



Oil & Gas Exploitation Report in Jordan

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

Open contract areas for exploration:

1. Azraq contract area
2. Dead Sea contract area
3. Al-Jafr contract area
4. Northern Highlands contract area
5. Petra contract area
6. Rum area
7. Al-Sarhan contract area
8. Al-Sarhan development contract area
9. West Safawi contract area

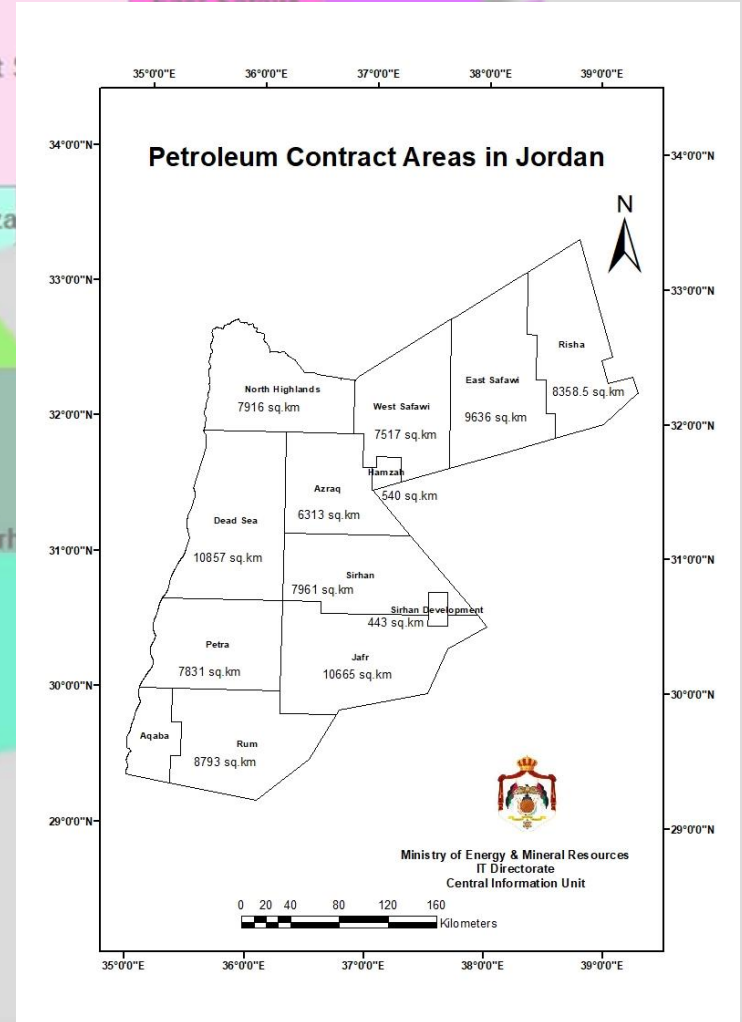
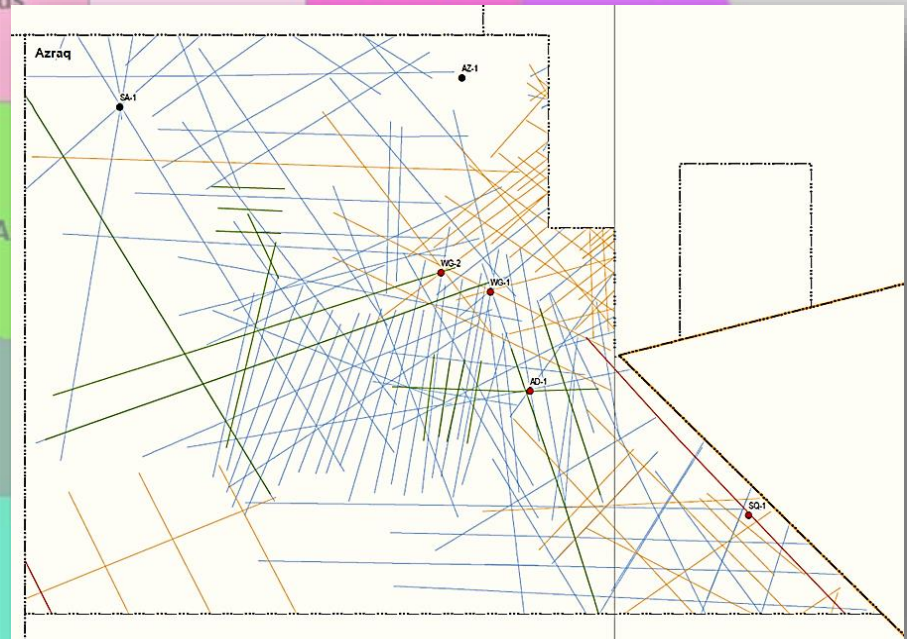


