METHOD STATEMENT

RESISTIVITY SURVEYS

GENERAL

Revision	**Date**	**Prepared By**	**Approved By**

Method Statement - Resistivity Surveys	

BAC Corrosion Control Limited
Stafford Park 11
Telford
TF3 3AY
Tel: 01952 290321
Fax: 01952 290325
Email: engineering@bacgroup.com

C O N T E N T S

1 INTRODUCTION

This Method Statement covers describes the general technique of carrying out a soil resistivity survey.

2 REFERENCE DOCUMENTS

2.1 Specifications

British Standard 7361: Part 1: 1991 Code of Practice for Cathodic Protection for Land and Marine Applications

2.2 Drawings

As required.

3 RESPONSIBLE PERSONS

Activities associated with conducting a soil resistivity survey shall be carried out by suitably experienced and trained personnel.

Technicians will respond to the appropriate Project Engineer.

Project Engineers report to the Manager, Engineering Services.

4 TEST EQUIPMENT

4.1 Calibration

Test meters utilised during commissioning of the Cathodic Protection system shall be calibrated to National or International measurement standards

4.2 Equipment List

Four terminal Earth Tester - Megger DET4 or equivalent

Cable harness suitable for the required pin spacings

Four pins

Hammer, mallet or other tool for driving the pins.

5 TEST PROCEDURES

i) Ensure that all relevant site conditions and working practices are observed. If necessary obtain a work permit as required by the site.
ii) Measure the distance required between the pins.
iii) Place the pins in the ground.
iv) Connect the test leads to the designated pins and the correct terminals on the earth tester.
v) Operate the earth tester according to the manufacturers instructions. Different instruments may have slightly different modes of use.
vi) Record the measured resistance. Some instruments will display the soil resistivity directly, others will require a calculation to be performed.
vii) Repeat the test at any other pin spacings required at this location.
viii) Move to the next location and repeat.

6 HEALTH AND SAFETY

6.1 General

It is the intention of BAC that all test and inspection procedures are carried out in a safe manner in accordance with the Health and Safety At Work Act and any other relevant legislation.

If required by the Client, BAC personnel will attend any Site Safety Induction Courses before carrying out work on site.

6.2 Safety Handbook

It is the responsibility of all BAC personnel to be familiar with the latest revision of the Company's Safety Handbook. The Safety Handbook details the responsibility of the Company and the individual regarding Safety Regulations.

6.3 Risk Assessments

6.3.1 General Hazards

i) *Site safety.*
There can be assorted risks associated with working on any site and site regulations as laid down by the site owner/operator should be observed.

ii) *PPE*
The minimum personal protective equipment is as follows:

Approved safety helmet
Approved ear defenders/earplugs
Safety footwear
Eye protection
Gloves
Overalls

And any other equipment required by the site operator or deemed necessary by the task

6.3.2 Specific hazards applicable to Soil Resistivity

i) *Electric shock.*
Earth Testers operate at up to 500V and there is an electric shock hazard. To avoid minimise the risk, ensure that the test leads are attached to the pins and that the pins are firmly inserted in the ground. When assisted by a second person ensure that the second person is not handling the pins when the instrument is operated. Do not operate the equipment in heavy rain or in conditions where the instrument can become wet.

ii) *Entering Farms and Farmland*
During a soil resistivity survey it may be necessary to cross farm land.

a) Take care if farm vehicles or machinery are operating nearby.
b) Be aware that the fields may have been sprayed with pesticides or other chemicals. (Prior to the survey commencing the client should liase with landowners to establish if this is the case. The client/landowner should provide

CoSHH sheets relating to the chemicals used. Observe any precautions and recommendations contained on the CoSHH datasheet)

c) Take care when entering fields where animals are kept.
d) If crossing field boundaries always use a gate or stile if possible. Avoid climbing fences and walls. Avoid water filled ditches. Take special care if any fences are electrified. (Prior to the survey commencing the client should liase with landowners to establish if this is the case and request that electric fences are switched off.)

iii) *Road traffic*.

If any test locations are located near a roadway, there is a risk of injury caused by moving vehicles. All personnel should wear suitable high visibility clothing and exercise increased care.

6.4 Control of Substances Hazardous to Health (C.o.S.H.H.)

Where applicable, substances hazardous to health shall be listed and itemised in the form of a register.

Health and Safety Data Sheets for all hazardous substances shall be kept in a file for reference.

Site personnel shall be issued with copies of Health and Safety Data Sheets relevant to their work activities.