

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.23		3.00	3.50	50.00	
CNLSC CNSSC	37.13 36.38		CNT-M&W (210)	5.00	3.50	100.00
LCAL	28.21		MWLith-STEP LITHO Short (701-03)	8.40	5.00	250.00
LLW8N	28.21		ML-PSI STKBL ML (402)	7.58	4.00	65.00
LLW7N	28.21					
LLW6N	28.21					
LLW5N	28.21					
LLW4N	28.21					
LLW3N	28.21					
LLW2N	28.21					
LLW1N	28.21					
LSLOCK	27.96					
LLLOCK	27.96					
PELTMPR	27.96		DIL-M&W (504 HT)	18.25	3.50	220.00
LSHVNG	27.96					
LLHVNG	27.96					
LSW8N	27.71					
LSW7N	27.71					
LSW6N	27.71					
LSW5N	27.71					
LSW4N	27.71					
LSW3N	27.71					
LSW2N	27.71					
LSW1N	27.71					
MCAL	19.58					
MI	19.58					
MN	19.58					
RLL3F	15.50					
RLL3	15.50					
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: darrah_sangster-up unit 1-13.db: field/well/stkml/pass3.5
 Total length: 42.23 ft
 Total weight: 685.00 lb
 O.D.: 5.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\darrah_sangster-up unit 1-13.db
 Dataset field/well/stkml/pass3.5/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	123	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	517	40	Off	4678