Table of Contract areas in Jordan

No.	Description	Name	Area (km ²)	Number of drilled wells	Status
1	Contract Area	Azraq	6313	6	Open
2	Contract Area	Dead Sea	10857	20	Open
3	Contract Area	East Safawi	9636	4	Under PSA
4	Contract Area	Hamza	540	19	MEMR Project
5	Contract Area	Jafr	10665	8	Open
6	Contract Area	North Highlands	7916	7	Open
7	Contract Area	Petra	7831	3	Open
8	Contract Area	Risha	8358.5	44	Under concession
9	Contract Area	Rum	8793	5	Open
10	Contract Area	Sirhan	7961	3	Open
11	Contract Area	Sirhan Development	443	9	Open
12	Contract Area	West Safawi	7517	11	Open
13	Exclusion Zone	Aqaba	-	-	----

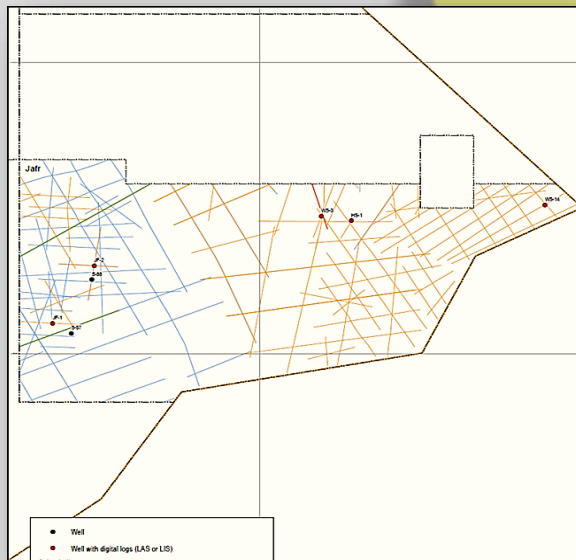
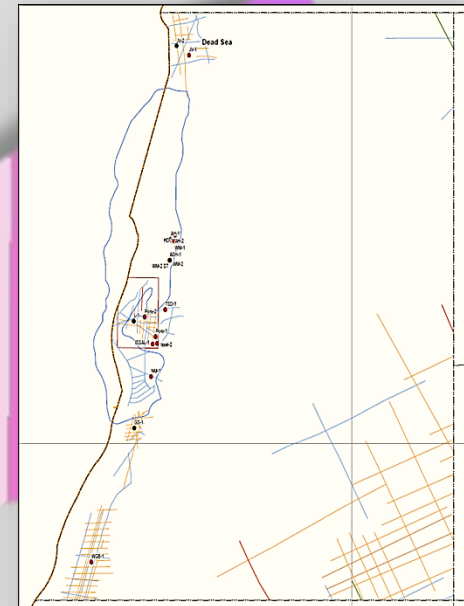
1. Azraq contract area

It is located east of Amman and covers 6313 km², there are six wells in 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.



