Schlumberger

Company: **DIVERSIFIED DRILLING**

Well: **CALOOSAHATCHEE ASR TEST CORE (CCBRY-1)**
Field: **BERRY GROVE**
County: **HENDRY** State: **FLORIDA**

County: HENDRY
Field: BERRY GROVE
Location:
Well: CALOOSAHATCHEE ASR TEST
Company: DIVERSIFIED DRILLING

ELEMENTAL CAPTURE SPECTROSCOPY

LOCATION

Elev.: K.B. 5 ft
G.L.
D.F.

Permanent Datum:	GROUND LEVEL	Elev.:	0 ft
Log Measured From:	RKB	5.0 ft	above Perm. Datum
Drilling Measured From:	RKB		

API Serial No.	Section	Township	Range

Logging Date		6-Jan-2005			
Run Number		1			
Depth Driller		1011 ft			
Schlumberger Depth		1018 ft			
Bottom Log Interval		1018 ft			
Top Log Interval		203 ft			
Casing Driller Size @ Depth		8.000 in @	200 ft	@	
Casing Schlumberger		203 ft			
Bit Size		7.875 in			
Type Fluid In Hole		FRESH MUD			
MUD Density	Viscosity	9.1 lbm/gal	44 s		
Fluid Loss	PH		9.2		
Source Of Sample		AIT SENSOR			
RM @ Measured Temperature		3.430 ohm.m @	79 degF	@	
RMF @ Measured Temperature		2.570 ohm.m @	79 degF	@	
RMC @ Measured Temperature		5.145 ohm.m @	79 degF	@	
Source RMF	RMC	CALCULATED\	CALCULATED		
RM @ MRT	RMF @ MRT	3.314 @ 82	2.483 @ 82	@	@
Maximum Recorded Temperatures		82 degF	82	82	
Circulation Stopped	Time	6-Jan-2005	6:00		
Logger On Bottom	Time	6-Jan-2005	9:30		
Unit Number	Location	2121	LAUREL,E.S.		
Recorded By		MIGUEL QUINONES			
Witnessed By		FRANK PROCTA			

	Run 1	Run 2	Run 3	Run 4

Logging Date					
Run Number					
Depth Driller					
Schlumberger Depth					
Bottom Log Interval					
Top Log Interval					
Casing Driller Size @ Depth		@		@	
Casing Schlumberger					
Bit Size					
Type Fluid In Hole					
MUD Density	Viscosity				
Fluid Loss	PH				
Source Of Sample					
RM @ Measured Temperature		@		@	
RMF @ Measured Temperature		@		@	
RMC @ Measured Temperature		@		@	
Source RMF	RMC				
RM @ MRT	RMF @ MRT	@	@	@	@
Maximum Recorded Temperatures					
Circulation Stopped	Time				
Logger On Bottom	Time				
Unit Number	Location				
Recorded By					
Witnessed By					

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
SLB DEPTH CONTROL POLICY APPLIED	
TOOL RAN AS PER TOOL SKETCH	
LOG CORRELATED WITH SWS PLATFORM EXPRESS LOG DATED 6-JAN-2005	
CREW: D. BLACKWELL, M. WELCH	
THANK YOU FOR USING SCHLUMBERGER	

RUN 1		RUN 2	
SERVICE ORDER #:	10955693	SERVICE ORDER #:	
PROGRAM VERSION:	12C0-301	PROGRAM VERSION:	
FLUID LEVEL:	0 ft	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

