



Mechanism and mitigation of earth fissure in China

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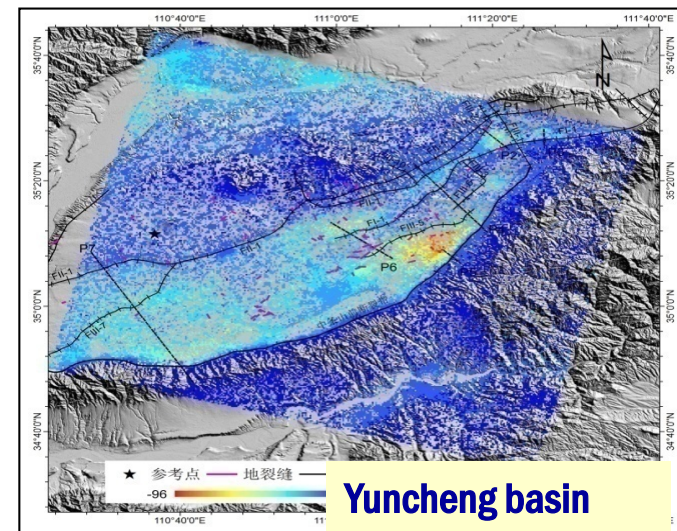
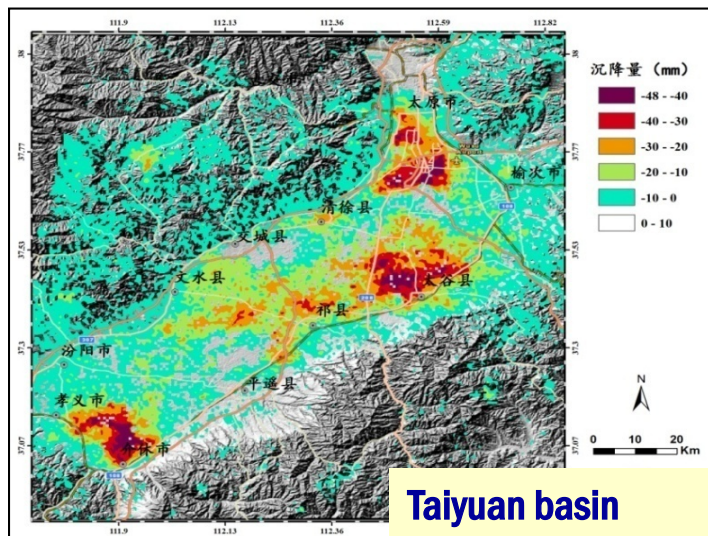
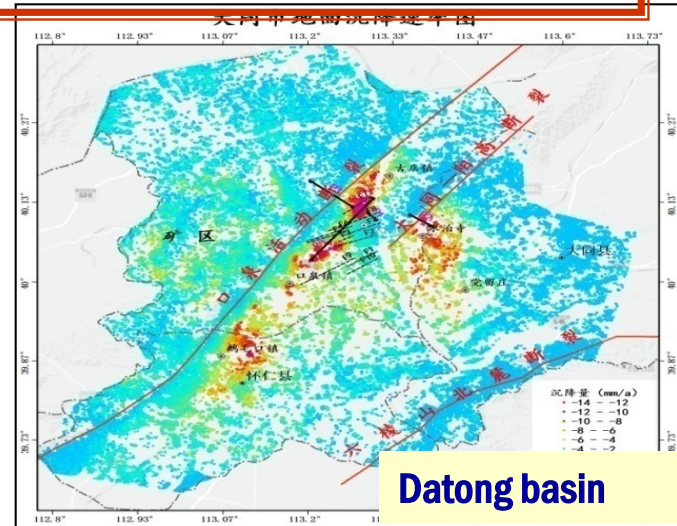
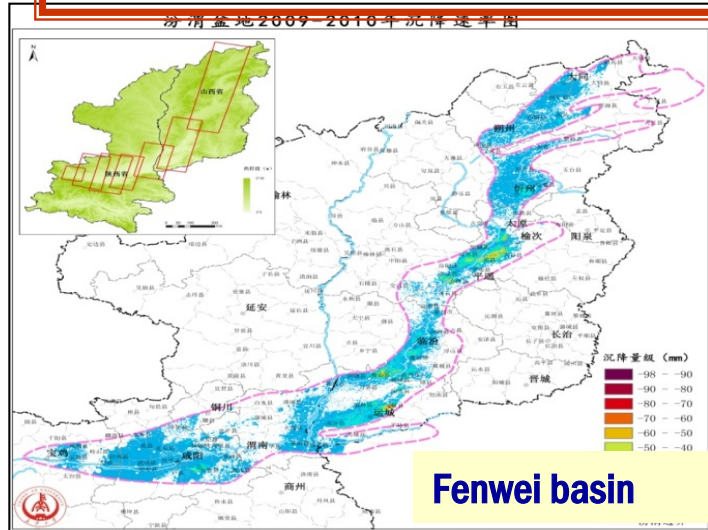
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3: The activity and movement of earth fissure is monitoring by InSAR and GPS.