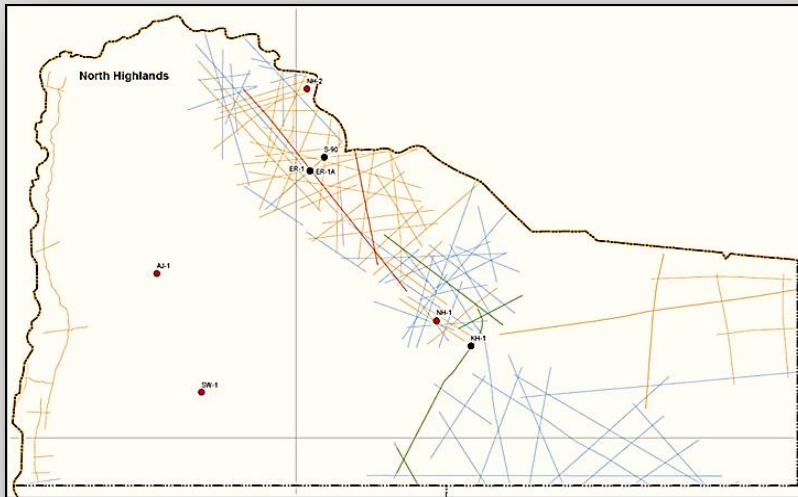
2. Dead Sea contract area

It is located west of Jordan and covers 10857 km², there are twenty wells in area, There are numerous oil and gas shows 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. Jafr contract area

It is located towards the south of Jordan and covers 10665 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.

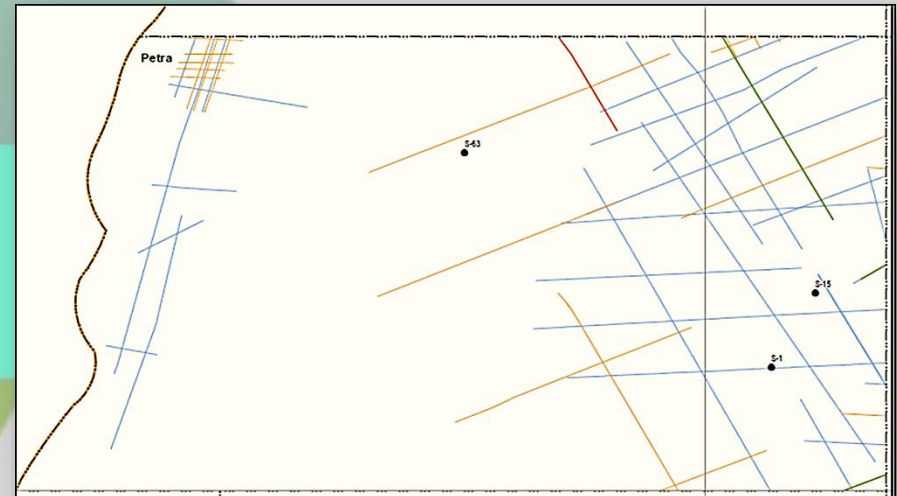


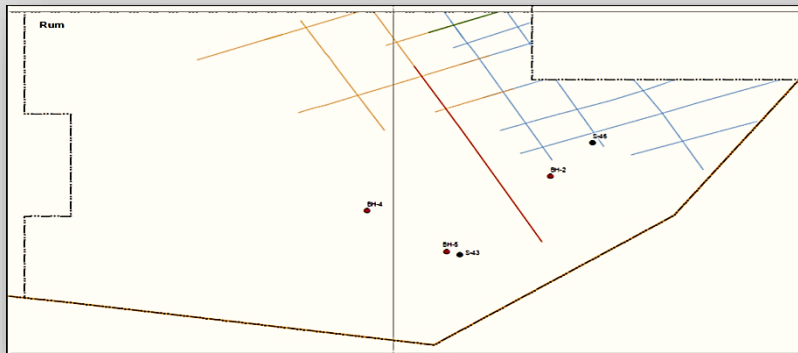
4. North Highlands contract area

It is located north of Jordan and covers 7916 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.

