

Database File: hiaiw1.db
Dataset Pathname: run9/pass2.1
Dataset Creation: Fri Mar 05 02:09:37 2010 by Calc Open-Cased 090629

XY Caliper Calibration Report

Serial Number/Model: 080927SM-XYCSM
Performed: Wed Mar 03 11:05:29 2010

	Ring		X Caliper		Y Caliper	
1:	10	in	375.978	cps	362.283	cps
2:	20	in	486.522	cps	483.478	cps
3:	33.25	in	670	cps	670	cps
4:	40	in	757.283	cps	776.848	cps
5:	48.5	in	895.2	cps	894.8	cps
6:		in		cps		cps

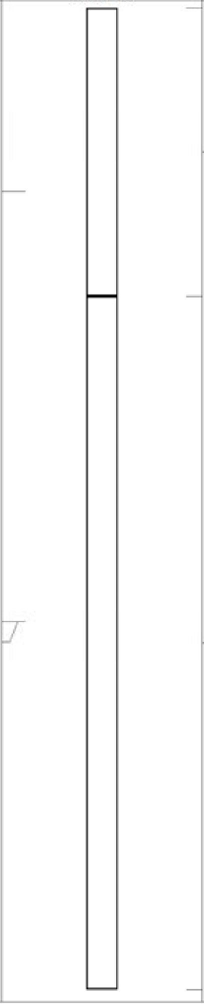
Gamma Ray Calibration Report

Serial Number: 081007
Tool Model: GROH
Performed: Mon Mar 01 06:05:32 2010

Calibrator Value: 100.0 GAPI

Background Reading: 272.3 cps
Calibrator Reading: 992.3 cps

Sensitivity: 0.1389 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	7.60		GR-GROH (081007)	2.75	3.50	40.00
XCAL YCAL	3.50 3.50		XYC-XYCSM (080927SM)	6.60	3.50	87.00

Dataset:	hiaiw1.db: field/well/run9/pass2.1
Total Length:	9.35 ft
Total Weight:	127.00 lb
O.D.	3.50 in

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

X-Y CALIPER
GAMMA RAY
LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R. O.
County DADE
State FL

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL
Location	
Other Services	SEE COMMENTS
Permanent Datum	
Elevation	
Log Measured From	
Drilling Measured From	
Elevation	K.B. D.F. G.L.

Date	26-DEC-2009		
Run Number	SIX		
Depth Driller	1905'		
Depth Logger	1909'		
Bottom Logged Interval	1909'		
Top Log Interval	CASING		
Open Hole Size	42.5"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	N/A		
Estimated Cement Top	NA		
Time Well Ready	2245		
Time Logger on Bottom	2345		
Equipment Number	102		
Location	FT MYERS		
Recorded By	MOREY		
Witnessed By	R. STROSS		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run Number	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Casing String	52"	.375" W.T.	SURFACE	155'
Casing String	42"	.375" W.T.	SURFACE	1075'
Casing String				
Casing String				

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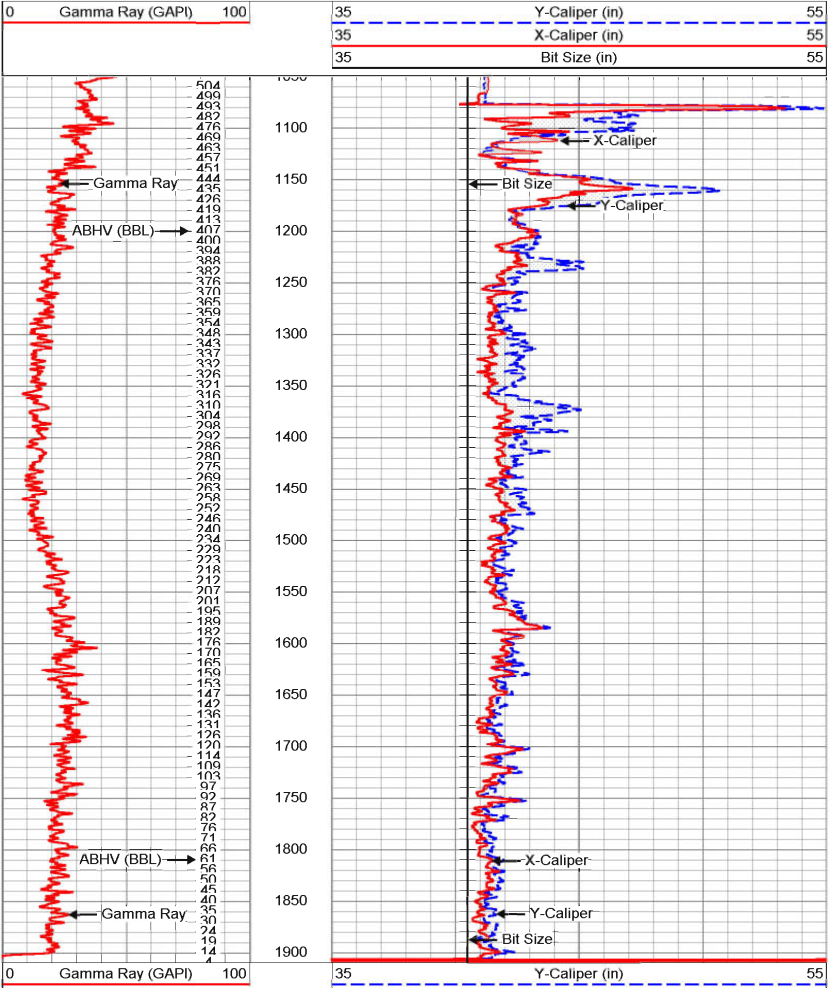
Comments

ANNULAR BOREHOLE VOLUME
CALCULATED IN BARRELS FOR 34" CASING

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run6/pass2.1
Presentation Format:	GRXY-AHV
Dataset Creation:	Sun Dec 27 00:22:39 2009 by Calc 6.2_B4
Charted by:	Depth in Feet scaled 1:1200



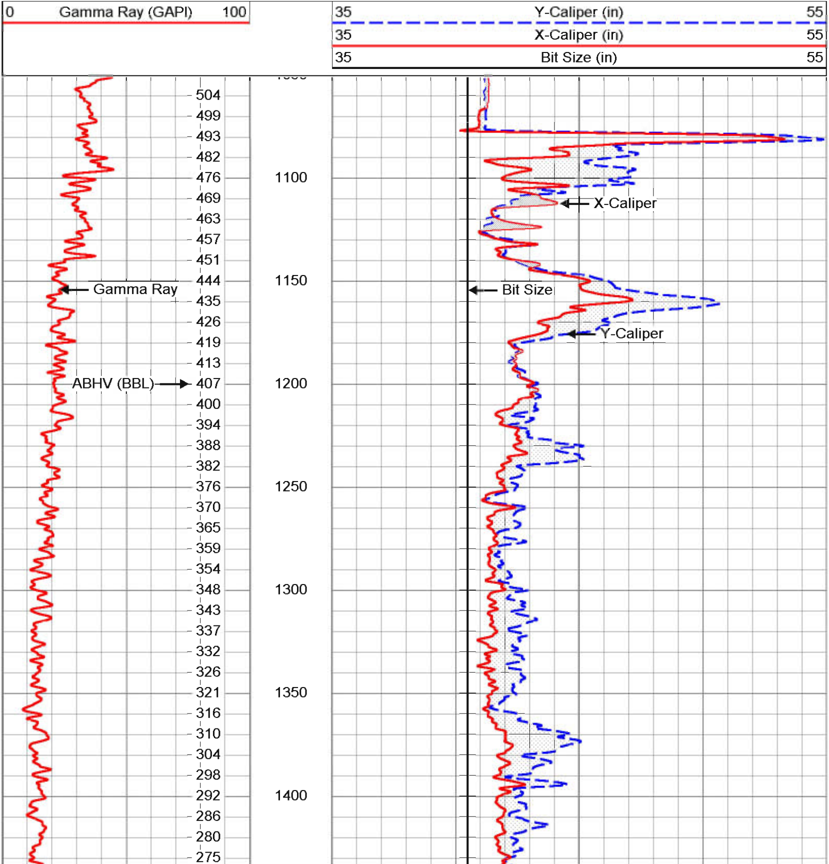
35 X-Caliper (in) 55

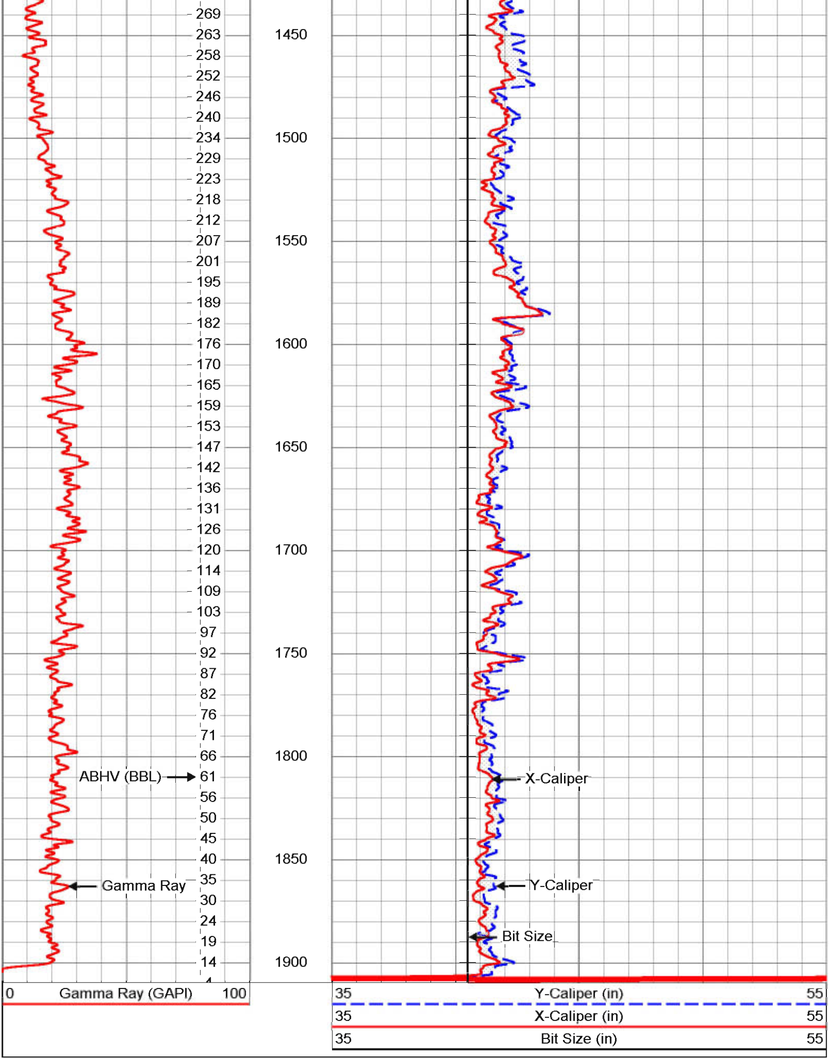
35 Bit Size (in) 55

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File: hiaiw1.db
Dataset Pathname: run6/pass2.1
Presentation Format: GRXY-AHV
Dataset Creation: Sun Dec 27 00:22:39 2009 by Calc 6.2_B4
Charted by: Depth in Feet scaled 1:600



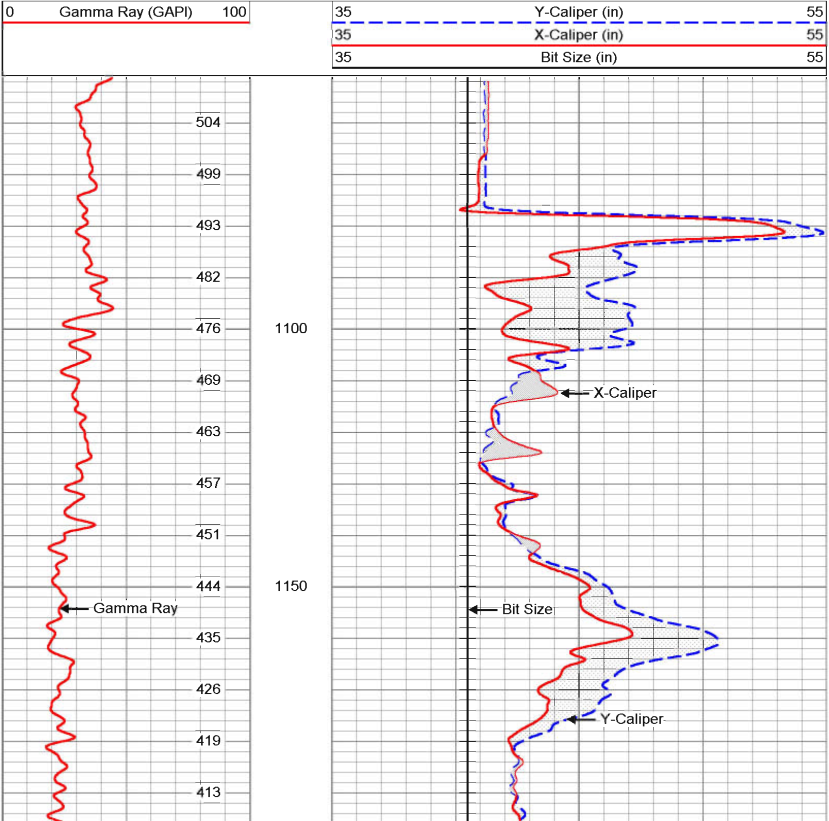


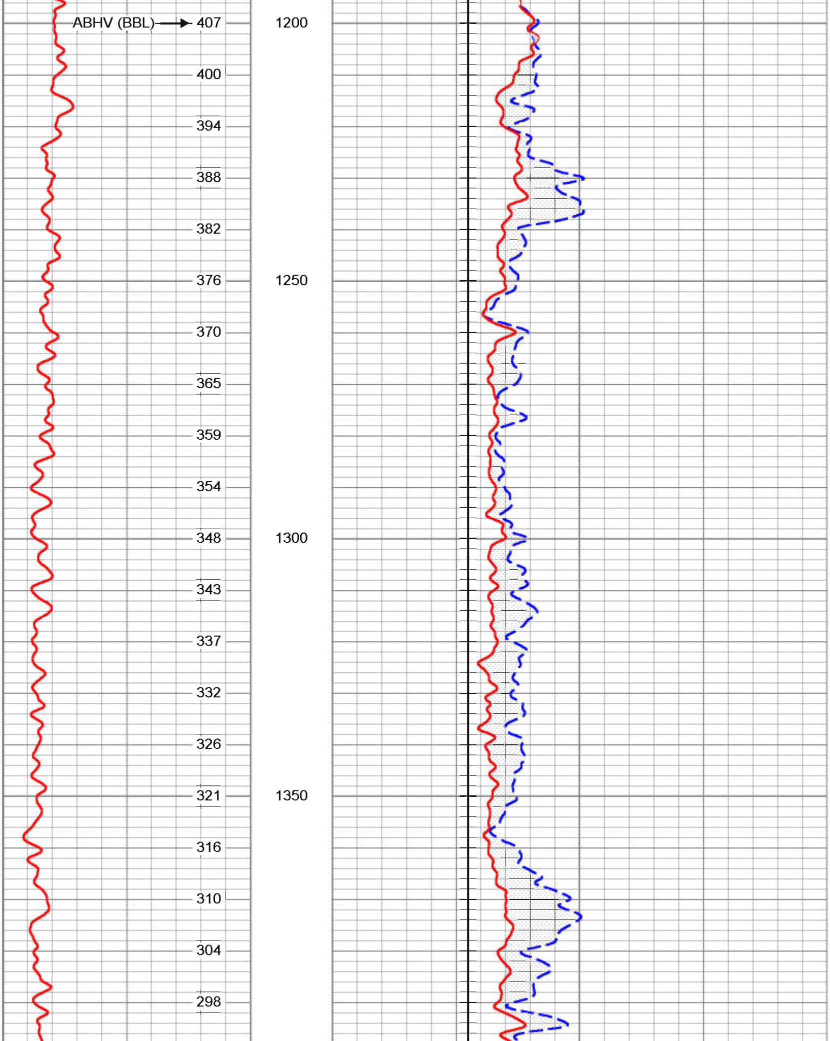
YOUNGQUIST BROTHERS, Inc

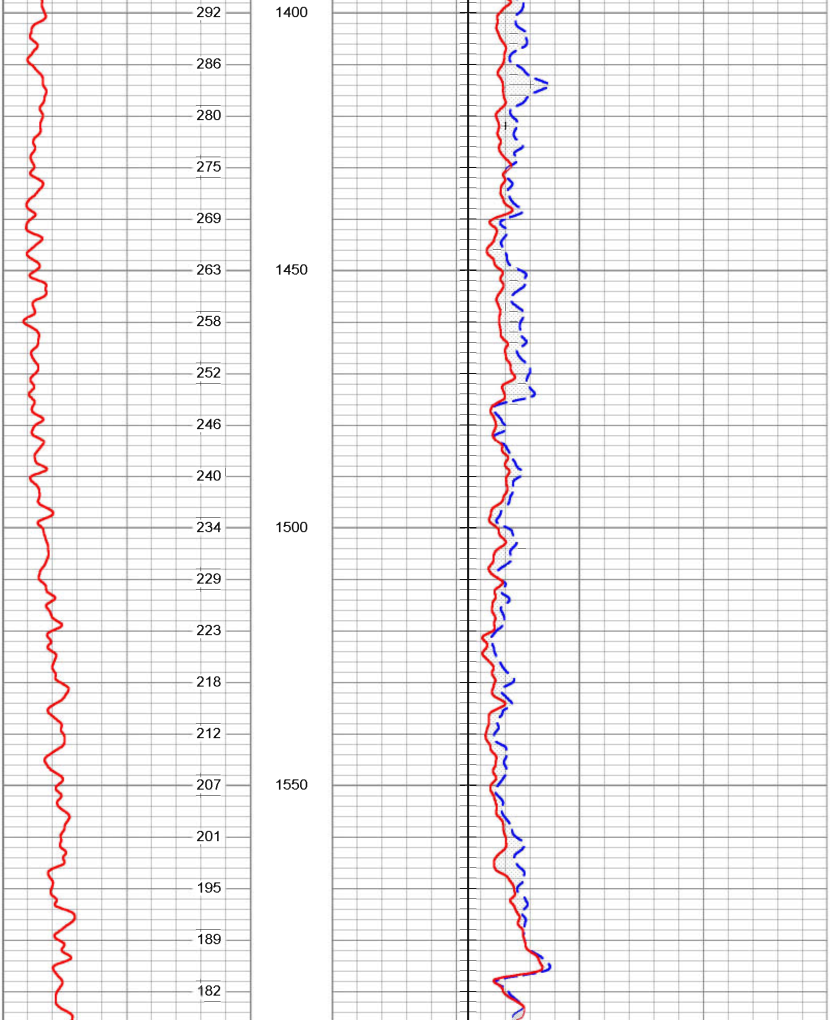
GEOPHYSICAL LOGGING DIVISION

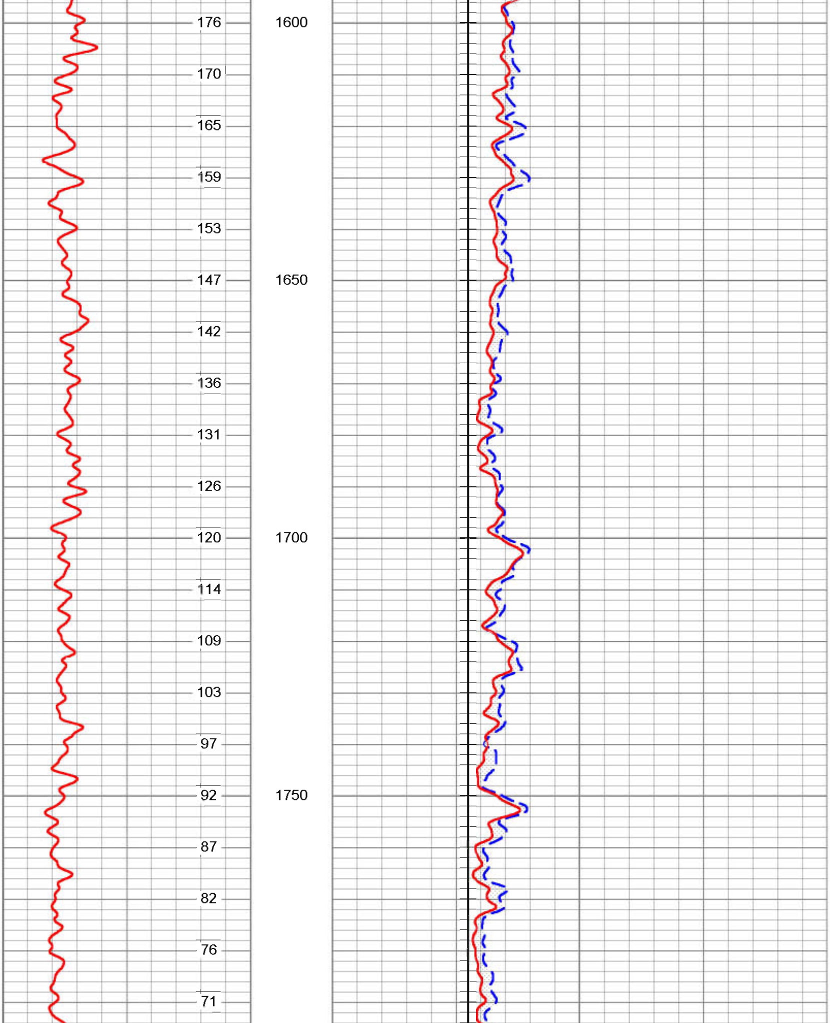
MAIN PASS

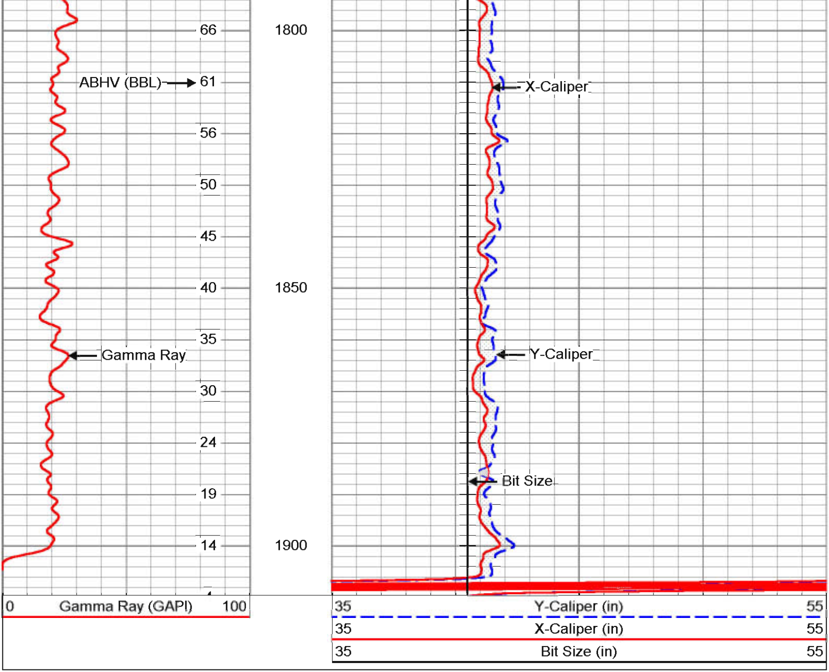
Database File:	hiaiw1.db
Dataset Pathname:	run6/pass2.1
Presentation Format:	GRXY-AHV
Dataset Creation:	Sun Dec 27 00:22:39 2009 by Calc 6.2_B4
Charted by:	Depth in Feet scaled 1:240







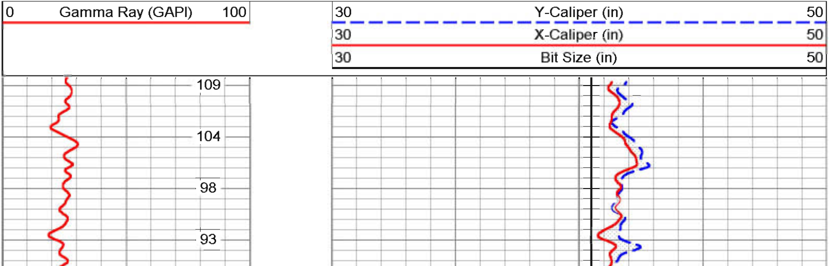


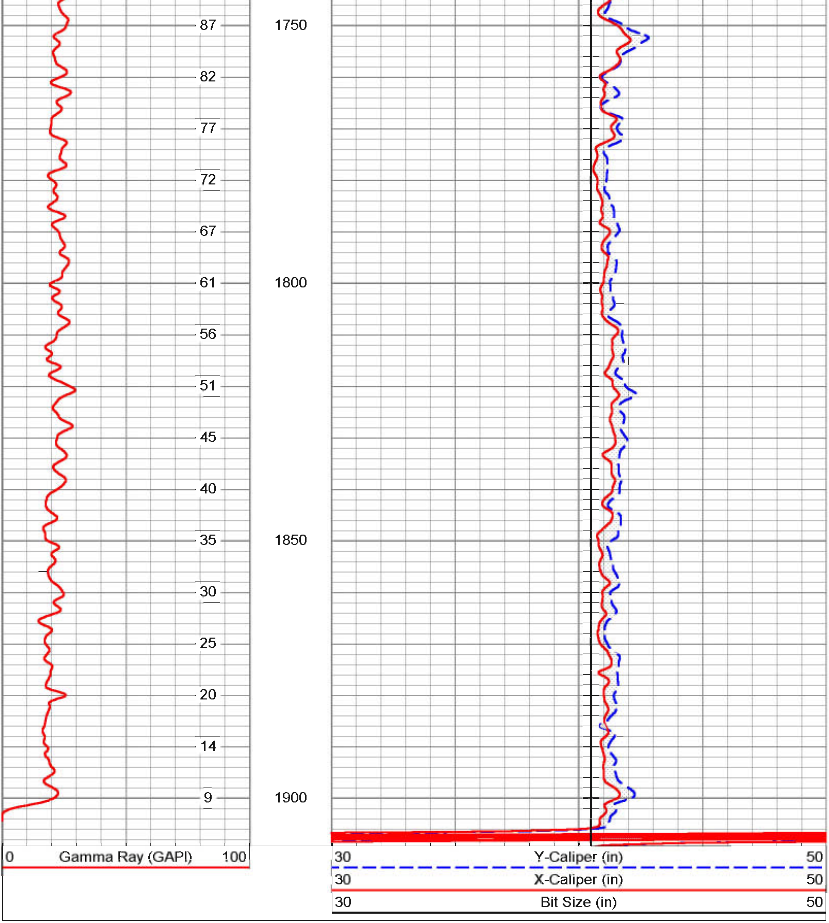


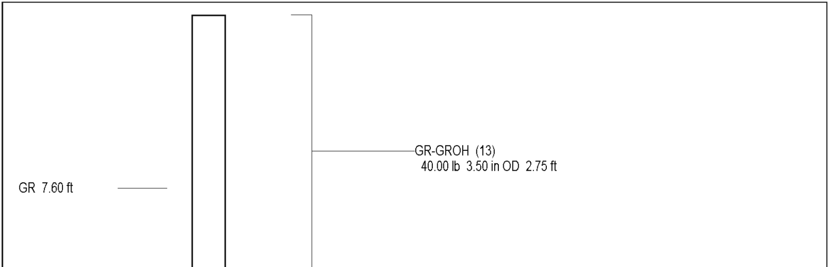
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

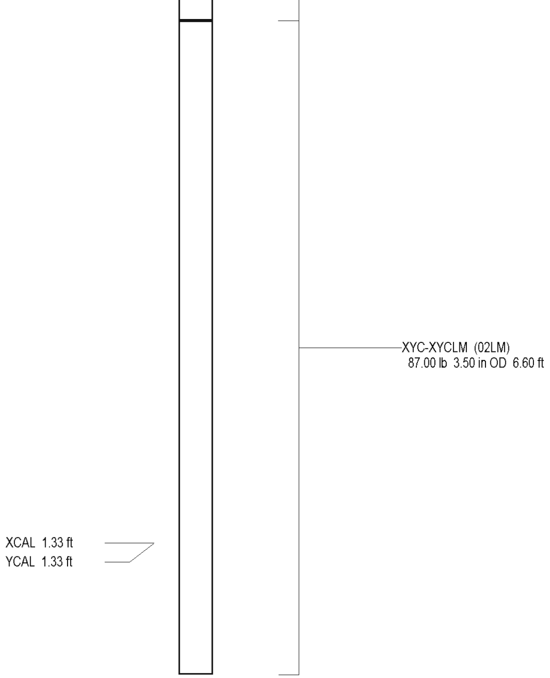
REPEAT PASS

Database File: hiaiw1.db
Dataset Pathname: run6/pass1.1
Presentation Format: GRXY-AHV
Dataset Creation: Sun Dec 27 00:28:24 2009 by Calc 6.2_B4
Charted by: Depth in Feet scaled 1:240









Dataset:	run6/pass2.1
Total Length:	9.35 ft
Total Weight:	127.00 lb
O.D.	3.50 in

XY Caliper Calibration Report

Serial Number/Model:	02LM-XYCLM
Performed:	Sat Dec 26 23:12:00 2009

Ring			X Caliper		Y Caliper	
1:	20	in	948.549	cps	935.936	cps
2:	30	in	1043.84	cps	1054.35	cps
3:	41.25	in	1165.71	cps	1196.08	cps
4:	50	in	1262.86	cps	1304.9	cps
5:		in		cps		cps
6:		in		cps		cps

Gamma Ray Calibration Report

Serial Number:	13	
Tool Model:	GROH	
Performed:	Thu Jul 17 15:55:52 2008	
Calibrator Value:	120	GAPI
Background Reading:	19.4194	cps
Calibrator Reading:	98.7988	cps
Sensitivity:	1.51173	GAPI/cps

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

X-Y CALIPER
GAMMA RAY
LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location: API # :
SEC TWP RGE

Other Services
SEE
COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	26-NOV-09		
Run Number	THREE		
Depth Driller	1079'		
Depth Logger	1079'		
Bottom Logged Interval	1079'		
Top Log Interval	CASING		
Open Hole Size	50.5"		
Type Fluid	MUD		
Density / Viscosity	NA		
Max. Recorded Temp.	NA		
Estimated Cement Top	NA		
Time Well Ready	1600		
Time Logger on Bottom	1625		
Equipment Number	102		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	S. DAY		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run Number	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String				
Production String				
Liner				

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Comments

ANNULAR BOREHOLE VOLUME CALCULATED IN
BARRELS FOR (40" CASING)

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run3/pass2.1
Presentation Format:	grxy-ahv
Dataset Creation:	Thu Nov 26 17:16:35 2009 by Calc 6.2_B4
Charted by:	Depth in Feet scaled 1:1200

0 Gamma Ray (GAPI) 100

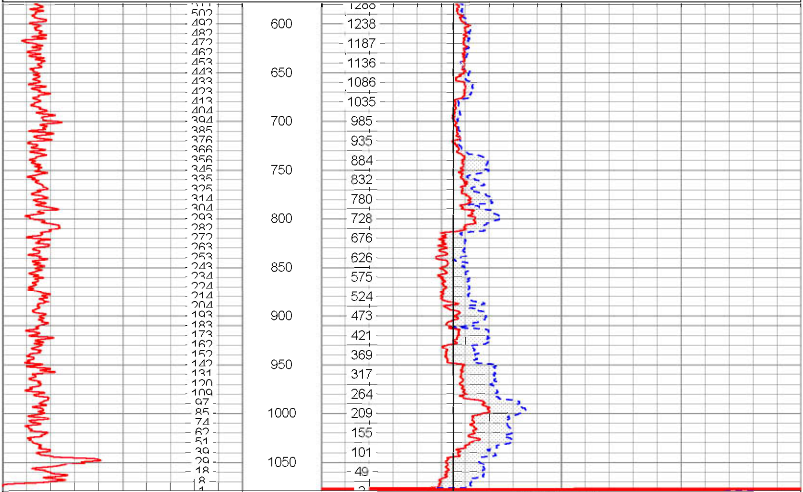
ABHV (BBL)
(bbl)

45 Y-Caliper (in) 65

45 X-Caliper (in) 65

45 Bit Size (in) 65

TBHV (BBL)
(bbl)



0 Gamma Ray (GAPI) 100

ABHV (BBL)
(bbl)

45 Y-Caliper (in) 65

45 X-Caliper (in) 65

45 Bit Size (in) 65

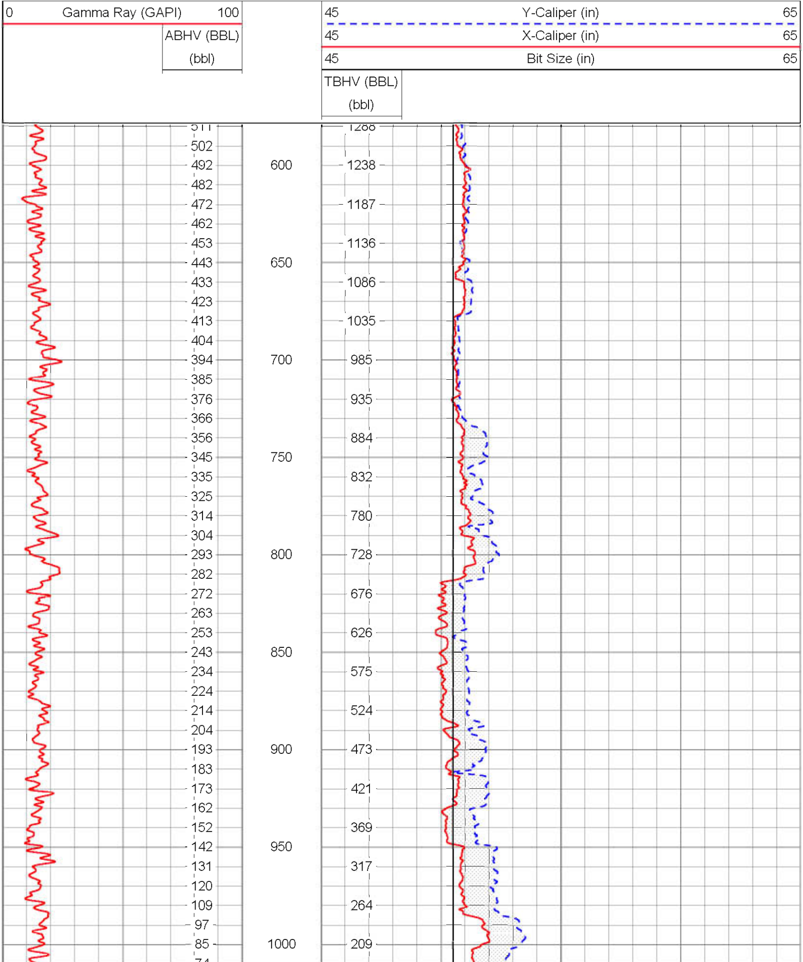
TBHV (BBL)
(bbl)

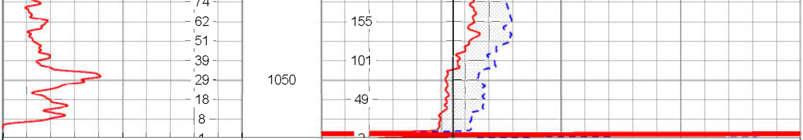
YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run3/pass2.1
Presentation Format:	grxy-ahv
Dataset Creation:	Thu Nov 26 17:16:35 2009 by Calc 6.2_B4
Charted by:	Depth in Feet scaled 1:600





0 Gamma Ray (GAPI) 100

ABHV (BBL)
(bbl)

45 Y-Caliper (in) 65

45 X-Caliper (in) 65

45 Bit Size (in) 65

TBHV (BBL)
(bbl)

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File: hiaiw1.db
Dataset Pathname: run3/pass2.1
Presentation Format: grxy-ahv
Dataset Creation: Thu Nov 26 17:16:35 2009 by Calc 6.2_B4
Charted by: Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 100

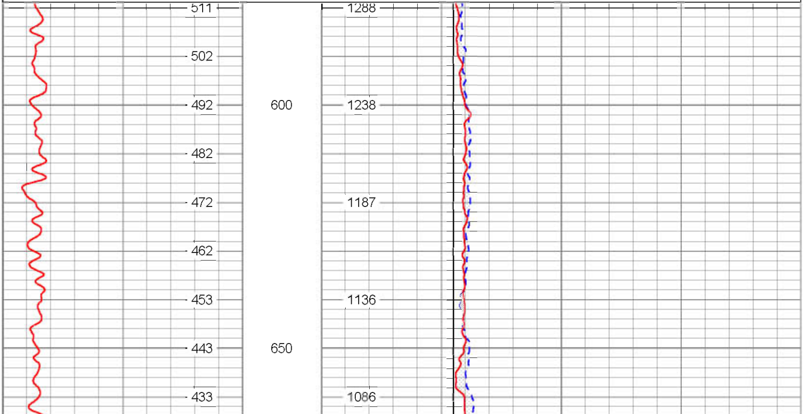
ABHV (BBL)
(bbl)

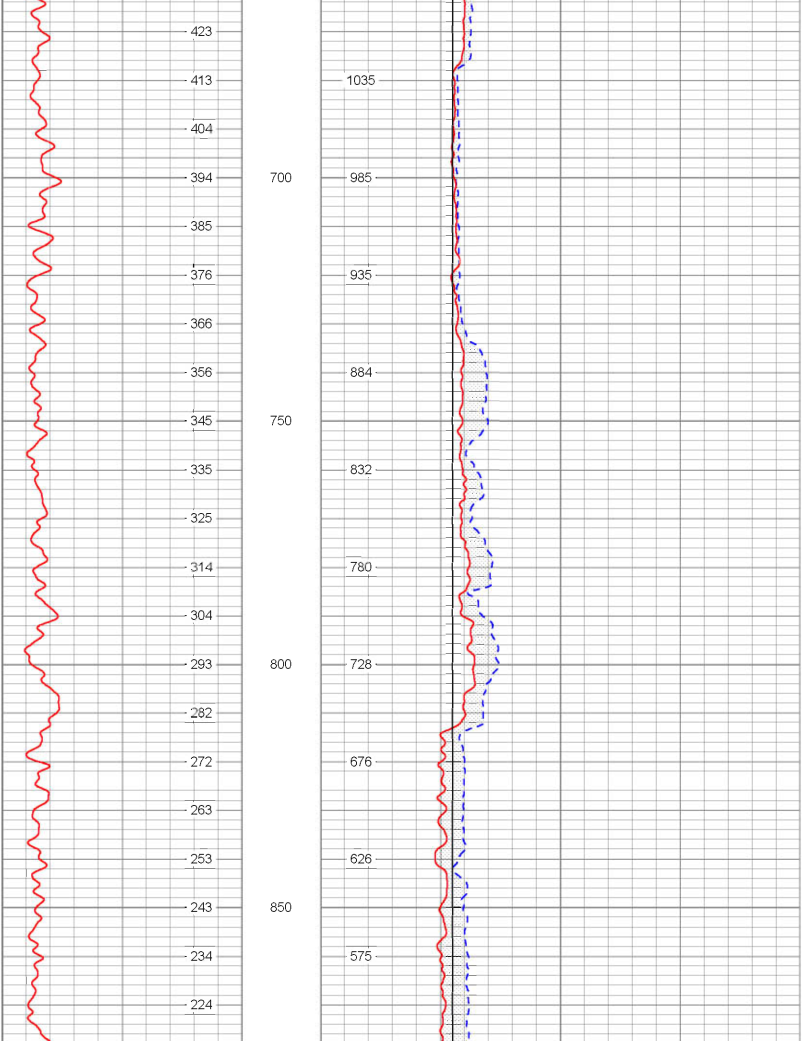
45 Y-Caliper (in) 65

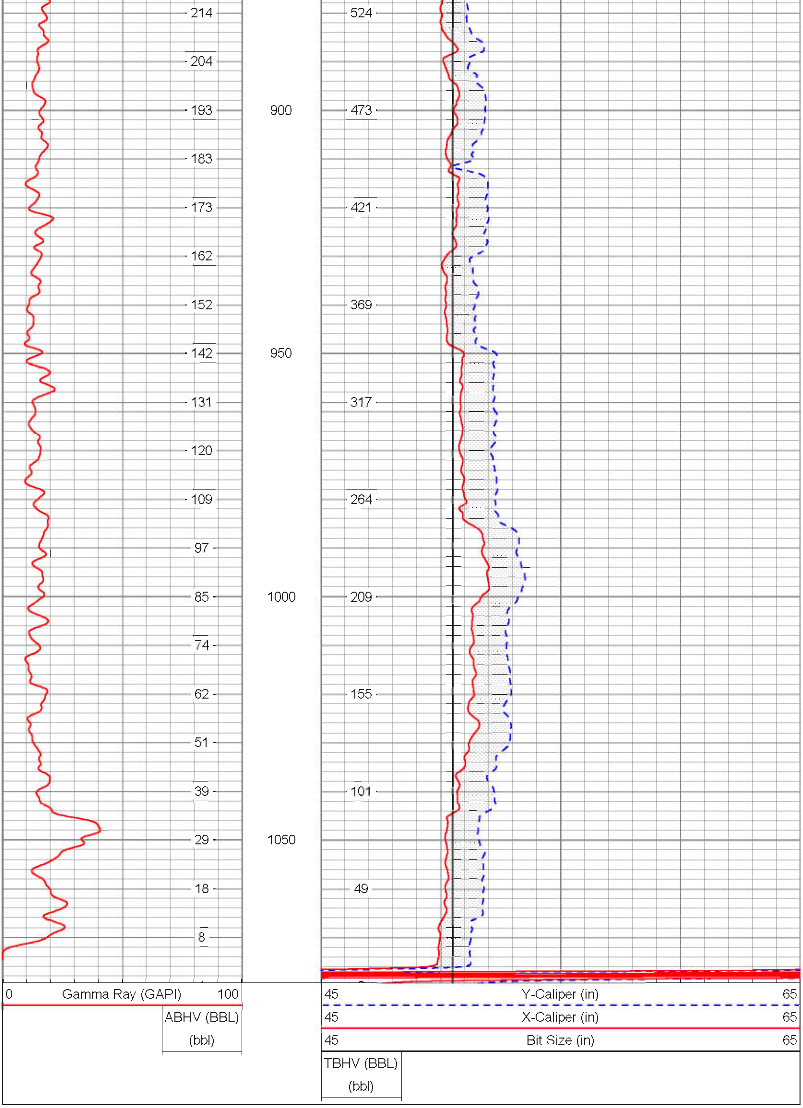
45 X-Caliper (in) 65

45 Bit Size (in) 65

TBHV (BBL)
(bbl)







YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File:	hiaiw1.db
Dataset Pathname:	run3/pass2.1
Presentation Format:	grxy-ahv
Dataset Creation:	Thu Nov 26 17:16:35 2009 by Calc 6.2_B4
Charted by:	Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 100

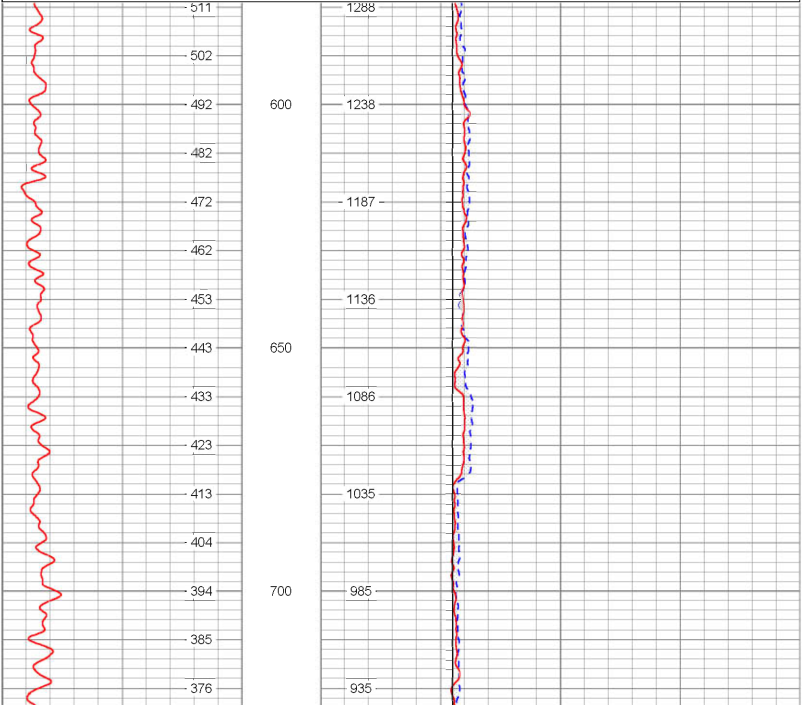
ABHV (BBL) (bbl)