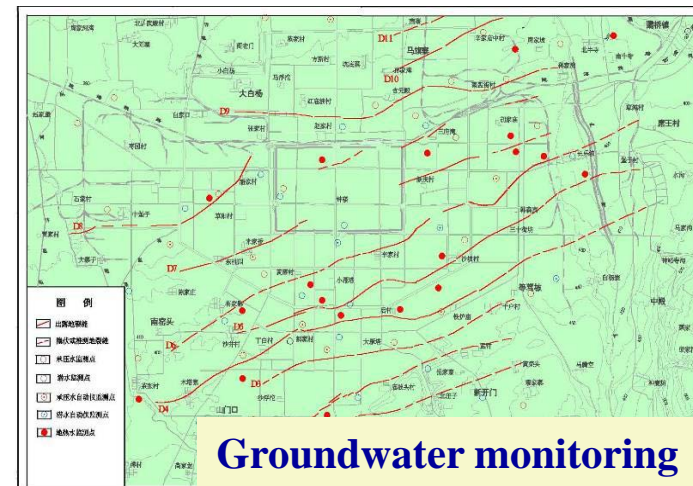
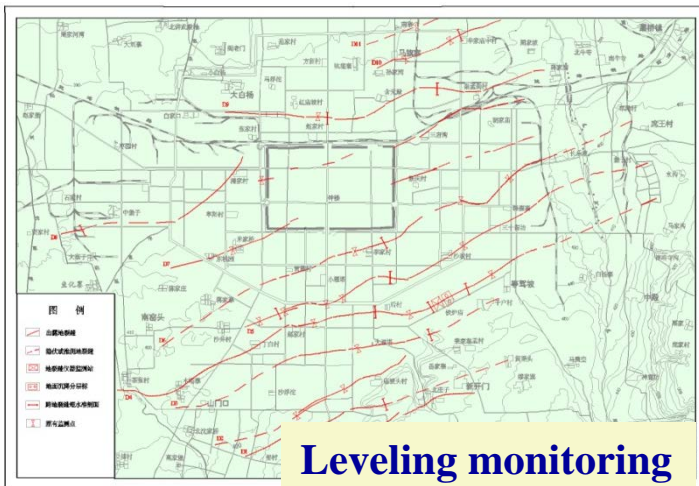
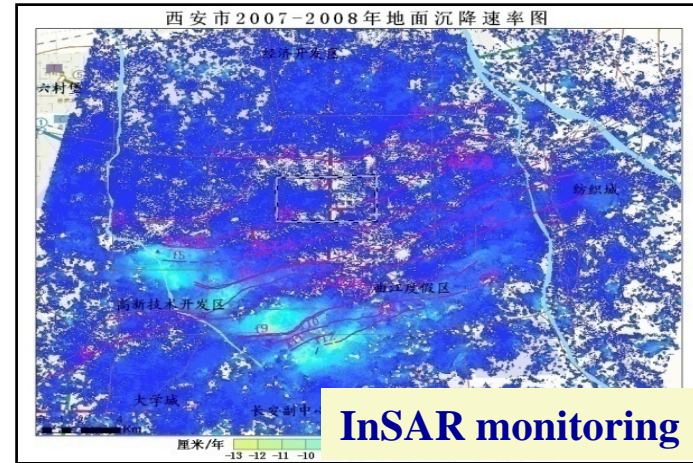
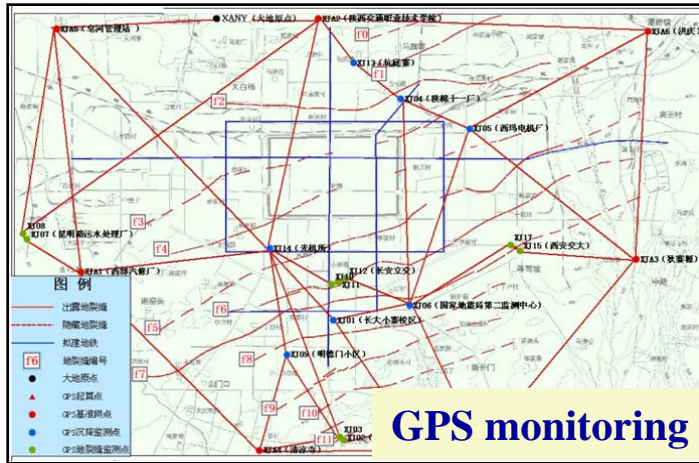
Main achievement

