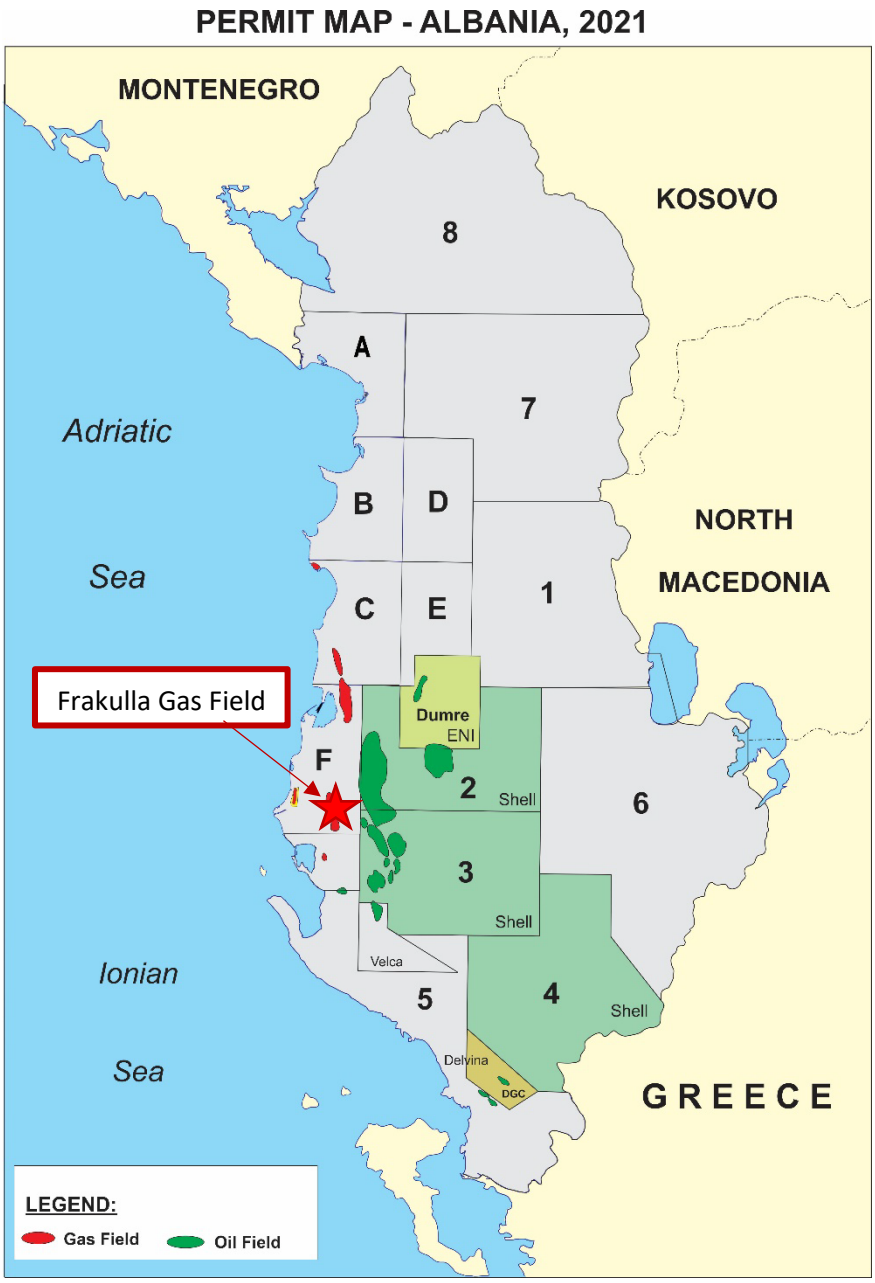
Frakulla Field – Investment Opportunity



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INTRODUCTION

The Frakulla gas field lies in Central Albania (cover page) and the field itself comprises an area of 10 sq.km. The field has been discovered by DPNG (former Albpetrol) in the late-60's and early 70's, with Fr-4 well gas discovery. About 90 wells have been drilled in the area since then, with 30 wells hitting gas (Fig. 1). Exploration and later on, the development phase have been supported by surface geology and 2D seismic data recorded between 1980-1990. About 10 bcf of gas has been produced from the field. The last 4 production wells are recorded in 2015 and since that time the field is shut down. The lack of capital and, partly, the lack of market has been the main reason for the field to die out slowly since early 90's. MIE (Ministry of Infrastructure and Energy) has awarded a License to Albpetrol (NOC) to develop the Frakulla Field. A PSA between Albpetrol and EDG Natural Gas (EDG) is expected to be signed by Albanian Government sometime in 1Q, 2022. After having the full ownership in early 2022, EDG Company will start operations (mainly workovers) to rejuvenate the field, using the necessary capital and its technical expertise. Despite the fact that EDG is capable to cover all capital costs during the Evaluation Period (2 years), the Company is looking for a potential partner to join EDG and then to carry on into the Field Development phase (25 years).

EVALUATION PROGRAM

- **2021 program**: G&G work; partial data gathering.
- **2022 program**:
  - Complete G& G data gathering
  - Field & well data evaluation and integration with seismic
  - WO operations in 3 wells
