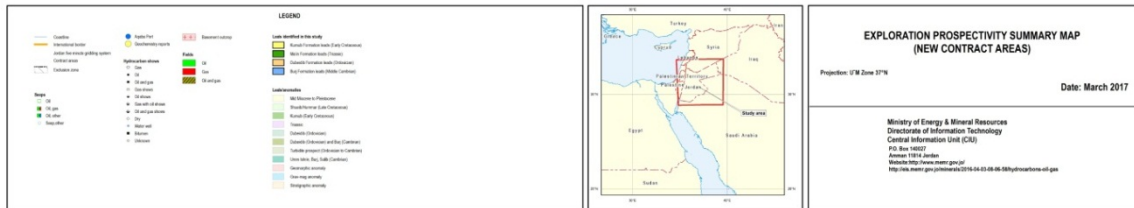
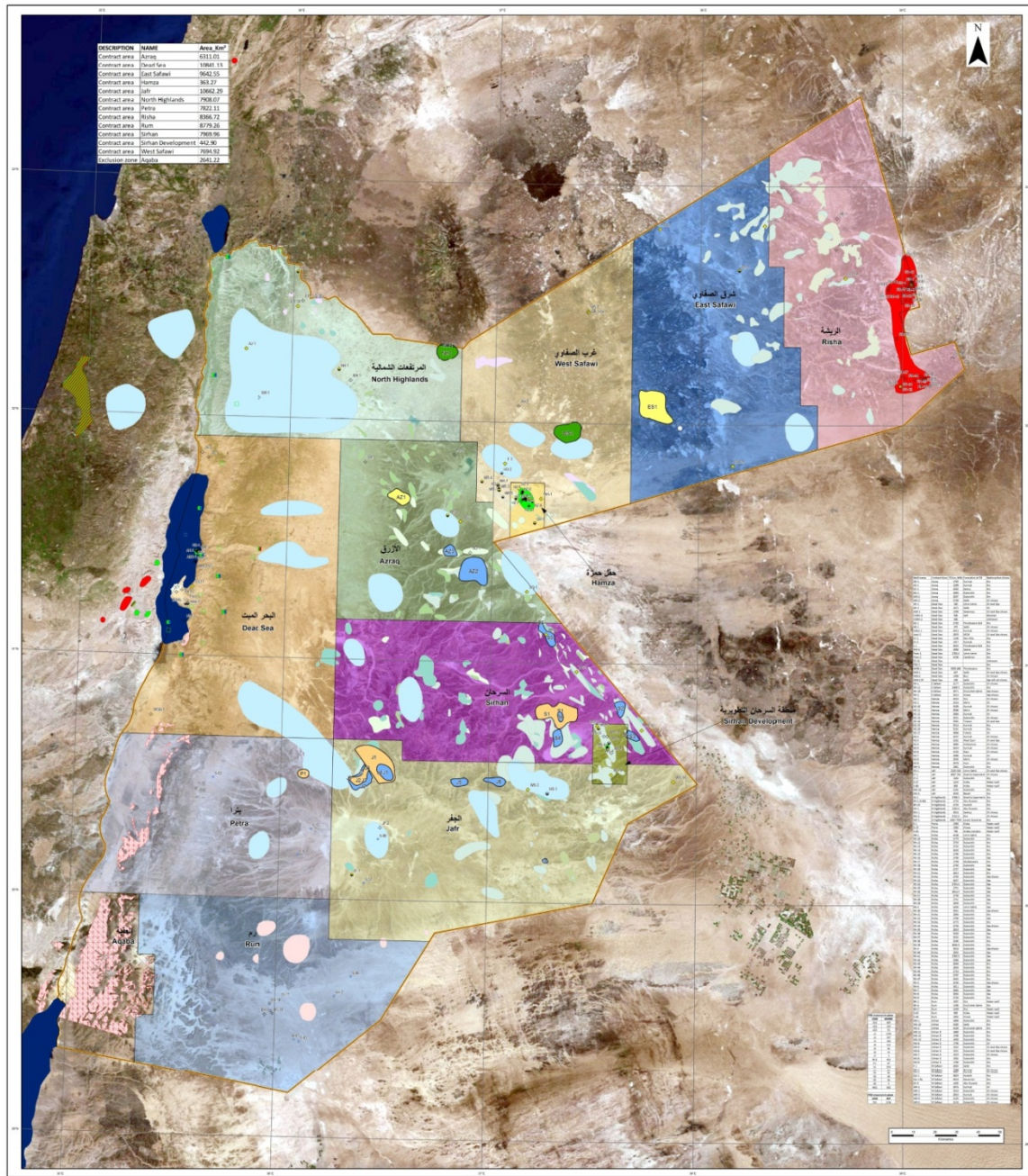


Petroleum Exploration Projects in Jordan



Petroleum Exploration Contract Areas

Table of Contract areas in Jordan

No.	Description	Name	Area (km ²)	Number of drilled wells	Status
1	Contract Area	Azraq	6311	6	Open
2	Contract Area	Dead Sea	10841	20	Open
3	Contract Area	East Safawi	9643	4	Under PAS
4	Contract Area	Hamza	363	19	MEMR Project
5	Contract Area	Jafr	10662	7	Open
6	Contract Area	North Highlands	7908	7	Open
7	Contract Area	Petra	7822	3	Open
8	Contract Area	Risha	8366	44	Under concession
9	Contract Area	Rum	8779	5	Open
10	Contract Area	Sirhan	7970	3	Open
11	Contract Area	Sirhan Development	442	9	Open
12	Contract Area	West Safawi	7695	11	Open
13	Exclusion Zone	Aqapa	2641	-	----

The Kingdom was divided into twelve contract areas; two of them are development areas according to CGG study 2017.

