

Company: IMPERIAL OIL RESOURCES

Well: IMP 06 H57-10 COLD LK 6-9-66-4

Field: LEMING

Province: ALBERTA Status: \*\*MD\*\*

## TEMPERATURE LOG

Province: ALBERTA  
Field: LEMING  
Location: LSD: 6-9-66-4W4  
Well: IMP 06 H57-10 COLD LK 6-9-66-4  
Company: IMPERIAL OIL RESOURCES

LSD: 6-9-66-4W4		Elev.:	K.B.	629.40	m
UWI: 103060906604W400			G.L.	622.20	m
			D.F.		
Permanent Datum:	Ground Level	Elev.:	622.20		
Log Measured From:	Kelly Bushing	7.20	m	above Perm.Datum	
Drilling Measured From:	Kelly Bushing				
API Serial No.	Section:	Township:	Range:		
0365861	6-9	066	04W4		

Logging Date 14-Aug-2016

Run Number 1

Depth Driller 507.00 m

Schlumberger Depth 489.00 m

Bottom Log Interval 489.00 m

Top Log Interval 0.00 m

Casing Fluid Type Air

Salinity

Density 11.98 kg/m3

Fluid Level 410.50 m

BIT/CASING/TUBING STRING

Bit Size 215.90 mm

From 21.10 m

To 507.00 m

Casing/Tubing Size 73.025 mm

Weight 9.67 kg/m

Grade N80

From 0.00 m

To 489.14 m

Max Recorded Temperatures 183.5 degC

Logger on Bottom 14-Aug-2016 07:29:00

Unit Number Location: D220 LLOYDMINSTER P

Recorded By CODY FREY

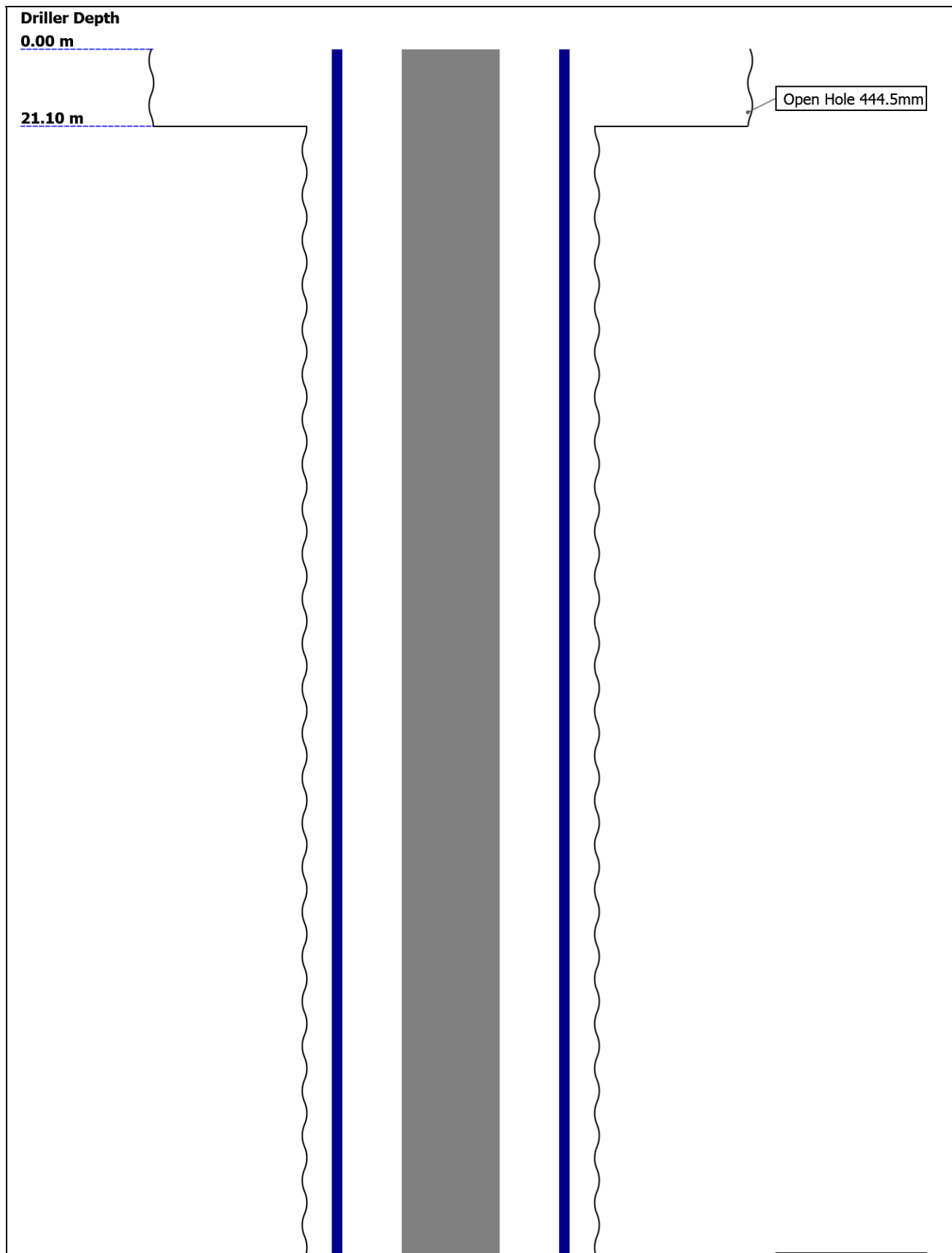
## Disclaimer

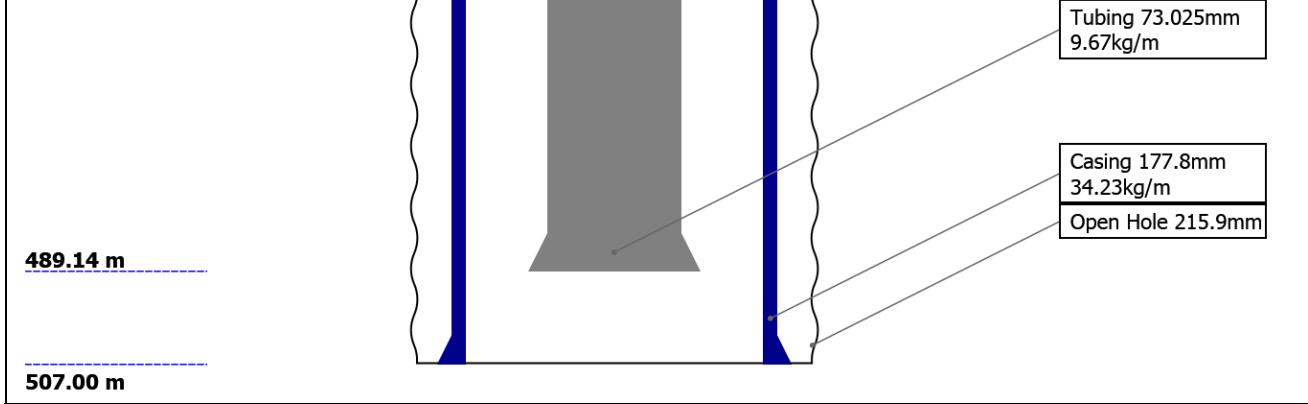
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## Contents

1. Header
2. Disclaimer
3. Contents
4. Well Sketch
5. Borehole Size/Casing/Tubing Record
6. Remarks and Equipment Summary
7. Depth Summary
8. 1 TEMPERATURE DOWN PASS
  - 8.1 Integration Summary
  - 8.2 Software Version
  - 8.3 Composite Summary
  - 8.4 Log ( TEMP DOWN PASS imperial )
  - 8.5 Parameter Listing
9. Calibration Report
10. Tail

## Well Sketch





Borehole Size/Casing/Tubing Record