  - Upgrade the gas pipeline infrastructure and gathering station.
  - Gas marketing (CNG)
- **2023 program**:
  - G&G data evaluation
  - WO operations or drill one well
  - Initiate/approve the field development plan.

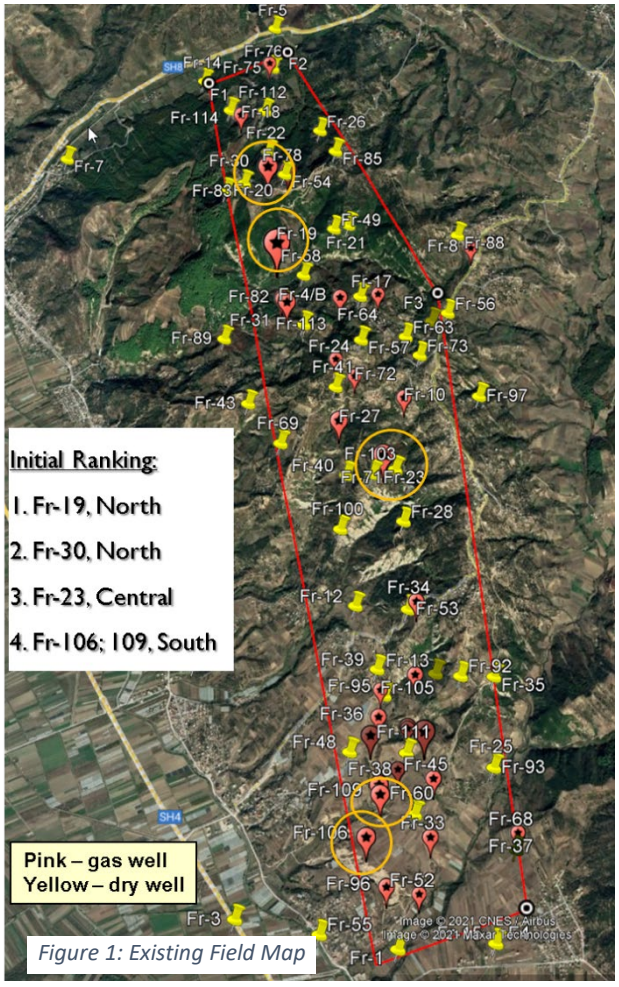

Figure 1: Existing Field Map

Opportunity

- Acquire current working interests by diluting existing partner up to 50%.

- Access to all field data (logs; production; seismic; reports, etc.) and newly recorded petrophysical and production data during Evaluation Period.
- No debts, liens, or impairments
- 25 year Field Development under PSA, with extension possibilities
- Upside potential (outside the block), northern structural extension.

REGIONAL GEOLOGICAL BACKGROUND

Frakulla field sits in the southern portion of the Durresi Basin, a prolific gas province in Albania, where several gas fields have been discovered (Fig. 2). The Durresi Basin comprise a thick siliciclastic series of Mollasse sediments of Miocene - Pliocene age. The eastern and south-eastern provenance has provided the sediments during post-Oligocene orogeny, which can reach a thickness of more than 7 km. In general, a fast sedimentation has been observed in many subsurface areas, which are associated with high pore pressure regime. The organic material is found in-situ, associated with thick shales, with an average TOC of 0.5%. The deformation in Durresi Basin is post-Miocene forming several structural trends, verging westward. Frakulla field sits in one structural trend, which is dying out northward. The sandstone reservoirs are developed as top sets (delta tops) with good porosity ranges (15-25%), sealed by intercalated shales. The gas is bacterial and trapped either in structural traps or combined ones: stratigraphic/structural.