5. Petra contract area

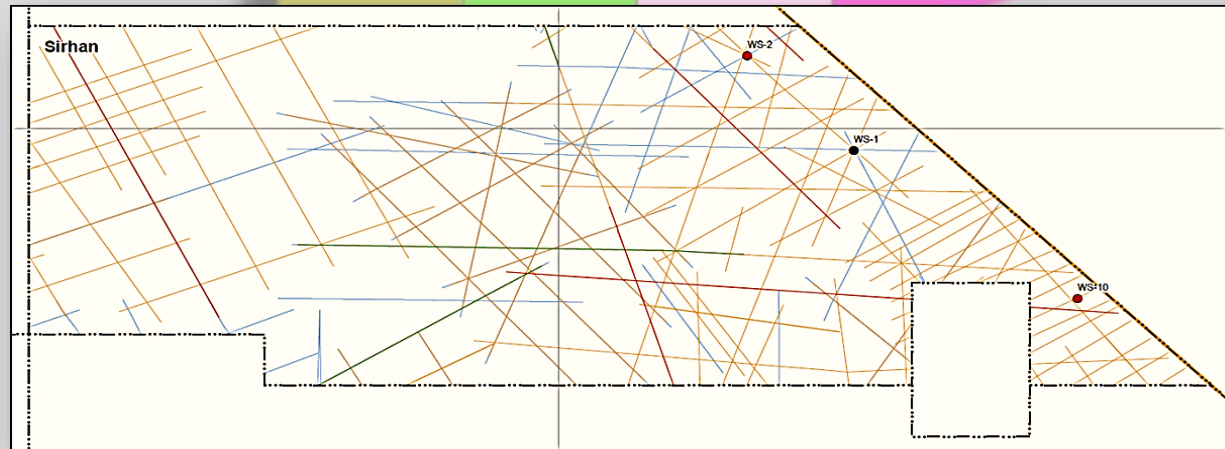
It is located southwest of Jordan and covers 7822 km², there are three water wells in area, 337 km 2D seismic surveys lines previously worked on the area. The Mudawwara Formation is considered to be the main source rock horizon across southern Jordan and is present over a small area in the east of the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





6. Rum contract area

It is located in the far south of Jordan and covers 8793 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.

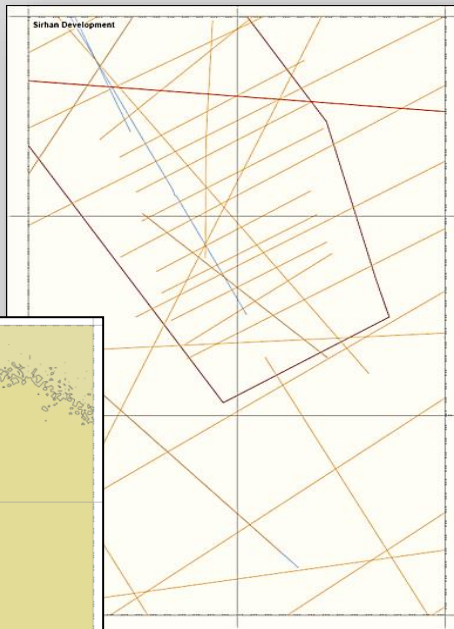
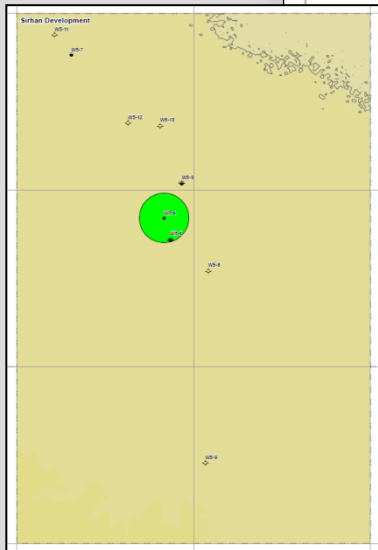


7. Sirhan contract area

It is located in east of Jordan and covers 7961 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.

