

Accepted Manuscript

Possibility of decreasing CO₂ emissions from flaring on a mature oil field

Daria Karasalihović Sedlar, Domagoj Vulin, Lucija Jukić, Ivan Smajla



PII: S0920-4105(18)30692-2

DOI: [10.1016/j.petrol.2018.08.026](https://doi.org/10.1016/j.petrol.2018.08.026)

Reference: PETROL 5206

To appear in: *Journal of Petroleum Science and Engineering*

Received Date: 2 May 2018

Revised Date: 9 July 2018

Accepted Date: 9 August 2018

Please cite this article as: Karasalihović Sedlar, D., Vulin, D., Jukić, L., Smajla, I., Possibility of decreasing CO₂ emissions from flaring on a mature oil field, *Journal of Petroleum Science and Engineering* (2018), doi: 10.1016/j.petrol.2018.08.026.

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.

Possibility of decreasing CO₂ emissions from flaring on a mature oil fieldDaria Karasalihović Sedlar^a, Domagoj Vulin^b, Lucija Jukić^{c,*}, Ivan Smajla^d

^aFaculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, Zagreb, Croatia, tel.:
003851 55 35 829, daria.karasalihovic-sedlar@rgn.hr

^bFaculty of Mining, Geology and Petroleum Engineering Pierottijeva 6, Zagreb, Croatia, tel.:
003851 55 35 846, domagoj.vulin@rgn.hr

^{c,*}Correspondence: Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6,
Croatia, Zagreb, tel.: 003851 55 35 838, lucija.jukic@rgn.hr

^dFaculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, Zagreb, Croatia, tel.:
003851 55 35 857, ivan.smajla@rgn.hr

Abstract

Analysis of change in composition of flaring gas during the exploitation period of an oil reservoir has been performed to estimate possibilities for feasible reduction of CO₂ emissions during hydrocarbon production. There are many projects regarding improvements of energy and flare efficiencies or possibilities for CO₂ separation and storage, but none of them calculates emissions for different p-T conditions. Numerous oil fields do not have possibilities for transport of gas separated during oil production to final consumers due to technological or economic limitations. This paper deals with possibility of introducing small technological improvement like implementation of gas separator, which might lead to CO₂ reduction at flare. First, it was necessary to calculate accurate oil production decline through lifetime of a reservoir, then pressure decline for a mature oil field was correlated. The payout period for such improvement, along with other economical parameters, has been calculated in economic

Download English Version:

<https://daneshyari.com/en/article/11007505>

Download Persian Version:

<https://daneshyari.com/article/11007505>

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