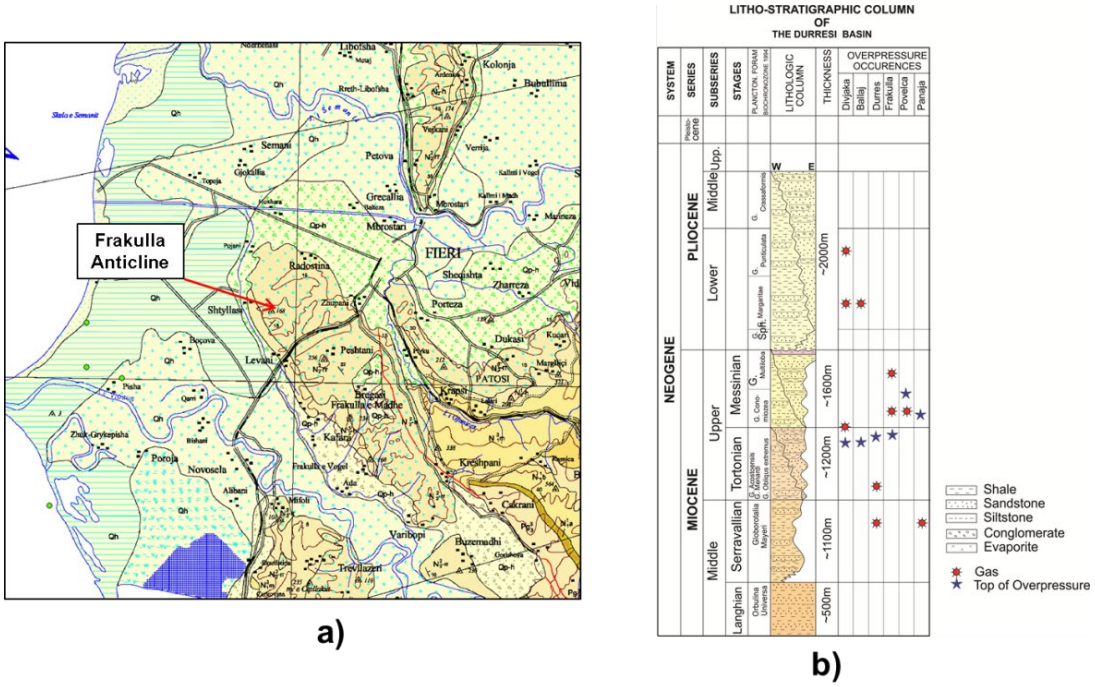

Figure 2: a) Geological map of Frakulla field and b) Litho-stratigraphic column of the Durresi Basin.

EXPLORATION AND DEVELOPMENT HISTORY

The Frakulla field lies in a hilly area covered by Pliocene deposits and where the geological field work can contribute in mapping of underlying sediments. The 2D seismic data were the main drive for proposing exploration, appraisals and development wells. In general, the seismic data are of average quality (Figure 3) and helpful for structural mapping. The Frakulla anticlinal

is bound by a major thrust in the west and a small throw on the backlimb (Figure 4). High amplitudes of seismic reflectors were used to guide location of new wells.

