

**A MONOGRAPH FOR PRESSURE GRADIENT  
ESTIMATION USING WIRELINE LOG  
DATA OF FANG BASIN**

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**A Thesis Submitted in Partial Fulfillment of the Requirements for the  
Degree of Master of Engineering in Gotechnology  
Suranaree University of Technology  
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โมโนกราฟเพื่อหาค่าความดันที่เพิ่มขึ้นต่อความลึกโดยใช้  
ข้อมูลจากการหยั่งธรณีหลุมเจาะของแอ่งฝาง

นายเศรษฐศักดิ์ ผิวทอง

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิศวกรรมศาสตรมหาบัณฑิต  
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ปีการศึกษา 2554

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Suranaree University of Technology has approved this thesis submitted in partial fulfillment of the requirements for a Master's Degree.

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เศรษฐศักดิ์ ผิวทอง : โมโนกราฟเพื่อหาค่าความดันที่เพิ่มขึ้นต่อความลึกโดยใช้ข้อมูลจากการหยั่งธรณีหลุมเจาะของแอ่งฟาง (A MONOGRAPH FOR PRESSURE GRADIENT ESTIMATION USING WIRE LINE LOG DATA OF FANG BASIN) อาจารย์ที่ปรึกษา : อาจารย์ ดร.อัมพรศักดิ์ วรรณโกมล, 215 หน้า.

ในการสำรวจและขุดเจาะปิโตรเลียม ค่าความดันจะเพิ่มตามค่าความลึกอันเป็นผลเนื่องมาจากแรงกดทับของหินที่กดทับต่อเนื่องกันมาและความดันสะสมของของไหลที่สะสมอยู่ในช่องว่างของเนื้อหิน จากข้อมูลค่าความต้านทานไฟฟ้าที่ได้จากการหยั่งธรณีหลุมเจาะสามารถนำมาสร้างเป็น โมโนกราฟแสดงความสัมพันธ์ระหว่างค่าความต้านทานไฟฟ้าที่เพิ่มขึ้นกับระดับความลึกได้ในการศึกษาครั้งนี้ได้นำข้อมูลของค่าความต้านทานไฟฟ้าจากการหยั่งธรณีหลุมเจาะของแอ่งฟางมาหาค่าแนวโน้มของเมื่อเทียบกับความลึกโดยใช้โปรแกรม ไมโครซอฟท์ ออฟฟิศเอ็กเซล 2003 โดยเส้นแนวโน้มนี้สามารถนำมาใช้ทำนายค่าความดันที่เพิ่มขึ้นตามระดับความลึกได้โดยการสร้างโมโนกราฟที่แสดงความสัมพันธ์ระหว่างค่าความต้านทานไฟฟ้ากับระดับความดันขึ้นมา ผลที่ได้จากการศึกษาครั้งนี้คือ โมโนกราฟที่ใช้สำหรับประเมินค่าระดับความดันที่เพิ่มขึ้นตามความลึกเพื่อใช้สำหรับแหล่งน้ำมันแม่สุรนัน แหล่งน้ำมันสันทราย และแหล่งน้ำมันบ้านธิ ซึ่งตั้งอยู่ภายในแอ่งฟาง แต่ละแหล่งแยกจากกัน ผลจากการทดสอบการใช้โมโนกราฟในการประเมินค่าความดันพบว่าร้อยละของความคลาดเคลื่อนในการประเมินค่าความดันของแหล่งน้ำมันแม่สุรนัน สันทราย และบ้านธิ มีค่าเป็น 4.21, 4.47 และ 4.74 ตามลำดับ ในขณะที่ร้อยละความคลาดเคลื่อนของการประเมินค่าความดันที่เพิ่มขึ้นตามความลึกของแหล่งน้ำมันแม่สุรนัน สันทราย และบ้านธิ โดยใช้โมโนกราฟที่สร้างขึ้นนั้น พบว่ามีค่าต่ำมากโดยมีค่าเป็น 0.000670, 0.001509 และ 0.011732 ตามลำดับ อย่างไรก็ตามลักษณะทางธรณีวิทยาของแต่ละแหล่งน้ำมันมีบทบาทสำคัญและมีผลอย่างมากต่อความถูกต้องในการประเมินค่าระดับความดันและระดับความดันที่เพิ่มขึ้นตามความลึกจากการใช้โมโนกราฟนี้

สาขาวิชา เทคโนโลยีธรณี

ปีการศึกษา 2554

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ลายมือชื่ออาจารย์ที่ปรึกษา \_\_\_\_\_

SATTASAK PUEWTHONG : A MONOGRAPH FOR PRESSURE  
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MONOGRAPH/ PRESSURE GRADIENT ESTIMATION/ WIRELINE LOG DATA/  
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In petroleum exploration and drilling, the pressure is directly proportional to the depth caused by the continual pressured stress of rock. From resistivity log data, a monograph indicating the relationship between increasable resistivity and depth can be created. In this study, resistivity log data of Fang Basin had been estimated its trend by applying Microsoft Office Excel 2003. This trend could be used for pressure gradient estimation by using an invented resistivity related pressure monograph. As a result, a monograph for pressure gradient estimation for Mae-Soon oil field, Sansai oil field, and Banthi oil field located in Fang basin was separately created. Result from created pressure estimation monograph testing indicated that the erroneous percentage of pressure estimation of Mae-Soon, Sansai and Banthi oil field was 4.21, 4.47 and 4.74, respectively. While the erroneous percentage of pressure gradient estimation of Mae-Soon, Sansai and Banthi oil field by using created monographs was very low as 0.000670, 0.001509 and 0.011732, respectively. However, geology characteristics of these oil fields play and important role have considerable effect on the accuracy in using the monograph.

School of Geotechnology

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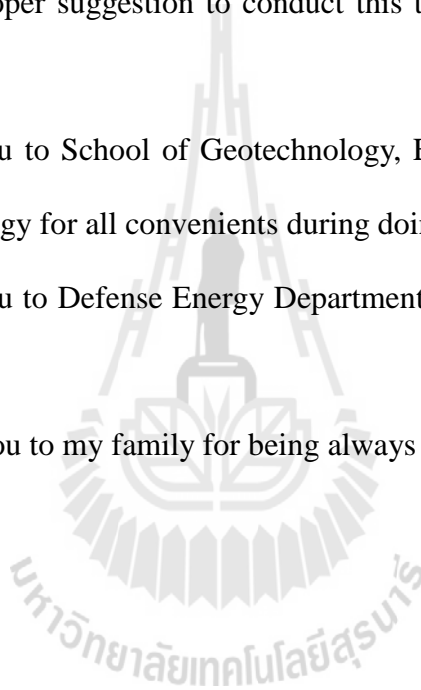
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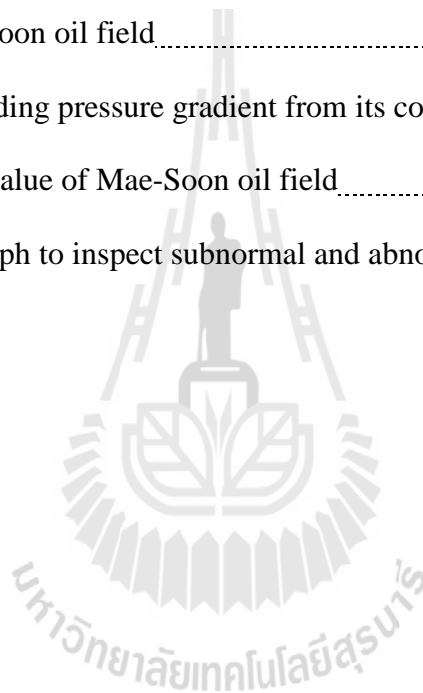
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# CHAPTER I

## INTRODUCTION

### 1.1 Background and rationale

In the process of petroleum exploration and drilling, the pressure is directly proportional to the depth caused by the continual pressured stress of rock and the accumulative pressured fluid filling in pore space. From resistivity log data, a monograph indicating the relationship between increasable resistivity and depth can be created. In general, wireline log data in an abnormal high pressure zone can be observed and obviously separated from those of the normal pressure zone. This zone extremely affects and brings many of problems to petroleum drilling activity. To minimize problems occurred during the drilling activity, it is necessary for the driller to know data and information of pressure in each reservoir.

### 1.2 Research objectives

The objective of this thesis is to create a monograph indicating the relationship between pressure gradient and normal trend of resistivity log which had been run in Fang basin, Chiang Mai, for the formation pressure estimating purpose.

### **1.3 Scope and limitations of the study**

The scope and limitations of this thesis are listed as follows;

- 1.3.1 The data used in this thesis based only on resistivity log run in Fang basin.
- 1.3.2 A created monograph can specifically predict/estimate pressure gradient only in Fang basin.
- 1.3.3 The pressure gradient resulted from using created monograph is only on the normal pressure trend.



## CHAPTER II

### LITERLATURE REVIEW

#### 2.1 Drilling pressure

In petroleum industry, types of drilling pressure are loosely determined as follows;

**Pore pressure** is the pressure which is constituted by accumulation of fluid in pore space.

**Hydrostatic pressure** is the pressure in a hole which is constituted by mud weight.

**Overburden pressure** is the pressure which is constituted by accumulation of rock matrix and pressure of fluid in pore space at any level.

As mentioned above, the pore pressure is increasable proportional to the pressured stress of rock and pressured fluid filling pore space. This increasable accumulation is so-called “pressure gradient”. Normally, the accumulative pressure in the formation of rock is stable but sometimes it is imposed by another external force and pressure making formation collapse. The last pressure cause formation collapse is so-called “fracture gradient”.

Generally, the increase of pore pressure tends to be stable except some zone; there is a jumping of pore pressure. This is because fluid in formation which is contained, not independently flow constituting long accumulation of pressure. The



pressure in this area is higher than a normal one and it is so-called an “abnormal pressure zone”.

In contrast, some area when drilling, the pressure is lower than a normal scale causing the accumulative fluid flow out of formation. This zone is so-called “subnormal pressure zone”.

## **2.2 Fracture gradient estimation**

Fracture gradient constitutes a key element in the pre-design stage of deep wells, reservoir management and massive hydraulic fracture treatment. Over the years, fracture gradient has been acknowledged to be one of the most important key element that needs to be accurately determined in order to achieve optimum operation results. Improper planning and execution of drilling operations leads to serious injuries to the working crews and not to mention the loss of several hundred million dollars in property damages. Thus, possessing reliable values of fracture gradient in the early pre-drilling design stages will be resulted in substantial reductions in well problems, cost and more importantly in safe operation conditions. Unfortunately, however, precise prediction of fracture gradient can be very difficult especially in deep abnormal pressure reservoirs and where irregular lithology behavior dominates the area of interest.

Pore pressure, formation porosity, rock density, and lithology variations with depth have been extensively investigated by many researchers. Most of the correlations presented in the literature are based on regional data. Therefore, it is imperative to understand the regional sediment lithology and mineralogy before adopting any of the available correlations. In 1957, Hubbert and Willis published a

classical paper introducing many of the fundamental principles that are still frequently used in today's fracture gradient calculations. They stated that formation pore pressure gradient, rock Poisson's ratio, and overburden stress gradient are the variables shown to control the fracture gradient. In developing their relationship, they assumed that the minimum matrix stress is one-third of the overburden stress. However, their correlation has proven to yield good estimates of fracture gradient only in areas of incipient normal faults.

Pennebaker (1968) developed an overburden pressure gradient correlation taking into consideration the formation age. Eaton (1969) correlated the overburden pressure gradient and Poisson's ratio with depth for West Texas and the Gulf Coast areas of Texas and Louisiana. He derived an equation for the effective matrix stress ratio as a function of Poisson's ratio regardless of pore pressure. In his work, Eaton assumed an elastic rock behavior and a lateral strain that could be related to the vertical stress by Poisson's ratio. Christman (1973) presented an equation that relates the matrix stress ratio to the bulk density of the sediments. He claimed that the sediment bulk density increases with depth, overburden stress, and geological age of the formation. Constant and Bourgoyne (1988) modified Eaton's method to predict the formation fracture gradient in offshore wells where the only available variables are depth and pore pressure. Similar to Christman's (1973) method, Zamora (1989) introduced a fracture gradient correlation as a function of formation bulk density and depth. All of these correlations are similar in their input parameters; however, they differ by the constraints imposed on them.

Many authors (Brennan and Annis, 1984; Vuckovic, 1989; Rocha and Bourgoyne, 1996) used leak-off test (LOT) data to predict fracture gradient in various geological areas around the world. Althaus (1977) suggested a model for fracture gradient estimation based on circulation loss data. Breckels and vanEekelen (1982) primarily used formation integrity test (FIT) to predict the formation pressure. In 1984, Brennan and Annis presented a fracture gradient prediction technique for the Gulf of Mexico's abnormal pressure zones whereas Vuckovic (1989) suggested different empirical correlations for fields located offshore Australia. Rocha and Bourgoyne (1996) presented a method based on what is called 'pseudo overburden pressure' concept, which they defined as the overburden pressure a formation would exhibit if it were plastic.

Finkbeiner and Zoback (1998) utilized data from minifrac, pore pressure surveys, and dipmeter caliper logs to constrain the full in situ stress tensor in reservoir sands from the South Eugene Island in the Gulf of Mexico offshore Louisiana. Harrison *et al.* (1954) and Warpinski and Smith (1979) presented techniques to determine the formation fracture gradient based on stress analysis models that relate the fracture pressure to the pore pressure, overburden pressure, and matrix stress ratio. Harrison *et al.* (1954) stated that hard, well-consolidated rocks could be considered as existing in the elastic state of stress while soft shales and unconsolidated sands, frequently found in Texas and Louisiana Gulf Coast can be considered to exist in a plastic state of stress and to possess horizontal stresses higher than 0.33 psi/ft. However, Warpinski and Smith concluded that the horizontal stresses in shale formations are close to the overburden stresses. In this case, the matrix stress ratio would be very close to 1.0, indicating that the fracture pressure in shale is always

equal to the overburden pressure. Although the objectives of Harrison *et al.* and Warpinski and Smith were to predict the fracture gradient in shales, they treated the stresses impeded in this type of formation differently, yielding different and sometimes contradicting results.

Holbrook and Hauck (1987) and Holbrook *et al.* (1995) used petrophysical data (gamma ray, resistivity, and density), mineralogic stress/strain relationship, and LOT data for real-time wellsite estimation of fracture pressure on a foot-by-foot basis through sedimentary rocks. They calculated the effective horizontal stress assuming visco-plastic rock behavior as opposed to more commonly assumed elastic rock properties. Their methods were shown to yield good results when applied to fields in the Gulf of Mexico and the North Sea.

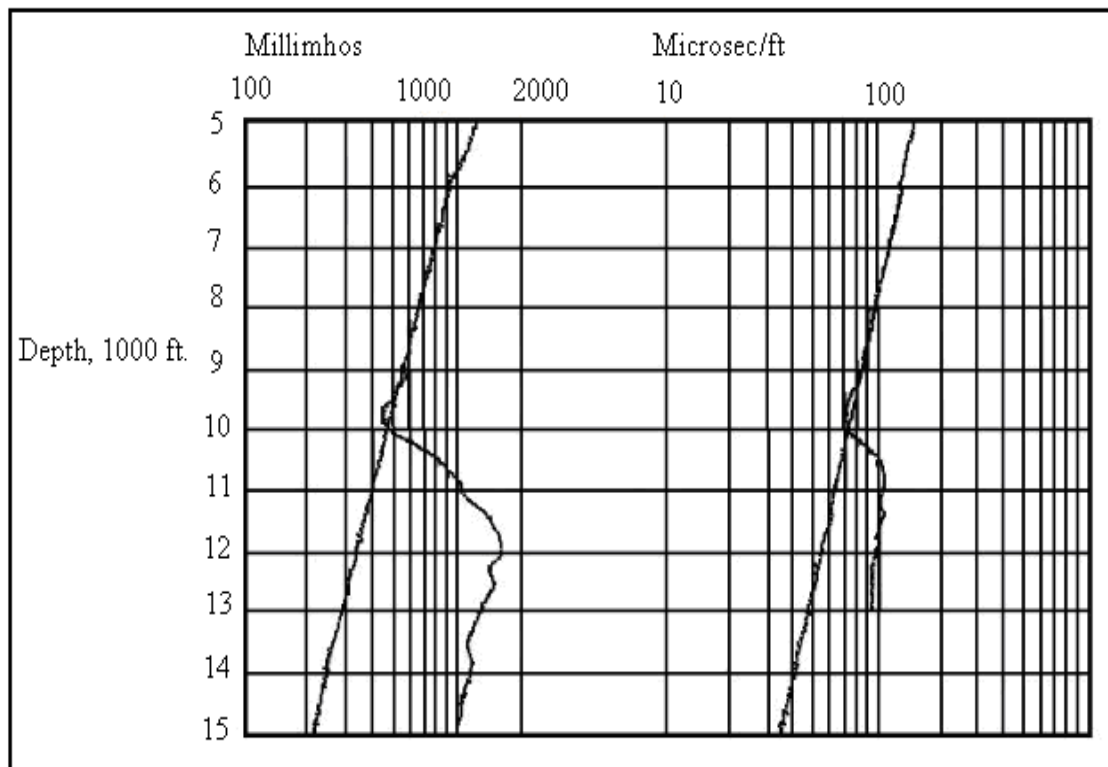
As with every other correlation, the application of these methods is highly restricted to the area from which the data is obtained. Therefore, there is no single correlation that can be used universally with high expectation of obtaining reliable results. However, two different surveys conducted by Mouchet and Mitchell (1989) and Yoshida *et al.* (1996) have shown that the most popular correlations used in the oil industry are those of Eaton (1969), Matthews and Kelly (1967), Pennebaker (1968), and Hubbert and Willis (1957). Despite their popularity, these methods are often incorrectly modified to overfit the data of certain areas yielding erroneous results (Eaton, 1997).

### 2.3 Using wireline log to predict pressure gradient

The use of wireline logs for determining pore pressures is well documented. All of the methods for calculating formation pore pressure from logs are similar. A base line is established from normal pressure levels and extrapolated into the abnormal pressure region. The base method presented by Matthews and Kelly (1967).

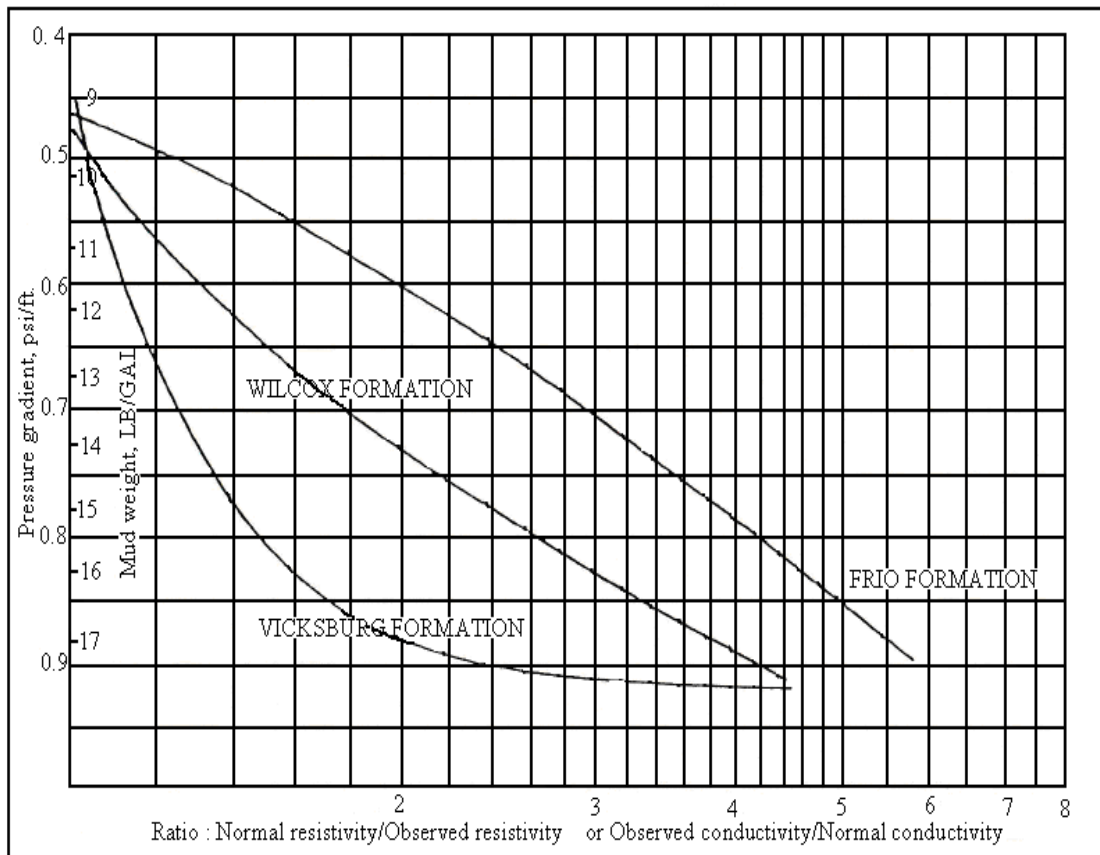
- 1) Establish a straight base line from normal pressure shale readings.
- 2) Extrapolate this straight line into the abnormal pressure region.
- 3) In the abnormal pressure region relate the actual log values to the normal extrapolated values.
- 4) Determine formation pore pressure from empirical data that have been developed for the area or in lieu of data for the specific area relate the information to similar areas.