Bit						
Bit Size ( mm )	444.5	215.9				
Top Driller ( m )	0	21.1				
Top Logger ( m )	0	21.1				
Bottom Driller ( m )	21.1	507				
Bottom Logger ( m )	21.1	507				
Casing						
Size ( mm )	177.8					
Weight ( kg/m )	34.23					
Inner Diameter ( mm )	161.797					
Grade	L80					
Top Driller ( m )	0					
Top Logger ( m )	0					
Bottom Driller ( m )	507					
Bottom Logger ( m )	507					
Tubing						
Size ( mm )	73.025					
Weight ( kg/m )	9.67					
Inner Diameter ( mm )	61.623					
Grade	N80					
Top Driller ( m )	0					
Top Logger ( m )	0					
Bottom Driller ( m )	489.14					
Bottom Logger ( m )	489.14					

Remarks and Equipment Summary

1: Toolstring				1: Remarks		
Equip name	Length	MP name	Offset	TEMPERATURE PASS LOGGED AT 9 M/MIN		
PEH-E	7.69			CASING PRESSURE 2250 KPA		
				FLUID LEVEL 410.5 MKB		
AH-38	7.18			FLUID SHOT WAS TAKEN AT 8:30 AM AND 47/49 ON TUBING AND 49/49 CASING		
EQF-43[2]	7.09			MAX TEMPERATURE 183.5 AT 483.4 MKB		
				CORRLATED TO PSN AT 481.61 MKB		

Rig | type

MAS |

1:Depth Control Parameters		Depth Control Remarks
Log Sequence	Subsequent Log In the Well	ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES FOLLOWED
Reference Log Name	PSN	IDW USED AS PRIMARY DEPTH CONTROL
Reference Log Run Number		Z-CHART USED AS SECONDARY
Reference Log Date	14-Aug-2016	

1

## TEMPERATURE DOWN PASS

### Software Version

Acquisition System	Version
Maxwell 2016	6.0.53731.3100
Application Patch	Wireline_TestKit-EMIT-C-2016RC3_6.0.54288

### Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
1	Log[1]:Down	Down	5.02 m	484.02 m	14-Aug-2016 8:43:31 AM	14-Aug-2016 9:36:58 AM	ON	0.37 m	No