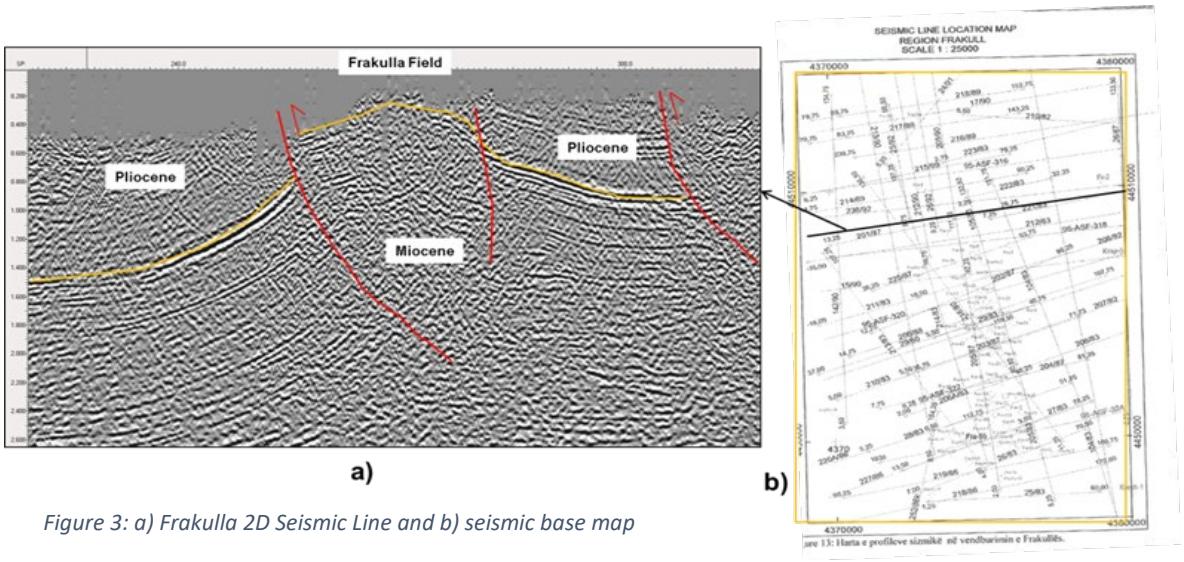

Figure 3: a) Frakulla 2D Seismic Line and b) seismic base map

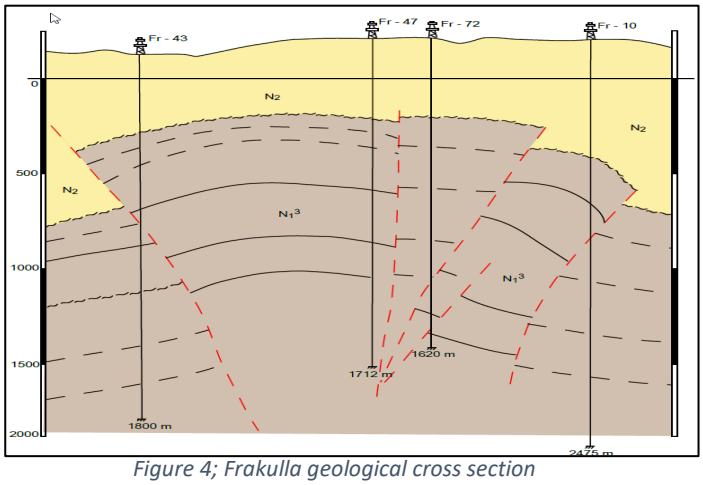

Figure 4; Frakulla geological cross section

Only 30 wells have been producing gas, out of 90 wells (CoS = 33%), which includes: exploration, development and extension, since mid 60's. The total gas produced is ~ 10 BCF. About 22 wells has been suspended due to technical reasons although they left behind untested gas reservoirs.

The gas is trapped mainly in a combined (stratigraphic-structural) traps of Upper Miocene (Messinian – Tortonian) formation. The reservoirs are mainly sandstones and some siltstones within a deltaic depositional EoD, sealed by shales. The gas was discovered above the overpressure zone. Some tentative drilling within the overpressure zone failed to discover additional gas, although gas shows has been recorded. The deeper section in Frakulla anticline consists of shaly foresets of Upper Miocene. The gas area is confined in two areas (Figure 5).