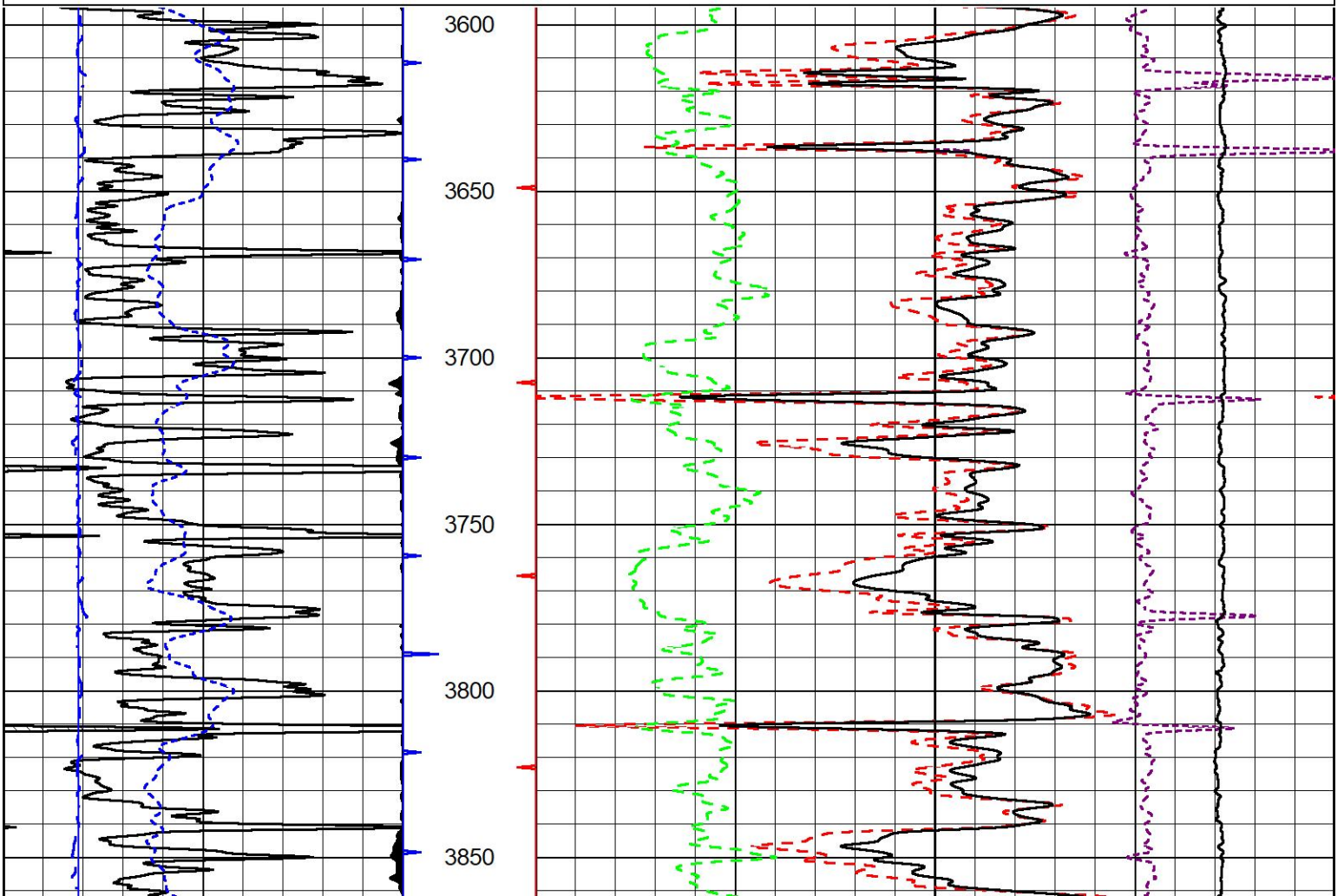
MIDWEST WIRELINE

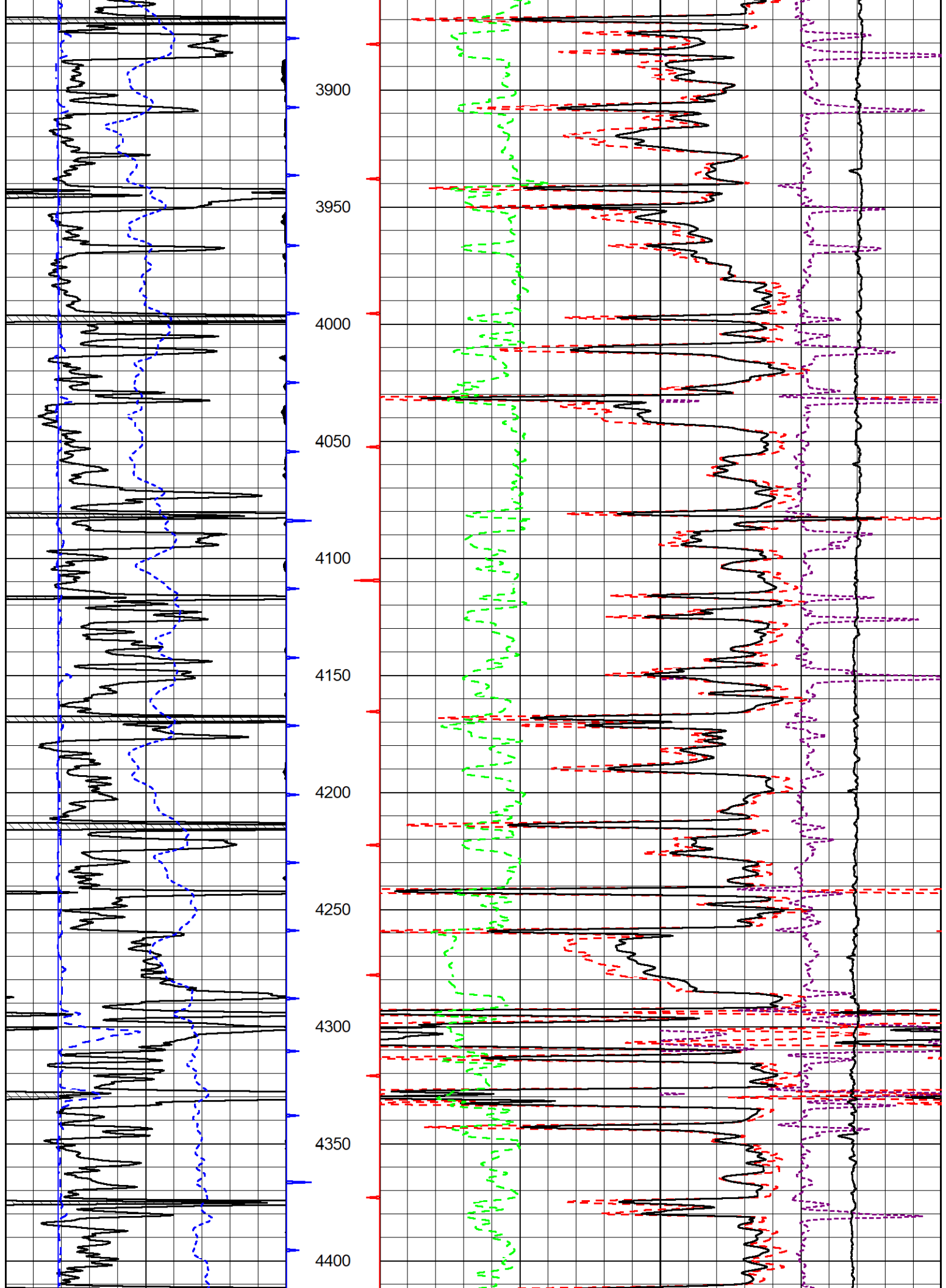
2" SCALE BULK DENSITY

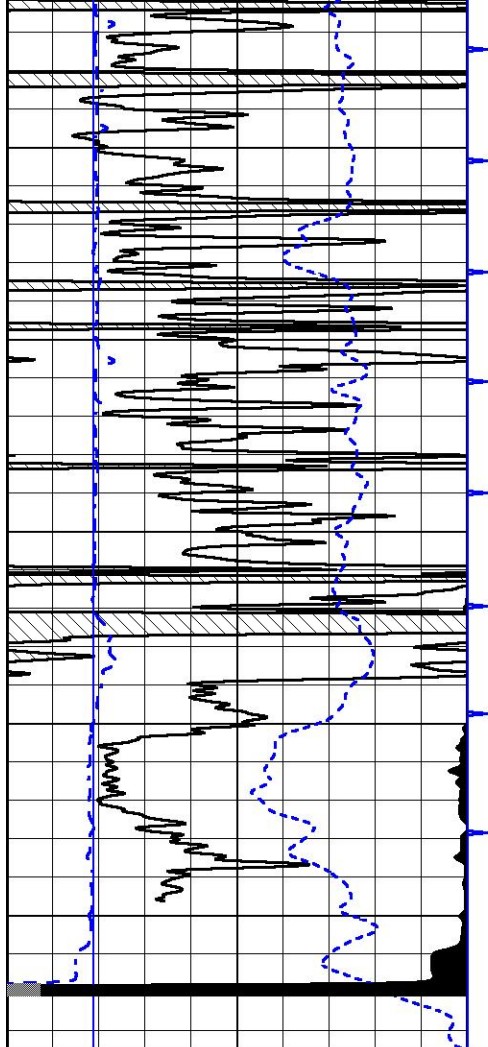
MAIN PASS

Database File darrah_sangster-up unit 1-13.db
 Dataset Pathname stkml/pass3.2
 Presentation Format _cdlpe
 Dataset Creation Tue Nov 11 02:28:41 2025
 Charted by Depth in Feet scaled 1:600