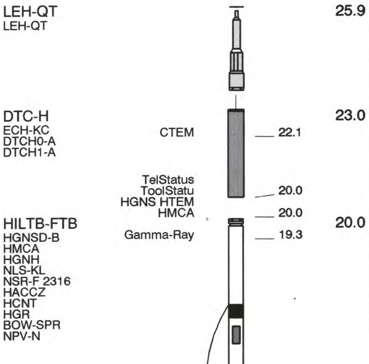
RUN 1	RUN 2

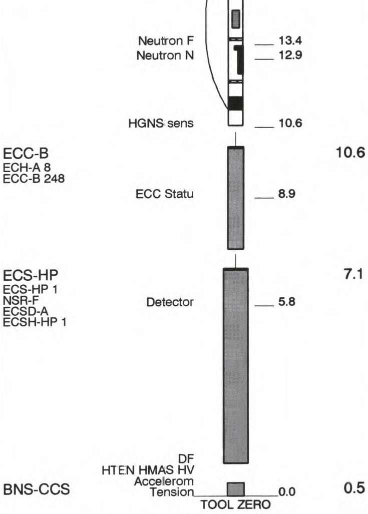
SURFACE EQUIPMENT

GSR-U/Y
NCT-B
CNB-AB
NCS-VB

WITM (DTS)-A

DOWNHOLE EQUIPMENT





MAXIMUM STRING DIAMETER 5.25 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

Main Pass 5"=100'

MAXIS 500 Field Log

Input DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_027LUP	FN:26	PRODUCER	06-Jan-2005 11:12	1002.5 FT	138.2 FT

Output DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_044PUP	FN:43	PRODUCER	08-Jan-2005 14:04	1002.5 FT	145.5 FT

