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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 32865-2025

Quality requirements and test methods for tight sandstone gas products

致密砂岩气产品质量要求和试验方法

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1.Structure and drafting rules for standardization documents" Drafting. This document replaces GB/T 32865-2016 "Technical requirements and test methods for tight sandstone gas". Compared with GB/T 32865-2016, In addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) The classification has been deleted (see

3.1 of the.2016 edition);

b) The high calorific value, total sulfur and oxygen indicators have been changed (see Chapter 4,

3.2 of the.2016 edition);

c) Added hydrocarbon dew point index (see Chapter 4);

d) The sampling test method has been changed (see 5.1,

4.1 of the.2016 edition);

e) The high calorific value test method has been changed (see 5.2,

4.2 of the.2016 edition);

f) The total sulfur test method has been changed (see 5.3,

4.3 of the.2016 edition);

g) The hydrogen sulfide test method has been changed (see 5.4,

1 Scope

China's national standard for the product quality of tight sandstone gas. It specifies the terms and definitions, the quality requirements, the test methods, the inspection rules and the delivery and use provisions, and it replaces GB/T 32865-2016. Tight sandstone gas is natural gas held in a reservoir whose permeability is too low for the gas to flow to a well without the rock being fractured, and China has a great deal of it - the Ordos and Sichuan basins between them account for most of the country's unconventional gas production. Once it reaches the surface it is natural gas like any other, and the reason it has its own product standard is compositional rather than geological: tight gas arrives with a different mix of impurities from conventional gas, and the pipeline it will enter does not care where it came from but does care what is in it. This edition makes substantial changes. The classification of the 2016 edition is removed; the gross calorific value, total sulfur and oxygen limits are changed; a hydrocarbon dew point requirement is added; the test methods for sampling, gross calorific value, total sulfur and hydrogen sulfide are all changed and a method for oxygen added; the water dew point method is changed and a hydrocarbon dew point method added; a full inspection rules clause is added where the 2016 edition had none; and the transport and use clause is revised into a delivery and use clause. The addition of hydrocarbon dew point is the most consequential of these for anyone operating a pipeline. Issued on 25 April 2025 and in force since 1 November 2025.

This document specifies the quality requirements and inspection rules for tight sandstone gas and describes the relevant test methods. This document applies to the quality specifications, quality testing, transportation and use of tight sandstone gas products.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 11060.1 Determination of sulfur compounds in natural gas Part

4 Determination of total sulfur content by oxidation microcoulometry

GB/T 11060.5 Determination of sulfur compounds in natural gas Part

5.Determination of total sulfur content by hydrogenolysis-rate meter colorimetric method

GB/T 11060.8 Determination of sulfur compounds in natural gas Part

8.Determination of total sulfur content by ultraviolet fluorescence spectrophotometry

GB/T 11060.10 Determination of sulfur compounds in natural gas Part

10 Determination of sulfur compounds by gas chromatography

GB/T 11060.12 Determination of sulfur compounds in natural gas Part

12 Determination of hydrogen sulfide content by laser absorption spectroscopy

GB/T 11060.13 Determination of sulfur compounds in natural gas Part

13 Determination of hydrogen sulfide content by ultraviolet absorption method

GB/T 11062 Calculation method for calorific value, density, relative density and Wobbe index of natural gas

GB/T 13609 Guidelines for Natural Gas Sampling

GB/T 13610 Composition analysis of natural gas - Gas chromatography

GB/T 17283 Determination of water dew point of natural gas - Cooled mirror condensate hygrometer method

GB/T 18619.1 Determination of water content in natural gas - Karl Fischer-Coulometric method

GB/T 21069 Determination of water content in natural gas under high pressure

GB/T 22634 Conversion between water content and water dew point of natural gas

GB/T 27894 (all parts) Determination of composition and calculation of associated uncertainties of natural gas by gas chromatography

GB/T 27895 Determination of hydrocarbon dew point of natural gas - Visual inspection with cooled mirror

GB/T 27896 Determination of water content in natural gas - Electronic analysis method

GB/T 30490 Automatic sampling method for natural gas

GB/T 30501 Tight sandstone gas geological evaluation method

GB/T 33440 General requirements for interchangeability of natural gas

GB/T 35211 Measurement of calorific value of natural gas - Continuous combustion method