Exploration and Production History in Albania

The surface occurrences of bitumen in the southern part of Albania have already been known from the ancient Romans and Greeks.

The existence of the bitumen in the Selenica region had been merely forgotten up to 1875 when the Turkish Government granted the right for exploitation of Selenica's bitumen to French Company, which commercially mined and exported to France as asphalt for road construction until the year 1918.

During the period of time from 1806 till 1913 some foreign geologists (Austrian and Italian) performed systematic field mapping, stratigraphic and tectonic studies especially for the southern and western part of Albania.

During 1905-1913, NOPCSA.F (Austrian geologist) compiled for the first time the geological map for the Northern Albania at scale 1:200000 and published a monograph study on the south Albania Geology and Geography. At this time NOVAK.E made the geological mapping at scale 1:75000 for the Mallakastra, Elbasani and for the region between Tirana and Durresi.

The oil seep observed at Drashovica near to Vlora city, led to the first drilling in 1918 which results positive for oil bearing from the sandstones of the Oligocene flysch. The well from a depth of approximately 100m for two years produced some 20-30bbld (approximately 3 ton/day).

This encouraging success had in the mean time attracted world wide attention and in 1925-1926 the Albanian Government awarded some concessions to Italian, French, British and American companies.

Intensive drilling over the next few years were focused mainly on the areas of the surface seepages and bitumen impregnations, which led to the discovery of Patosi oil filed (1926) and Kucova oil field(1926) within the Miocene sandstones which are onlaping the older carbonate rocks.

The development of Kucova oil filed started in 1935 and the normal production from Patosi oil filed commenced in 1939.

After the Second World War, oil production reached at 10000 ton/year growing rapidly approximately at 320 000 ton/year at 1950's.

In 1950 Russian technicians and equipments entered in the country and onshore seismic started for the fist time in 1951. In 1957 the Marinza oil filed was discovered which considerably increased the oil production.

During the early 1960's the seismic survey began to reveal a more realistic picture of the subsurface structures, which led to the first significant oil discoveries within deeper seated carbonate reservoirs such as: Visoka (1963), Gorisht (1966) Ballshi (1967). As result of the new discoveries were brought on stream and the maximum oil production at 1974 reached 2 250 000 ton/year.

A new play type was also revealed by the seismic in molasses resulting in the first gas discovery in Divjaka gas field (1963) within the Miocene sands, followed by the Frakulla gas field (1965)...

For political reasons the Russian assistance was discontinued in 1961 and was replaced by the Chinese aid in 1971, which lasted until 1978. By that time the Albanian oil production leveled at about 2 million ton/year (about 40000 bbl/d).

As a result of several geological surveys at different scale (1:500000, 1:25000) and based on stratigraphic, thematic studies covering the most of the Albanian territory, the Geological and Tectonic map of Albania at scale 1:200 000 was compiled and edited in 1983.

During the 80's an intensive exploration was conducted by the Albanian state company DPNG in the Ionian zone and in he coastal plain of Peri Adriatic Depression. This led to several additional gas discoveries such as Ballaj-Kryevidh 1983, Durresi 1986, Povelca 1987, and Panaja 1988 and to the discovery of the Delvina gas condensate field in the south of Albania.

After 1990 Albania opened to the foreign investments and several Western companies started Oil and Gas exploration both in offshore and onshore Albania.

A considerable volume of 2D new seismic was acquired with a high quality and several exploratory wells were drilled.

First Discovery in Offshore Albania (though it was considered non commercial) is related to the A4-1x well, drilled in 1993 by AGIP and Chevron in Adriatiku-4 block, where condensate and biogenic gas was proved during the testing in the Upper Miocene sands.

Fisrt Discovery in onshore Albania made from the foreign companies happened in December 2001, when OCCCIDENTAL declared "Shpiragu Discovery" after drilling and testing of the Shpiragu-1 well in Sqepuri subthrust structure located in Block 2 onshore. Shpiragu-1 well proved light oil (37^0 API) form the fractured reservoir of Eocene-Upper Cretaceous.

A summary of the Exploration History in Albania is represented in the Table 1.

Table 1

Field	Discovery year	Reservoir type	Reservoir depth (m)	O/g gravity (api)	Sulphur content (%)
Drashovica	1918	Oligoc.flysch	100-200	Oil<10^{o}	?
Patos	1927	Mess-clastics	Surf. To 1200	Oil (12-24^{o}API)	2.5-6
Kucova	1928	Mess-clastics	Surf. To 1500	Oil (13-16^{o}API)	4
Marinza	1957	Mess-clastics	1200-1800	Oil (12-35^{o}API)	4-6
Visoka	1963	Cret/Eoc.Carb	800-1000	Oil (5-16^{o}API)	5-6
Gorisht–Kocul	1965	Cret/Eoc.Carb	1000-2500	Oil (17^{o}API)	6
Ballsh-Hekal	1966	Cret/Eoc.Carb	1000-3000	Oil (12-24^{o}API)	5.7-8.4
Cakrran-Mollaj	1977	Cret/Eoc.Carb	3000-4500	Oil (14-37^{o}API) Cond, 52 ^{o}API	0.9
Finiq-Krane	1973	Cret/Eoc.Carb	800-2000	Oil (<10^{o}API)	3.7-4.3
Delvina	1989	Cret/Eoc.Carb	2800-3400	Oil (31^{o}API) Cond, 53 ^{o}API	0.7
Divjaka	1963	Tort/clastics	2400-3000	Gas &Condens	Na
Ballaj-Kryevidh	1983	Plioc/clastics	300-1700	Gas	Na
Frakulla	1965	Mess/clastics	300-2500	Gas	Na
Povelca	1987	Mess/clastics	1800-3500	Gas &condens	Na
Panaja	1988	Mess/clastics	2500	Gas	Na
Ad-4 (offshore)	1994	Mess/clastics	2500-3100	Biogenic Gas & Cond, 54.3 ^{o}API	Na
Sqepuri	2001	Cret/Eoc.Carb	4950	Oil (37^{o}API)	2,3