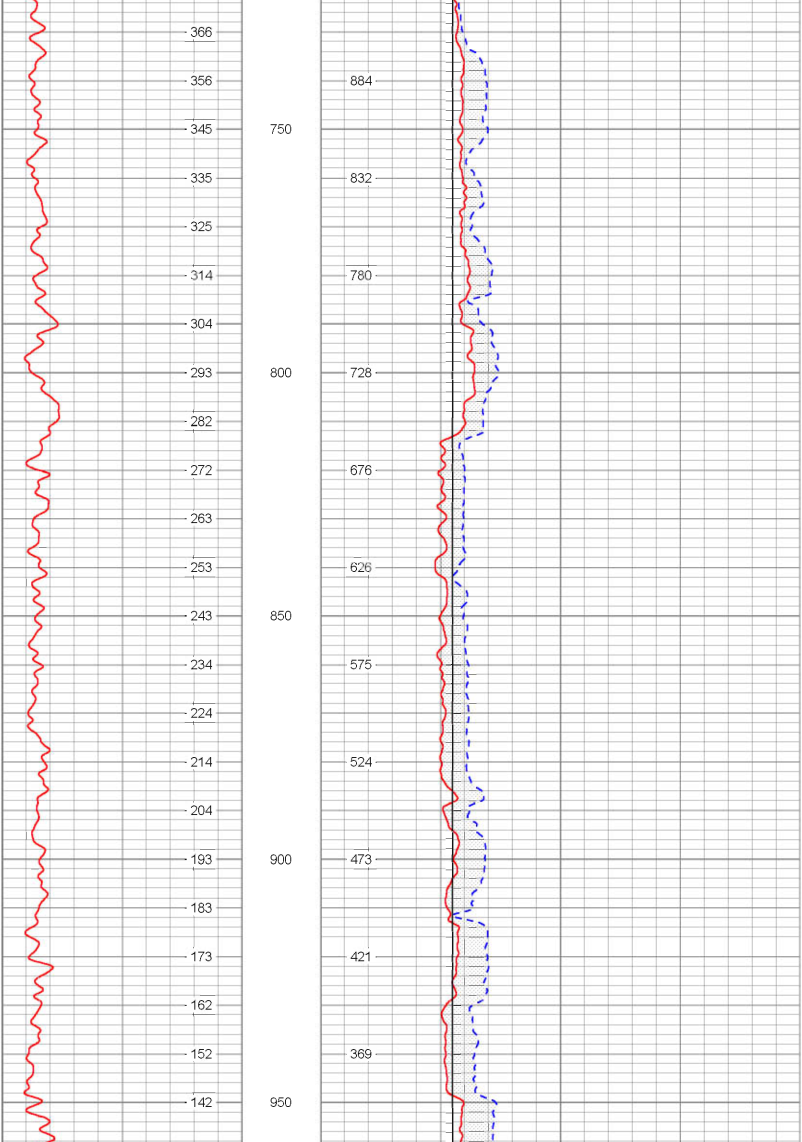
45 Y-Caliper (in) 65

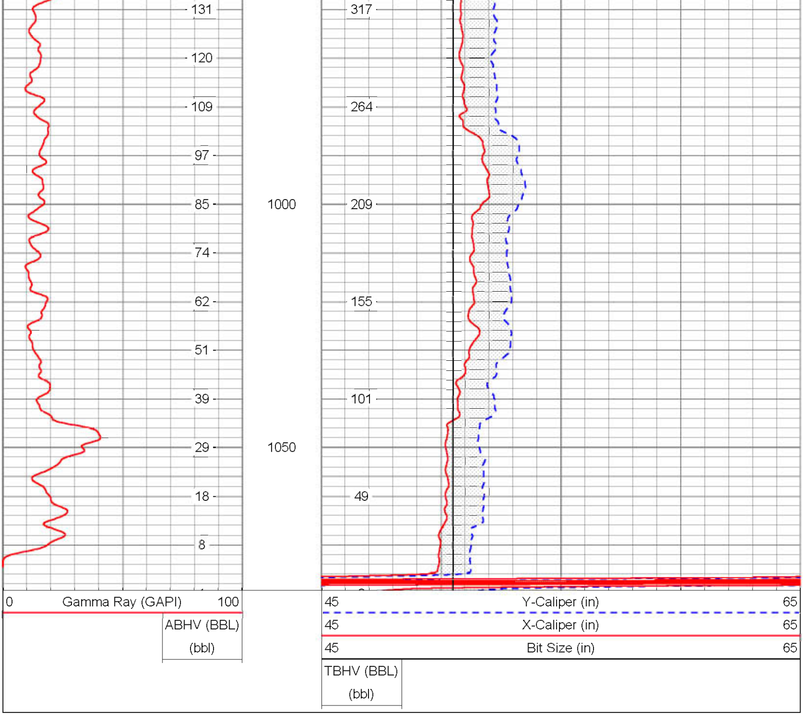
45 X-Caliper (in) 65

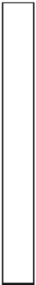
45 Bit Size (in) 65

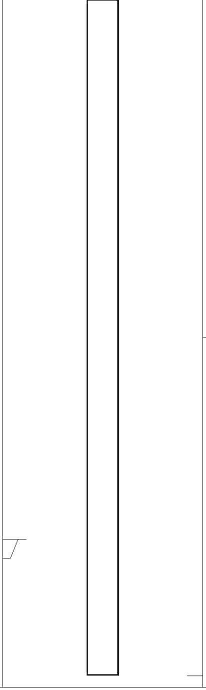
TBHV (BBL) (bbl)







Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	7.60		GR-GROH (13)	2.75	3 50	40.00



XYC-XYCLM (02LM) 6.60 3.50 87.00

XCAL 1.33
YCAL 1.33

Dataset: hiaiw1.db: field/well/run3/pass2.1
Total Length: 9.35 ft
Total Weight: 127.00 lb
O.D. 3.50 in

Calibration Report

Database File: hiaiw1.db
Dataset Pathname: run3/pass2.1
Dataset Creation: Thu Nov 26 17:16:35 2009 by Calc 6.2_B4

XY Caliper Calibration Report

Serial Number/Model: 02LM-XYCLM
Performed: Thu Nov 26 16:29:49 2009

Ring			X Caliper		Y Caliper	
1:	40	in	1091.09	cps	1091.5	cps
2:	51.25	in	1200	cps	1230	cps
3:	65	in	1323.23	cps	1365.19	cps
4:		in		cps		cps
5:		in		cps		cps
6:		in		cps		cps

Gamma Ray Calibration Report

Serial Number: 13
Tool Model: GROH
Performed: Thu Jul 17 15:55:52 2008

Calibrator Value: 120 GAPI

Background Reading: 19.4194 cps
Calibrator Reading: 98.7988 cps

Sensitivity: 1.51173 GAPI/cps

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

X-Y CALIPER
GAMMA RAY
LOG

Company CITY OF HIALEA
Well IW-1
Field HIALEA
County DADE
State FL

Company CITY OF HIALEA
Well IW-1
Field HIALEA
County DADE State FL

Location

Other Services
SEE
COMMENTS

Permanent Datum
Log Measured From
Drilling Measured From

Elevation

Elevation
K.B.
D.F.
G.L.

Date	11-NOV-09		
Run Number	ONE		
Depth Driller	160'		
Depth Logger	160'		
Bottom Logged Interval	160'		
Top Log Interval	SURFACE		
Open Hole Size	60.5"		
Type Fluid	MUD		
Density / Viscosity	NA		
Max. Recorded Temp.	NA		
Estimated Cement Top	NA		
Time Well Ready	1100		
Time Logger on Bottom	1120		
Equipment Number	102		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	WEBSTER, C		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run Number	Bit	From	To
ONE	60.5"	160'	SURFACE				

Casing Record	Size	Wgt/Ft	Top	Bottom
Casing String				
Casing String				
Casing String				
Casing String				

<<< Fold Here >>>

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Comments

ANNULAR BOREHOLE VOLUME CALCULATED
IN BARRELS FOR (52" CASING)

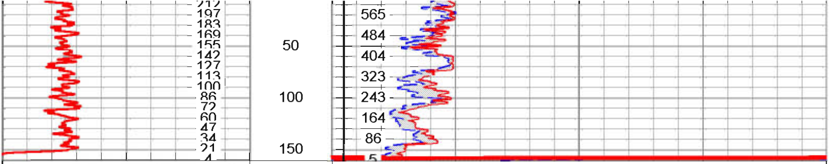
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File: hleigiw1.db
Dataset Pathname: pass2
Presentation Format: GRXY-AHV
Dataset Creation: Wed Nov 11 11:44:20 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:1200

0 Gamma Ray (GAPI) 100

60 Y-Caliper (in) 80
60 X-Caliper (in) 80
60 Bit Size (in) 80



0 Gamma Ray (GAPI) 100

60 Y-Caliper (in) 80
60 X-Caliper (in) 80
60 Bit Size (in) 80

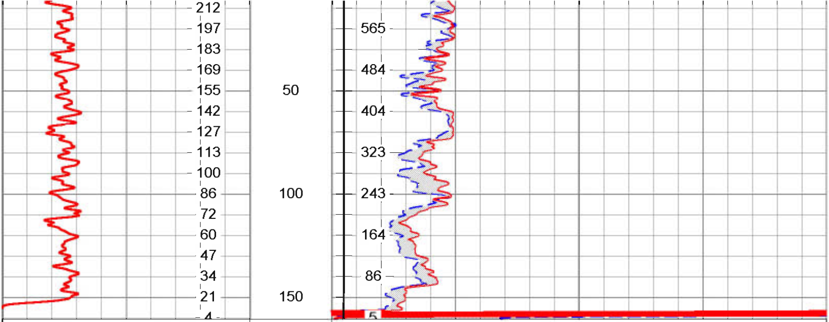
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

Database File: hleigiw1.db
Dataset Pathname: pass2
Presentation Format: GRXY-AHV
Dataset Creation: Wed Nov 11 11:44:20 2009 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:600

0 Gamma Ray (GAPI) 100

60 Y-Caliper (in) 80
60 X-Caliper (in) 80
60 Bit Size (in) 80



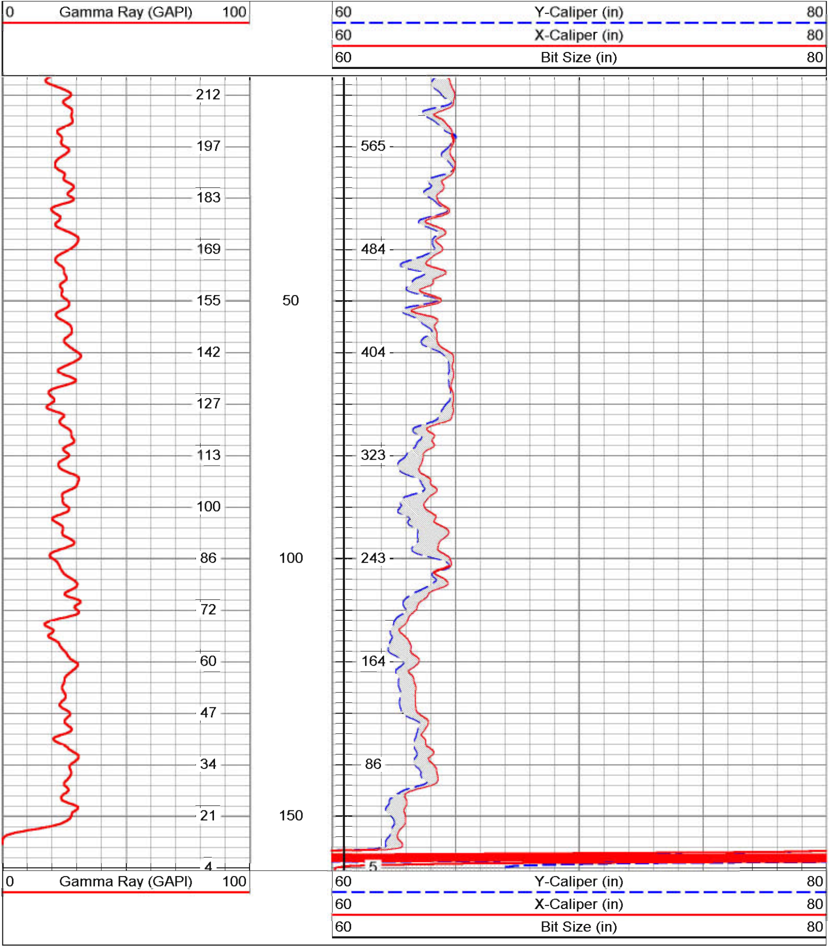
0 Gamma Ray (GAPI) 100

60 Y-Caliper (in) 80
60 X-Caliper (in) 80
60 Bit Size (in) 80

YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

MAIN PASS

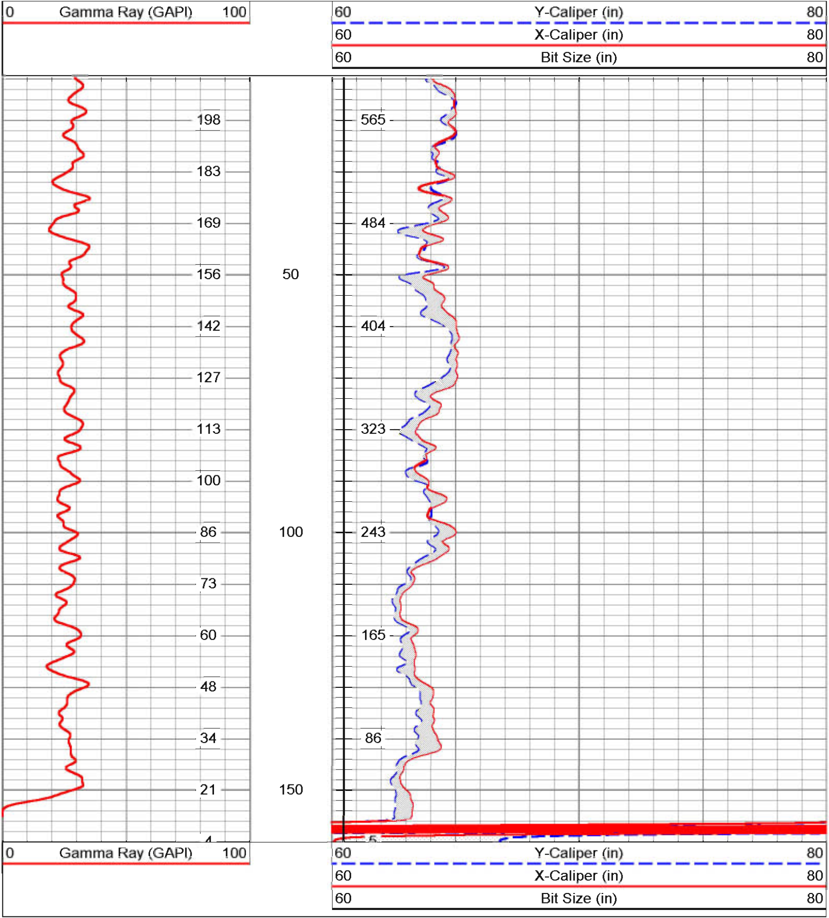
Database File:	hleigiw1.db
Dataset Pathname:	pass2
Presentation Format:	GRXY-AHV
Dataset Creation:	Wed Nov 11 11:44:20 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240

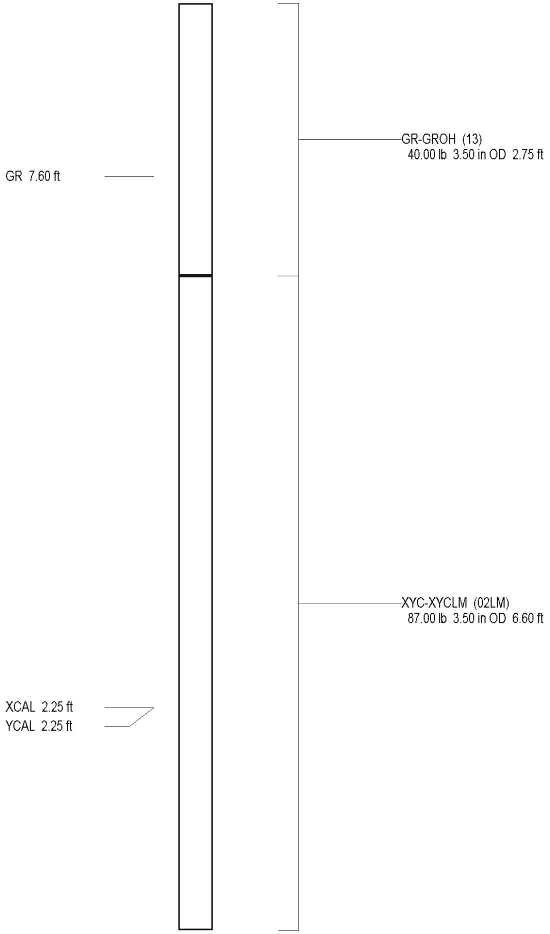


YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

REPEAT PASS

Database File:	hleigiw1.db
Dataset Pathname:	pass1
Presentation Format:	GRXY-AHV
Dataset Creation:	Wed Nov 11 11:33:05 2009 by Log 6.2_B4
Charted by:	Depth in Feet scaled 1:240





Dataset:	run1/pass2
Total Length:	9.35 ft
Total Weight:	127.00 lb
O.D.	3.50 in

XY Caliper Calibration Report

Serial Number/Model:	02LM-XYCLM
Performed:	Wed Nov 11 11:31:30 2009

Ring			X Caliper		Y Caliper	
1:	30	in	1010.42	cps	1003.3	cps
2:	40	in	1088.19	cps	1100.5	cps
3:	65	in	1325.23	cps	1387.29	cps
4:		in		cps		cps
5:		in		cps		cps
6:		in		cps		cps

Gamma Ray Calibration Report

Serial Number:	13	
Tool Model:	GROH	
Performed:	Thu Jul 17 15:55:52 2008	
Calibrator Value:	120	GAPI
Background Reading:	19.4194	cps
Calibrator Reading:	98.7988	cps
Sensitivity:	1.51173	GAPI/cps

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

(24" CASING) CEMENT BOND VARIABLE DENSITY LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company CITY OF HIALEAH

Well IW-1

Field HIALEAH R.O.W.T.P.

County DADE State FL

Location: API # :

SEC TWP RGE

Other Services
SEE COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	16-MAR-2010		
Run Number	24" CBL		
Depth Driller	3505'		
Depth Logger	2930'		
Bottom Logged Interval	2930'		
Top Log Interval	100'		
Open Hole Size	22"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	NA		
Estimated Cement Top	325'		
Time Well Ready	1030		
Time Logger on Bottom	1115		
Equipment Number	104		
Location	FT MYERS		
Recorded By	CATHEY		
Witnessed By	D. BARNES		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'	SIX	32.5"	CASING	2970'
THREE	50.5"	CASING	1079'	SEVEN	22"	CASING	3505'
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner	24"	.375" W.T.	SURFACE	2974'

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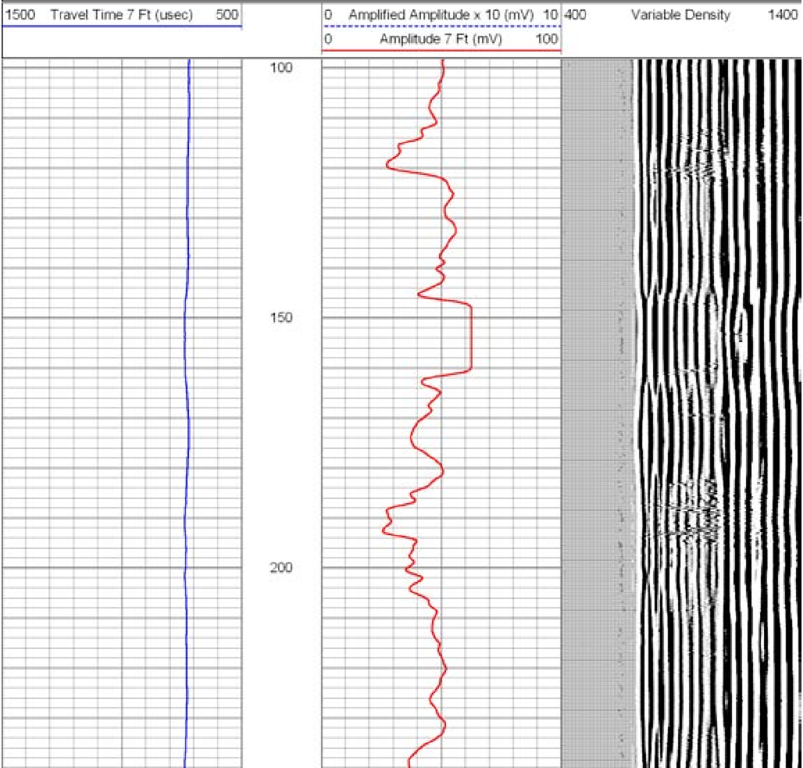
Comments

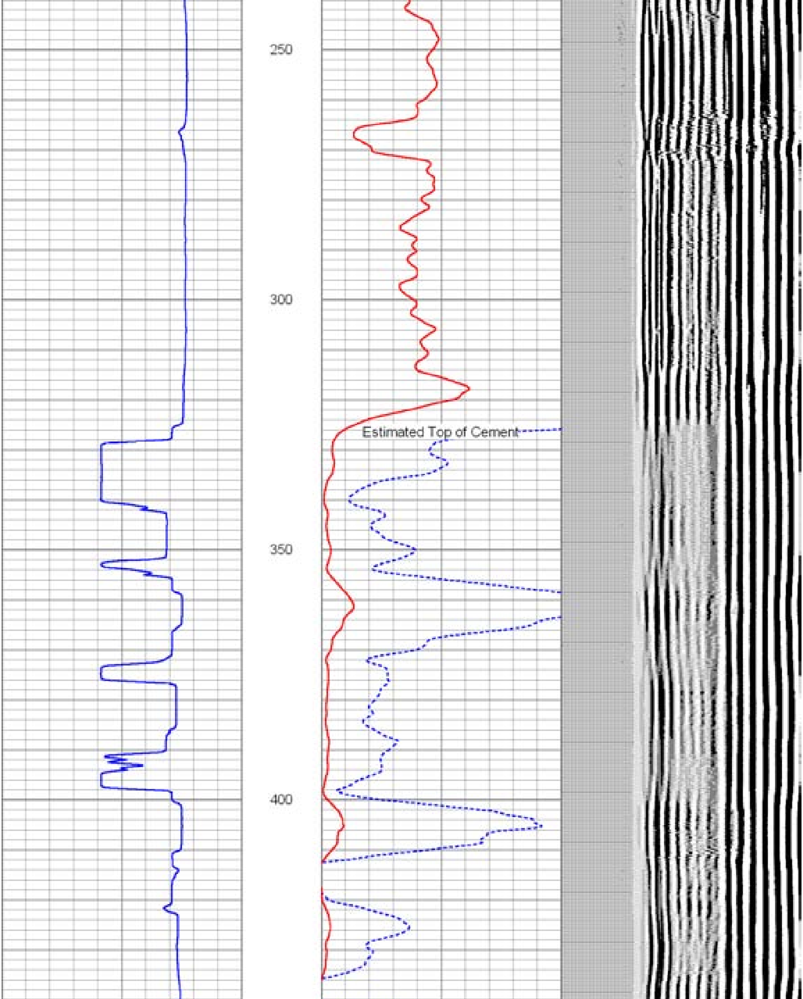
MODIFIED BOND TOOL WITH 7' SPACING

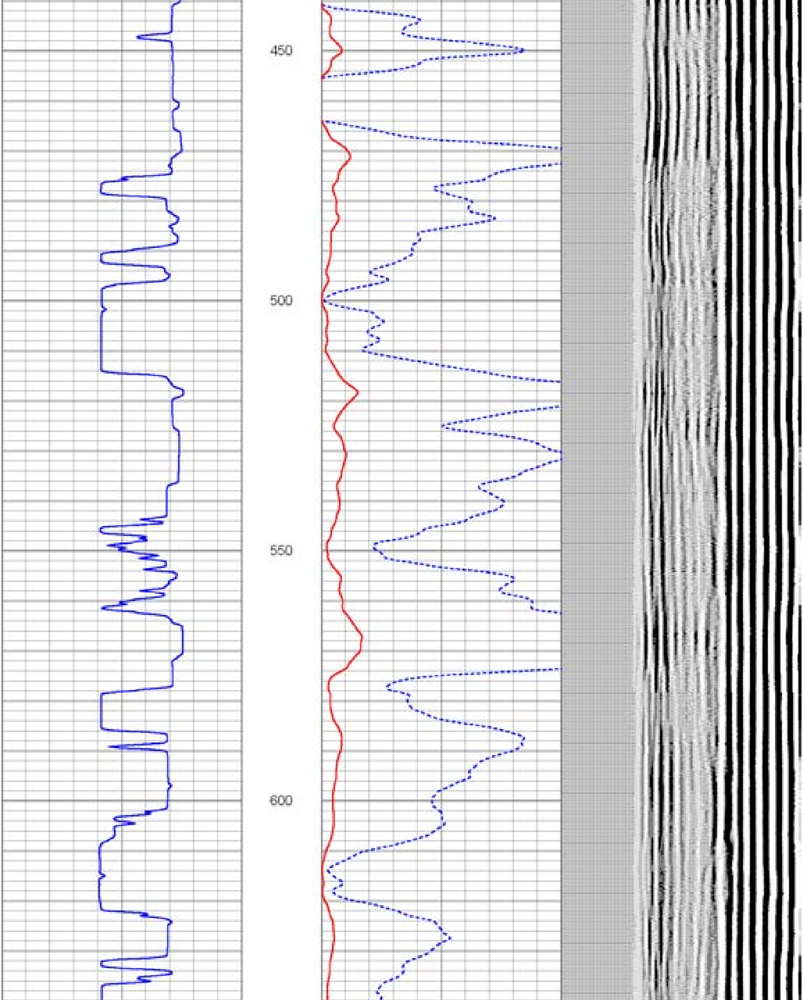
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

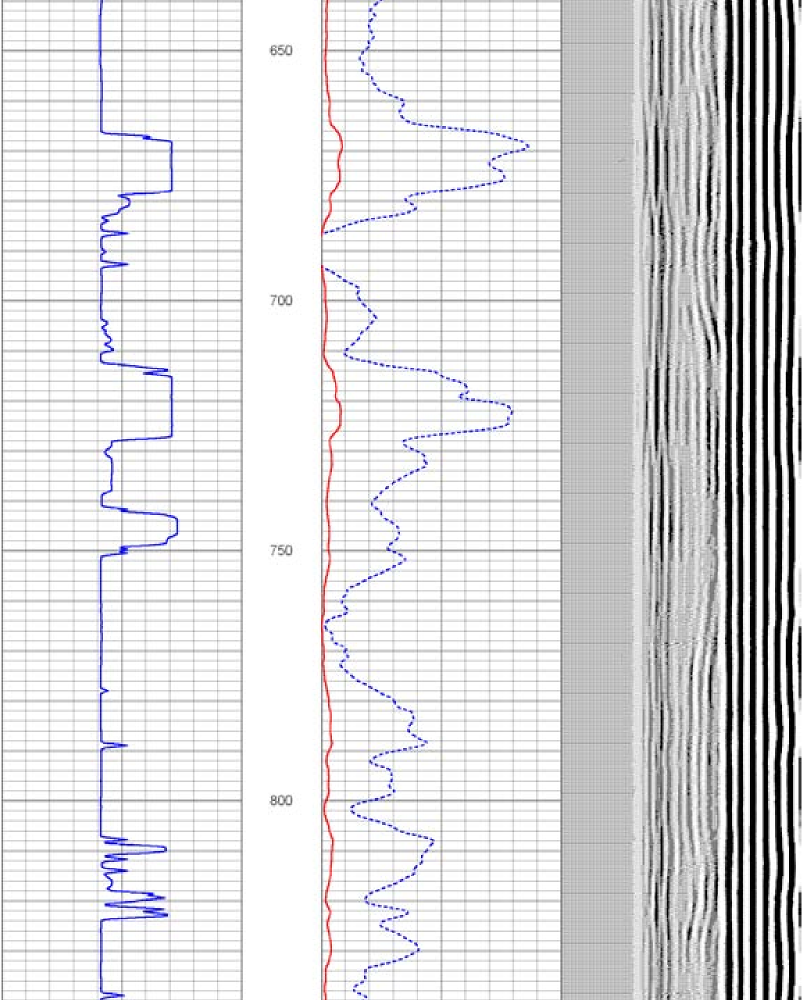
MAIN PASS

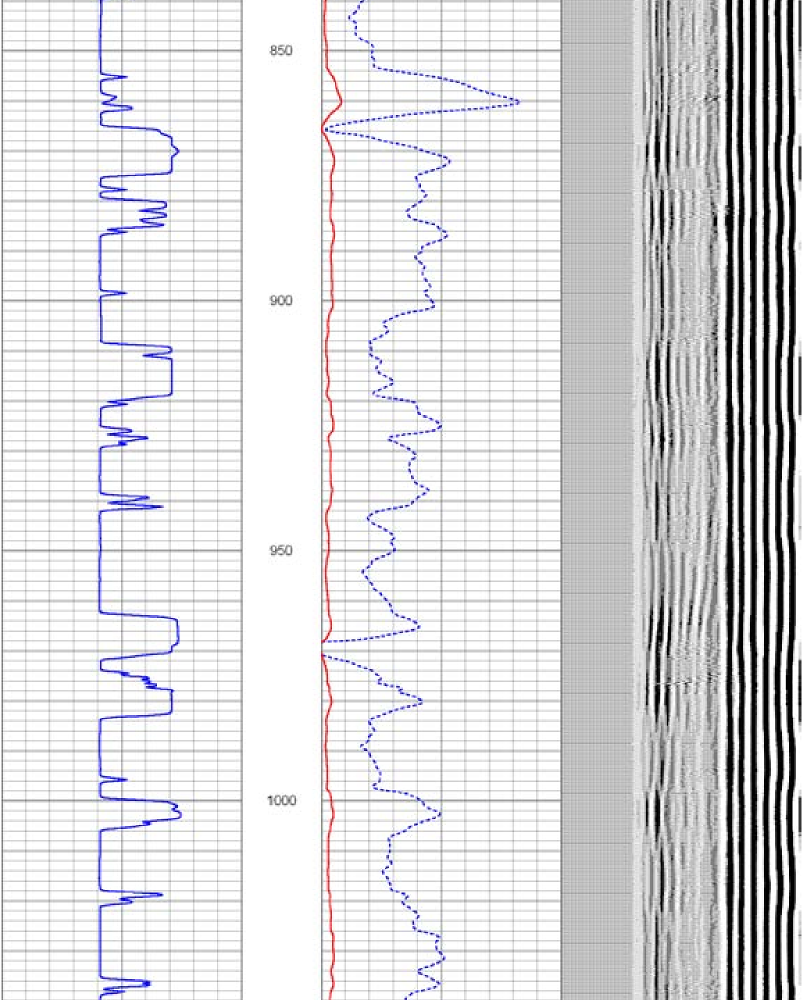
Database File:	hiaiw1.db
Dataset Pathname:	24CBL/pass2
Presentation Format:	cbl5ft
Dataset Creation:	Tue Mar 16 10:44:44 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

