CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter are about the determination of corrosion rate associated with the microstructure of aluminium after doing some treatment such as heat treatment and forging treatment. The methodology of this project is illustrated in the flow chart and Gantt chart shown in Figure 3.1 and Figure 3.2. The schematic diagram is very important to ensure the whole process is in the right track instead providing a clear picture to readers on what this experiment all about. Chronologically, the title of this project was studied and the scopes together with the objectives. The next is collecting information from journal research, related articles, reference books and internet. The next phase is the preparation of specimen for the experiment. That does include heat treatment and pressing or forging treatment together with the medium (soil with pH value is 5.6).
Figure 3.1 : Flow chart
3.2 PREPARATION OF MATERIALS

There are two elements will be used the in the experiment, the first element acts as sacrificial anode and another one is steel to acts as chatode.

3.2.1 Aluminium 6064

Both aluminium and zinc anodes are used in cathodic protection of pipeline on underground. Zinc was the first material to be so used and is therefore considered the traditional anode material. However, aluminium has several outstanding advantages and is fast becoming the anode material of choice.

The efficiency of any anode material depends on its electrochemical properties. First among these is the open circuit potential. For aluminium the open circuit potential is