OP System Version: 12C0-301

MCM

ECS-HP	SPC-2602-NUCL	ECC-B	SPC-2602-NUCL
HILTB-FTB	12C0-301	DTC-H	12C0-301

PIP SUMMARY

Time Mark Every 60 S

Oxides Closure Normalization Factor (FY2W_WALK2)
0 (----) 5

Elemental Statistical Uncertainty Factor (ESUF_WALK2)
0 (----) 5

ECS Marquardt Gain (ECMG_20)
0.95 (----) 1.05

Spectral Count Rate (ch.40-240) (ESSR_20)
10000 (CPS) 30000

Offset Correction Factor (EOCF_20)
-5 (----) 5

ECS Temperature (ECST)
-20 (DEGF) 130

RDF (ERDF_20)
0 (----) 10

Bit Size (BS)
6 (IN) 16

LQC
I1--->I5
manual
error
warning
normal

Gamma Ray (GR) (GAPI)
0 200

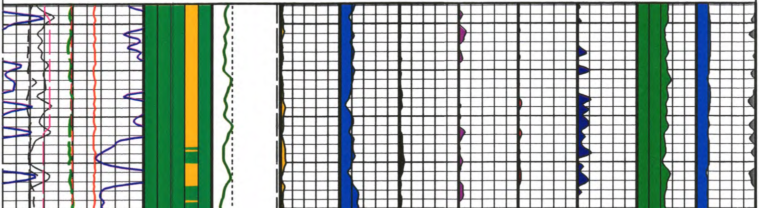
Tension (TENS) (LBF)
10000 0

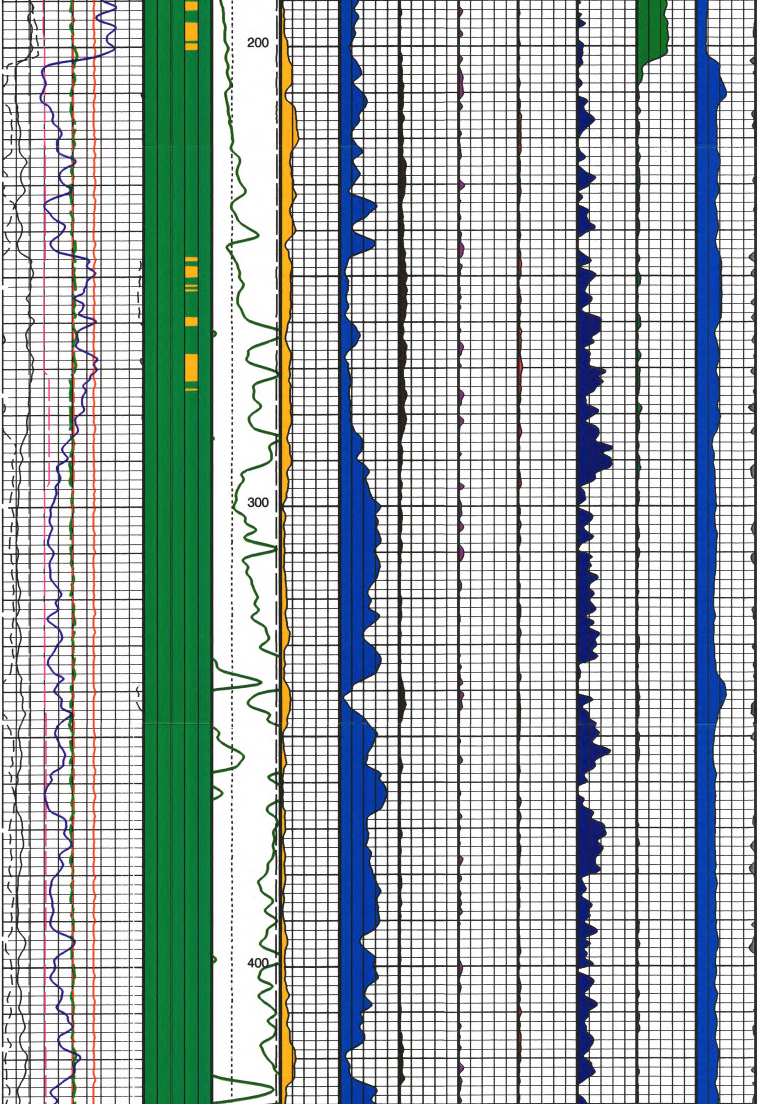
Cable Speed (CS) (F/HR)
0 5000

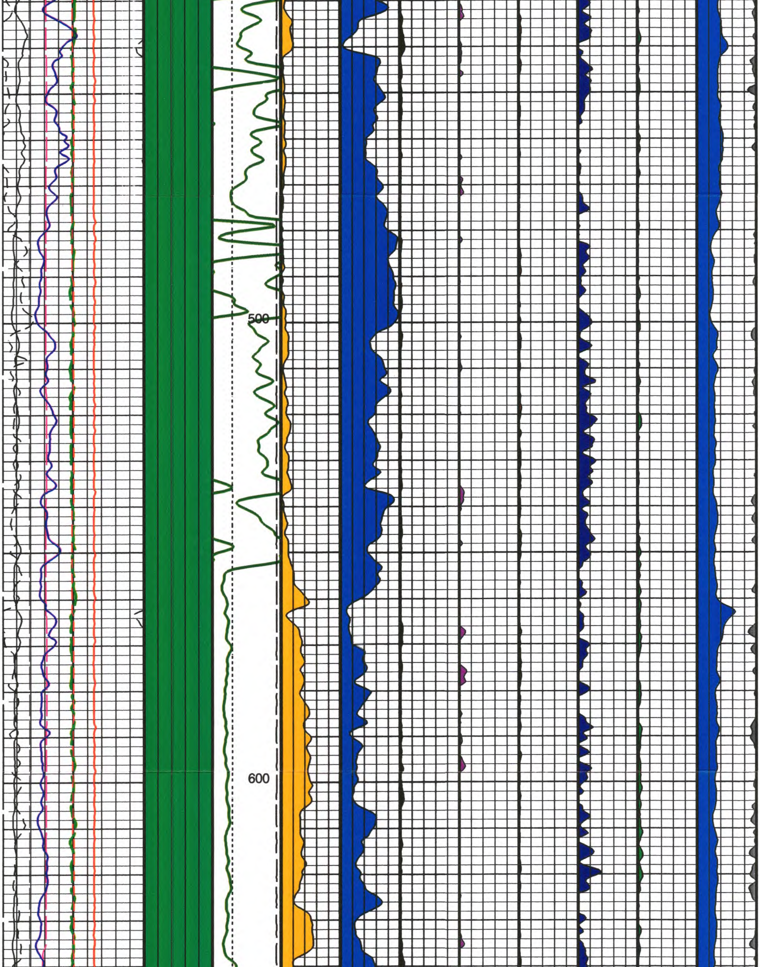
IC
CHY

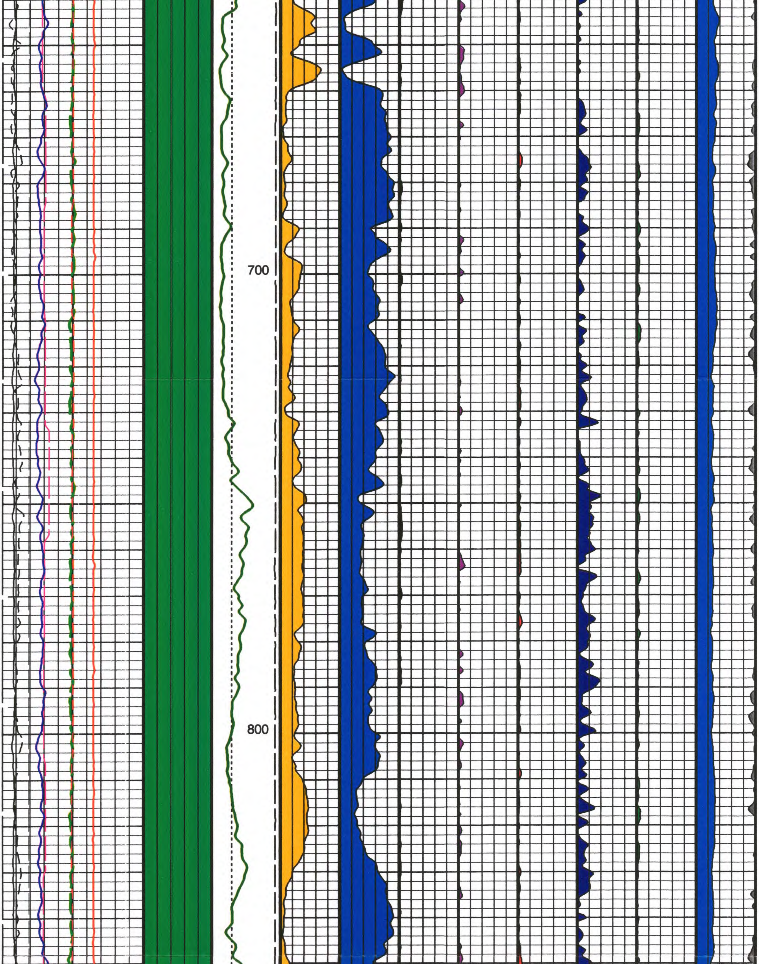
CSI	CCA	CFE	CSUL	CTI	CGD	CCHL	IC (IC_ WALK2) (----)
							0.25 0
CSI (CSI_ WALK2) (----)	CCA (CCA_ WALK2) (----)	CFE (CFE_ WALK2) (----)	CSUL (CSUL_ WALK2) (----)	CTI (CTI_ WALK2) (----)	CGD (CGD_ WALK2) (----)	CCHL (CCHL_ WALK2)	CHY (CHY_ WALK2)
0 0.5	0 0.5	0 0.5	0 0.25	0 0.5	0 0.5	0 (----) 1	0 (----) 1