The land subsidence in Fenwei Basin is monitoring by GPS and InSAR.



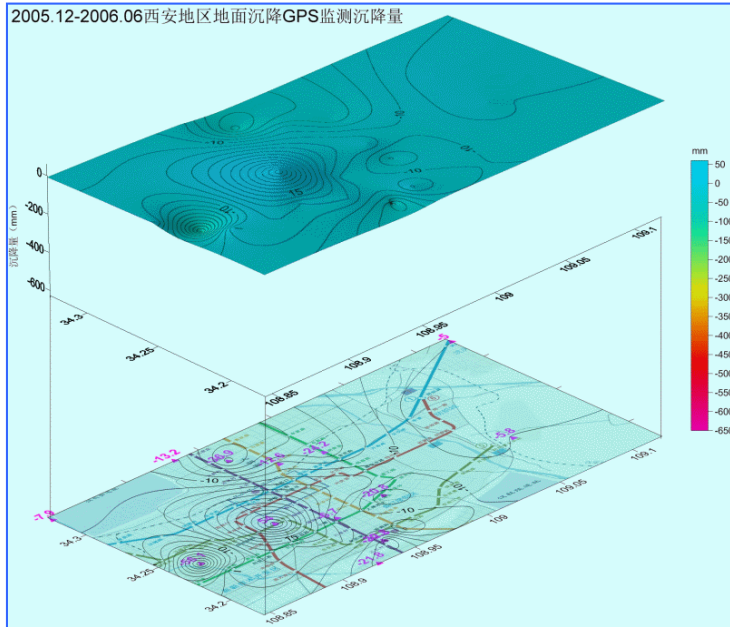
Main achievement

Xi'an earth fissure is monitoring by GPS and InSAR.