Figure 1 shows a classic example of how abnormal pressure affects both conductivity and sonic logs. The departure of actual log data, shown by the dashed lines, indicates that shale compaction has been reduced. This means that fluid has been trapped within the pore spaces and this fluid is maintaining the porosity by supporting a part of the overburden weight. With additional fluid in the pore space electrical conductivity is increased and the travel time in second per foot for sound waves has been increased. Although a density log will not be considered specifically, this log would show a decrease in density in the abnormal pressure region.



**Figure 2.1** Log data from Frio formation-South Texas (modified after Moore, 1974).

Figure 2 taken from Matthews and Kelly (1967) shows a plot of pressure gradients versus the log ratio of observed conductivity to normal conductivity data, for well in the South Texas Gulf coast. These data are developed from experience in an area and represent known data from the area.



**Figure 2.2** Pressure gradient versus resistivity or conductivity ratios, South Texas gulf coast (modified after Moore, 1974).

## **CHAPTER III**

### **MATERAILS AND EXPERIMENTALS**

#### **3.1 Materials**

To create a monograph indicating correlation between pressure gradient and normal trend of resistivity Microsoft Office Excel 2003 was used to find a line of normal trend of resistivity.

In this study the correlation between resistivity and pressure gradient of Fang Basin was determined in sub-area separately as for Mae-Soon, Sansai and Banthi oil field respectively.

Resistivity log data from nine wells including FAMS5280, FAMS4874, FAMS5179, FASS5314, FASS3001, FASS3705, FABT4503/1, FABT4503/2 and FABT4503/3 was collected and analyzed to make a monograph for pressure gradient estimating of Mae-Soon, Sansai and Banthi oil field separately.

Some geological information of selected well including FAMS52280, FAMS4874 and FAMS5179 could be summarized as follows;

The lithology of these three holes is divided into 2 formations as follows:

#### **Mae Fang formation**

The Mae Fang formation is the upper unit of Fang Basin. It is an alluvial deposits, mostly composed of loose arkosic sand and conglomeratic sand, grey, coarse-very coarse grain, subangular-subround, interbedded with thin layer of clay. The thickness of this unit is approximately 1200-1400 ft.



### **Mae Sod formation**

The Mae Sod formation is the lower unit of Fang Basin. It is a fluviolacustrine to lacustrine, mostly composed of grey, grey brown, dark brown shale and claystone interbedded with medium-coarse, subangular grey sand.

Some geological information of selected well including FASS3001,

FASS3705 and FASS5314 could be summarized as follows;

The lithology of these three holes is divided into 2 formations as follows:

### **Mae Fang formation**

The Mae Fang formation is the upper unit of Fang Basin. It is an alluvial deposits, mostly composed of sand and conglomeratic sand, light grey, coarse-very coarse grain, subangular-subround, interbedded with grey, brown and grayish brown clay and carbonized wood. The thickness of this unit is approximately 2200-2400 ft.

### **Mae Sod formation**

The Mae Sod formation is the lower unit of Fang Basin. It is a fluviolacustrine to lacustrine, mostly composed of grey, grayish brown, brown shale, white sand, medium-coarse grain and medium-very coarse grain, interbedded with grey.

Some geological information of selected well including FABT4503/1,

FABT4503/2 and FABT4503/3 could be summarized as follows;

The lithology of these three holes is divided into 2 formations as follows:

### **Mae Fang formation**

The Mae Fang formation is the upper unit of Fang Basin. It is fluvial deposition, loose arkosic sand/gravel, grey, fine-coarse, angular-subangular, interbedded with thin layer of clay. The thickness of this unit is approximately 800-1200 ft.

### **Mae Sod formation**

This formation has three sub-formation, Upper Mae Sod, Middle Mae Sod, Lower Mae Sod. It is a fluviolacustrine to lacustrine, grey, grey brown, dark brown, medium-coarse, coal base was on the base and have  $\text{CaCO}_3$  (all geological data uses data of Defense Energy Department as references).

## **3.2 Experiments**

### **3.2.1 Resistivity log interpretation**

Resistivity log data of nine drilled holes from three oil fields in Fang Basin – Mae-Soon oil field (FAMS5280, FAMS4874, FAMS5179), Sansai oil field (FASS5314, FASS3001, FASS3705), and Banthi oil field (FABT4503/1, FABT4503/2, FABT4503/3) were read, recorded and interpreted at each five-feet interval. The result of resistivity interpretation was showed in Appendix A.

### **3.2.2 Normal trend of resistivity creating**

To find a normal trend of resistivity based on data from interpretation in step 3.2.1., the following steps were conducted.

1. Data which was in the range of abnormal pressure zone was deleted. This is because these data are not corresponded to the normal trend of resistivity value. All resistivity data located in range of abnormal pressure zone of Mae-Soon, Sansai, and Banthi oilfield which had been deleted are showed in table 3.1, 3.2 and 3.3 respectively.

**Table 3.1** The amount of abnormal pressure data which had been deleted of Mae-Soon oil field.

Hole name	Total Data (Number)	Deleted Data (Number)	Deleted Data (%)
FAMS5280	273	57	20.88
FAMS4874	273	45	16.48
FAMS5179	273	24	8.79
Total	819	126	15.38

**Table 3.2** The amount of abnormal pressure data which had been deleted of Sansai oil field.

Hole name	Total Data (Number)	Deleted Data (Number)	Deleted Data (%)
FASS5314	399	126	31.58
FASS3001	399	65	16.29
FASS3705	399	56	14.04
Total	1197	247	20.63

**Table 3.3** The amount of abnormal pressure data which had been deleted of Banthi oil field.

Hole name	Total Data (Number)	Deleted Data (Number)	Deleted Data (%)
FABT4503/3	491	21	4.28
FABT4503/1	491	26	5.30
FABT4503/2	491	23	4.68
Total	1473	70	4.75

2. Resistivity data located in normal pressure zone was then studied and analyzed statistically, e.g. its standard deviation (SD). The SD study is normally used for testing the unity of a data set. In mathematics, SD is found by equation below.

$$SD = S = \sqrt{\frac{\sum_{i=1}^N (X_i - \bar{X})^2}{N}} \quad (1)$$

Where S = standard deviation of sample

X = random variable

$\bar{X}$  = mean value of these observations

N = Numbers of sample

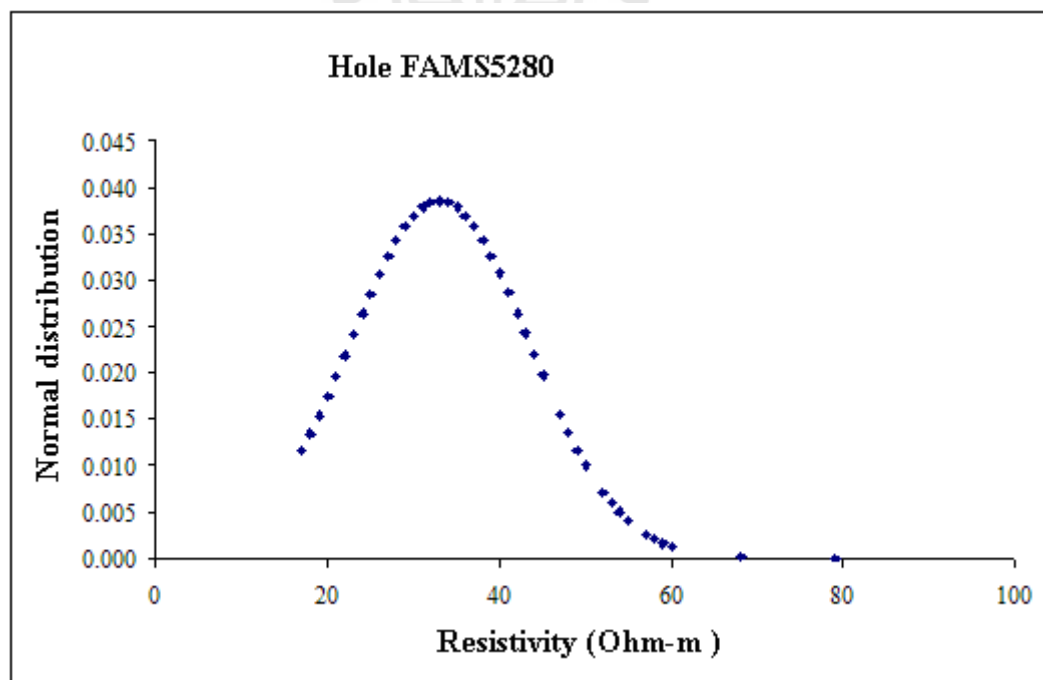
As a result, in this research, X is the resistivity of each five-foot depth interval. This study used Microsoft Office Excel 2003 to calculate SD of each data set by its statistic function; STDEV, which the SD and mean of resistivity data of each hole were showed in the table 3.4.

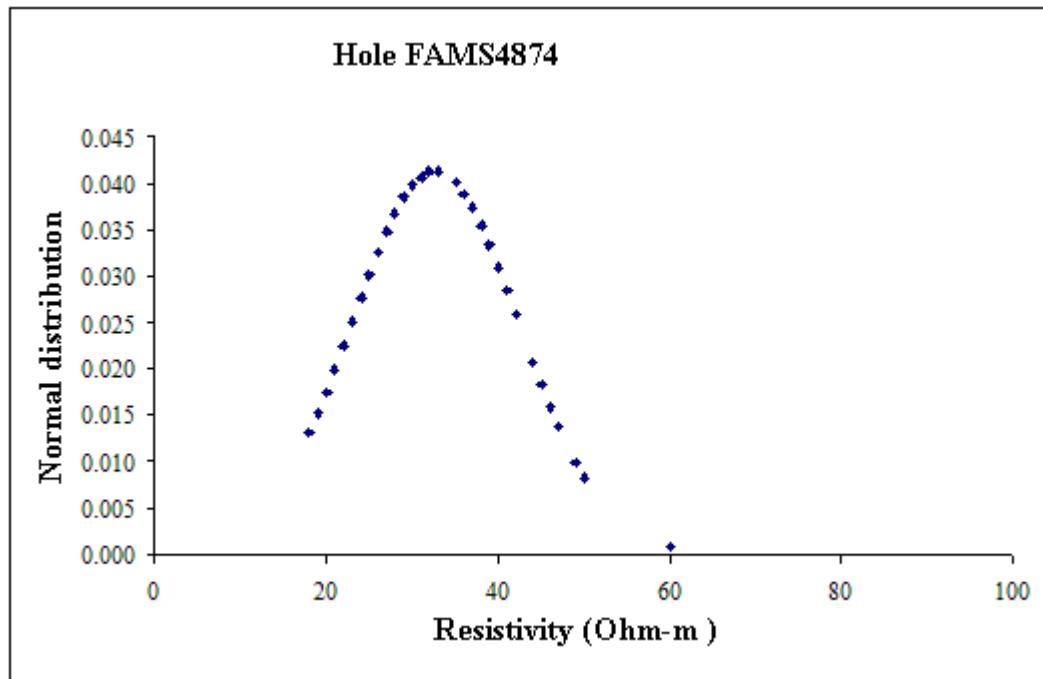
Results from SD and mean of resistivity analysis indicated that within the same oil field the SD and mean of resistivity of selected holes were quite the same. This was because the similarity of geological characteristics of each oil field had an influence on recorded resistivity which had been performed in the same way. As a result, range of distribution was quite the same level. To show the distribution of data sets in term of mean and SD, the normal distribution function of Microsoft Office Excel 2003, called NORMDIST, was applied to the recorded resistivity data. Normal distribution of all data points was showed in Appendix B.

**Table 3.4** Mean and SD of resistivity data of selected holes in Fang Basin.

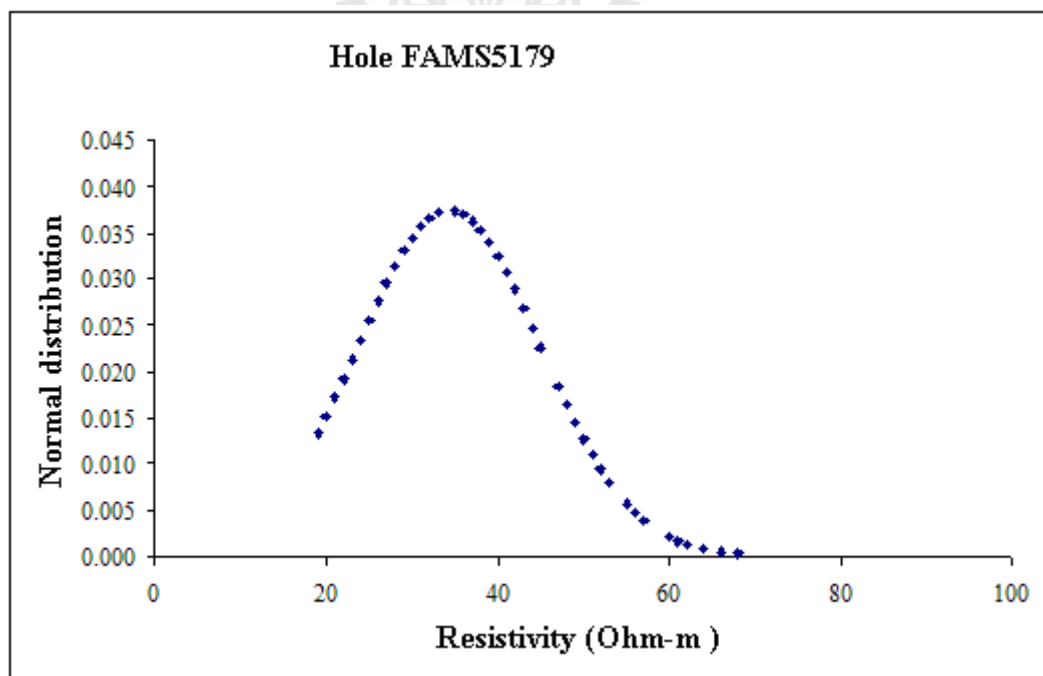
Hole name	Mean	SD
FAMS5280	33.02	10.35418
FAMS4874	32.66	9.656505
FAMS5179	34.31	10.64826
FASS5314	29.60	11.60483
FASS3001	29.49	11.11819
FASS3705	30.02	11.56938
FABT4503/1	9.39	8.646042
FABT4503/2	9.32	9.152733
FABT4503/3	8.63	8.188168

Consequently, normal distribution of recorded resistivity data of each selected hole from each oil field was separately showed in the following graphs.

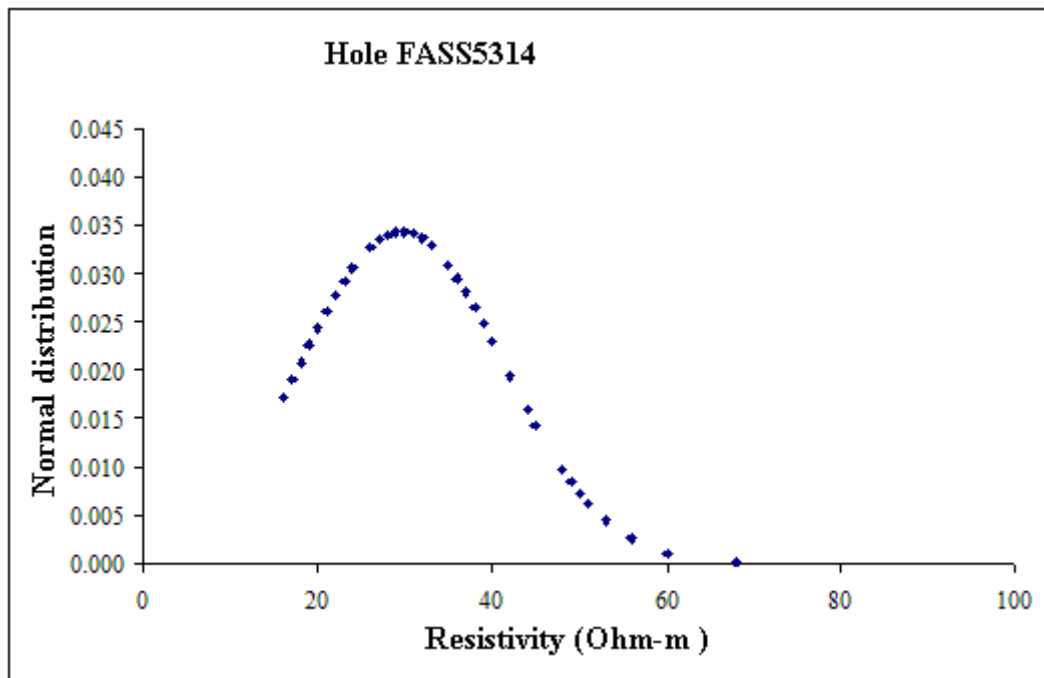
**Figure 3.1** Distribution of resistivity data of hole FAMS5280 of Mae-Soon oil field.



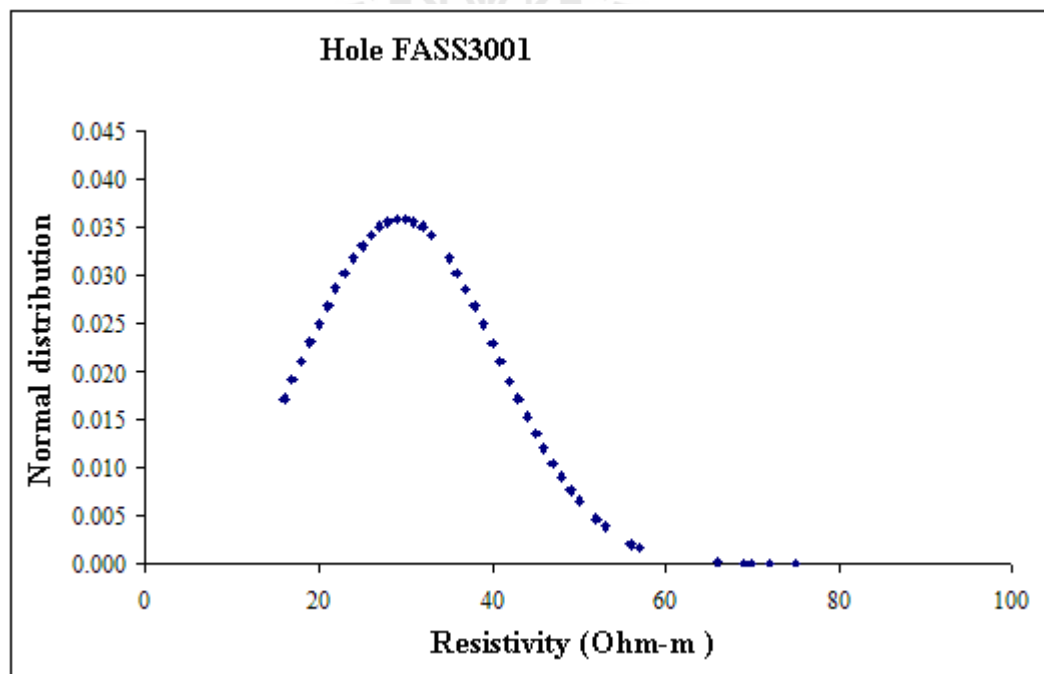
**Figure 3.2** Distribution of resistivity data of hole FAMS4874 of Mae-Soon oil field.