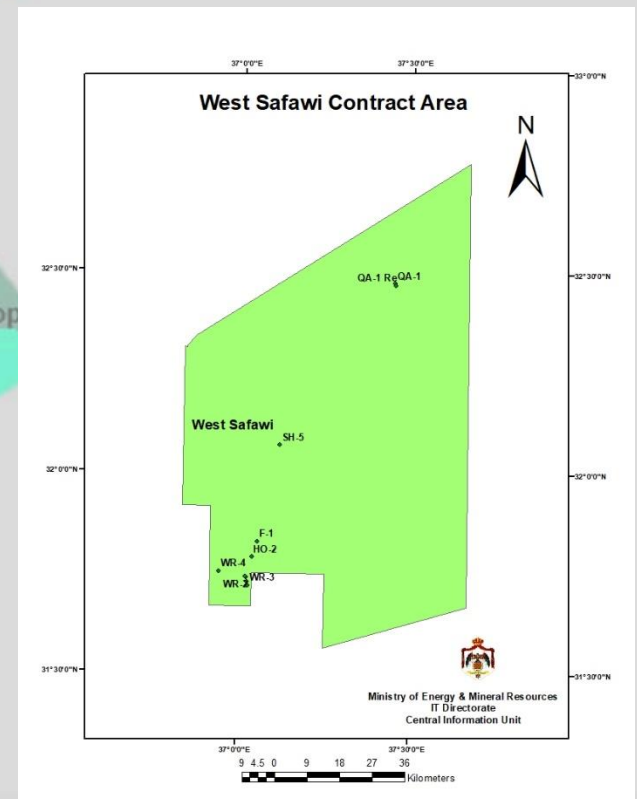
8. Sirhan Development area

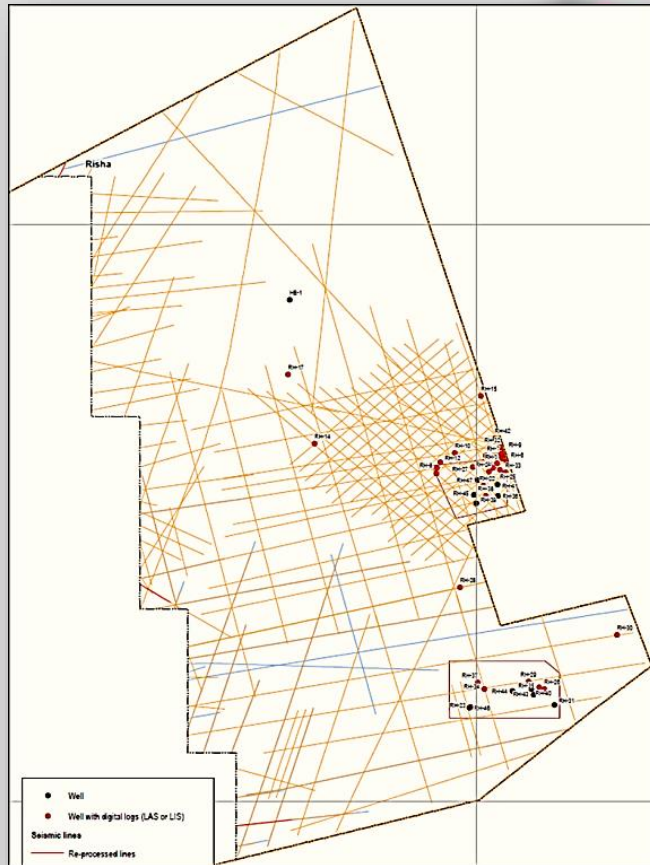
It is located in east of Jordan within the Sirhan contract area and covers 443 km², there are nine wells in this area, 327 km 2D seismic surveys lines and 217 km² 3D seismic surveys previously worked on the area. One of which is an oil discovery (WS-4) within the Dubeidib Formation. Three of the wells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



9. West Safawi contract area

It is located in northeast of Jordan and covers 7517 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.





