دائـــرة الـــشـــؤون الـــبـــلـــديـــة
DEPARTMENT OF MUNICIPAL AFFAIRS
بلـديـة مـديـنـة العـين
AL AIN CITY MUNICIPALITY

FINAL REPORT TEMPLATE

Soil Study, Geophysical Investigation
Al-Ain Municipality

Geophysical Services

Reference Number 01/10/2014

Submission:

- **Name of the project**
- **Name of owner**
- **Submitted by**
- **Field Survey Conducted by**
- **Acquisition and Data Processing**

Reference inquiries to:

Client	:	----------
Location	:	----------
Site	:	----------
Country	:	----------
Analyst	:	----------
Analysis Date	:	Month Year
Acquisition Date	:	Day Month Year
Job Reference	:	----------

Processing and Interpretation of Data & Project name

Company Logo (as Image)

Company Name
Address:
City:
Country:
Tel:
Email:

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. AACM-IC-GL-03		2. Recipient's No. V3.0.24Dec2014	
3. Title and Subtitle Final Report Template Soil Study, Geophysical Investigation Al-Ain.		4. Report Date 24 December, 2014	
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7. Performing Organization Name and Address Infrastructure & Assets of the Municipality, Al-Ain Municipality Main Building P.O. Box 1003. Al Ain City, Abu Dhabi, UAE		8. Work Unit No. (RDS)	
9. Sponsoring Organization Name and Address United Arab Emirates University, P.O. Box 15551, Al-Ain United Arab Emirates		10. Type of Report and Period Covered Final Guideline	
11. Supplementary Notes			
12. Abstract As a service authority, Al Ain City Municipality has been able to absorb the latest and most advanced scientific and professional standards of quality and excellence through development and upgrading work systems, taking benefit, in this respect, from the extensive development of the means of communications and information technology, as well as from the continuous development of its human resources with a view to render faster and more distinguished services for the population of Al Ain City. Such vision and practices followed in providing services by the Municipality have been met with satisfaction and appreciation by both citizens and residents of the Area. Within the global vision, Al Ain City Municipality has prepared a Guideline Manual of Geophysical Study to be carried out by Consultant and Contractor Bureaus/Companies within the limits of Al Ain. This Guideline Manual will be given to companies with excellent reputation and experience both within the UAE and abroad.			
13. Key Words Geophysics, Geohazard, Lithology, Soil, Rock.	14. Distribution Statement: No restrictions This document is available from Research and Development Section and AACM website.		
15. Security Classification (of this report) None	16. Security Classification None	17. No. Of Pages 16	18. Price Free

Preface

The critical item in evaluating specific site investigations for adequacy is the resulting geophysical report. A report that is incomplete or poorly written cannot be accepted and will be not approved. A report will not be accepted until it presents the pertinent facts correctly and completely.

The conclusions presented in the report regarding the geological hazards or problems must be separate form and supported by the investigative data. An indication regarding the level of confidence in the conclusions should be provided. Recommendations based on the conclusions should be made to mitigate those geology-related problems, which would have an impact on the proposed development. Recommendations also should be made concerning the need for additional geophysical investigations.

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Appendix

(Example)

Appendix A: Data Processing.
Appendix B: Summary ERT, MASW …. Processing Techniques.
Appendix C: Glossary of Terms.
Appendix D: Mnemonics.

Section 2: Answer Products

Prints:

1. (2 copies): Geophysical Final Report.