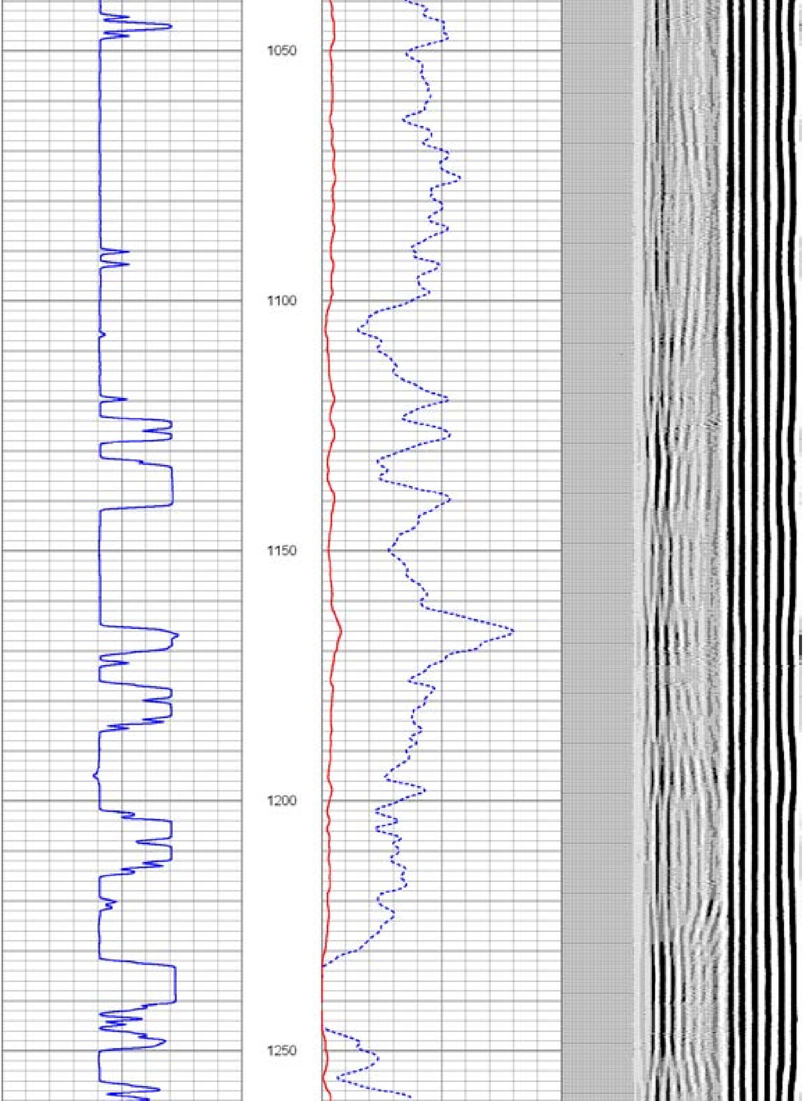


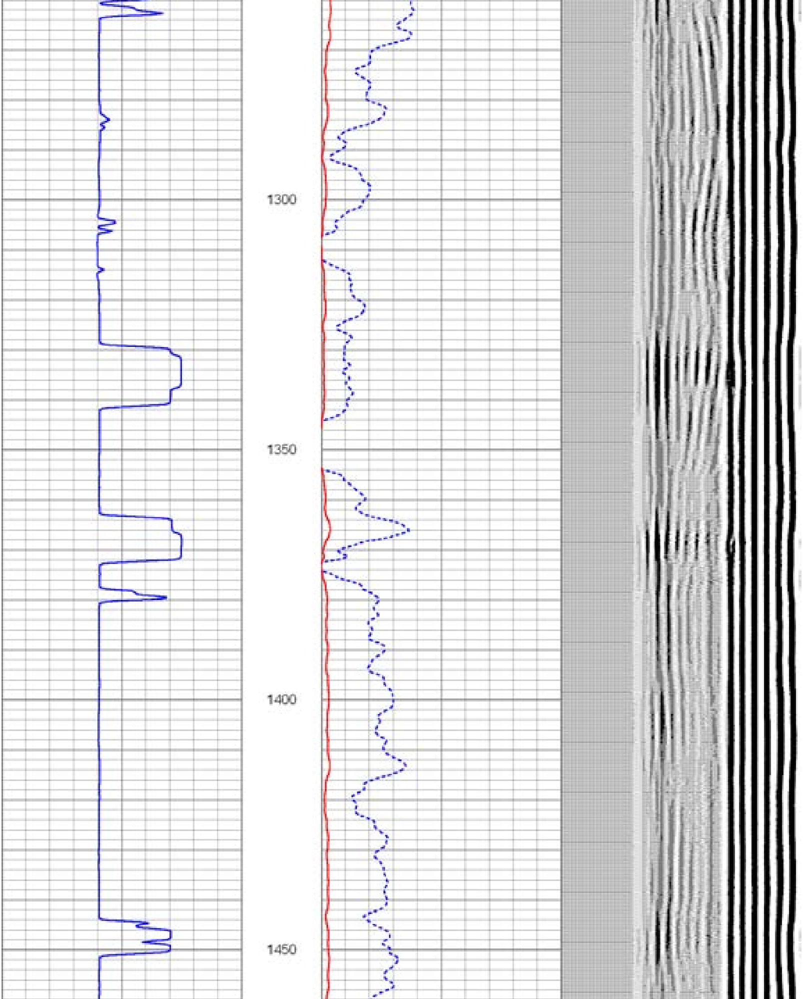


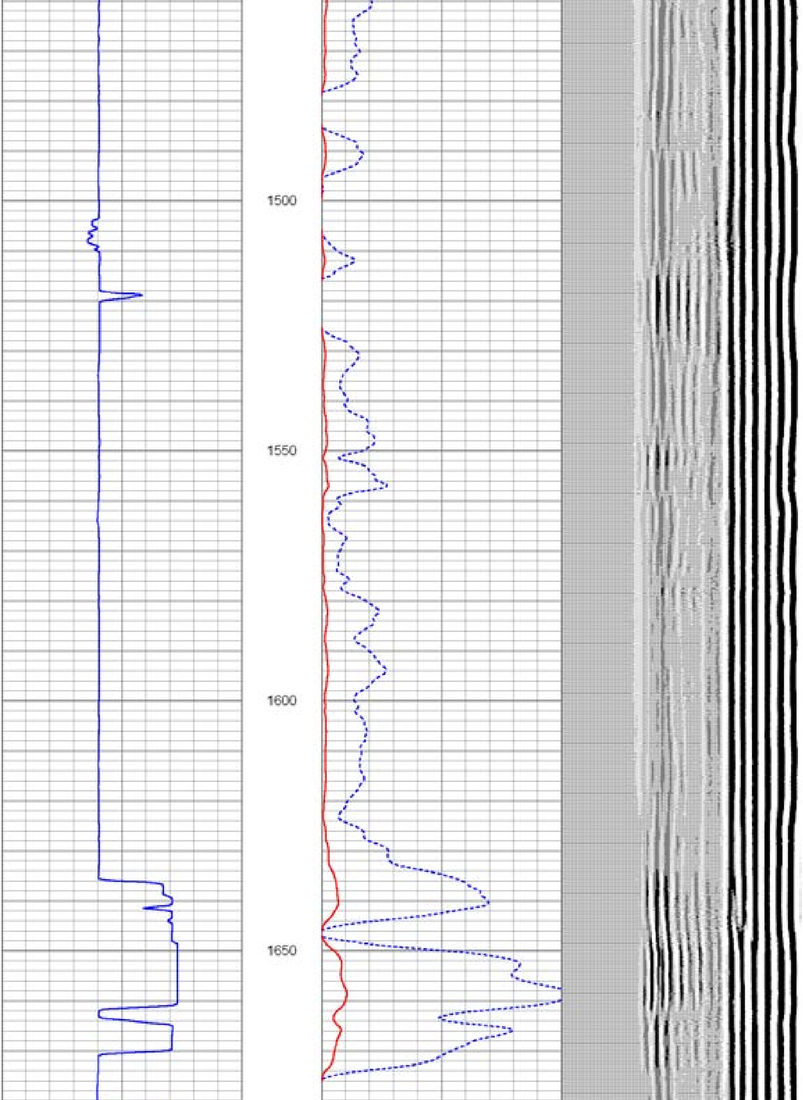


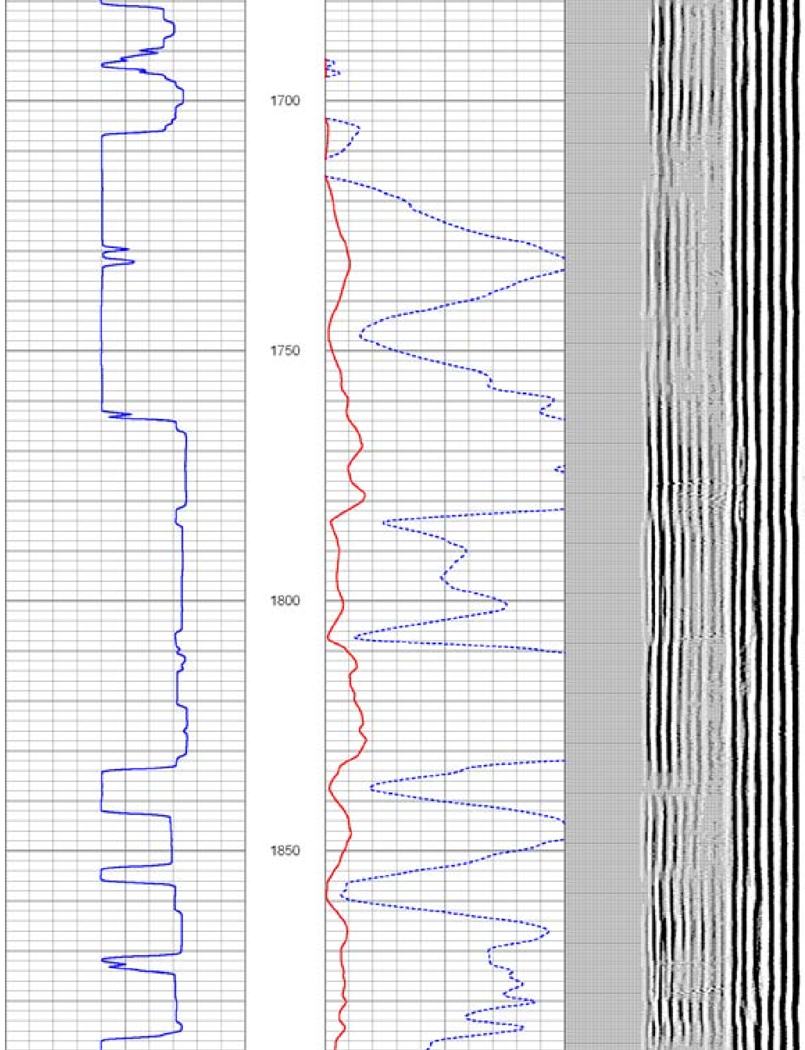


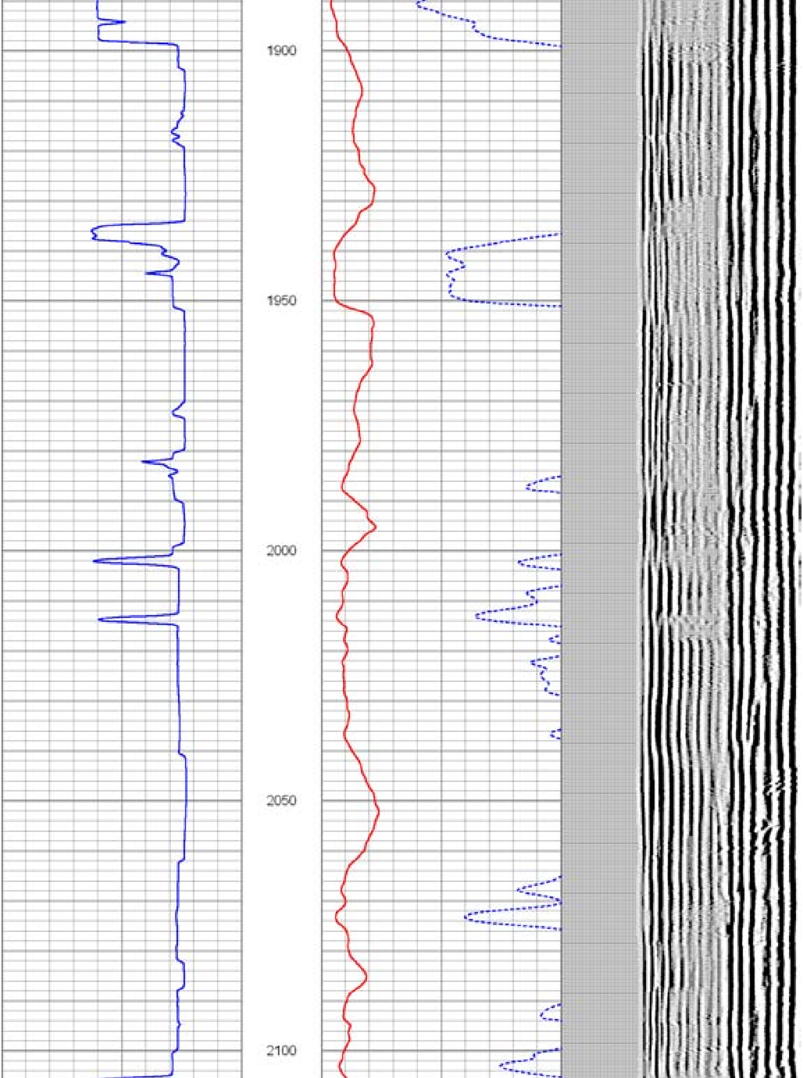


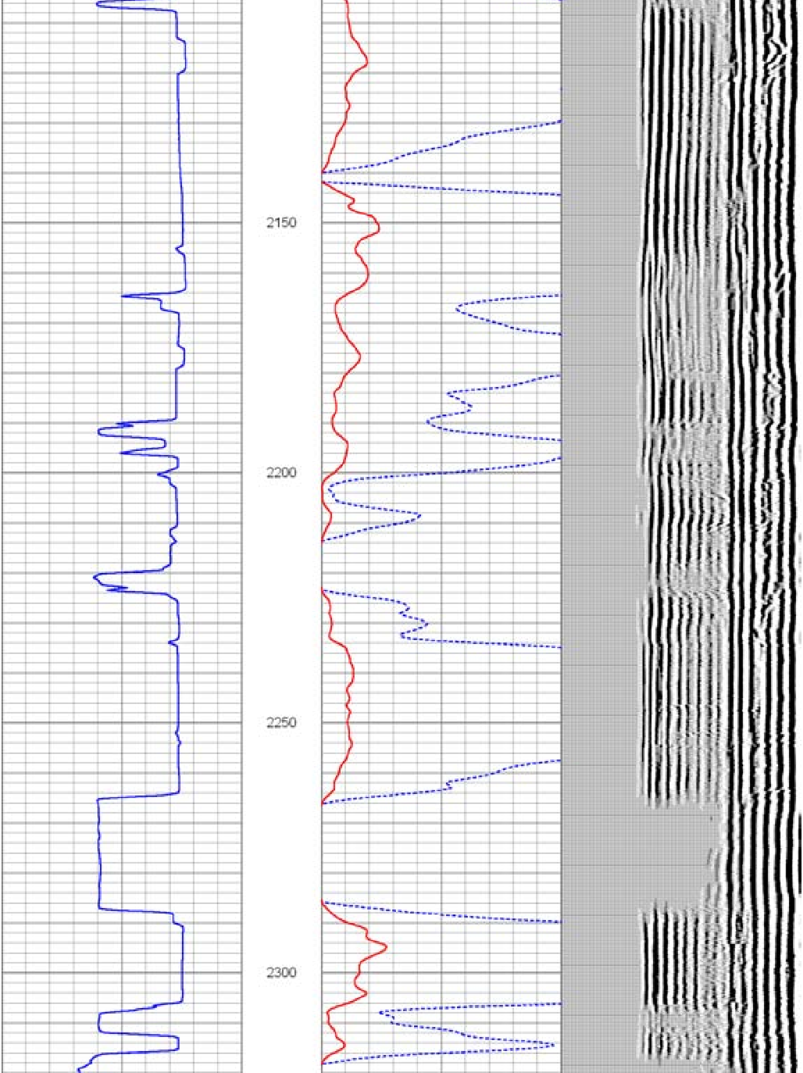


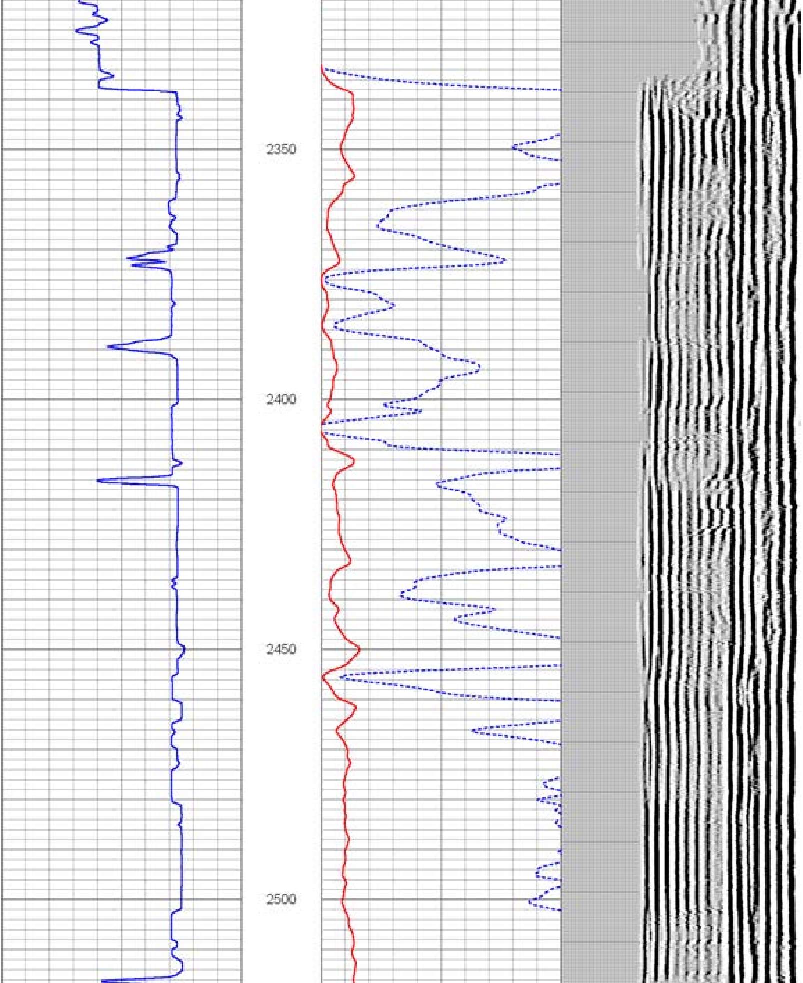


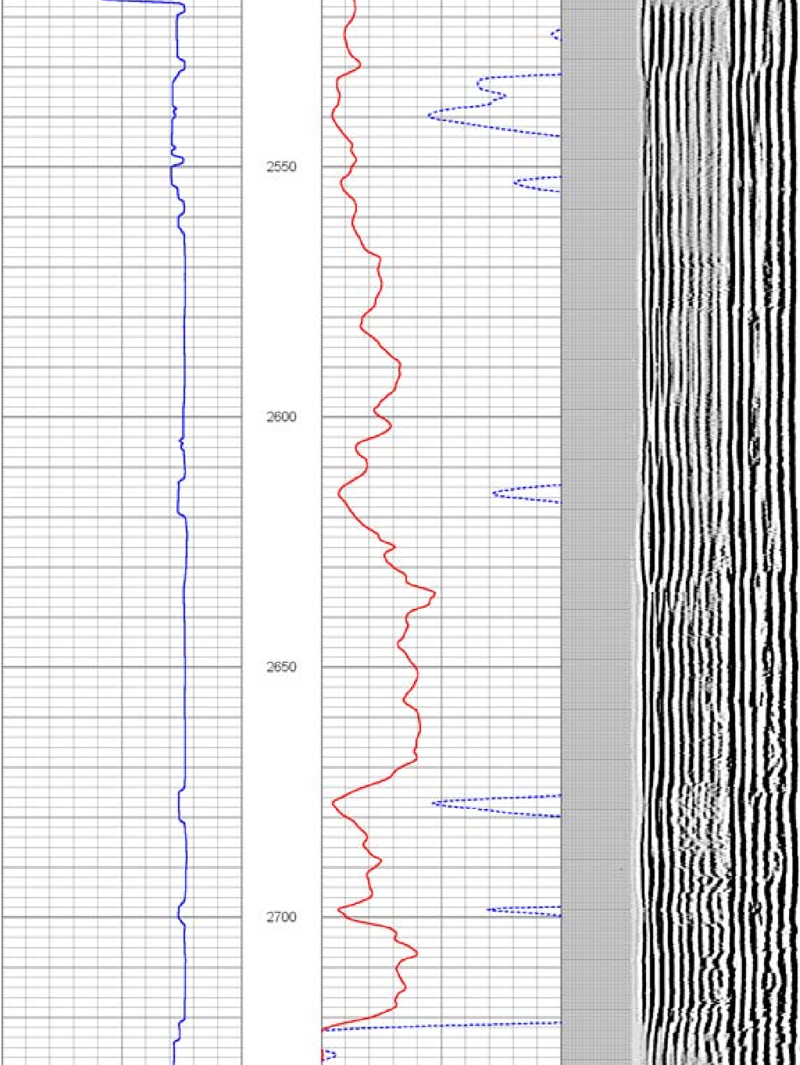


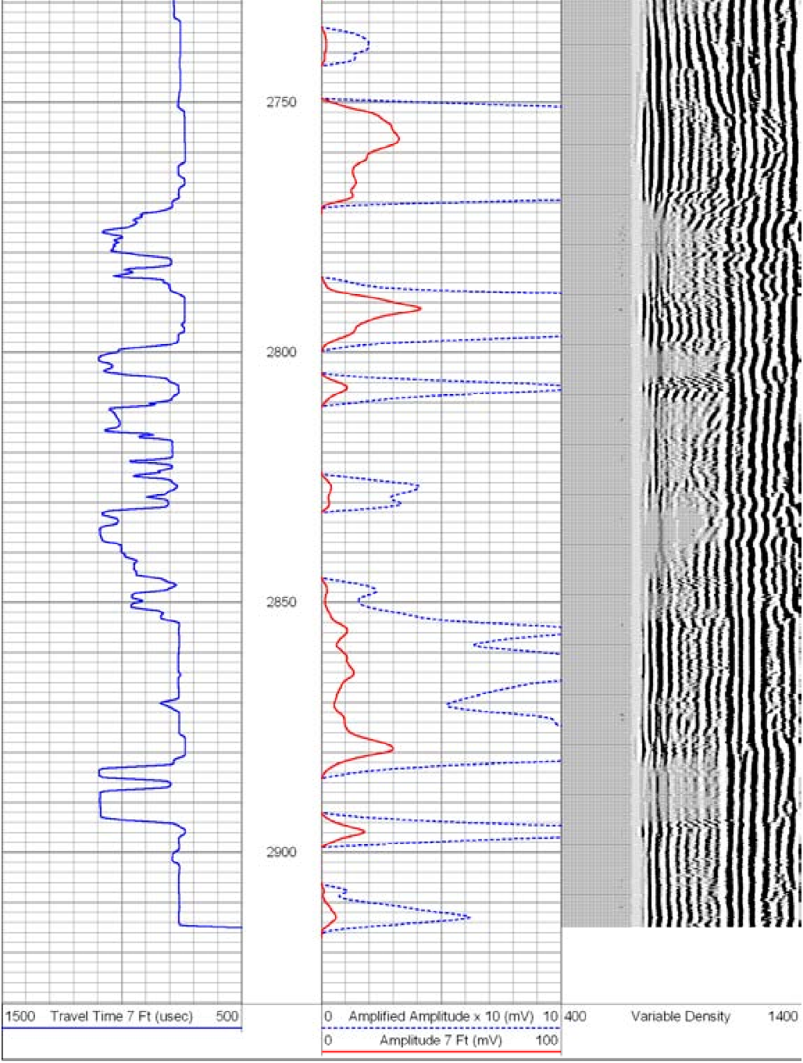








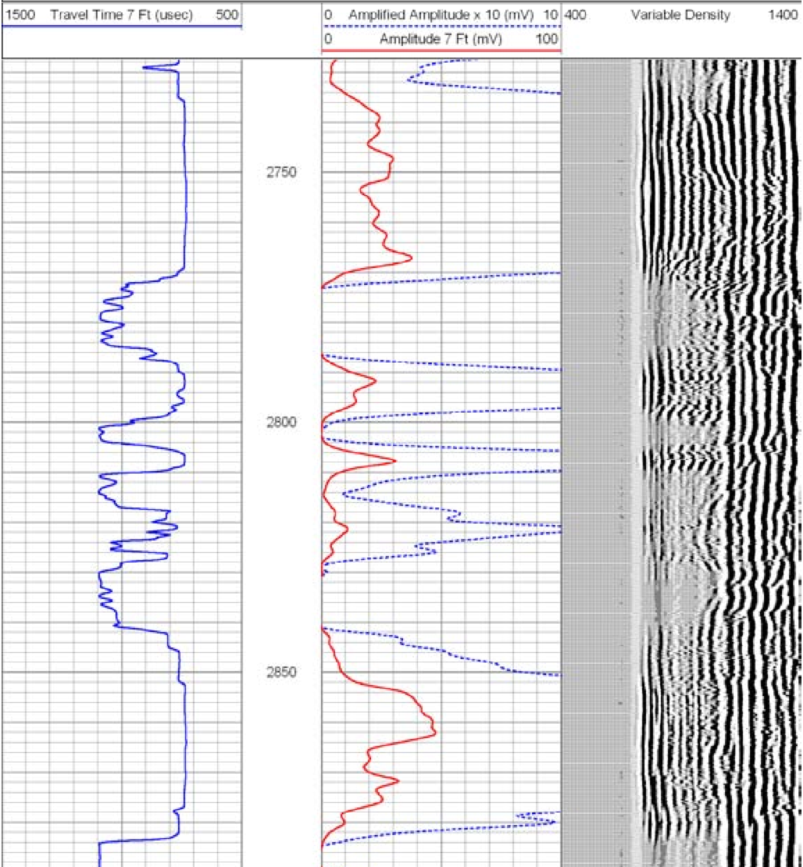


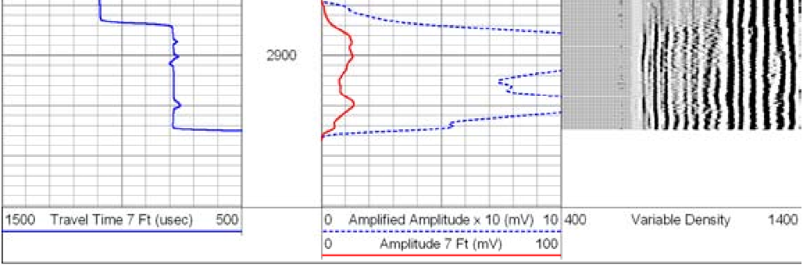


YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

REPEAT PASS

Database File: hiaiw1.db
Dataset Pathname: 24CBL/pass1
Presentation Format: cbl5ft
Dataset Creation: Tue Mar 16 10:35:39 2010 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:240





Calibration Report

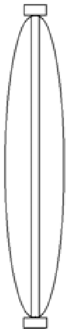
Database File: hiaiw1.db
Dataset Pathname: 24CBL/pass1
Dataset Creation: Tue Mar 16 10:35:39 2010 by Log Open-Cased 090629

CBL Calibration Report

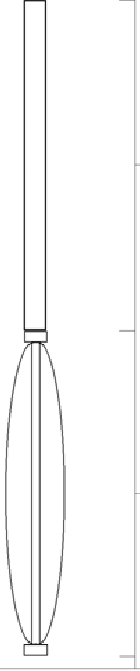
Serial Number: TIT1
Tool Model: TIT243
Performed: Tue Mar 16 10:17:46 2010

Depth: 275.951 ft
Casing Diameter: 24.000 in

	3' Spacing	5' Spacing	
Signal Zero:	0.000	0.000	mV
Calibrated Amplitude:	30.000	30.000	mV
Reading at Signal Zero:	0.000	0.000	V
Reading in Free Pipe:	0.528	1.199	V
Gain:	56.855	25.030	
Offset:	0.000	0.000	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			10Foot	10.00	3.63	100.00

WVF5FT	15.34
WVF3FT	14.34
WVFSYNC	10.00



CBL-TIT243 (TIT1) 2 7/16" TITAN CBL	10.17	2.43	122.00
10Foot	10.00	3.63	100.00

Dataset: hiaiw1.db: field/well/24CBL/pass1
Total Length: 30.17 ft
Total Weight: 322.00 lb
O.D. 3.63 in

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

(24" CASING) CEMENT TOP TEMPERATURE LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location: API # :

SEC TWP RGE

Other Services
SEE COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	10-MAR-2010		
Run Number	TEN		
Depth Driller	3505'		
Depth Logger	2930'		
Bottom Logged Interval	2930'		
Top Log Interval	SURFACE		
Open Hole Size	22"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	121.6		
Estimated Cement Top	SURFACE		
Time Well Ready	1030		
Time Logger on Bottom	1115		
Equipment Number	104		
Location	FT MYERS		
Recorded By	MOREY		
Witnessed By	R. STROSS		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'	SIX	32.5"	CASING	2970'
THREE	50.5"	CASING	1079'	SEVEN	22"	CASING	3505'
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner	24"	.375" W.T.	SURFACE	2932'

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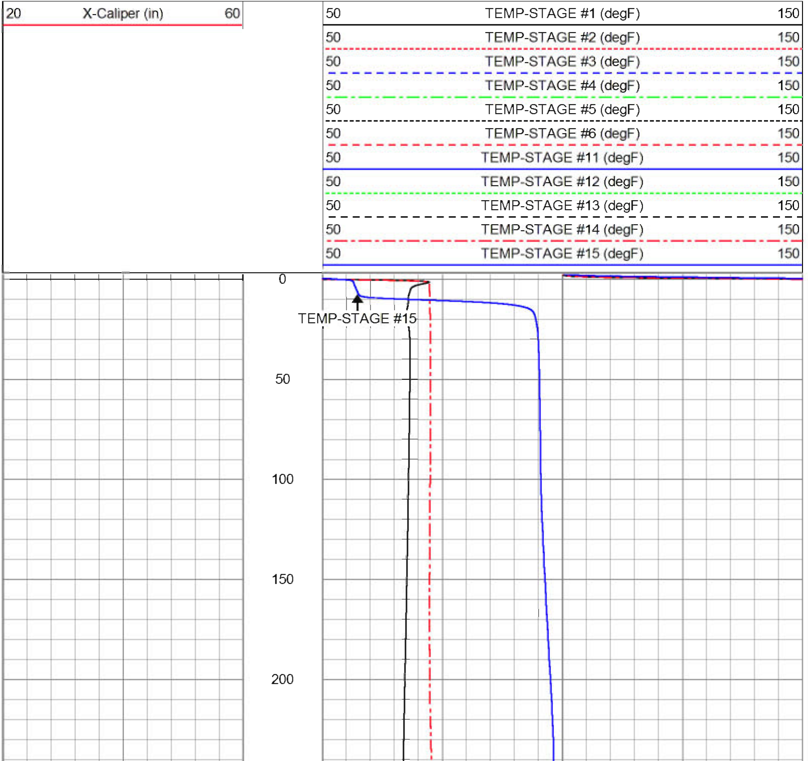
Comments

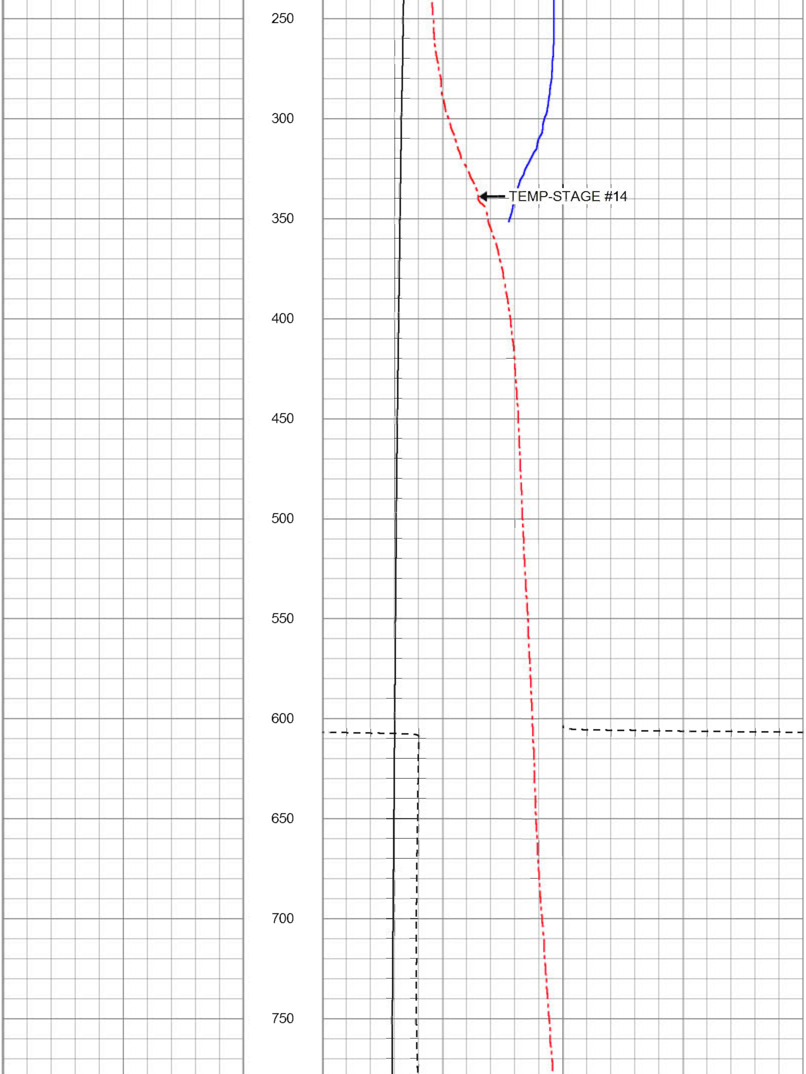
STAGE 1 LOGGED @ 1100 ON 03/10/10
STAGE 2 LOGGED @ 2300 ON 03/10/10
STAGE 3 LOGGED @ 0900 ON 03/11/10
STAGE 4 LOGGED @ 2100 ON 03/11/10
STAGE 5 LOGGED @ 1000 ON 03/12/10
STAGE 10 LOGGED @ 1445 ON 03/13/10
STAGE 11 LOGGED @ 0100 ON 03/14/10
STAGE 12 LOGGED @ 1230 ON 03/14/10
STAGE 13 LOGGED @ 0100 ON 03/15/10
STAGE 14 LOGGED @ 1200 ON 03/15/10
STAGE 15 LOGGED @ 0000 ON 03/17/10

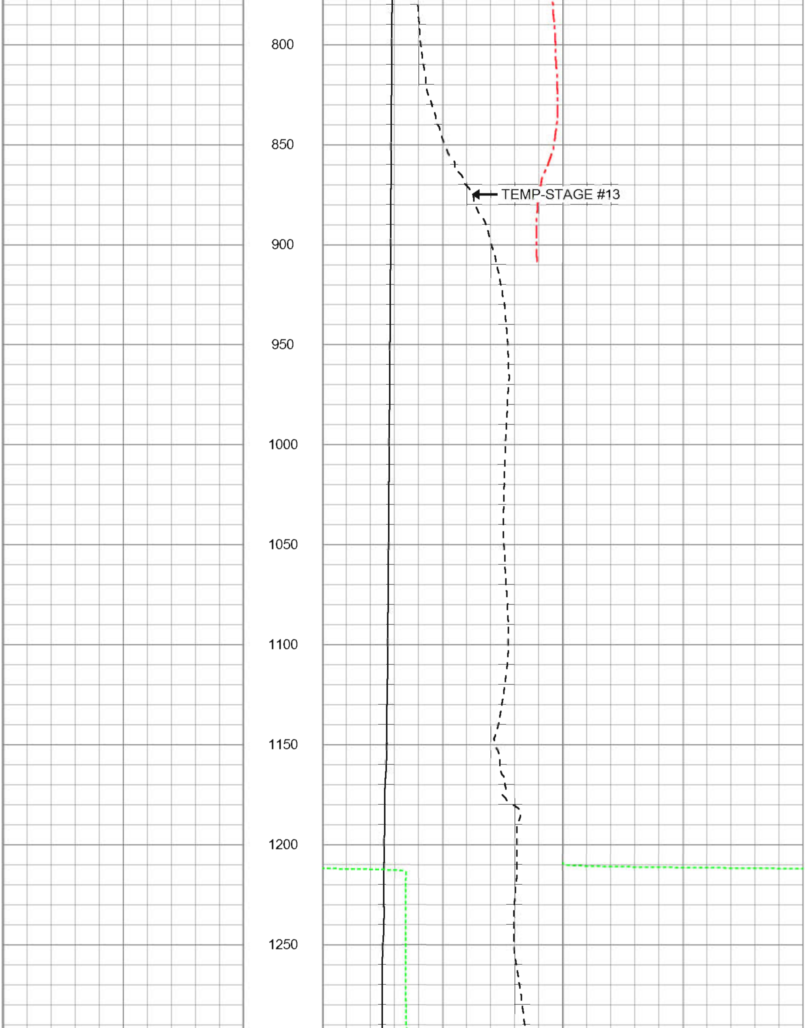
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

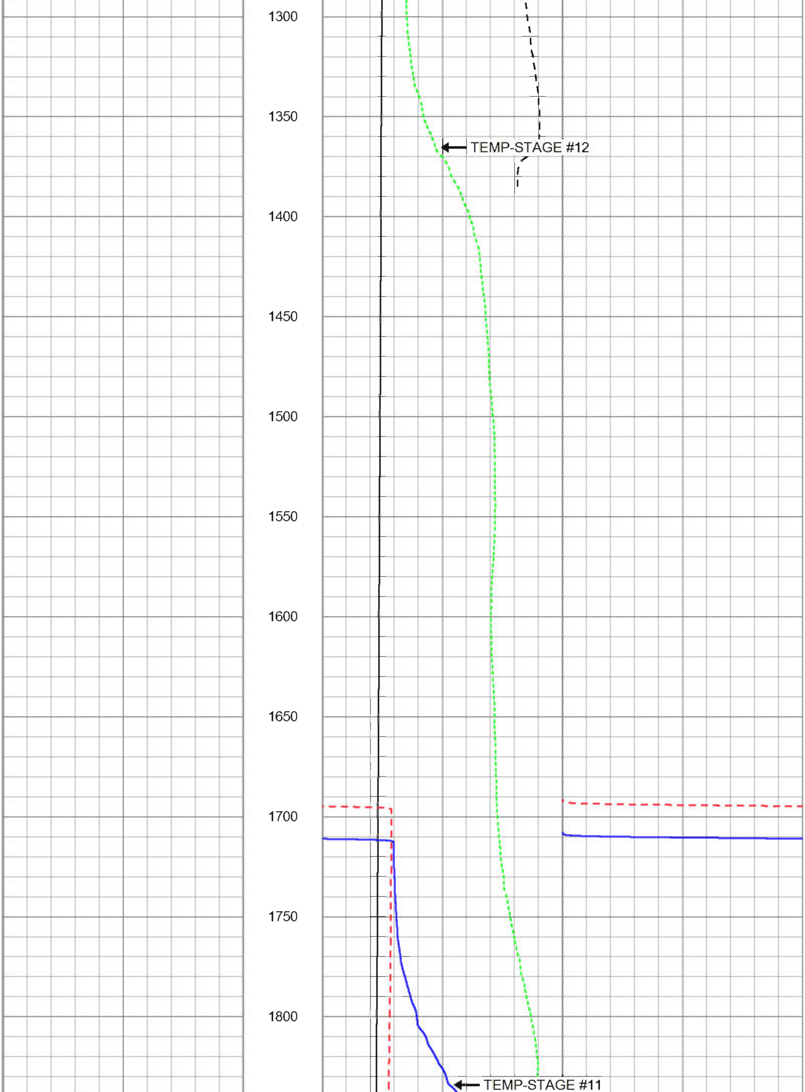
MERGED CTL

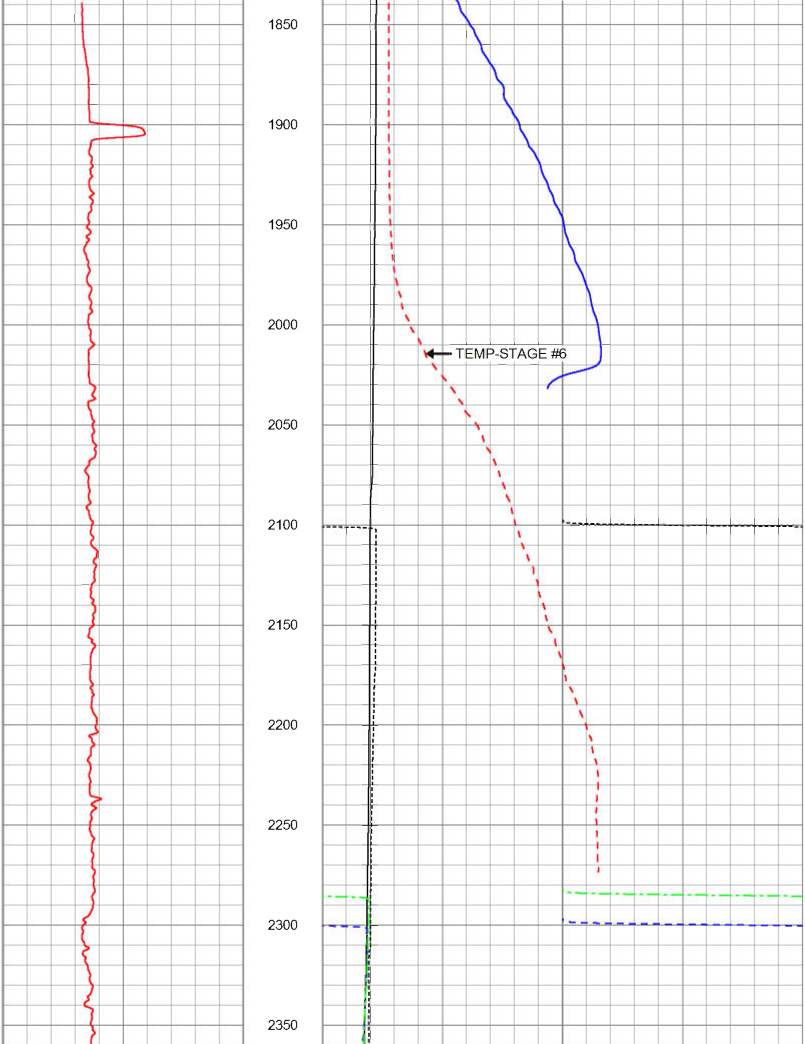
Database File: hiaiw1.db
Dataset Pathname: run10/TEMP1
Presentation Format: ctl_mg
Dataset Creation: Wed Mar 10 10:54:30 2010 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

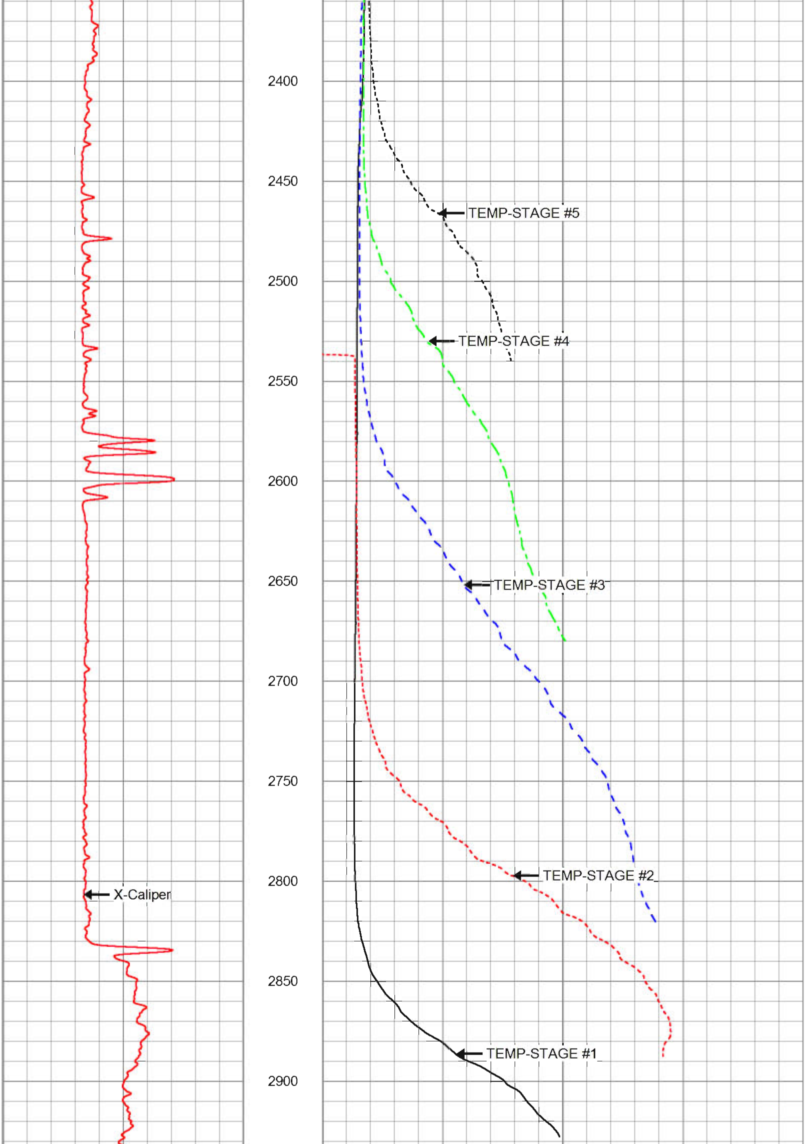


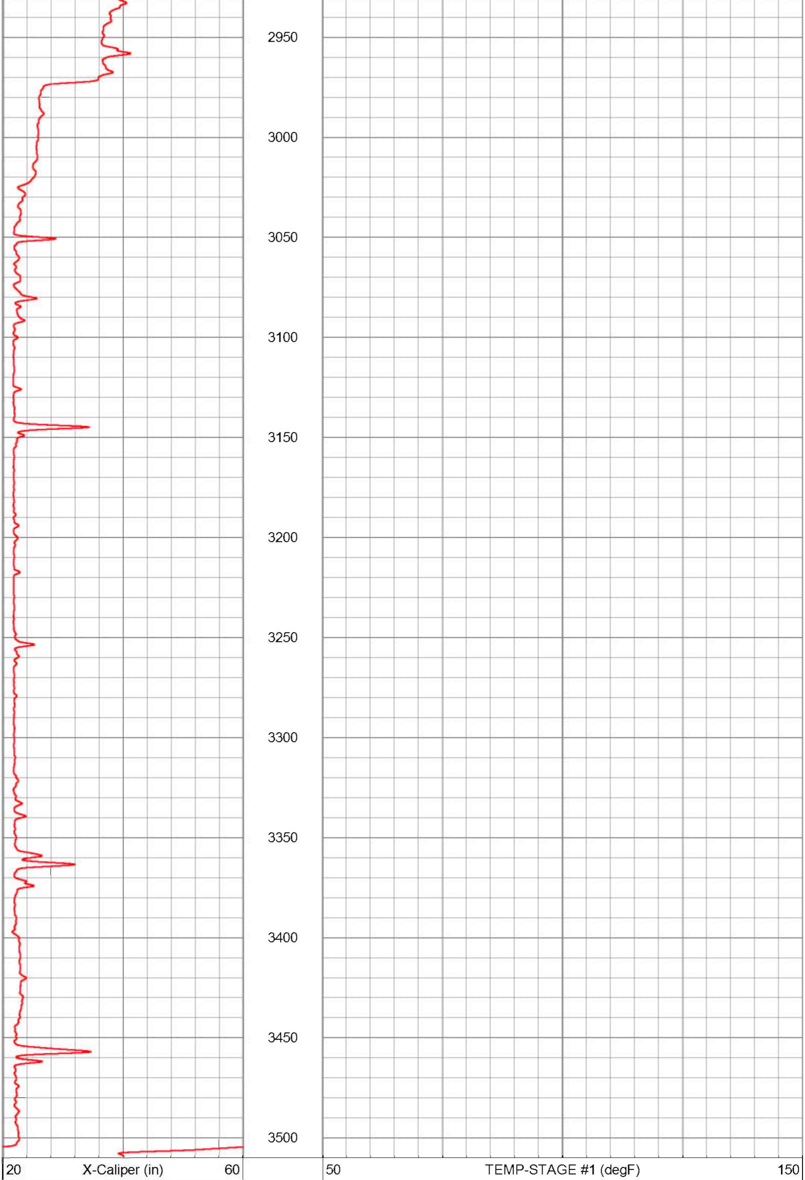












50	TEMP-STAGE #2 (degF)	150
50	TEMP-STAGE #3 (degF)	150
50	TEMP-STAGE #4 (degF)	150
50	TEMP-STAGE #5 (degF)	150
50	TEMP-STAGE #6 (degF)	150
50	TEMP-STAGE #11 (degF)	150
50	TEMP-STAGE #12 (degF)	150
50	TEMP-STAGE #13 (degF)	150
50	TEMP-STAGE #14 (degF)	150
50	TEMP-STAGE #15 (degF)	150

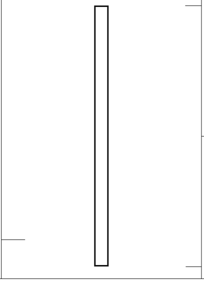
Calibration Report

Database File: hiaiw1.db
Dataset Pathname: run10/TEMP1
Dataset Creation: Wed Mar 10 10:54:30 2010 by Log Open-Cased 090629

Temperature Calibration Report

Serial Number: 16
Tool Model: MLS
Performed: Tue Feb 27 11:18:53 2007

Point #	Reading		Reference	
1	320.00	cps	32.00	degF
2	700.00	cps	70.00	degF
3	2000.00	cps	200.00	degF
4		cps		degF
5		cps		degF
6		cps		degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
TEMP	0.25		TEMP-MLS (16)	2.45	1.63	30.00

Dataset: hiaiw1.db: field/well/run10/TEMP1
Total Length: 2.45 ft
Total Weight: 30.00 lb
O.D. 1.63 in

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

(34" CASING) CEMENT TOP TEMPERATURE LOG

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location: API # :

SEC TWP RGE

Other Services
SEE COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	28-DEC-2009		
Run Number	SEVEN		
Depth Driller	1905'		
Depth Logger	1896'		
Bottom Logged Interval	1896'		
Top Log Interval	CASING		
Open Hole Size	42.5"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	N/A		
Estimated Cement Top	NA		
Time Well Ready	2245		
Time Logger on Bottom	2345		
Equipment Number	102		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	R. STROSS		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner				

<<< Fold Here >>>

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Comments

STAGE#1 LOGGED @ 2341 ON 28-DEC-2009
STAGE#2 LOGGED @ 1430 ON 29-DEC-2009
STAGE#3 LOGGED @ 0600 ON 30-DEC-2009
STAGE#4 LOGGED @ 1745 ON 30-DEC-2009
STAGE#5 LOGGED @ 0815 ON 31-DEC-2009
STAGE#6 LOGGED @ 2230 ON 31-DEC-2009

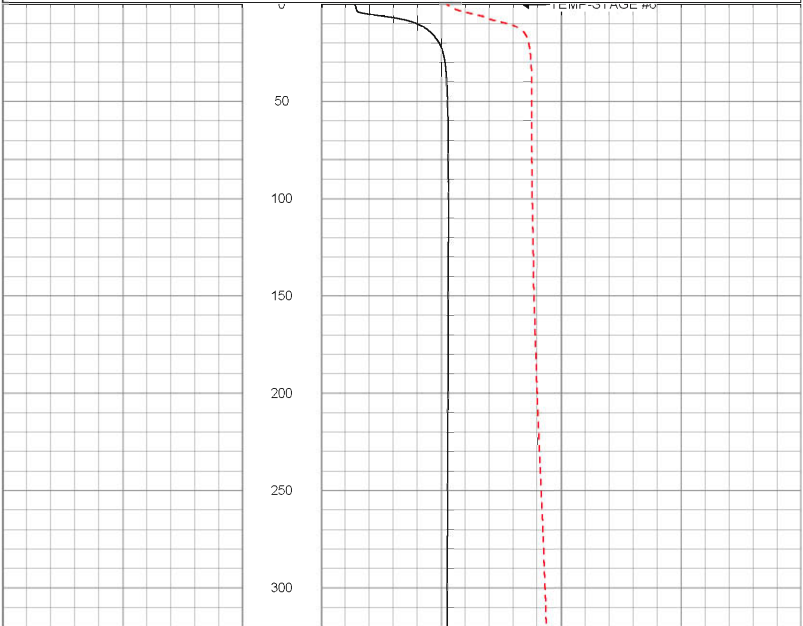
YOUNGQUIST BROTHERS, Inc

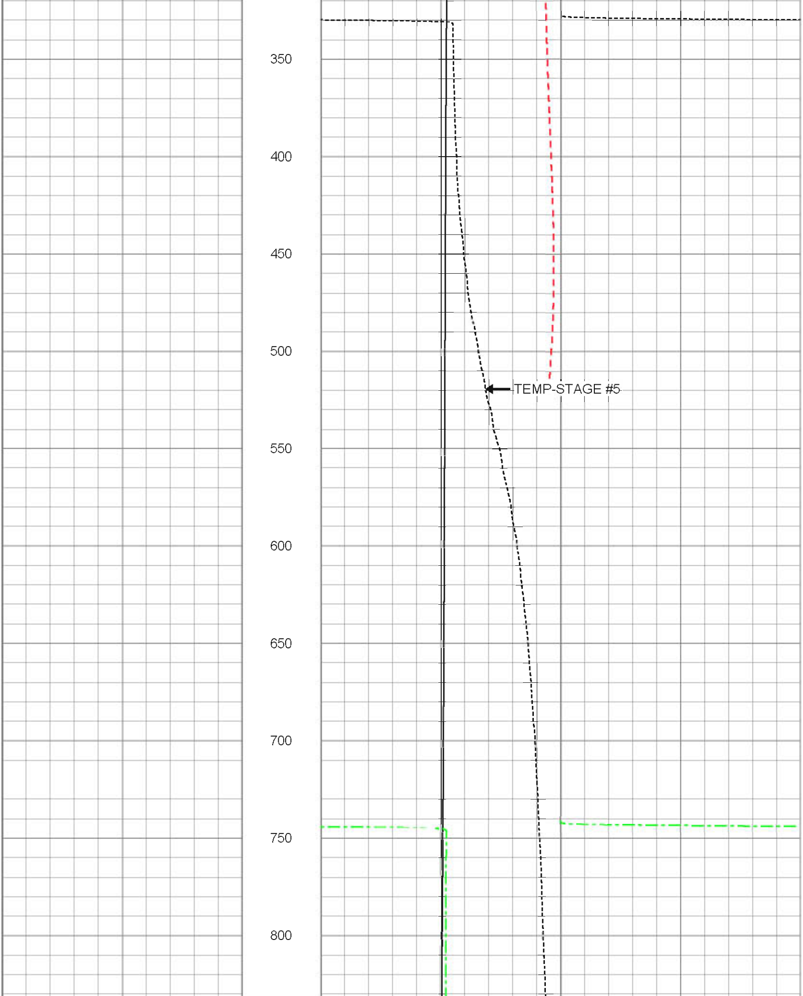
GEOPHYSICAL LOGGING DIVISION

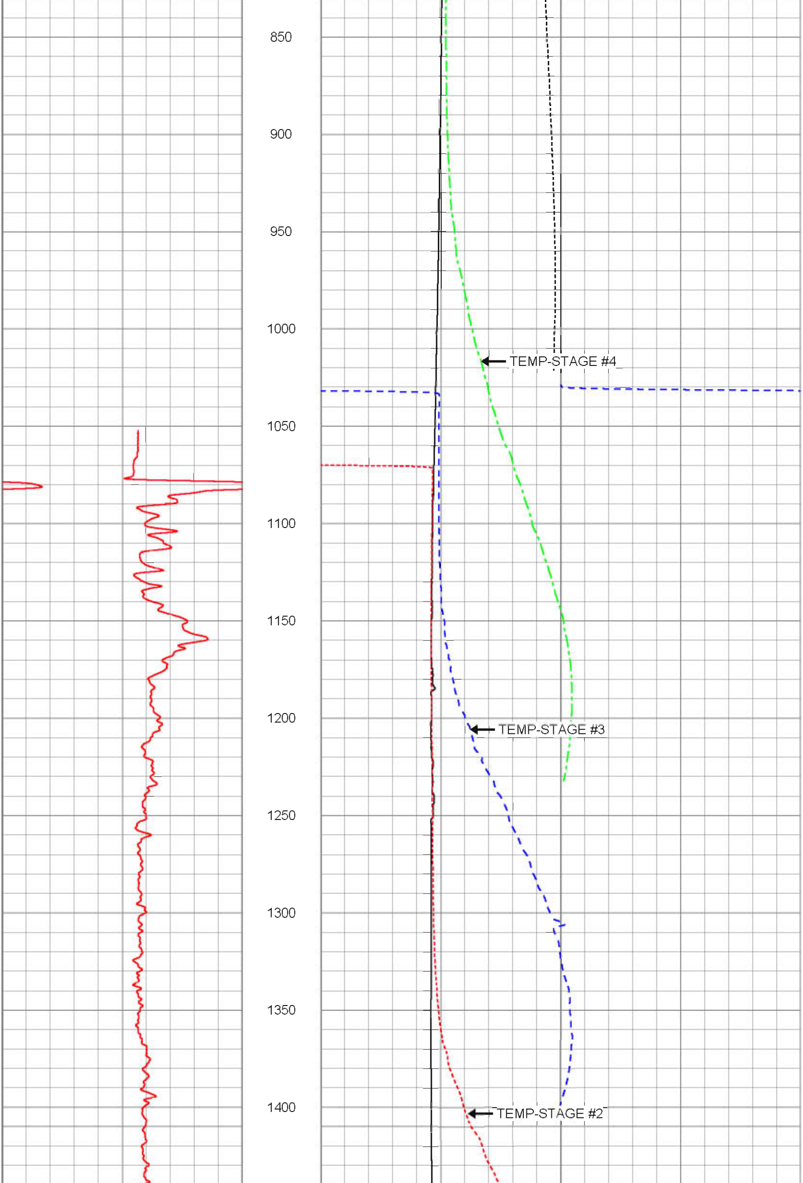
MERGED CTL

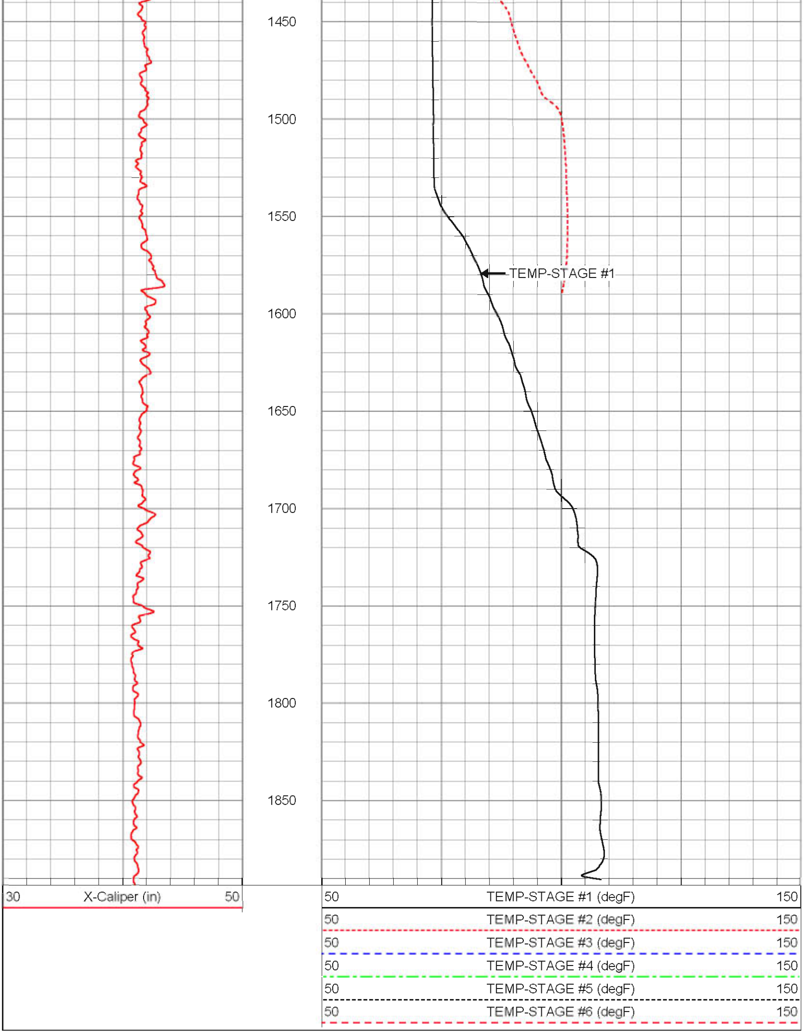
Database File:	hiaiw1.db
Dataset Pathname:	run7/temp
Presentation Format:	ctl_mg
Dataset Creation:	Mon Dec 28 23:37:56 2009 by Log Open-Cased 081212
Charted by:	Depth in Feet scaled 1:600

