



Gravity data analysis using the Normalized Full Gradient for reservoir detection. A case study from the Algerian Sahara

Fethi Bendiab (1), Foudil Babaia (1), and Sid-Ali Ouadfeul (2)

(1) LABOPHYT, Faculté des Hydrocarbures et de la Chimie, Université M'hamad Bougara de Boumerdes, Avenue de l'indépendance, Boumerdes, Algeria , (2) Algerian Petroleum Institute, IAP, Algeria.

Here, we present an application of the so-called Normalized Full Gradient (NFG) technique for hydrocarbon reservoir detection from gravity data recorded in the Algerian Sahara. The NFG operator was successfully applied and the sought for pattern is the presence of two maxima of the amplitude of the total normalized gradient, with a single minimum between them. Obtained results show very high effectiveness. In addition, gravity profiles through dry holes were treated and the results were again satisfactory.

Keywords: NFG, Gravity, Reservoir, Detection