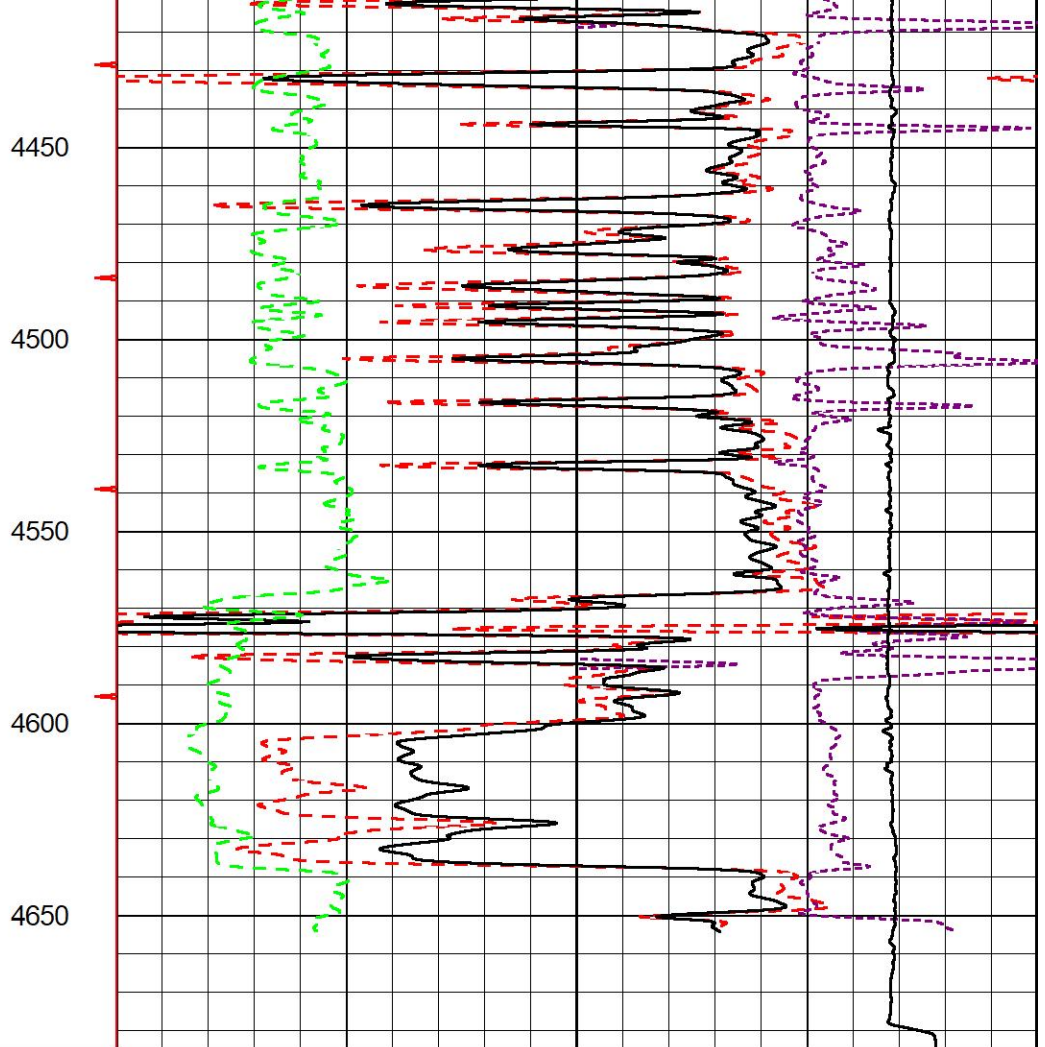
0	Gamma Ray (GAPI)	150	30	Compensated Density Porosity (pu)	-10
6	Caliper (in)	16	2	Bulk Density (g/cc)	3
-200	SP (mV)	0	10000	Line Tension (lb)	0
			0	pecln	10 -0.25
					Correction (g/cc) 0.25







0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-200	SP (mV)	0



30	Compensated Density Porosity (pu)	-10		
2	Bulk Density (g/cc)	3		
10000	Line Tension (lb)	0		
0	pecln	10 -0.25	Correction (g/cc)	0.25



MIDWEST WIRELINE

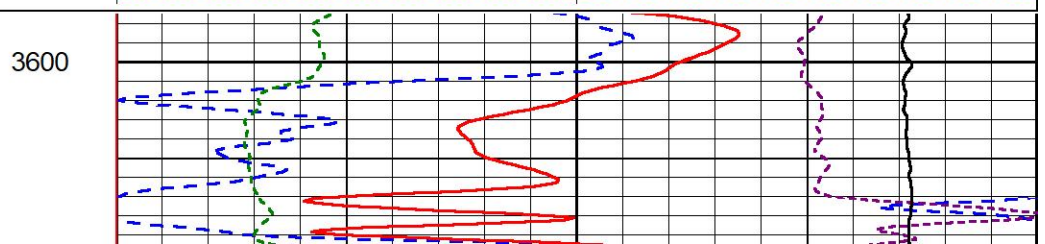
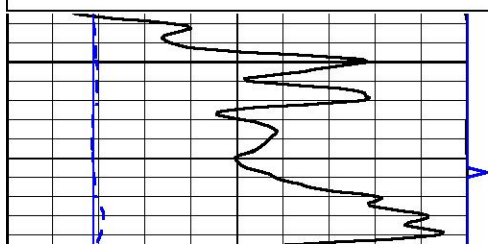
DETAIL SECTION