All depths are referenced to toolstring zero

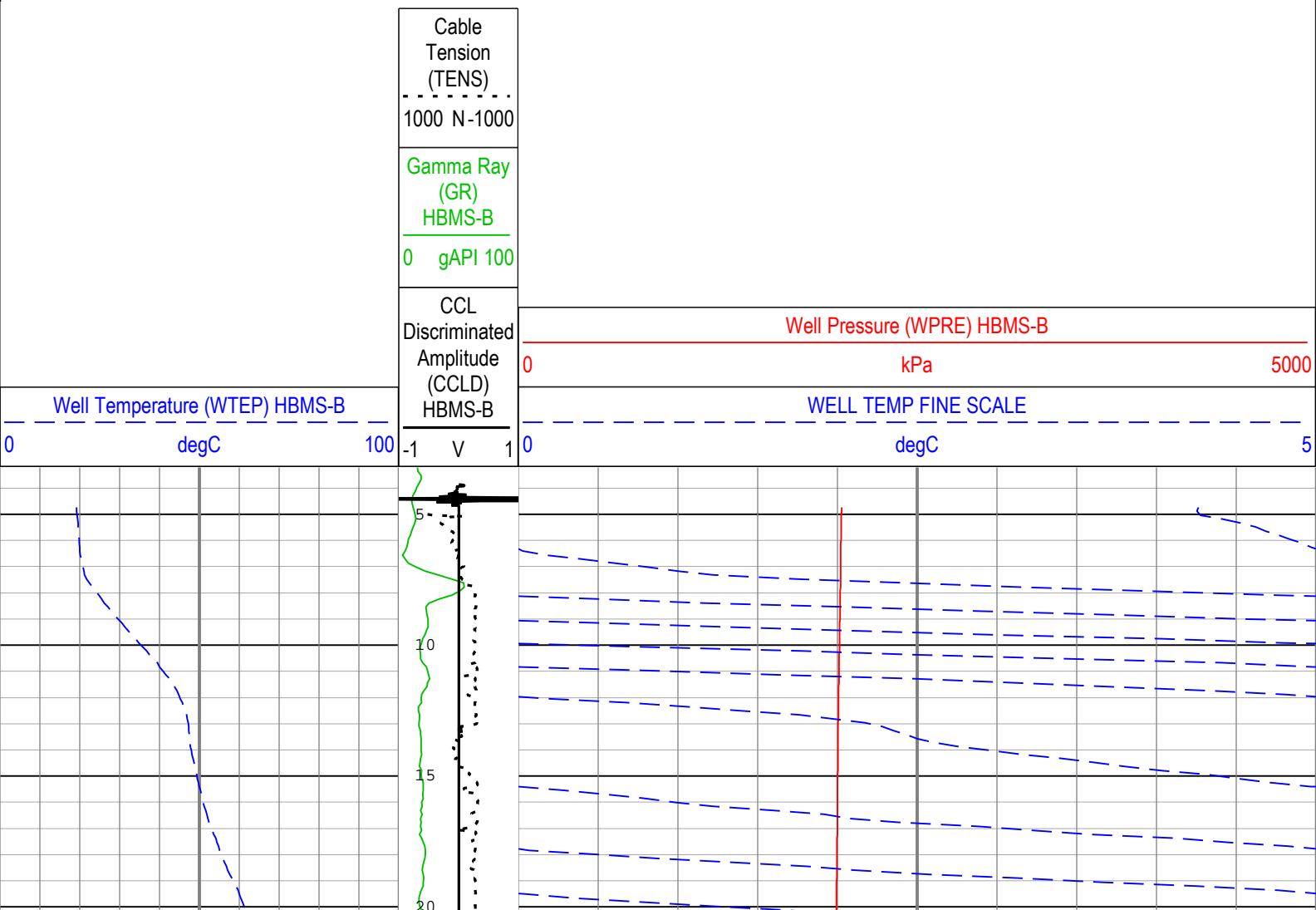
### Log

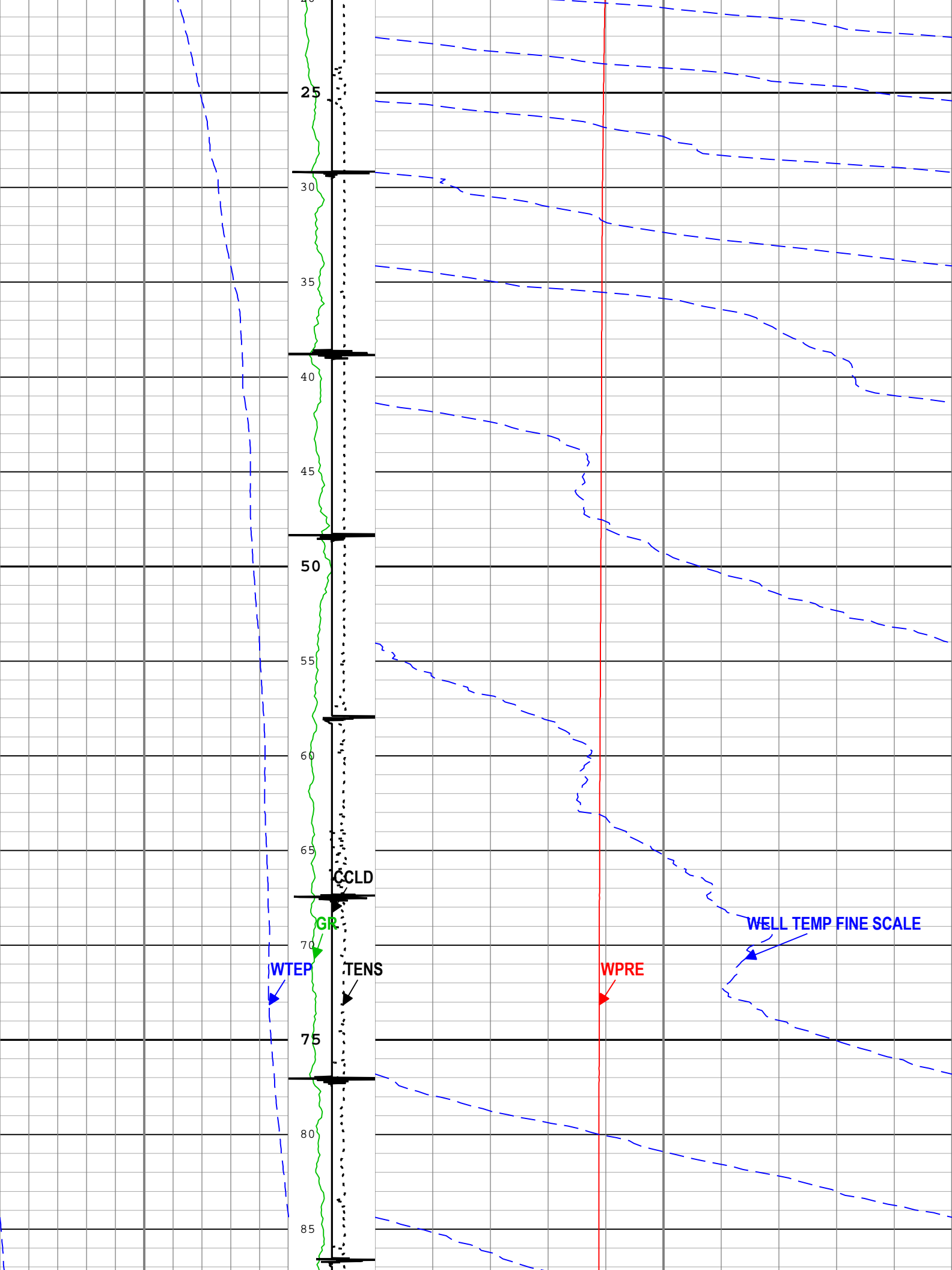
Company:IMPERIAL OIL RESOURCES      Well:IMP 06 H57-10 COLD LK 6-9-66-4