Applicable agreements:

1. 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, that are supplied for the power station in the site. It contributes around (2%) of the Kingdom's needs of electric power.

It is located in the far northeast of Jordan and covers 8367 km².

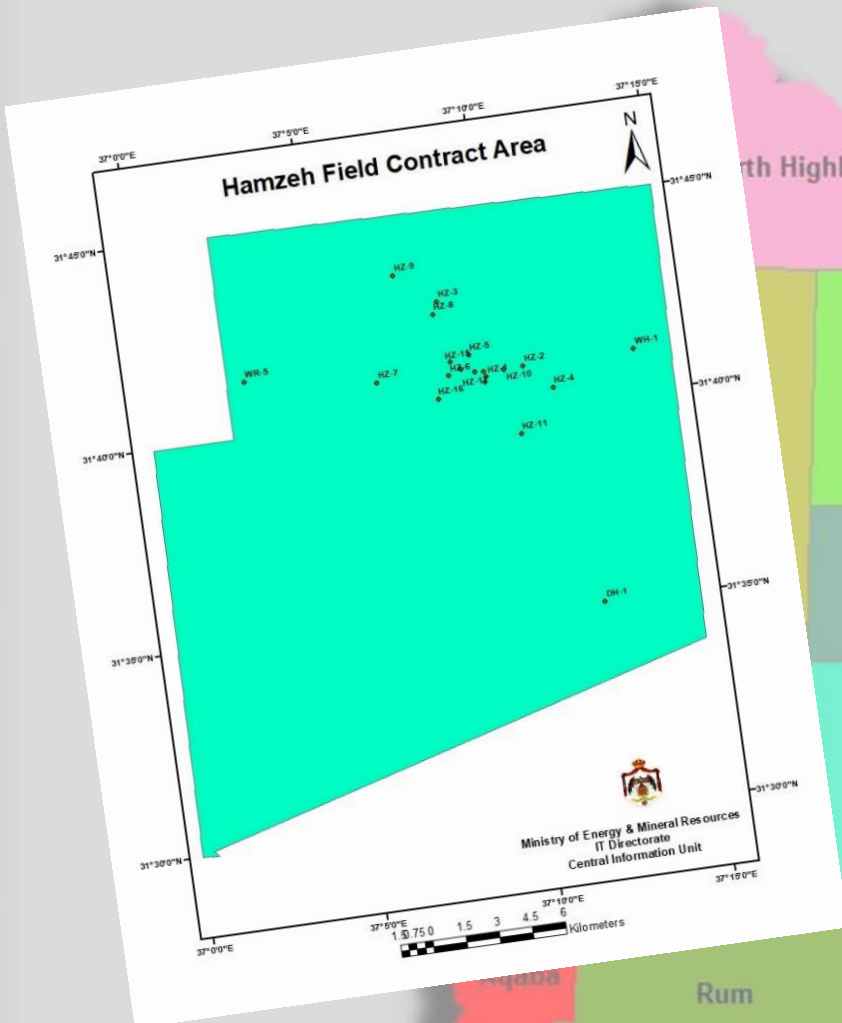


2. East Safawi contract area

A production sharing agreement was signed with the National Petroleum Company to explore oil and gas in the region in 2014, and the agreement was issued in a special law 2014/14.

