KADOBNIANSKA LICENSE

LOCATION

Kadobnianska block is located in the north-western part of Kalush district and partly in the territory of Dolyna district of Ivano-Frankivsk region. Acreage of the block is 21,17 sq. km.

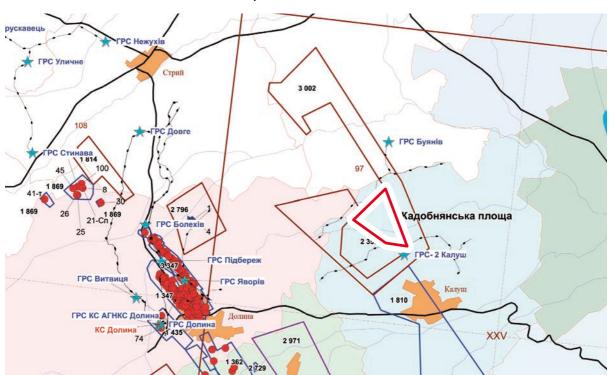
CONCESSION TYPE

Combined license for geological exploration with pilot and commercial development, and production of hydrocarbons. Duration - 20 years.

DEPOSITS DISCOVERED IN THE AREA

Kadobnianske gas field is located within the territory of Kadobnianska license.

Map of Kadobnianska block



MAP SYMBOLS

Point Number	USK 2000, E			USK 2000, N			SK-42, E			SK-42 , N		
	deg.	min.	sec.	deg.	min.	sec.	deg.	min.	sec.	deg.	min.	sec.
1	24	19	10.00	49	5	23.00	24	19	16.18	49	5	24.03
2	24	17	1.00	49	5	26.00	24	17	7.19	49	5	27.03
3	24	13	34.00	49	6	41.00	24	13	40.19	49	6	42.03
4	24	16	22.00	49	8	56.00	24	16	28.19	49	8	57.03





GEOLOGICAL CHARACTERISTICS

Kadobnianske deposit belongs to the central part of Kosiv-Uhersk subzone of the Bilche-Volytska zone of the Precarpathian depression. Gas bearing capacity of the sandy deposits of the lower Sarmatian stage (3 horizons) and the upper Tortonian stage (8 horizons) has been discovered by the exploration works conducted in the period from 1946 to 1956. The horizons of the lower Sarmatian stage are embedded at a depth of 158-420 meters, and the upper Tortonian stage at 454-1075 meters.

Trial exploitation of the deposit began in late 1955 from the Sarmatian and the Baden deposits and ended with the elimination of wells due to their depletion during 1956-1983. 1013,205 million m³ of natural gas was extracted in the field from the beginning of the commercial development.

In 1983, for the purpose of creating the underground gas storage, natural gas has been injected to the Baden deposits of the field. In the underground storage mode, the gas deposit with a small amount of gas injection and run worked during 1984-2001.

The target at Kadobnianska field is the exploration of natural gas deposits in Tortonian (NIt) and Sarmatian (NIs) sediments.

SURVEY INFORMATION AVAILABLE

Assessment of hydrocarbon resources (Ukrainian classification)

During 2003-2011, JSC "Ukrgazvydobuvannya", which possessed the license for this deposit expanded contingent resources of the natural gas in the field to 107 million m^3 (subcategory C 2). Also the field includes inferred resources with density $10-20 \text{ billion m}^3 \text{ per } 1 \text{ sq. km.}$

Well data

The total exploration drilling footage at Kadobnianska block is 23,846 linear meter.

Seismic surveys

Year of surveys	Number of lines	Number of linear km	Fold
1989	1	9,5	12
1991	1	5,0	12
1992	9	67,1	12-24
2002	7	42,5	24
2014	1	7,0	40

EXPLORATION WORK PROGRAM REQUIREMENTS

Stage I (12 months) - processing and reinterpretation of 2D seismic data;

Stage II (12 months) – acquisition of 2D or 3D seismic data on 1/4 of the block's area;

Stage III (24 months) – one productive well drilling.

KADOBNIANSKA LICENSE

Map of geophysical surveys and seismic lines