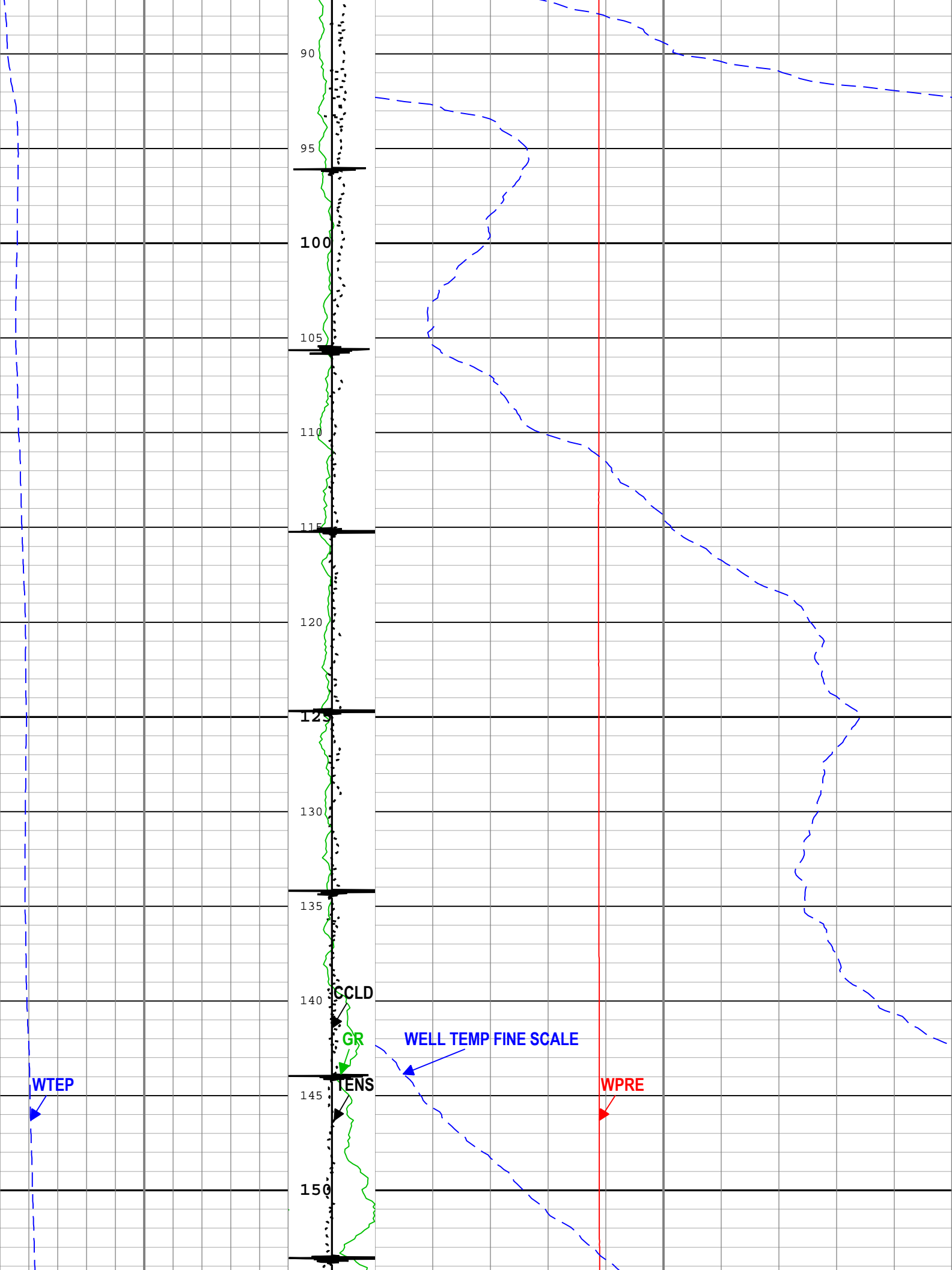
1: Log[1]:Down:S007

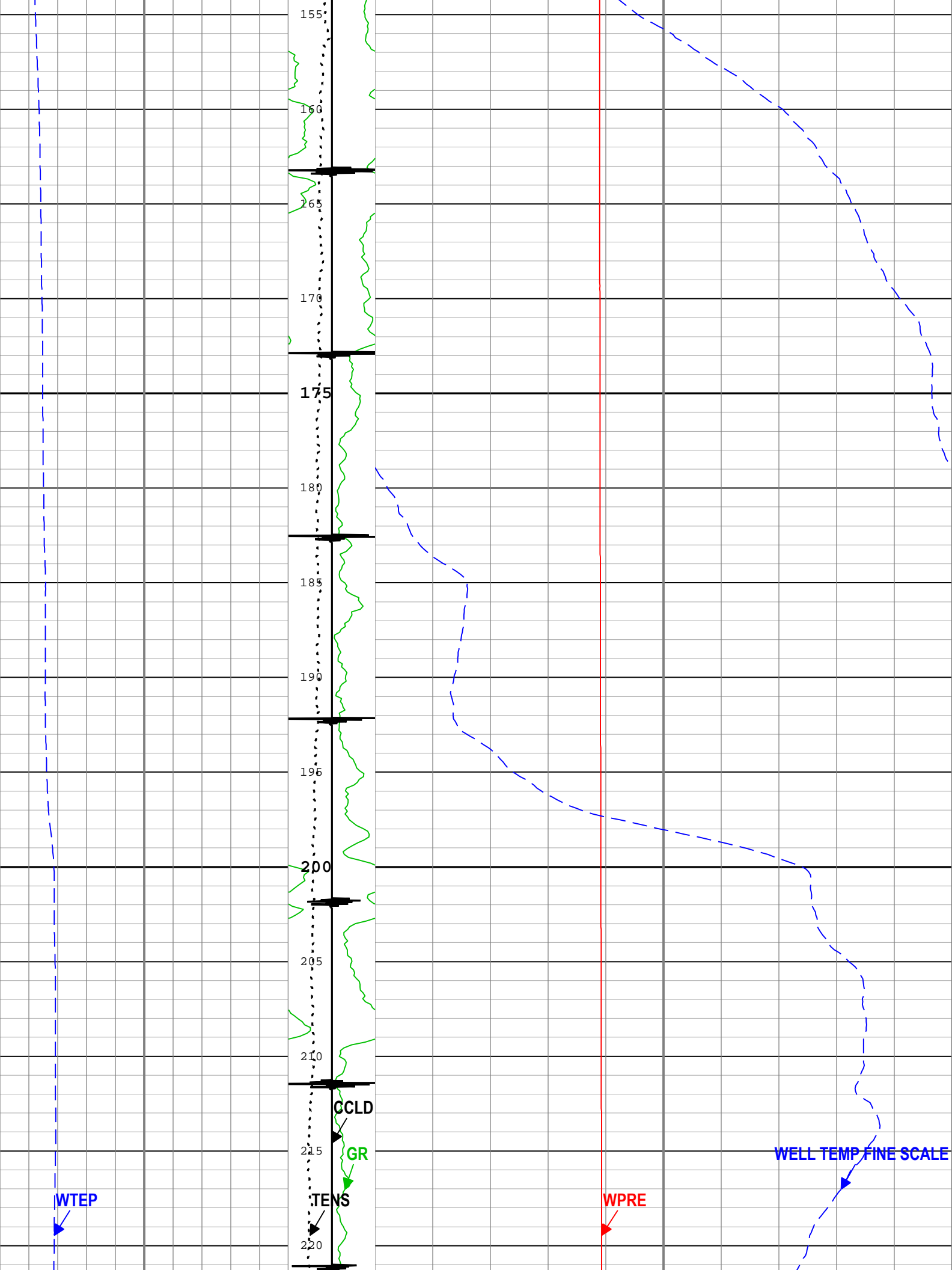
Description: PSP Depth    Format: Log ( TEMP DOWN PASS imperial )    Index Scale: 1:240    Index Unit: m    Index Type: Measured Depth    Creation Date: 14-Aug-2016 09:45:33

TIME\_1900 - Time Marked every 60.00 (s)

