KALIUZHNA 1 LICENSE

LOCATION

Kaliuzhna 1 block is located in the territory of Lebedyn and Okhtyrka districts of Sumy region. Acreage of the block is 162.36 sq. km.

CONCESSION TYPE

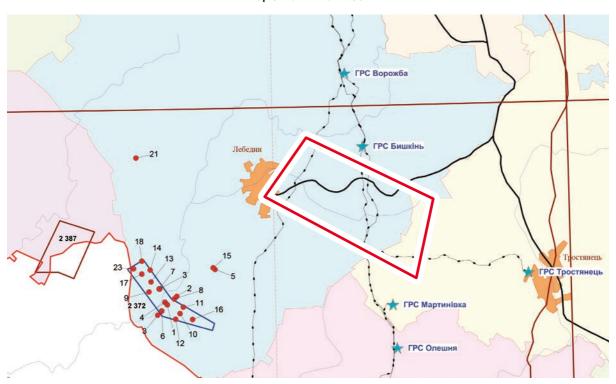
Combined license for geological exploration with pilot and commercial development, and production of hydrocarbons.

Duration - 20 years.

DEPOSITS DISCOVERED IN THE AREA

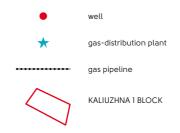
Marchenkivske, Tarkhanivske.

Map of Kaliuzhna 1 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	34	33	9.92	50	37	58.31	34	33	16.06	50	37	58.64
2	34	45	42.62	50	33	54.72	34	45	48.73	50	33	55.04
3	34	43	50.40	50	28	54.36	34	43	56.50	50	28	54.69
4	34	28	54.99	50	34	16.17	34	29	1.12	50	34	16.50





GEOLOGICAL CHARACTERISTICS

Kaliuzhna 1 block is located within the Northern edge of the Dnipro-Donets depression. Kaliuzhny object on the deposits of the lower Carboniferous (reflecting horizon V2-π) is an anticlinal belt of structures of the northwest strike, within which Lebedynska, Kalyuzhna and Tryhubivska folds are determined.

Dimensions of Kaliuzhny oil and gas object on the reflecting horizon $V2-\pi$ (C1V2) within the structure contour minus 2275 meters of screening discordant fault are 13.0 x 1.7 km, the amplitude is 80 meters, the perspective area is 21 sq. km.

Productive horizons are expected in Upper Visean sediments of lower Carboniferous (sandstone), in unconsolidated reservoir rocks, in the range of depths 2000-2650 meters.

SURVEY INFORMATION AVAILABLE

Assessment of hydrocarbon resources (Ukrainian classification)

Preliminary estimation of inferred resources (subcategory D1) accounts for 1,155 million tons of oil equivalent.

Well data

In 1993-1994, on the Lebedynska structure, appraisal well No.1 was drilled at a depth of 3500 meters. The well passed 1070 meters of basement rocks, presented by crystalline schists. Waterflooded sandstones are discovered in the Visean deposits.

Seismic surveys

During 1984-1994, in the area of Kaliuzhna 1 block, seismic surveys by common depth point method have been carried out by teams 25/84, 47/89, 34/90. In 1990, an aerospace research of this territory has been conducted, according to which the Cheremkivska anomaly has been identified, which corresponds to the Triyhubivska and Kaliuzhna structures.

Seismic surveys

Year of surveys	Number of lines	Number of linear km	Fold
1990	9	180,8	24-36
1992	7	104,2	24-36

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.

KALIUZHNA 1 LICENSE

Map of geophysical surveys and seismic lines