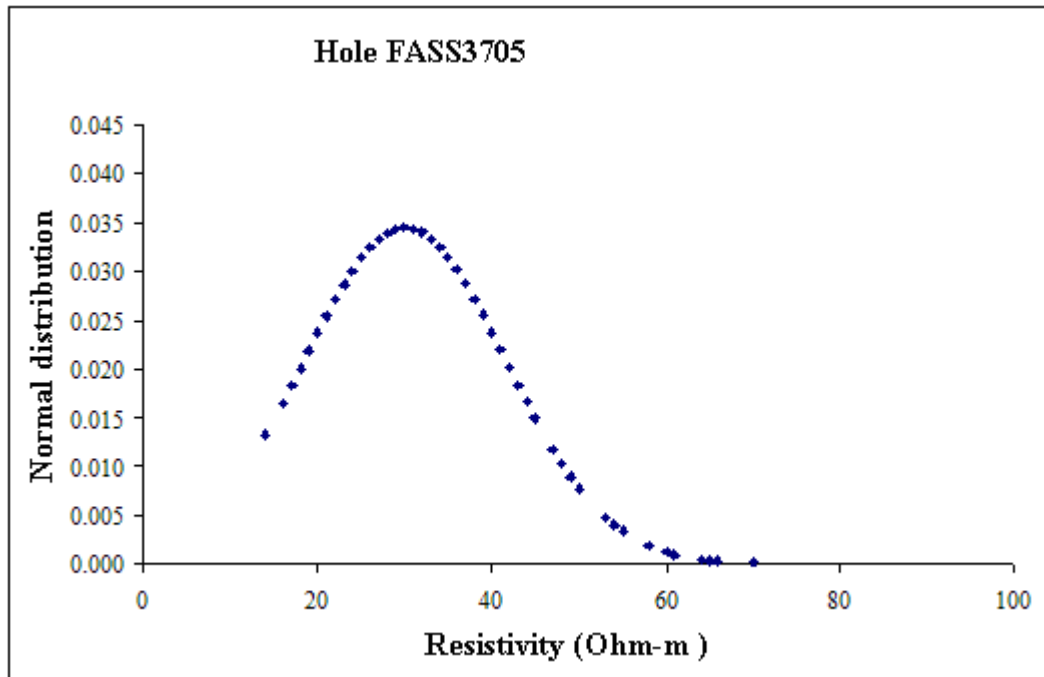
**Figure 3.3** Distribution of resistivity data of hole FAMS5179 of Mae-Soon oil field.



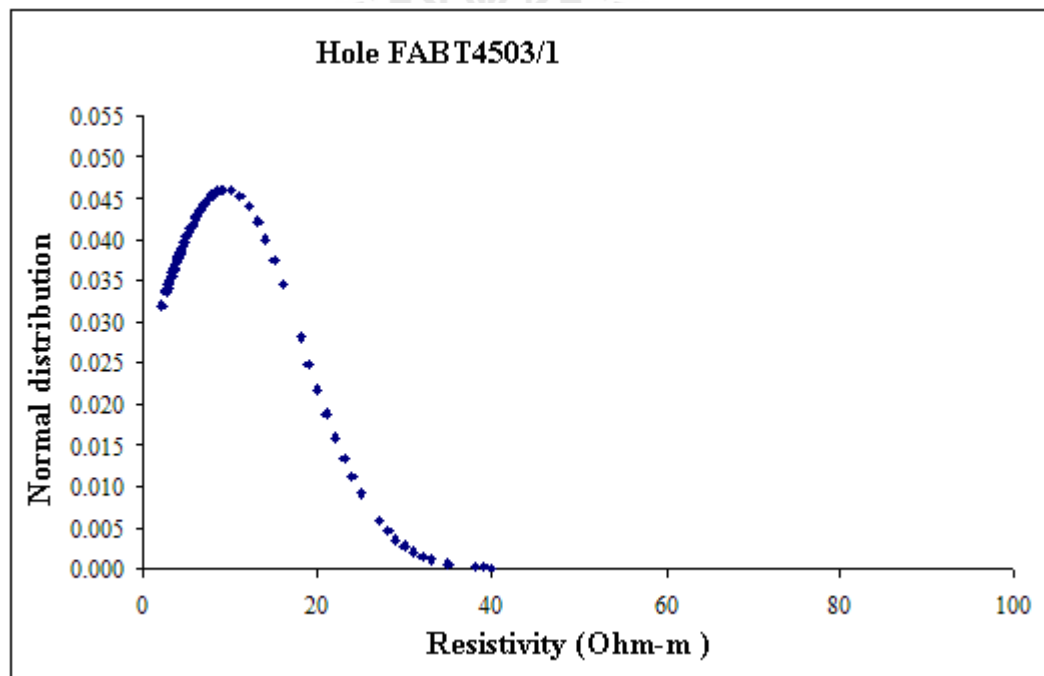
**Figure 3.4** Distribution of resistivity data of hole FASS5314 of Sansai oil field.



**Figure 3.5** Distribution of resistivity data of hole FASS3001 of Sansai oil field.



**Figure 3.6** Distribution of resistivity data of hole FASS3705 of Sansai oil field.



**Figure 3.7** Distribution of resistivity data of hole FABT4503/1 of Banthi oil field.



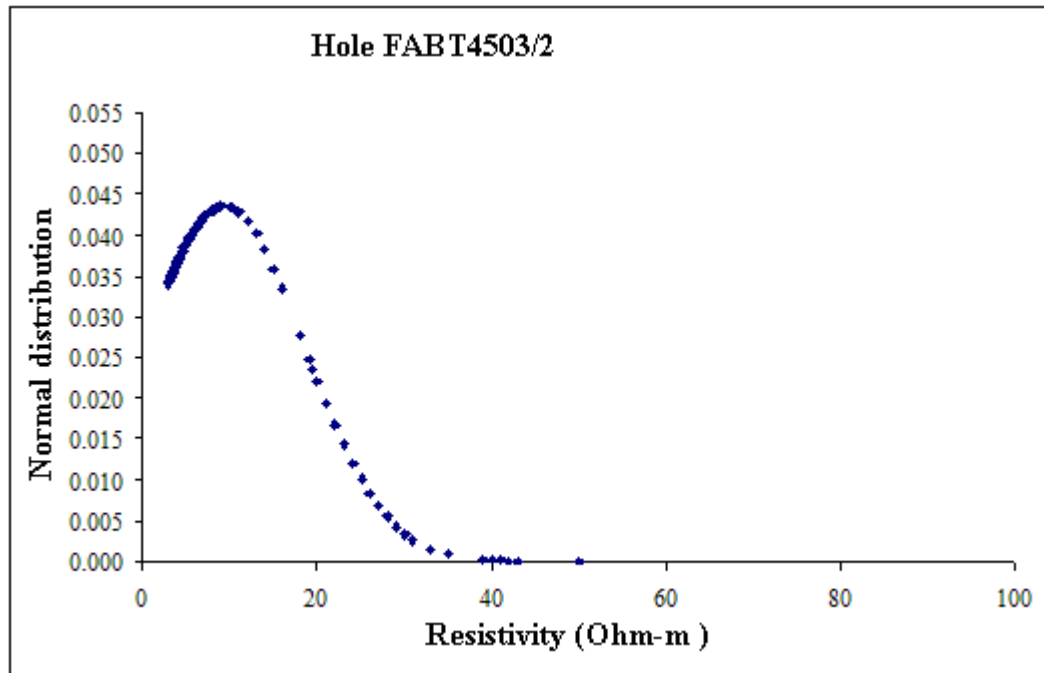


Figure 3.8 Distribution of resistivity data of hole FABT4503/2 of Banthi oil field.

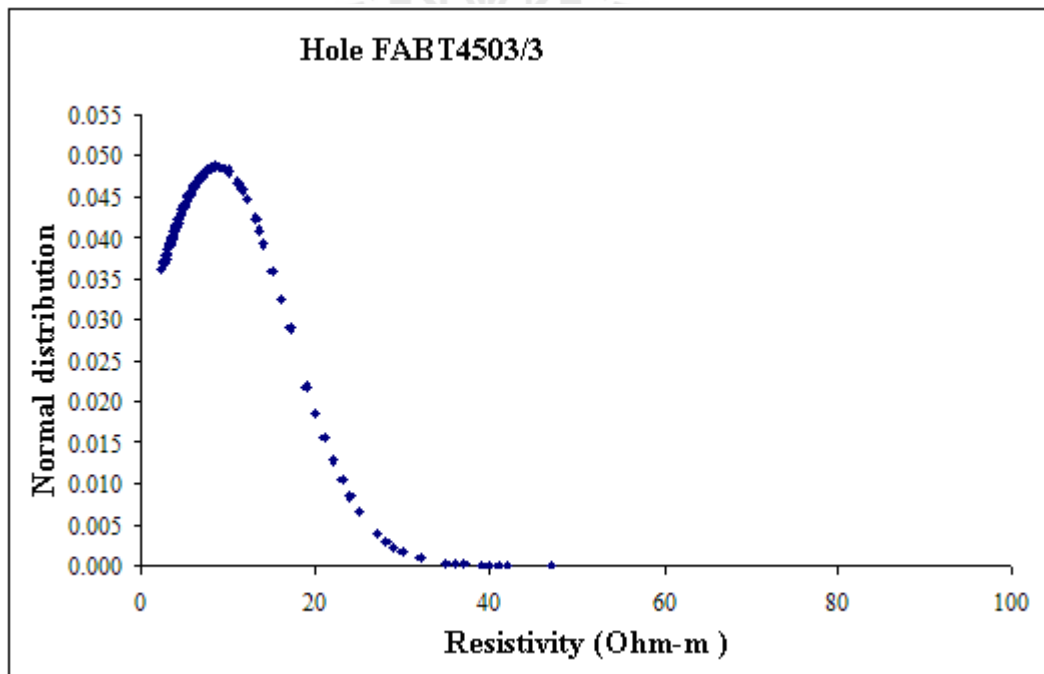
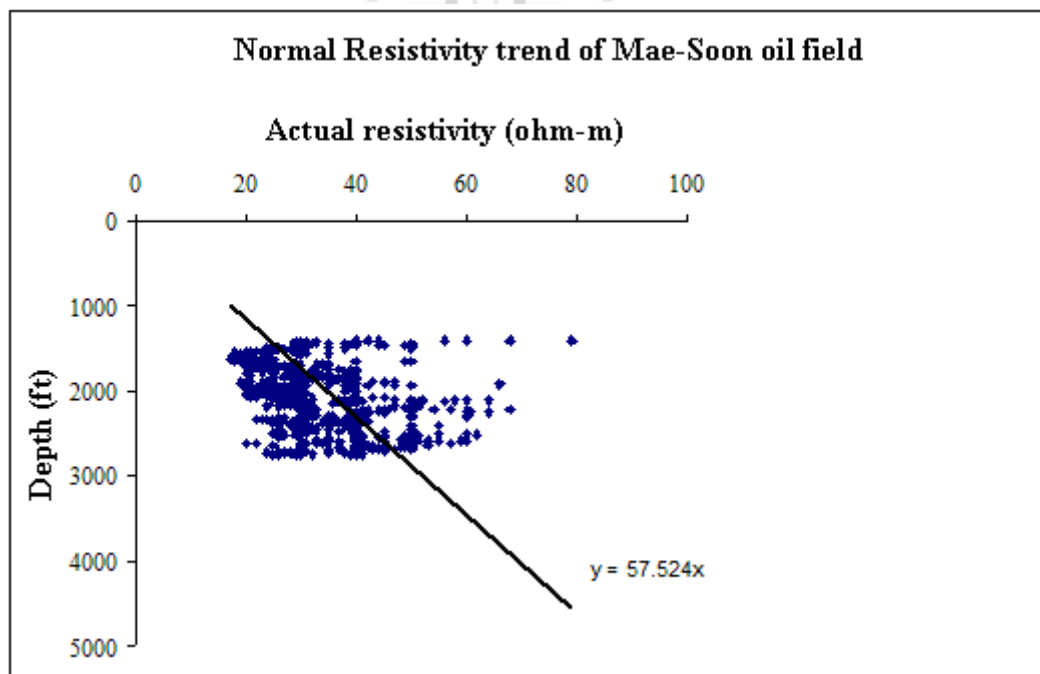


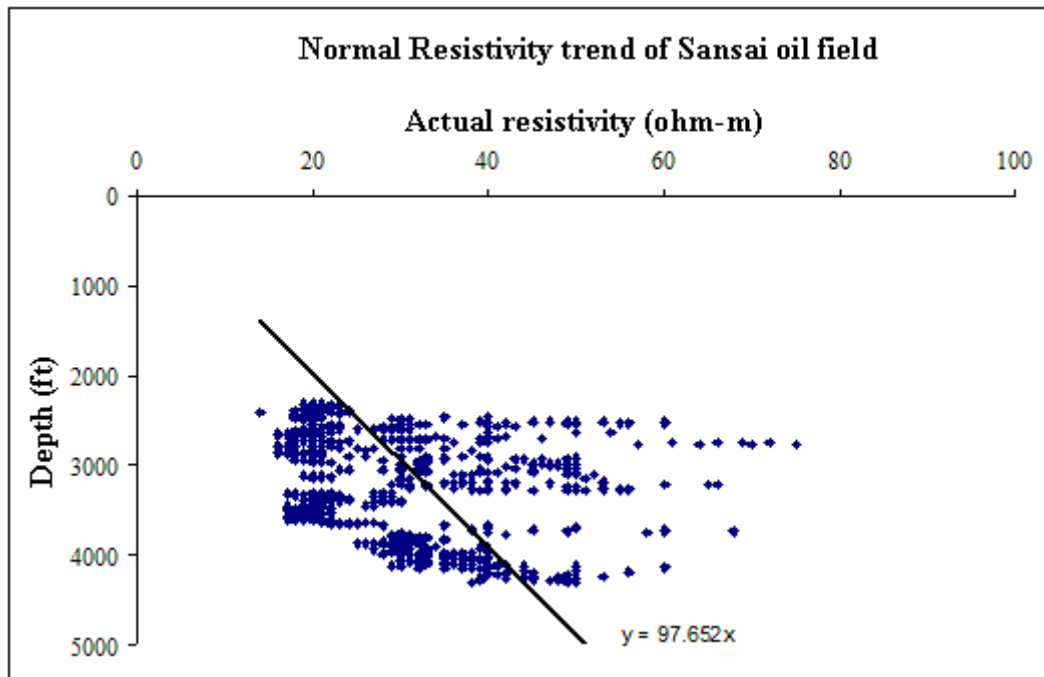
Figure 3.9 Distribution of resistivity data of hole FABT4503/3 of Banthi oil field.

As noticed from all resistivity data distribution graphs, it was found that data distribution of resistivity recorded from the same oil field tended to have the same range. Resistivity data recorded from Mae-Soon oil field was distributed in range 20-45 Ohm-m, resistivity data recorded from Sansai oil field was distributed in range 15-60 Ohm-m, and resistivity data recorded from Banthi oil field was distributed in range 2-30 Ohm-m, respectively. These quite similar resistivity distributions indicated that all holes in each oil field had quite similar geological characteristics.

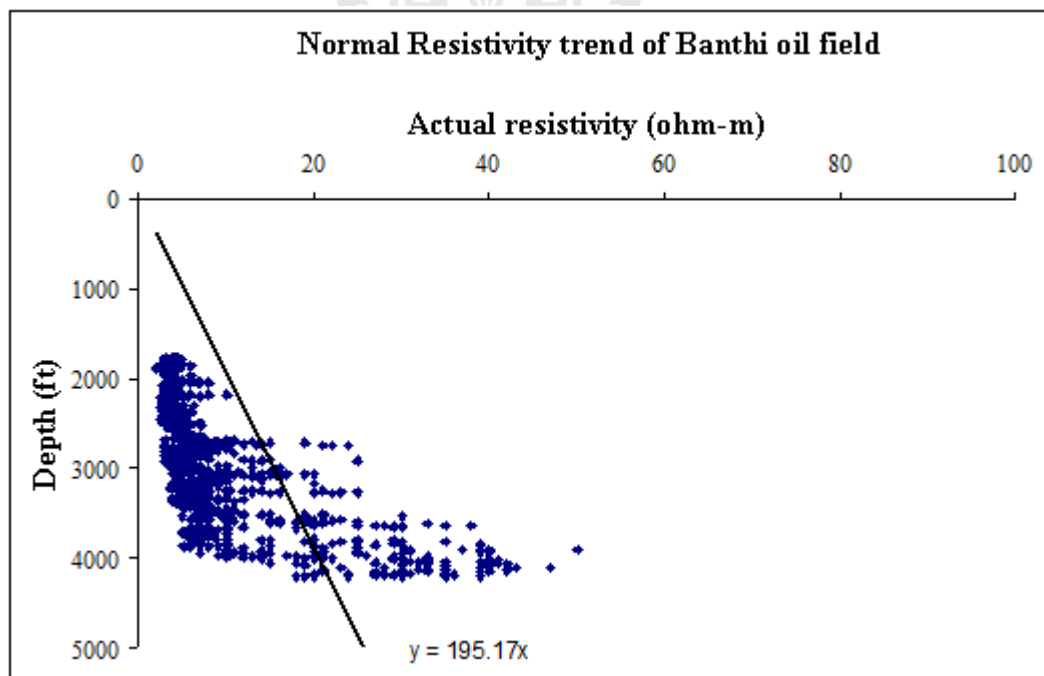
Resistivity data recorded in normal pressure zone then were plotted with depth by Microsoft Office Excel 2003 to create a line of normal resistivity trend. The results of plotting were showed in the following graphs.



**Figure 3.10** Normal resistivity trend of Mae-Soon oil field.



**Figure 3.11** Normal resistivity trend of Sansai oil field.



**Figure 3.12** Normal resistivity trend of Banthi oil field.

Program created trend was then so-call “normal resistivity trend”. Each normal resistivity trend of each oil field had its own corresponding equation as follows;

$$\text{Mae-Soon oil field's normal resistivity trend } y = 57.524x \quad (2)$$

$$\text{Sansai oil field's normal resistivity trend } y = 97.652x \quad (3)$$

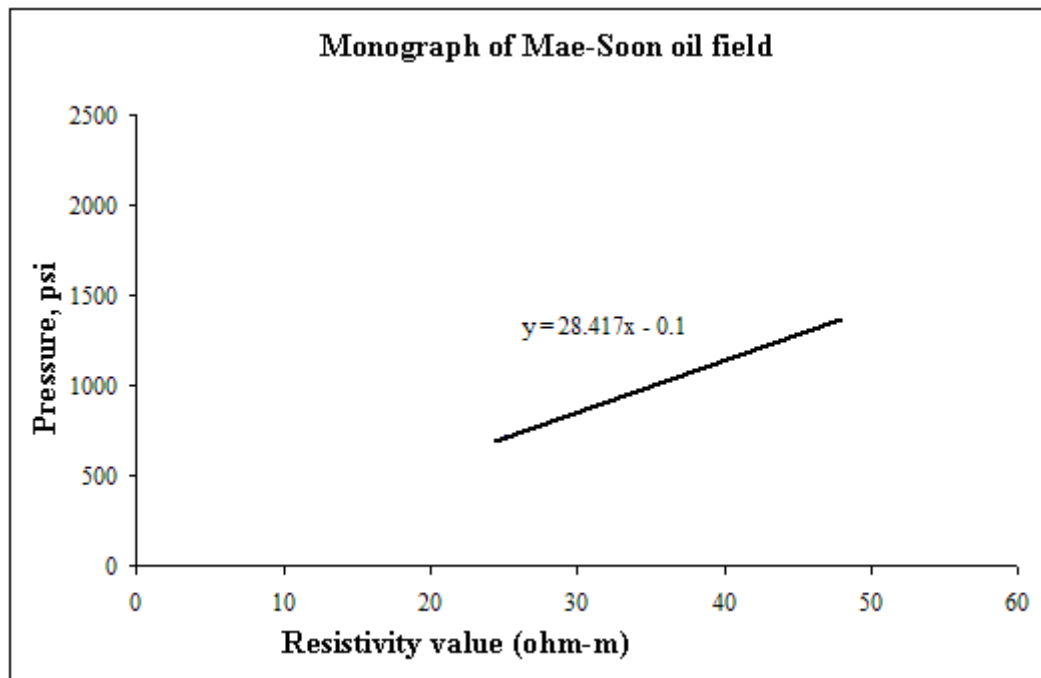
$$\text{Banthi oil filed's normal resistivity trend } y = 195.17x \quad (4)$$

Where  $y = \text{depth (ft)}$

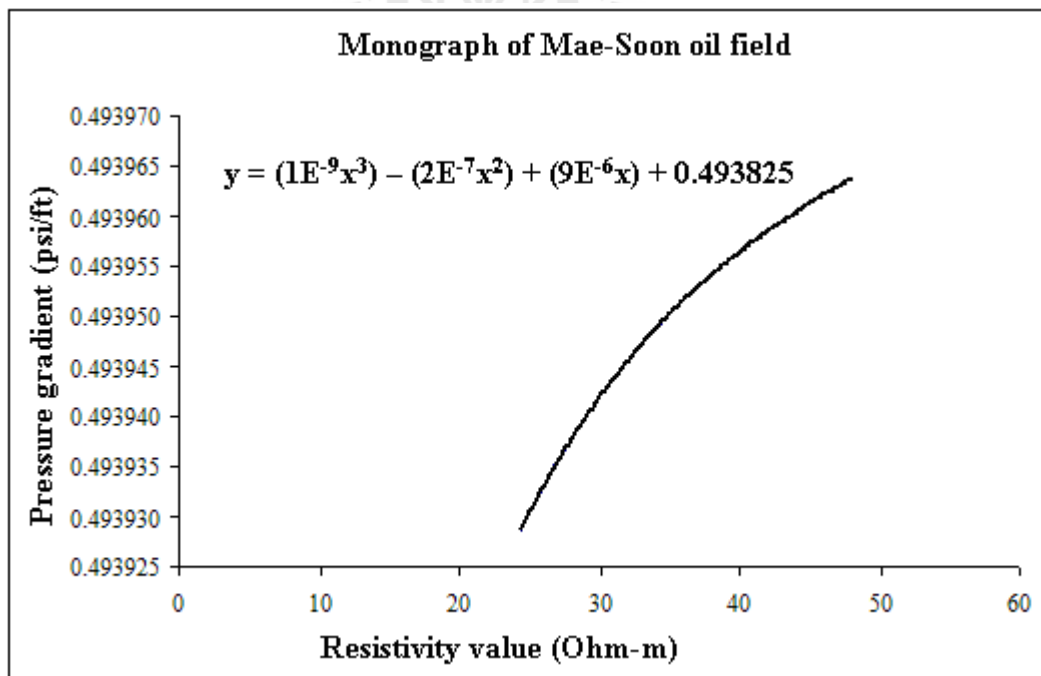
$x = \text{resistivity (ohm-m)}$

Based on these empirical equations, normal resistivity at any depth could be calculated by varying “y” parameter. This study used variation with depth of every five-feet interval. Thus, calculated normal resistivity derived from these equations were showed in Appendix B.

