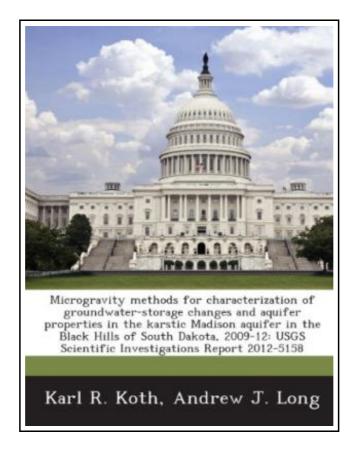
Microgravity Methods for Characterization of Groundwater-Storage Changes and Aquifer Properties in the Karstic Madison Aquifer in the Black Hills of South Dakota, 2009-12: Usgs Scientific Investigations Report 2012-5158



Filesize: 4 MB

Reviews

This type of publication is every thing and helped me seeking ahead and much more. It usually fails to charge too much. It is extremely difficult to leave it before concluding, once you begin to read the book.

(Juliet Mertz)

MICROGRAVITY METHODS FOR CHARACTERIZATION OF GROUNDWATER-STORAGE CHANGES AND AQUIFER PROPERTIES IN THE KARSTIC MADISON AQUIFER IN THE BLACK HILLS OF SOUTH DAKOTA, 2009-12: USGS SCIENTIFIC INVESTIGATIONS REPORT 2012-5158



BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 36 pages. Dimensions: 9.7in. x 7.4in. x 0.1in.A study of groundwater storage in the karstic Madison aquifer in the Black Hills of South Dakota using microgravity methods was conducted by the U. S. Geological Survey in cooperation with West Dakota Water Development District, South Dakota Department of Environment and Natural Resources, and Lawrence County. Microgravity measurements from 2009 to 2012 were used to investigate groundwater-storage changes and effective porosity in unconfined areas of the Madison aquifer. Time-lapse microgravity surveys that use portable high-sensitivity absolute and relative gravimeters indicated temporal-gravity changes as a result of changing groundwater mass. These extremely precise measurements of gravity required characterization and removal of internal instrumental and external environmental effects on gravity from the raw data. The corrected data allowed groundwater-storage volume to be quantified with an accuracy of about plus or minus 0. 5 foot of water per unit area of aquifer. Quantification of groundwater-storage change, coupled with water-level data from observation wells located near the focus areas, also was used to calculate the effective porosity at specific altitudes directly beneath gravity stations. Gravity stations were established on bedrock outcrops in three separate focus areas for this study. The first area, the Spring Canyon focus area, is located to the south of Rapid City with one gravity station on the rim of Spring Canyon near the area where Spring Creek sinks into the Madison aquifer. The second area, the Doty focus area, is located on outcrops of the Madison Limestone and Minnelusa Formation to the northwest of Rapid City, and consists of nine gravity stations. The third area, the Limestone Plateau focus area, consists of a single gravity station in the northwestern Black Hills located on an outcrop of the Madison Limestone. An...

- Read Microgravity Methods for Characterization of Groundwater-Storage Changes and Aquifer Properties in the Karstic Madison Aquifer in the Black Hills of South Dakota, 2009-12: Usgs Scientific Investigations Report 2012-5158 Online
- Download PDF Microgravity Methods for Characterization of Groundwater-Storage Changes and Aquifer Properties in the Karstic Madison Aquifer in the Black Hills of South Dakota, 2009-12: Usgs Scientific Investigations Report 2012-5158

Relevant Books



TJ new concept of the Preschool Quality Education Engineering: new happy learning young children (3-5 years old) daily learning book Intermediate (2) (Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the...

Save Document »



Summer the 25th anniversary of the equation (Keigo Higashino shocking new work! Lies and true Impenetrable(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Paperback. Pub Date: Unknown in Publisher: Modern Publishing Basic information Original Price: 28.00 yuan...

Save Document »



Trouble Free Travel with Children Over 700 Helpful Hints for Parents of the Go by Vicki Lansky 2003 Paperback

Book Condition: Brand New. Book Condition: Brand New.

Save Document »



The Adventures of Sheriff Williker: /Book 1: The Case of the Missing Horseshoe Createspace, United States, 2014. Paperback. Book Condition: New. Kim Hansen (illustrator). large type edition. 216 x 216 mm. Language: English . Brand New Book ***** Print on Demand ******. A missing horseshoe for a prize winning...

Save Document »



The Picture of Dorian Gray: A Moral Entertainment (New edition)

Oberon Books Ltd. Paperback. Book Condition: new. BRAND NEW, The Picture of Dorian Gray: A Moral Entertainment (New edition), Oscar Wilde, John Osborne, The Picture of Dorian Gray is a stage adaptation of Oscar Wilde's...

Save Document »



Kingfisher Readers: Romans (Level 3: Reading Alone with Some Help) (Unabridged)

Pan Macmillan. Paperback. Book Condition: new. BRAND NEW, Kingfisher Readers: Romans (Level 3: Reading Alone with Some Help) (Unabridged), Philip Steele, For the first time, Kingfisher brings its expertise in beautifully-designed, trusted non-fiction to the

Save Book »



Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 3: The Backpack (Hardback)

Oxford University Press, United Kingdom, 2011. Hardback. Book Condition: New. 174 \times 142 mm. Language: English . Brand New Book. Read With Biff, Chip and Kipper is the UK s best-selling home reading series. It

Save Book »



Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 3: Such a Fuss (Hardback)

Oxford University Press, United Kingdom, 2011. Hardback. Book Condition: New. 172 \times 142 mm. Language: English . Brand New Book. Read With Biff, Chip and Kipper is the UK s best-selling home reading series. It

Save Book »



Read Write Inc. Phonics: Set 7 Non-Fiction 3 the Ice and Snow Book

Oxford University Press, United Kingdom, 2016. Paperback. Book Condition: New. 207 x 86 mm. Language: N/A. Brand New Book. These decodable non-fiction books provide structured practice for children learning to read. Each set of books

Save Book »



Rumpy Dumb Bunny: An Early Reader Children's Book

Createspace, United States, 2014. Paperback. Book Condition: New. 203 x 133 mm. Language: English . Brand New Book ***** Print on Demand *****. Rumpy is a dumb bunny. He eats poison ivy for breakfast and annoys

Save Book »