Calibrating and Verifying Rock-Eval® 7 Sulfur

IFPEN-500 000
REFERENCE VALUES

Using the Reservoir method – Basic cycle

	S1r	S2a	S2b	TmaxS2b	S3	S3CO	S4CO$_2$	S4CO	S5	HIS2b	OIS2b	PC	RC	TOC	MINC	Total C
	mg HC/g rock		mg HC/ g rock	°C	mg CO_2/ g rock	mg CO/ g rock	mg CO_2/ g rock	mg CO/ g rock	mg CO_2/ g rock	mg HC/ g TOC	mg CO_2/ g TOC	wt.%				
Average value	0.44	7.3	56.4	419	0.98	0.25	45	7.4	307	907	14	5.4	1.5	6.9	8.6	15.5
Confidence interval*1	± 0.10	± 0.8	± 2.5	± 4	± 0.18	± 0.06	± 3	± 0.6	± 14	± 15	± 3	± 0.3	± 0.2	± 0.3	± 0.4	± 0.5
Confidence interval*2	± 0.07	± 0.6	± 1.8	± 3	± 0.13	± 0.05	± 3	± 0.4	± 10	± 11	± 2	± 0.2	± 0.1	± 0.2	± 0.3	± 0.4

	Pyro Tot S	Oxi Tot S	Total S*3
	wt.%		
Average value	0.66	0.24	0.90
Confidence interval*1	± 0.05	± 0.04	± 0.06
Confidence interval*2	± 0.03	± 0.03	± 0.04

The reference values were calculated from analytical data derived from 7 series of 5 repetitions gathered over a 3-month period on a single Rock-Eval® 7S instrument, using the Reservoir method - Total Sulfur cycle.

The confidence interval is expressed as a 95% confidence interval.

*1 Confidence interval for a single analysis = standard deviation of reproducibility x 2

*2 Confidence interval for a duplicate = standard deviation of reproducibility x √2

*3 The Total S quantified with the Basic cycle is a partial concentration because the maximum oxidation temperature is not high enough to decompose the sulfates.