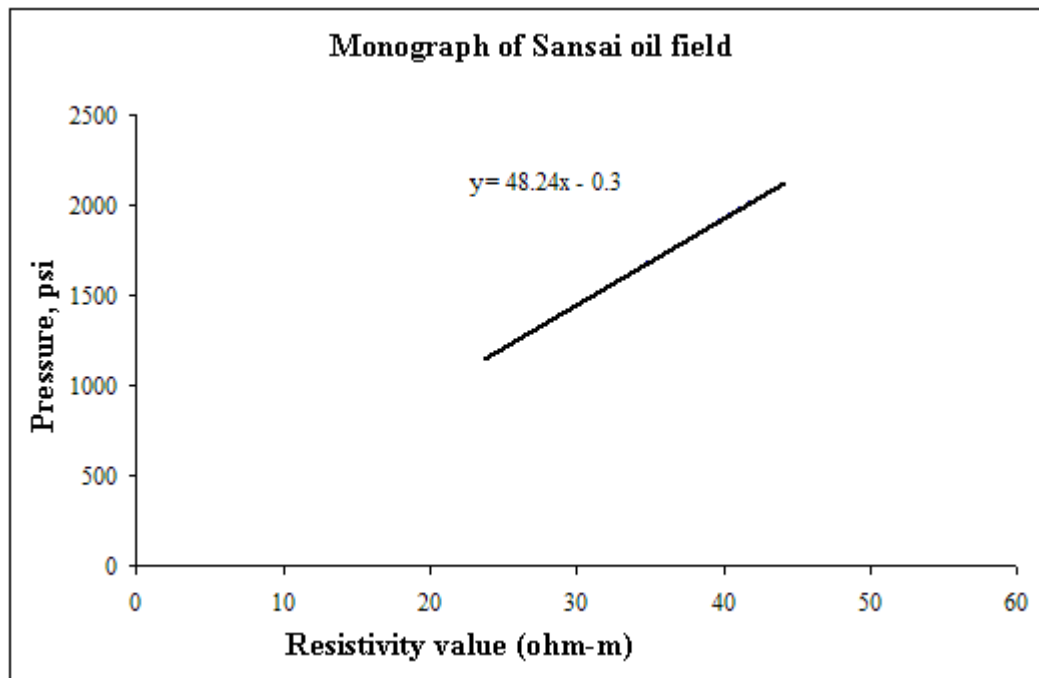
In the next step, calculated normal resistivity of every five-feet depth interval was plotted with pressure at the same depth. Then, a monograph showing correlation between pressure and normal resistivity at the same corresponding depth could be created. Pressures of the same depth interval which was used in normal resistivity calculation were presented in Appendix B. Consequently, created monographs for pressure and pressure gradient estimation of each oil field were presented in figure 3.13 through figure 3.18.



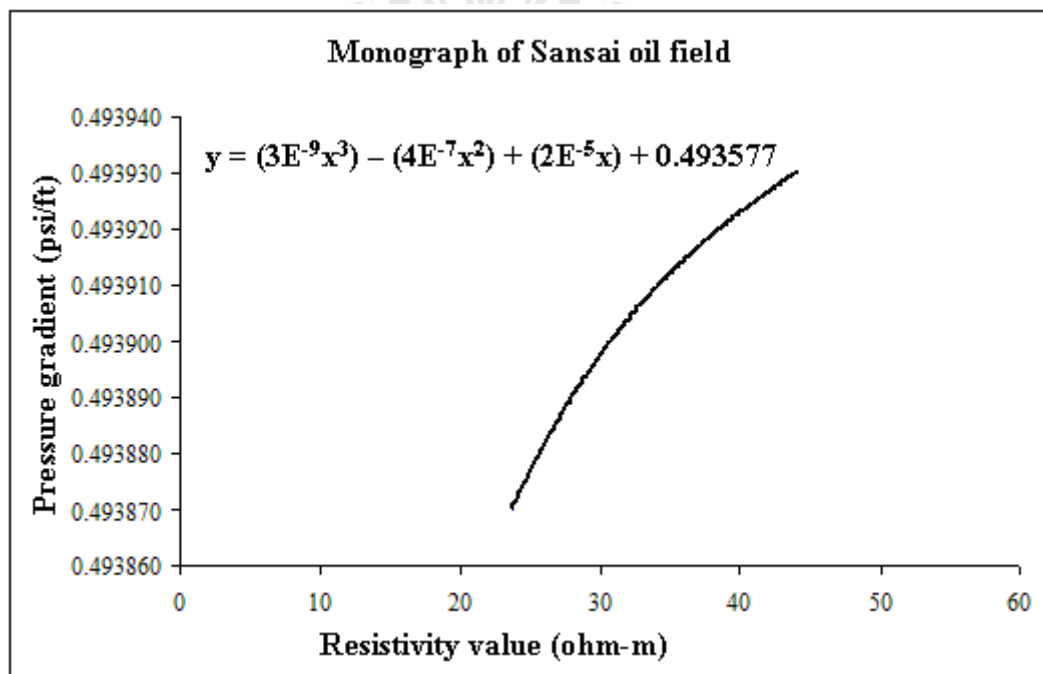
**Figure 3.13** A monograph for pressure estimation of Mae-Soon oil field.



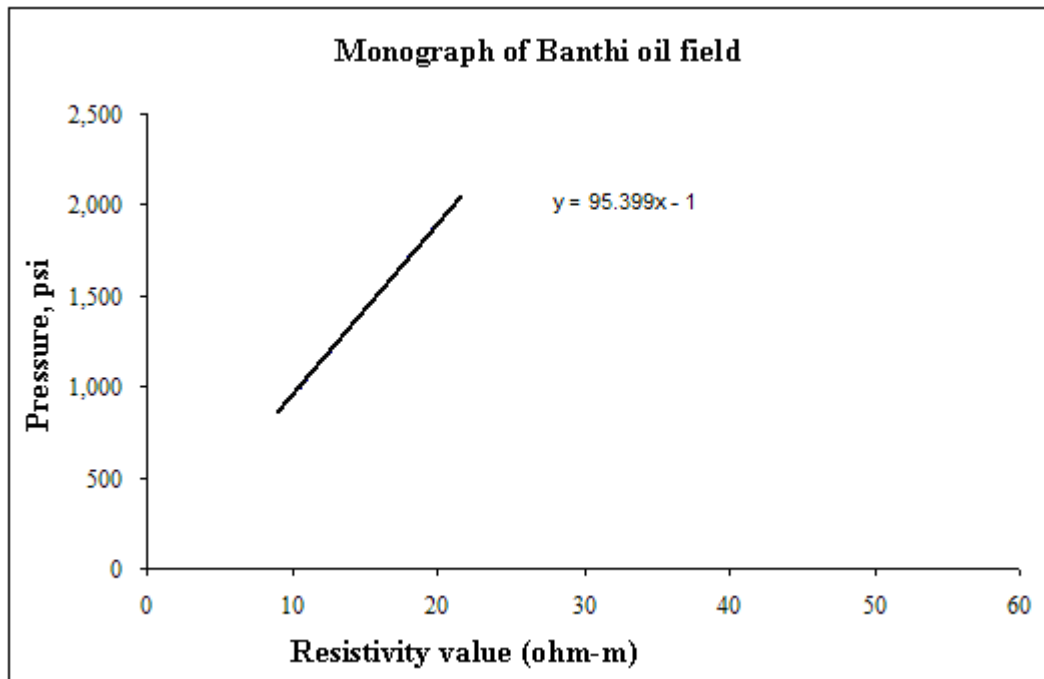
**Figure 3.14** A monograph for pressure gradient estimation of Mae-Soon oil field.



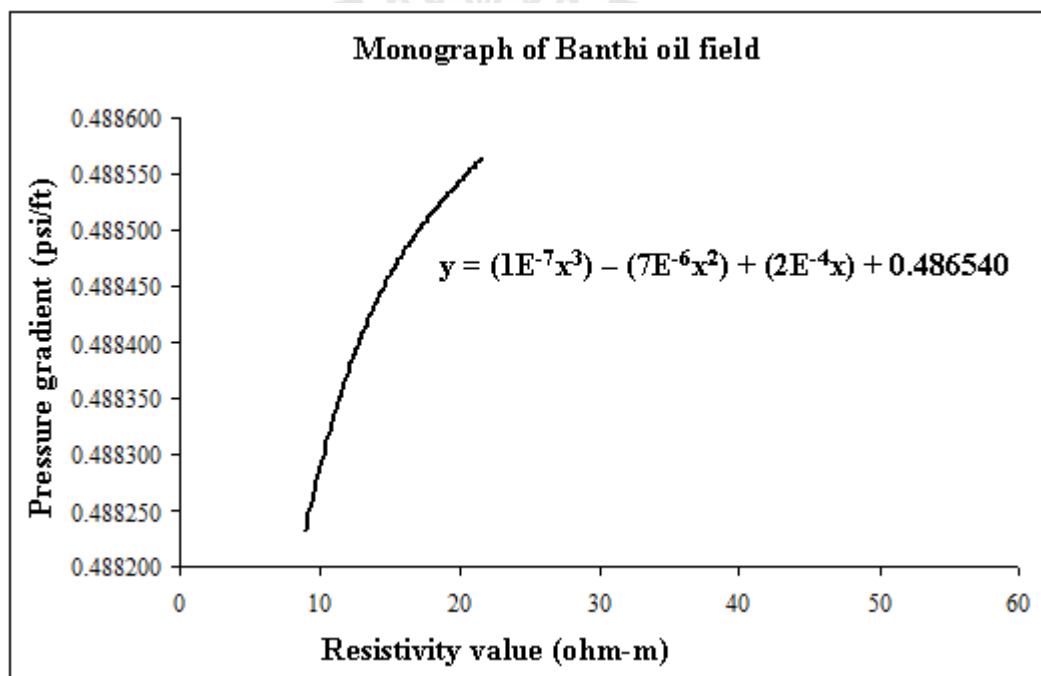
**Figure 3.15** A monograph for pressure estimation of Sansai oil field.



**Figure 3.16** A monograph for pressure gradient estimation of Sansai oil field



**Figure 3.17** A monograph for pressure estimation of Banthi oil field.



**Figure 3.18** A monograph for pressure gradient estimation of Banthi oil field.

From these created monograph of each oil filed, the corresponding linear equation of each monograph could be differentiated as below.

In case of normal resistivity versus pressure plotting.

$$\text{Mae-Soon oil field} \quad y = 28.417x - 0.1 \quad (5)$$

$$\text{Sansai oil filed} \quad y = 48.24x - 0.3 \quad (6)$$

$$\text{Banthi oil field} \quad y = 95.399x - 1 \quad (7)$$

Where  $x$  = resistivity value (ohm-m)

$y$  = pressure (psi)

In case of normal resistivity versus pressure gradient plotting.

$$\text{Mae-Soon oil field} \quad y = (1E^{(-9)}x^3) - (2E^{(-7)}x^2) + (9E^{(-6)}x) + 0.493825 \quad (8)$$

$$\text{Sansai oil field} \quad y = (3E^{(-9)}x^3) - (4E^{(-7)}x^2) + (2E^{(-5)}x) + 0.493577 \quad (9)$$

$$\text{Banthi oil field} \quad y = (1E^{(-7)}x^3) - (7E^{(-6)}x^2) + (2E^{(-4)}x) + 0.486540 \quad (10)$$

Where  $x$  = resistivity value (ohm-m)

$y$  = pressure gradient (psi/ft)



## CHAPTER IV

### RESULTS AND DISCUSSION

#### 4.1 Monographs and equations

Relationship between normal resistivity data, pressure and its corresponding depth of Mae-Soon, Sansai and Banthi oil field of Fang Basin could be drawn as a linear line with its corresponding function. These correlations could be used for creating a monograph showing correlation between normal resistivity and pressure or pressure gradient for each oil field. The corresponding linear equation for pressure estimating of each oil field was as follows;

Mae-Soon oil field  $y = 28.417x - 0.1$

Sansai oil filed  $y = 48.24x - 0.3$

Banthi oil field  $y = 95.399x - 1$

Where  $x =$  resistivity value (ohm-m)

$y =$  pressure (psi)

Unlike the relationship between normal resistivity and pressure, the relationship between normal resistivity and pressure gradient was an exponential function. The equivalent exponential equation corresponding these relationships for each oil field was as follows;

$$\text{Mae-Soon oil field } y = (1E^{(-9)}x^3) - (2E^{(-7)}x^2) + (9E^{(-6)}x) + 0.493825$$

$$\text{Sansai oil field } y = (3E^{(-9)}x^3) - (4E^{(-7)}x^2) + (2E^{(-5)}x) + 0.493577$$

$$\text{Banthi oil field } y = (1E^{(-7)}x^3) - (7E^{(-6)}x^2) + (2E^{(-4)}x) + 0.486540$$

Where  $x$  = resistivity value (ohm-m)

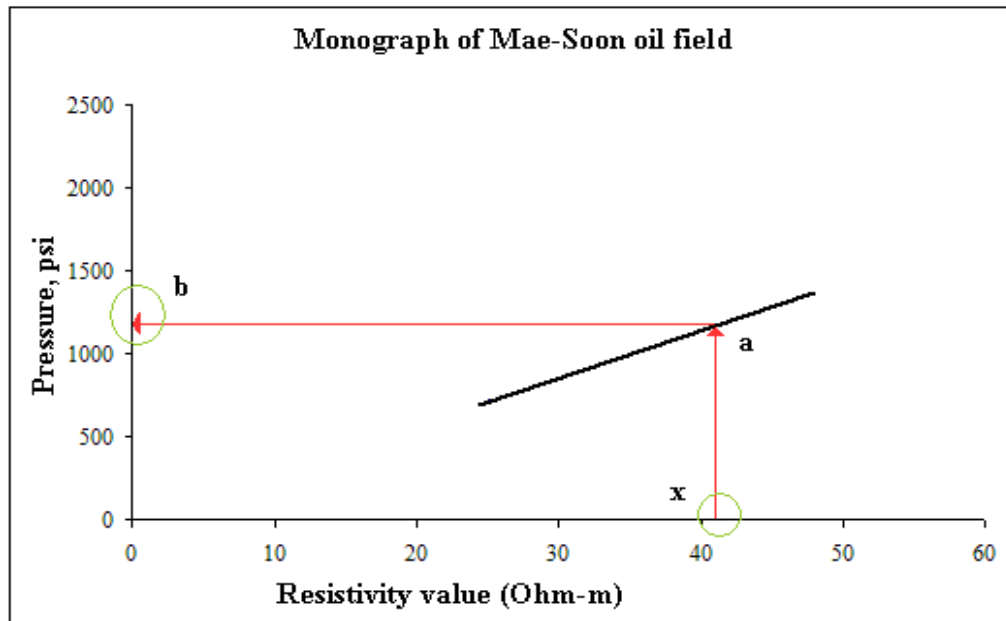
$y$  = pressure gradient (psi/ft)

To use a created monograph for pressure (psi) estimation from known resistivity at its corresponding depth, following steps have to be proceeded:

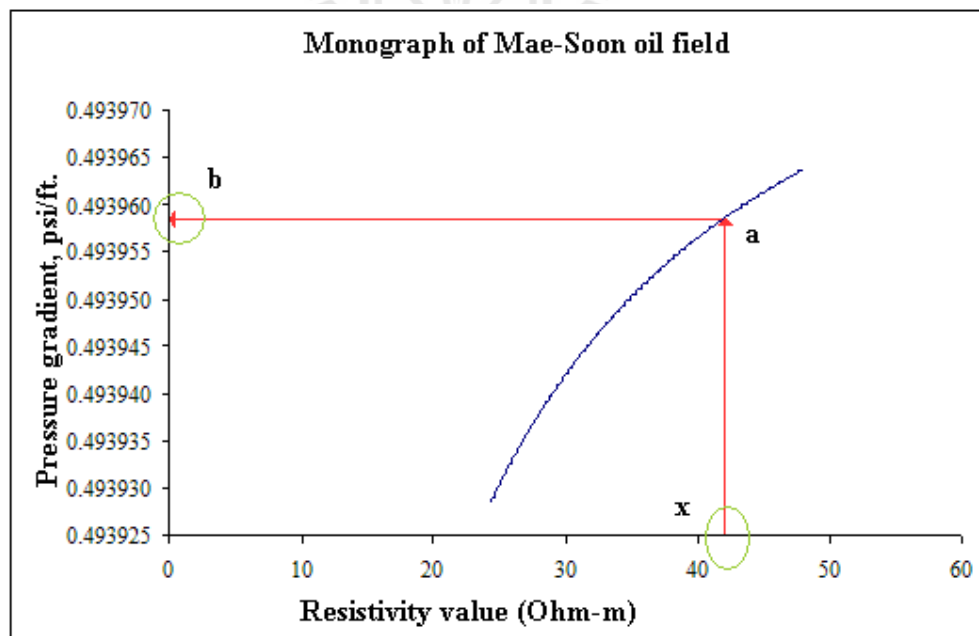
1. At an interesting depth, read resistivity value from resistivity log and give this value as an “x-value” on x-axis (see figure 4.1).
2. Draw a vertical line from this “x-value” to end up at the linear line of the monograph (point “a” in figure 4.1).
3. Draw a horizontal line from this intersection to end up at “y-axis” and read the corresponding pressure (psi) (point “b” in figure 4.1).

To use a created monograph for pressure gradient (psi/ft) estimation from known resistivity at its corresponding depth, following steps have to be proceeded:

1. At an interesting depth, read resistivity value from resistivity log and give this value as an “x-value” on x-axis. (see figure 4.2).
2. Draw a vertical line from this “x-value” to end up at the linear line of the monograph (point “a” in figure 4.2).
3. Draw a horizontal line from this intersection to end up at “y-axis” and read the corresponding pressure gradient (psi/ft) (point “b” in figure 4.2).