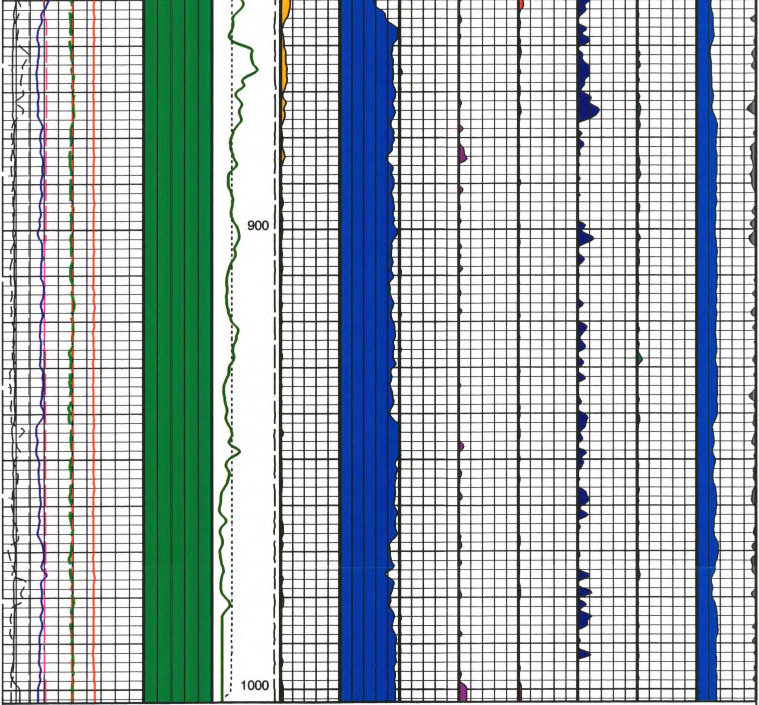
LQC Track
Left(I1) ---> Right(I5)
I1: ECS Hardware: Photomultiplier (QC_PMT)
I2: ECS Hardware: BGO Crystal Temperature (ECST)
I3: ECS Hardware: Control Loop (HV Loop OR PSC LOOP)
I4: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)
I5: ECS Data Quality: Marquardt Chisq (EMC2)











LQC Track
Left(I1) ---> Right(I5)
I1: ECS Hardware: Photomultiplier (QC_PMT)
I2: ECS Hardware: BGO Crystal Temperature (ECST)
I3: ECS Hardware: Control Loop (HV Loop OR PSC LOOP)
I4: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)
I5: ECS Data Quality: Marquardt Chisq (EMC2)

Bit Size (BS) (IN) 6 16	normal	Cable Speed (CS) (F/HR) 0 5000	CSI (CSI_WALK2) (----) 0 0.5	CCA (CCA_WALK2) (----) 0 0.5	CFE (CFE_WALK2) (----) 0 0.5	CSUL (CSUL_WALK2) (----) 0 0.25	CTI (CTI_WALK2) (----) 0 0.5	CGD (CGD_WALK2) (----) 0 0.5	CCHL (CCHL_WALK2) 0 (----) 1	CHY (CHY_WALK2) 0 (----) 1
RDF (ERDF_20) (----) 0 10	warning	Tension (TENS) (LBF) 10000 0	CSI	CCA	CFE	CSUL	CTI	CGD	CCHL	IC (IC_WALK2) (----) 0.25 0
ECS Temperature (ECST) -20 (DEGF) 130	error	Gamma Ray (GR) (GAPI) 0 200								CHY
Offset Correction Factor (EOCF_20) (----) -5 5	manual									IC
Spectral Count Rate (ch.40-240) (ESSR_20) 10000 (CPS) 30000	LQC I1--->I5									

ECS Marquardt Gain
(ECMG_20)
0.95 (----) 1.05

Elemental Statistical
Uncertainty Factor
(ESUF_WALK2)
0 (----) 5

Oxides Closure
Normalization Factor
(FY2W_WALK2)
0 (----) 5

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
ECS-HP: High Pressure Elemental Capture Spectroscopy Tool			
SPEC_BARITE_MUD_FLAG	Barite Mud Flag for Spectroscopy Processing	Off	
SPEC_CSG_DEPTH	Casing Depth for Spectroscopy Processing	-999.25	FT
SPEC_ELE_STD_SHFT_FAC	Calibration Factor for Elemental Spectral Standards	0.8	
SPL_CLAY_MODEL	SpectroLith Clay Model	Arenite	
SPL_SULFUR_MINERAL	SpectroLith Sulfur Mineral Option	Ahydrite	
DIR: Directional Survey Computation			
SPVD	TVD of Starting Point	0	FT
TIMD	Along-hole depth of Tie-in Point	0	FT
TIVD	TVD of Tie-in Point	0	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	RECOMPUTE	

Format: ECS_Yields_LQC Vertical Scale: 5" per 100' Graphics File Created: 08-Jan-2005 14:04

