Writing
Term Paper

Things you must know:

- **Topic**
- **Length (5-10 pages)**
- **Timetable (for outlines, drafts, etc.)**
- **Due date (March 16, 2020)**
- **Grading criteria (10 Points)**
- **Acceptable sources (Books, Scientific Journals, Web scientific sites.**

Choose a Topic

Hopefully your topic:

- Applies to the class subject,

- interests you,

- is familiar to you, or

- is one you want to learn about.

Set-Up of term Paper

- **Cover page**
- **Body of paper**
  - **Abstract (1/2 page)**
  - **Introduction**
  - **Headings & Sub-headings**
    - **Material and methods**
    - **Results and discussion**
  - **Summary and conclusions**
  - **References**

COVER PAGE

Title

Your Name

Term Paper

Course:
Geology of Mineral Resources in Africa

Department of Natural Resources
Faculty of African Postgraduate Studies
Cairo University

prof. Abbas M. Sharaky

Jan. 2026

Term Paper Format

- Margins: 1” or 2.5-3.5 cm on all sides.
- Typefaces: Times New Roman, 12 pt.
- Pages are numbered starting with cover (Title) page, in the bottom center.
- Line spacing: 1.5 lines.
- Bold header to the left.

Abstract

- Summarizes the Paper
- Example

Salinization of the Groundwater in the Coastal Shallow Aquifer, Northwestern Nile Delta, Egypt

The hydrochemistry of major-ions together with trace elements has been used to constrain the hydrochemical characteristics, source and salinization processes of the shallow coastal aquifer, northwestern Nile Delta. Twenty groundwater wells have been examined and sampled to carry out the physico-chemical parameters and chemical compositions of the groundwater and to obtain additional information on the possible contamination with major elements, trace elements (heavy metals) and/or nutrients (NO3-, PO42-, NH4+).

The hydrochemical data indicated that the groundwater of the coastal aquifer, northwestern Nile Delta is meteoric in origin and is mixed with marine water. The coastal plain aquifer is recognized to be at high risk of increasing salinization. The salinity of the groundwater as a total dissolved solid (TDS) ranges from 1,288 to 4,907 mg/L with an average of 3,155 mg/L. The groundwater is slightly alkaline with pH's ranging from 7.01 to 8.2. The electric conductivity (EC) of the groundwater ranges from 1,900 to 9,790 µS/cm with an average of 4,620 µS/cm. It is directly related to TDS and the geographical position of each well. The high values of salinity, pH and EC indicate seawater intrusion.

– Some Key words:
  - **Groundwater, Aquifer, hydrochemistry, salinization, Nile Delta, Egypt, Trace elements**

Introduction

- An introduction, unlike the abstract introduces the reader to your paper.
- It gets the reader interested in what they are about to read.
- Objectives
- Short material and methods
- Literature review

Introduction

- Demand of water has steadily increased in Egypt during the last 50 years due to population increase, new land reclamation and urban and industrial development.
- The coastal aquifer is characterized by the presence of brackish water that endangers, often irreversibly, the future of water resources in the area.
- The over-pumping of the groundwater among other factors such as limited natural recharge, geometric and geological conditions of the Nile Delta aquifer has seriously degraded water quality due to severe seawater intrusions (Sherif, 1999).

Headings & Sub-headings

Geologic Setting

The coastal zone has received the attention of a number of researchers. Among them are; Philip (1955), Shata (1962), El Fayoumy (1964), Sanad (1973), and Nagy (2001). ……

Hydrogen Ion Activity (pH)

The pH values of the coastal aquifer lie in the range 7.01 to 8.20 with an average of 7.73 (Table 1).

Salinity Content

The hydrochemical data of the coastal aquifer indicated that the TDS varies from 1,288 to 4,907 mg/L with an average of 3,155 mg/L (Table 1).

Origin of the Groundwater

According to the Sulin's classification (1948), about 95% of the groundwater samples are located in the lower quadrant of Sulin's diagram (Fig. 11).