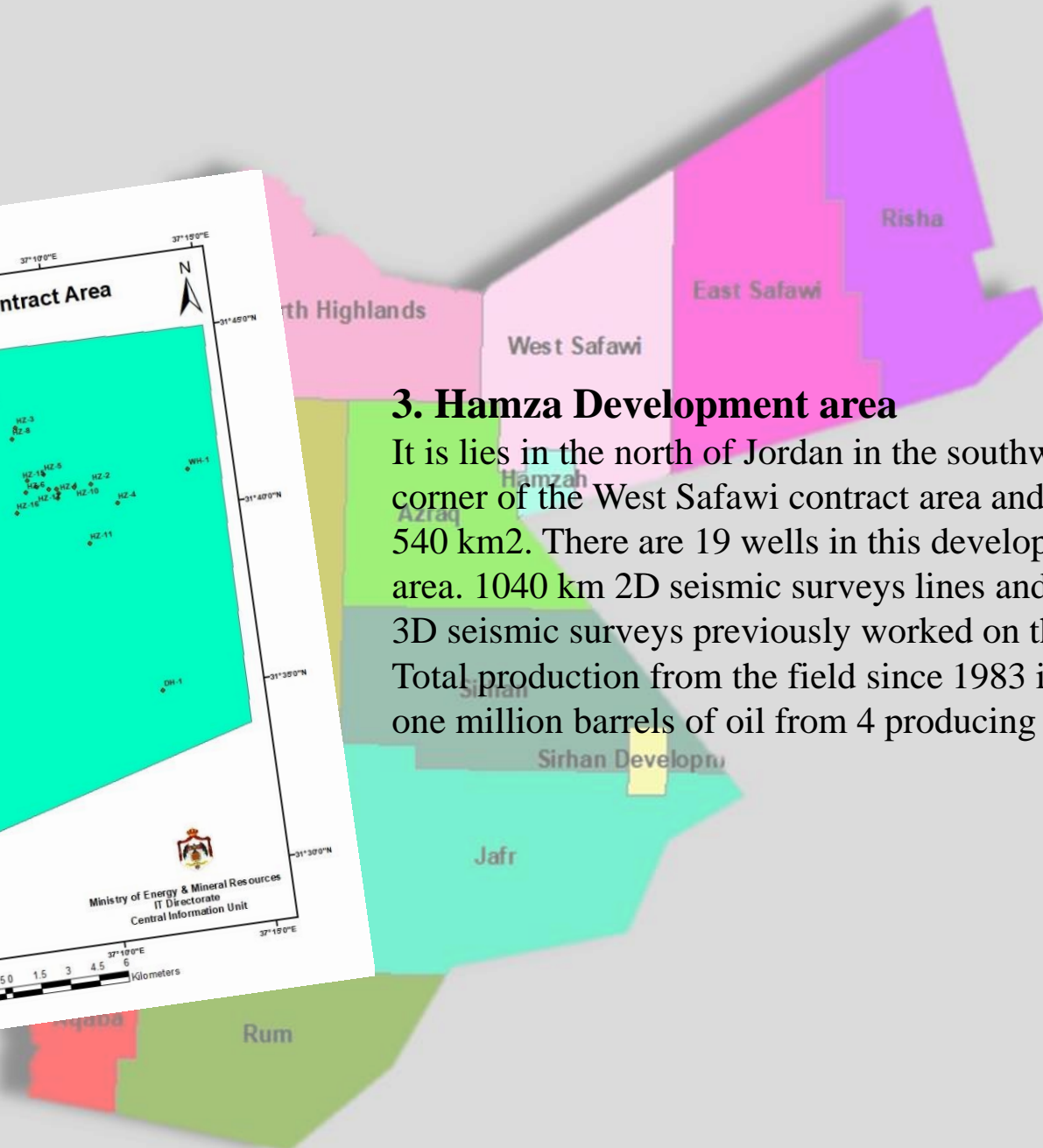
It is located northeast of Jordan and covers 9636km², there are four wells in area, (RH-1, 2 and 19) have oil and gas shows, 3002 km 2D seismic surveys lines previously worked on the area. The Mudawwara Formation is considered to be the main source for hydrocarbons, the Dubeidib, Kurnub and Ma'in Formations have been identified as the main reservoir targets in this contract area.