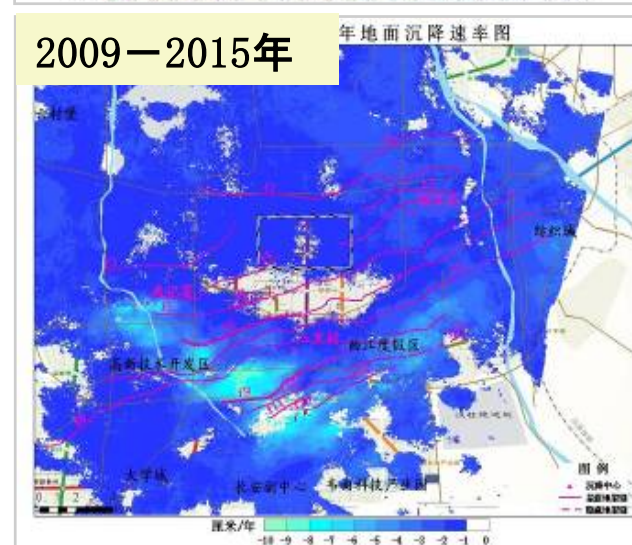
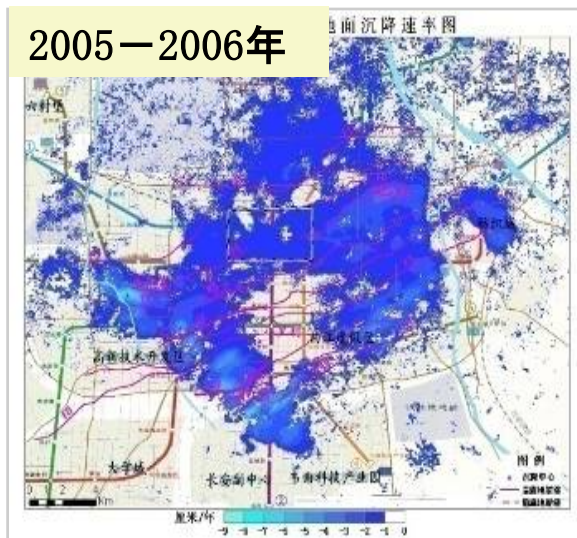
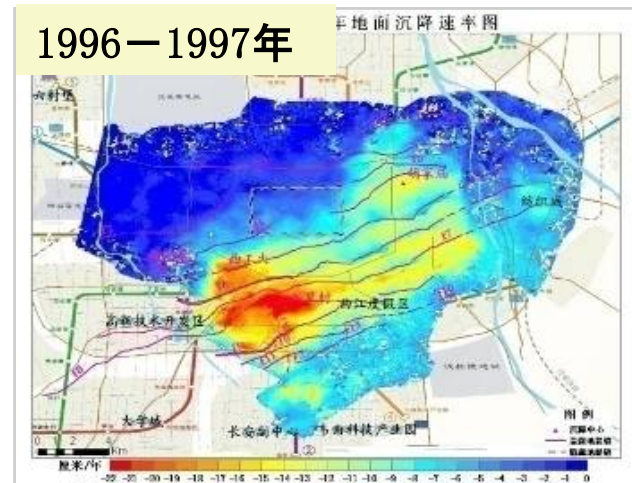
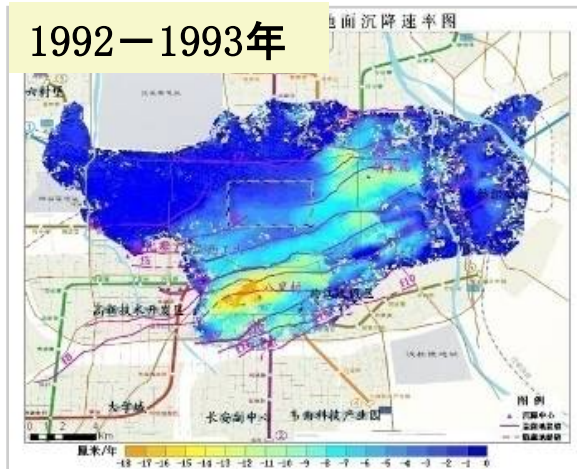
Main achievement

Research and develop high-accuracy GPS monitoring, and the precision increased 2-3mm.

