

Title (en)

GAMMA RAY WELL LOGGING FOR RADIAL TRACER DISTANCES

Publication

EP 0387055 A3 19920610 (EN)

Application

EP 90302472 A 19900308

Priority

US 32130789 A 19890310

Abstract (en)

[origin: EP0387055A2] Gamma ray well logging to obtain relative distance indications of tracers from the well bore comprises separating a measured gamma ray spectrum into component parts attributable to individual tracers, using standard spectra, and then obtaining the relative distance indicators from those parts of the spectrum. For cased borehole, using standard spectra as a guide, the proportions of the borehole component and the formation component can be determined and a composite spectrum obtained for each individual tracer by adding the borehole and formation components together. A Compton ratio Rc of gamma ray counts in an energy region of the spectrum which is sensitive to Compton scattering to gamma ray counts in an energy region of the spectrum which is not sensitive to Compton scattering is then obtained. By a linear transformation which parameterizes the Compton ratio Rc with the inverse square of the annulus diameter of a distributed region of tracer surrounding the well bore, a relative distance indication of the distribution of each tracer with respect to the well bore is obtainable for each tracer.

IPC 1-7

G01V 5/06; E21B 47/10

IPC 8 full level

E21B 47/10 (2012.01)

CPC (source: EP US)

E21B 47/11 (2020.05 - EP); **E21B 47/111** (2020.05 - EP US)

Citation (search report)

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- [A] GB 2024409 A 19800109 - TEXACO DEVELOPMENT CORP
- [AD] TEH LOG ANALYST 1 May 1988, pages 159 - 177; GADEKEN: 'CALIBRATION AND ANALYSIS OF BOREHOLE AND FORMATION SENSITIVITIES FOR GAMMA RAY SPECTROSCOPY MEASUREMENTS WITH MULTIPLE RADIOACTIVE TRACERS'

Cited by

CN112649888A; US7482578B2; US8044342B2; WO2012068057A3; WO2007109860A1

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