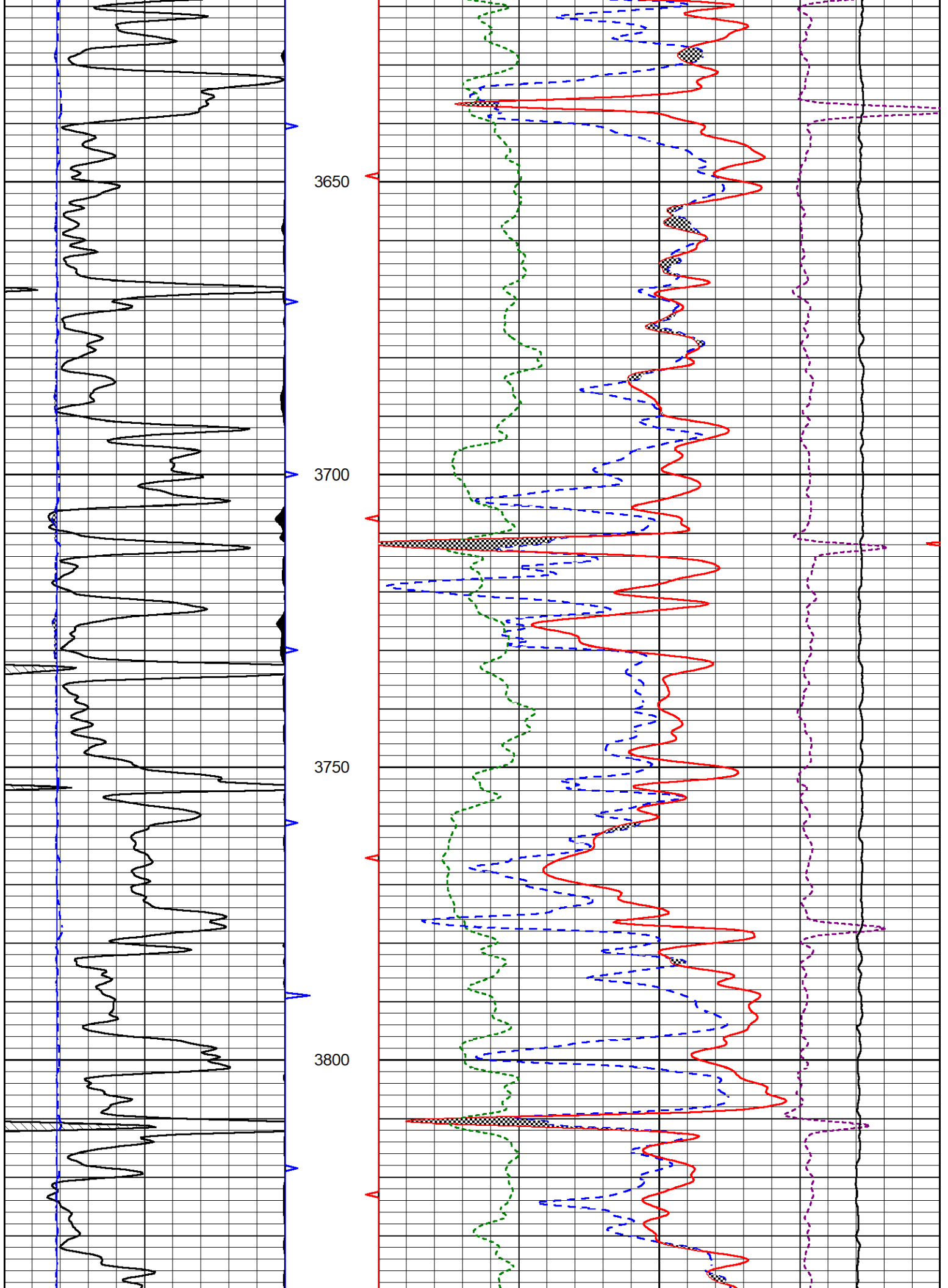
MAIN PASS

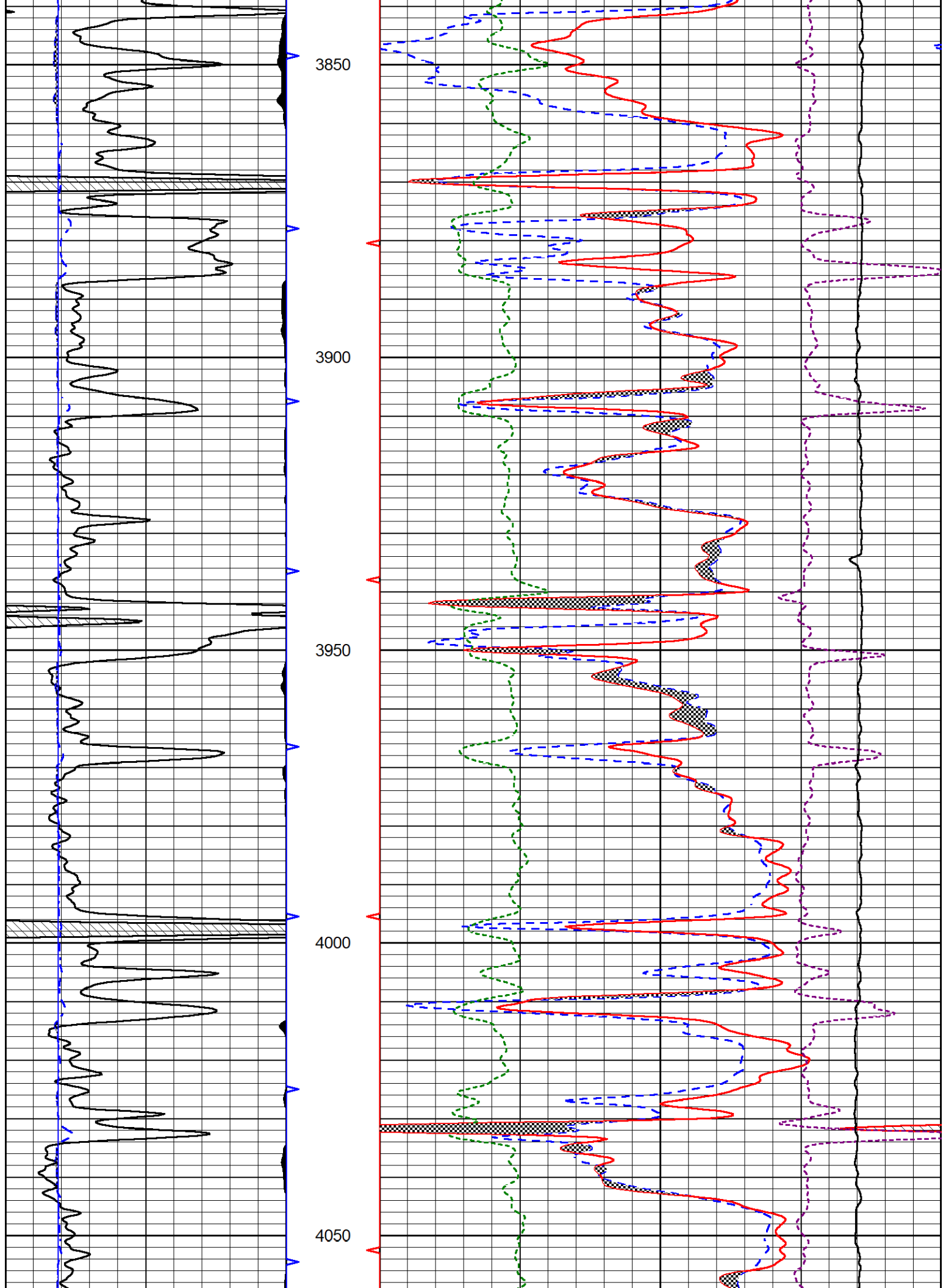
Database File darrah_sangster-up unit 1-13.db
 Dataset Pathname stkml/pass3.5
 Presentation Format _CNDLS~2
 Dataset Creation Tue Nov 11 02:20:41 2025
 Charted by Depth in Feet scaled 1:240