**Figure 4.1** Example of finding pressure from its corresponding resistivity of Mae-Soon oil field.



**Figure 4.2** Example of finding pressure gradient from its corresponding resistivity of Mae-Soon oil field.

## 4.2 Monographs Testing

In this step created monographs were tested for checking its accuracy. Resistivity log data of well FAMS4770, FASS3809 and FABT4508 were selected for testing created monograph of Mae-Soon, Sansai and Banthi oil field, respectively. However, some resistivity recorded in the abnormal high pressure zone of these three wells had been erased. The excluded resistivity data of those three wells are as follows;

**FAMS4770** : the resistivity data at depth 1940-1970 ft., 2240-2275 ft. and 2500-2540 ft.

**FASS3809** : the resistivity data at depth 2760-2785 ft., 2930-2965 ft., 3060-3095 ft., 3515-3545 ft. and 4150-4210 ft.

**FABT4508** : the resistivity data at depth 3695-3730 ft., 3775-3795 ft. and 3850-3900 ft.

Next, monograph of each oil field was used to estimate pressure every five-foot depth interval. After that, estimated pressure from monographs was compared with actual pressure of each depth of these oil fields to see the different. There were both, unary plus and unary minus depended on higher or lower pressure which had been estimated by these monographs comparing with actual pressure.

Both results (unary plus and unary minus) were calculated as erroneous percentage by comparing with the actual pressure which was recorded at the same corresponding depth. The followed table shows an example of comparison between the pressure which was estimated by using created monograph and recorded pressure of Sansai oil field at depth 2310-2505 ft.

**Table 4.1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole.

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FASS3809</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2310	1141	22	1062	6.910697
2315	1143	23	1109	3.000936
2320	1146	25	1205	-5.16853
2325	1148	22	1062	7.51143
2330	1151	21	1013	11.96816
2335	1153	21	1013	12.15671
2340	1156	22	1062	8.10446
2345	1158	20	963	16.84871
2350	1161	24	1158	0.224022
2355	1163	23	1109	4.648903
2360	1166	25	1205	-3.38556
2365	1168	26	1254	-7.36209
2370	1170	29	1398	-19.4382
2375	1173	30	1447	-23.3642
2380	1175	25	1205	-2.51655
2385	1178	25	1205	-2.30157
2390	1180	26	1254	-6.23877
2395	1183	25	1205	-1.87432
2400	1185	25	1205	-1.66203
2405	1188	25	1205	-1.45062
2410	1190	27	1301	-9.30569
2415	1193	30	1447	-21.3204
2420	1195	30	1447	-21.0696
2425	1198	31	1494	-24.7443
2430	1200	21	1013	15.59177
2435	1203	22	1062	11.6906

**Table 4.1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FASS3809</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2440	1205	24	1158	3.9052
2445	1208	24	1158	4.101761
2450	1210	25	1205	0.413223
2455	1212	27	1301	-7.30162
2460	1215	27	1301	-7.08348
2465	1217	25	1205	1.019377
2470	1220	26	1254	-2.797
2475	1222	29	1398	-14.3699
2480	1225	25	1205	1.618197
2485	1227	25	1205	1.816197
2490	1230	24	1158	5.835285
2495	1232	23	1109	10.00057
2500	1235	21	1013	17.95578
2505	1237	23	1109	10.35993

All comparisons of estimated pressure from monographs with actual pressure at each depth of these oil fields were showed in Appendix C.

As a result, the average accuracy erroneous percent both in unary plus and unary minus of created monograph testing were listed in table 4.2.

**Table 4.2** Accuracy erroneous percent of created pressure monograph estimation.

Monograph of Oil Field	Error(+), %	Error(-), %
FAMS	4.21	-4.24
FASS	4.47	-3.97
FABT	4.74	-4.65

For the pressure gradient estimation, created monographs were tested for checking its accuracy by using old data of resistivity logs data from the last step and same methods as in pressure estimation testing. For pressure gradient estimation testing was used figures 3.14, 3.16 and 3.18 for Mae-Soon, Sansai and Banthi oil field, respectively. The followed table shows an example of comparison between the pressure gradient estimated from created monograph and pressure gradient which was found in Sansai oil field at depth 2320-2505 ft.

**Table 4.3** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole.

Depth	Real Pressure Gradient (1)	Resistivity of FASS3809	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2320	0.493871	25	0.493877	-0.00128
2325	0.493871	22	0.493863	0.001613
2330	0.493871	21	0.493858	0.002682
2335	0.493872	21	0.493858	0.002738
2340	0.493872	22	0.493863	0.001781
2345	0.493872	20	0.493853	0.003861
2350	0.493872	24	0.493872	6.89E-05
2355	0.493873	23	0.493867	0.001136
2360	0.493873	25	0.493877	-0.00083

**Table 4.3** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FASS3809</b>	<b>Psi/ft from graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
2365	0.493873	26	0.493882	-0.00179
2370	0.493873	29	0.493894	-0.00417
2375	0.493874	30	0.493898	-0.00492
2380	0.493874	25	0.493877	-0.00062
2385	0.493874	25	0.493877	-0.00056
2390	0.493874	26	0.493882	-0.00152
2395	0.493875	25	0.493877	-0.00046
2400	0.493875	25	0.493877	-0.0004
2405	0.493875	25	0.493877	-0.00035
2410	0.493876	27	0.493886	-0.00212
2415	0.493876	30	0.493898	-0.0045
2420	0.493876	30	0.493898	-0.00445
2425	0.493876	31	0.493901	-0.005
2430	0.493877	21	0.493858	0.003755
2435	0.493877	22	0.493863	0.002794
2440	0.493877	24	0.493872	0.001022
2445	0.493877	24	0.493872	0.001073
2450	0.493878	25	0.493877	0.000112
2455	0.493878	27	0.493886	-0.00166
2460	0.493878	27	0.493886	-0.00161
2465	0.493878	25	0.493877	0.000262
2470	0.493879	26	0.493882	-0.0007
2475	0.493879	29	0.493894	-0.00308
2480	0.493879	25	0.493877	0.000411
2485	0.493879	25	0.493877	0.000461



**Table 4.3** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole (continued).

Depth	Real Pressure Gradient (1)	Resistivity of FASS3809	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2490	0.49388	24	0.493872	0.001522
2495	0.49388	23	0.493867	0.002584
2500	0.49388	21	0.493858	0.004455
2505	0.49388	23	0.493867	0.002681

As a results, the average accuracy erroneous percent both in unary plus and unary minus of created monograph testing were listed in table 4.4.

**Table 4.4** Accuracy erroneous percent of created pressure gradient monograph estimation

Monograph of Oil Field	Error(+), %	Error(-), %
FAMS	+0.000670	-0.00056
FASS	+0.001509	-0.00117
FABT	+0.011732	-0.01136

All comparisons of estimated pressure gradient from monographs with actual pressure gradient at each depth of these oil fields were showed in Appendix C.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Conclusions

Based on recorded resistivity data derived from nine wells of Mae-Soon, Sansai and Banthi oil field located in Fang Basin, the normal resistivity trend for each oil field could be created together with its corresponding linear equation as listed below:

$$\text{Mae-Soon oil field's normal resistivity trend } y = 57.524x$$

$$\text{Sansai oil field's normal resistivity trend } y = 97.652x$$

$$\text{Banthi oil filed's normal resistivity trend } y = 195.17x$$

$$\text{Where } y = \text{depth (ft)}$$

$$x = \text{resistivity (ohm-m)}$$

Then pressure data of each field were plotted versus resistivity at each five-foot depth interval to create a monograph showing the correlation between normal resistivity value, pressure and its corresponding depth. Consequently, monograph for pressure estimation of each oil field could be created with its corresponding linear equation as follows;

$$\text{Mae-Soon oil field} \quad y = 28.417x - 0.1$$

$$\text{Sansai oil filed} \quad y = 48.24x - 0.3$$

$$\text{Banthi oil field} \quad y = 95.399x - 1$$

Where  $x$  = resistivity value (ohm-m)

$y$  = pressure (psi)

In the same way, monograph for pressure gradient estimation of each oil field could also be created with its corresponding exponential equation as follows;

$$\text{Mae-Soon oil field} \quad y = (1E^{(-9)}x^3) - (2E^{(-7)}x^2) + (9E^{(-6)}x) + 0.493825$$

$$\text{Sansai oil field} \quad y = (3E^{(-9)}x^3) - (4E^{(-7)}x^2) + (2E^{(-5)}x) + 0.493577$$

$$\text{Banthi oil field} \quad y = (1E^{(-7)}x^3) - (7E^{(-6)}x^2) + (2E^{(-4)}x) + 0.486540$$

Where  $x$  = resistivity value (ohm-m)

$y$  = pressure gradient (psi/ft)

The most important factor for degree of estimating accuracy is the similarity of geological characteristics within the study area.

The more complex geology, the less accuracy of the pressure and/or pressure gradient estimation accuracy. However, after testing the accuracy of using the monograph, it was found that the erroneous percentage of estimated pressure were in range between +4.21% and -4.24% for Mae-Soon oilfield, +4.47% and -3.97% for Sansai oilfield and +4.74% and -4.64% for Banthi oilfield, respectively.

## 5.2 Recommendations and limitations

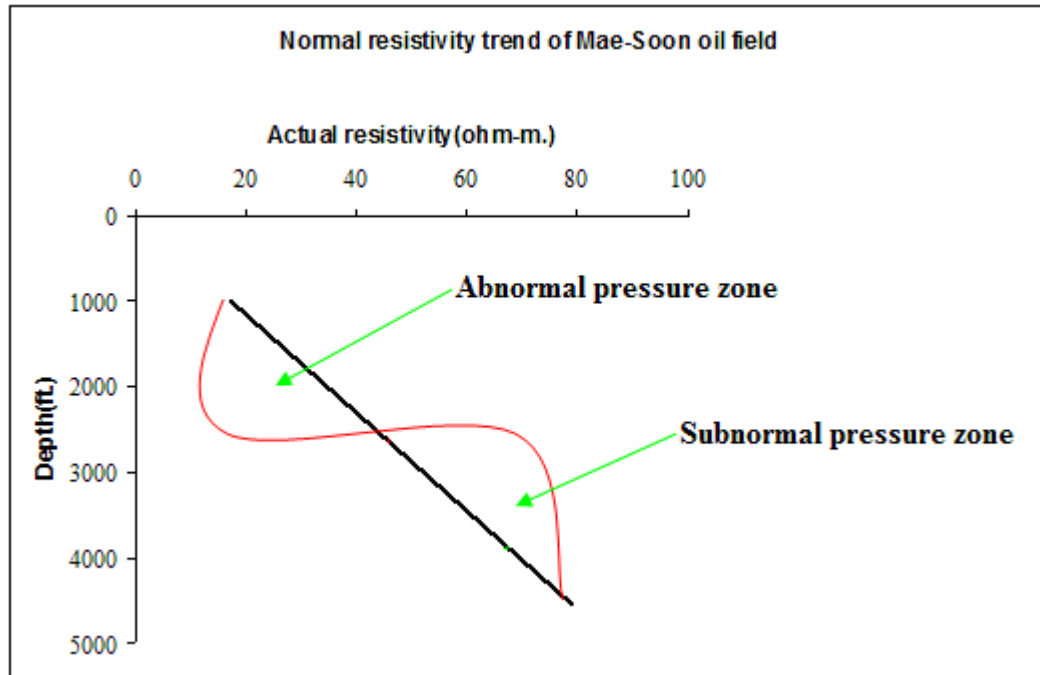
To use monograph of each oil field to estimate pressure or pressure gradient, some limitations are listed as follows;

1. The created monograph both for pressure and pressure gradient estimation can only be used in its own oil field. This is because the differences of geological characteristics of each oil field play an important role to its existing pressure directly and differ from place to place.

2. This monograph cannot be used to estimate pressure or pressure gradient of the abnormal high zone. This is because in the area of abnormal high zone, the pressure is abnormally high and it does not follow the normal pressure trend. With this limitation, to create monograph in chapter III, data in the area of abnormal pressure zone had been deleted.

Although these monographs cannot be used to estimate pressure or pressure gradient in the area of abnormal pressure zone as mentioned above; on the other hand, these monographs can be used to roughly inspect the area of abnormal pressure zone or subnormal pressure. This is because these monographs had been created based on data in the range of normal pressure zone.

Example of using normal trend resistivity to roughly inspect abnormal pressure or subnormal pressure zone was illustrated as follows;



**Figure 5.1** Using monograph to inspect subnormal and abnormal pressure zone.

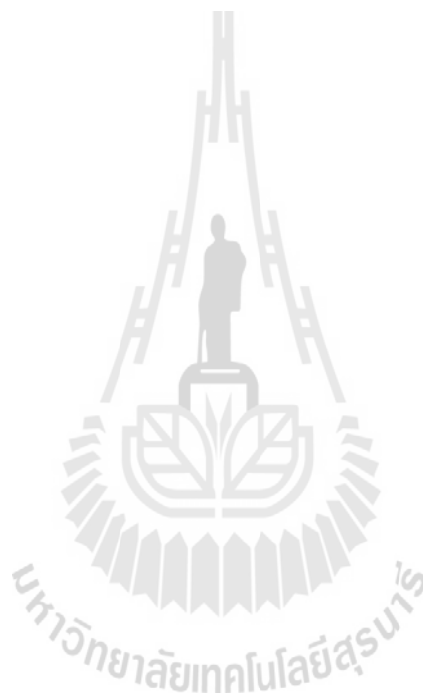
The black line is normal resistivity trend while the red line is supposed to create from actual resistivity data derived from wells drilled in Mae-Soon oil field. Subnormal pressure zone would depict actual resistivity higher than the normal resistivity trend while abnormal pressure zone would be lower as shown in figure 4.3.

3. The most important factor affecting this monograph to estimate pressure or pressure gradient is the similarity of geological characteristics of interesting area. The more different of geological characteristics, the more incorrect in pressure estimating. The variety of geological characteristics may be inspected from the degree of resistivity data distribution.

### 5.3 Further study

For the future work, there are some recommends as listed below:

1. The created monographs should be modified if there are some more resistivity data collected in the same area.
2. Other wireline logs, e.g. Sonic log and density log should be used and tried to create this kind of monograph by using the same procedures.



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**APPENDIX A**  
**TABLE OF RESISTIVITY VALUE**

**Table A1** Resistivity at each depth of hole FAMS5280.

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
1400	79	1615	18	1830	34
1405	68	1620	19	1835	39
1410	60	1625	17	1840	29
1415	40	1630	21	1845	37
1420	31	1635	23	1850	36
1425	30	1640	20	1855	33
1430	29	1645	18	1860	31
1435	32	1650	19	1865	38
1440	38	1655	22	1870	32
1445	100	1660	50	1875	36
1450	85	1665	34	1880	29
1455	75	1670	21	1885	43
1460	55	1675	24	1890	24
1465	40	1680	22	1895	20
1470	31	1685	25	1900	19
1475	30	1690	29	1905	23
1480	29	1695	34	1910	60
1485	29	1700	27	1915	50
1490	30	1705	29	1920	99
1495	29	1710	29	1925	100
1500	24	1715	28	1930	100
1505	50	1720	26	1935	90
1510	25	1725	23	1940	38
1515	28	1730	21	1945	27
1520	28	1735	23	1950	22
1525	24	1740	32	1955	21
1530	23	1745	37	1960	24
1535	21	1750	37	1965	20
1540	22	1755	39	1970	21
1545	65	1760	28	1975	25
1550	110	1765	32	1980	27
1555	115	1770	38	1985	29
1560	100	1775	49	1990	28
1565	70	1780	95	1995	25
1570	23	1785	70	2000	38
1575	20	1790	80	2005	30
1580	19	1795	60	2010	28
1585	19	1800	40	2015	25
1590	19	1805	30	2020	23
1595	18	1810	29	2025	29
1600	19	1815	30	2030	64
1605	23	1820	30	2035	29
1610	19	1825	27	2040	30

**Table A1** Resistivity at each depth of hole FAMS5280 (continued).

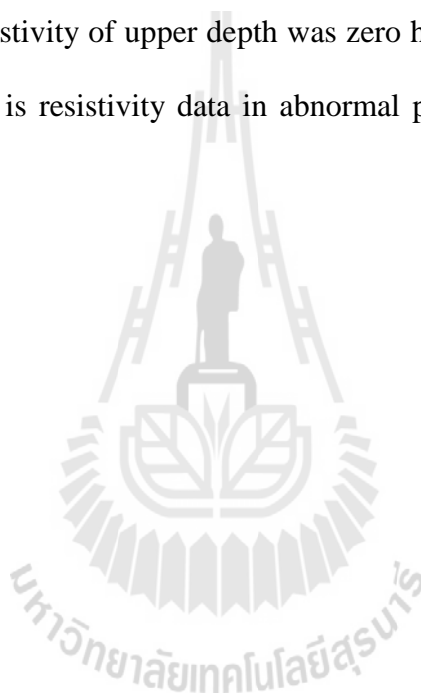
<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2045	25	2260	60	2475	45
2050	21	2265	39	2480	50
2055	21	2270	39	2485	130
2060	26	2275	180	2490	230
2065	24	2280	250	2495	290
2070	26	2285	250	2500	130
2075	21	2290	100	2505	80
2080	30	2295	40	2510	70
2085	43	2300	50	2515	70
2090	25	2305	64	2520	90
2095	28	2310	36	2525	50
2100	28	2315	32	2530	49
2105	39	2320	27	2535	41
2110	38	2325	27	2540	80
2115	47	2330	40	2545	170
2120	58	2335	38	2550	80
2125	52	2340	30	2555	41
2130	77	2345	23	2560	45
2135	40	2350	25	2565	50
2140	30	2355	42	2570	33
2145	30	2360	39	2575	70
2150	38	2365	37	2580	45
2155	36	2370	25	2585	55
2160	30	2375	30	2590	50
2165	26	2380	35	2595	59
2170	28	2385	34	2600	33
2175	26	2390	28	2605	41
2180	30	2395	29	2610	37
2185	32	2400	31	2615	34
2190	47	2405	39	2620	57
2195	30	2410	40	2625	70
2200	50	2415	50	2630	60
2205	49	2420	39	2635	30
2210	32	2425	31	2640	53
2215	45	2430	39	2645	40
2220	63	2435	31	2650	70
2225	54	2440	33	2655	42
2230	41	2445	33	2660	48
2235	57	2450	60	2665	50
2240	48	2455	210	2670	44
2245	50	2460	100	2675	37
2250	100	2465	65	2680	45
2255	45	2470	50	2685	50

**Table A1** Resistivity at each depth of hole FAMS5280 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2690	43	2715	26	2740	26
2695	47	2720	31	2745	40
2700	35	2725	38	2750	40
2705	29	2730	28	2755	32
2710	29	2735	24	2760	29

Remark : Resistivity in hole FAMS5280 was started interpreting at depth 1400 ft.

because resistivity of upper depth was zero had no running resistivity. The red number is resistivity data in abnormal pressure zone which would be deleted.



