

METHOD STATEMENT

Determinand:

Determination of water-insoluble fat, oil and grease. This can also be known as Non Volatile Matter (NVM)

Matrix:

Sample Type: final effluents, trade discharge and crude sewage

Principle of Method:

The aqueous sample is shaken with petroleum ether in a separating funnel and the resulting supernatant layer is removed and then filtered. The entire petroleum ether extract is transferred to a weighed dish and the petroleum ether is removed by evaporation. The dish is reweighed to obtain the weight of petroleum ether-extractable matter.

Interferences:

False low results may be obtained if the oil adheres to the walls of the sample bottle and is therefore not detected.

Performance of Method:

Range of Application:

30mg/l upwards

Reporting limit: <30mg/l

Limit of Detection:

29.9mg/l

Recoveries of Compounds and Uncertainty of measurement:

		Extractable mg/l	RSD	% Recovery	% Uncertainty
Low Standard		1010	5.95%	104.1	16.1
High Standard		2020	3.31%	102.7	9.4
Cooper Bridge Final	Sample	5.72	***	***	****
	Low Spike	1039	4.34	102.4	11.1
	High Spike	2044	2.81	101.1	6.7
Cooper Bridge Crude	Sample	217	7.2	****	****
	Low Spike	1226	3.22	100.1	6.5
	High Spike	2242	3.27	100.4	6.9
Kerfoot Trade	Sample	2639	6.6	****	****
	Low Spike	3622	5.36	97.4	13.3
	High Spike	4702	4.69	102.2	11.6

References:

The determination of oils and fats in waste water by filtration, extraction and gravimetry 1987. Methods for the examination of waters and associated materials. HMSO ISBN 0117520764.