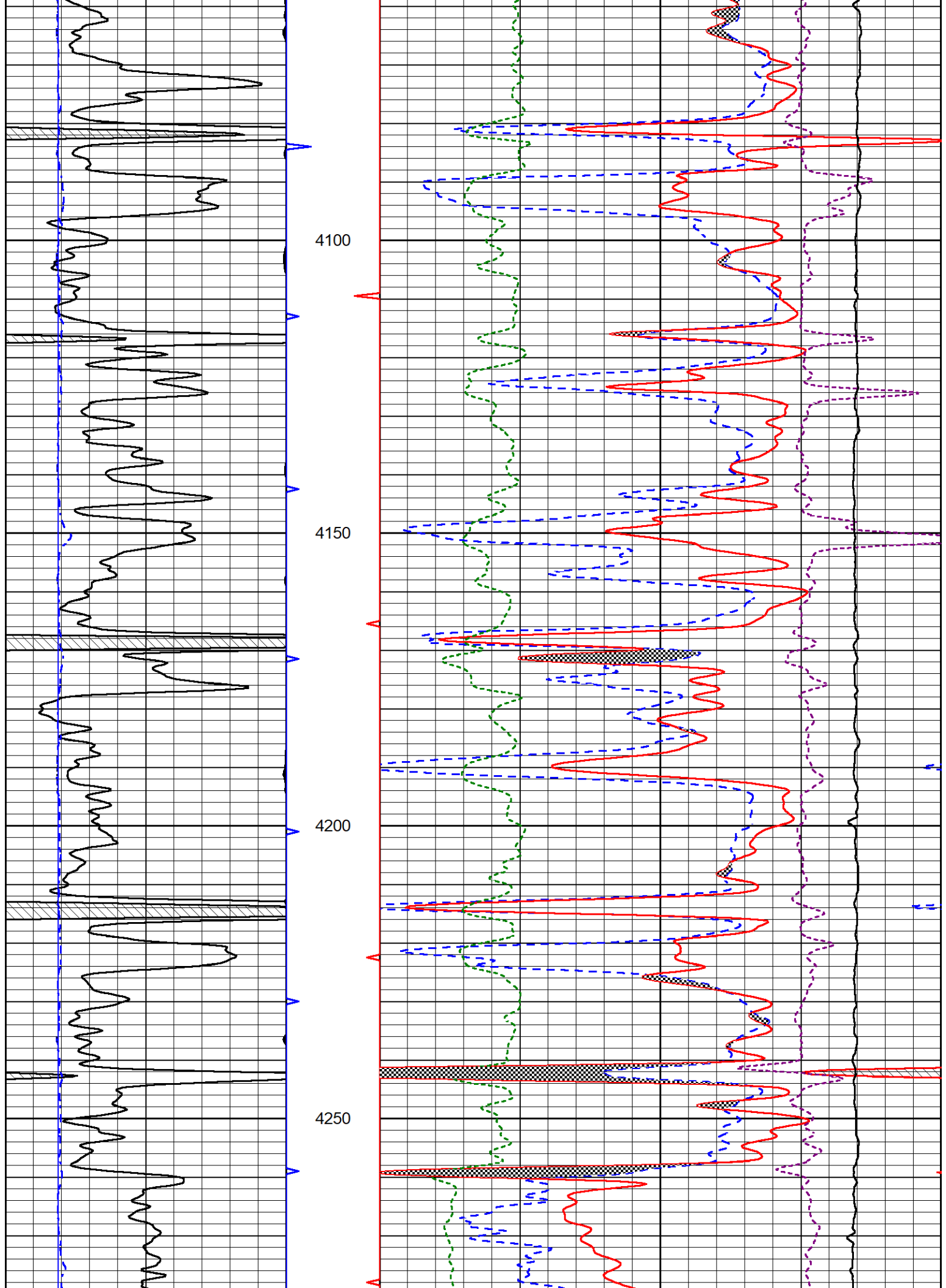
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