**Table A2** Resistivity at each depth of hole FAMS4874.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1330	40	1545	18	1760	30
1335	35	1550	20	1765	32
1340	32	1555	20	1770	40
1345	33	1560	20	1775	30
1350	33	1565	21	1780	33
1355	31	1570	19	1785	30
1360	38	1575	20	1790	30
1365	47	1580	19	1795	35
1370	45	1585	19	1800	30
1375	60	1590	20	1805	21
1380	63	1595	20	1810	29
1385	71	1600	19	1815	30
1390	70	1605	21	1820	31
1395	69	1610	18	1825	28
1400	60	1615	18	1830	35
1405	40	1620	18	1835	33
1410	44	1625	18	1840	30
1415	40	1630	25	1845	35
1420	29	1635	25	1850	35
1425	30	1640	20	1855	35
1430	29	1645	20	1860	30
1435	29	1650	20	1865	40
1440	35	1655	22	1870	33
1445	30	1660	40	1875	39
1450	29	1665	35	1880	30
1455	40	1670	20	1885	47
1460	45	1675	25	1890	21
1465	50	1680	22	1895	20
1470	49	1685	20	1900	20
1475	70	1690	30	1905	25
1480	81	1695	35	1910	25
1485	89	1700	27	1915	30
1490	110	1705	30	1920	40
1495	100	1710	30	1925	35
1500	90	1715	30	1930	31
1505	85	1720	25	1935	50
1510	90	1725	22	1940	99
1515	71	1730	20	1945	120
1520	30	1735	23	1950	120
1525	22	1740	35	1955	78
1530	23	1745	37	1960	30
1535	21	1750	37	1965	21
1540	23	1755	40	1970	21

**Table A2** Resistivity at each depth of hole FAMS4874 (continued).

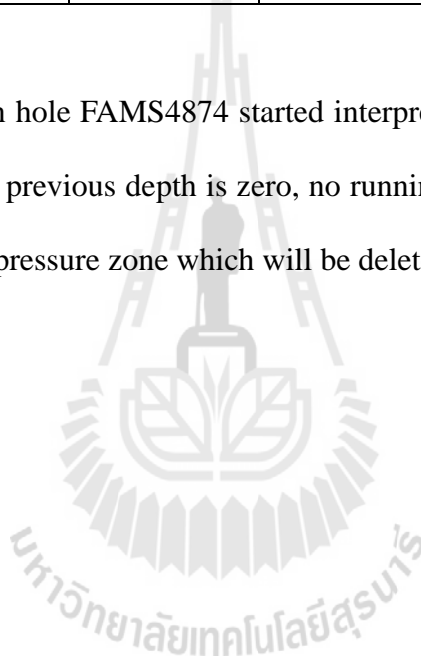
<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1975	22	2190	90	2405	40
1980	27	2195	90	2410	75
1985	30	2200	69	2415	100
1990	27	2205	70	2420	100
1995	27	2210	62	2425	140
2000	40	2215	46	2430	100
2005	30	2220	69	2435	81
2010	30	2225	50	2440	40
2015	25	2230	42	2445	32
2020	23	2235	60	2450	29
2025	30	2240	50	2455	60
2030	25	2245	30	2460	120
2035	29	2250	31	2465	100
2040	30	2255	40	2470	99
2045	25	2260	39	2475	85
2050	20	2265	42	2480	74
2055	20	2270	40	2485	37
2060	25	2275	69	2490	40
2065	25	2280	60	2495	31
2070	25	2285	40	2500	30
2075	22	2290	40	2505	25
2080	30	2295	50	2510	27
2085	45	2300	50	2515	29
2090	27	2305	60	2520	30
2095	28	2310	40	2525	30
2100	27	2315	31	2530	50
2105	40	2320	27	2535	45
2110	37	2325	27	2540	90
2115	50	2330	40	2545	90
2120	60	2335	40	2550	110
2125	50	2340	30	2555	100
2130	40	2345	22	2560	89
2135	40	2350	26	2565	80
2140	30	2355	40	2570	35
2145	30	2360	40	2575	30
2150	40	2365	38	2580	45
2155	75	2370	26	2585	50
2160	80	2375	30	2590	50
2165	130	2380	36	2595	50
2170	190	2385	36	2600	35
2175	190	2390	28	2605	40
2180	100	2395	35	2610	40
2185	70	2400	31	2615	31



**Table A2** Resistivity at each depth of hole FAMS4874 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2620	30	2670	45	2720	30
2625	22	2675	40	2725	40
2630	20	2680	45	2730	30
2635	25	2685	45	2735	24
2640	30	2690	45	2740	26
2645	40	2695	50	2745	41
2650	30	2700	35	2750	41
2655	41	2705	30	2755	40
2660	50	2710	30	2760	30
2665	50	2715	35		

Remark : Resistivity in hole FAMS4874 started interpreting at depth 1330 ft. causing resistivity of previous depth is zero, no running resistivity. The red number is abnormal pressure zone which will be deleted.



**Table A3** Resistivity at each depth of hole FAMS5179.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1290	78	1505	35	1720	27
1295	29	1510	26	1725	26
1300	30	1515	28	1730	20
1305	35	1520	27	1735	25
1310	40	1525	25	1740	30
1315	33	1530	25	1745	40
1320	32	1535	22	1750	40
1325	32	1540	22	1755	40
1330	32	1545	29	1760	30
1335	31	1550	31	1765	33
1340	20	1555	30	1770	38
1345	25	1560	35	1775	25
1350	24	1565	30	1780	23
1355	21	1570	23	1785	21
1360	21	1575	20	1790	20
1365	21	1580	20	1795	25
1370	21	1585	21	1800	29
1375	22	1590	19	1805	33
1380	29	1595	19	1810	29
1385	30	1600	19	1815	31
1390	33	1605	24	1820	30
1395	36	1610	19	1825	25
1400	40	1615	20	1830	40
1405	56	1620	20	1835	40
1410	56	1625	20	1840	30
1415	42	1630	21	1845	35
1420	30	1635	25	1850	39
1425	33	1640	21	1855	33
1430	30	1645	19	1860	31
1435	32	1650	19	1865	40
1440	40	1655	19	1870	32
1445	50	1660	49	1875	36
1450	50	1665	35	1880	30
1455	49	1670	22	1885	45
1460	44	1675	25	1890	70
1465	40	1680	21	1895	70
1470	30	1685	21	1900	130
1475	30	1690	33	1905	67
1480	31	1695	33	1910	45
1485	31	1700	30	1915	39
1490	30	1705	24	1920	40
1495	38	1710	28	1925	66
1500	26	1715	29	1930	42

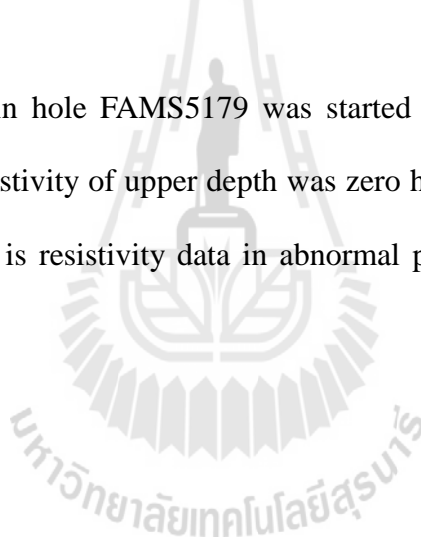
**Table A3** Resistivity at each depth of hole FAMS5179 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1935	47	2160	30	2385	110
1940	38	2165	27	2390	120
1945	28	2170	29	2395	90
1950	20	2175	24	2400	75
1955	20	2180	29	2405	40
1960	25	2185	29	2410	40
1965	20	2190	51	2415	55
1970	22	2195	31	2420	38
1975	26	2200	51	2425	31
1980	30	2205	50	2430	40
1985	30	2210	33	2435	30
1990	27	2215	50	2440	33
1995	25	2220	68	2445	35
2000	40	2225	57	2450	29
2005	26	2230	44	2455	26
2010	27	2235	60	2460	39
2015	27	2240	60	2465	35
2020	25	2245	61	2470	33
2025	30	2250	40	2475	31
2030	31	2255	45	2480	31
2035	27	2260	64	2485	31
2040	25	2265	40	2490	31
2045	29	2270	40	2495	40
2050	20	2275	42	2500	55
2055	21	2280	35	2505	60
2060	27	2285	39	2510	51
2065	22	2290	33	2515	62
2070	30	2295	31	2520	99
2075	21	2300	36	2525	100
2080	29	2305	41	2530	71
2085	40	2310	35	2535	40
2090	25	2315	30	2540	40
2095	30	2320	26	2545	35
2100	32	2325	26	2550	26
2105	40	2330	39	2555	40
2110	40	2335	38	2560	44
2115	52	2340	29	2565	48
2120	64	2345	23	2140	31
2125	56	2350	24	2145	29
2130	41	2365	37	2355	39
2135	40	2370	30	2360	38
2150	40	2375	69	2570	30
2155	36	2380	100	2575	40

**Table A3** Resistivity at each depth of hole FAMS5179 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
2580	45	2645	50	2710	30
2585	53	2650	43	2715	26
2590	51	2655	40	2720	31
2595	60	2660	50	2725	35
2600	33	2665	49	2730	27
2605	40	2670	110	2735	24
2610	40	2675	110	2740	25
2615	33	2680	90	2745	39
2620	85	2685	45	2750	40
2625	100	2690	100	2755	32
2630	150	2695	120	2760	30
2635	200	2700	89		
2640	100	2705	45		

Remark : Resistivity in hole FAMS5179 was started interpreting at depth 1290 ft. because resistivity of upper depth was zero had no running resistivity. The red number is resistivity data in abnormal pressure zone which would be deleted.



**Table A4** Resistivity at each depth of hole FASS5314.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2310	20	2545	22	2780	17
2315	20	2550	49	2785	17
2320	21	2555	40	2790	17
2325	22	2560	28	2795	18
2330	21	2565	22	2800	20
2335	21	2570	20	2805	27
2340	22	2575	20	2810	30
2345	21	2580	20	2815	30
2350	21	2585	20	2820	26
2355	21	2590	20	2825	21
2360	21	2595	27	2830	20
2365	21	2600	30	2835	18
2370	21	2605	19	2840	16
2375	21	2610	18	2845	17
2380	20	2615	30	2850	17
2385	20	2620	50	2855	17
2390	19	2625	22	2860	17
2395	21	2630	19	2865	17
2400	21	2635	17	2870	17
2405	22	2640	16	2875	20
2410	23	2645	17	2880	20
2415	20	2650	19	2885	50
2420	19	2655	18	2890	50
2425	19	2660	16	2895	79
2430	19	2665	16	2900	79
2435	20	2670	19	2905	70
2440	19	2675	20	2910	40
2445	19	2680	40	2915	50
2450	18	2685	72	2920	44
2455	20	2690	70	2925	60
2460	21	2695	50	2930	70
2465	40	2700	46	2935	70
2470	30	2705	32	2940	60
2475	20	2710	30	2945	60
2480	20	2715	29	2950	60
2485	20	2720	21	2955	40
2490	20	2725	19	2960	21
2495	30	2730	20	2515	60
2500	50	2735	22	2520	60
2505	45	2760	62	2525	50
2510	53	2765	60	2530	40
2535	32	2770	20	2740	39
2540	30	2775	17	2745	62

**Table A4** Resistivity at each depth of hole FASS5314 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2750	62	3170	37	3385	23
2755	62	3175	53	3390	19
2965	20	3180	70	3395	28
2970	30	3185	70	3400	23
2975	48	3190	40	3405	21
2980	45	3195	35	3410	21
2985	49	3200	42	3415	27
2990	50	3205	60	3420	20
2995	50	3210	30	3425	19
3000	60	3215	33	3430	20
3005	60	3220	49	3435	21
3010	60	3225	55	3440	27
3015	60	3230	69	3445	20
3020	50	3235	60	3450	17
3025	70	3240	70	3455	19
3030	80	3245	50	3460	19
3035	70	3250	50	3465	19
3040	80	3255	40	3470	18
3045	70	3260	56	3475	17
3050	60	3265	56	3480	20
3055	75	3270	51	3485	17
3060	80	3275	40	3490	17
3065	75	3280	50	3495	17
3070	70	3285	50	3500	19
3075	50	3290	28	3505	20
3080	39	3295	21	3510	20
3085	40	3300	20	3515	20
3090	50	3305	20	3520	20
3095	37	3310	18	3525	20
3100	37	3315	20	3530	20
3105	20	3320	18	3535	20
3110	20	3325	22	3540	19
3115	20	3330	18	3545	19
3120	20	3335	20	3550	18
3125	20	3340	22	3555	18
3130	20	3345	28	3560	18
3135	22	3350	28	3565	18
3140	20	3355	23	3570	18
3145	30	3360	20	3575	18
3150	51	3365	21	3580	17
3155	30	3370	20	3585	20
3160	30	3375	19	3590	19
3165	40	3380	20	3595	18

**Table A4** Resistivity at each depth of hole FASS5314 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
3600	18	3815	30	4030	38
3605	19	3820	30	4035	37
3610	21	3825	30	4040	31
3615	19	3830	30	4045	38
3620	22	3835	30	4050	30
3625	23	3840	30	4055	32
3630	21	3845	30	4060	31
3635	27	3850	28	4065	32
3640	22	3855	26	4070	31
3645	24	3860	26	4075	32
3650	24	3865	27	4080	32
3655	28	3870	29	4085	33
3660	35	3875	29	4090	36
3665	70	3880	30	4095	40
3670	100	3885	29	4100	40
3675	50	3890	29	4105	40
3680	40	3895	29	4110	40
3685	50	3900	30	4115	29
3690	50	3905	31	4120	50
3695	40	3910	39	4125	60
3700	38	3915	39	4130	50
3705	60	3920	27	4135	40
3710	60	3925	63	4140	37
3715	38	3930	70	4145	35
3720	45	3935	100	4150	38
3725	60	3940	70	4155	40
3730	68	3945	30	4160	60
3735	49	3950	33	4165	68
3740	40	3955	33	4170	60
3745	30	3960	33	4175	100
3750	30	3965	40	4180	90
3755	29	3970	37	4185	100
3760	29	3975	32	4190	170
3765	29	3980	28	4195	110
3770	30	3985	33	4200	100
3775	30	3990	32	4205	99
3780	30	3995	31	4210	73
3785	30	4000	35	4215	70
3790	30	4005	30	4220	60
3795	30	4010	38	4225	50
3800	30	4015	38	4230	45
3805	35	4020	40	4235	45
3810	30	4025	40	4240	45

**Table A4** Resistivity at each depth of hole FASS5314 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
4245	45	4265	48	4285	49
4250	48	4270	48	4290	49
4255	50	4275	48	4295	50
4260	50	4280	48	4300	49

Remark : Resistivity in hole FASS5314 was started interpreting at depth 2310 ft. because resistivity of upper depth was zero had no running resistivity. The red number is resistivity data in abnormal pressure zone which would be deleted.





**Table A5** Resistivity at each depth of hole FASS3001.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2260	22	2475	21	2690	46
2265	20	2480	21	2695	39
2270	19	2485	19	2700	32
2275	23	2490	19	2705	32
2280	23	2495	30	2710	33
2285	23	2500	49	2715	28
2290	25	2505	47	2720	22
2295	20	2510	53	2725	18
2300	21	2515	45	2730	21
2305	21	2520	50	2735	23
2310	19	2525	56	2740	36
2315	20	2530	42	2745	30
2320	22	2535	31	2750	33
2325	21	2540	30	2755	34
2330	20	2545	23	2760	30
2335	20	2550	49	2765	30
2340	20	2555	41	2770	20
2345	23	2560	28	2775	16
2350	21	2565	22	2780	16
2355	21	2570	21	2785	17
2360	21	2575	22	2790	18
2365	19	2580	21	2795	18
2370	20	2585	19	2800	21
2375	21	2590	19	2805	25
2380	20	2595	28	2810	32
2385	20	2600	31	2815	31
2390	18	2605	20	2820	26
2395	24	2610	20	2825	21
2400	21	2615	27	2830	20
2405	21	2620	40	2835	18
2410	24	2625	22	2840	17
2415	21	2630	20	2845	16
2420	18	2635	20	2850	16
2425	20	2640	19	2855	17
2430	18	2645	16	2860	18
2435	18	2650	19	2865	17
2440	18	2655	18	2870	18
2445	20	2660	17	2875	21
2450	18	2665	17	2880	21
2455	19	2670	19	2885	24
2460	20	2675	21	2890	26
2465	30	2680	30	2895	21
2470	29	2685	40	2900	30

**Table A5** Resistivity at each depth of hole FASS3001 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2905	66	3120	21	3335	18
2910	73	3125	21	3340	23
2915	59	3130	20	3345	27
2920	81	3135	21	3350	29
2925	46	3140	20	3355	23
2930	43	3145	31	3360	20
2935	28	3150	66	3365	22
2940	20	3155	58	3370	20
2945	19	3160	70	3375	20
2950	18	3165	49	3380	20
2955	22	3170	62	3385	24
2960	21	3175	60	3390	20
2965	21	3180	38	3395	29
2970	32	3185	38	3400	22
2975	47	3190	40	3405	21
2980	46	3195	36	3410	21
2985	48	3200	47	3415	30
2990	47	3205	50	3420	21
2995	49	3210	30	3425	20
3000	73	3215	31	3430	20
3005	77	3220	50	3435	21
3010	68	3225	33	3440	26
3015	65	3230	33	3445	20
3020	65	3235	31	3450	19
3025	62	3240	31	3455	19
3030	43	3245	42	3460	17
3035	32	3250	36	3465	20
3040	23	3255	40	3470	21
3045	28	3260	53	3475	18
3050	24	3265	53	3480	22
3055	45	3270	50	3485	20
3060	39	3275	42	3490	18
3065	39	3280	49	3495	20
3070	33	3285	49	3500	19
3075	50	3290	27	3505	20
3080	40	3295	22	3510	21
3085	41	3300	20	3515	19
3090	52	3305	21	3520	18
3095	38	3310	17	3525	18
3100	36	3315	21	3530	19
3105	20	3320	21	3535	20
3110	21	3325	23	3540	20
3115	21	3330	20	3545	20

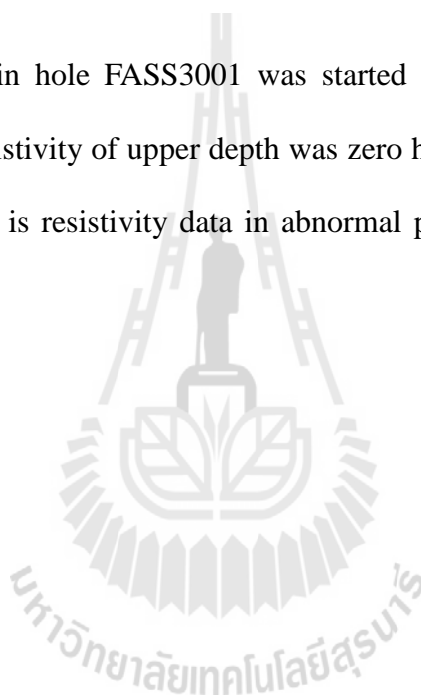
**Table A5** Resistivity at each depth of hole FASS3001 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3550	45	3765	30	3980	30
3555	55	3770	31	3985	33
3560	60	3775	30	3990	32
3565	77	3780	30	3995	30
3570	80	3785	29	4000	33
3575	80	3790	28	4005	31
3580	65	3795	28	4010	35
3585	40	3800	29	4015	35
3590	21	3805	29	4020	35
3595	17	3810	30	4025	35
3600	19	3815	30	4030	40
3605	20	3820	32	4035	35
3610	21	3825	32	4040	33
3615	20	3830	32	4045	38
3620	22	3835	35	4050	31
3625	24	3840	32	4055	32
3630	23	3845	30	4060	31
3635	27	3850	30	4065	33
3640	23	3855	30	4070	30
3645	23	3860	30	4075	33
3650	70	3865	29	4080	33
3655	95	3870	30	4085	33
3660	85	3875	30	4090	35
3665	40	3880	30	4095	37
3670	66	3885	29	4100	33
3675	79	3890	30	4105	38
3680	110	3895	29	4110	44
3685	150	3900	59	4115	30
3690	100	3905	60	4120	55
3695	50	3910	80	4125	68
3700	40	3915	80	4130	90
3705	70	3920	51	4135	170
3710	100	3925	33	4140	200
3715	130	3930	30	4145	180
3720	91	3935	27	4150	100
3725	63	3940	29	4155	83
3730	85	3945	30	4160	86
3735	130	3950	30	4165	50
3740	130	3955	30	4170	44
3745	99	3960	35	4175	56
3750	65	3965	38	4180	59
3755	42	3970	35	4185	55
3760	30	3975	33	4190	88

**Table A5** Resistivity at each depth of hole FASS3001 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
4195	99	4235	70	4275	39
4200	120	4240	100	4280	39
4205	40	4245	100	4285	39
4210	49	4250	45	4290	38
4215	40	4255	39	4295	38
4220	40	4260	45	4300	38
4225	45	4265	49		
4230	45	4270	49		

Remark : Resistivity in hole FASS3001 was started interpreting at depth 2260 ft. because resistivity of upper depth was zero had no running resistivity. The red number is resistivity data in abnormal pressure zone which would be deleted.