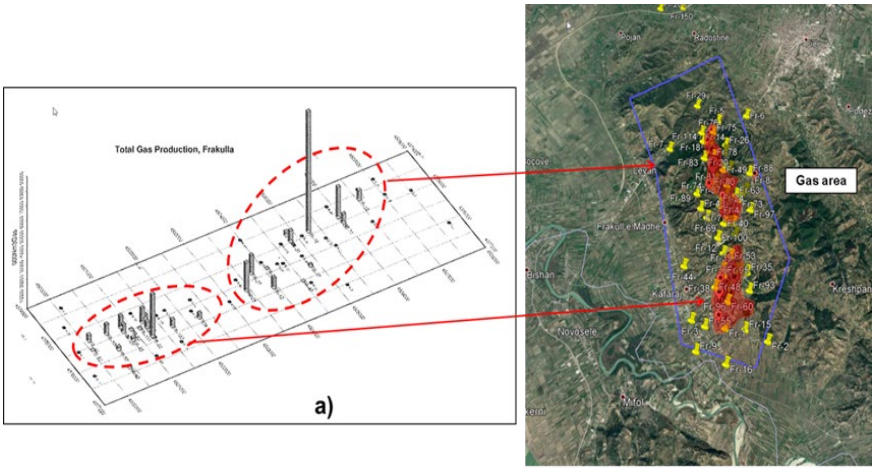

Figure 5; a) Gas volumes per well and b) gas pools in Frakulla

FRAKULLA RESERVOIRS AND PRODUCTION

Frakulla field has produced ~ 10 BCF of dry gas. The main gas-bearing intervals are distributed as following:

Southern sector:

Central part: there are about 13 gas sands, developed within the interval of 500-1200m.
Southern deeper sector: there are 6 gas layers, developed within the interval 1350-1370m.

Northern sector:

Central part: there are 12 sands between 600 – 1510m depth. 23 wells out of 35 wells have been put in production.
Deeper layers: there are 13 gas sands at the interval of 1250-1870m depth.
From the production and log data there are evidences that going northward one can see thicker and more gas sands intervals, due to EoD. The exploitation regime was gas extension drive. The reservoir section is hydrostatic, with initial pore pressure gradient of 1.00 – 1.16 up to 1.18 bar/10m. Initial reservoir pressure was in a range of 60 – 190 bar.
The initial average production per well was between 6,000 – 15,000 Nm3/day. The final recovery factor for the field is estimated to be 90%. The remained gas pressure, at depleted wells, is estimated to be 10-40 bar. A summary of reservoir and gas parametres are listed at Table 1.

	FRAKULLA GAS FIELD	
1	Permeability range	4 - 160 mD
2	Average permeability	60 mD
3	Porosity (5/6% - 30/32%)	11/14% up to 23/29%
4	Recovery factor	29 sands: 54 - 56%; 22 sands ~ 85%
5	Average recovery factor	68%
6	Gas Saturation (55-79%)	average 57-68%
7	Reservoir thickness	0.6 - 22m
8	Average reservoir thickness	5 m
9	Depth of reservoir	277 - 1850m
10	Pore pressur gradient	1.1-1.19 bar/10m
11	Initial reservoir pressure	60-190 bar
12	Remain pressure after production	10-40 bar
13	Reservoir temperature	295 - 325oK
14	Average preservoir pressure	100 - 120 bar
15	Average area for a gas sand (North)	2*106 m3/gas per Ha
16	Average area for a gas sand (South)	1.1*106m3/gas per Ha
17	Reservoir lithology	Mainly sand; less silt
18	Reservoir water salinity	15-20 gr/l
19	Gas expansion drive	

Elementi	Sasia Volumore
CH_4	99.61 ± 0.1% vol
C_2H_6	0 35 ± 0.09%
C_3H_8	0.03 ± 0.008 %
C_4H_{10}	0 01 ± 0.002%
Yrel	0 5558 ±0.0004
Fuqia kalorifike e ulët	8130 ± 24 Kkal/m3
Fuqia kalorifike elartë	9038 ± 10Kkal/m3

Table 1 Reservoir and Gas Parametres

OPERATIONS FORECAST

To unlock the remaining gas potential in Frakulla field, the following key operations are to be considered:

Workovers;

1. Wells in good integrity: logging (CBL, C/O,…); perforation; (cementing); testing.
2. Wells in poor integrity: fishing jobs; logging (CBL, C/O,…); perforation; (cementing); testing.

New wells: to be drilled in undrained areas, based on data (seismic and well data) integration.
New seismic: mini - 3D seismic acquisition is forecasted to support unlock gas potential in the northern part of Frakulla anticline.