OP System Version: 12C0-301

MCM

ECS-HP	SPC-2602-NUCL	ECC-B	SPC-2602-NUCL
HILTB-FTB	12C0-301	DTC-H	12C0-301

Input DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_027LUP	FN:26	PRODUCER	06-Jan-2005 11:12	1002.5 FT	138.2 FT

Output DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_044PUP	FN:43	PRODUCER	08-Jan-2005 14:04

Schlumberger

Repeat Section 5"=100'

MAXIS 500 Field Log

Input DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_024LUP	FN:23	PRODUCER	06-Jan-2005 10:51	1020.0 FT	788.5 FT

Output DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_045PUP	FN:44	PRODUCER	08-Jan-2005 14:12	1020.0 FT	795.5 FT

OP System Version: 12C0-301

MCM

ECS-HP	SPC-2602-NUCL	ECC-B	SPC-2602-NUCL
HILTB-FTB	12C0-301	DTC-H	12C0-301

PIP SUMMARY

Time Mark Every 60 S

Matrix Density (RHGE_WALK2)
2.5 (G/C3) 3

Salt
Siderite
Q-F-M
Pyrite
Coal
Carbonate
Clay
Anhydrite

Gamma Ray (GR) (GAPI)
0 200

Tension (TENS) (LBF)
10000 0

Cable Speed (CS) (F/HR)
0 5000

Dry Wt. Aluminum
DWAL (DWAL_WALK2)
0 (W/W) 0.2

Dry Wt. Silicon
DWSI (DWSI_WALK2)
0 (W/W) 0.5

Dry Wt. Calcium
DWCA (DWCA_WALK2)
0 (W/W) 0.5

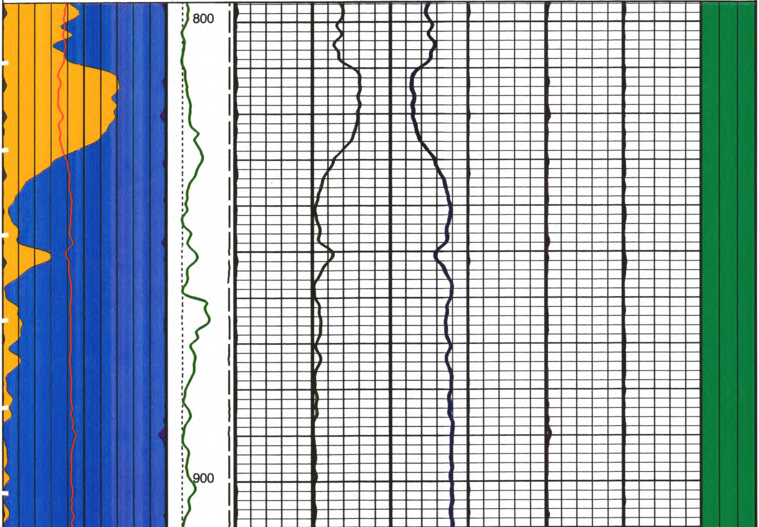
Dry Wt. Iron
Dry Wt. Excess Iron
DWFE (DWFE_WALK2)
0 (W/W) 0.2
DXFE (DXFE_WALK2)
0 (W/W) 0.2

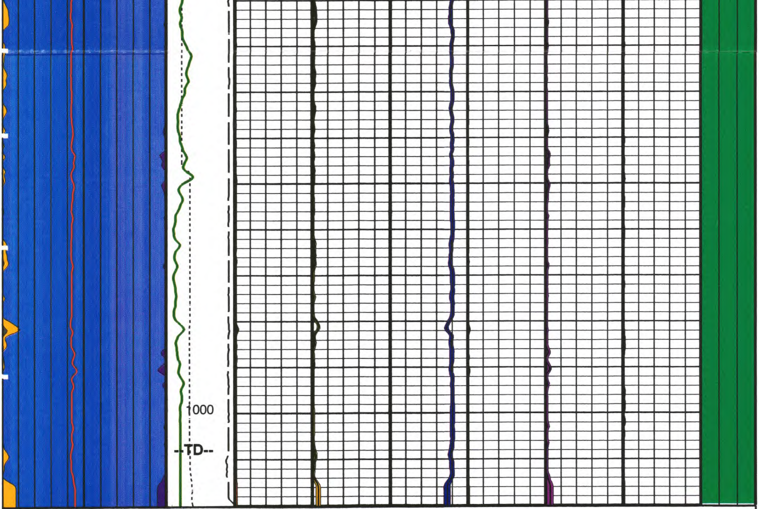
Dry Wt. Sulfur
DWSU (DWSU_WALK2) (W/W)
0 0.25

