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# PROFESSIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

# 中华人民共和国石油天然气行业标准

SY/T 6176-2012 Replaces SY/T 6176-2004

# Technical regulation of data collection on development well of gas reservoir 气藏开发井资料录取技术规范

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#### **Foreword**

This standard is drafted according to the rules given by GB/T 1.1-2009 Standardized Guideline Part 1: Structure and Preparation of Standard.

This standard replaced SY/T 6176-2004 *Technical Specification of Data Collection of Development Well of Gas Reservoir.* 

Compared with SY/T 6176-2004, this standard amended the followings contents:

- Amend the contents;
- Amend the "Scope", add the gas injection well, rejection well of gas field water, and expand the range of development well (refer to Chapter 1);
- Amend the "Normative References" (refer to Chapter 2);
- Amend the "Data Collection Contents" to the purpose and contents (refer to Chapter 3);
- Amend the "Technical Requirements of Data Collection", "Working System" to "Data Collection of Working System", and add the contents of gas injection well, downhole throttle craft well and reinjection well of gas filed water, and delete the item of "Opening and Closing Time of Production Well (Observation Well)" and "nitrogen gas lifting well" (refer to Chapter 4; Chapter 4 of Edition 2004);
- Amend the contents of "Data collection of formation pressure or wellhead pressure and data collection of temperature monitoring" to "Date collection of pressure and temperature", and add the contents of the downhole throttle craft well, high-inclination or horizontal well and reinjection well of gas field water (refer to Chapter 5);
- Amend the "Data collection of natural gas, condensate oil and water output" to "Data collection of "Data collection of natural gas, condensate oil and water output", and delete the items and contents of "Measurement of gas, oil, water well" (refer to Chapter 6; 4.2.4 of Edition 2004);
- Amend "Data collection of routine analysis of gas, condensate oil and water and data collection of analysis of high-pressure physical properties of natural gas and condensate oil" to "Data collection of analysis of natural gas, condensate oil and water", and amend and add part of contents (refer to Chapter 8);

- Amend "Data collection of gas well testing" to "Data collection of gas well testing", and add part of contents (refer to Chapter 9);
- Delete the items and contents of "Data collection of measures of gas well repair and production increase" (refer to 4.9 of Edition 2004);
- Add the "Data collection of monitoring the gas water surface and boundary" (refer to Chapter 10);
- Amend the "Data collection compilation of gas well" to "Data collection compilation of development well" (refer to Chapter 11);
- Amend the contents of well gas production curve (refer to Figure A.1), and add the well gas injection curve (refer to Figure A.2);
- Amend the contents of daily report and monthly report of single well of gas production, and add the monthly report of reinjection well of gas field water (refer to Table A.1, Table A.2 and Table A.3).

This standard is proposed and under the jurisdiction of Professional Standardization Committee of Oil and Gas Field Development (SAC/TC 07).

This standard is drafted by: Exploration and Development Research Institute of Southwest Oil and Gas Filed Branch of China Petroleum.

Main drafters of this standard: Xia Chongshuang, Wen Qing, Liu Kun.

This standard replaces SY/T 6176-2004.

The release conditions of previous versions of SY/T 6176-2004 are:

- SY/T 6176-1995.

# Technical Specification of Data Collection of Development Well of Gas Reservoir

#### 1 Scope

This standard regulates the contents and technical requirements of data collection of development well of gas reservoir.

#### 2 Normative references

The articles contained in the following documents have become this document when they are quoted herein. For the dated documents so quoted, all the modifications (Including all corrections) or revisions made thereafter shall be applicable to this document.

GB/T 13610 Analysis of natural gas by gas chromatography

GB/T 21446 Measurement of natural gas flow by means of standard orifice meter

SY/T 5154 Sampling procedures for hydrocarbon reservoir fluids

SY/T 5440 Technical specifications for natural gas well testing

SY/T 5523 Analysis for Oil field Water

SY/T 5542 Test method for reservoir fluid physical properties

#### 3 Purpose and contents

#### 3.1 Purpose

The data collection of development well of gas reservoir is the basic requirements of dynamic monitoring of development of gas field, is the basic data and basis of dynamic tracking of gas reservoir and comprehensive research of gas reservoir, and is the basic work for improving the production and management level of development of gas field.

#### 3.2 Contents

The contents of data collection of development of gas reservoir include the working system, pressure and temperature data, output of flowing materials of well, profile data of production liquid, fluid material and components information, well testing information, gas and water surface and boundary monitoring information of development well.

#### 4 Data collection of working system

#### 4.1 Flowing well and intermittent flowing well



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