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بسم اللّه الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم باللّه العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

Mona maghraby

بعض الوثائق الأصلية تالفة
وبالرسالة صفحات لم ترد بالأصل

B1A·7E

GEOPHYSICAL STUDIES OF THE NORTHERN PART OF SUEZ GULF AND MATHEMATICAL MODELLING OF THE PREVAILING PARAMETERS

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CHAPTER I

INTRODUCTION

INTRODUCTION

I.1. AIM OF THE WORK

The Gulf of Suez area is a very important part of Egypt, which includes many exploratory zones. Over the last 20 years, many geological and geophysical investigations have been conducted to determine its origin, and to search for the causative bodies. This work proceeds geophysical studies to obtain the most probable picture of the subsurface structural distribution. Also, to study the forces acting on the Gulf due to tectonic activities for determining the hazard zones and the earthquake regions. Besides many different techniques are used to delineate the hydrocarbon accumulation regions.

Geographic information system (GIS) technique is applied, as a technique of analysis for this work, to study the relationships among results obtained by various geophysical methods, as a trial for establishing the processing techniques of GIS in geophysical interpretations. Such relationships, will clearify the approach to locate the most favorable subsurface geological and structural conditions for hydrocarbon accumulations.

I.2. LOCATION AND GENERAL VIEW ABOUT THE AREA:

The Gulf of Suez lies at the north eastern corner of Egypt between the longitudes 32° 20′ - 33° 45′ E, and latitudes 27° 25′ - 30° 00′ N (Fig. I-1). It is a shallow and narrow water body located between the Eastern Desert and Sinai Peninsula. It extends for about 350 km., from the south tip of Sinai Peninsula to Suez City, with an average width of about 65 km., and an average depth of 50m.

It covers an area of approximately 20,000 sq.kms., from Suez to Hurghada Cities, and takes the direction of clysmic trend, N 10° W - S 10° E .

The area has been under extensive surface geology exploration activities and different geophysical methods and exploratory drilling since 1886 till present. These exploration efforts results in the discovery of 73 oil fields. Seven of them can be classified as large fields namely; Morgan, October, Belayim land, Belayim Marine, July, Ramadan and Ras Gharib fields.

Most of the recoverable reservoires were found in the Miocene sediments, and till now the Gulf of Suez is considered as the main prolific province of oil in Egypt.

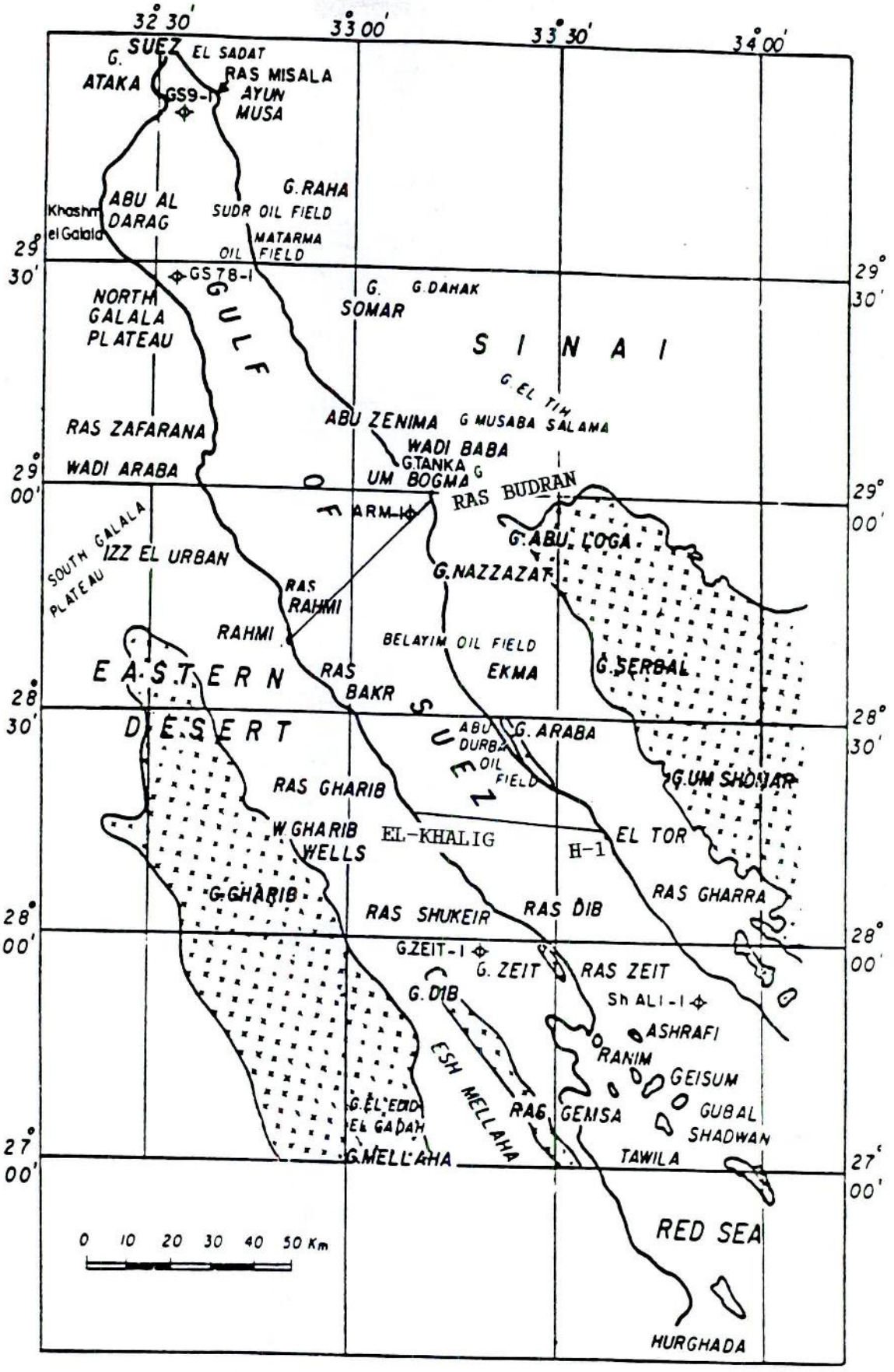

FIG.(I-1): The Location Map Of The Gulf Of Suez
(After Zahran; 1986)