Digital Media:

1. CD-ROM: (2 copies) including:
    - Geophysical Final Report
    - Geotechnical report
    - Results in GIS format
    - Raw & Processed Data files
    - Boreholes notation
    - Table in Excel sheet (appendix 1)

Executive Summary:

1.0 Introduction

1.1 Objectives of the Report

Description of the objectives of the report

1.2 Services Details:

The service details of the Geophysical Investigation, data acquired in the site are summarized in table 1 below:

General:	
Operator name	
Zone name	
Location	
Location Coordinate (UTM)	
Reference datum	
Site condition	
Geophysical Acquisitions:	
Geophysical Contractor	
Data acquisition system	
Data processing software	
Final data acquired	
Date of acquisitions	
Total interval acquired / area study	
Depth of investigation reached	
Client Name	
Contractor engineers	

Table 1: Services Details

1.3 Site Description

According to the survey and a priory site visit the site description is requested and should include and not limited to

1.3.1 Project Boundary

1.3.2 Profiling and Building Position

1.3.3 Profile, Geotechnical and Calibration Borehole Coordination

1.4 Geology Description

Geology site description.

1.5 Methodology

All parameters used or entered in machine during all and any survey. In addition, any other array configuration used in any part of the survey must be mentioned.

1.5.1 Data acquisition

Give details of the method used in the site:

Site Name	Interval acquired	ERT	MASW	GPR	Gravimetric	Magnetic	Others if there is
	m	**X**	**X**	**X**	**X**	**X**	**X**

Table 2: Acquisition methods.

Parameters	Value	comments

Table : fieldwork parameters

1.5.2 Fieldwork Parameters used

Figure 1: Geophysical Array Diagram

2.0 Geophysical data processing

2.1 Data Quality Control

Discussion the data quality.

2.2 Processing Parameters

All processing parameters used during the processing is requested

Parameters	Value	Comments

Table: processing parameters.

3.0 Results

Giving detailed interpretation for each profile of every method used during the survey. Any Geological features encountered during the Geophysical investigation must be clearly as following:

- Falaj
- Voids (type of this void: cavities, collapsed, unfilled, filled …)
- Groundwater table (depth and salinity)
- Stratigraphy,
- Lithology (combination between Geophysical and Geotechnical)
- Geophysical hazard map.
- Geo-hazard Risk map.

3.1 Geophysical Results

Discussing the Geophysical Results .. Any geo hazard identify during the survey must be clearly mention is separate table as following:

Profile number	Anomaly Depth	Anomaly distance (from the begging of the profile)	Geographic coordinates	Geophysical parameters value	Description/type of the anomaly

3.2 Geotechnical Results

Discussing the Geotechnical Results

3.3 Groundwater

The groundwater table existing, including map for the area over 100.000 m^2.

3.4 Limitations

The limitations for the survey due to site conditions or weather subservices infrastructures.

4.0 Discussions

4.1 Discussion and interpretation

4.2 Relationship between Geophysical and Geotechnical

4.3 Relationship between Geophysical and Geology

4.4 Combination

5.0 conclusion

6.0 recommendation

Appendix1

see the attachment: excel sheet Geophysics_info.xlsx

To fill this table:

1- Space should not be used between words. Only_under_score

2- Summary must be given for the site lithology and geological hazard

3- Attachment:

- Risk Map (shp file or dwg) (all must be georefrence)
- Groundwater table map (shp file or dwg) (all must be georefrence)
- Geological cross section (Image or pdf)

Appendix 1 A

Acquisition parameters

File Edit Format View Help

Survey_Type	Active_MASW
File_Name(s)	"1011.dat"-"1022.dat"
Folder	"Project_Name_site_Name_Profile_Number_Active_MASW\"
Survey_Purpose	2-D_3-D_or_Profiling
Data_Format	SEG-2
Acquisition	24-48_channel
Source	40Kg_hydrolic-hammer
Receivers_(Geophones)	4.5-Hz
Receiver_Array	Linear_(roll_along)
Array_Dimension_(D)	23m
Receiver_Spacing_(dx)_	3m
Source_Offset_(x1)	6m
Receiver_Array_Move	1_dx_(High_lateral_resolution)_or_2_dx_(medium_lateral_resolution)
Sampling_Interval_(dt)	0.5_ms
Recording_Time_(T)	2_sec
Vertical_Stack	5-10times_(very_noisy_site)
Record_Numbers	1011-1022

Appendix 1B

Processing parameters

Txt file same as Acquisition parameters