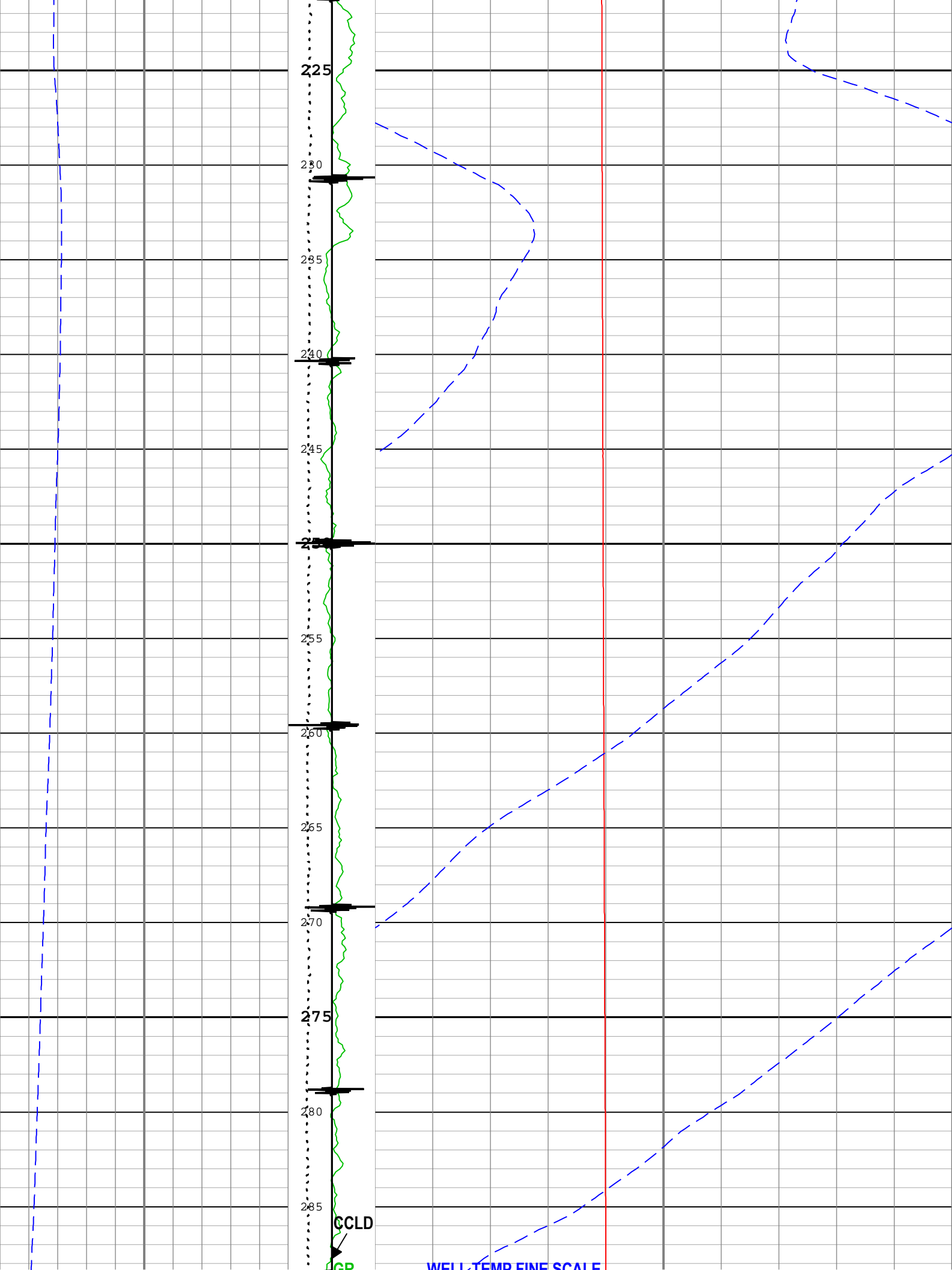


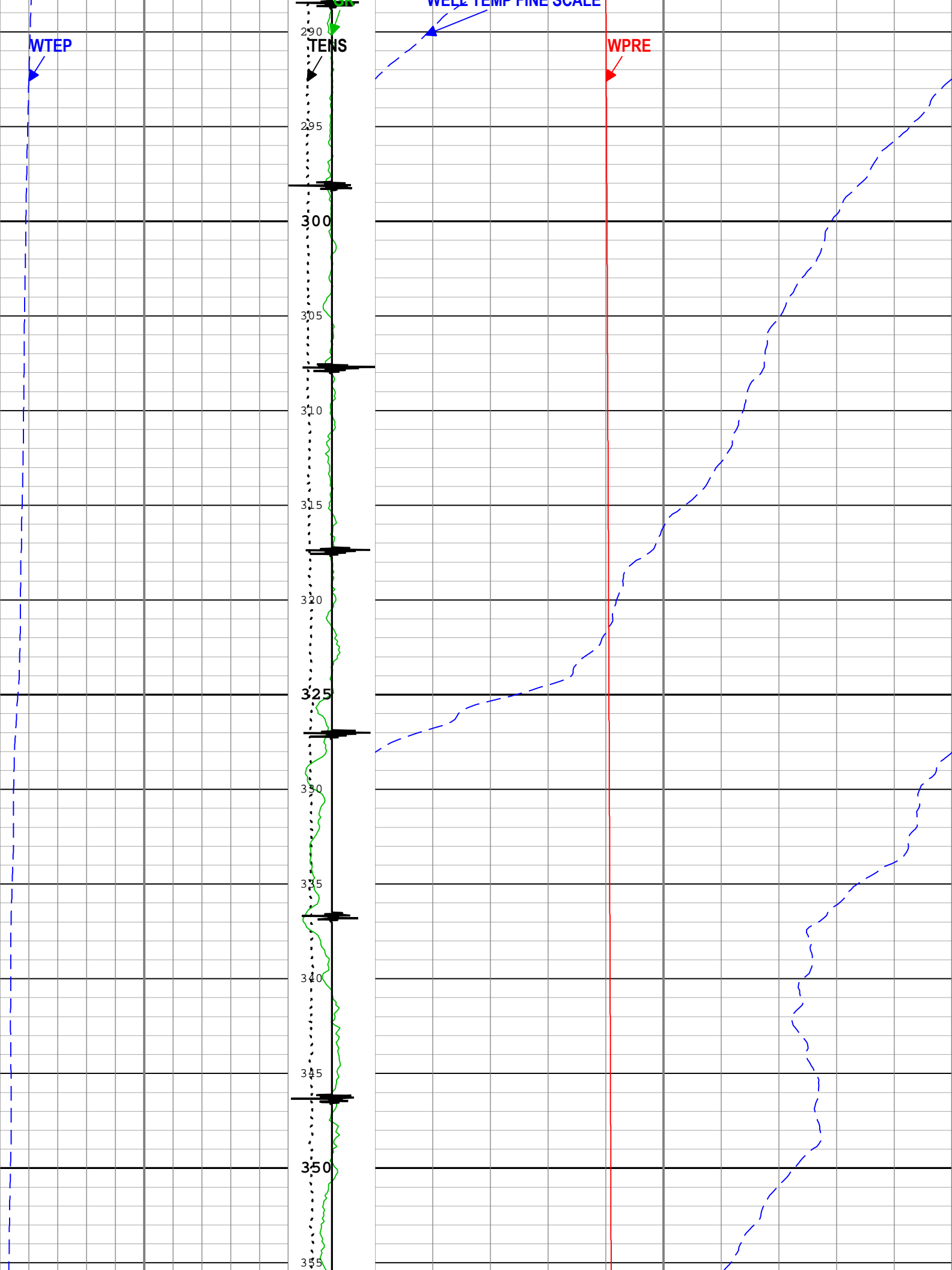


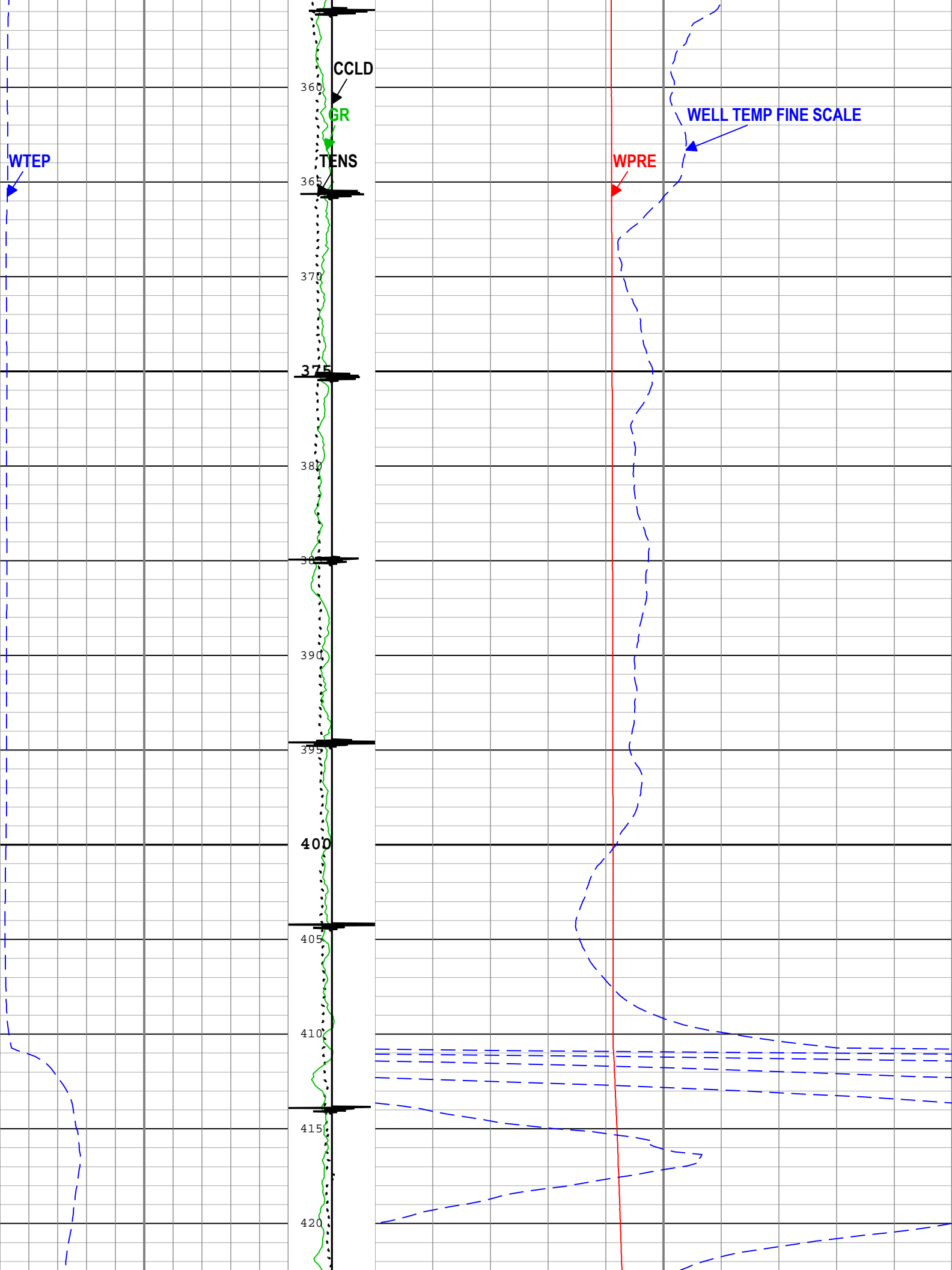


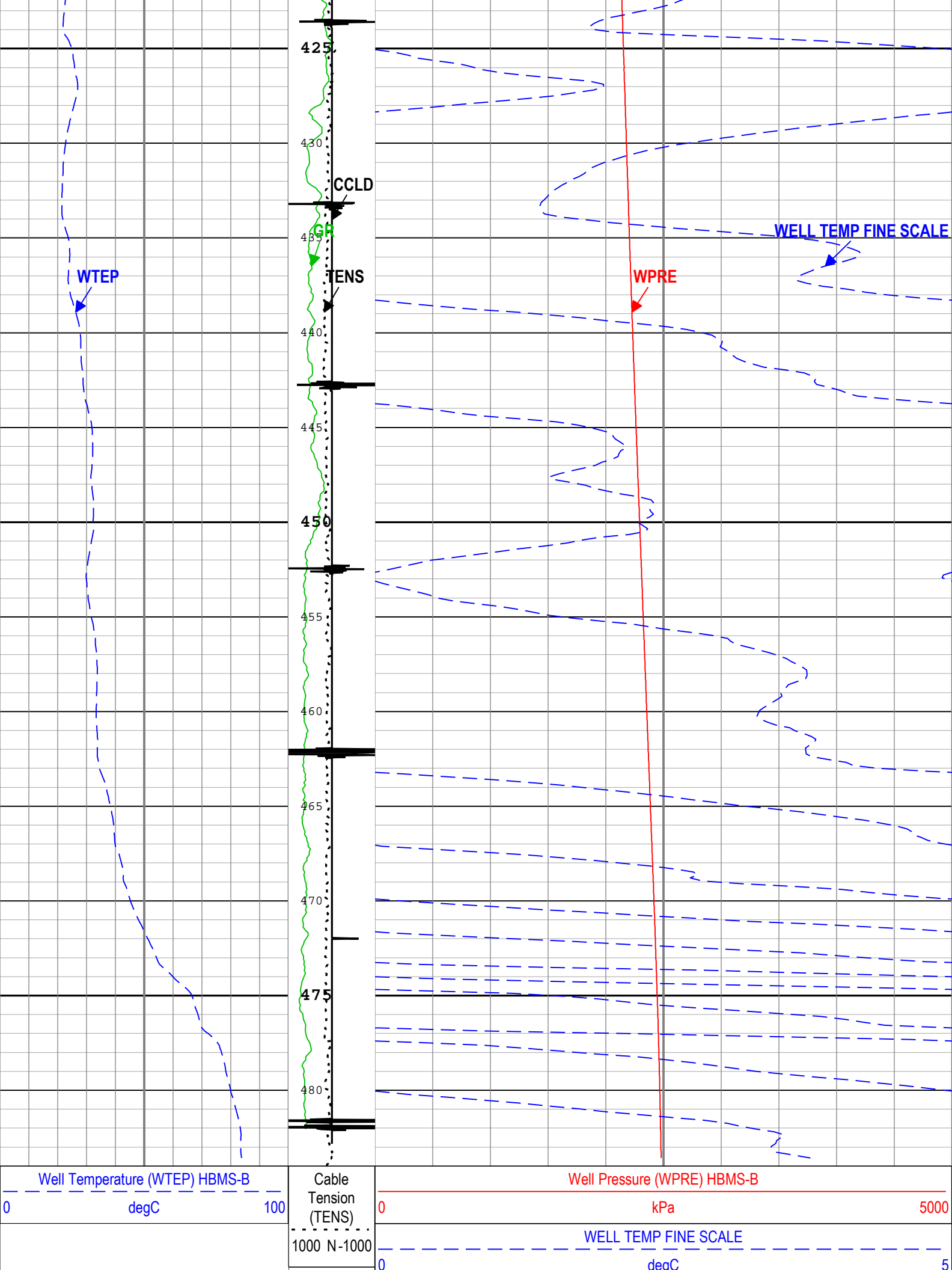












Gamma Ray (GR) HBMS-B
0 gAPI 100
CCL Discriminated Amplitude (CCLD) HBMS-B
-1 V 1

TIME\_1900 - Time Marked every 60.00 (s)

Description: PSP Depth    Format: Log ( TEMP DOWN PASS imperial )    Index Scale: 1:240    Index Unit: m    Index Type: Measured Depth    Creation Date: 14-Aug-2016 09:45:33

Channel Processing Parameters

Tool Control Parameters

1: Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	5486.4	m/h
PCCG	PSP Downhole CCL Gain	HBMS-B	12 dB	

Calibration Report

HBMS-B (PSP HBMS-B Tool) Calibration - Run 1

Primary Equipment :				
HBMC		HBMC-A	2838	
HTPS		HTPS-A	2838	
Calibration Parameter :				
JIG-BKGD				

PBMS Gamma Ray Check - HBMS Gamma Ray Accumulations