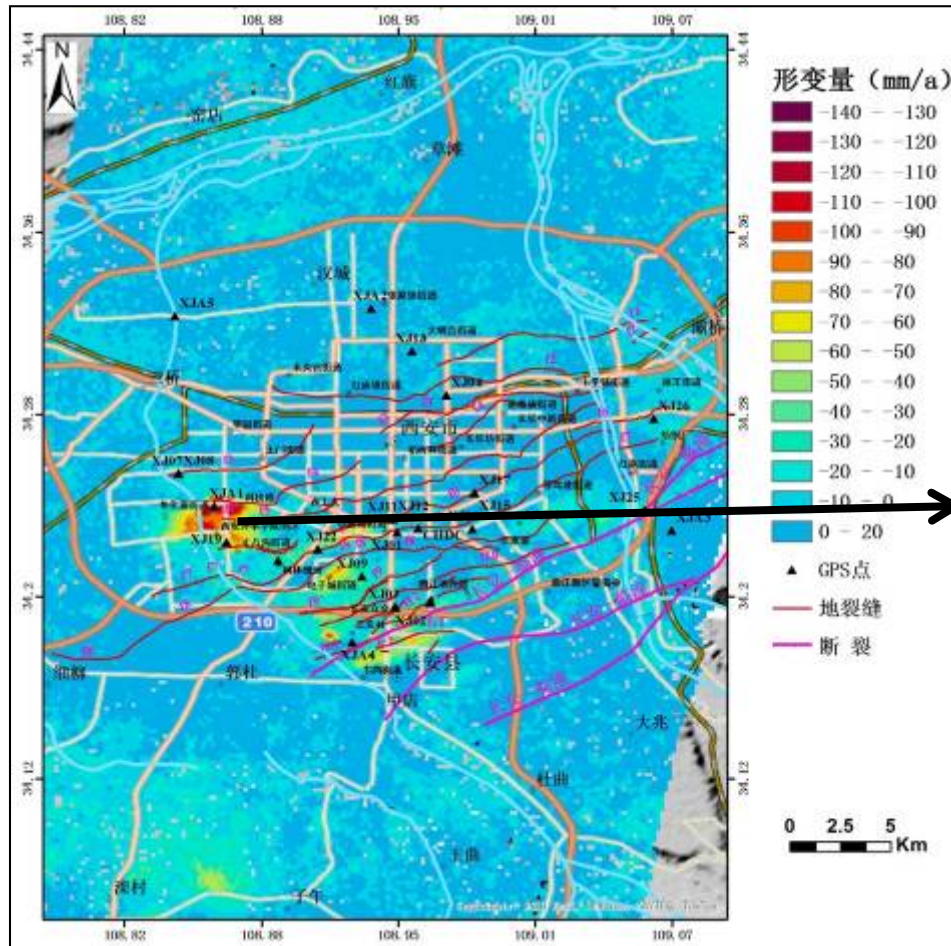


Main achievement

Data of land subsidence and earth fissure in Xi'an from 1992 to 2015 are acquired by InSAR.