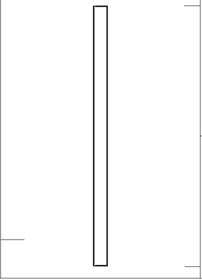
30	X-Caliper (in)	50
50	TEMP-STAGE #1 (degF)	150
50	TEMP-STAGE #2 (degF)	150
50	TEMP-STAGE #3 (degF)	150
50	TEMP-STAGE #4 (degF)	150
50	TEMP-STAGE #5 (degF)	150
50	TEMP-STAGE #6 (degF)	150









Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
TEMP	0.25		TEMP-MLS (16)	2.45	1.63	30.00

Dataset: hiaiw1.db: field/well/run7/temp6
Total Length: 2.45 ft
Total Weight: 30.00 lb
O.D. 1.63 in

Calibration Report

Database File: hiaiw1.db
Dataset Pathname: run7/temp6
Dataset Creation: Thu Dec 31 22:36:16 2009 by Log Open-Cased 081212

Temperature Calibration Report

Serial Number: 16
Tool Model: MLS
Performed: Tue Feb 27 11:18:53 2007

Point #	Reading		Reference	
1	320.00	cps	32.00	degF
2	700.00	cps	70.00	degF
3	2000.00	cps	200.00	degF
4		cps		degF
5		cps		degF
6		cps		degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

(42" CASING) CEMENT TOP TEMPERATURE LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company	CITY OF HIALEAH
Well	IW-1
Field	HIALEAH R.O.W.T.P.
County	DADE
State	FL

Location: API # :

SEC TWP RGE

Other Services
SEE COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	28-NOV-09		
Run Number	FOUR		
Depth Driller	1079'		
Depth Logger	1071'		
Bottom Logged Interval	1071'		
Top Log Interval	CASING		
Open Hole Size	50.5"		
Type Fluid	MUD		
Density / Viscosity	NA		
Max. Recorded Temp.	NA		
Estimated Cement Top	NA		
Time Well Ready	1300		
Time Logger on Bottom	1330		
Equipment Number	104		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	JODY		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No	Bit	From	To
ONE	60.5"	SURFACE	160'				
TWO	12.25"	CASING	1100'				
THREE	50.5"	CASING	1079'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375 " W.T.	SURFACE	1075'
Production String				
Liner				

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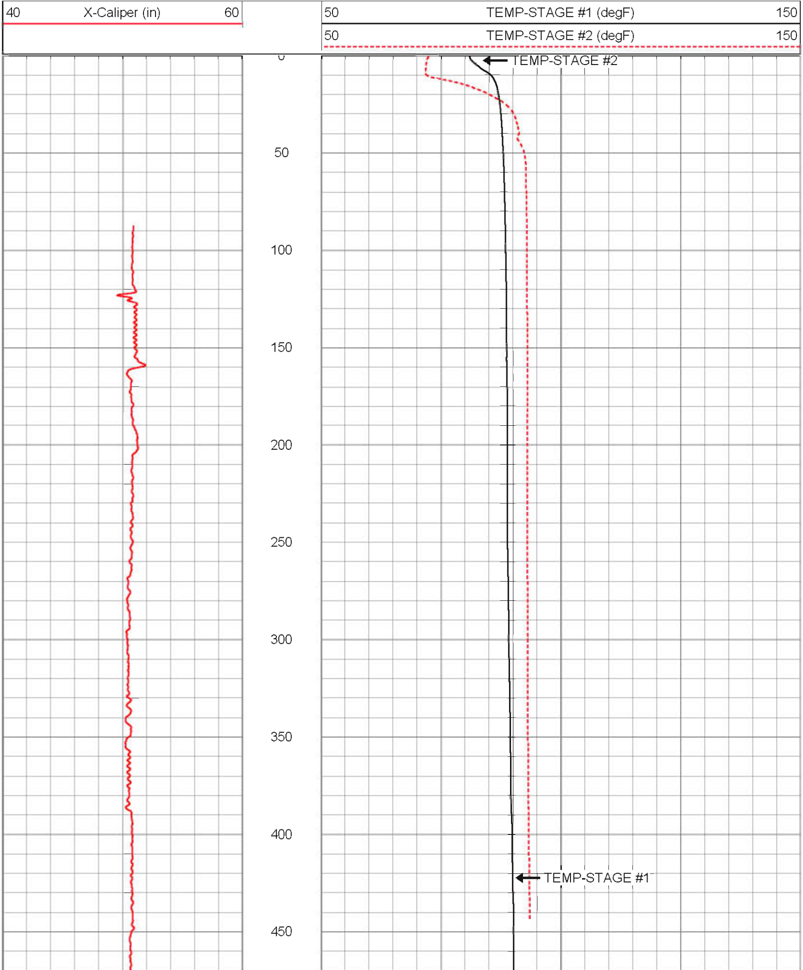
Comments

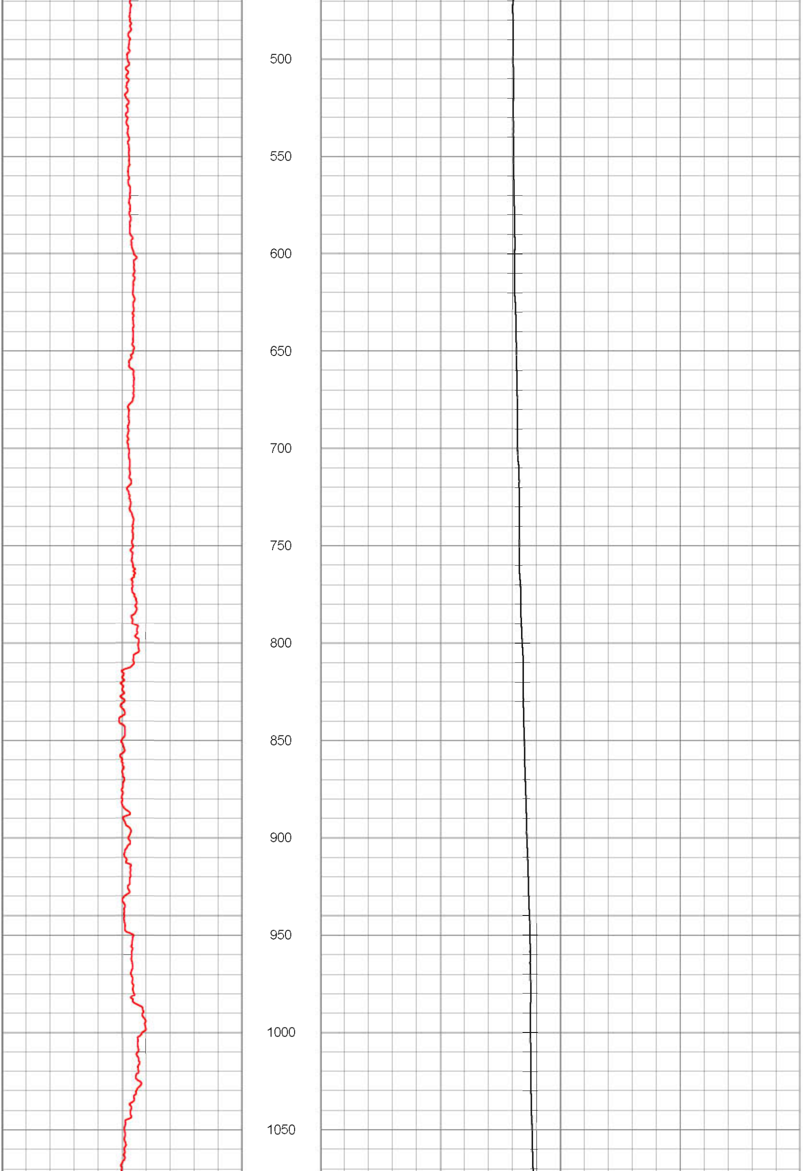
STAGE #1 LOGGED @ 1300 ON 28-NOV-2009
STAGE #2 LOGGED @ 1500 ON 29-NOV-2009

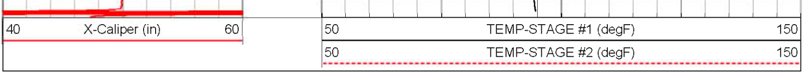
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

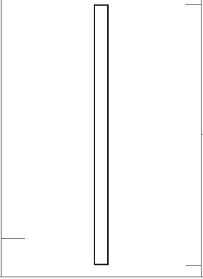
MERGED CTL

Database File: hiaiw1.db
Dataset Pathname: run4/temp
Presentation Format: ctl_mg
Dataset Creation: Sat Nov 28 12:48:15 2009 by Log Open-Cased 081212
Charted by: Depth in Feet scaled 1:600







Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
TEMP	0.25		TEMP-MLS (16)	2.45	1.63	30.00

Dataset: hiaiw1.db: field/well/run4/temp
Total Length: 2.45 ft
Total Weight: 30.00 lb
O.D. 1.63 in

Calibration Report

Database File: hiaiw1.db
Dataset Pathname: run4/temp
Dataset Creation: Sat Nov 28 12:48:15 2009 by Log Open-Cased 081212

Temperature Calibration Report

Serial Number: 16
Tool Model: MLS
Performed: Tue Feb 27 11:18:53 2007

Point #	Reading		Reference	
1	320.00	cps	32.00	degF
2	700.00	cps	70.00	degF
3	2000.00	cps	200.00	degF
4		cps		degF
5		cps		degF
6		cps		degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

HIGH RESOLUTION TEMPERATURE LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location: API # :

SEC TWP RGE

Other Services
SEE COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	19-MAY-2010		
Run Number	RTS		
Depth Driller	3505'		
Depth Logger	3505'		
Bottom Logged Interval	3505'		
Top Log Interval	SURFACE		
Open Hole Size	22"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	NA		
Estimated Cement Top	74F		
Time Well Ready	2130		
Time Logger on Bottom	2330		
Equipment Number	103		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	D. BARNES		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'	SIX	32.5"	CASING	2970'
THREE	50.5"	CASING	1079'	SEVEN	22"	CASING	3505'
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner	24"	.375" W.T.	SURFACE	2974'
Liner	16"	FRP	SURFACE	2933'

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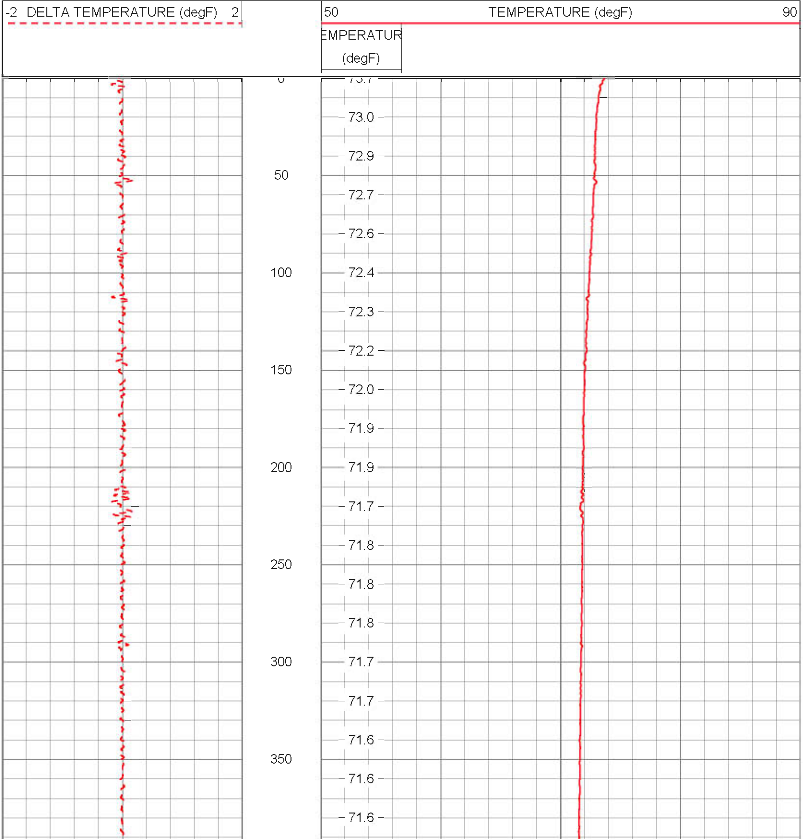
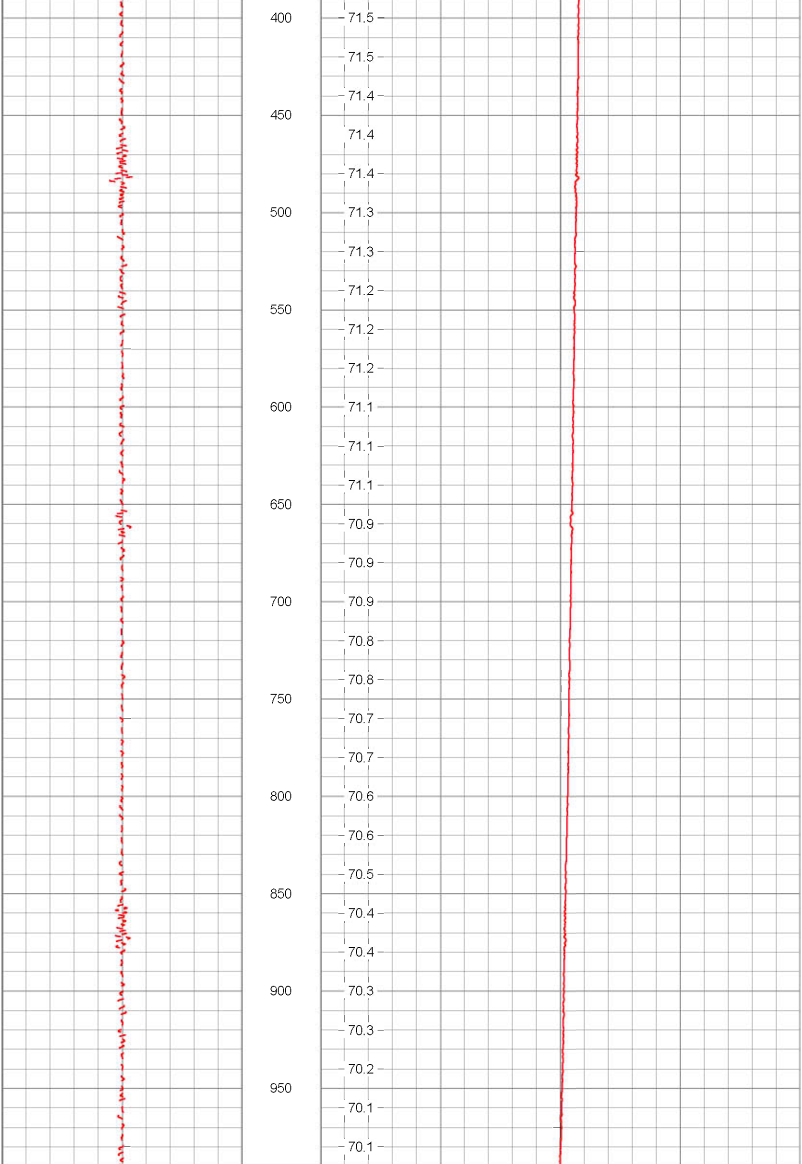
Comments

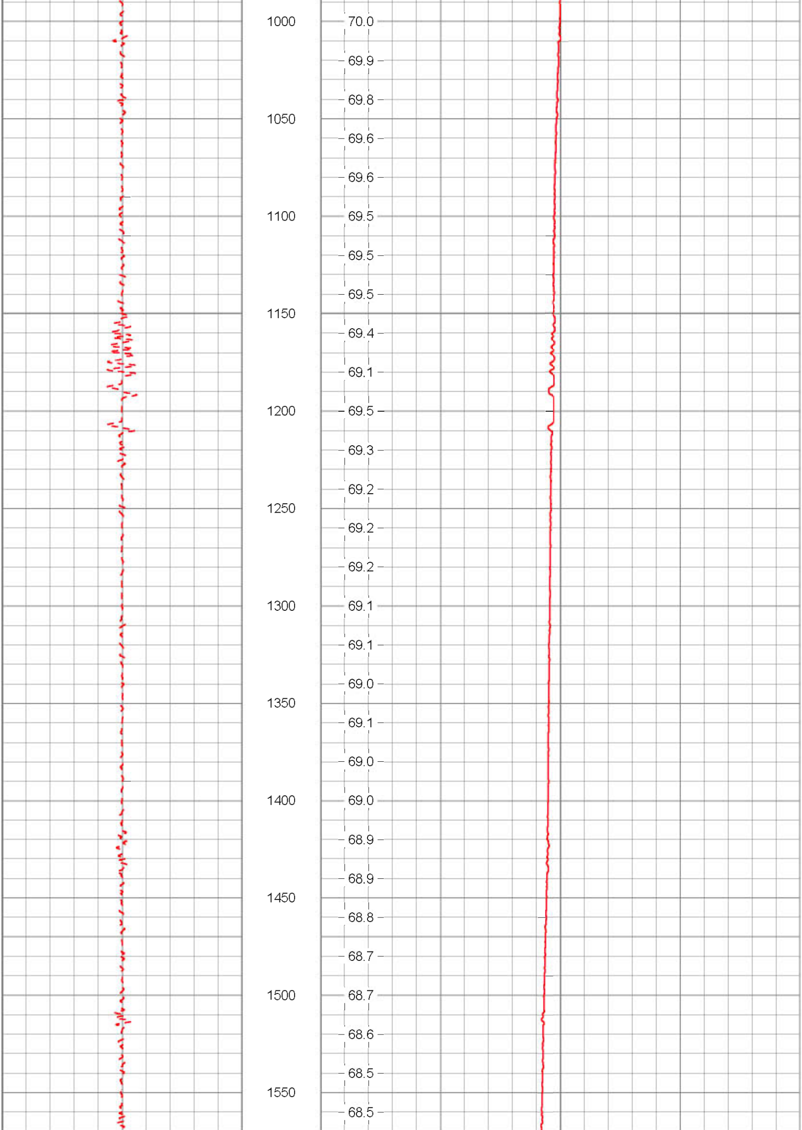
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

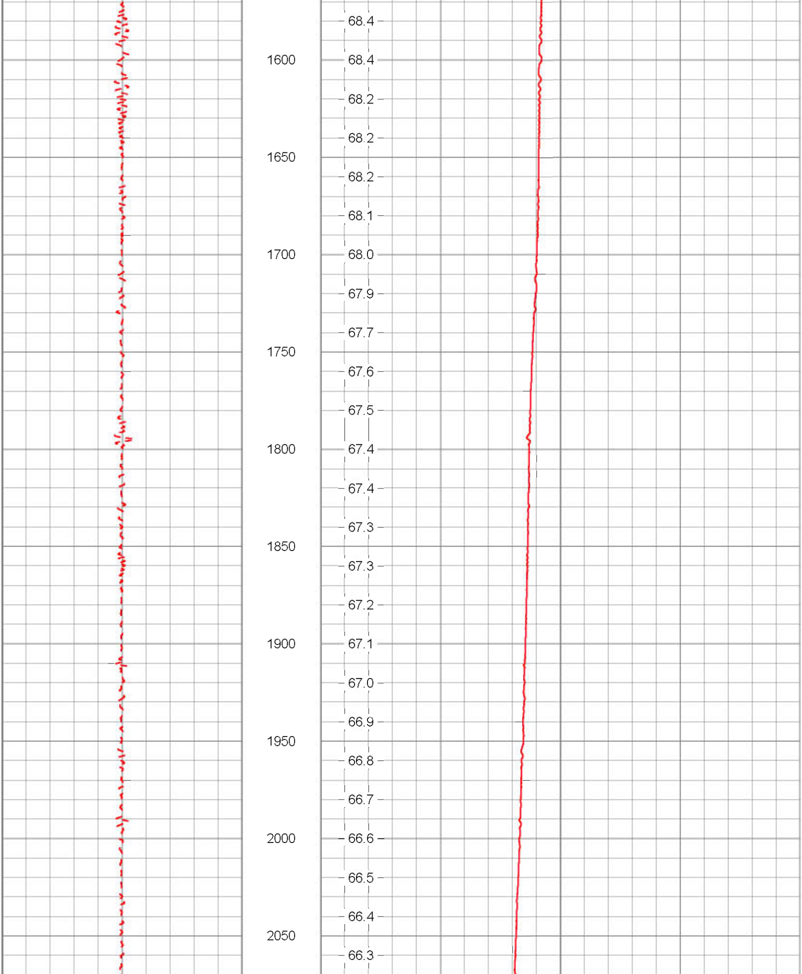
TEMPERATURE

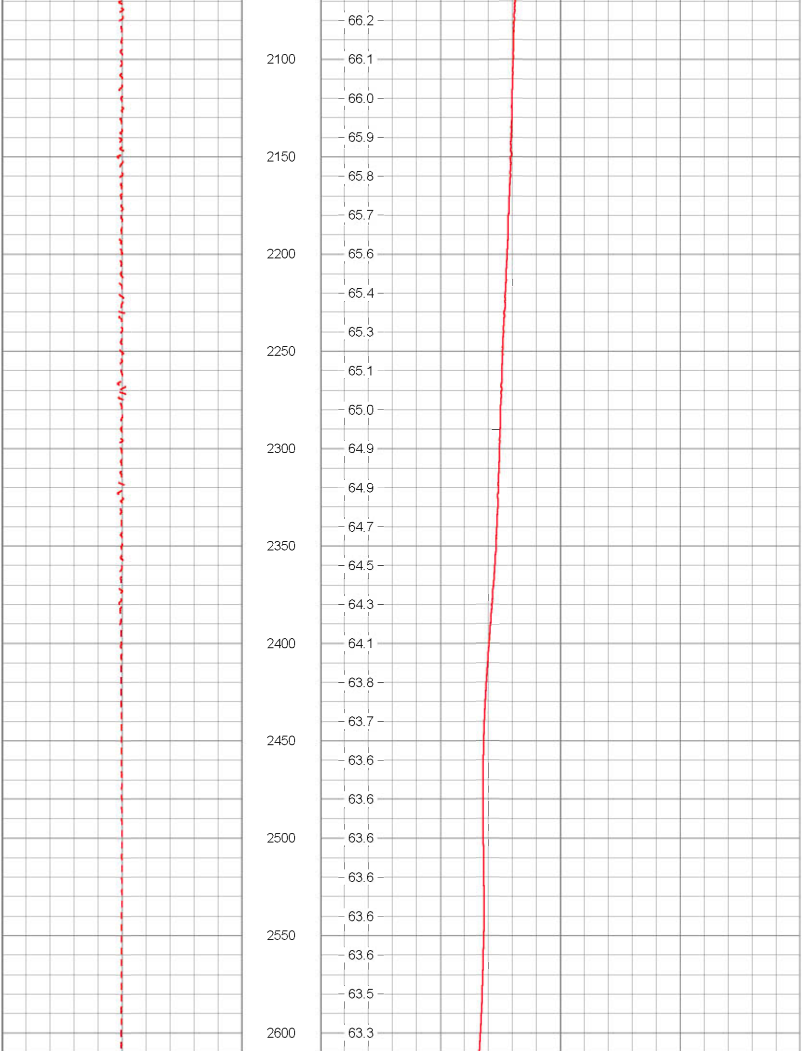
Database File:	hiaiw1rts10.db
Dataset Pathname:	temp
Presentation Format:	temp
Dataset Creation:	Wed May 19 00:43:14 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:600

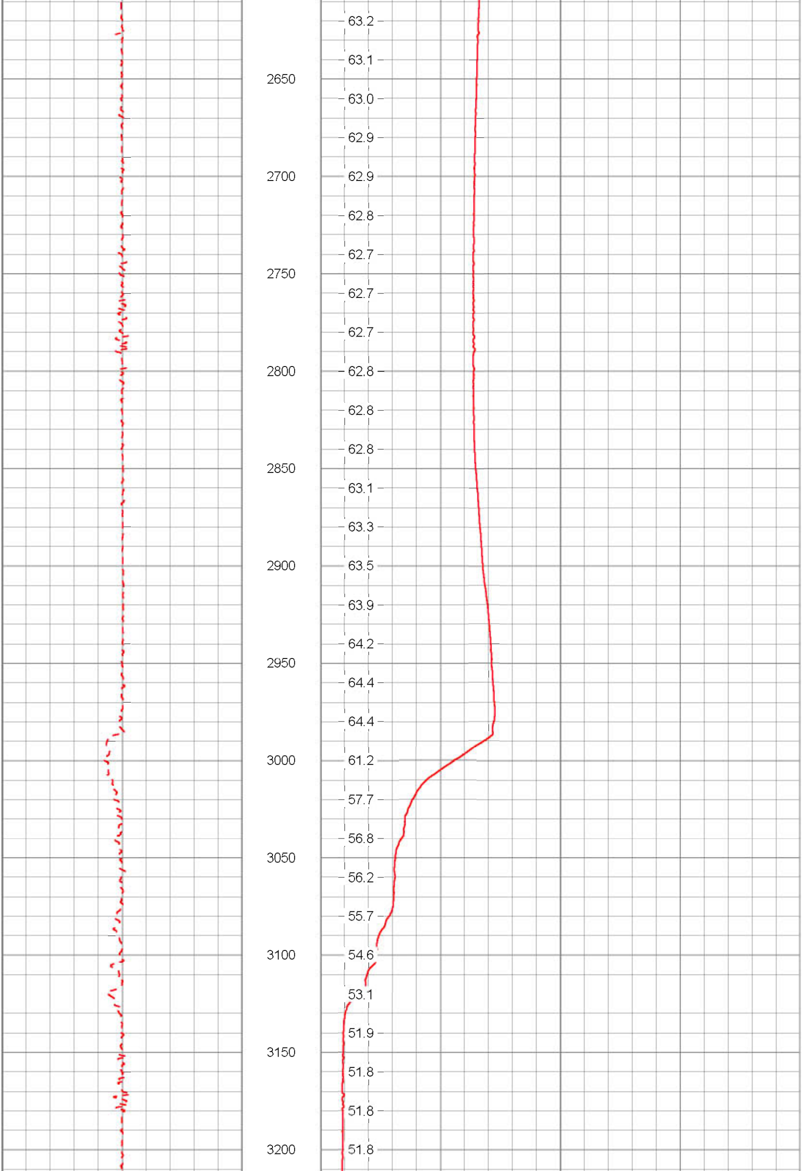


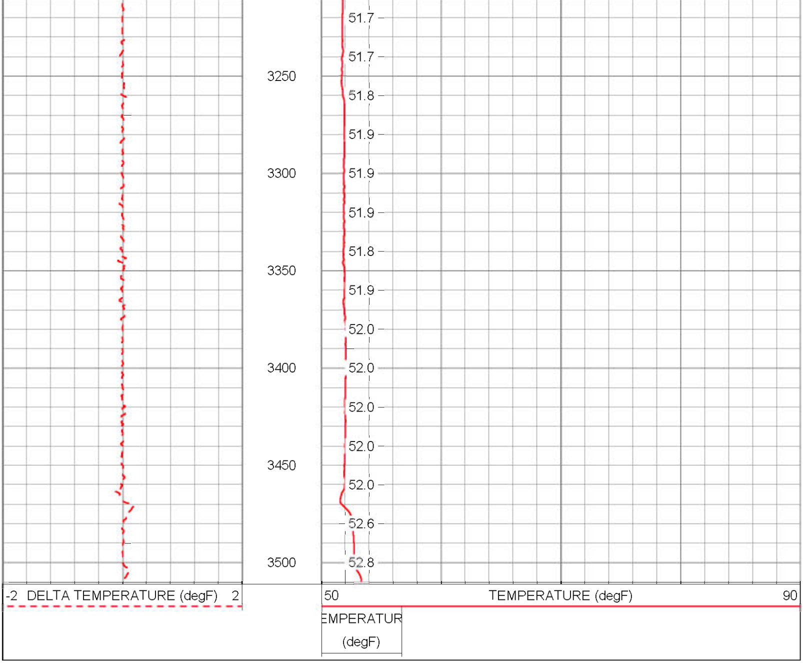




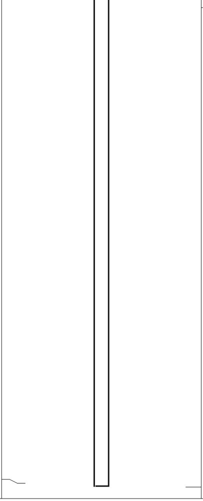








Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)



		TEMP-RTS (954)	25.50	1.69	70.00
TEMP	0.10				

Dataset: hiaiw1rts10.db: field/well/run1/temp
Total Length: 25.50 ft
Total Weight: 70.00 lb
O.D. 1.69 in

Calibration Report

Database File: hiaiw1rts10.db
Dataset Pathname: temp
Dataset Creation: Wed May 19 00:43:14 2010 by Log Open-Cased 090629

Temperature Calibration Report

Serial Number: 954
Tool Model: RTS
Performed: Tue Feb 27 11:24:16 2007

Point #	Reading		Reference	
1	338.01	cps	34.00	degF
2	789.32	cps	78.00	degF
3	1553.26	cps	152.00	degF
4		cps		degF
5		cps		degF
6		cps		degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

RADIOACTIVE TRACER SURVEY LOG

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE
State FL

Company CITY OF HIALEAH
Well IW-1
Field HIALEAH R.O.W.T.P.
County DADE State FL

Location: API # :

SEC TWP RGE

Other Services
SEE COMMENTS

Permanent Datum Elevation
Log Measured From
Drilling Measured From

Elevation
K.B.
D.F.
G.L.

Date	19-MAY-2010		
Run Number	RTS		
Depth Driller	3505'		
Depth Logger	3505'		
Bottom Logged Interval	3505'		
Top Log Interval	SURFACE		
Open Hole Size	22"		
Type Fluid	WATER		
Density / Viscosity	NA		
Max. Recorded Temp.	NA		
Estimated Cement Top	74F		
Time Well Ready	2130		
Time Logger on Bottom	2330		
Equipment Number	103		
Location	FT MYERS		
Recorded By	FULLER		
Witnessed By	D. BARNES		

Borehole Record				Borehole Record			
Run Number	Bit	From	To	Run No	Bit	From	To
ONE	60.5"	SURFACE	160'	FIVE	12.25"	CASING	3500'
TWO	12.25"	CASING	1100'	SIX	32.5"	CASING	2970'
THREE	50.5"	CASING	1079'	SEVEN	22"	CASING	3505'
FOUR	42.5"	CASING	1905'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	52"	.375" W.T.	SURFACE	155'
Prot. String	42"	.375" W.T.	SURFACE	1075'
Production String	34"	.375 W.T.	SURFACE	1900'
Liner	24"	.375" W.T.	SURFACE	2974'
Liner	16"	FRP	SURFACE	2933'

<<< Fold Here >>>

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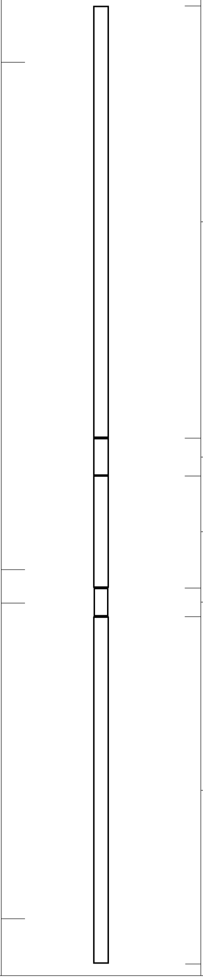
Comments

EJECTOR PORT -13.5' FROM BOTTOM OF TOOL

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR#3	24.00					
			GR #3 -RTST (954T)	11.50	1.69	30.00
			TREJCT-A (954)	1.00	1.69	10.00
			GR #2 -RTSM (954M)	3.00	1.69	10.00
GR#2	10.50					
CCL	9.60		CCL-1.68GRRTS (954)	0.75	1.69	10.00
			GR-RTSB (954B)	9.25	1.69	10.00
GR	1.20					

Dataset: hiaiw1rts10.db: field/well/run1/PASS3
Total Length: 25.50 ft
Total Weight: 70.00 lb
O.D. 1.69 in

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

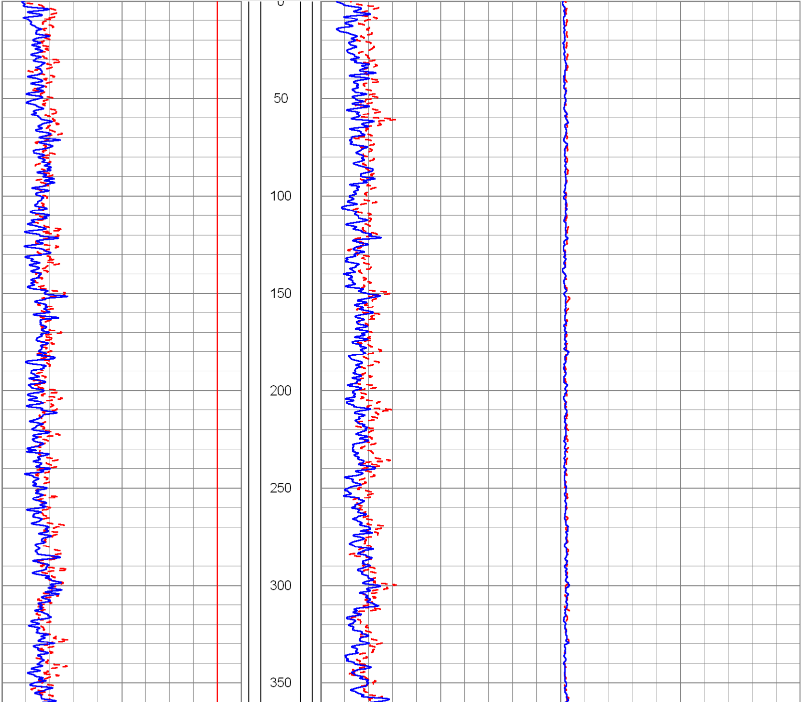
FINAL GAMMA RAY

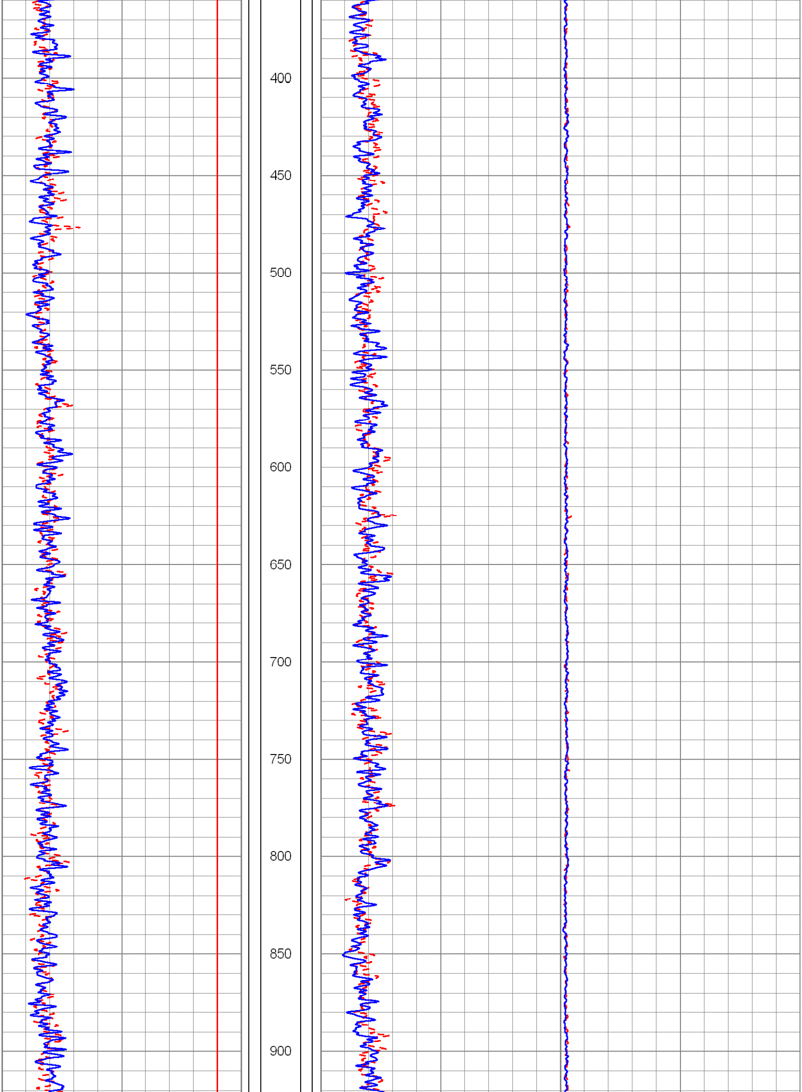
Database File: hiaiw1rts10.db
Dataset Pathname: PASS8
Presentation Format: rtsfinbk
Dataset Creation: Wed May 19 12:46:14 2010 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

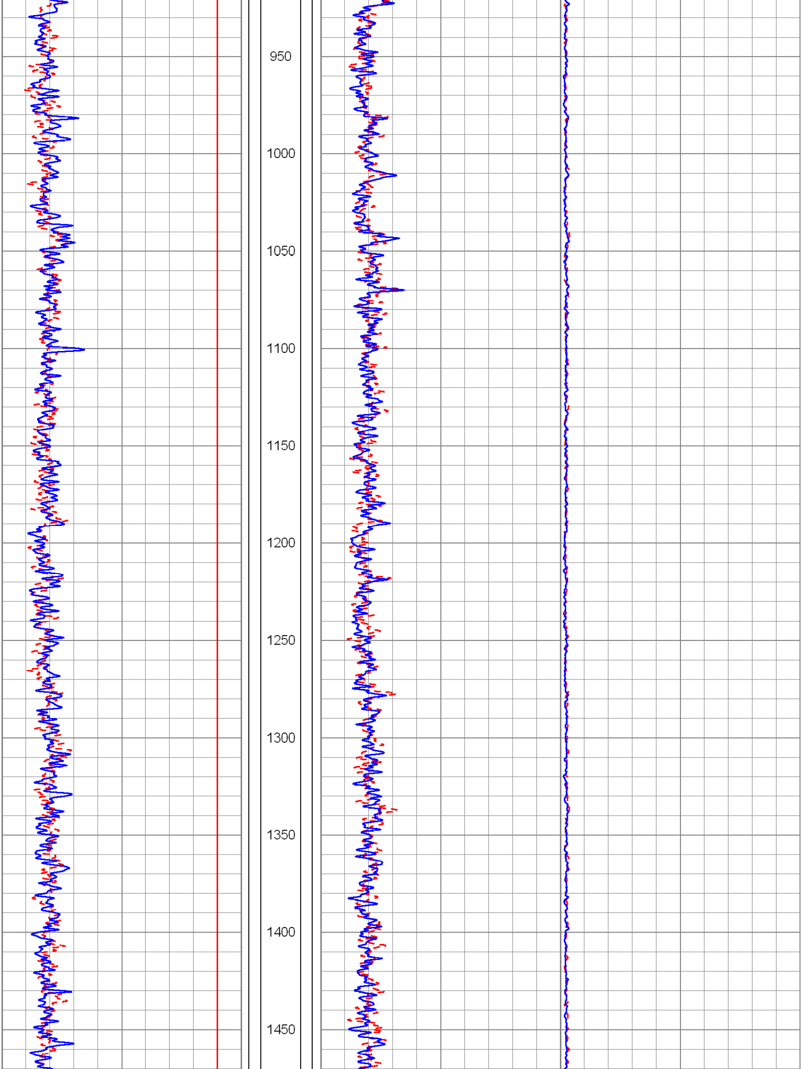
0 GRT-BACKGRND (GAPI) 100
0 GRT (GAPI) 100
0.9 CCL -0.1