Before:		After:					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
GR Zero Average - 0	gAPI	Before	----	----	----	----	
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Zero Standard Deviation - 0	gAPI	Before	----	----	----	----	
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Zero Accumulation - 0	gAPI	Before	----	----	----	----	
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Plus Average - 0	gAPI	Before	----	----	----	----	
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Plus Standard Deviation - 0	gAPI	Before	----	----	----	----	
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Plus Max Deviation - 0	gAPI	Before	----	----	----	----	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Jig-Background	gAPI	Before			NOT DONE		
		After			NOT DONE		
		After-Before	----	----	----	----	

HBMS Gamma Ray Master Calibration	
Master (EEPROM):	18:00:00 05-Feb-2003
PBMS GR MODEL	GR Coefficients

(Master)		
	Rt**0	Rt**1
Rt**0	2000	3170

HBMS Well Temp Master Calibration						
Master (EEPROM): 18:00:00 23-Oct-2014						
PBMS_RTD_THERM RTD Coefficients (Master)						
	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tt**0	-232.8999	8.331875	32.31371	-4.562783	0.2659911	0

HBMS CQG Master Calibration						
Master (EEPROM): 18:00:00 23-Oct-2014						
PBMS_P_GAUGE_PREC CQG Pressure Model Coefficients (Master)						
	Fb**0	Fb**1	Fb**2	Fb**3	Fb**4	Fb**5
Fc**0	8079.792	0.0310173	8.291946E-08	-7.764635E-11	-1.49792E-15	-1.410762E-20
Fc**1	-1.050566	-1.270948E-05	-1.034487E-10	-6.160725E-18	1.948299E-20	0
Fc**2	9.710903E-07	4.637268E-11	9.155453E-16	0	0	0
Fc**3	1.028755E-12	1.846718E-16	0	0	0	0
Fc**4	0	0	0	0	0	0
Fc**5	0	0	0	0	0	0
PBMS_P_GAUGE_TEMP CQG Temperature Model Coefficients (Master)						
