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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 30492-2014

**Natural -- Gas chromatographic requirements for hydrocarbon
dewpoint calculation
(English Translation)**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses redrafted Law Amendment uses ISO 23874:2006 "gas hydrocarbon dew calculated GC analysis requirements." this standard and ISO 23874:2006 as compared to the structure made appropriate adjustments.

--- Delete ISO 23874:2006 Foreword;

--- Delete ISO 23874:2006 references;

--- Add an appendix, numbered as Appendix A, the existing international standards in Appendix A ~ Appendix E Appendix B ~ turn into Appendix F.

This standard and ISO 23874:2006 technical differences compared to the presence of.

--- Normative references to the national standards instead of the corresponding ISO standards;

--- Increasing the GB/T 13609 and GB/T 13610 normative reference documents;

--- Retention pressure measurement units "MPa", remove the unit "bar".

The standard ISO 23874:2006 editorial errors were modified.

--- In the form of appendix lists editorial errors and modify the results of its causes, which are numbered in Appendix A.

This standard by the National Standardization Technical Committee on Gas (SAC/TC244) and focal points.

This standard drafting units. China Southwest Oil and Gas Field Branch Natural Gas Petroleum Institute, Daqing Oilfield Engineering Co., Ltd., China Stone Oil Exploration and Development Research Institute, Langfang Branch, China National Petroleum Corporation Pipeline Company Pipeline Technology Research Center.

1 Scope

This standard specifies requirements for a detailed analysis of the operation of natural gas pipeline the heavy hydrocarbon components by gas chromatography, in order to use the appropriate equation of state Calculation of natural gas hydrocarbon dew point.

This standard applies to the highest dew point temperature (critical temperature condensate) at 0 °C ~ -50 °C, the highest pressure dew point in 2MPa ~ Gas 5MPa between.

2 Normative references

The following documents for the application of this document is essential, dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 13609 Gas sampling guidelines GB/T 13610 natural gas composition analysis by gas chromatography (GB/T 13610-2003, neqASTMD1945-1996) GB/T 27894.1 natural gas under certain uncertainty by gas chromatography part 1. Analysis Guidelines (GB/T 27894.1-2011, ISO 6974-1:2000, IDT) Characteristics Measurement System. GB/T 27894.2 natural gas under certain uncertainty - Part 2 chromatography fumed composition and statistics (GB/T 27894.2-2011, ISO 6974-2:2000, IDT) GB/T 27894.3 natural gas under certain uncertainty by gas-phase chromatography composition Part 3. Measuring with two packed columns Set of hydrogen, helium, oxygen, nitrogen, carbon dioxide and hydrocarbons up to C8 (GB/T 27894.3-2011, ISO 6974-3:2000, IDT) GB/T 27894.4 natural

gas under certain uncertainty by gas chromatography to determine the composition Part 4. Laboratory and on-line measurement the amount of system using two columns Determination of nitrogen, carbon dioxide and C1 to C5 and C6 hydrocarbons (GB/T 27894.4-2012, ISO 6974-4.

2000, IDT)

GB/T 27894.5 natural gas under certain uncertainty by gas chromatography to determine the composition Part 5. Laboratory and on-line work Arts system with three columns Determination of nitrogen, carbon dioxide and C1 to C5 and C6 hydrocarbons (GB/T 2789.5-2012, ISO 6974-5.

2000, IDT)

GB/T 27894.6 natural gas under certain uncertainty by gas chromatography to determine the composition Part 6. capillary with three color the column Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and hydrocarbons C1 to C8's (GB/T 27894.6-2012, ISO 6974-6:2000, IDT) Principle 3 Natural gas is different from the single-phase gas hydrocarbon gas mixture, the dew point line or phase boundary is the pressure, temperature and composition of a complex function number. For a given composition of natural gas, the pressure at its highest dew point is an intermediate value of gas transmission and distribution pressure. Full analysis of the components of natural gas They include inert component and to C12 hydrocarbon component. When He, H₂, water and sulphide content of less than 0.01% (mole fraction), this analysis is not necessary the content of these components.

Gas composition analysis can be divided into two parts is completed, the major component (N₂, CO₂ and C1 ~ C5 hydrocarbon component) in accordance with GB/T 27894 (All parts) or GB/T 13610 for analysis, and hydrocarbon components (C5 ~ C12 hydrocarbon components) higher carbon number analysis should meet this standard to Analysis of the requirements.