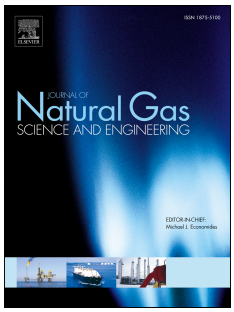
Accepted Manuscript



Gas hydrate blockage removal using chemical injection in vertical pipes

Morteza Aminnaji, Bahman Tohidi, Rod Burgass, Mert Atilhan

PII: S1875-5100(17)30048-3

DOI: 10.1016/j.jngse.2017.02.003

Reference: JNGSE 2056

To appear in: *Journal of Natural Gas Science and Engineering*

Received Date: 7 October 2016

Revised Date: 30 January 2017

Accepted Date: 1 February 2017

Please cite this article as: Aminnaji, M., Tohidi, B., Burgass, R., Atilhan, M., Gas hydrate blockage removal using chemical injection in vertical pipes, *Journal of Natural Gas Science & Engineering* (2017), doi: 10.1016/j.jngse.2017.02.003.

GAS HYDRATE BLOCKAGE REMOVAL USING CHEMICAL INJECTION IN VERTICAL PIPES

Morteza Aminnaji [a], *Bahman Tohidi* [a,*], *Rod Burgass* [a], *Mert Atilhan* [b]

[a] Centre for Gas Hydrate Research, Institute of Petroleum Engineering Heriot-Watt University, Edinburgh, EH14 4AS UNITED KINGDOM

[b] Chemical Engineering Department, Qatar University, Doha, Qatar

ABSTRACT

Gas hydrates can cause restriction and blockages in pipelines. Therefore, if hydrates are identified as a potential challenge, a prevention strategy for hydrate formation and options for remediation of hydrate blockage are considered. The most commonly used means of blockage removal involves one or two sided depressurization with or without other options such as heating and injecting thermodynamic inhibitors. In this work, we report use of thermodynamic inhibitors

[*] Corresponding author.
Email Address. B.Tohidi@hw.ac.uk

Abbreviations

DEG, diethylene glycol; MEG, mono ethylene glycol; SC, standard condition; TEG, triethylene glycol; THIs, thermodynamic hydrate inhibitors; WCH%, water converted to hydrates-mass%.