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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 11059-2022

Replacing GB/T 11059-2011

Determination of vapor pressure of crude oil - Expansion method

原油蒸气压的测定 膨胀法

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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 11059-2011 "Expansion Method for Determination of Vapor Pressure of Crude Oil". Compared with GB/T 11059-2011, except In addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) The scope of application has been changed (see Chapter 1,

1.3 of the.2011 edition);

b) Changed the normative references (see Chapter 2, Chapter 2 of the.2011 edition);

c) Deleted some terms and definitions (see 3.1,

3.5 of the.2011 edition);

d) Deleted the content related to Raid vapor pressure (see Chapter 4, 8.6, 8.11,

10.2.3 and Appendix A of the.2011 edition);

e) Added xylene and petroleum ether as solvents (see 5.2, 5.3);

f) Deleted the relevant content of instrument calibration (see 6.2, 6.3, 6.4,

8.2 of the.2011 edition);

g) When the gas-liquid ratio is less than 1, the floating piston cylinder should be used for sampling (see 7.1.2);

h) Changed the volume of non-pressure vessels (see 7.2.1,

1 Scope

GB/T 11059-2022 is the Chinese national standard on determination of vapor pressure of crude oil - expansion method, in the field of petroleum and related technologies. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 12 October 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 12 October 2022. Classification: ICS 75.040, CCS E21. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies a method for determining the vapor pressure of crude oil using an automatic vapor pressure tester. This document is applicable to crude oil with a test temperature of 37.8°C, a gas-liquid ratio of 4.1, and a vapor pressure of 25kPa~180kPa. This document also It is suitable for testing crude oil with a test temperature of 0°C~100°C, a gas-liquid ratio of 0.02.1~4.1, and a vapor pressure of 500kPa, but the precision may not be sufficient. Be applicable.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 4756 Petroleum liquid manual sampling method

GB/T 8017 Determination of Vapor Pressure of Petroleum Products Reid Method

GB/T 26985 Determination of Pour Point of Crude Oil

GB/T 27867 Petroleum Liquid Pipeline Automatic Sampling Method ASTMD8009 Guidelines for obtaining samples of unstabilized crude oil and liquid petroleum products with manual floating piston cylinders (Practice for ucts)

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Vapor-liquid ratio vapor-liquidratio Under certain conditions, in equilibrium, the ratio of

the sample vapor volume to the liquid volume.

3.2 When the gas-liquid ratio is X.1, the pressure of crude oil in the vacuum chamber.

Note. X is 0.02~4.