**Table A6** Resistivity at each depth of hole FASS3705.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2310	23	2525	55	2740	40
2315	21	2530	50	2745	33
2320	21	2535	37	2750	35
2325	21	2540	33	2755	32
2330	22	2545	20	2760	40
2335	20	2550	50	2765	40
2340	22	2555	39	2770	22
2345	20	2560	30	2775	18
2350	19	2565	23	2780	18
2355	22	2570	20	2785	18
2360	20	2575	20	2790	18
2365	20	2580	21	2795	18
2370	20	2585	21	2800	20
2375	19	2590	23	2805	23
2380	20	2595	25	2810	35
2385	20	2600	27	2815	35
2390	20	2605	20	2820	38
2395	21	2610	18	2825	21
2400	22	2615	29	2830	21
2405	14	2620	30	2835	21
2410	20	2625	21	2840	20
2415	20	2630	19	2845	21
2420	20	2635	19	2850	20
2425	23	2640	17	2855	21
2430	19	2645	17	2860	20
2435	19	2650	20	2865	19
2440	19	2655	17	2870	18
2445	20	2660	17	2875	19
2450	20	2665	17	2880	21
2455	19	2670	20	2885	30
2460	21	2675	20	2890	33
2465	29	2680	34	2895	39
2470	29	2685	35	2900	37
2475	18	2690	33	2905	35
2480	18	2695	41	2910	40
2485	19	2700	30	2915	33
2490	19	2705	32	2920	35
2495	20	2710	31	2925	40
2500	39	2715	30	2930	49
2505	33	2720	24	2935	40
2510	39	2725	20	2940	40
2515	60	2730	20	2945	32
2520	60	2735	22	2950	33

**Table A6** Resistivity at each depth of hole FASS3705 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2955	32	3170	70	3385	23
2960	33	3175	60	3390	21
2965	22	3180	69	3395	30
2970	49	3185	69	3400	31
2975	60	3190	43	3405	32
2980	75	3195	37	3410	33
2985	79	3200	43	3415	28
2990	100	3205	65	3420	21
2995	100	3210	29	3425	20
3000	80	3215	33	3430	20
3005	42	3220	70	3435	21
3010	47	3225	120	3440	20
3015	47	3230	120	3445	20
3020	49	3235	100	3450	20
3025	50	3240	99	3455	21
3030	50	3245	70	3460	21
3035	30	3250	53	3465	20
3040	33	3255	38	3470	17
3045	39	3260	55	3475	17
3050	30	3265	55	3480	20
3055	30	3270	55	3485	20
3060	30	3275	39	3490	20
3065	30	3280	45	3495	20
3070	32	3285	50	3500	19
3075	45	3290	29	3505	19
3080	40	3295	20	3510	20
3085	40	3300	20	3515	19
3090	49	3305	20	3520	19
3095	37	3310	20	3525	20
3100	37	3315	20	3530	19
3105	21	3320	20	3535	20
3110	19	3325	21	3540	20
3115	21	3330	19	3545	21
3120	21	3335	20	3550	20
3125	20	3340	21	3555	20
3130	20	3345	27	3560	19
3135	21	3350	27	3565	17
3140	67	3355	24	3570	19
3145	80	3360	21	3575	19
3150	100	3365	21	3580	17
3155	100	3370	21	3585	20
3160	130	3375	21	3590	20
3165	85	3380	21	3595	18

**Table A6** Resistivity at each depth of hole FASS3705 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3600	18	3815	31	4030	37
3605	18	3820	31	4035	36
3610	20	3825	30	4040	31
3615	19	3830	31	4045	39
3620	21	3835	30	4050	30
3625	22	3840	31	4055	32
3630	22	3845	30	4060	32
3635	26	3850	30	4065	32
3640	22	3855	25	4070	32
3645	24	3860	25	4075	32
3650	25	3865	26	4080	32
3655	65	3870	30	4085	35
3660	79	3875	29	4090	35
3665	150	3880	32	4095	42
3670	190	3885	28	4100	41
3675	150	3890	30	4105	41
3680	100	3895	29	4110	41
3685	120	3900	34	4115	59
3690	100	3905	33	4120	150
3695	50	3910	40	4125	130
3700	70	3915	40	4130	100
3705	90	3920	60	4135	50
3710	110	3925	80	4140	39
3715	100	3930	99	4145	32
3720	110	3935	100	4150	90
3725	120	3940	80	4155	100
3730	100	3945	29	4160	100
3735	80	3950	30	4165	200
3740	58	3955	30	4170	210
3745	30	3960	29	4175	200
3750	30	3965	40	4180	190
3755	30	3970	36	4185	110
3760	30	3975	33	4190	80
3765	29	3980	30	4195	42
3770	30	3985	32	4200	45
3775	29	3990	31	4205	40
3780	30	3995	32	4210	40
3785	29	4000	36	4215	41
3790	31	4005	31	4220	42
3795	29	4010	33	4225	53
3800	32	4015	40	4230	48
3805	33	4020	40	4235	44
3810	30	4025	40	4240	42

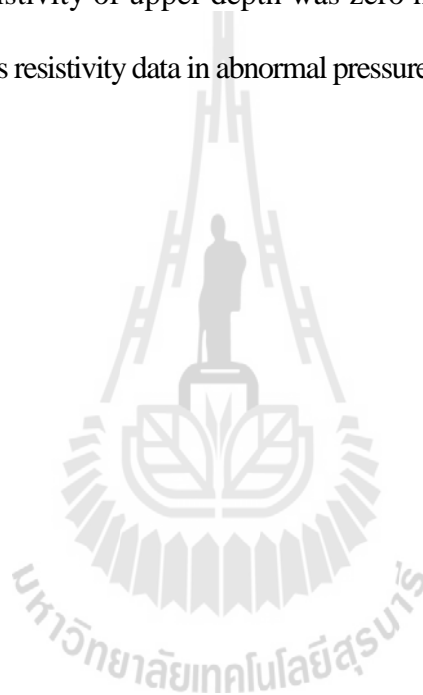
**Table A6** Resistivity at each depth of hole FASS3705 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
4245	44	4265	50	4285	47
4250	49	4270	50	4290	50
4255	50	4275	47	4295	50
4260	50	4280	47	4300	49

Remark : Resistivity in hole FASS3705 was started interpreting at depth 2310 ft.

because resistivity of upper depth was zero had no running resistivity. The

red number is resistivity data in abnormal pressure zone which would be deleted.





**Table A7** Resistivity at each depth of hole FABT4503/3.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1750	3.1	1965	3.9	2180	8
1755	3.3	1970	3.5	2185	2.8
1760	3.1	1975	4.2	2190	4
1765	3	1980	4	2195	5
1770	3	1985	4	2200	3.5
1775	3	1990	3.2	2205	2.6
1780	3	1995	3.9	2210	2.8
1785	3	2000	4.2	2215	2.8
1790	3.3	2005	4.5	2220	3.2
1795	4.5	2010	4	2225	2.8
1800	3.5	2015	4	2230	3.7
1805	3.2	2020	4.5	2235	3.1
1810	3.8	2025	4.1	2240	3.3
1815	5	2030	6	2245	3.5
1820	4	2035	5	2250	2.8
1825	3.5	2040	3.8	2255	3.7
1830	2.9	2045	3	2260	3
1835	2.8	2050	3.5	2265	2.8
1840	3	2055	3	2270	4.2
1845	2.8	2060	4	2275	2.9
1850	3.1	2065	4	2280	3
1855	5	2070	3.3	2285	2.9
1860	4	2075	2.8	2290	3.1
1865	2.9	2080	2.8	2295	5.1
1870	2.8	2085	2.9	2300	4
1875	2.5	2090	2.9	2305	4.9
1880	2.3	2095	3.3	2310	2.7
1885	2.8	2100	3.3	2315	3
1890	3	2105	3.1	2320	2.6
1895	3	2110	3.1	2325	2.6
1900	3.5	2115	3	2330	2.7
1905	3.2	2120	3.2	2335	2.9
1910	3.9	2125	3.2	2340	4.9
1915	3.6	2130	3.1	2345	3.3
1920	3.3	2135	3.8	2350	3.1
1925	3	2140	3.8	2355	5.5
1930	3	2145	3.2	2360	6.2
1935	3.5	2150	3.5	2365	6.2
1940	3	2155	3.4	2370	5.5
1945	3.2	2160	3.7	2375	4.7
1950	3.1	2165	3.1	2380	3.2
1955	4	2170	4.9	2385	3
1960	6	2175	10	2390	4

**Table A7** Resistivity at each depth of hole FABT4503/3 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2395	3.2	2610	5	2825	11
2400	3	2615	5	2830	5
2405	3.2	2620	5	2835	5.5
2410	3	2625	5	2840	5
2415	2.7	2630	5.9	2845	4.8
2420	3	2635	6.1	2850	4.2
2425	3.2	2640	5	2855	6
2430	3.2	2645	7	2860	3.6
2435	3.7	2650	6	2865	3.6
2440	2.7	2655	5.4	2870	4
2445	2.7	2660	7	2875	4.5
2450	2.5	2665	6.5	2880	7
2455	4	2670	6.2	2885	5
2460	2.8	2675	11	2890	15
2465	2.7	2680	6	2895	15
2470	5	2685	6	2900	12
2475	3	2690	8.5	2905	4.9
2480	3.1	2695	6.4	2910	25
2485	5	2700	9.9	2915	4
2490	4.7	2705	6.6	2920	4.9
2495	6	2710	19	2925	3.4
2500	6	2715	8	2930	3.5
2505	5.7	2720	7.5	2935	5
2510	6	2725	14	2940	4
2515	4.4	2730	14	2945	4.2
2520	5.4	2735	13.5	2950	3.9
2525	3.5	2740	24	2955	7
2530	3.5	2745	14	2960	9
2535	3.9	2750	5.2	2965	4
2540	3.5	2755	4	2970	5
2545	3.9	2760	8.5	2975	5.3
2550	4.2	2765	9	2980	3.6
2555	4	2770	7	2985	6
2560	5	2775	6	2990	5
2565	4.7	2780	10	2995	16
2570	4.5	2785	7	3000	13
2575	4.7	2790	5	3005	7.8
2580	4.7	2795	5	3010	7.8
2585	5.1	2800	8	3015	5.1
2590	4.9	2805	3.8	3020	15
2595	5	2810	4.5	3025	7
2600	5	2815	4	3030	11.5
2605	5	2820	5.9	3035	8

**Table A7** Resistivity at each depth of hole FABT4503/3 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3040	8	3255	23	3470	10
3045	4	3260	25	3475	8
3050	8	3265	8	3480	8
3055	17	3270	6	3485	11
3060	17	3275	6	3490	8
3065	15	3280	6	3495	12
3070	12	3285	4.9	3500	7
3075	11	3290	5	3505	6.5
3080	11	3295	6	3510	7
3085	5	3300	5	3515	7
3090	7	3305	5	3520	9.9
3095	9	3310	7	3525	7
3100	14	3315	7	3530	9.5
3105	14	3320	8	3535	10
3110	6	3325	5.1	3540	6.5
3115	7.3	3330	5.5	3545	49
3120	4.5	3335	5.3	3550	7
3125	14	3340	5.1	3555	16
3130	8	3345	7	3560	7.1
3135	6	3350	9	3565	50
3140	6	3355	6	3570	7.8
3145	10	3360	5	3575	20
3150	5	3365	5	3580	10
3155	3.9	3370	5.6	3585	11
3160	6.6	3375	5.5	3590	60
3165	20	3380	7	3595	21
3170	5	3385	6	3600	25
3175	6.5	3390	6	3605	16
3180	5	3395	6	3610	43
3185	4	3400	5.7	3615	330
3190	8	3405	7	3620	200
3195	5	3410	6.9	3625	490
3200	6	3415	5.9	3630	150
3205	3.6	3420	6.9	3635	28
3210	4.5	3425	6	3640	8
3215	5.5	3430	6.5	3645	6.9
3220	4	3435	7	3650	7
3225	6	3440	7	3655	8
3230	4.3	3445	11	3660	6.1
3235	10	3450	10	3665	6.5
3240	10	3455	10	3670	6
3245	5	3460	9	3675	7
3250	12	3465	8	3680	10

**Table A7** Resistivity at each depth of hole FABT4503/3 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
3685	6	3860	5.1	4035	35
3690	6.9	3865	5.9	4040	41
3695	7	3870	8	4045	30
3700	6	3875	25	4050	15
3705	7	3880	60	4055	27
3710	10	3885	12	4060	30
3715	8	3890	37	4065	30
3720	5.3	3895	10	4070	42
3725	5.8	3900	50	4075	30
3730	6	3905	400	4080	40
3735	7	3910	130	4085	35
3740	6	3915	100	4090	39
3745	6.7	3920	10	4095	47
3750	6	3925	11	4100	28
3755	7	3930	20	4105	23
3760	7.2	3935	40	4110	21
3765	6.5	3940	30	4115	30
3770	6.8	3945	10	4120	43
3775	6.5	3950	7	4125	85
3780	6	3955	9	4130	80
3785	10	3960	17	4135	90
3790	10	3965	17	4140	90
3795	15	3970	10	4145	80
3800	14	3975	12	4150	30
3805	19	3980	20	4155	27
3810	150	3985	30	4160	27
3815	35	3990	19	4165	20
3820	7	3995	21	4170	24
3825	7	4000	22	4175	28
3830	10	4005	14	4180	29
3835	10	4010	29	4185	36
3840	80	4015	30	4190	39
3845	7	4020	40	4195	19
3850	15	4025	32	4200	20
3855	7	4030	40		

Remark : Resistivity in hole FABT4503/3 was started interpreting at depth 1750 ft.

because resistivity of upper depth was zero had no running resistivity. The red

number is resistivity data in abnormal pressure zone which would be deleted.

**Table A8** Resistivity at each depth of hole FABT4503/1.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1750	4.5	1965	4	2180	6
1755	4.1	1970	4	2185	3
1760	4	1975	4.1	2190	4.3
1765	4	1980	4	2195	5.2
1770	4	1985	4	2200	3.4
1775	4.2	1990	3.6	2205	2.7
1780	4.1	1995	4	2210	2.9
1785	3	2000	4.1	2215	2.9
1790	3.9	2005	5	2220	3.2
1795	5	2010	4.6	2225	3
1800	4.5	2015	4	2230	3.7
1805	4	2020	4.9	2235	3.2
1810	4	2025	4	2240	3.5
1815	4	2030	5	2245	3.5
1820	4	2035	6	2250	3
1825	4	2040	4	2255	3.9
1830	4	2045	3.3	2260	2.9
1835	3	2050	3.9	2265	3
1840	3	2055	4	2270	3
1845	3	2060	4	2275	3
1850	3	2065	4	2280	3
1855	3.3	2070	4	2285	4.6
1860	3.1	2075	4	2290	3.5
1865	3	2080	4.5	2295	5
1870	2.8	2085	4.5	2300	4.4
1875	2.9	2090	3	2305	5
1880	2	2095	3.1	2310	2.6
1885	2	2100	3.4	2315	3
1890	2.5	2105	3	2320	2.7
1895	2.5	2110	3	2325	2.7
1900	3	2115	3	2330	2.7
1905	3	2120	3.1	2335	2.7
1910	4	2125	3.5	2340	5
1915	3	2130	3.5	2345	3.2
1920	3.5	2135	4	2350	3.1
1925	3	2140	3	2355	4
1930	3	2145	3.2	2360	6
1935	4	2150	4	2365	6
1940	3.3	2155	3.8	2370	5.3
1945	3	2160	3.2	2375	4.4
1950	3.1	2165	3.3	2380	3.4
1955	3.5	2170	5	2385	3
1960	4	2175	5	2390	4.1

**Table A8** Resistivity at each depth of hole FABT4503/1 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2395	3.3	2610	5	2825	8
2400	3.3	2615	5	2830	6
2405	3.3	2620	5	2835	6
2410	3	2625	5	2840	5.9
2415	3	2630	6	2845	5
2420	3	2635	6	2850	5
2425	4	2640	6	2855	5.9
2430	4	2645	6	2860	4
2435	4	2650	6	2865	4
2440	3	2655	5	2870	4
2445	3.6	2660	7.5	2875	4.9
2450	3.6	2665	7	2880	7
2455	3.9	2670	7	2885	6
2460	3.1	2675	7	2890	8
2465	2.7	2680	10	2895	8
2470	4.6	2685	13	2900	15
2475	3.3	2690	8.9	2905	13
2480	3.2	2695	7	2910	14
2485	5.5	2700	11	2915	6
2490	5	2705	7	2920	5
2495	6	2710	15	2925	3
2500	5	2715	10	2930	3
2505	5	2720	8	2935	5.2
2510	6	2725	9	2940	4
2515	4.9	2730	12	2945	4
2520	4.5	2735	10	2950	4
2525	3.2	2740	22	2955	6.5
2530	3.8	2745	21	2960	6.5
2535	4	2750	6	2965	5
2540	4	2755	5	2970	5
2545	4	2760	10	2975	6
2550	4	2765	10	2980	4
2555	4.3	2770	10	2985	6
2560	4	2775	10	2990	5
2565	5	2780	10	2995	13
2570	5	2785	8	3000	13
2575	5	2790	6	3005	7
2580	5	2795	9	3010	7
2585	5.6	2800	7	3015	7
2590	5	2805	4	3020	9
2595	5	2810	3	3025	7
2600	5	2815	4	3030	10
2605	5	2820	6	3035	7

**Table A8** Resistivity at each depth of hole FABT4503/1 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3040	7.5	3255	10	3470	10
3045	4.2	3260	16	3475	7
3050	4.4	3265	13	3480	7
3055	4.4	3270	20	3485	7
3060	19	3275	20	3490	10
3065	14	3280	22	3495	15
3070	12	3285	5	3500	12
3075	16	3290	5.5	3505	12
3080	16	3295	6.3	3510	8
3085	16	3300	5.2	3515	14
3090	16	3305	4.6	3520	19
3095	9	3310	4.9	3525	7.1
3100	13	3315	6.4	3530	30
3105	14	3320	9	3535	49
3110	7	3325	5	3540	80
3115	7.9	3330	5	3545	100
3120	6	3335	5	3550	54
3125	9.1	3340	5	3555	23
3130	7	3345	7.5	3560	6
3135	5	3350	12	3565	7.2
3140	8	3355	4	3570	8
3145	7	3360	9	3575	15
3150	7	3365	6.9	3580	19
3155	7	3370	5	3585	16
3160	6	3375	4.2	3590	70
3165	6.6	3380	6.6	3595	100
3170	4	3385	6.6	3600	60
3175	4.5	3390	6.6	3605	90
3180	5	3395	6.6	3610	33
3185	4	3400	6	3615	21
3190	9	3405	8	3620	20
3195	5	3410	8	3625	27
3200	7	3415	8	3630	38
3205	5	3420	8	3635	20
3210	5	3425	8	3640	12
3215	5	3430	8	3645	7
3220	5	3435	7.3	3650	8.1
3225	3.8	3440	10	3655	7.3
3230	4	3445	11	3660	6
3235	13	3450	10	3665	6
3240	13	3455	10	3670	6
3245	10	3460	10	3675	6
3250	14	3465	10	3680	6

**Table A8** Resistivity at each depth of hole FABT4503/1 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
3685	6	3860	10	4035	39
3690	5	3865	9	4040	40
3695	5	3870	9	4045	30
3700	6	3875	20	4050	18
3705	5	3880	21	4055	30
3710	8	3885	21	4060	30
3715	8	3890	39	4065	30
3720	8	3895	31	4070	30
3725	6	3900	40	4075	30
3730	6	3905	60	4080	35
3735	8	3910	190	4085	30
3740	6	3915	200	4090	60
3745	8.5	3920	120	4095	110
3750	6.3	3925	58	4100	105
3755	5.6	3930	25	4105	70
3760	8	3935	39	4110	32
3765	8	3940	25	4115	30
3770	8	3945	12	4120	35
3775	8.9	3950	10	4125	30
3780	7	3955	10	4130	21
3785	20	3960	10	4135	21
3790	29	3965	14	4140	21
3795	20	3970	18	4145	30
3800	69	3975	10	4150	33
3805	150	3980	21	4155	30
3810	110	3985	33	4160	30
3815	60	3990	100	4165	28
3820	23	3995	100	4170	30
3825	22	4000	22	4175	30
3830	29	4005	21	4180	35
3835	39	4010	30	4185	30
3840	100	4015	33	4190	35
3845	190	4020	33	4195	30
3850	27	4025	32	4200	24
3855	20	4030	33		

Remark : Resistivity in hole FABT4503/1 was started interpreting at depth 1750 ft.

because resistivity of upper depth was zero had no running resistivity. The

red number is resistivity data in abnormal pressure zone which would be deleted.



