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Method of determining coalbed methane content

Méthode de dosage de la teneur en méthane de houille

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 263, *Coalbed methane (CBM)*.

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Method of determining coalbed methane content

1 Scope

This International standard provides methodology for measuring coalbed methane content of coal core samples obtained by coring or sidewall coring during well drilling. This standard has to be also applied to drill cuttings samples, if the equipment for the determination of the coalbed methane content according to a respective national standard is not available. The selection of the most appropriate method shall consider the purpose of the test and the possibilities of sampling.

This International standard is applicable for the direct method of measuring coalbed methane content. It includes sample preparation, experimental procedures and calculation methods. Indirect methods of measuring gas content of coal (not included in this International standard) are generally based on either the gas sorption characteristics of coal under defined/specified pressure and temperature conditions.

This International standard includes three types of direct measuring methods: conventional desorption (slow desorption) of core samples, fast desorption of core samples, fast desorption of cuttings or lump samples. The difference among them lies in the time allowed for gas to desorb before final crushing and in sample size and shape.

This International standard is applicable for the determination of the methane content of coal during coal and coalbed methane exploration for the determination of free gas content of low rank coals is included.

Procedure of free gas content determination of low rank coals need to be defined.

All units used and referred to in this International standard are international standard units. Reference temperature is 0 °C (273,15 K) if not stated differently. Reference pressure is 0,1 MPa (1 bar) if not stated differently.

This International standard does not point out all the potential safety hazards associated with its use. The users are responsible for establishing appropriate safety measures and health practices when applying the procedures defined in this standard.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
coalbed gas content
under natural conditions, quantity of gas contained in the unit mass of coal

Note 1 to entry: It is the sum of lost gas, measurable gas and residual gas.

2.2
coalbed methane content
methane content, which is commonly the major component of coalbed gas

Note 1 to entry: The terms “coalbed methane”, “coalbed gas” and “coal seam gas” are frequently used synonymously.

Note 2 to entry: If a component other than methane is the predominant component of coalbed gas this should be stated explicitly.

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