1. Azraq contract area

It is located east of Amman and covers 6311 km², there are six wells in the area, in (WG-2) well has oil stains and bitumen in Wadi Essir Formation and Naur Formation, 1256 km two dimensional seismic surveys lines previously worked on the area. Wadi Essir Formation considered a source potential varies greatly from lean to very good potential for oil generation, Mudawwara Formation considered a source potential for gas generation in the south of area. The Dubeidib, Kurnub, Ma'in, Shueib and Hummar Formations have been identified as the main reservoir targets.

2. Dead Sea contract area

It is located west of Jordan and covers 10841 km², there are twenty wells in area, there are numerous shows of oil and gas within the Late Cretaceous and Cambrian sections in 11 of the 20 wells drilled in this area. 800 km 2D seismic surveys lines and 75 km² 3D seismic surveys previously worked on the area. The Ghareb Formation is expected to have reached the required maturity for petroleum generation in the Dead Sea Graben and could act as a charge for the shallow plays.

3. East Safawi contract area

It is located northeast of Jordan and covers 9643 km², there are four wells in area, (RH-1, 2 and 19) have oil and gas shows, 3002 km 2D seismic surveys lines previously worked on the area. The Mudawwara Formation is considered to be the main source for hydrocarbons, the Dubeidib, Kurnub and Ma'in Formations have been identified as the main reservoir targets in this contract area.

4. Hamza Development area

It lies in the north of Jordan in the southwest corner of the West Safawi contract area and covers 363 km². There are 19 wells in this development area. 1040 km 2D seismic surveys lines and 298 km² 3D seismic surveys previously worked on the area. Total production from the field since 1983 is about one million barrels of oil from 4 producing wells.

5. Jafr contract area

It is located towards the south of Jordan and covers 10662 km², there are seven wells in area, 2118 km 2D seismic surveys lines previously worked on the area. The Mudawwara Formation shows fair to good source rock.

6. North Highlands contract area

It is located north of Jordan and covers 7908 km², there are seven wells in area, NH-1 and NH-2 have minor oil and gas shows in the Huni and Salib Formations, 1106 km 2D seismic surveys lines previously worked on the area. The Kurnub and Ma'in Formations have been identified as the main reservoir targets in this contract area.

7. Petra contract area

It is located southwest of Jordan and covers 7822 km², there are three water wells in area, 337 km 2D seismic surveys lines previously worked on the area. The Mudawwara Formation is considered to be the main source rock horizon across southern Jordan and is present over a small area in the east of the contract area.

8. Risha contract area

It is located in the far northeast of Jordan and covers 8367 km².
The area under Concession agreement with National Petroleum Company until 2046.

9. Rum contract area

It is located in the far south of Jordan and covers 8779 km², there are five wells in area three of them is water deep wells, 209 km 2D seismic surveys lines previously worked on the area. The Mudawwara Formation is considered to be the main source rock.

10. Sirhan contract area

It is located in east of Jordan and covers 7970 km², there are three wells in area, 2419 km 2D seismic surveys lines previously worked on the area. The Mudawwara

Formation is considered to be the main source rock. The Dubeidib and Kurnub Formations have been identified as the main reservoir targets.

11. Sirhan Development area

It is located in east of Jordan within the Sirhan contract area and covers 443 km², there are nine wells in this area, 327 km 2D seismic surveys lines and 217 km² 3D seismic surveys previously worked on the area. One of which is an oil discovery (WS-4) within the Dubeidib Formation. Three of the wells have oil and gas shows in the Dubeidib Formation and bitumen in the Mudawwara Formation.

12. West Safawi contract area

It is located in northeast of Jordan and covers 7695 km², there are eleven wells in area, however, this does not include the Hamza development area which lies within this contract area. 235 km 2D seismic surveys lines previously worked on the area. The Wadi Essir Formation is considered to be the primary source rock.

Oil & Gas Agreements:

- (a) Risha contract area: It is given to the National Petroleum Company under a concession for period of (50) years from 1996 until 2046, with a daily production rate (9-10) MMCF, which are supplied for the power station in the site. It contributes around (2%) of the Kingdom's needs of electric power.
- (b) East Safawi contract area: This area was awarded under a production sharing agreement with National Petroleum Company since 2014; the agreement was issued by a special law 14/2014.
- (c) Hamza development area field is under assessment process the Ministry of Energy & Mineral Resources.

Open Exploration Contract Area

- 1) Azraq contract area
- 2) Dead Sea contract area
- 3) Hamza Development area
- 4) Jafr contract area
- 5) North Highlands contract area
- 6) Petra contract area
- 7) Rum contract area
- 8) Sirhan contract area
- 9) Sirhan Development area
- 10) West Safawi contract area

As for the Hamzah field, it is subject to technical evaluation by the Ministry of Energy and Mineral Resources, bearing in mind that exploration work has begun in the Hamzah field with the beginnings of the national project for oil exploration by the Natural Resources Authority in the 1980s, and in 1984 it was discovered Oil in it, where the work of drilling wells continued and the number reached 19 wells, and the rate of production at that time was about 439 barrels / day in 1987, then this rate declined over time until it currently reached 8 barrels per day. The total production from the field to date is about 1.1 million barrels.

The Ministry of Energy and Mineral Resources recently carried out inspections of a number of previously drilled wells in the field by raising nitrogen. Likewise, work was done to improve the field infrastructure, to rehabilitate it, and to conduct electrical current, in preparation for the implementation of the next stage of production development in the producing wells.