The area is currently under production sharing agreement (PSA) with National Petroleum Company.



3. Hamza Development area

It lies in the north of Jordan in the southwest corner of the West Safawi contract area and covers 540 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.



A. Hamza Oilfield Infrastructure improvement Services / first phase

The field is 35 km east of Al-Azraq, next to the Al-Omari area. The wells have been discovered since 1983, and it currently has 19 wells

The Ministry of Energy and Mineral Resources signed an infrastructure services agreement with the National Petroleum Company for a period of 5 months, which can be extended, during which the company carried out maintenance work for the three producing wells of Hamza field, where it is possible to increase production by pumping nitrogen and the production from the three wells reached (3500) barrels, noting that the natural production was (500) barrels as a monthly average.

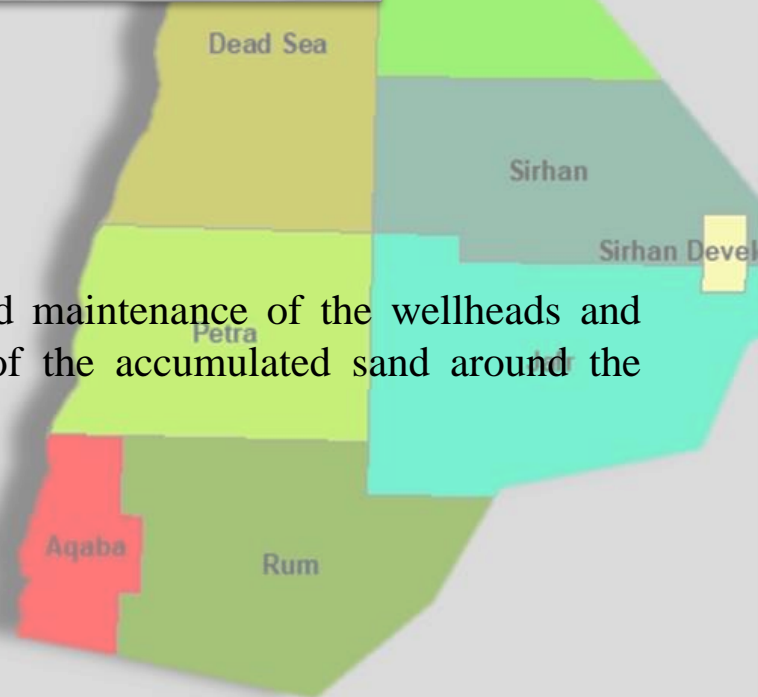




The most important achievements in improving the field's infrastructure:

- Inspecting and maintaining the main pipes and tanks and changing the damaged ones.
- Cleaning the site according to the environmental requirements and determining the area of the field 2 km² and a perimeter of 6 km.

- Cleaning and maintenance of the wellheads and getting rid of the accumulated sand around the wellheads.





- The completion of the electrical current delivery and the expected electrification of the stations, after the coordinates of the electricity poles have been monitored and approved as a path for the road
- Completion of the preparation of the caravan site, and it will be maintained and completed.
- Designing the construction of the workers' accommodation and submitting a local bid for its construction.
- Changing invalid fire tubes.

B. Agreement for services and operation of the Hamza oil field (second phase)

The Ministry of Energy and Mineral Resources signed an agreement for the services and operation of the Hamza oil field on May 27, 2020, and this stage aims to increase the productivity of the wells operating in the Hamzah field by applying the method of pumping using submersible pumps. The agreement was renewed with a second agreement on 8/28/2022, replacing the previous agreement.

- A services, operation and management agreement was signed on February 21/4/2022 for a period of 5 years, covering all the areas of the Hashemite Kingdom of Jordan, except for the areas granted to petroleum companies within concession agreements, production sharing, or memorandums of understanding, and the following was accomplished:
- Processing 3D seismic surveys for the Sarhan development field.
- Drilling 3 wells JF-3, WSD-1, WSD-2.