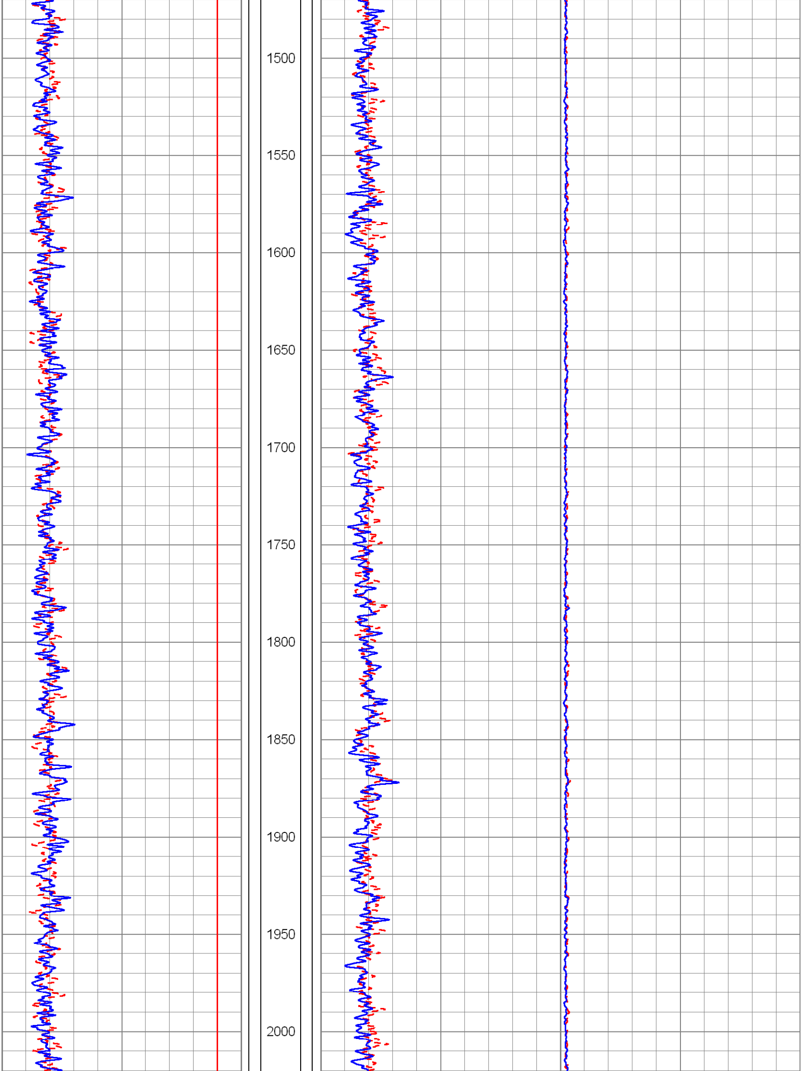
0 GRB-BACKGRND (GAPI) 100
0 GRB (GAPI) 100

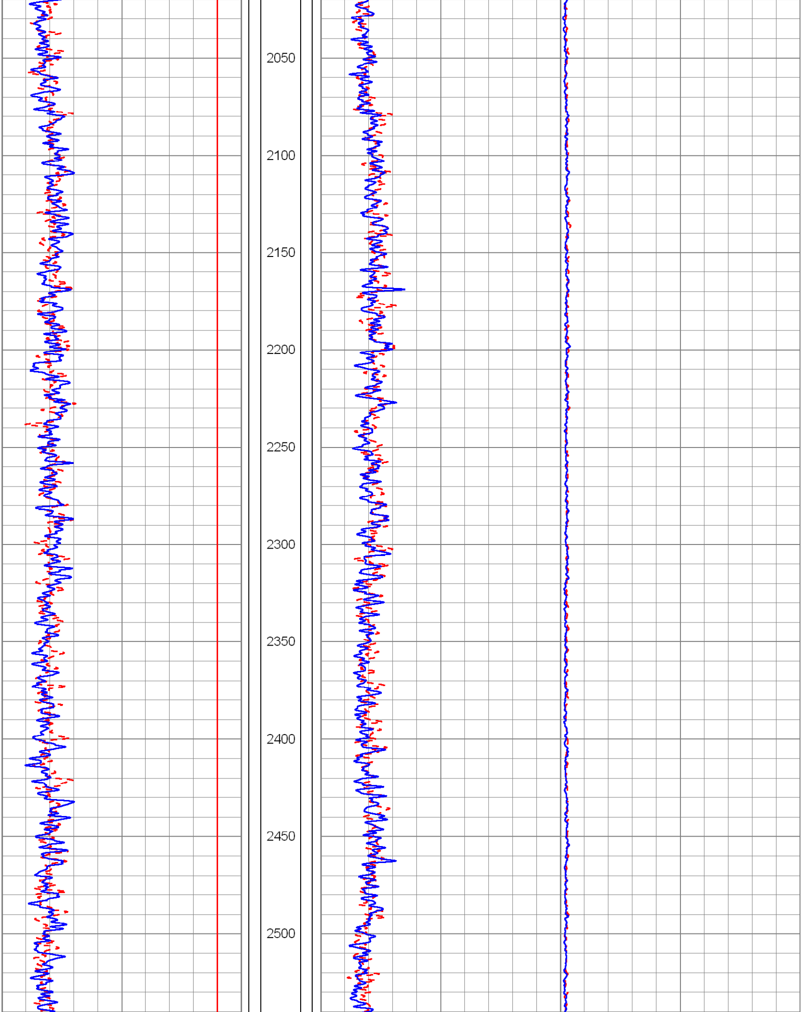
0 GRM-BACKGRND (GAPI) 1000
0 GRM (GAPI) 1000

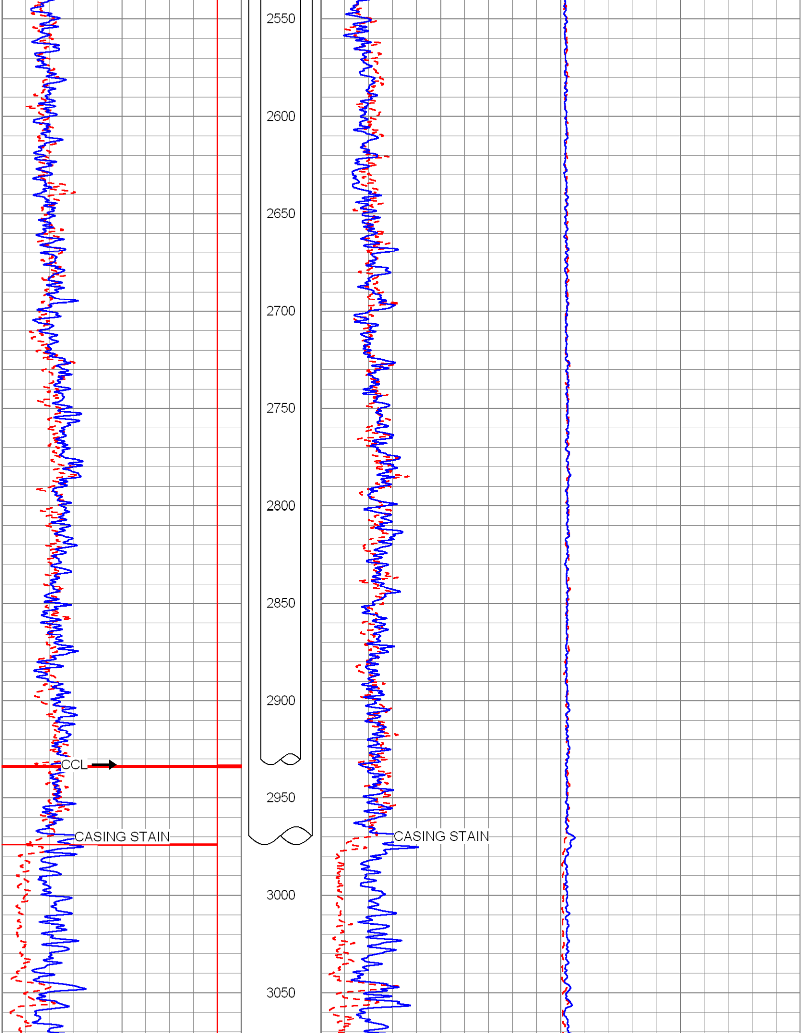


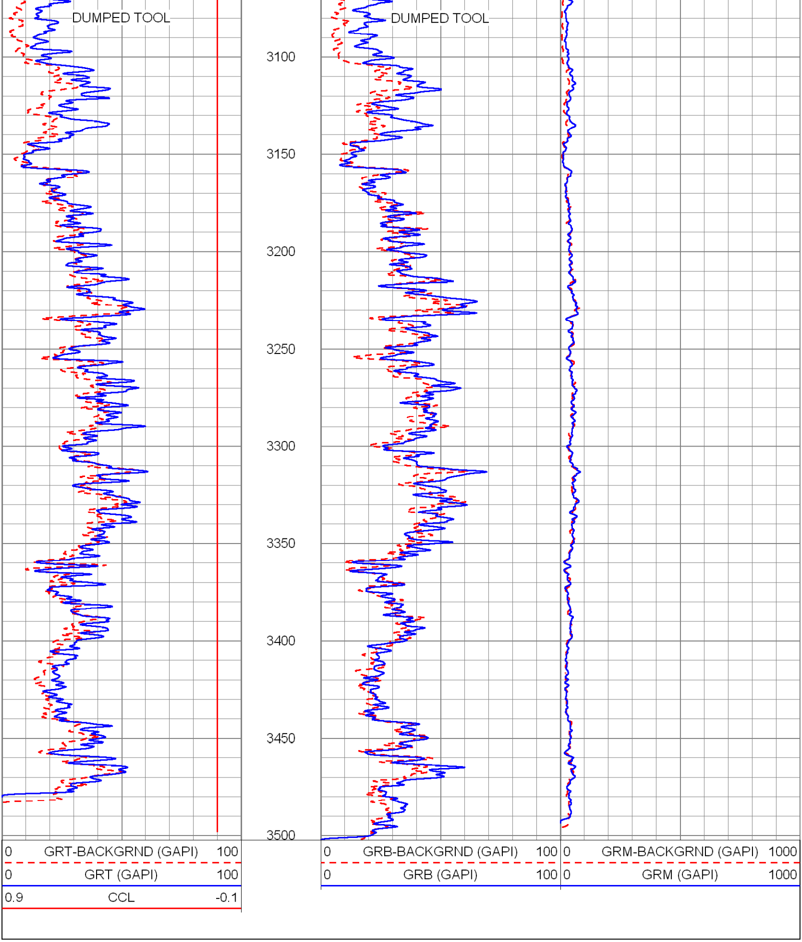








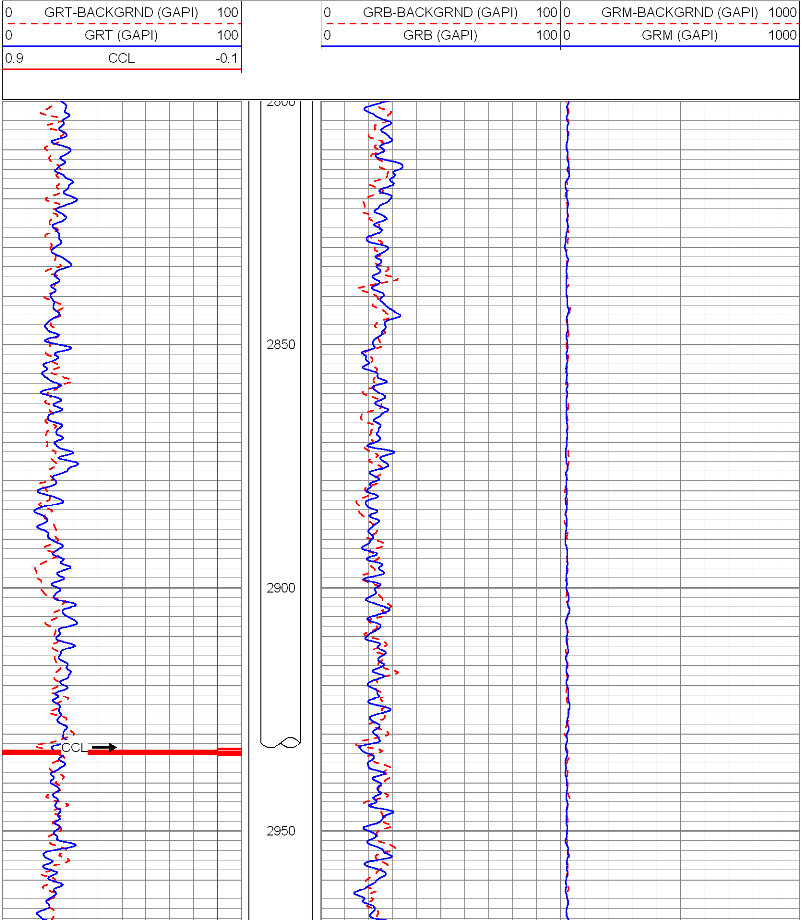


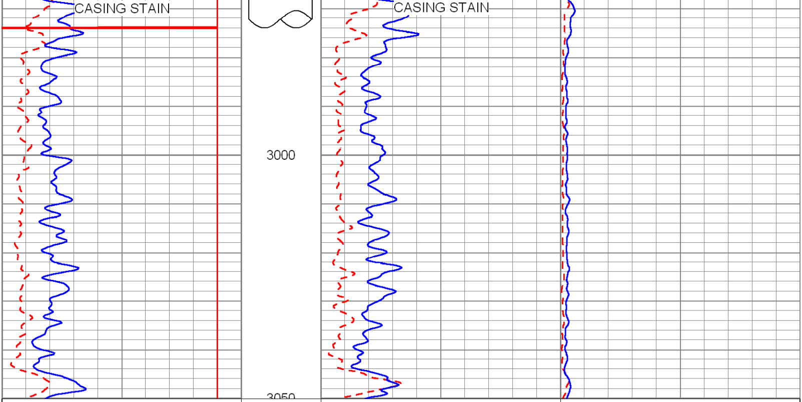


YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

FINAL GAMMA RAY

Database File:	hiaiw1rts10.db
Dataset Pathname:	PASS8
Presentation Format:	rtsfinbk
Dataset Creation:	Wed May 19 12:46:14 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240





0 GRT-BACKGRND (GAPI) 100
0 GRT (GAPI) 100
0.9 CCL -0.1

0 GRB-BACKGRND (GAPI) 100
0 GRB (GAPI) 100

0 GRM-BACKGRND (GAPI) 1000
0 GRM (GAPI) 1000

YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

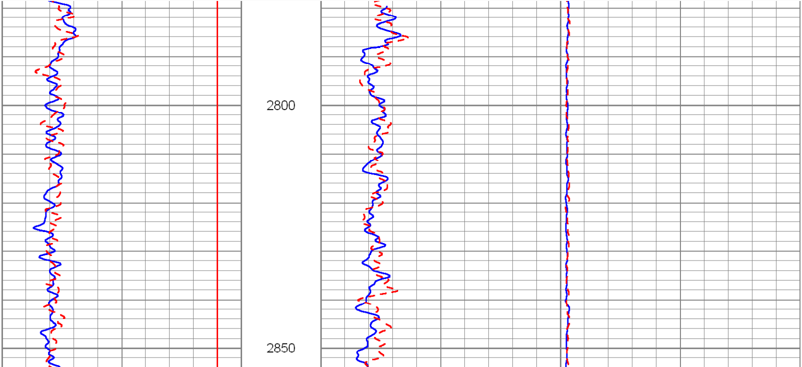
LOP #2

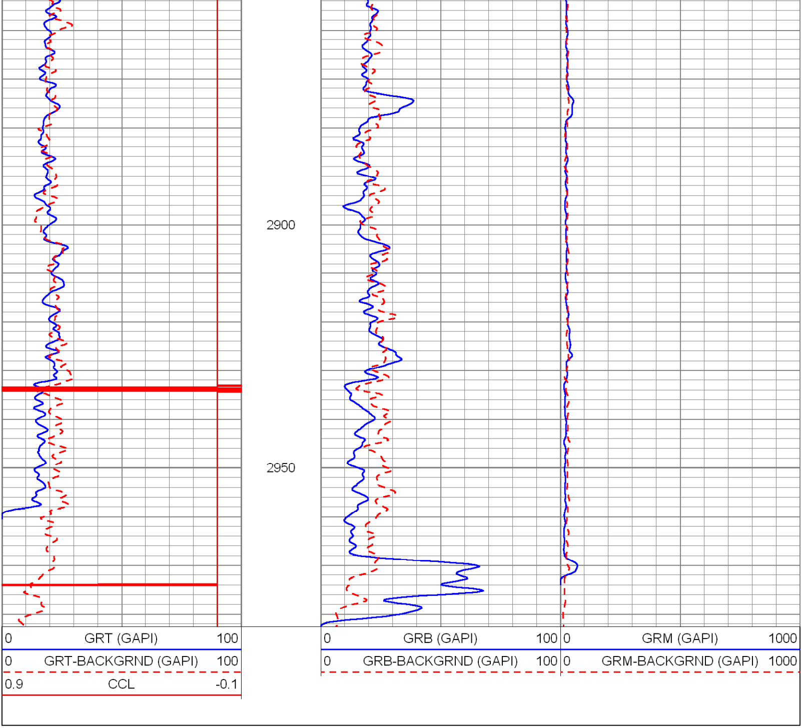
Database File:	hiaiw1rts10.db
Dataset Pathname:	PASS7
Presentation Format:	rtslop
Dataset Creation:	Wed May 19 12:18:42 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

0 GRT (GAPI) 100
0 GRT-BACKGRND (GAPI) 100
0.9 CCL -0.1

0 GRB (GAPI) 100
0 GRB-BACKGRND (GAPI) 100

0 GRM (GAPI) 1000
0 GRM-BACKGRND (GAPI) 1000





YOUNGQUIST BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

DYNAMIC TEST #2 (88 GPM)

Database File:	hiaiw1rts10.db
Dataset Pathname:	PASS6
Presentation Format:	rtstime
Dataset Creation:	Wed May 19 11:45:15 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:600

0 GRT (GAPI) 100

0 EJECT 2

0 GRB (GAPI) 100

0 GRM (GAPI) 1000

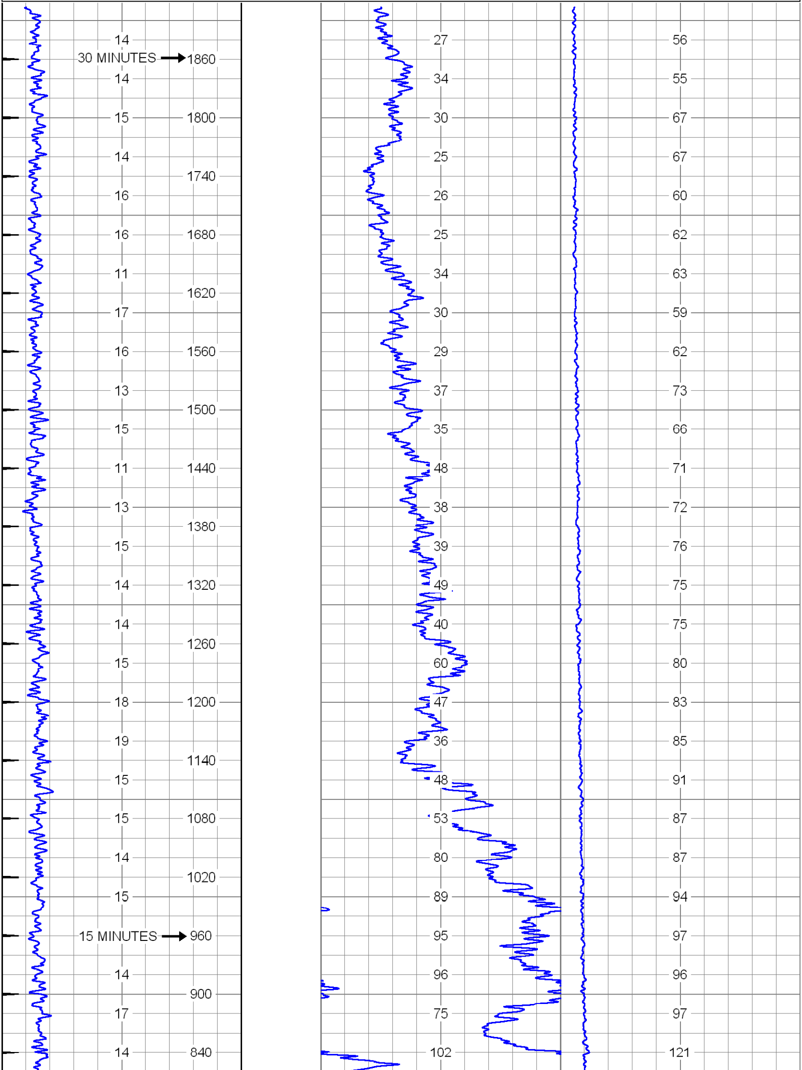
0 MINUTES 15

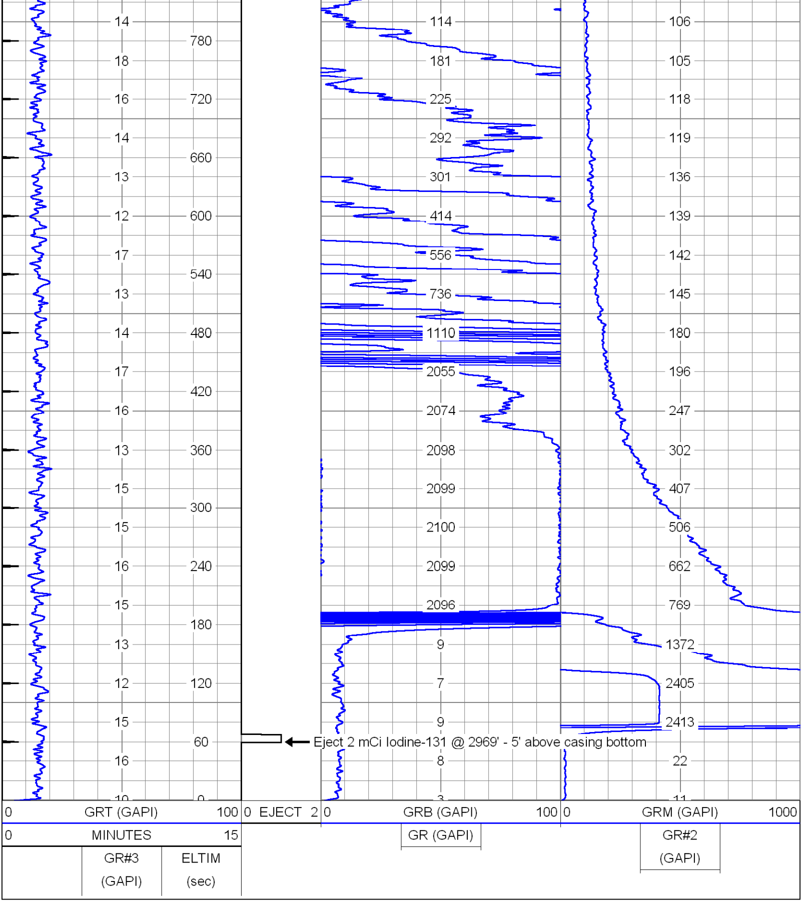
GR (GAPI)

GR#2 (GAPI)

GR#3 (GAPI)

ELTIM (sec)



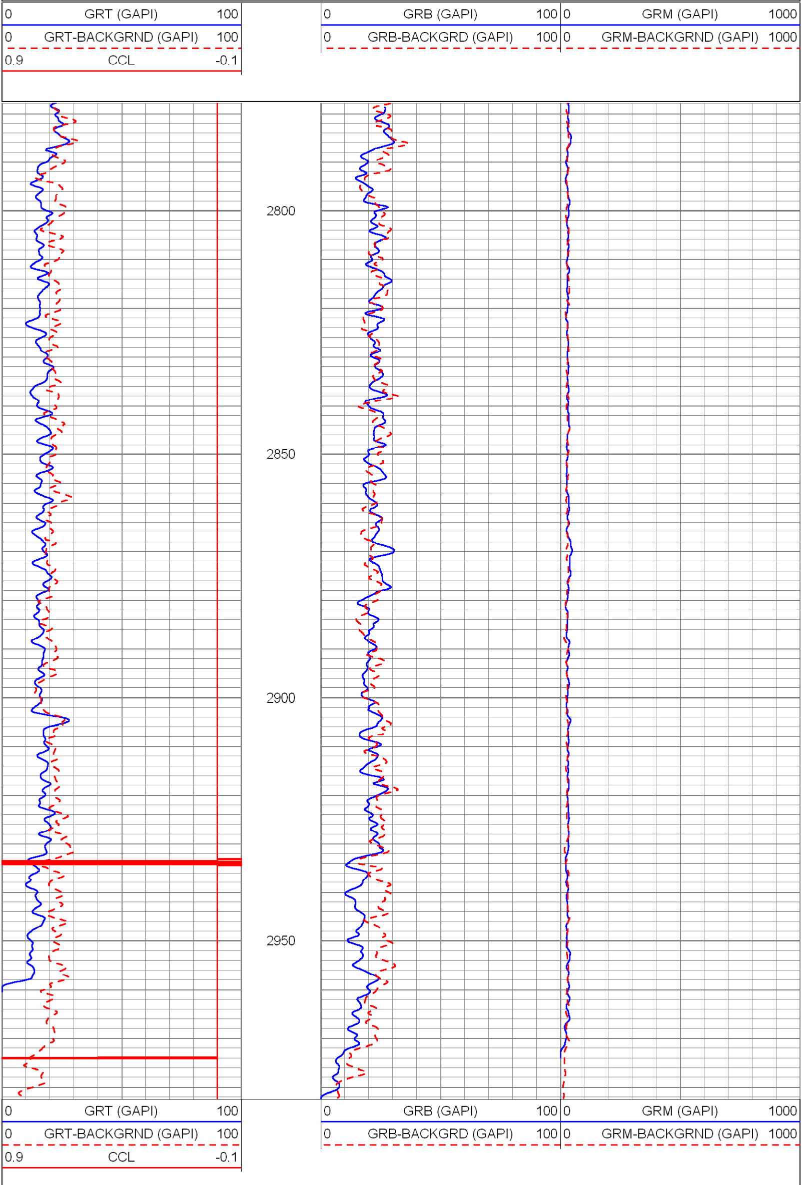


Eject 2 mCi Iodine-131 @ 2969' - 5' above casing bottom

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

LAF #1 (19000 GAL)

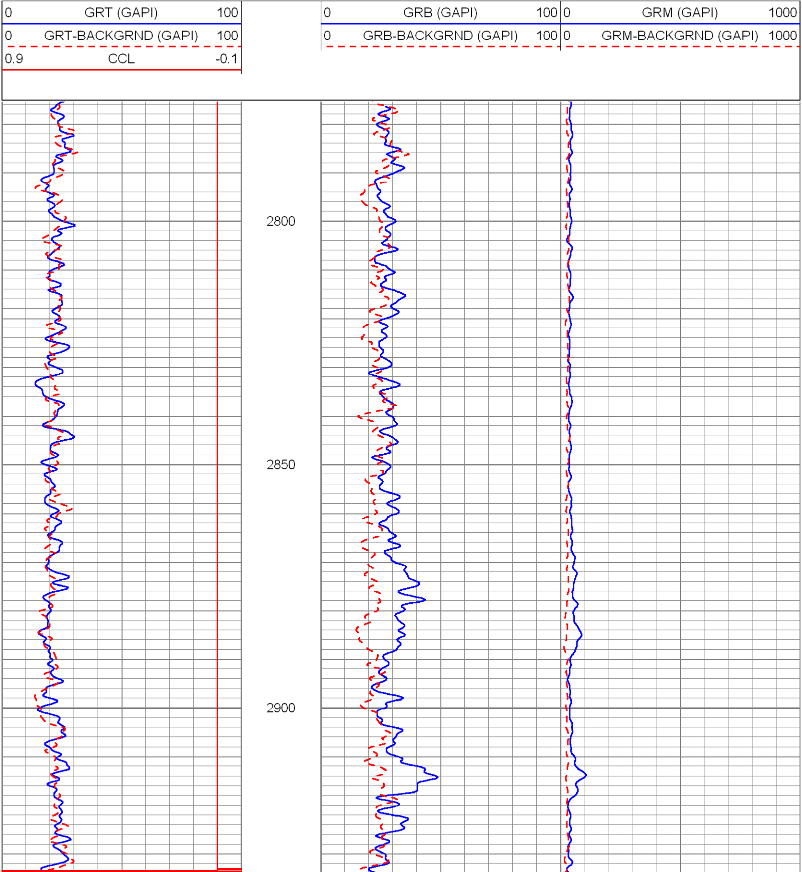
Database File:	hiaiw1rts10.db
Dataset Pathname:	PASS5
Presentation Format:	rtslaf
Dataset Creation:	Wed May 19 11:35:04 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

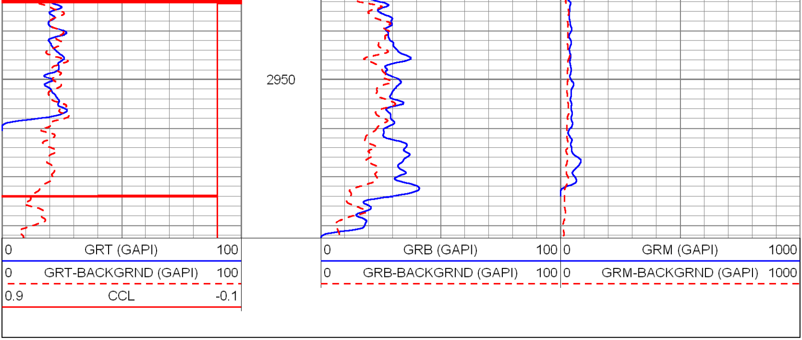


YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

LOP #1

Database File: hiaiw1rts10.db
Dataset Pathname: PASS4
Presentation Format: rtslop
Dataset Creation: Wed May 19 11:10:40 2010 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

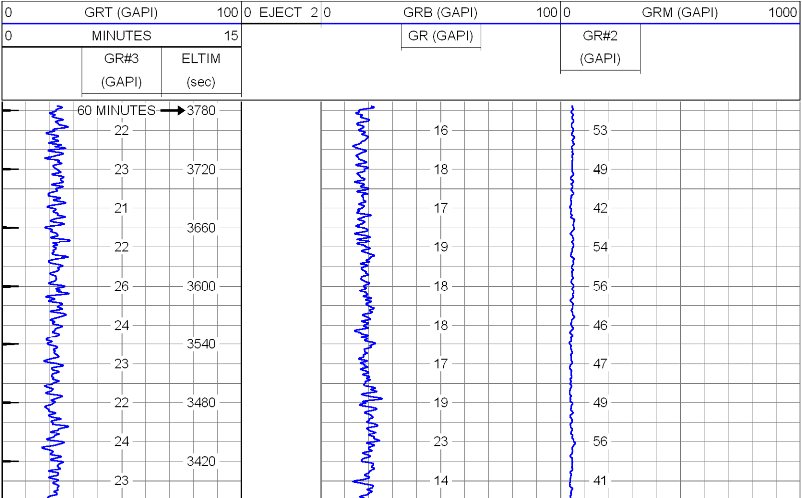


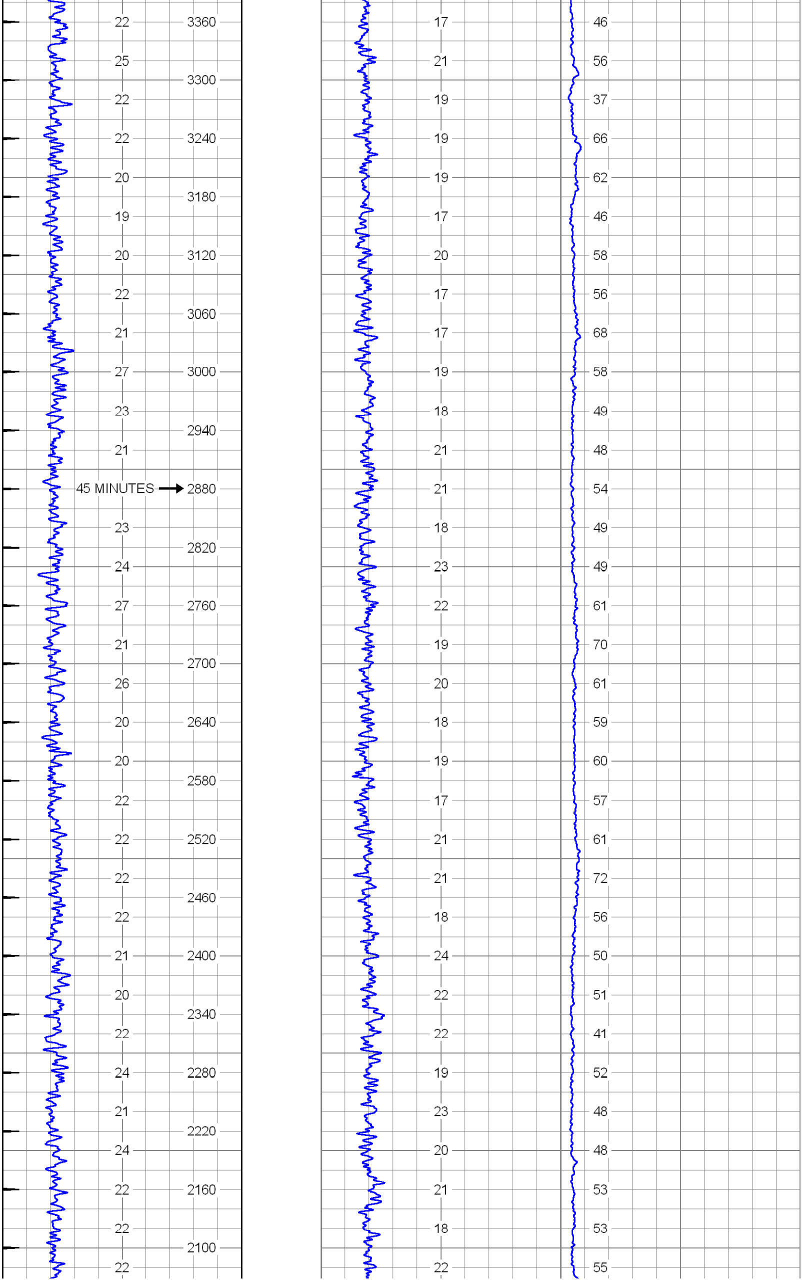


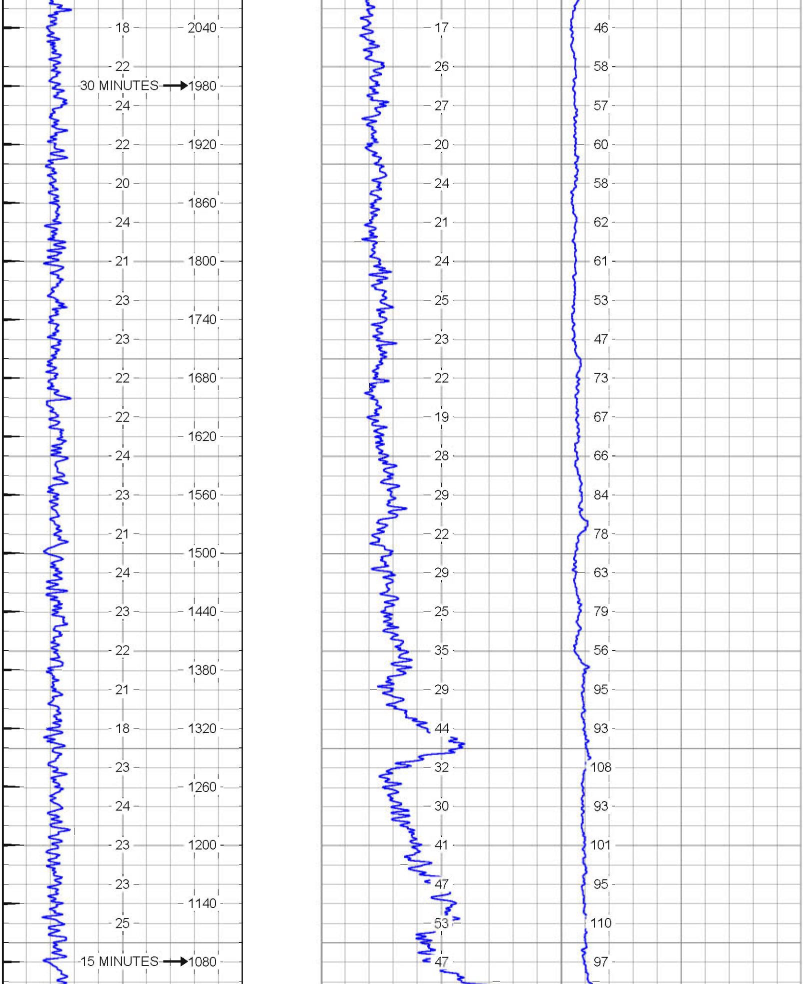
YOUNGQUIST
BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

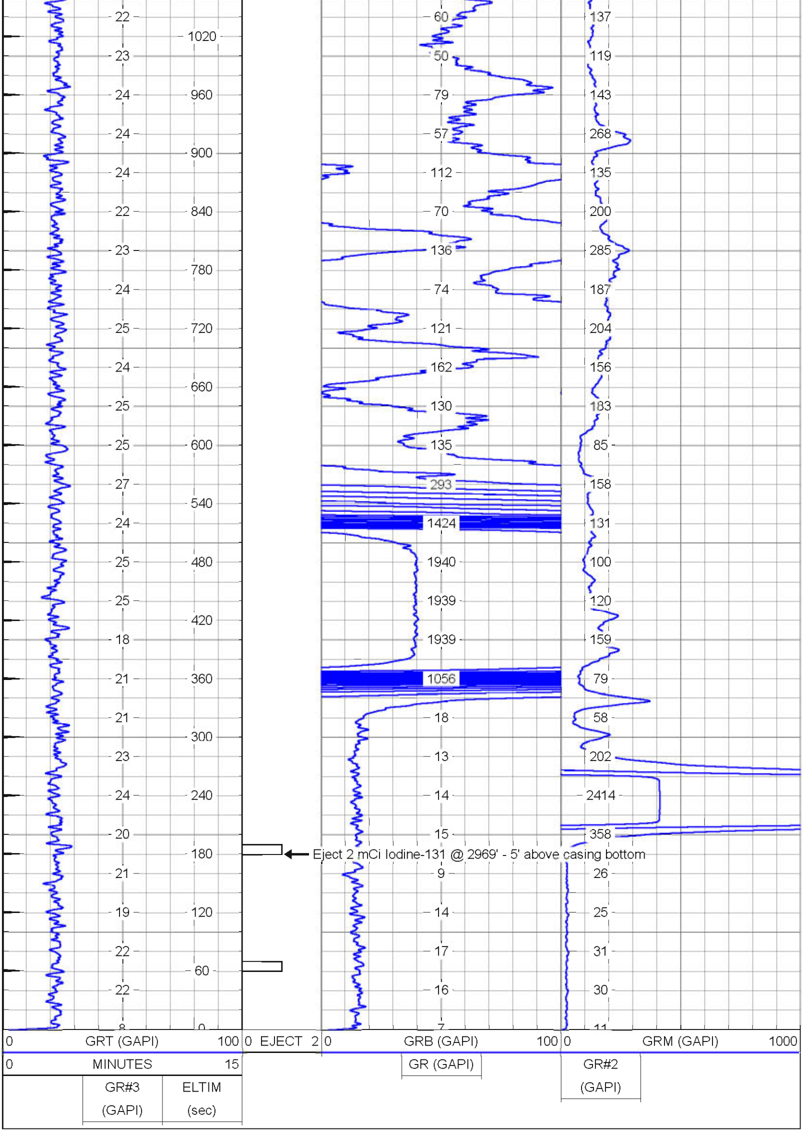
DYNAMIC TEST #1 (88 GPM)

Database File:	hiaiw1rts10.db
Dataset Pathname:	PASS3
Presentation Format:	rtstime
Dataset Creation:	Wed May 19 10:06:29 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:600









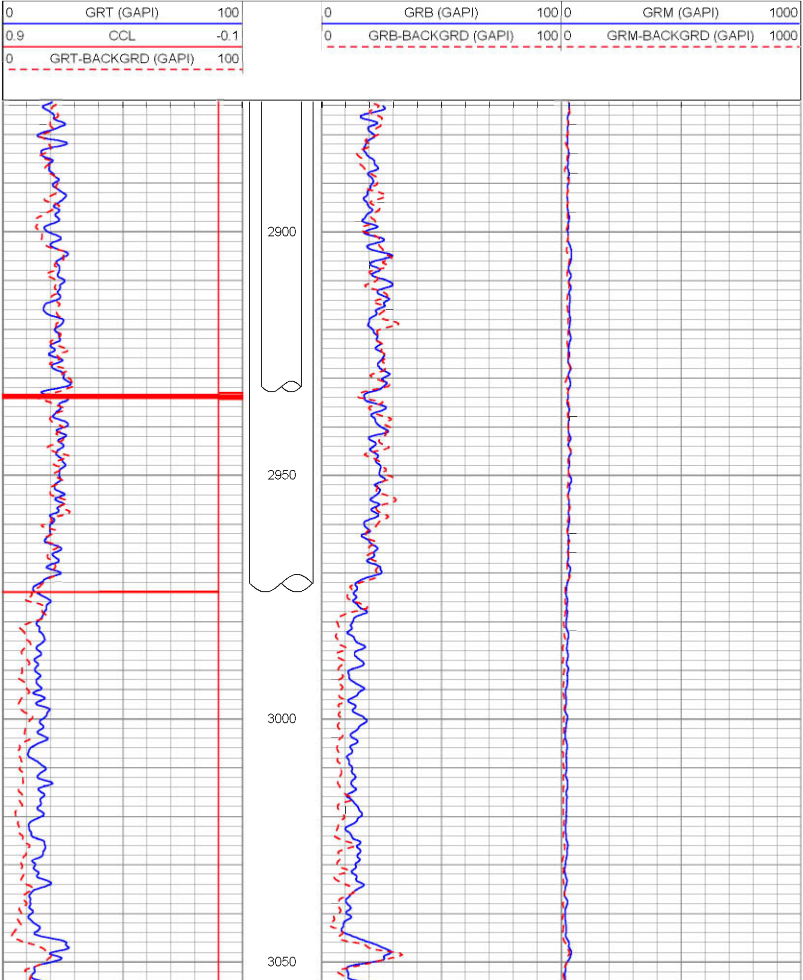
Eject 2 mCi Iodine-131 @ 2969' - 5' above casing bottom

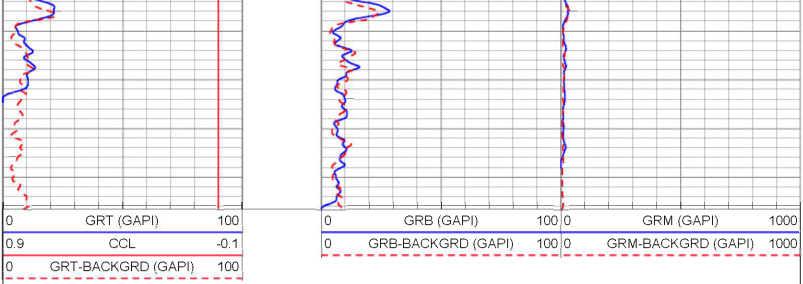
YOUNGQUIST
BROTHERS, Inc

GEOPHYSICAL LOGGING DIVISION

CASING TIE-IN

Database File:	hiaiw1rts10.db
Dataset Pathname:	PASS2
Presentation Format:	rtstie
Dataset Creation:	Wed May 19 08:53:20 2010 by Log Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