	Fc**0	Fc**1	Fc**2	Fc**3	Fc**4	Fc**5
Fb**0	119.1043	-0.0004229978	6.661657E-09	1.316723E-13	-8.492667E-18	3.120095E-22
Fb**1	-0.005971962	1.642466E-08	3.125717E-13	2.20286E-18	-3.387951E-21	0
Fb**2	-3.059693E-08	3.223536E-13	2.683793E-18	0	0	0
Fb**3	-3.297766E-13	4.522437E-18	0	0	0	0
Fb**4	0	0	0	0	0	0
Fb**5	0	0	0	0	0	0
PBMS_CQG_FCLK_FREQ CQG Clock Frequency Model Coefficients (Master)						
	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	31065.42	0.002169653	6.724387E-07	-6.376288E-11	-9.340339E-16	2.190774E-20
PBMS_CQG_FCLK_TEMP CQG Clock Temperature Model Coefficients (Master)						
	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	118.2672	-0.006067951	-2.300627E-08	2.217555E-12	-2.661394E-16	8.210886E-21

Company:	IMPERIAL OIL RESOURCES	Schlumberger
Well:	IMP 06 H57-10 COLD LK 6-9-66-4	
Field:	LEMING	
Province:	ALBERTA	
Status	**MD**	

# TEMPERATURE LOG