



ISO 3170

**Hydrocarbon Liquids — Manual
sampling**

Hydrocarbures liquides — Échantillonnage manuel

**Fourth edition
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ISO copyright office

CP 401 • Ch. de Blandonnet 8

CH-1214 Vernier, Geneva

Phone: +41 22 749 01 11

Email: copyright@iso.org

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This document was prepared by Technical Committee ISO/TC 28, *Petroleum and related products, fuels and lubricants from natural or synthetic sources*, Subcommittee SC 2, *Measurement of petroleum and related products*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 19, *Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 3170:2004), which has been technically revised.

The main changes are as follows:

- document title amended to reflect the expanded scope of the document for non-petroleum liquids;
- inclusion of an equal representation of the closed and restricted sampling devices in addition to the traditional open sampling devices;
- expanded [Clause 3](#) and the Bibliography;
- added [Clause 4](#).

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This document can be used in conjunction with ISO 3171.

This document specifies standard conditions and methods for obtaining samples of liquid/semi-liquid hydrocarbons from a tank, drum or pipeline by manual means. If the hydrocarbon to be sampled is non-homogeneous, showing significant variations in composition or containing sediments and water, samples taken manually should not be expected to be representative, but can enable the degree of non-homogeneity to be assessed and estimates of quality and quantity to be made.

The procedures specified in this document are intended to minimize or eliminate losses of light ends from samples. Such losses can occur during the handling or transfer of samples, thereby making them non-representative of the bulk.

The procedures specified provide samples for:

- a) the determination of the liquid/hydrocarbon quality;
- b) the determination of the water content;
- c) the determination of other contaminants that are not considered to be part of the liquid hydrocarbon.

If the sampling conditions for purposes a), b) and c) are in conflict, separate samples are required.

The sampling procedures for tank contents that are not homogeneous specified in this document are intended to enable the degree of non-homogeneity to be assessed and estimates of quality and quantity to be made.

Procedures for the sampling of liquid hydrocarbons from tanks under inert gas pressure are included, together with techniques for sampling from tanks which are equipped with vapour emission control systems.