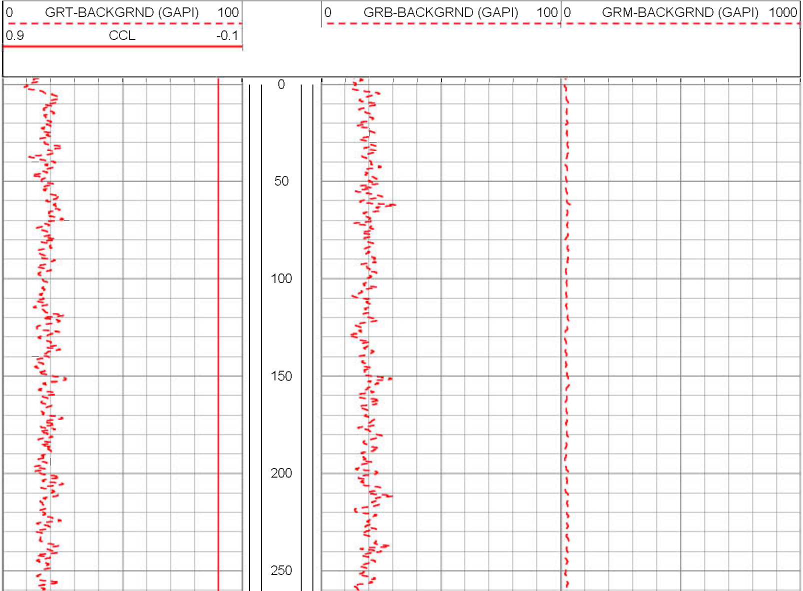


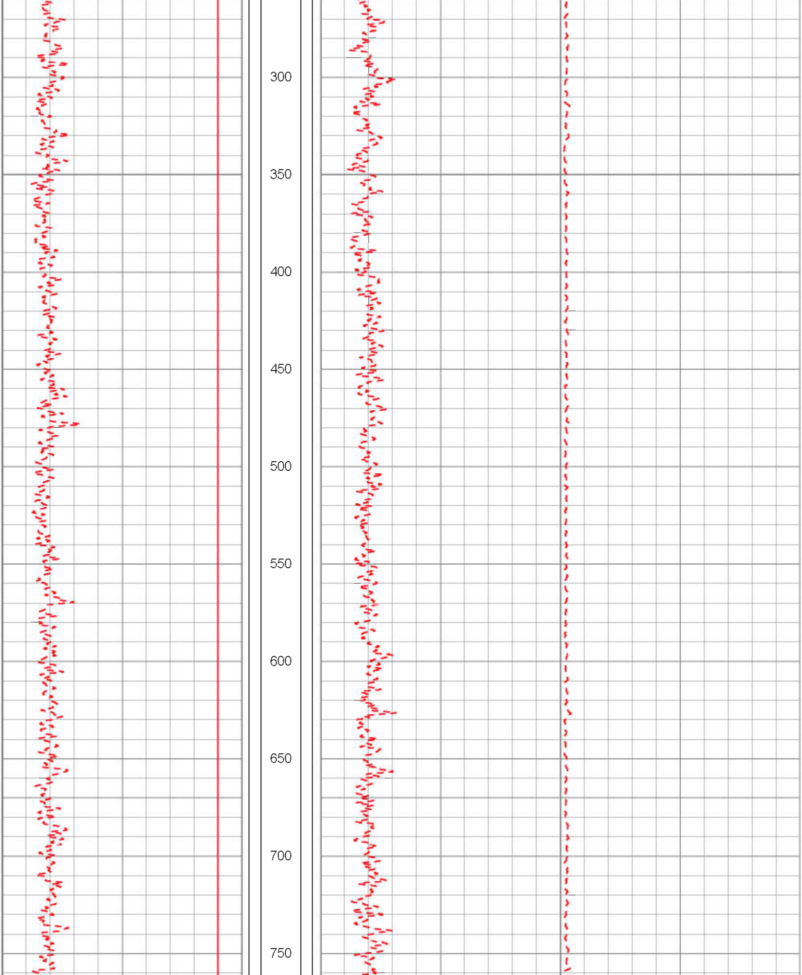


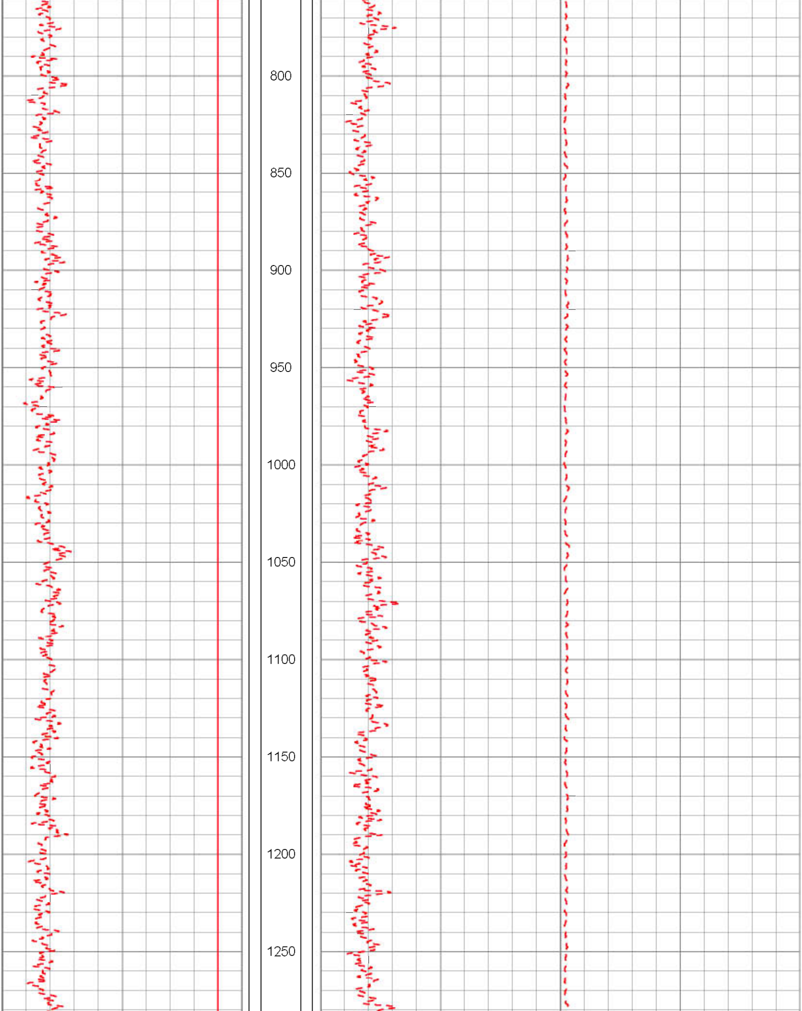
YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

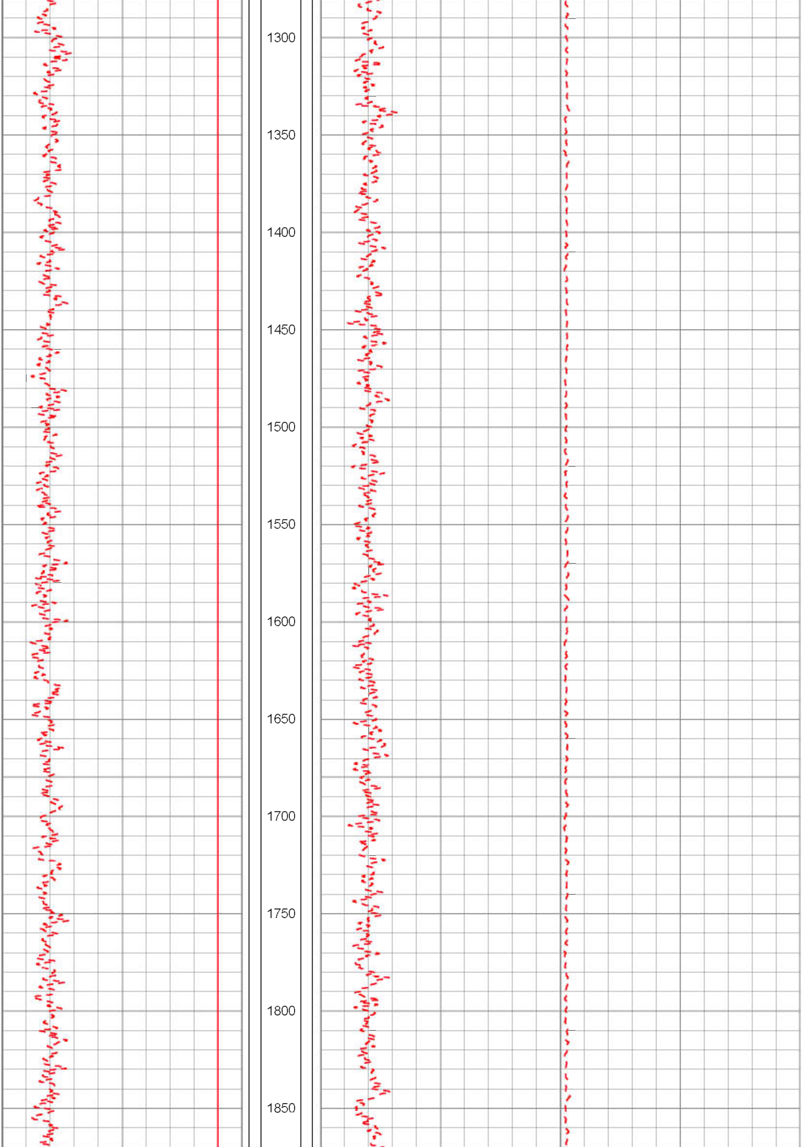
BACKGROUND GAMMA RAY

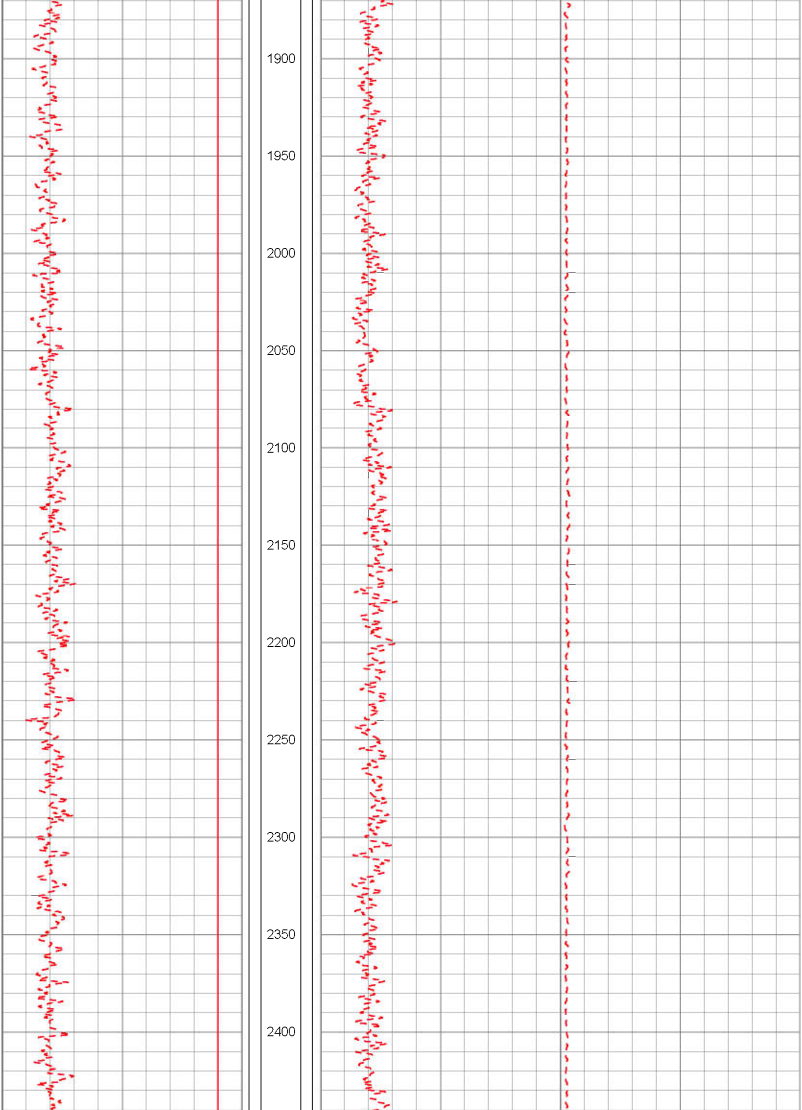
Database File: hiaiw1rts10.db
Dataset Pathname: PASS1
Presentation Format: rtsbk
Dataset Creation: Wed May 19 01:34:47 2010 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

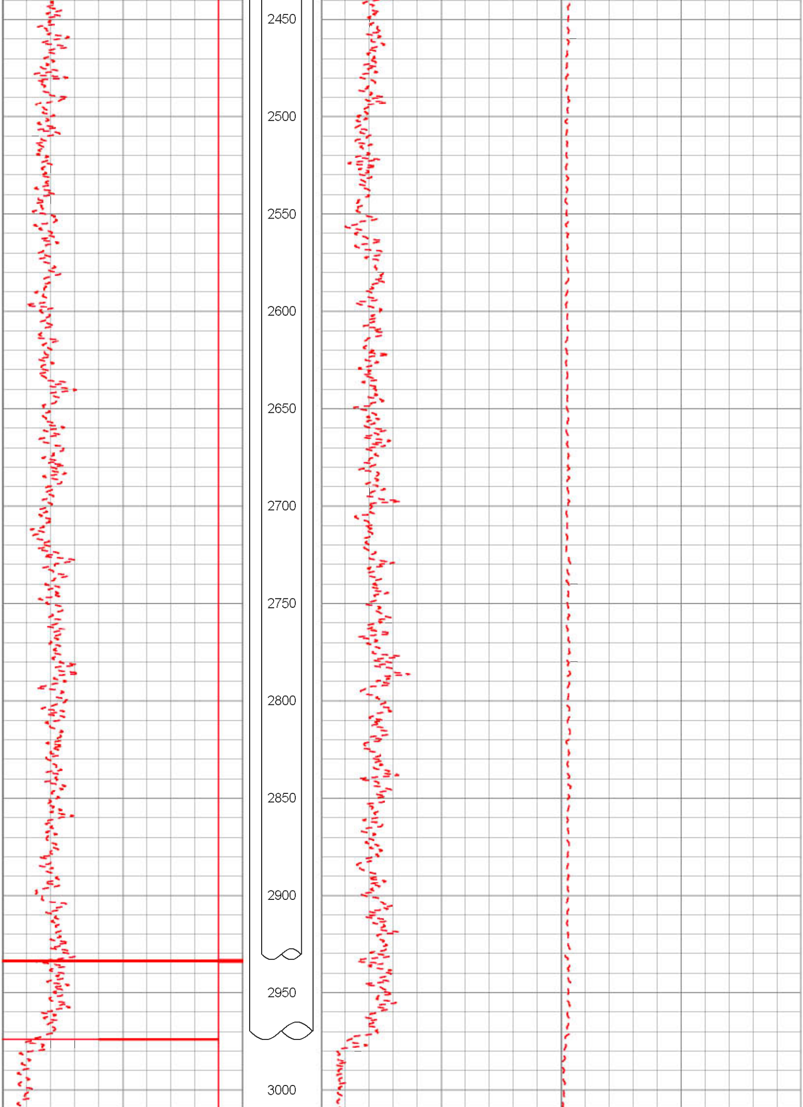


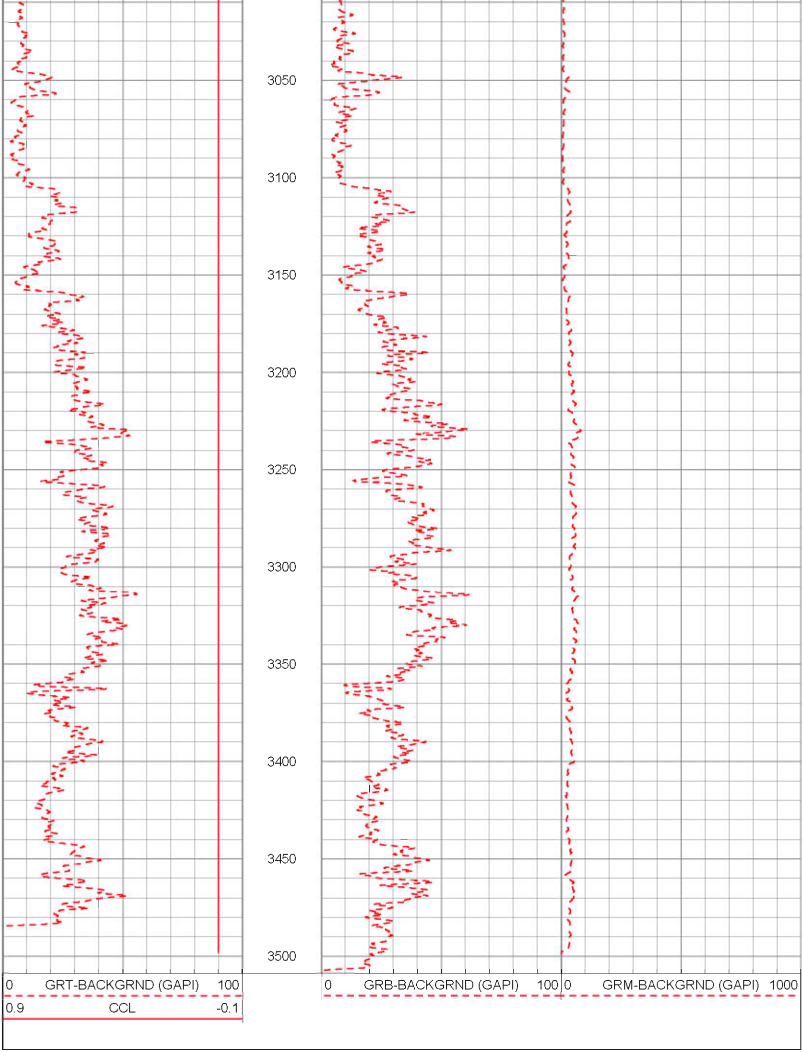












Calibration Report

Database File: hiaiw1rts10.db
Dataset Pathname: PASS1
Dataset Creation: Wed May 19 01:34:47 2010 by Log Open-Cased 090629

Gamma Ray Calibration Report

Serial Number:	954B	
Tool Model:	RTSB	
Performed:	Wed May 19 00:28:20 2010	
Calibrator Value:	120.0	GAPI
Background Reading:	72.7	cps
Calibrator Reading:	271.8	cps
Sensitivity:	0.6028	GAPI/cps

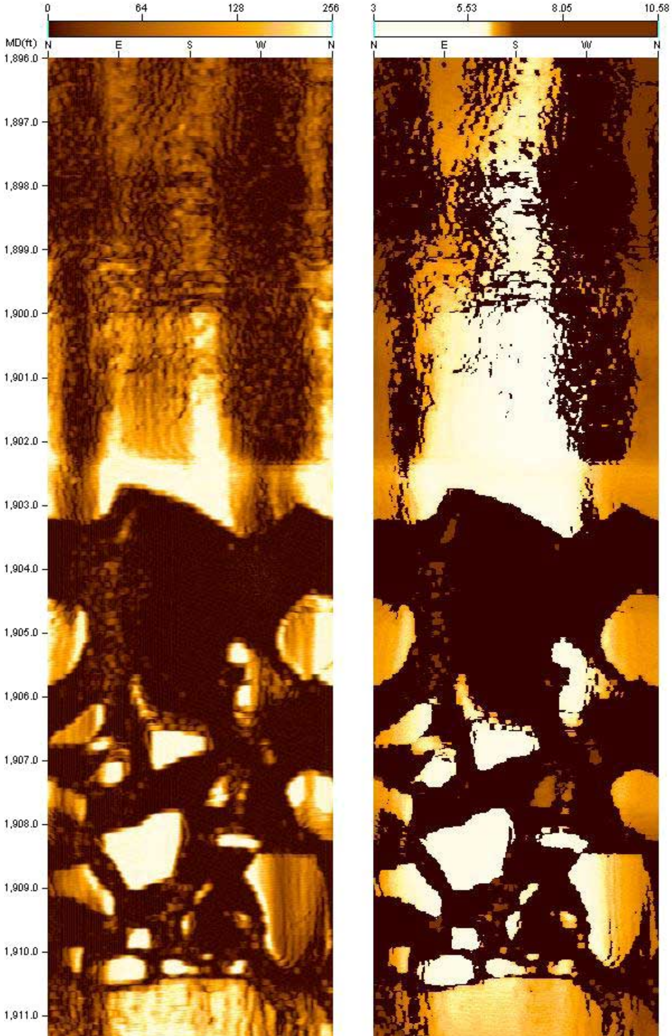
Gamma Ray Calibration Report

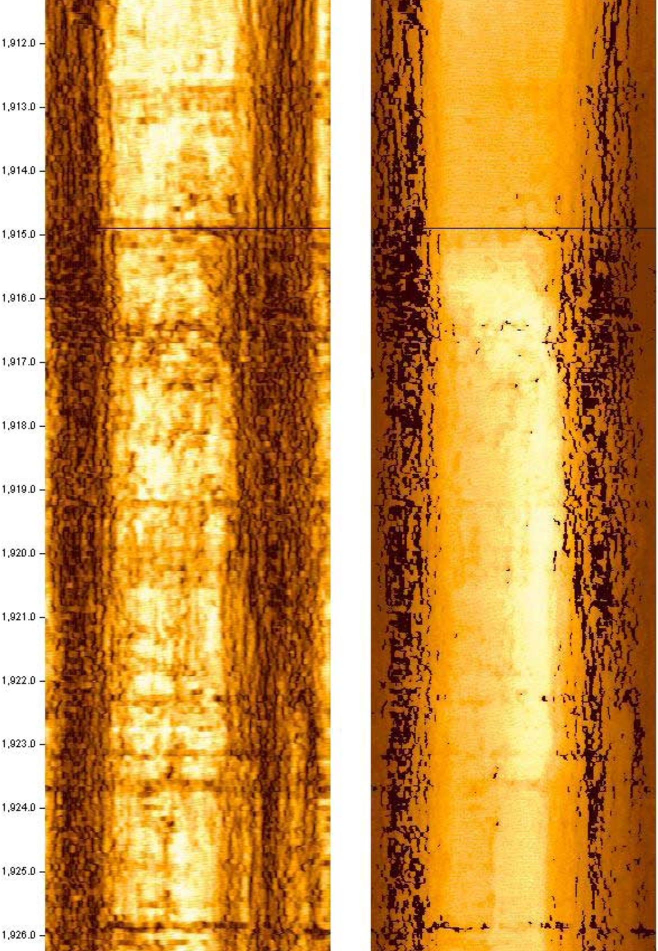
Serial Number:	954M	
Tool Model:	RTSM	
Performed:	Wed May 19 00:29:30 2010	
Calibrator Value:	120.0	GAPI
Background Reading:	450.3	cps
Calibrator Reading:	610.4	cps
Sensitivity:	0.7496	GAPI/cps

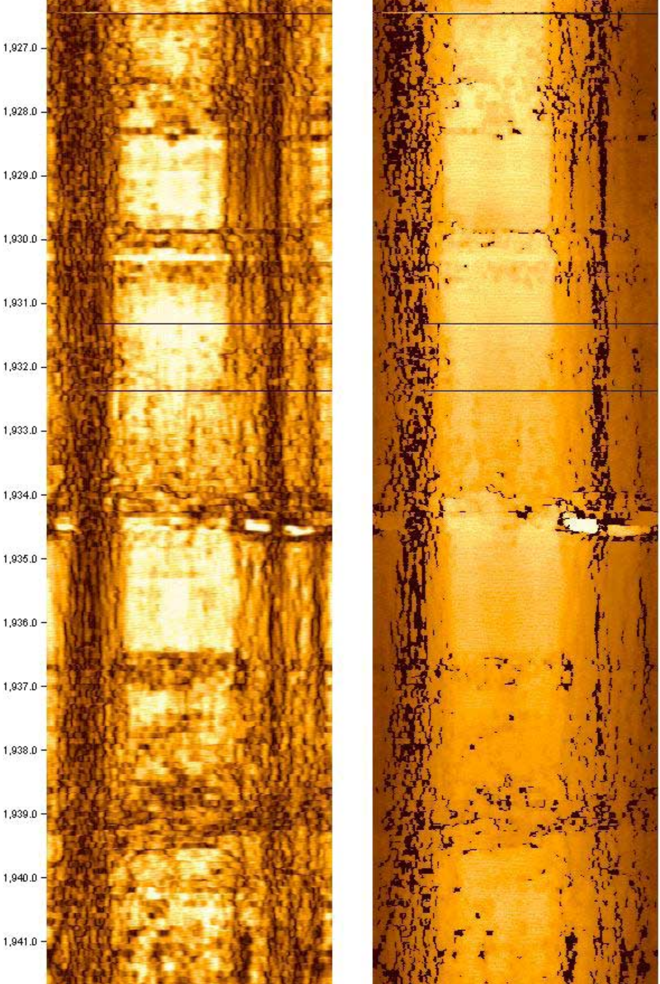
Gamma Ray Calibration Report

Serial Number:	954T	
Tool Model:	RTST	
Performed:	Wed May 19 00:30:42 2010	
Calibrator Value:	120.0	GAPI
Background Reading:	69.6	cps
Calibrator Reading:	263.5	cps
Sensitivity:	0.6191	GAPI/cps

Well Name: IW-1 Log Date: 25-JAN-2010
Well Location: HIALEAH R.O.W.T.P. Depth Range: 1,895.4 - 2,101.0 ft



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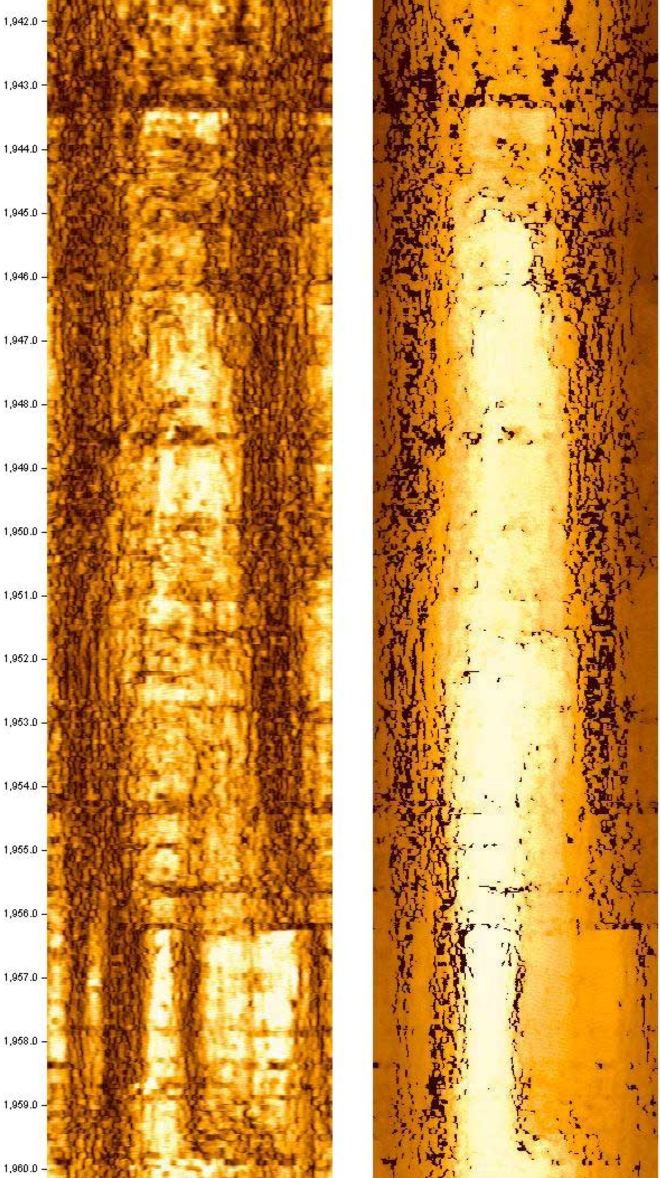
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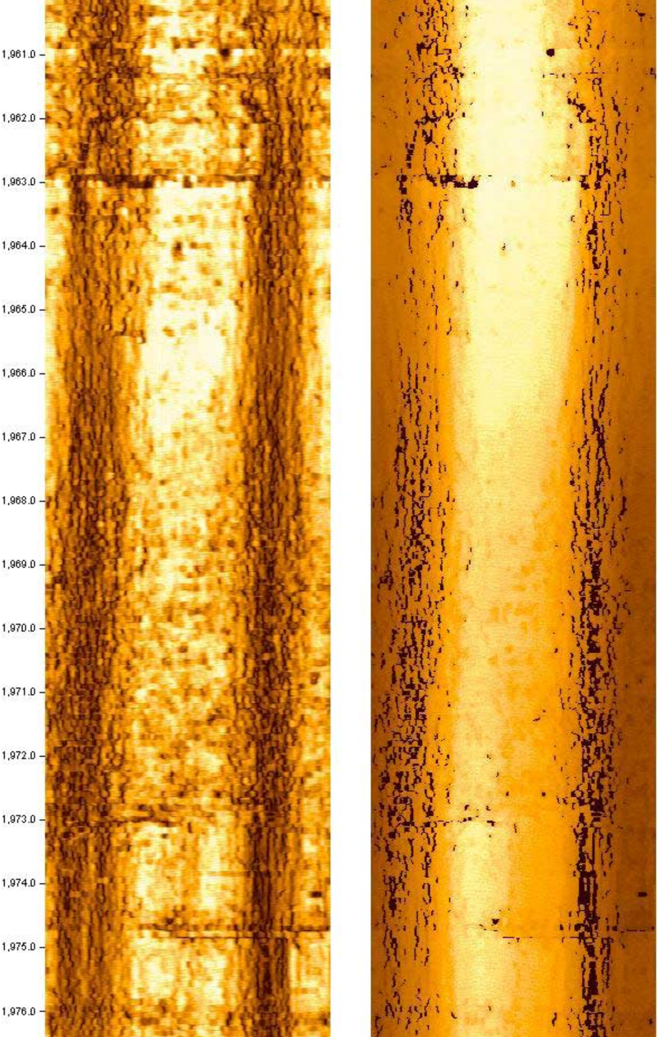

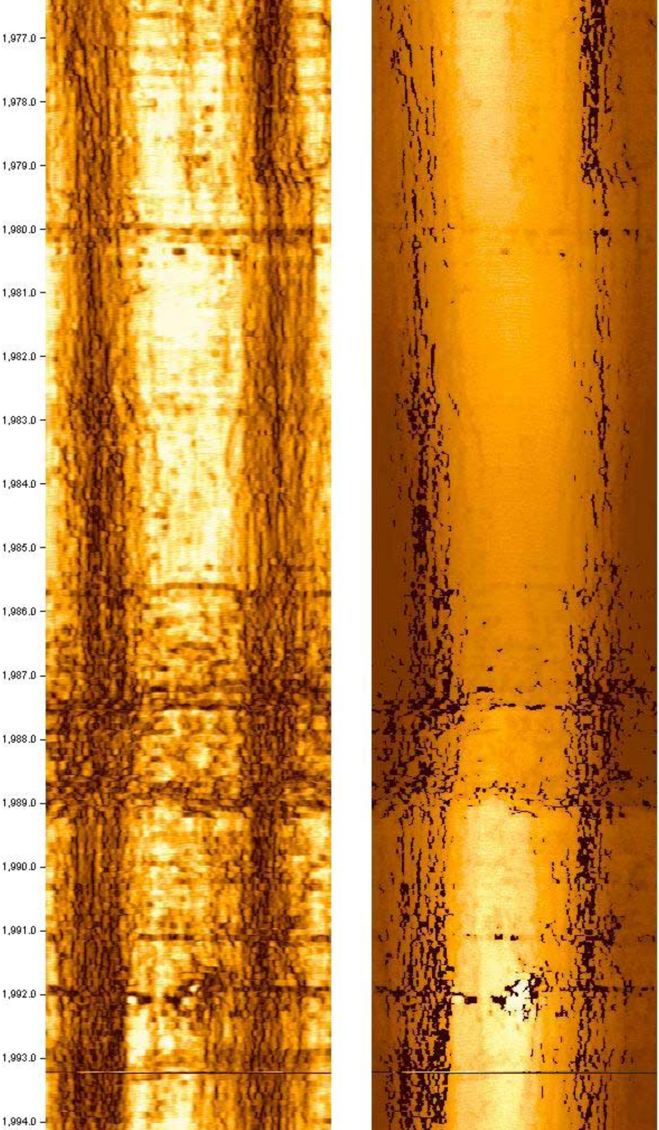

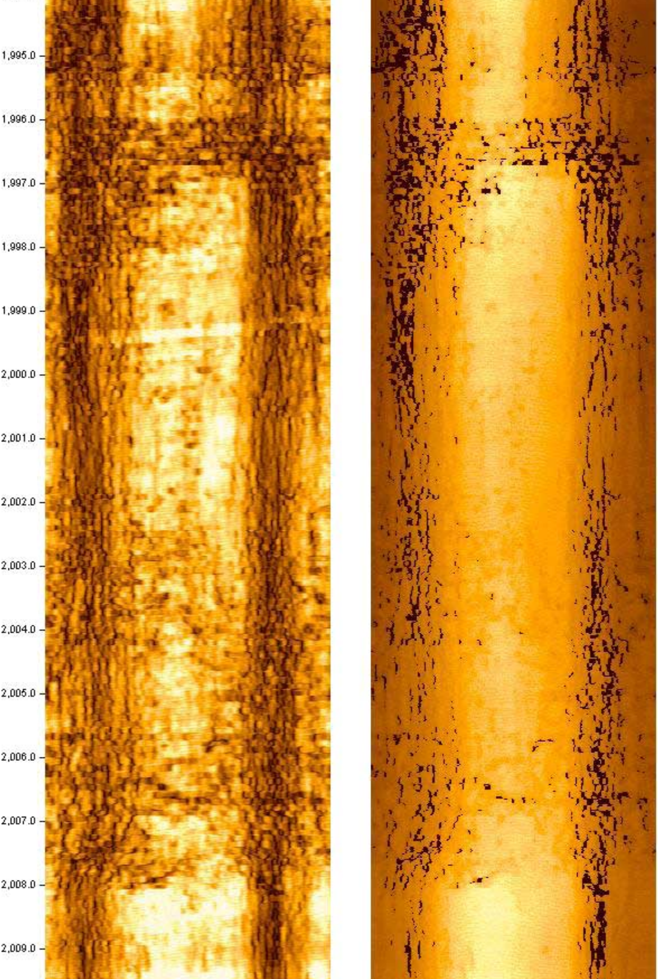

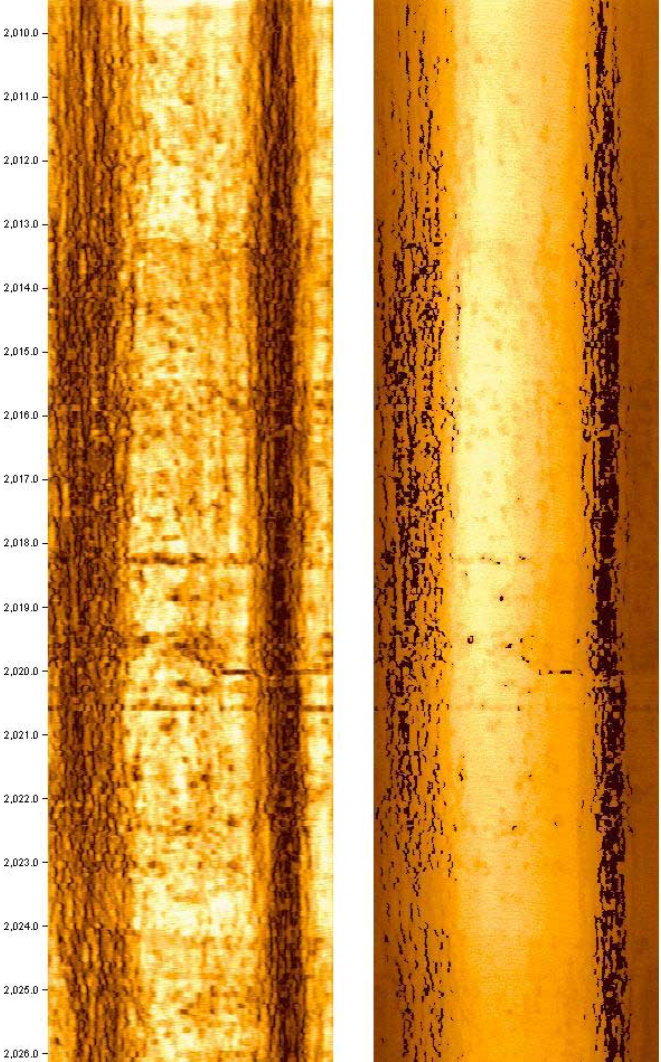

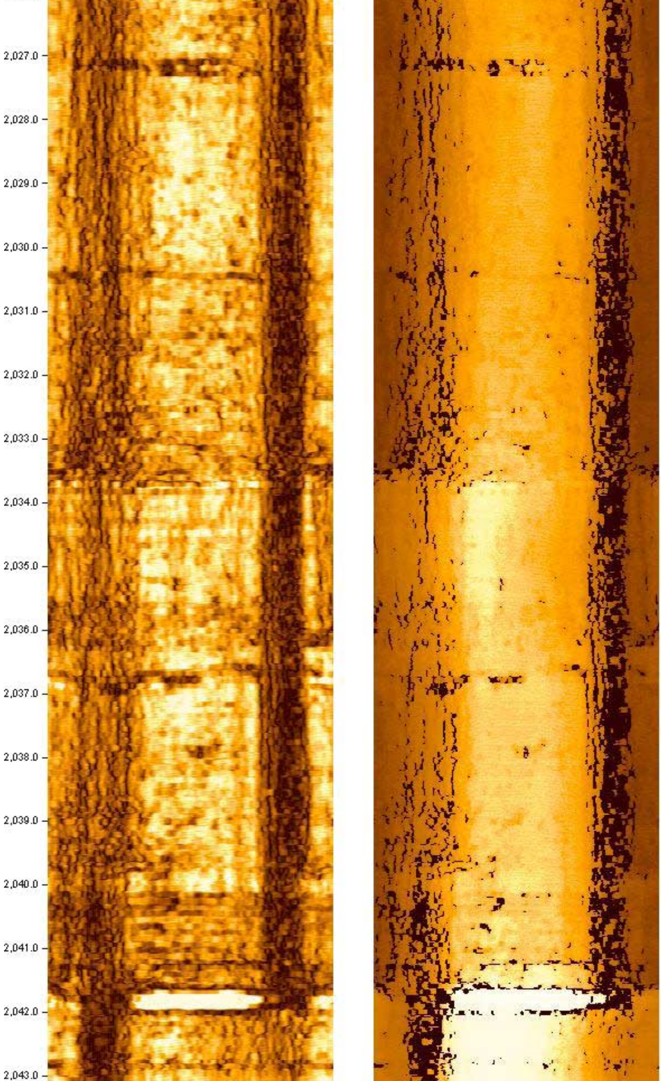

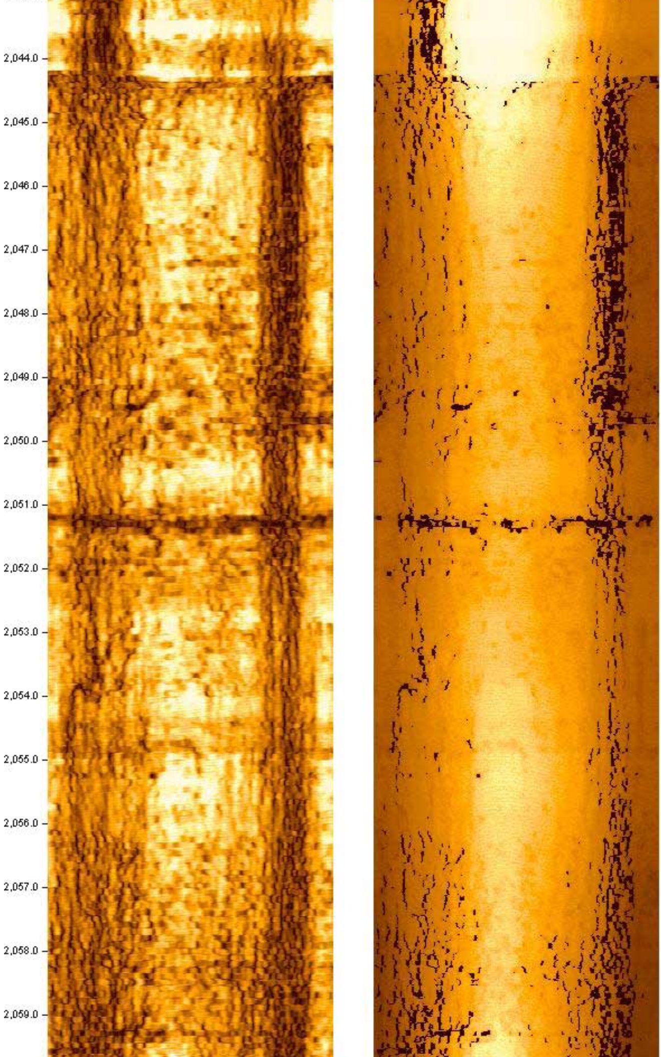

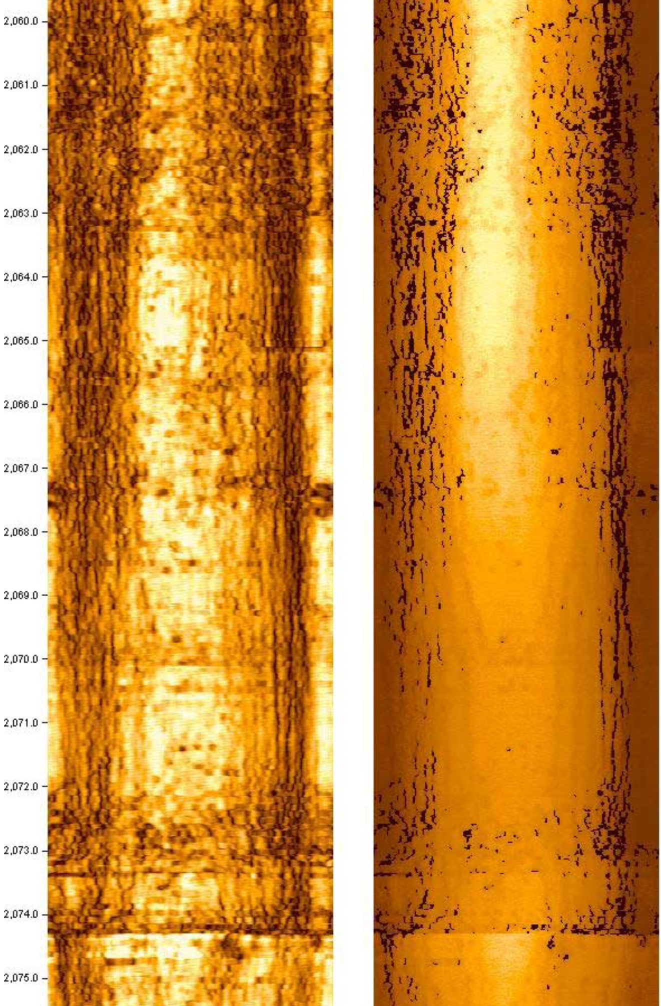

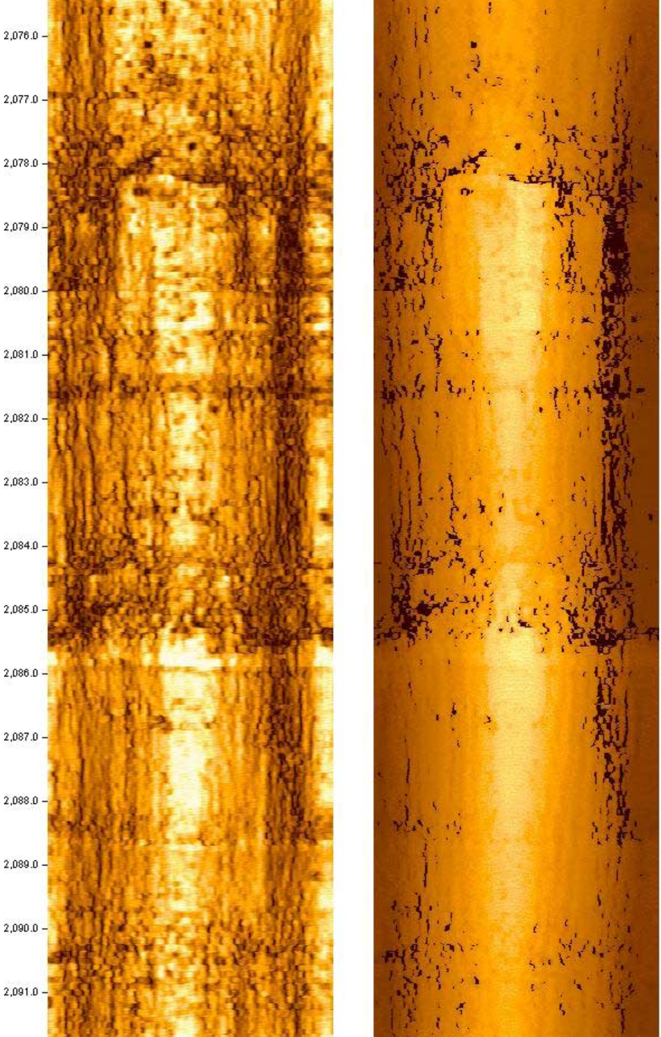

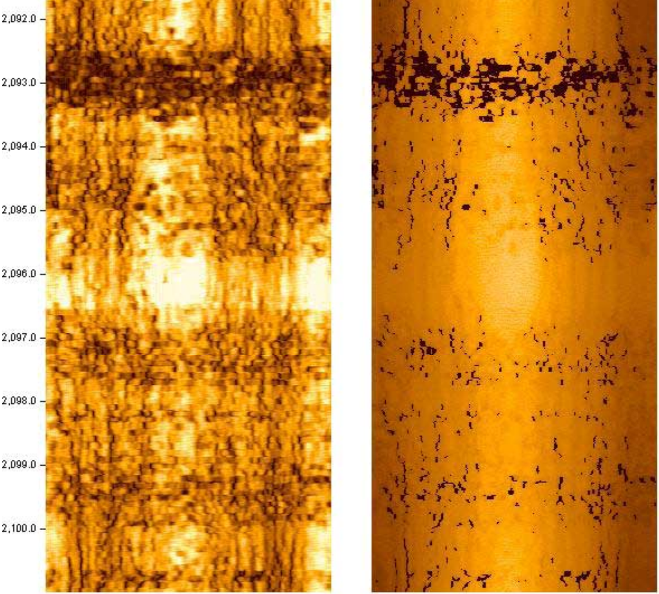
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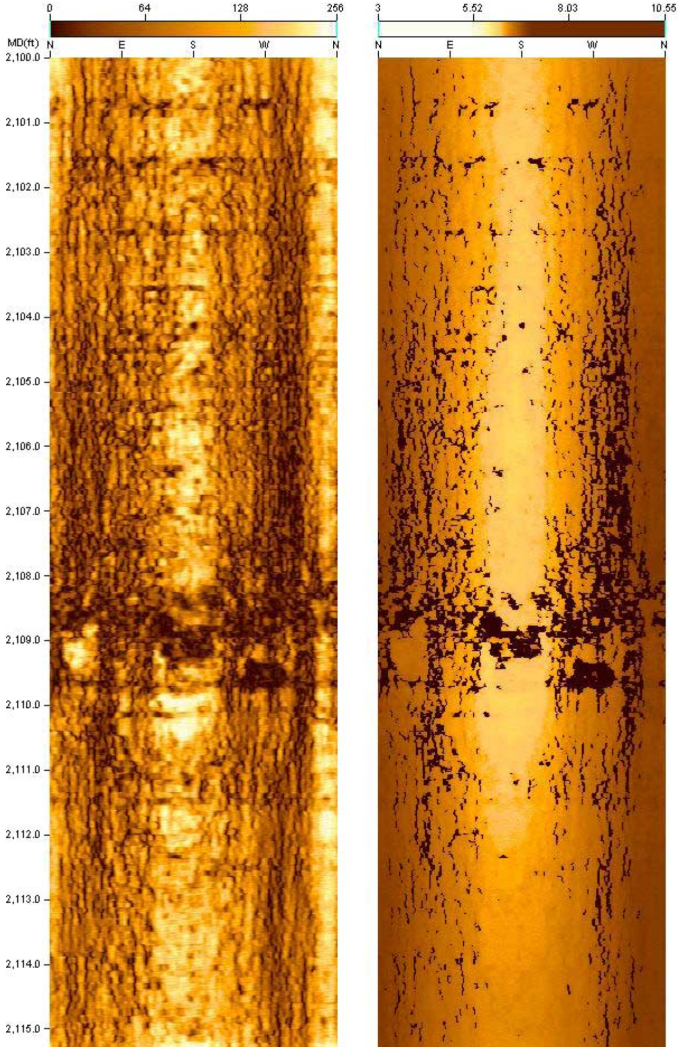
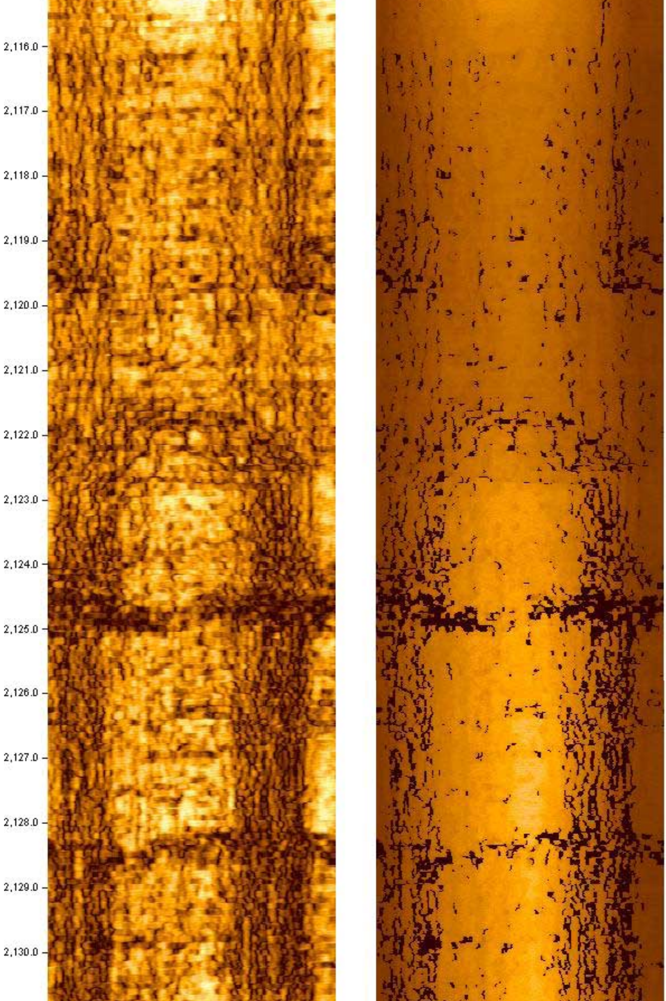
Scale: 33/500 Aspect Ratio: N/A Page: 1/23

Well Name: IW-1
Well Location: HIALEAH R.O.W.T.P.

