

## Accepted Manuscript

### DETECTING SUBSURFACE FLUID LEAKS IN REAL-TIME USING INJECTION AND PRODUCTION RATES

Harpreet Singh , Nicolas J. Huerta

PII: S0309-1708(17)30770-4  
DOI: [10.1016/j.advwatres.2017.10.012](https://doi.org/10.1016/j.advwatres.2017.10.012)  
Reference: ADWR 2975



To appear in: *Advances in Water Resources*

Received date: 1 August 2017  
Revised date: 7 October 2017  
Accepted date: 11 October 2017

Please cite this article as: Harpreet Singh , Nicolas J. Huerta , DETECTING SUBSURFACE FLUID LEAKS IN REAL-TIME USING INJECTION AND PRODUCTION RATES, *Advances in Water Resources* (2017), doi: [10.1016/j.advwatres.2017.10.012](https://doi.org/10.1016/j.advwatres.2017.10.012)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**Highlights**

- A method is proposed to detect leakage of fluids in real-time using well injection and production rates.
- The method can be applied to detect when a leak begins by tracking a departure in fluid production rate from the expected pattern.
- The method has been tuned to detect both incompressible and compressible fluid leaks.
- Unlike other methods, this method does not require geologic and reservoir flow models to simulate the behavior that often carry significant sources of uncertainty.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/5763657>

Download Persian Version:

<https://daneshyari.com/article/5763657>

[Daneshyari.com](https://daneshyari.com)