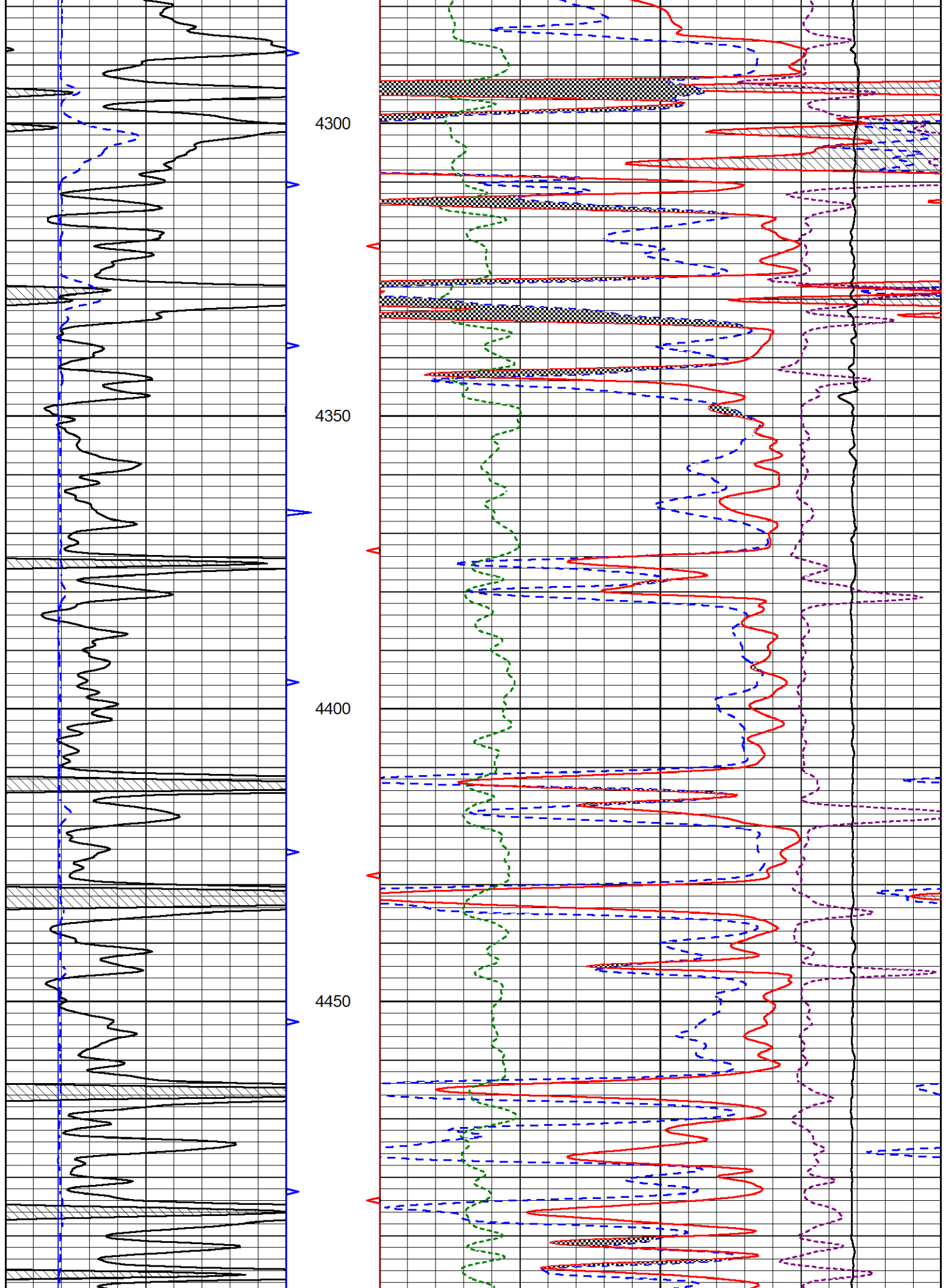
30	CNPOR (pu)	-10		
30	Compensated Density Porosity (pu)	-10		
10000	Line Tension (lb)	0		
0	PE	10 -0.25	Corection (g/cc)	0.25