Dry Wt. Titanium
DWTI (DWTI_WALK2) (W/W)
0 0.05

LQC
I1--->I3
error
warning
normal

LQC Track
Left(I1) ---> Right(I3)
I1: ECS Hardware: Photomultiplier (QC_PMT)
I2: ECS Hardware: BGO Crystal Temperature (ECST)
I3: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)





LQC Track

Left(I1) ---> Right(I3)

I1: ECS Hardware: Photomultiplier (QC_PMT)

I2: ECS Hardware: BGO Crystal Temperature (ECST)

I3: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)

Anhydrite	Cable Speed (CS) (F/HR) 0 5000	DWAL (DWAL_WALK2) 0 (W/W) 0.2	DWSI (DWSI_WALK2) 0 (W/W) 0.5	DWCA (DWCA_WALK2) 0 (W/W) 0.5	DXFE (DXFE_WALK2) 0 (W/W) 0.2	DWSU (DWSU_WALK2) (W/W) 0 0.25	DWTI (DWTI_WALK2) (W/W) 0 0.05	normal
Clay	Tension (TENS) (LBF) 10000 0	Dry Wt. Aluminum	Dry Wt. Silicon	Dry Wt. Calcium	DWFE (DWFE_WALK2) 0 (W/W) 0.2	Dry Wt. Sulfur	Dry Wt. Titanium	warning
Carbonate	Gamma Ray (GR) (GAPI) 0 200				Dry Wt. Excess Iron			error
Coal					Dry Wt. Iron			LQC I1--->I3
Pyrite								
Q-F-M								
Siderite								
Salt								
Matrix Density (RHGE_WALK2) 2.5 (G/C3) 3								

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	ECS-HP: High Pressure Elemental Capture Spectroscopy Tool		
SPEC_BARITE_MUD_FLAG	Barite Mud Flag for Spectroscopy Processing	Off	
SPEC_CSG_DEPTH	Casing Depth for Spectroscopy Processing	-999.25	FT
SPEC_ELE_STD_SHFT_FAC	Calibration Factor for Elemental Spectral Standards	0.8	
SPL_CLAY_MODEL	SpectroLith Clay Model	Arenite	
SPL_SULFUR_MINERAL	SpectroLith Sulfur Mineral Option	Ahydrite	
	DIR: Directional Survey Computation		
SPVD	TVD of Starting Point	0	FT
TIMD	Along-hole depth of Tie-in Point	0	FT
TIVD	TVD of Tie-in Point	0	FT
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	RECOMPUTE	

Format: ECS_SpectroLith_PB   Vertical Scale: 5" per 100'   Graphics File Created: 08-Jan-2005 14:12

OP System Version: 12C0-301

MCM

ECS-HP	SPC-2602-NUCL	ECC-B	SPC-2602-NUCL
HILTB-FTB	12C0-301	DTC-H	12C0-301

Input DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_024LUP	FN:23	PRODUCER	06-Jan-2005 10:51	1020.0 FT	788.5 FT

Output DLIS Files

DEFAULT	ECS_TLD_MCFL_CNL_045PUP	FN:44	PRODUCER	08-Jan-2005 14:12

Company: DIVERSIFIED DRILLING

Schlumberger

Well: CALOOSAHATCHEE ASR TEST CORE (CCBRY-1)
Field: BERRY GROVE
County: HENDRY
State: FLORIDA

ELEMENTAL CAPTURE SPECTROSCOPY