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

GB/T 46548-2025

**Technical specification for the geological environment
investigation of coal mining subsidence areas**

采煤沉陷区地质环境调查技术规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China National Coal Association. This document is under the jurisdiction of the National Coal Standardization Technical Committee (SAC/TC42). This document was drafted by: Chongqing Institute of Geology and Mineral Resources, China University of Mining and Technology, Chongqing Huadi Resources and Environment Technology Co., Ltd., and China University of Mining and Technology. (Beijing), Shandong Lunan Geological Engineering Survey Institute (Second Geological Team of Shandong Provincial Bureau of Geology and Mineral Resources Exploration and Development), Ping'an Coal Mining Engineering Technology Technology Research Institute Co., Ltd., China Geological Environment Monitoring Institute, Chongqing University, Chongqing Branch of China Huaneng Group Co., Ltd., Inner Mongolia The Tenth Geological and Mineral Exploration and Development Co., Ltd. The main drafters of this document are. Ma Lei, Hu Zhenqi, Li Manyi, Si Hongtao, Yao Guanghua, Zhao Yanling, Chen Hongnian, Chen Chen, Feng Fan, and Zhu Dongxue. Mao Zhen, Bai Bo, Lu Xiaohai, Wang Zhiyi, Yang Zhiyu, Bo Huaizhi, Chen Yongchun, Ge Zhaolong, Li Jing, Xie Hao, Wang Yi, Li Huimin, Dong Zhoubin, Wang Qinggang Li Hao, Liu Chuanbao, Wang Wei, Zhou Tiancheng, Zheng Jiebing, Xu Zhaolei, Zhang Hualian, Liu Li, Ma Jianzhong, Ren Jie, Yan Youlong, Li Chunli. Technical Specifications for Geological Environment Investigation in Coal Mining Subsidence Areas

1 Scope

GB/T 46548-2025 is the Chinese national standard covering surveying the ground above

worked-out coal - the subsidence and its rate, the cracks and the collapsed sinkholes, the groundwater that has been drained or has risen, and the buildings, roads and farmland sitting on top of it. Millions of people in Shanxi and Inner Mongolia live above old workings. First edition, under the China National Coal Association. It was issued on 2 December 2025 and has been in force since 1 April 2026, as a first edition. The document is under the responsibility of the China National Coal Association. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the general requirements, content and methods, impact analysis, and results of geological environment investigations in coal mining subsidence areas. This document applies to the investigation of the geological environment in coal mining subsidence areas. The investigation of the geological environment in other mining subsidence areas shall be carried out with reference to this document.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 12328 Legend and Color Codes for Integrated Engineering Geological Maps

GB/T 30363-2013 Technical Specification for Monitoring Forest Vegetation Status

GB/T 37574-2019 Methods for Investigation and Evaluation of Water Resources and Environment in Coal Mining Subsidence Areas

GB/T 39791.2-2020 Technical Guidelines for Ecological and Environmental Damage Assessment. General Principles and Key Aspects, Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 goaf in goaf The entire process of displacement, cracking, fracturing, and collapse that occurs when underground coal resources are mined in a certain way, resulting in the instability of the surrounding rock. Underground space. [Source: GB/T 43215-2023, 3.1]