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NEW STRUCTURAL STYLES AND INDEPENDENT PETROLEUM SYSTEMS IN OUTER ALBANIDES

L. MEHILLKA, P. DORRE and A.GJIKA

Instituti Naftes E Gazit Fier, Albania

A lot of geological and geophysical data are collected last years in Outer Albanides. Based on these data is interpreted structural style, are prognosed new hydrocarbon traps, compiled TECTONIC and Geological MAPS of Outer ALBANIDES, Fig.1.

All above interpretations have clarified geological and tectonic setting, too.

The interpretations are realised according to the contemporaneous tectonic concepts.

So, the displacement and shorting scale, mechanism of folds and faults forming, a new option on petroleum systems and hydrocarbon exploration in Inner Albanides are given.

The purpose of this paper is that on the recent geological and geophysical data to represent a new possibility for hydrocarbon exprolation in Outer and Inner Albanides, the relationships between Ionian and Kruja Orogen, Sazani-Apulia zone and Soutern Adriatic basin, new ideas on tectonic phases and structural stages and, new boundary of Outer Albanian orogene front in soutern part of Albanian Offshore.

The solution of above is realist by means of using the following methods:

- 1. Tectonic surveys.
- 2. The interpretation of regional migration time sections.
- 3. The gravimetrical method.
- 4. Log Analyses

On the structural styles in Outer ALBANIDES

In Outer ALBANIDES exist two main tectonic styles:

*Duplex tectonic style

*Imbricated tectonic style

But, in this paper is suggested a new tectonic model on overthrusting.

In some regions expect overthrusting, the gravitational and phenomena are evidenced.

New ideas on the tectonic phases and structural stages in Outer ALBANIDES are given. The Messinian and Eocene deposits in Outer ALBANIDES represent the structural stages, while the other unconformable surfaces represent the tectonic phases.

A new observation on petroleum systems in Outer ALBANIDES

The oil fields in ALBANIA are discovered (in central part) of Ionian zone where is included the Kurveleshi belt. The tectonic interpretations were based on the geosynclinal theory.

But the regional tectonics studies, performed the last years, show that structural setting petroleum systems of thrust belts Outer Albanides are very complicated.

From the tectonics point of view is concluded that in Ionian zone from Lower to Middle Liassic-Upper Triassic age represent a neritic zone.

Also, a lot of outcrops are evidenced as "hiatus" sections. Tectonically, these are unfolded up today (fig. 2,3).

So, we underline that during structuration processes, only upper part (from Upper Jurassic to Eocene) is folded. In this case as slide horizon have serve clay schists in Upper Jurassic-Cretaceous age.

A considerable numbers of drilling wells have penetrated only top of limestone and is extracted oil only from this section, while the oldest deposits are uncontrolled. This is a new way for exploration in Outer ALBANIDES and this petroleum system is unrelated with him to discover until now oil fields.

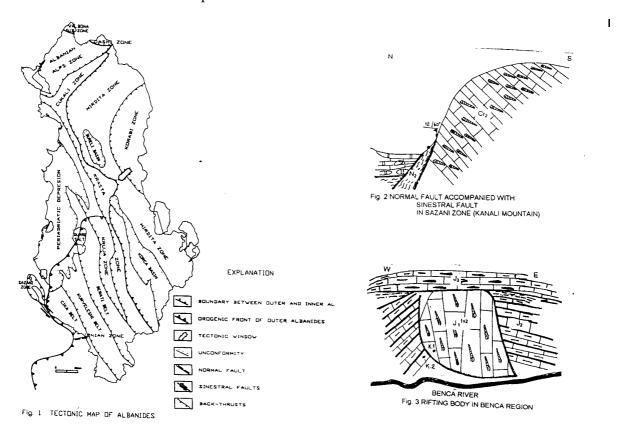
But, in this paper we underline that the hydrocarbon prospect remain in liner ALBANIDES, too. So, in Bulgiza massif and Bellovoda outcrops are observed gas shows.

We think that based on the inorganic theory of oil and world experience, Inner ALBANIDES remains a prospect region. As known, experimentally Mendeleyev (1902) showed the formation of H and C with equation:

$$2FeC + 3H_2O = Fe_2O_3 + 4C_2H_6$$

Based in this equation, C₂H₆ presents as heavy hydrocarbon groups.

These oil fields must be explored in acidic rocks.



Conclusions

- 1. From the palaeogeographical point of view ALBANIDES, from Upper -Triastic-Lower Liassics represent a neritic zone.
- 2. A new orogenic front is traced in western part of Cika belt and Corfue Iceland.
- 3. Two petroleum independent systems are evidenced in Outer ALBANIDES.
- 4. The Messinian and Eocene deposits represent the structural stages.
- 5. Rifts and reefs in depth are a new target for hydrocarbon exploration.
- 6. When evaporate are in surface, prognosed structures, are anticlinal types while they are absent, prognosed traps are, "individual slices" and faults are "horse tail" types.
- 7. Inside the same structural units has two geometrical forms, as Mali i Greje Patos=Verbasi structure.
- *Monocline in northern part and anticline in southern part.
- 8. Based on the oil inorganic theory must be explored new hydrocarbon traps in acidic rocks of Inner ALBANIDES.
- 9. In outer ALBANIDES expect over-thrusting the antiknock wise rotation and gravitational phenomena are evidenced.