Summary and Conclusions

The salinity of the groundwater as a total dissolved solids (TDS) ranges from 1,288 to 4,907 mg/L. A few samples show Na/Cl ratios that are slightly higher than unity, indicating an additional source for Na+ that is mostly silicate weathering.

The hydrochemical data indicated that the groundwater of the coastal aquifer, northwestern Nile Delta is meteoric in origin and is mainly recharged by Nile water and local rainfall), which is mixed with marine water due to seawater intrusion.

References

(1 Author)

Shahin, M., 2002, Hydrology and Water Resources of Africa, Springer, Kluwer Academic Publishers, New York, 659 p.

(2 Authors)

Carrey, A., and Hollis, F., 1989, Fish and underwater life. Boston: Big Press.

(3 Authors)

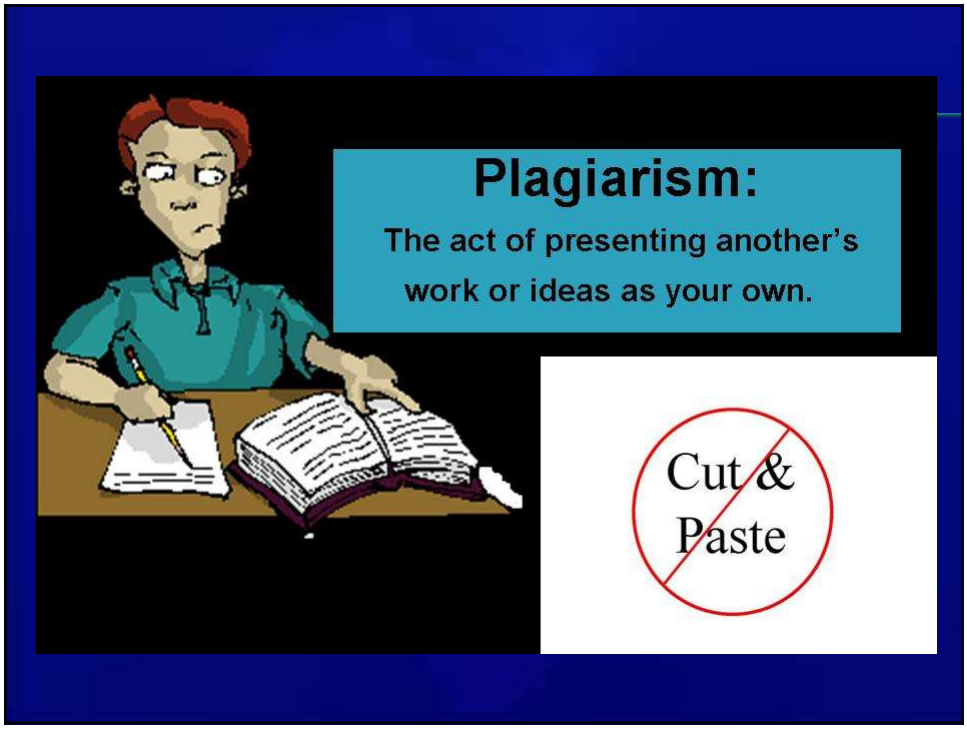
Elliot, c., Hollis, F., and Katerdunk, S., 1990, Early water experience. New York: Howard Press.

(Magazine Article)

Posher, N.I. (1992), Desertification in Egypt. Egyptian Journal of Nile Basin Studies, Cairo University, 2, pp.1-15.

(Internet article)

Central Intelligence Agency. (Dec. 6, 2014). The Nile River. Ministry of Water Resources and Irrigation: http://www.mwri.eg



Anatomy of a Research Paper

Title
Authors
Abstract
Keywords

Need to be accurate and informative for effective indexing and searching

Main text (IMRaD)
- Introduction
- Methods
- Results
- Discussion (Conclusion)

Each has a distinct function

Acknowledgements
References
Supplementary material