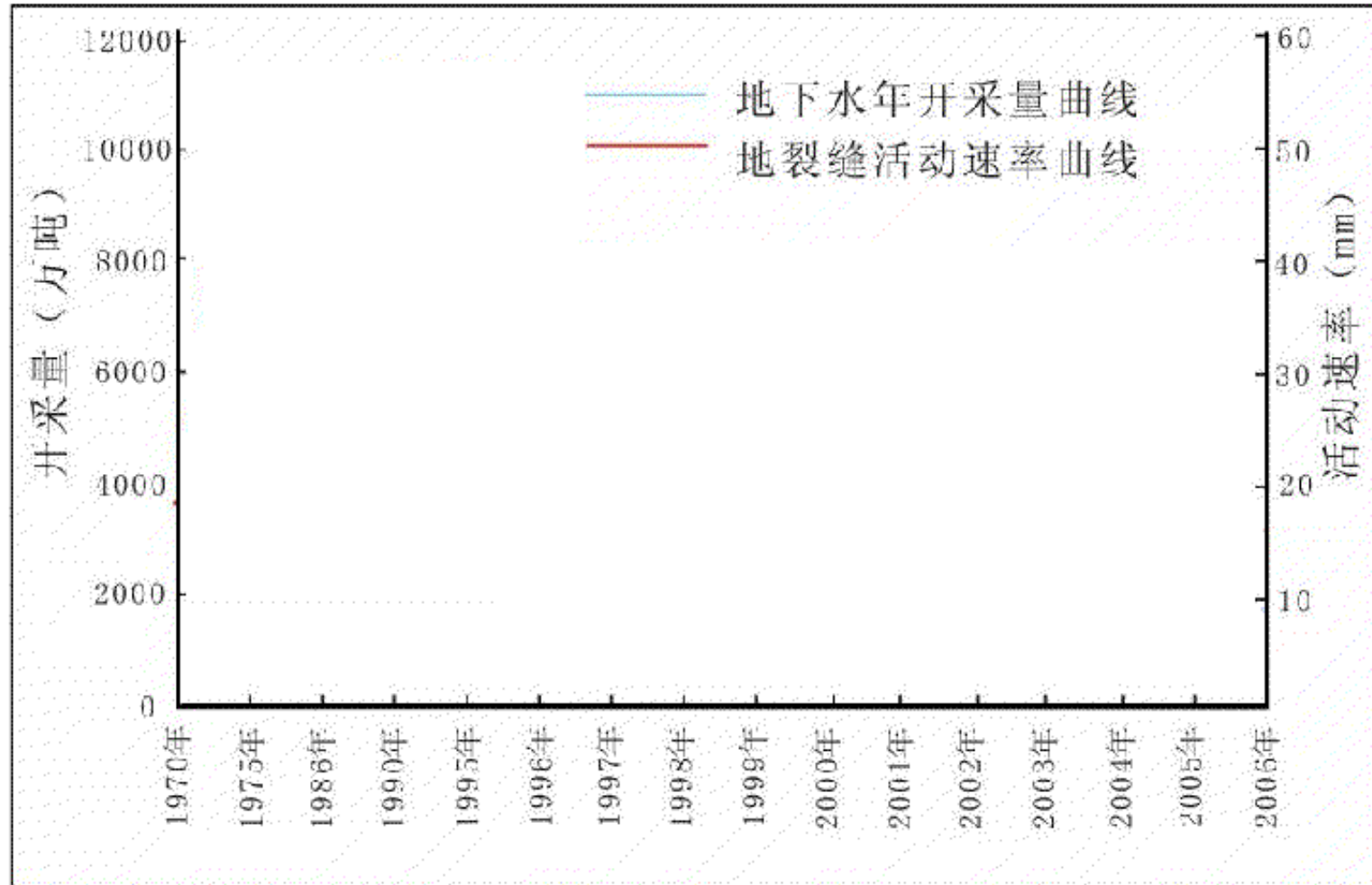


Main achievement



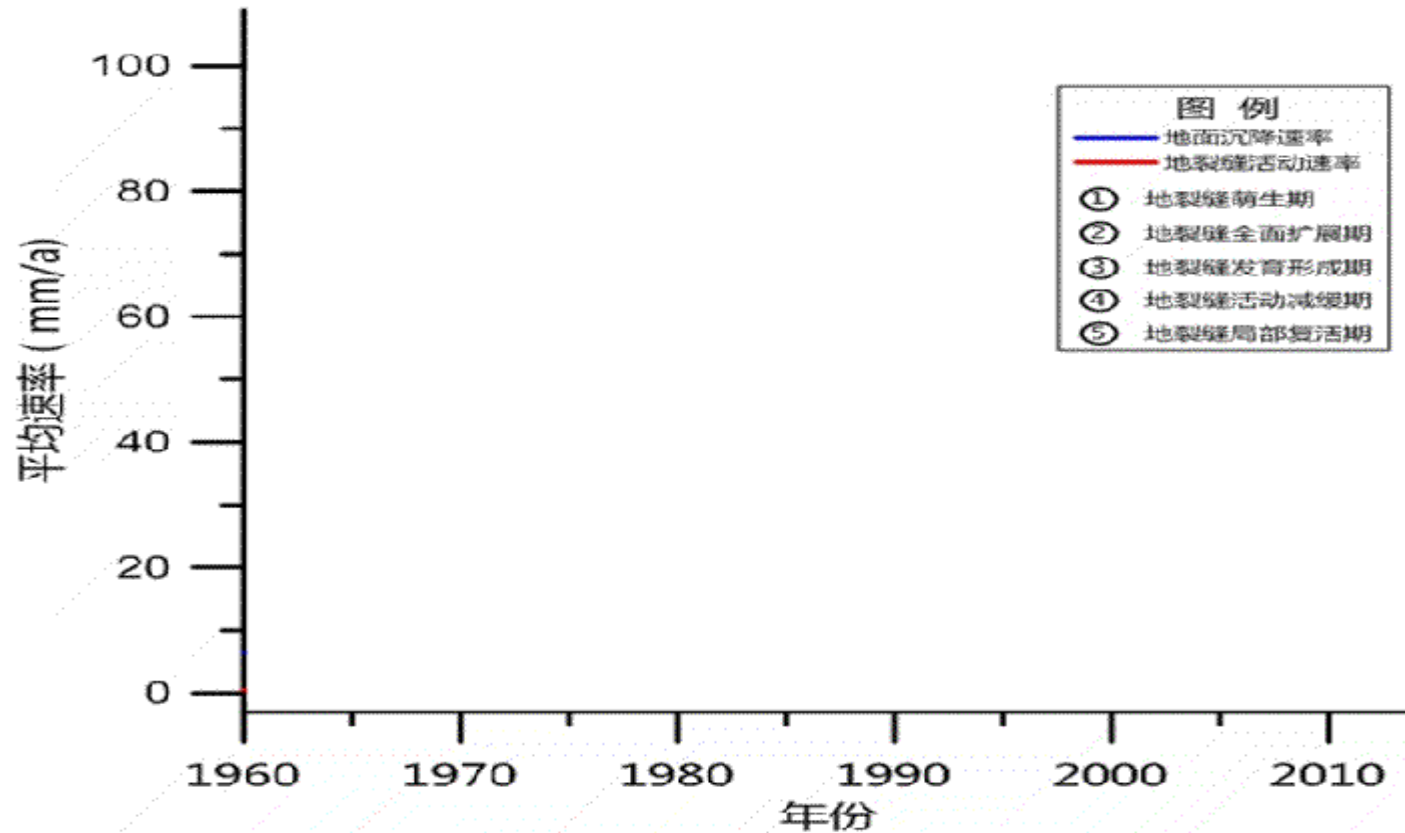
Main achievement

The activity rate of Xi'an earth fissure is controlled by pumping groundwater.