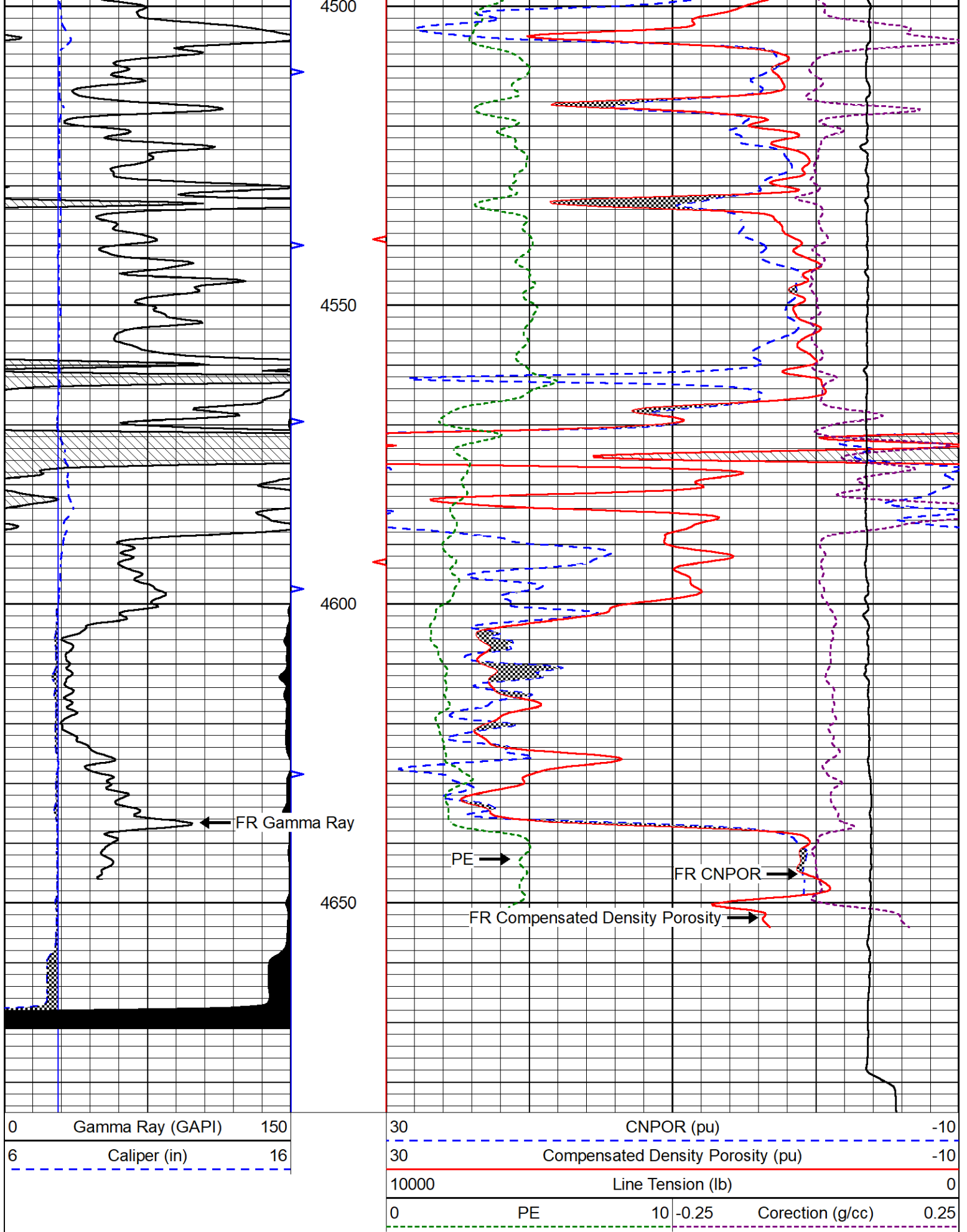












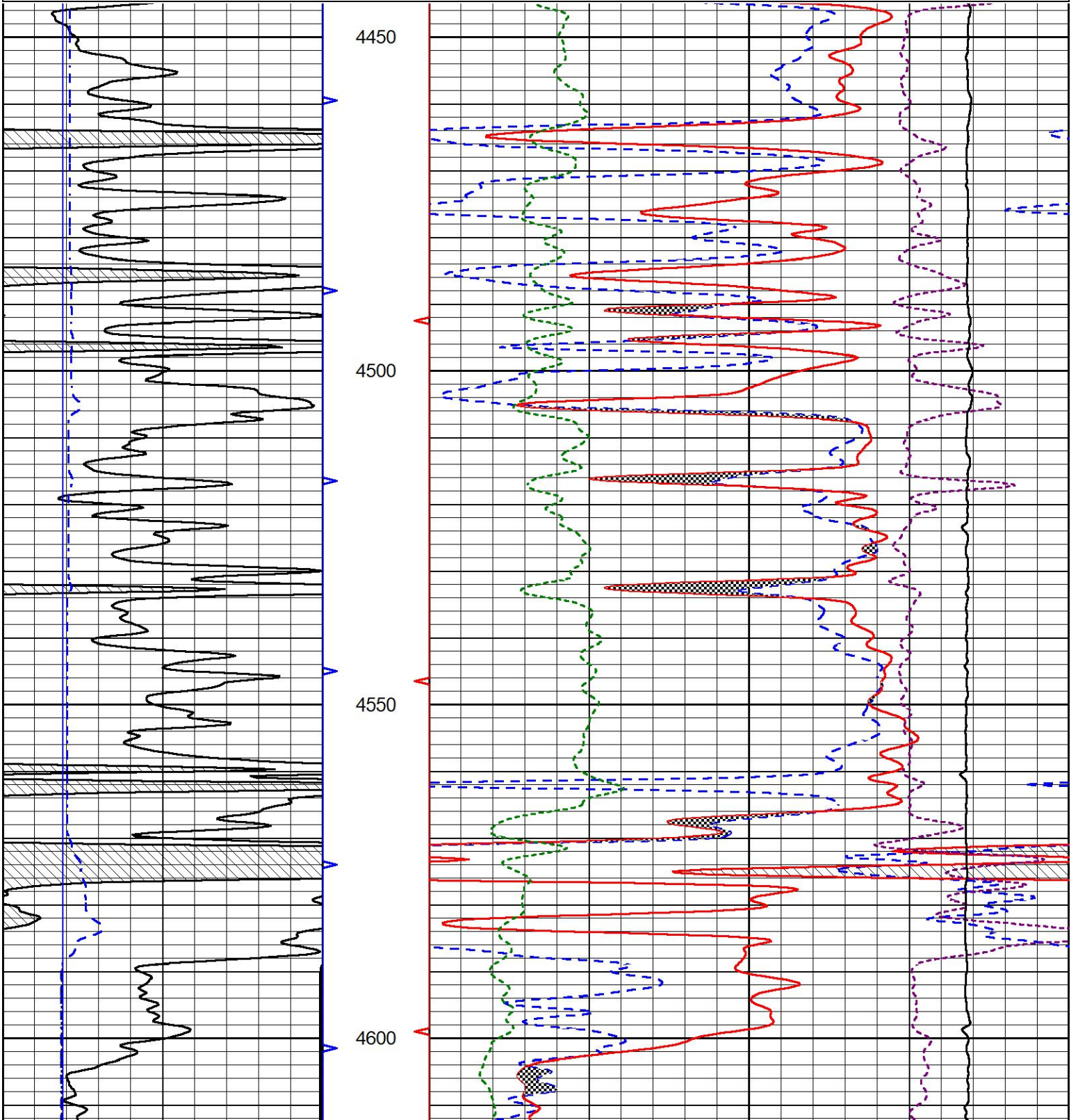
REPEAT SECTION

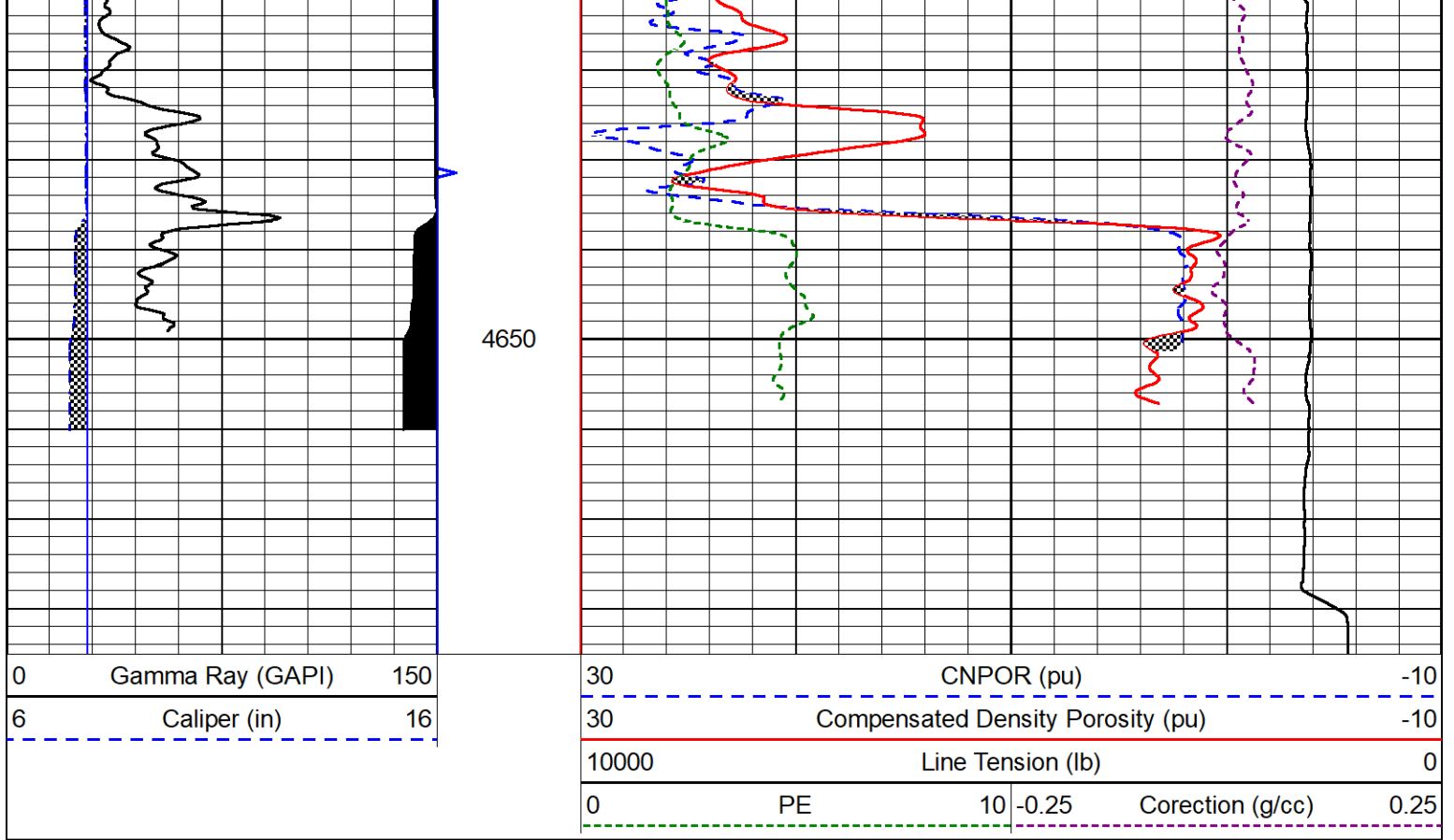


REPEAT PASS

Database File darrah_sangster-up unit 1-13.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _CNDLS~2
 Dataset Creation Tue Nov 11 02:27:40 2025
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	30	CNPOR (pu)	-10
6	Caliper (in)	16	30	Compensated Density Porosity (pu)	-10
			10000	Line Tension (lb)	0
			0	PE	10 -0.25
				Corection (g/cc)	0.25





Calibration Report

Database File darrah_sangster-up unit 1-13.db
 Dataset Pathname stkml/pass3.5
 Dataset Creation Tue Nov 11 02:20:41 2025

Dual Induction Calibration Report

Serial-Model: 504 HT-M&W
 Surface Cal Performed: Tue Nov 11 01:14:53 2025

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	178.615	710.235	0.000	255.800	mmho/m	1.350	-8.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.900	-40.000

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML
 Performed: Sat Nov 1 16:03:24 2025

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	18500.0000	-1.0000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	21500.0000	-0.5000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.5650

LITHODENSITY Calibration Report

Serial Number: 701-03
