STUDY OF ORGANIC GEOCHEMISTRY A NEUTRAL FRACTION OF CRUDE OIL FROM KERTAGENAH, PAMEKASAN, MADURA

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ABSTRACT

The activity of petroleum exploration is never stopped to done as effort to fulfill the needs of oil fuel which progressively mounted up. One of crude oil field which claimes more serious study to exploited later is the petroleum field in Kartagenah, Pamekasan, Madura. Data which is gained can be used as a contribution to do crude oil exploration and exploitation. Organic geochemistry data obtained from identifying biological compound (biomarker). Crude oil beforhand struck from its aspalten by using n-heksana. The free aspalten crude oil by fractionation based on its polarity using the column chromatography by eluen diethyl ether to dissociate the neutral fraction from total organic extract. Neutral fraction later, then refractination by thin layer chromatography (TLC) till obtained aliphatic hydrocarbon fraction. Aliphatic hydrocarbon fraction which obtained analyzed with the gas chromatography mass spectrometer (GC-MS). The result of identifying the compound sampel of indication oil that organic substance source sedimenter sampel of crude oil of Kertagenah predominated by microorganism go out to sea the (alga and cyanobacteria) that proved from result of study of compound biomarker n-alkane, pristan and phitan, alkyl sikloheksane, bisiklik seskuiterpen, hopan, biomarker alcoholyc and ketone. Apart from alga and cyanobacteria, the sampel also come from the high order plant proved from the result of the compound study of biomarker of cadalene generation, diaroarboran and biomarker ketone. From the analysis result also obtained information that oil have a termal maturity.

Kata Kunci : biomarker, crude oil, fraction, chromatography.