Log Date: 25-JAN-2010
Depth Range: 2,100.0 - 2,311.0 ft

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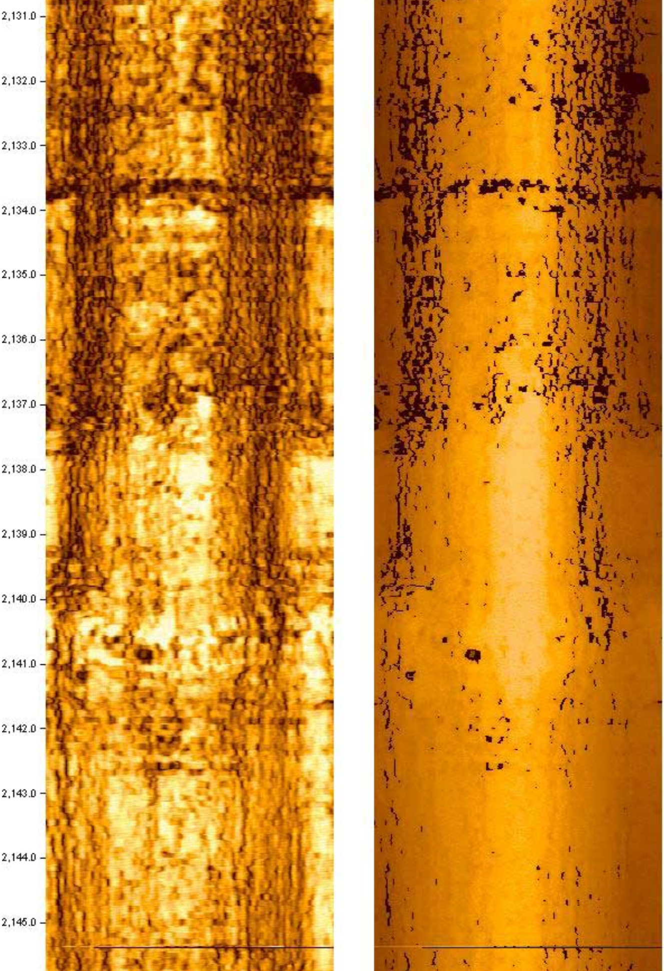

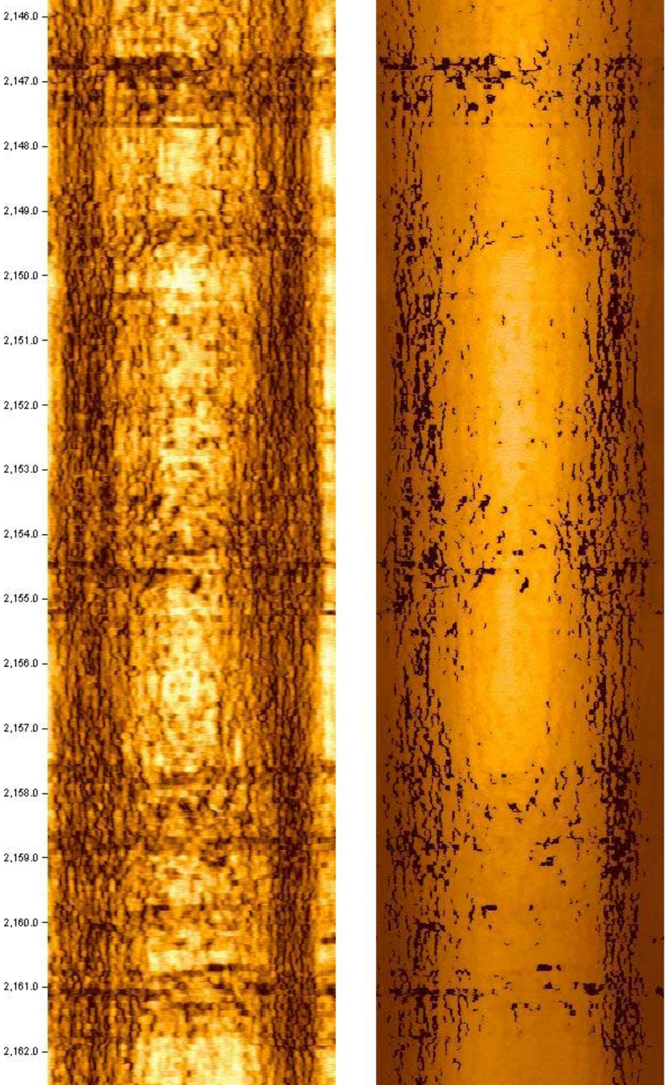
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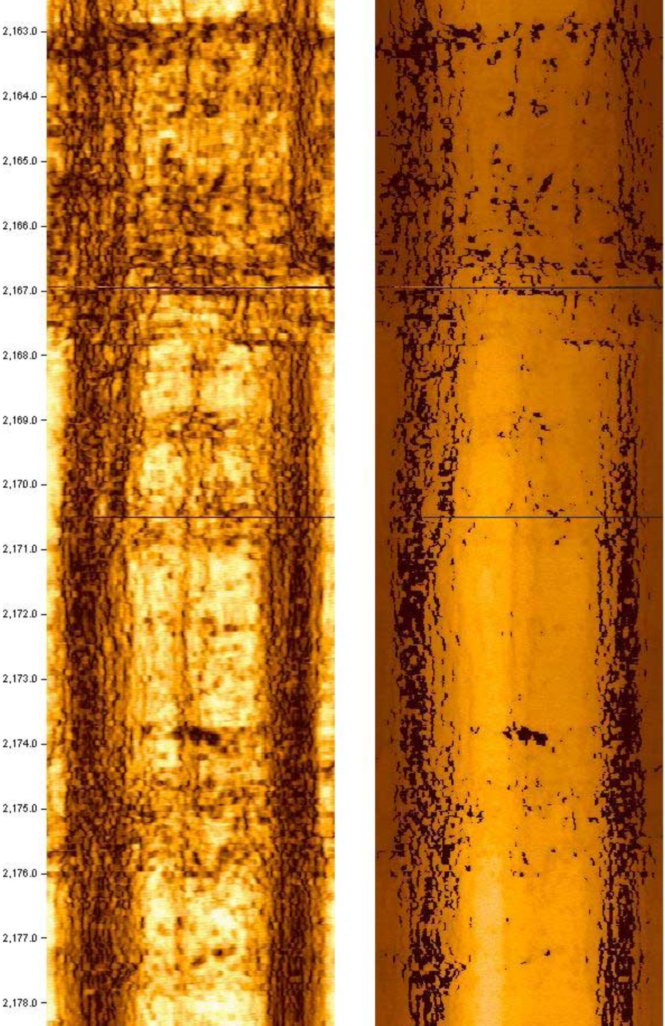

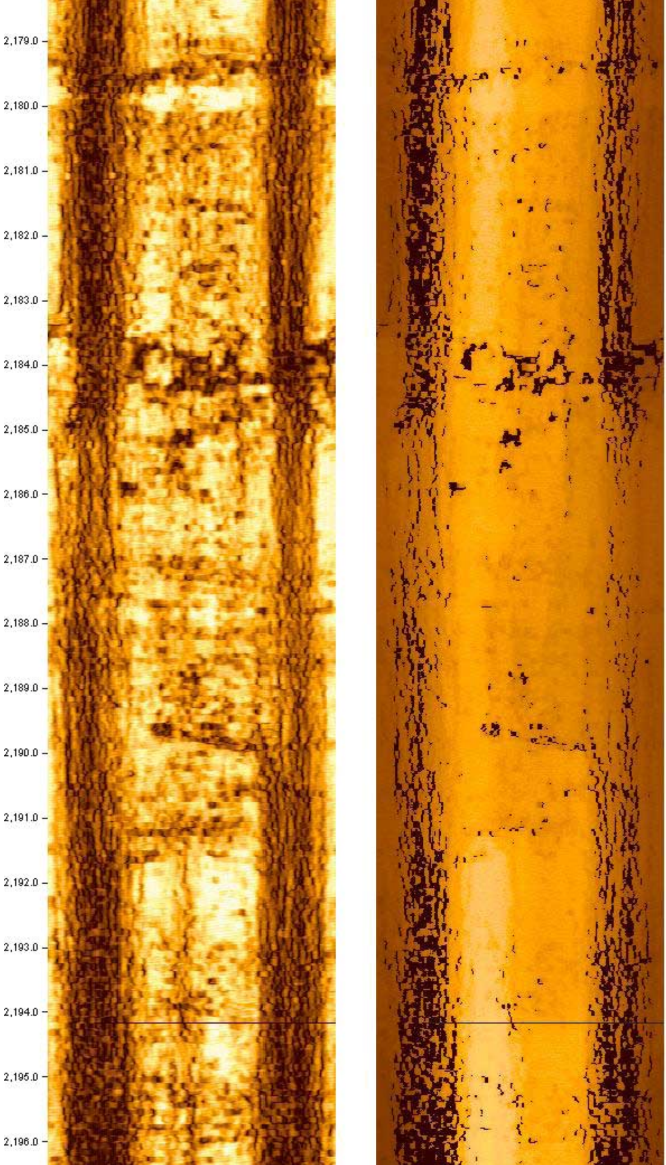
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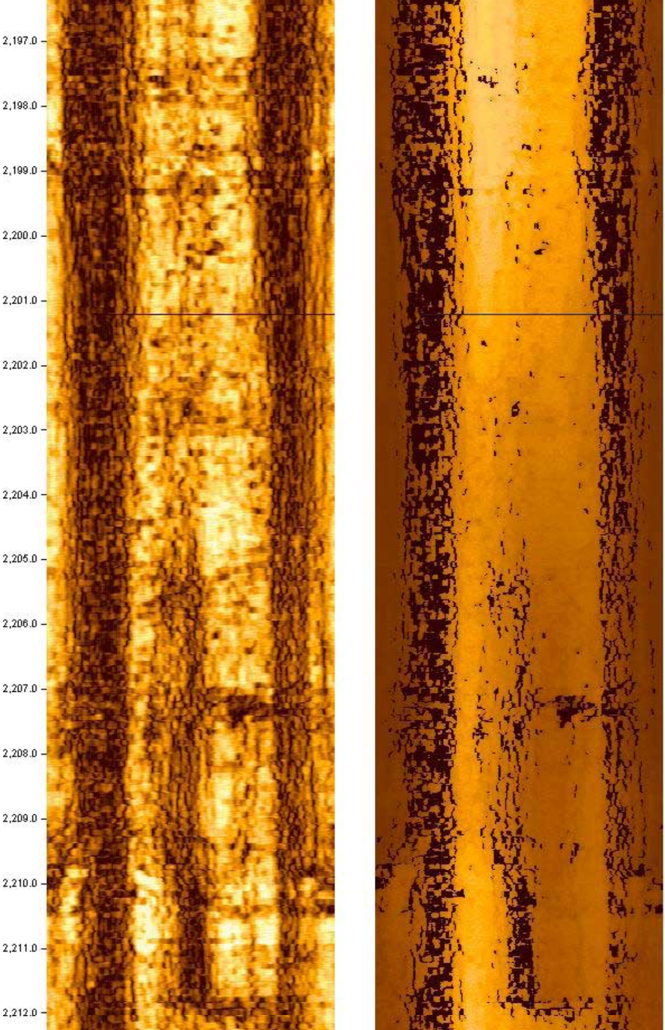

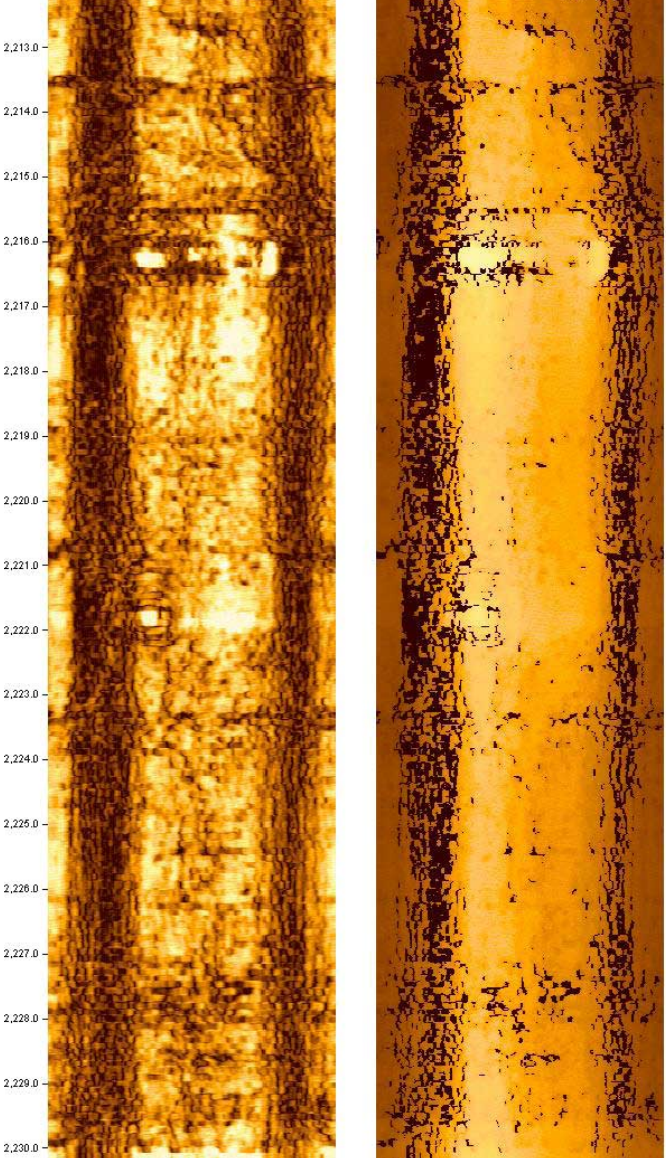
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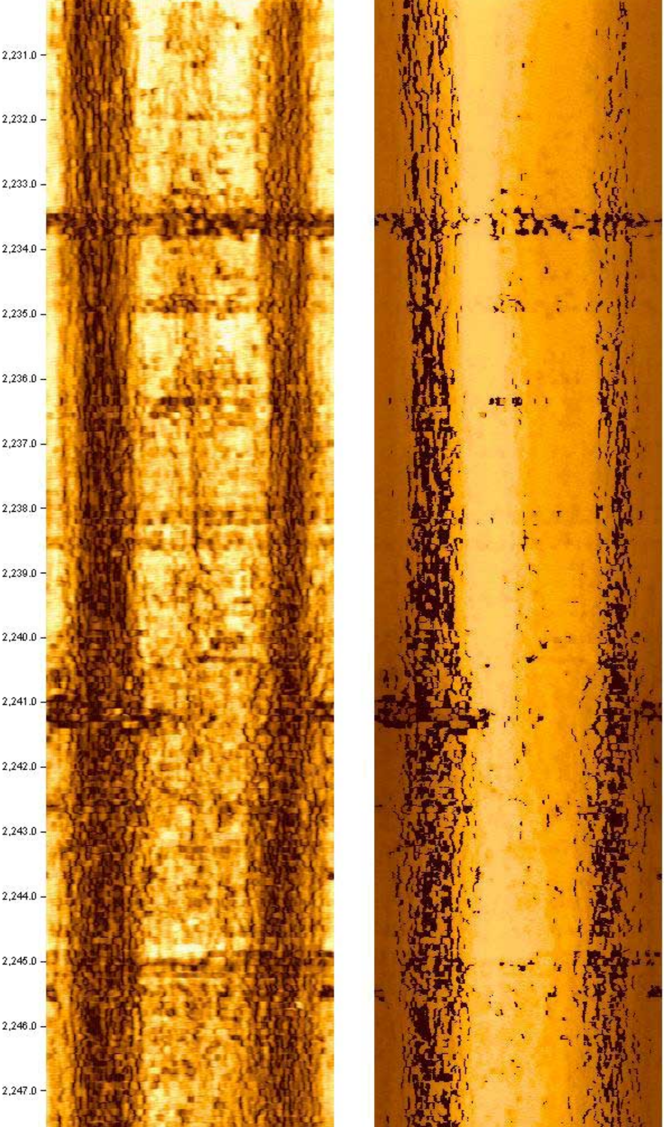

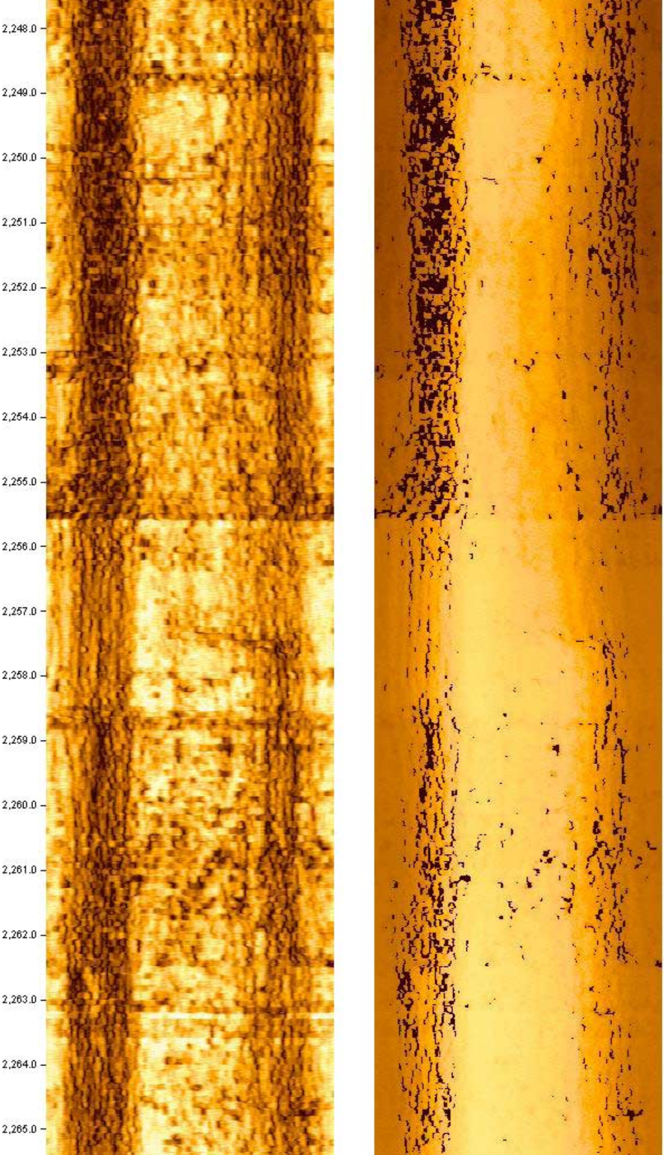
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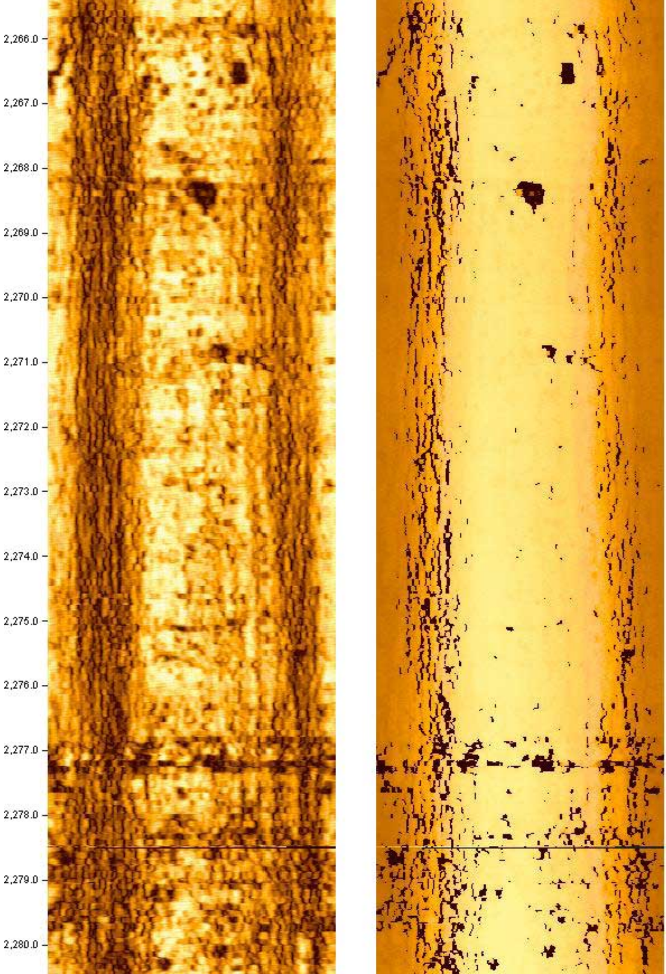

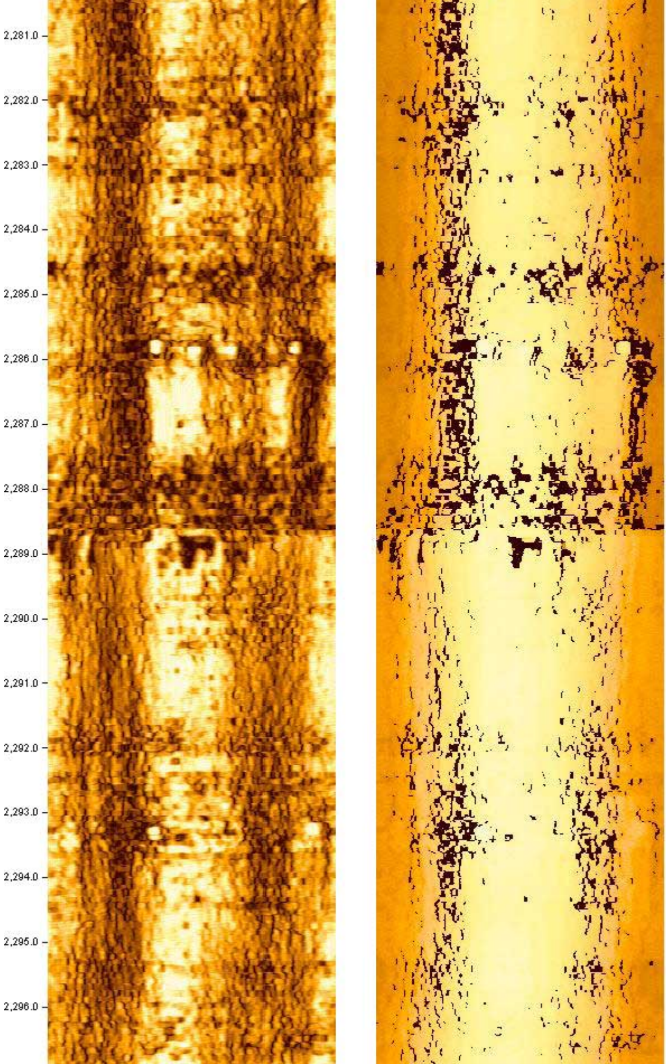
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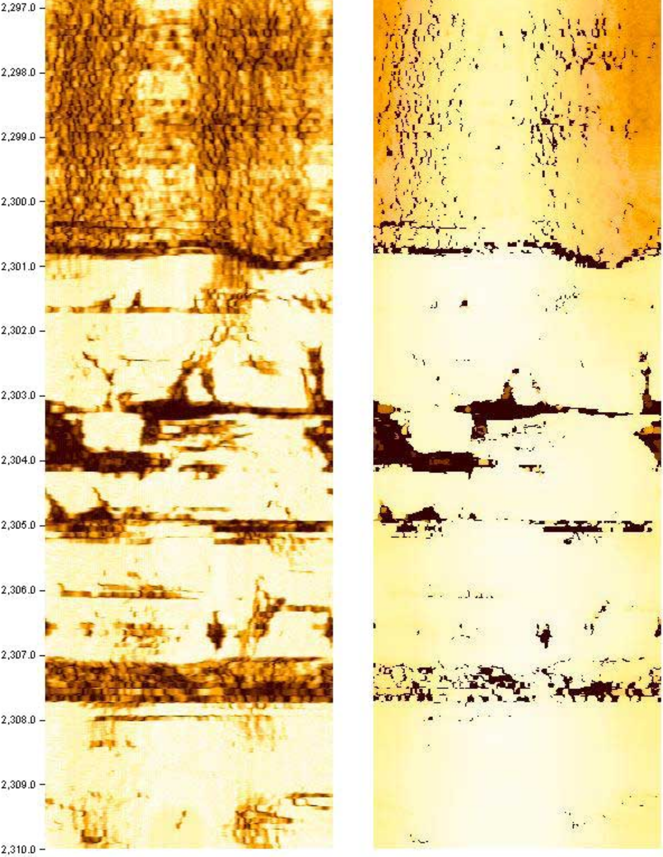
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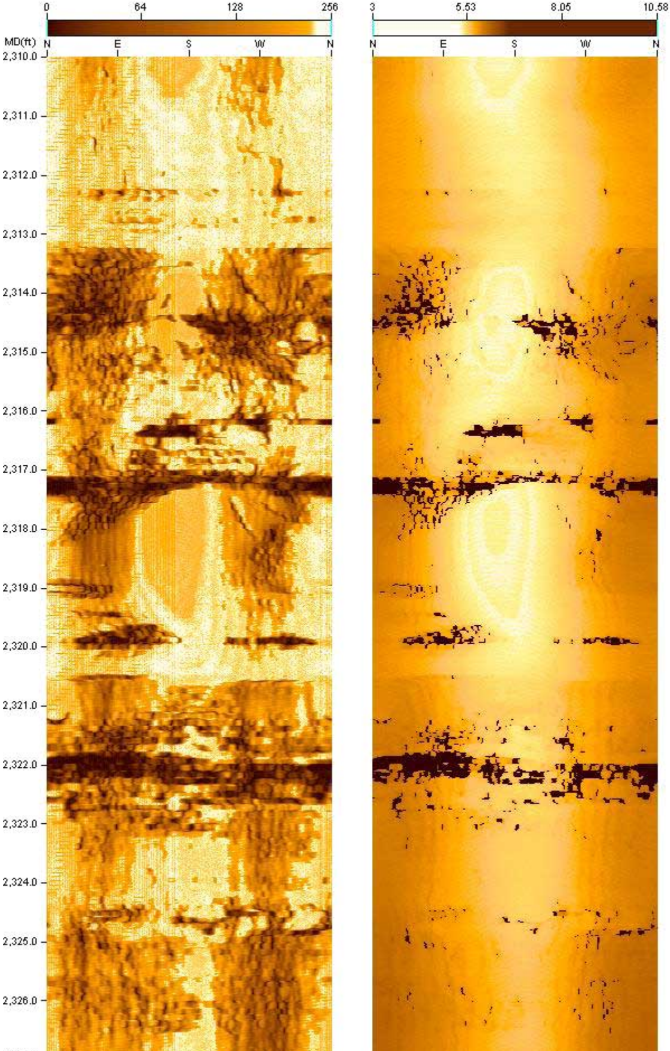
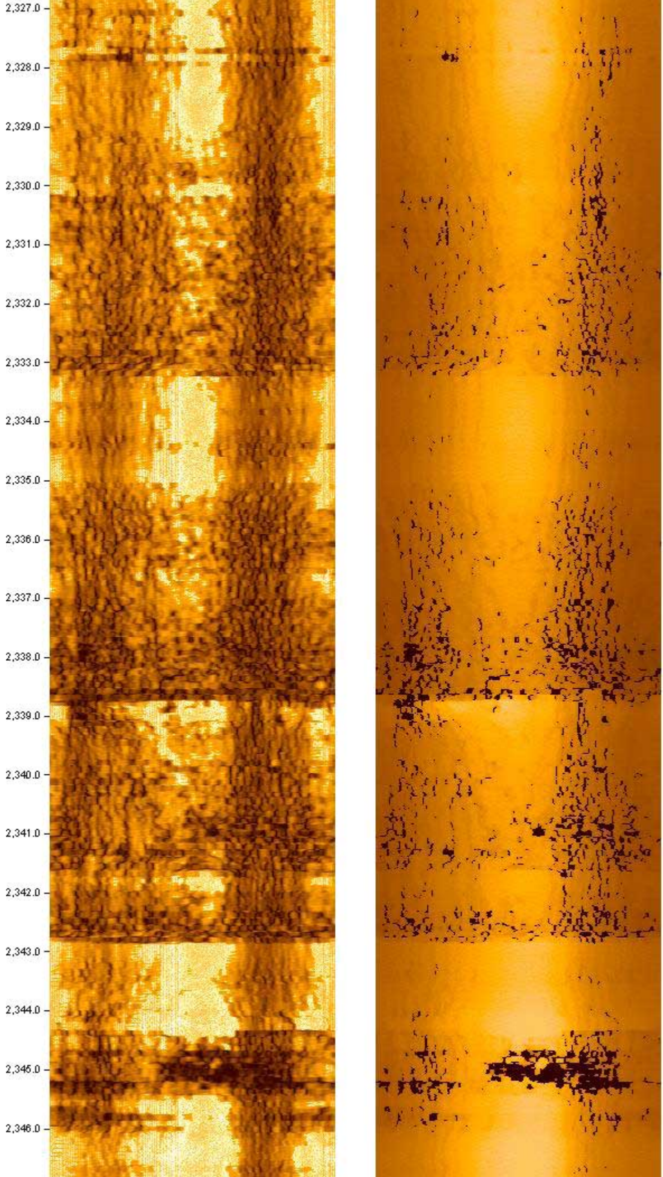
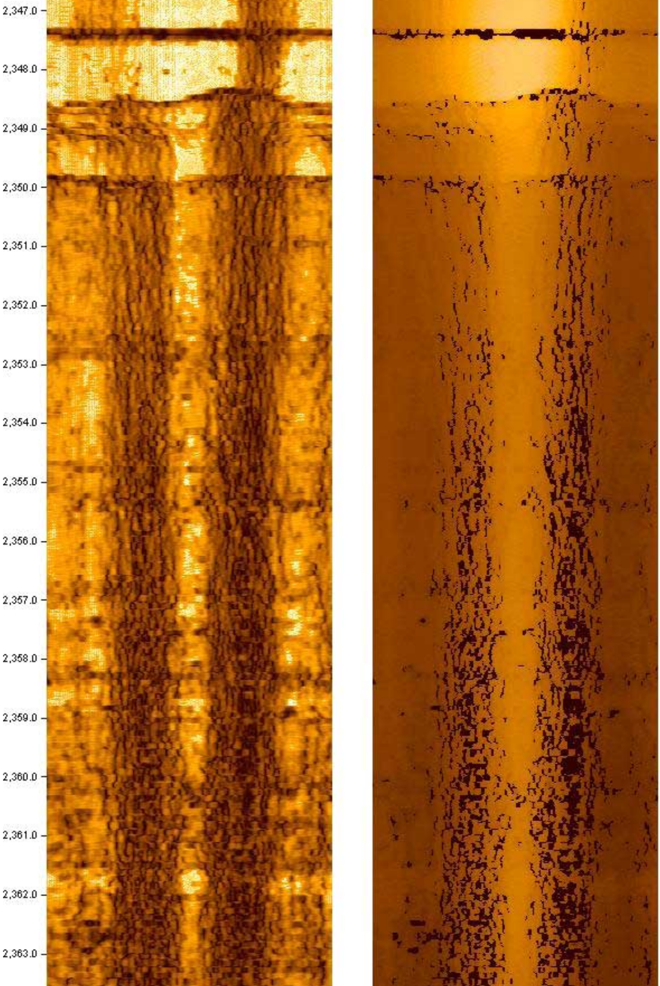
2,310.0

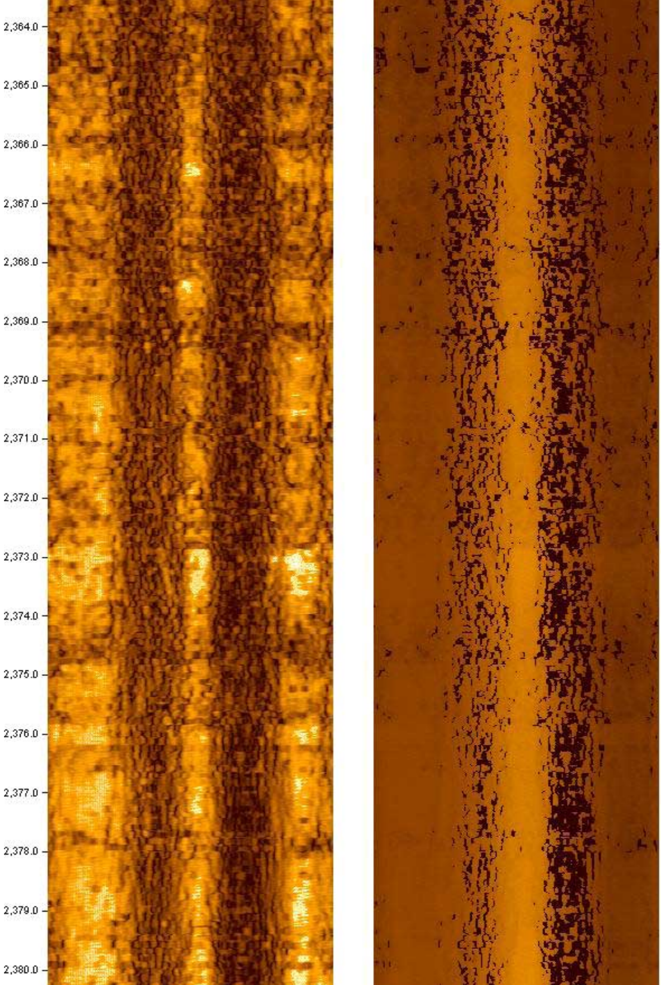
Well Name: IW-1
Well Location: HIALEAH R.O.W.T.P.