PROSPECTIVE UPSIDE

There is remain gas potential within the Frakulla field which is related to:

- Unperforated reservoirs in recent active wells.
- Untested reservoirs in suspended wells (~ 22 wells) which has gas layers above the cement plug.
- Undrained areas recognized and evaluated by Albpetrol which require new drilling (Figure 6a).
- Potential for new gas reservoirs towards the Northern ramp of Frakulla Neogene anticline (not part of the actual License) (Figure 6b).

EDG Natural Gas believes that more than 5 BCF of gas can be found within the field.

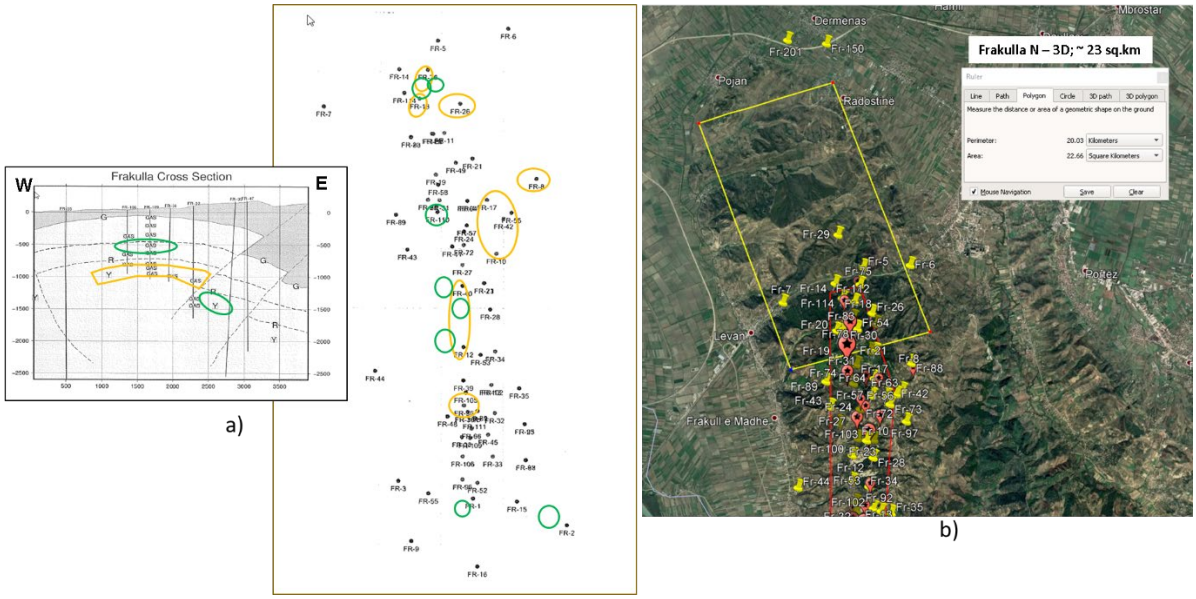

Figure 6; a) New undrain areas and b) Potential mini-3D seismic in Frakulla North

REQUIRED INVESTMENT

The PSA fiscal commitment for the **Evaluation Period** is USD 500K. Taken into consideration the preliminary WP and the EDG goals to accelerate the operations and have gas sales within this period, the required budget will be ~ USD 5.0 mio.

The **Development Period** investments will be analysed and submitted at Field Development Plan, which is subject of approval from Albpetrol. It will include additional workovers; drill new wells; acquire 3D seismic (~ FF coverage ~ 23 sq.km), etc.

Production Sharing Agreement:

The PSA will be signed between Albpetrol and the EDG Natural Gas shpk in Q1 2022. Albpetrol is given a license to develop the Frakulla Field from the MIE (Ministry of Infrastructure and Energy). EDG Natural Gas shpk will take the ownership of the Frakulla field in Q1 2022.

The Frakulla field Agreement Effective Date is expected in Q1, 2022. The overall development period is 25 years and if required, can be extended to additional 5 years. EDG Natural Gas has 100% equity.

Gas Marketing

There is gas demands in the country and beyond, in neighboring countries, therefore many options are in the table: Gas-to-Power; CNG or LNG. CNG could be the best and fastest solution to sale gas.

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Contacts:

For further information about this opportunity, the confidentiality agreement and scheduling a data room appointment please contact:

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