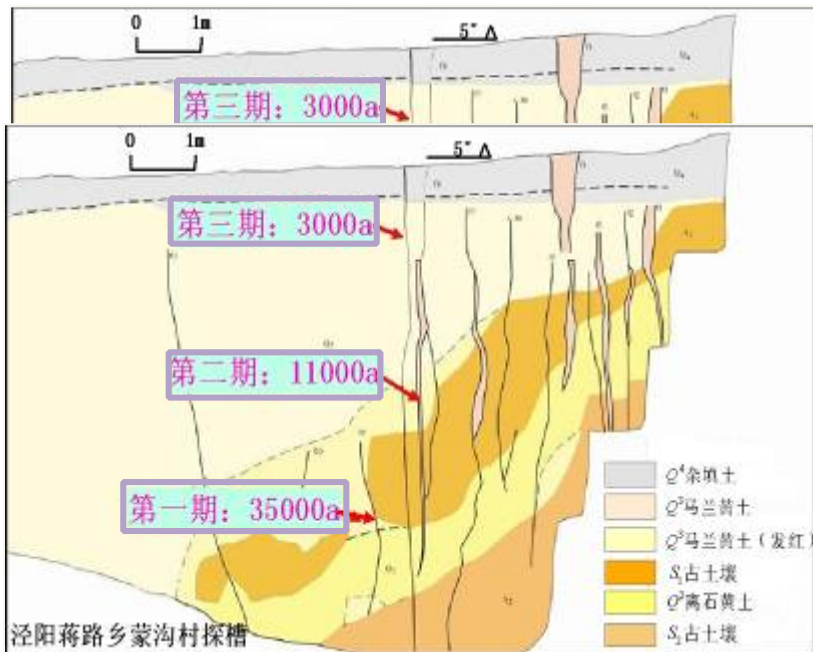
Main achievement

Xi'an earth fissure has occurred 4 high activity periods in recent 50 years.

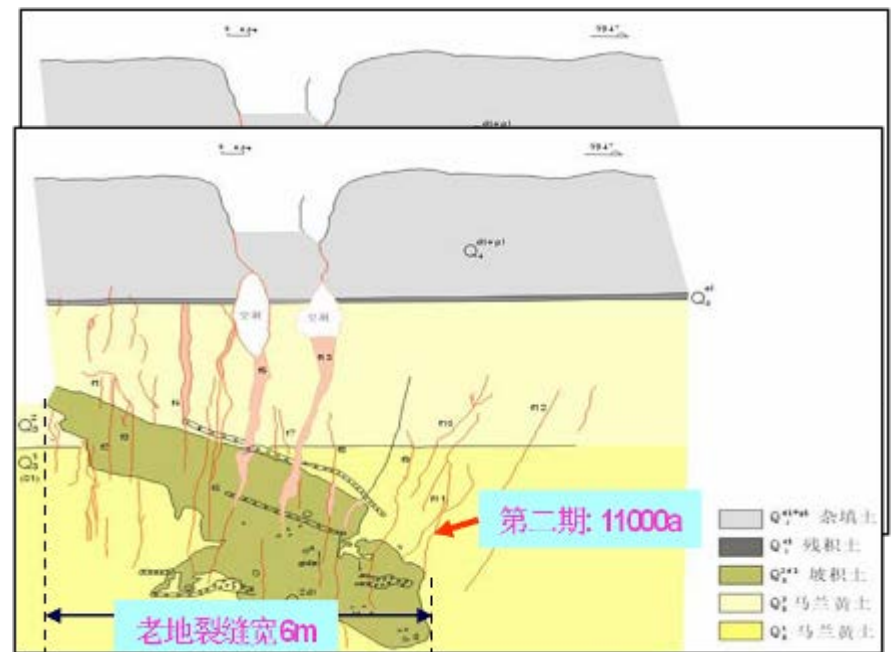


Main achievement

Earth fissure in Wei River Basin has the characteristics of periodicity and sustainability.



Trenching profile of earth fissure
in Wei River Basin



Trenching profile of earth fissure
in Wei River Basin

Main achievement

Shear displacement > tensile displacement > rotational displacement