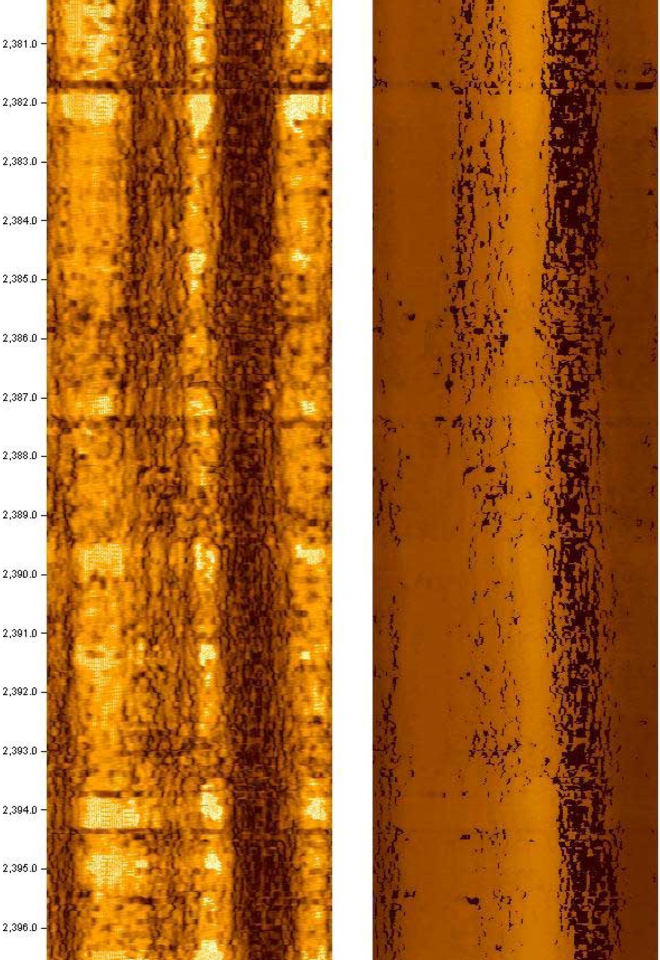
Log Date: 25-JAN-2010
Depth Range: 2,310.0 - 2,521.0 ft

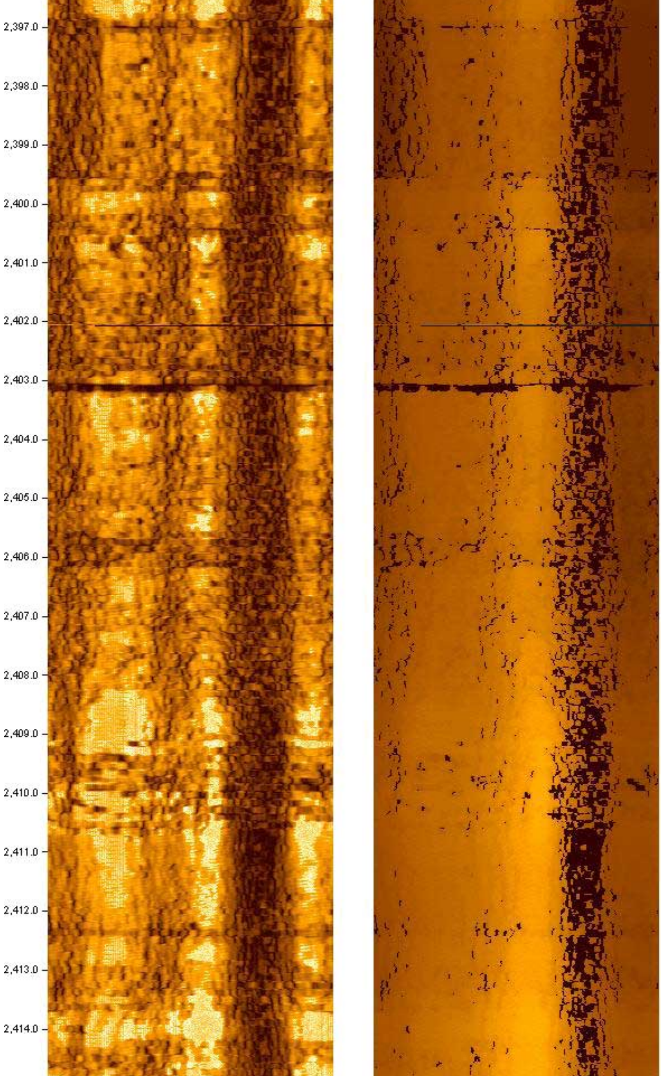


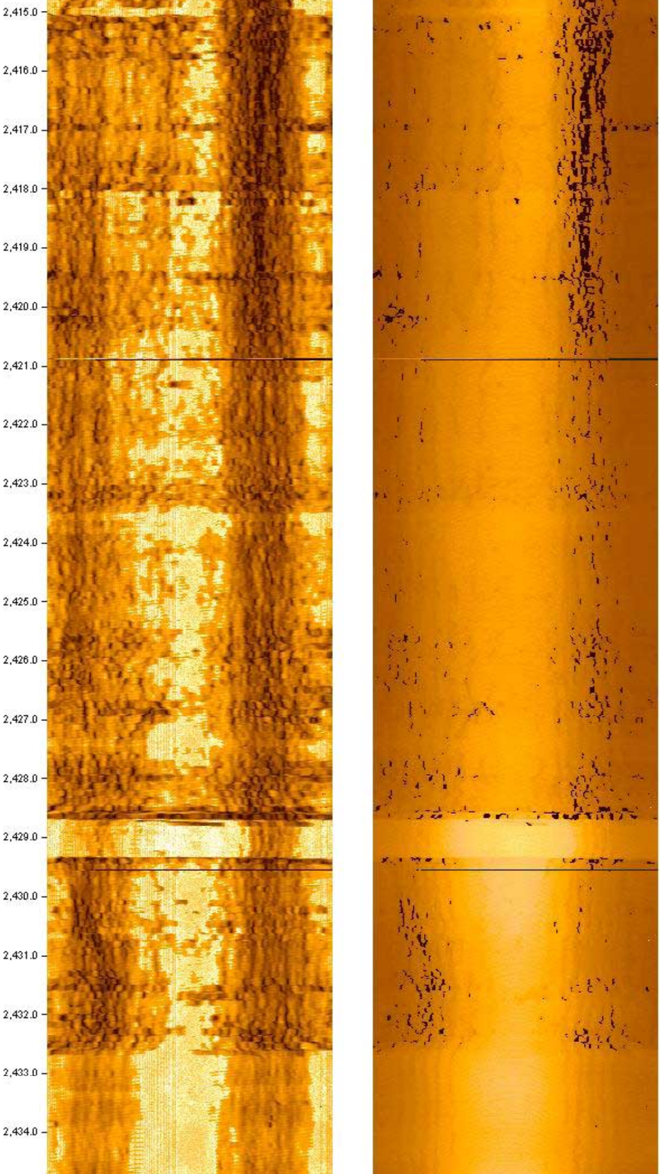


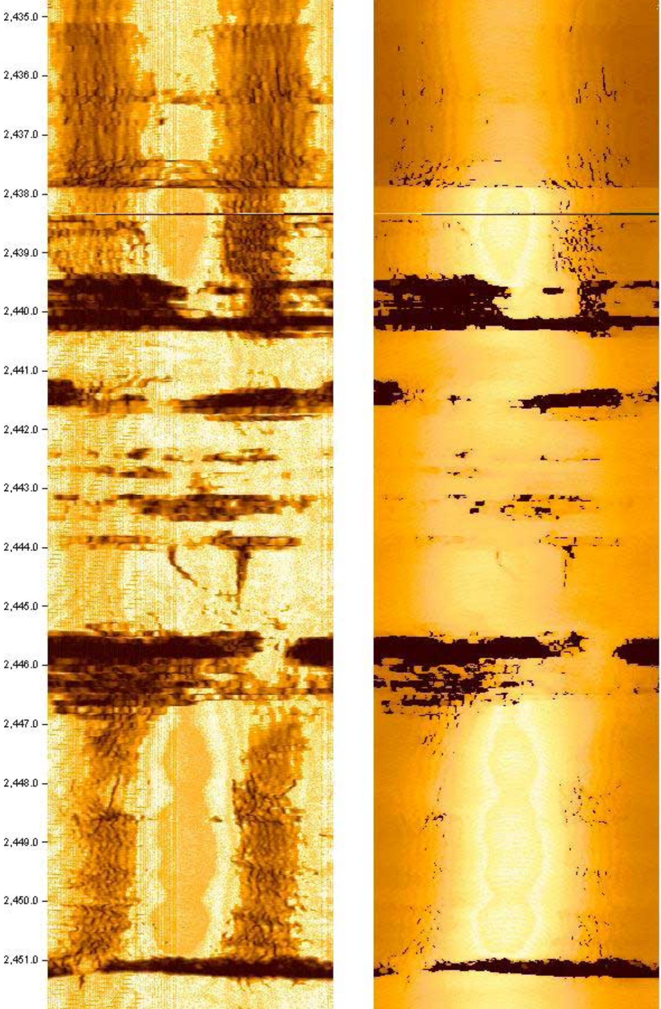


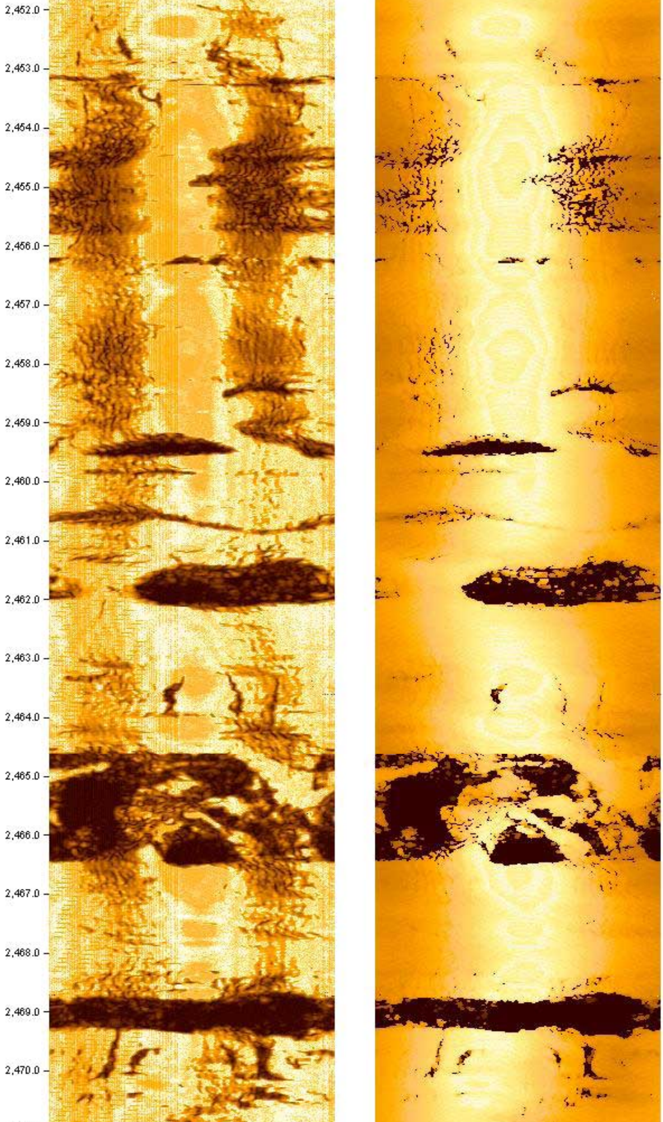








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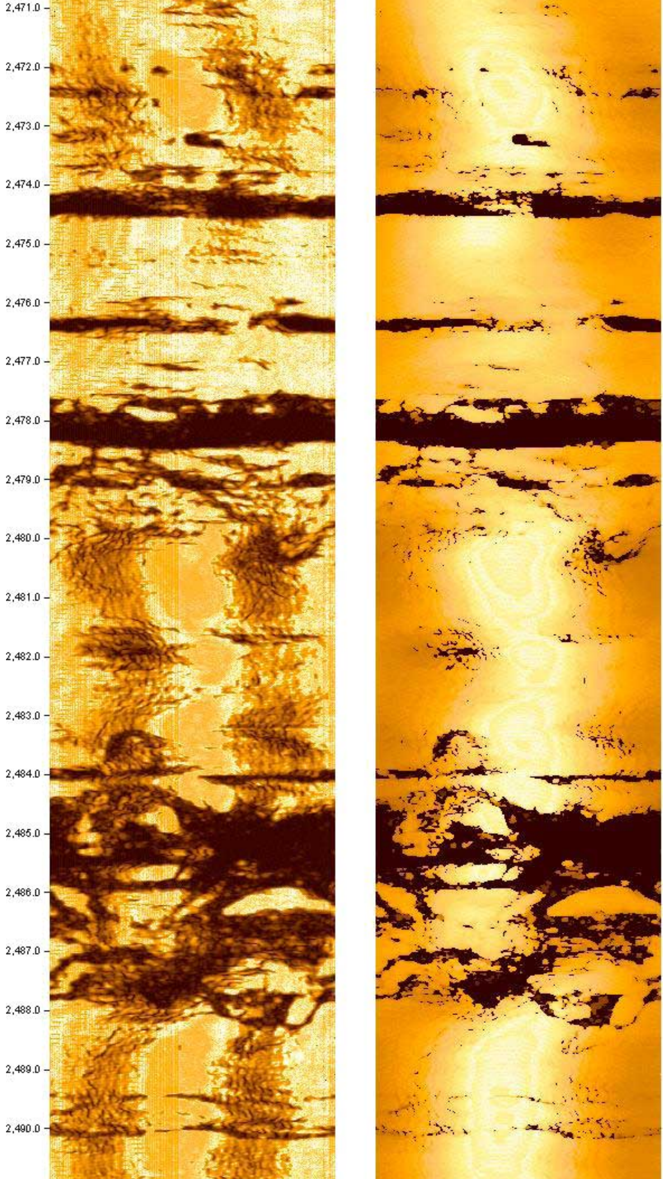

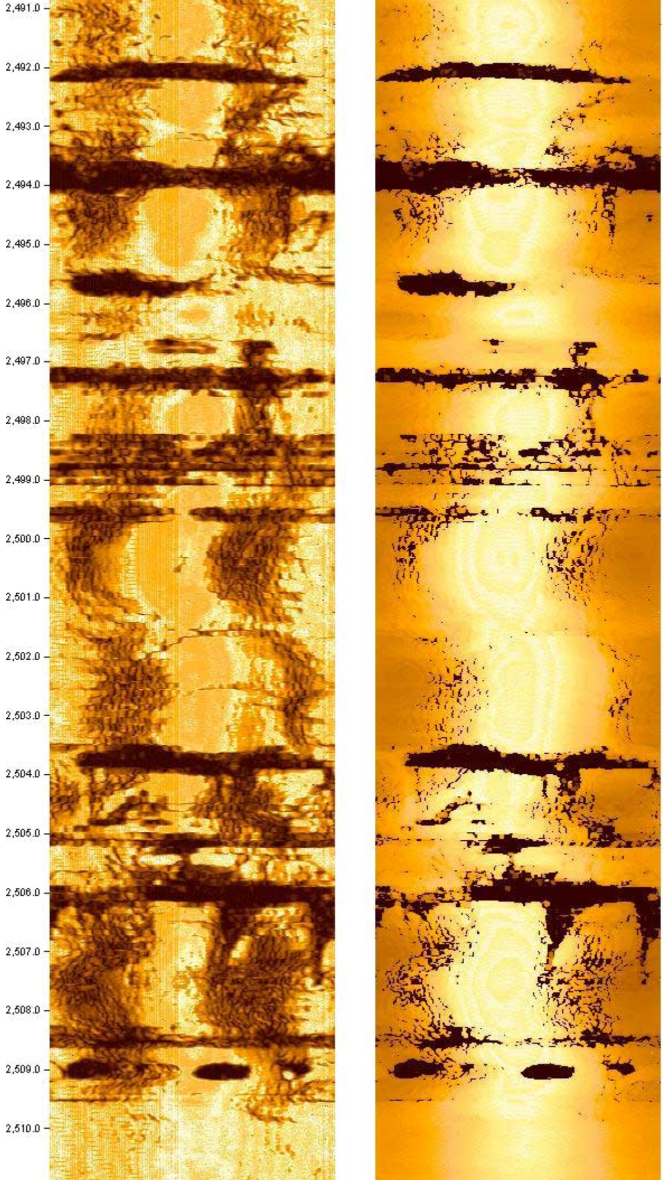
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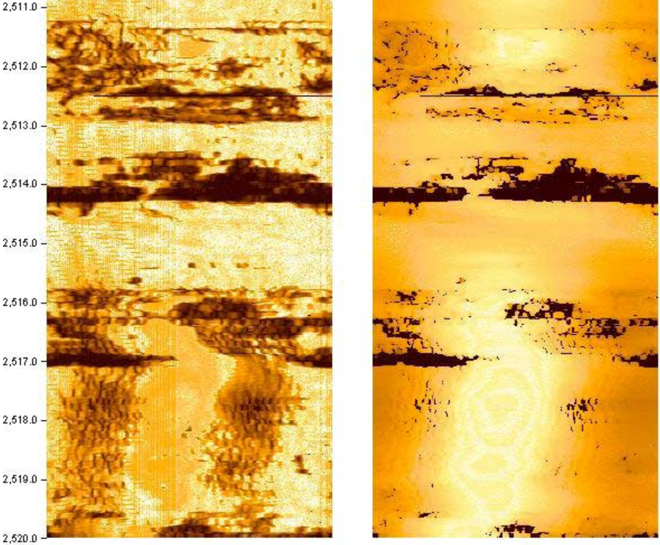
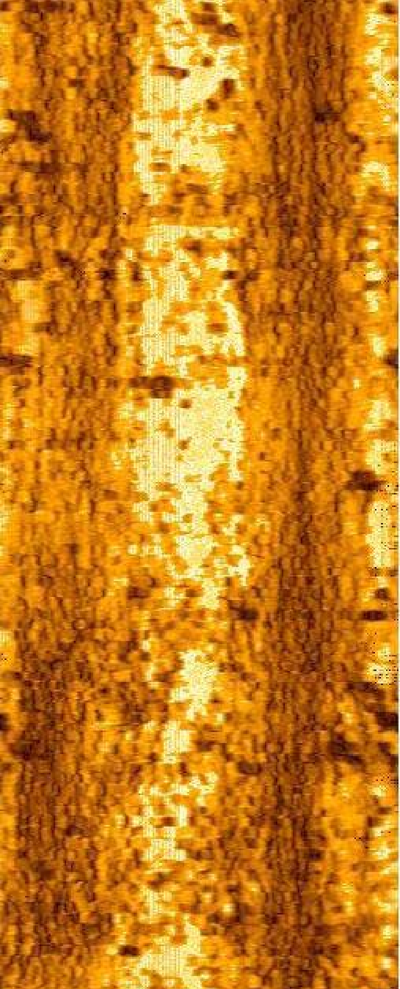
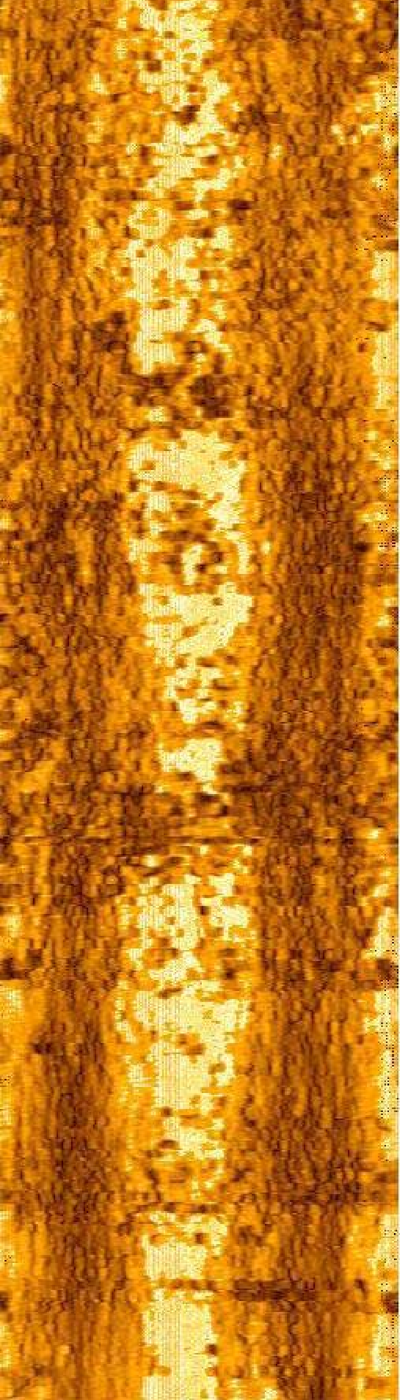
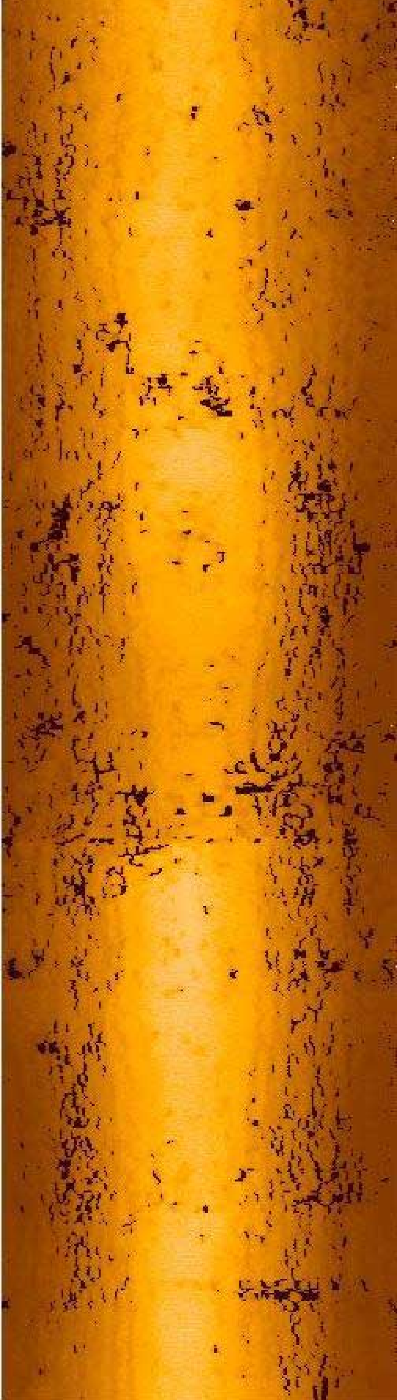
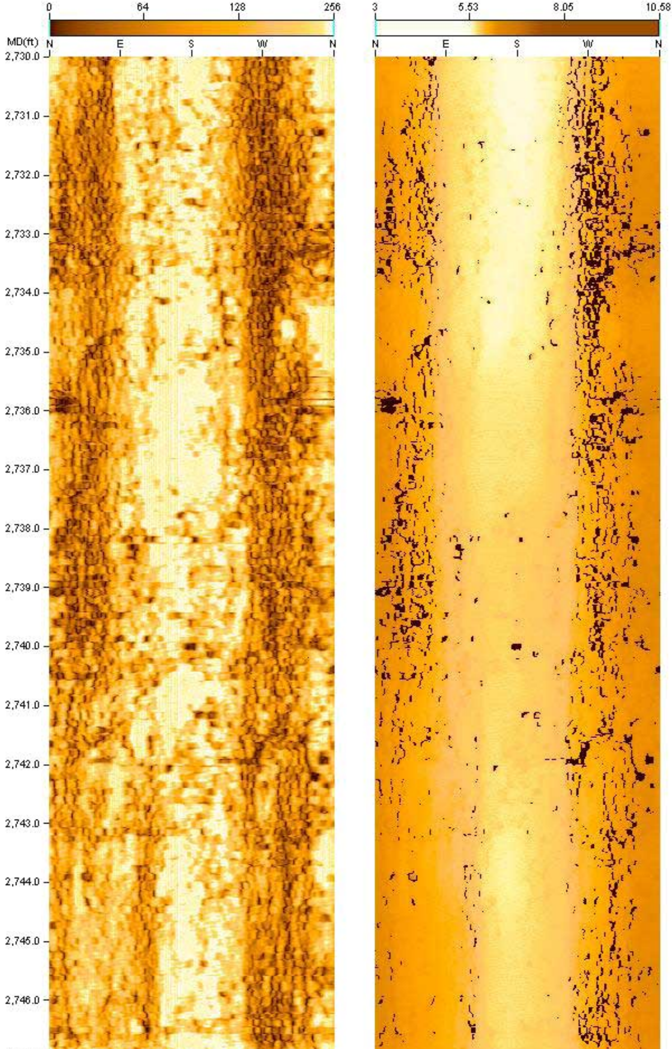


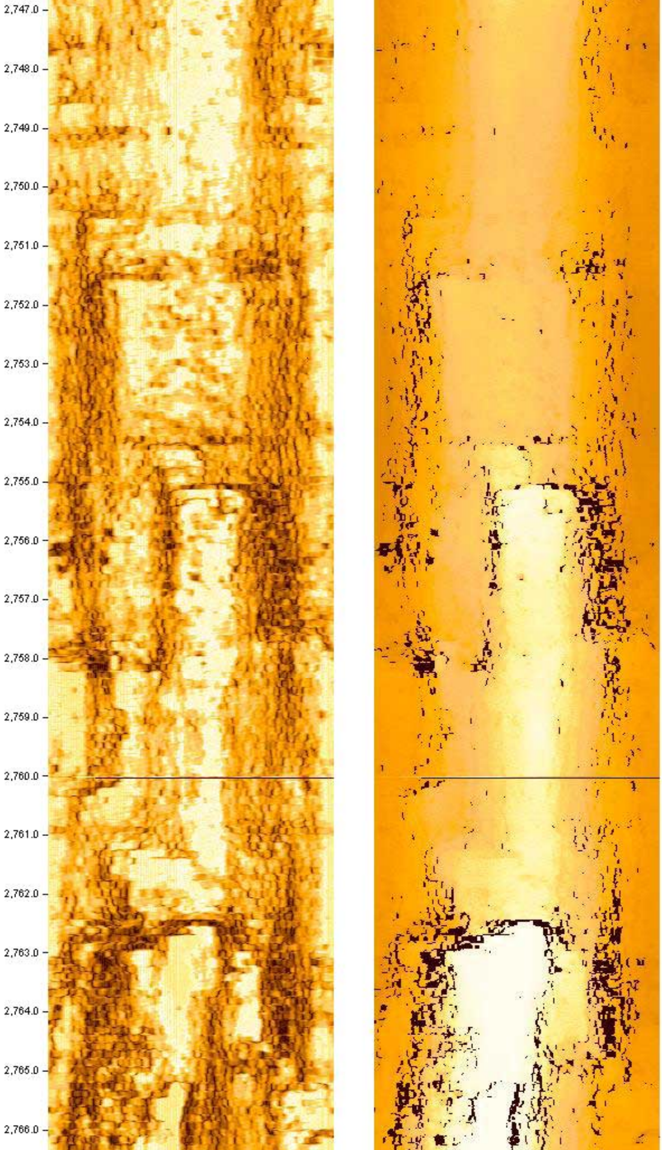


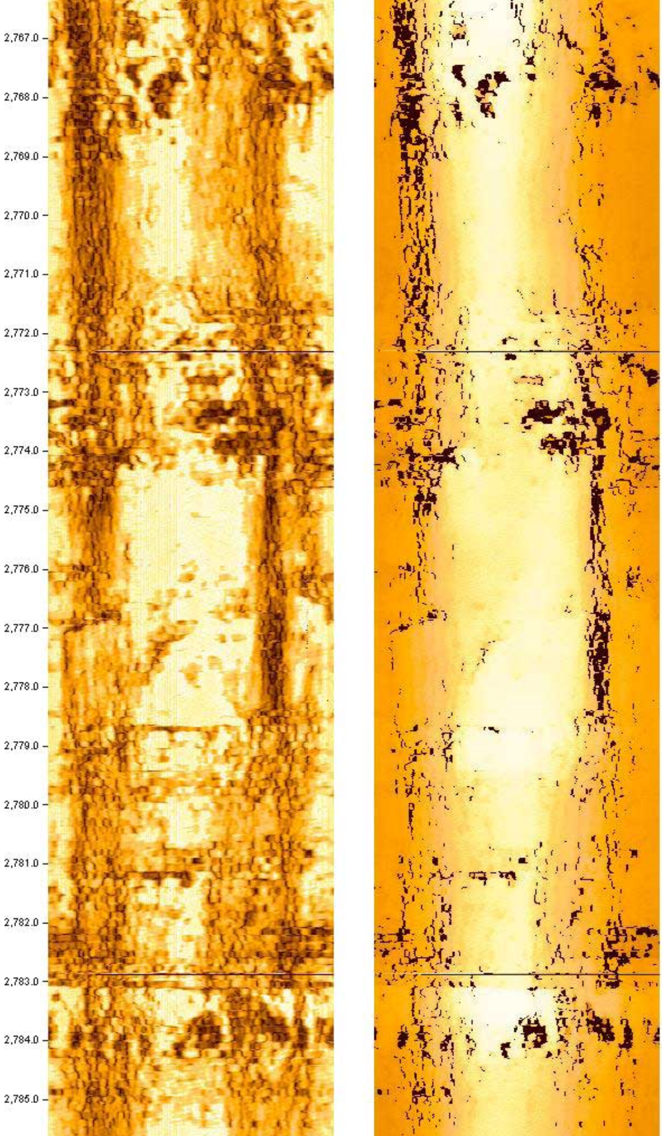


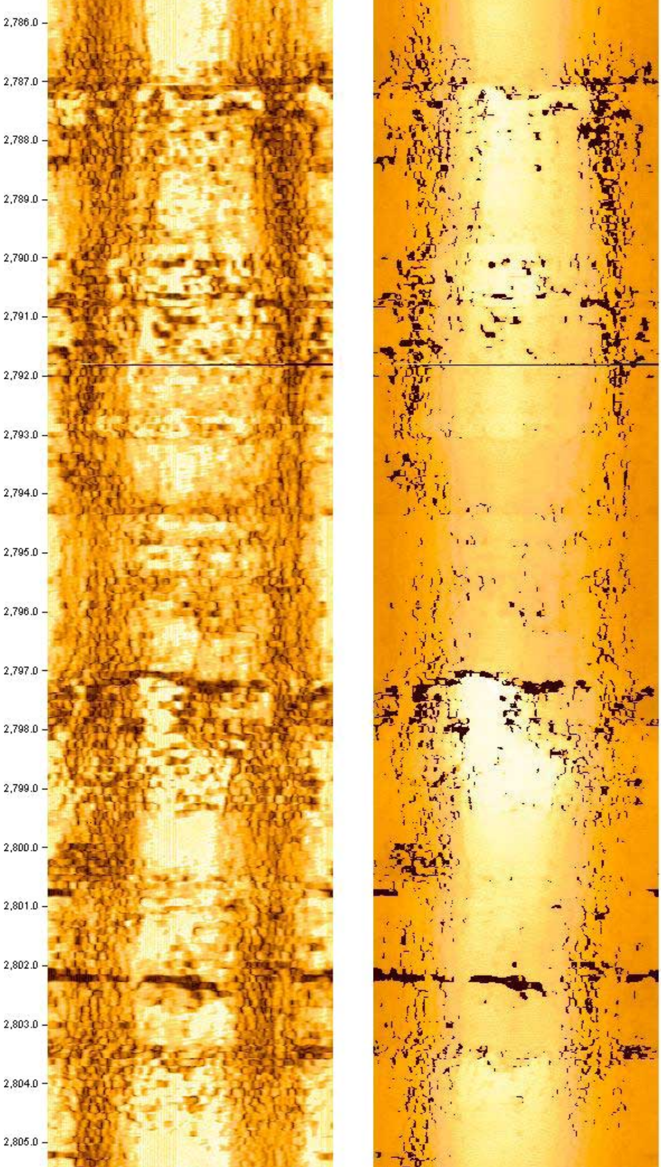


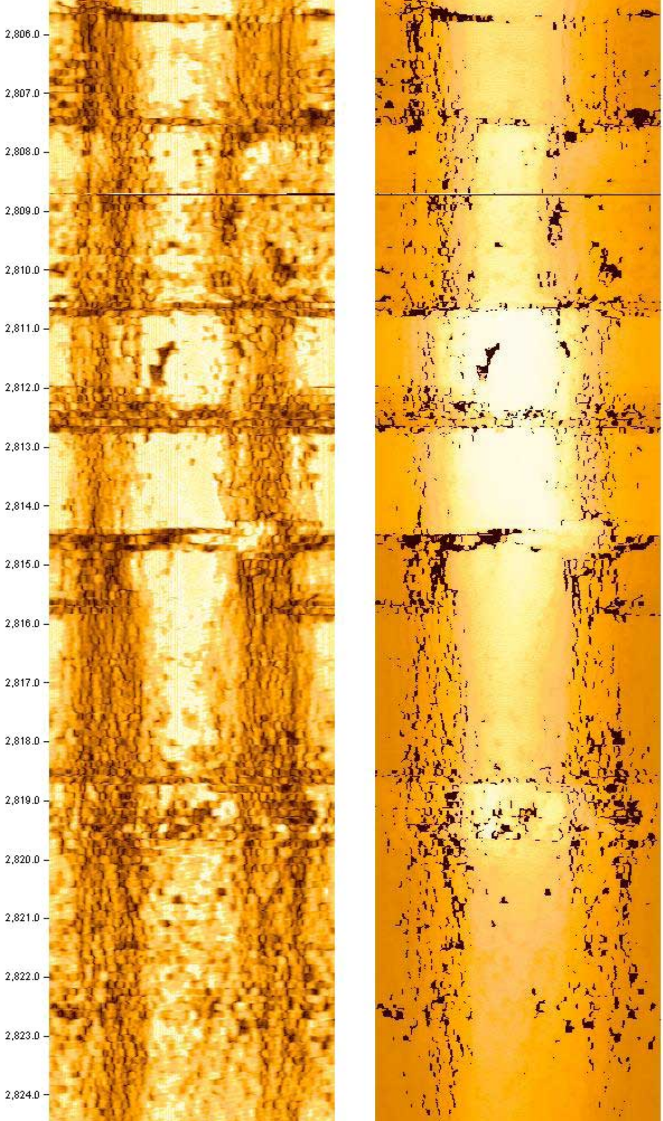
Well Name: IW-1
Well Location: HIALEAH R.O.W.T.P.
Log Date: 25-JAN-2010
Depth Range: 2,730.0 - 2,940.0 ft

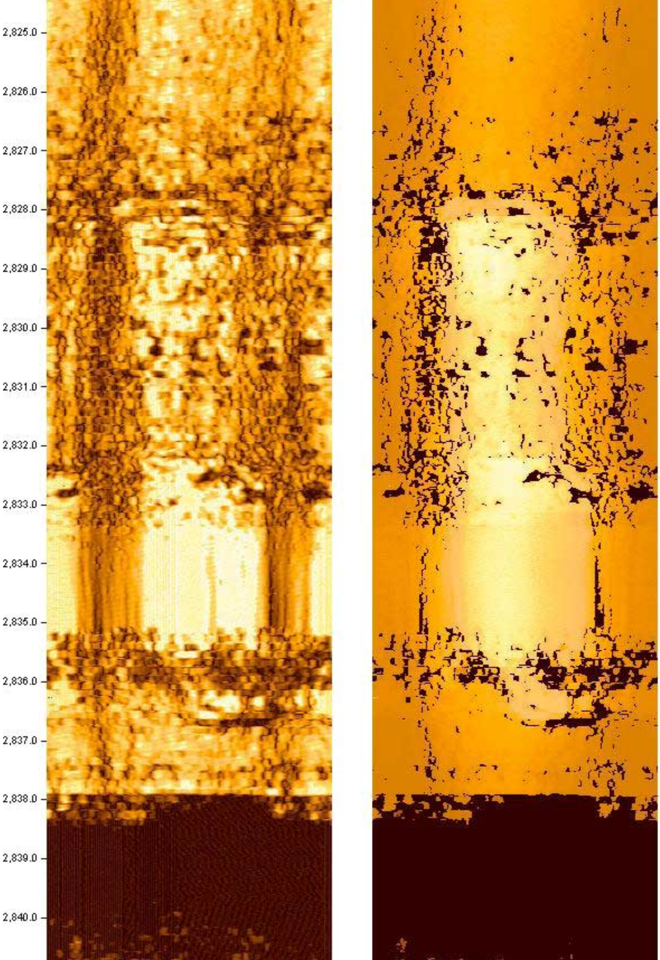


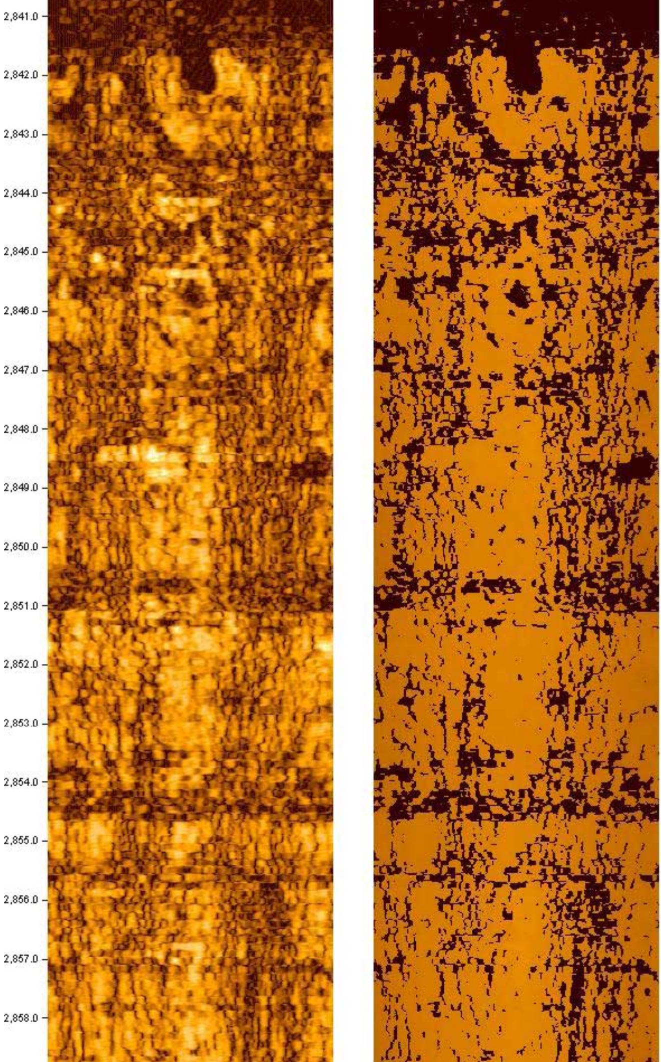


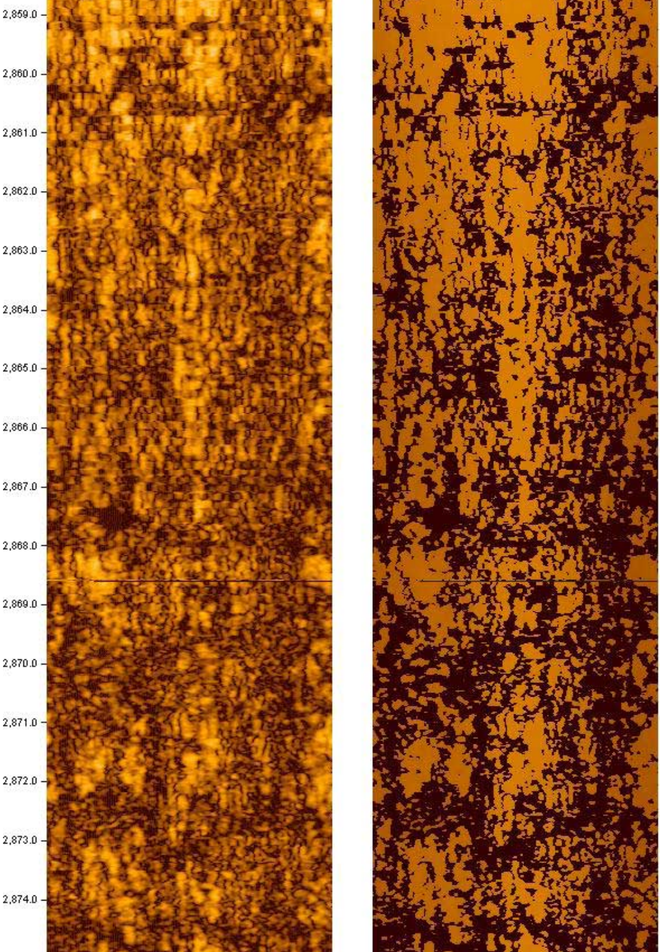


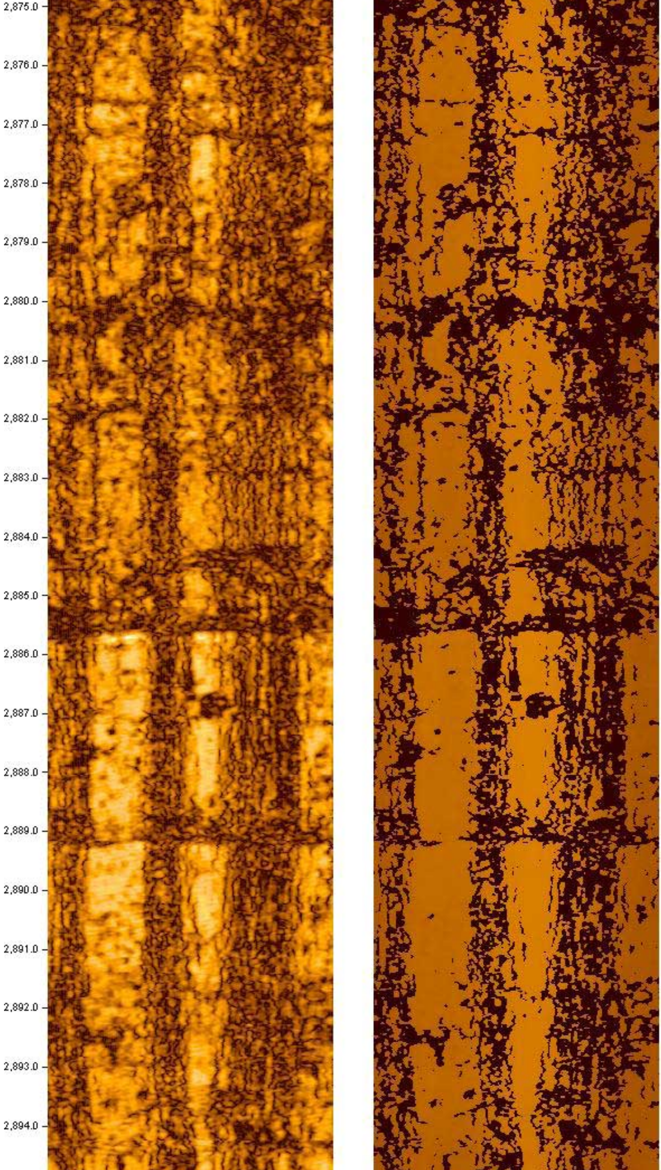








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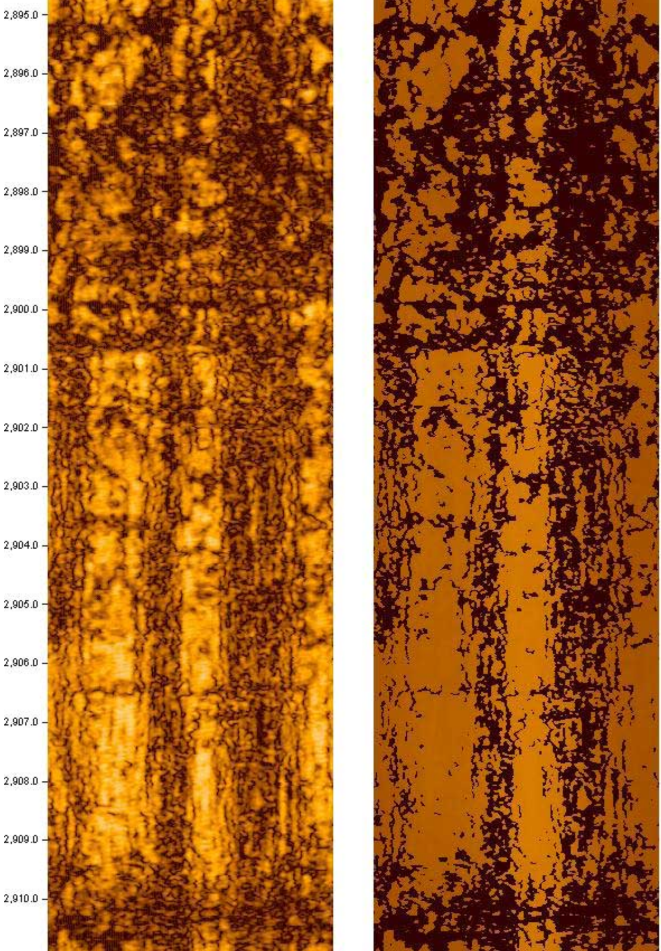
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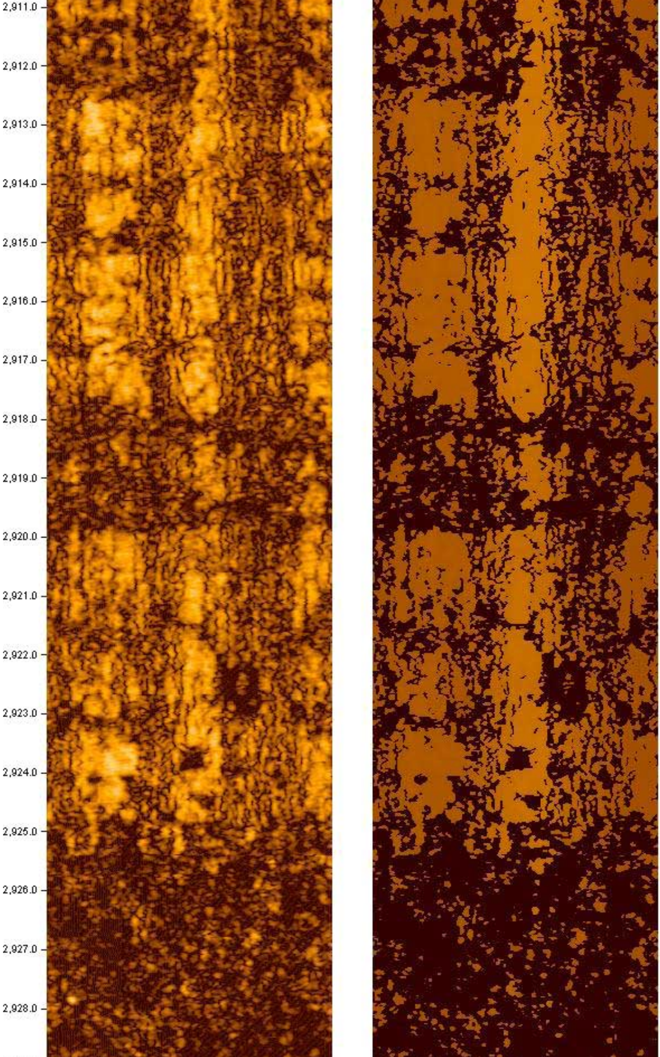

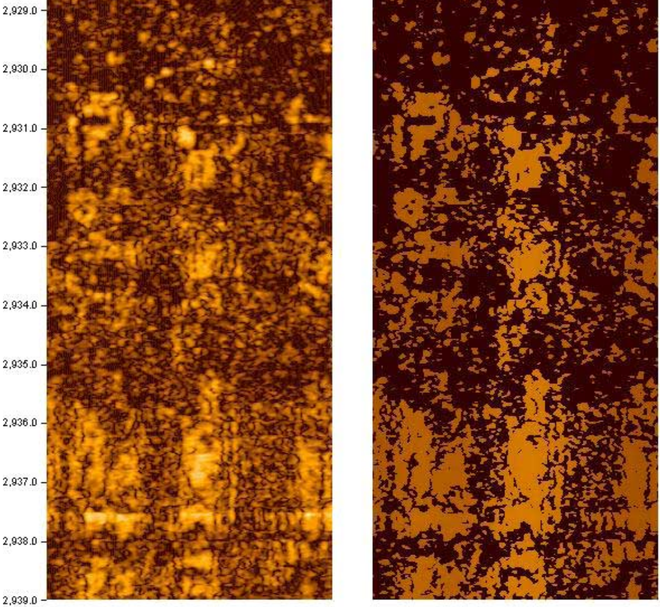
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