 Tool Model: STEP LITHO Short
 Performed: Tue Sep 23 11:08:22 2025

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	56	59	219	268	24	71	46	1	cps
LS:	78	88	333	431	50	131	87	4	cps
Aluminum:									
SS:	1019	1215	2861	2617	50	77	49	3	cps
LS:	1263	2145	3830	1712	72	136	59	4	cps
Magnesium:									
SS:	1699	1990	4685	3819	56	78	46	4	cps
LS:	4984	8437	15068	6103	123	112	86	24	cps
Aluminum+Iron:									
SS:	655	863	2400	2274	45	78	49	3	cps
LS:	711	1512	3267	1588	59	132	86	6	cps

	Density Actual	Calibrated	PE Actual	Calibrated	Quality
Background:					
SS:					0.213
LS:					0.202
Aluminum:					
SS:	2.6000	2.6000	g/cc		0.219
LS:	2.6000	2.6000	g/cc		0.395
Magnesium:					
SS:	1.6800	1.6800	g/cc	2.5700	2.5700
LS:	1.6800	1.6800	g/cc	2.5700	2.5700
Aluminum+Iron:					
SS:				6.1800	0.229
LS:				6.1800	0.212

Caliper:	Reference:	Reading:
Small Ring:	6.0 in	0.2
Large Ring:	17.5 in	0.8
Gain:	18.284	
Offset:	0.100	

Compensated Neutron Calibration Report

Serial Number: 210
Tool Model: M&W

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 105
Tool Model: M&W
Performed: Tue Aug 26 12:59:12 2025

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps
Calibrator Reading: 637.0 cps

Sensitivity: 0.6000 GAPI/cps



Company	Darrah Oil Company, LLC
Well	Sangster-UP Unit #1-13
Field	SHS
County	Logan
State	Kansas