**Table A9** Resistivity at each depth of hole FABT4503/2.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1750	3	1965	3.5	2180	4
1755	3	1970	3.5	2185	5.6
1760	3	1975	4	2190	7
1765	3	1980	4	2195	7
1770	3	1985	4	2200	7
1775	3	1990	4	2205	3.1
1780	3	1995	3.9	2210	3.1
1785	3	2000	4	2215	3
1790	4	2005	4	2220	4
1795	4	2010	4	2225	3
1800	4	2015	4	2230	3.9
1805	4	2020	5	2235	3.1
1810	4	2025	5	2240	3.3
1815	3.5	2030	7	2245	3.7
1820	3.5	2035	7	2250	3
1825	3.5	2040	6.9	2255	3.5
1830	3	2045	8	2260	3.3
1835	3	2050	3	2265	3
1840	4	2055	3	2270	4
1845	4	2060	3.5	2275	3
1850	4	2065	3.9	2280	4.1
1855	6	2070	3.9	2285	3
1860	5	2075	3	2290	3.3
1865	3	2080	3	2295	6.3
1870	3	2085	3	2300	4.2
1875	3.1	2090	2.9	2305	5
1880	3.1	2095	3	2310	3
1885	3.1	2100	3.6	2315	3.1
1890	3.1	2105	3.2	2320	2.9
1895	3.1	2110	3.2	2325	2.9
1900	3.6	2115	3.2	2330	2.9
1905	4	2120	3.2	2335	2.9
1910	4.2	2125	3.2	2340	3
1915	4	2130	3	2345	3
1920	4	2135	3	2350	3.3
1925	4.2	2140	3	2355	3.5
1930	3.9	2145	3	2360	5
1935	3	2150	3.2	2365	5
1940	3	2155	3	2370	6
1945	3	2160	3	2375	5
1950	3.4	2165	3	2380	3.1
1955	3.5	2170	3.2	2385	3.1
1960	3.5	2175	4	2390	3

**Table A9** Resistivity at each depth of hole FABT4503/2 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2395	3.3	2610	4	2825	7
2400	3.1	2615	8	2830	7
2405	4.1	2620	8	2835	5.9
2410	4.1	2625	4	2840	6
2415	4.1	2630	7	2845	5
2420	4.7	2635	6	2850	4.1
2425	4.2	2640	6	2855	7
2430	4.9	2645	5.5	2860	4
2435	5	2650	5	2865	3.1
2440	5.3	2655	5	2870	4.2
2445	4	2660	4.6	2875	4.2
2450	3.5	2665	4.1	2880	6.4
2455	4.6	2670	4.7	2885	5
2460	3	2675	3	2890	5
2465	3	2680	4.9	2895	5
2470	3	2685	4.9	2900	5
2475	3	2690	5	2905	5.2
2480	3	2695	5	2910	5
2485	6.9	2700	5	2915	4.1
2490	7	2705	6.3	2920	5
2495	7	2710	9	2925	4
2500	7	2715	8.1	2930	4.1
2505	7	2720	8.1	2935	5.9
2510	7.1	2725	8	2940	5.9
2515	5	2730	8	2945	4.5
2520	5.5	2735	8.9	2950	4
2525	5.5	2740	3	2955	6
2530	4	2745	3	2960	10
2535	4	2750	3	2965	5
2540	4	2755	4	2970	6
2545	4	2760	3	2975	5.9
2550	4	2765	3.5	2980	4
2555	4.6	2770	3.9	2985	6.3
2560	4.9	2775	5	2990	6.1
2565	4	2780	6.7	2995	6
2570	4.1	2785	7.1	3000	6
2575	4.1	2790	7.1	3005	6
2580	4.1	2795	7.5	3010	6
2585	5	2800	7.9	3015	7.9
2590	5	2805	4	3020	7
2595	8	2810	4	3025	7
2600	8	2815	4.1	3030	7.5
2605	7	2820	6.5	3035	9.9

**Table A9** Resistivity at each depth of hole FABT4503/2 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3040	9	3255	23	3470	13
3045	6	3260	25	3475	8.1
3050	6	3265	20	3480	8.1
3055	20	3270	15	3485	9
3060	10.1	3275	15	3490	9
3065	19	3280	7	3495	15
3070	16	3285	5	3500	21
3075	13	3290	5.2	3505	21
3080	12	3295	5.1	3510	7
3085	10	3300	4.9	3515	7.5
3090	8	3305	4.9	3520	10
3095	8	3310	5	3525	5
3100	8.5	3315	5	3530	10
3105	8.5	3320	9	3535	10
3110	7	3325	5	3540	70
3115	7	3330	5	3545	70
3120	5	3335	4	3550	85
3125	9	3340	4	3555	70
3130	8	3345	4	3560	10
3135	8	3350	10	3565	15
3140	8	3355	11	3570	15
3145	9.9	3360	7	3575	22
3150	5.2	3365	7	3580	16
3155	4	3370	7	3585	10
3160	4	3375	6.5	3590	18
3165	4.7	3380	6.9	3595	19
3170	6	3385	5.1	3600	19.5
3175	7	3390	5.5	3605	18
3180	7.5	3395	6	3610	19
3185	4	3400	6	3615	15
3190	4	3405	7.1	3620	19
3195	4	3410	7	3625	25
3200	4	3415	7	3630	35
3205	4	3420	7	3635	30
3210	4	3425	5.9	3640	29
3215	6	3430	5.4	3645	30
3220	4	3435	5.1	3650	150
3225	6	3440	7	3655	90
3230	4	3445	12	3660	90
3235	10.5	3450	15	3665	18
3240	10.5	3455	11	3670	10
3245	6	3460	11	3675	10
3250	21	3465	16	3680	10

**Table A9** Resistivity at each depth of hole FABT4503/2 (continued).

Depth	Resistivity	Depth	Resistivity	Depth	Resistivity
3685	6	3860	15	4035	35
3690	7	3865	30	4040	40
3695	7.3	3870	39	4045	41
3700	7	3875	100	4050	40
3705	7.1	3880	170	4055	30
3710	7	3885	120	4060	33
3715	8	3890	81	4065	33
3720	5.5	3895	40	4070	40
3725	5.5	3900	50	4075	19
3730	5.9	3905	31	4080	19
3735	5.9	3910	14	4085	30
3740	6	3915	10	4090	43
3745	6	3920	10	4095	50
3750	6	3925	11	4100	28
3755	6	3930	21	4105	75
3760	7	3935	21	4110	79
3765	6	3940	30	4115	85
3770	6	3945	30	4120	60
3775	6	3950	15	4125	42
3780	6	3955	10	4130	30
3785	6.5	3960	20	4135	33
3790	7	3965	20	4140	33
3795	20	3970	26	4145	33
3800	25	3975	13	4150	39
3805	25	3980	20	4155	40
3810	30	3985	29	4160	31
3815	90	3990	20	4165	35
3820	90	3995	21	4170	30
3825	80	4000	20	4175	30
3830	80	4005	20	4180	27
3835	80	4010	30	4185	24
3840	70	4015	30	4190	18
3845	65	4020	41	4195	19
3850	15	4025	31	4200	19
3855	15	4030	35		

Remark : Resistivity in hole FABT4503/2 was started interpreting at depth 1750 ft.

because resistivity of upper depth was zero had no running resistivity. The red number is resistivity data in abnormal pressure zone which would be deleted.



**APPENDIX B**

**NORMAL DISTRIBUTION VALUE, NORMAL TREND**

**RESISTIVITY VALUE, PRESSURE AND**

**PRESSURE GRADIENT VALUE**

**Table B1** Normal distribution ( $f(x)$ ) of hole FAMS5280.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1400	79	2.01083E-06	1665	34	0.038356891
1405	68	0.000128007	1670	21	0.019643898
1410	60	0.001291994	1675	24	0.026366749
1415	40	0.030695274	1680	22	0.021871987
1420	31	0.037804367	1685	25	0.028547257
1425	30	0.036926629	1690	29	0.035734395
1430	29	0.035734395	1695	34	0.038356891
1435	32	0.038343642	1700	27	0.032540726
1440	38	0.03431883	1705	29	0.035734395
1470	31	0.037804367	1710	29	0.035734395
1475	30	0.036926629	1715	28	0.034259601
1480	29	0.035734395	1720	26	0.030621134
1485	29	0.035734395	1725	23	0.024126697
1490	30	0.036926629	1730	21	0.019643898
1495	29	0.035734395	1735	23	0.024126697
1500	24	0.026366749	1740	32	0.038343642
1505	50	0.010039493	1745	37	0.03578381
1510	25	0.028547257	1750	37	0.03578381
1515	28	0.034259601	1755	39	0.032608247
1520	28	0.034259601	1760	28	0.034259601
1525	24	0.026366749	1765	32	0.038343642
1530	23	0.024126697	1770	38	0.03431883
1535	21	0.019643898	1805	30	0.036926629
1540	22	0.021871987	1810	29	0.035734395
1570	23	0.024126697	1815	30	0.036926629
1575	20	0.017478985	1820	30	0.036926629
1580	19	0.015408268	1825	27	0.032540726
1585	19	0.015408268	1830	34	0.038356891
1590	19	0.015408268	1835	39	0.032608247
1595	18	0.013456761	1840	29	0.035734395
1600	19	0.015408268	1845	37	0.03578381
1605	23	0.024126697	1850	36	0.036964919
1610	19	0.015408268	1855	33	0.038529541
1615	18	0.013456761	1860	31	0.037804367
1620	19	0.015408268	1865	38	0.03431883
1625	17	0.011643306	1870	32	0.038343642
1630	21	0.019643898	1875	36	0.036964919
1635	23	0.024126697	1880	29	0.035734395
1640	20	0.017478985	1885	43	0.02421019
1645	18	0.013456761	1890	24	0.026366749
1650	19	0.015408268	1895	20	0.017478985
1655	22	0.021871987	1900	19	0.015408268
1660	50	0.010039493	1905	23	0.024126697

**Table B1** Normal distribution ( $f(x)$ ) of hole FAMS5280 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1945	27	0.032540726	2170	28	0.034259601
1950	22	0.021871987	2175	26	0.030621134
1955	21	0.019643898	2180	30	0.036926629
1960	24	0.026366749	2185	32	0.038343642
1965	20	0.017478985	2190	47	0.015482971
1970	21	0.019643898	2195	30	0.036926629
1975	25	0.028547257	2200	50	0.010039493
1980	27	0.032540726	2205	49	0.011707842
1985	29	0.035734395	2210	32	0.038343642
1990	28	0.034259601	2215	45	0.019725503
1995	25	0.028547257	2225	54	0.004944726
2000	38	0.03431883	2230	41	0.028626263
2005	30	0.036926629	2265	39	0.032608247
2010	28	0.034259601	2270	39	0.032608247
2015	25	0.028547257	2295	40	0.030695274
2020	23	0.024126697	2300	50	0.010039493
2025	29	0.035734395	2310	36	0.036964919
2035	29	0.035734395	2315	32	0.038343642
2040	30	0.036926629	2320	27	0.032540726
2045	25	0.028547257	2325	27	0.032540726
2050	21	0.019643898	2330	40	0.030695274
2055	21	0.019643898	2335	38	0.03431883
2060	26	0.030621134	2340	30	0.036926629
2065	24	0.026366749	2345	23	0.024126697
2070	26	0.030621134	2350	25	0.028547257
2075	21	0.019643898	2355	42	0.026448856
2080	30	0.036926629	2360	39	0.032608247
2085	43	0.02421019	2365	37	0.03578381
2090	25	0.028547257	2370	25	0.028547257
2095	28	0.034259601	2375	30	0.036926629
2100	28	0.034259601	2380	35	0.037830496
2105	39	0.032608247	2385	34	0.038356891
2110	38	0.03431883	2390	28	0.034259601
2115	47	0.015482971	2395	29	0.035734395
2120	58	0.002097771	2400	31	0.037804367
2125	52	0.007178419	2405	39	0.032608247
2135	40	0.030695274	2410	40	0.030695274
2140	30	0.036926629	2415	50	0.010039493
2145	30	0.036926629	2420	39	0.032608247
2150	38	0.03431883	2425	31	0.037804367
2155	36	0.036964919	2430	39	0.032608247
2160	30	0.036926629	2435	31	0.037804367
2165	26	0.030621134	2440	33	0.038529541

**Table B1** Normal distribution ( $f(x)$ ) of hole FAMS5280 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2445	33	0.038529541	2655	42	0.026448856
2470	50	0.010039493	2660	48	0.013526674
2475	45	0.019725503	2665	50	0.010039493
2525	50	0.010039493	2670	44	0.021955261
2530	49	0.011707842	2675	37	0.03578381
2535	41	0.028626263	2680	45	0.019725503
2555	41	0.028626263	2685	50	0.010039493
2560	45	0.019725503	2690	43	0.02421019
2565	50	0.010039493	2695	47	0.015482971
2570	33	0.038529541	2700	35	0.037830496
2580	45	0.019725503	2705	29	0.035734395
2585	55	0.004046901	2710	29	0.035734395
2590	50	0.010039493	2715	26	0.030621134
2595	59	0.001653997	2720	31	0.037804367
2600	33	0.038529541	2725	38	0.03431883
2605	41	0.028626263	2730	28	0.034259601
2610	37	0.03578381	2735	24	0.026366749
2615	34	0.038356891	2740	26	0.030621134
2620	57	0.002635909	2745	40	0.030695274
2635	30	0.036926629	2750	40	0.030695274
2640	53	0.005985645	2755	32	0.038343642
2645	40	0.030695274	2760	29	0.035734395



**Table B2** Normal distribution ( $f(x)$ ) of hole FAMS4874.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1330	40	0.014703	1590	20	0.017498
1335	35	0.014173	1595	20	0.017498
1340	32	0.013638	1600	19	0.015195
1345	33	0.013833	1605	21	0.019934
1350	33	0.013833	1610	18	0.013054
1355	31	0.013427	1615	18	0.013054
1360	38	0.014548	1620	18	0.013054
1365	47	0.01461	1625	18	0.013054
1370	45	0.014737	1630	25	0.030167
1375	60	0.012079	1635	25	0.030167
1380	63	0.011185	1640	20	0.017498
1385	71	0.008577	1645	20	0.017498
1390	70	0.00891	1650	20	0.017498
1395	69	0.009242	1655	22	0.022468
1400	60	0.00075	1660	40	0.030943
1405	40	0.030943	1665	35	0.040116
1410	44	0.020726	1670	20	0.017498
1415	40	0.030943	1675	25	0.030167
1420	29	0.038453	1680	22	0.022468
1425	30	0.039778	1685	20	0.017498
1430	29	0.038453	1690	30	0.039778
1435	29	0.038453	1695	35	0.040116
1440	35	0.040116	1700	27	0.034797
1445	30	0.039778	1705	30	0.039778
1450	29	0.038453	1710	30	0.039778
1455	40	0.030943	1715	30	0.039778
1460	45	0.018254	1720	25	0.030167
1465	50	0.008236	1725	22	0.022468
1470	49	0.009867	1730	20	0.017498
1520	30	0.039778	1735	23	0.025054
1525	22	0.022468	1740	35	0.040116
1530	23	0.025054	1745	37	0.037341
1535	21	0.019934	1750	37	0.037341
1540	23	0.025054	1755	40	0.030943
1545	18	0.013054	1760	30	0.039778
1550	20	0.017498	1765	32	0.041218
1555	20	0.017498	1770	40	0.030943
1560	20	0.017498	1775	30	0.039778
1565	21	0.019934	1780	33	0.041287
1570	19	0.015195	1785	30	0.039778
1575	20	0.017498	1790	30	0.039778
1580	19	0.015195	1795	35	0.040116
1585	19	0.015195	1800	30	0.039778

**Table B2** Normal distribution ( $f(x)$ ) of hole FAMS4874 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1805	21	0.019934	2040	30	0.039778
1810	29	0.038453	2045	25	0.030167
1815	30	0.039778	2050	20	0.017498
1820	31	0.040709	2055	20	0.017498
1825	28	0.036776	2060	25	0.030167
1830	35	0.040116	2065	25	0.030167
1835	33	0.041287	2070	25	0.030167
1840	30	0.039778	2075	22	0.022468
1845	35	0.040116	2080	30	0.039778
1850	35	0.040116	2085	45	0.018254
1855	35	0.040116	2090	27	0.034797
1860	30	0.039778	2095	28	0.036776
1865	40	0.030943	2100	27	0.034797
1870	33	0.041287	2105	40	0.030943
1875	39	0.033298	2110	37	0.037341
1880	30	0.039778	2115	50	0.008236
1885	47	0.013711	2120	60	0.00075
1890	21	0.019934	2125	50	0.008236
1895	20	0.017498	2130	40	0.030943
1900	20	0.017498	2135	40	0.030943
1905	25	0.030167	2140	30	0.039778
1910	25	0.030167	2145	30	0.039778
1915	30	0.039778	2150	40	0.030943
1920	40	0.030943	2215	46	0.015906
1925	35	0.040116	2225	50	0.008236
1930	31	0.040709	2230	42	0.025873
1935	50	0.008236	2235	60	0.00075
1960	30	0.039778	2240	50	0.008236
1965	21	0.019934	2245	30	0.039778
1970	21	0.019934	2250	31	0.040709
1975	22	0.022468	2255	40	0.030943
1980	27	0.034797	2260	39	0.033298
1985	30	0.039778	2265	42	0.025873
1990	27	0.034797	2270	40	0.030943
1995	27	0.034797	2280	60	0.00075
2000	40	0.030943	2285	40	0.030943
2005	30	0.039778	2290	40	0.030943
2010	30	0.039778	2295	50	0.008236
2015	25	0.030167	2300	50	0.008236
2020	23	0.025054	2305	60	0.00075
2025	30	0.039778	2310	40	0.030943
2030	25	0.030167	2315	31	0.040709
2035	29	0.038453	2320	27	0.034797

**Table B2** Normal distribution ( $f(x)$ ) of hole FAMS4874 (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>f(x)</b>	<b>Depth</b>	<b>Resistivity</b>	<b>f(x)</b>
2325	27	0.034797	2590	50	0.008236
2330	40	0.030943	2595	50	0.008236
2335	40	0.030943	2600	35	0.040116
2340	30	0.039778	2605	40	0.030943
2345	22	0.022468	2610	40	0.030943
2350	26	0.032573	2615	31	0.040709
2355	40	0.030943	2620	30	0.039778
2360	40	0.030943	2625	22	0.022468
2365	38	0.035451	2630	20	0.017498
2370	26	0.032573	2635	25	0.030167
2375	30	0.039778	2640	30	0.039778
2380	36	0.038912	2645	40	0.030943
2385	36	0.038912	2650	30	0.039778
2390	28	0.036776	2655	41	0.028447
2395	35	0.040116	2660	50	0.008236
2400	31	0.040709	2665	50	0.008236
2405	40	0.030943	2670	45	0.018254
2440	40	0.030943	2675	40	0.030943
2445	32	0.041218	2680	45	0.018254
2450	29	0.038453	2685	45	0.018254
2485	37	0.037341	2690	45	0.018254
2490	40	0.030943	2695	50	0.008236
2495	31	0.040709	2700	35	0.040116
2500	30	0.039778	2705	30	0.039778
2505	25	0.030167	2710	30	0.039778
2510	27	0.034797	2715	35	0.040116
2515	29	0.038453	2720	30	0.039778
2520	30	0.039778	2725	40	0.030943
2525	30	0.039778	2730	30	0.039778
2530	50	0.008236	2735	24	0.02764
2535	45	0.018254	2740	26	0.032573
2570	35	0.040116	2745	41	0.028447
2575	30	0.039778	2750	41	0.028447
2580	45	0.018254	2755	40	0.030943
2585	50	0.008236	2760	30	0.039778

**Table B3** Normal distribution ( $f(x)$ ) of hole FAMS5179.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1290	78	0.004541	1505	35	0.037388
1295	29	0.01533	1510	26	0.027623
1300	30	0.015638	1515	28	0.031427
1305	35	0.016798	1520	27	0.029594
1310	40	0.017223	1525	25	0.025558
1315	33	0.016416	1530	25	0.025558
1320	32	0.016183	1535	22	0.019199
1325	32	0.016183	1540	22	0.019199
1330	32	0.016183	1545	29	0.03308
1335	31	0.015923	1550	31	0.035695
1340	20	0.011784	1555	30	0.034515
1345	25	0.013895	1560	35	0.037388
1350	24	0.013495	1565	30	0.034515
1355	21	0.012225	1570	23	0.021307
1360	21	0.012225	1575	20	0.01518
1365	21	0.012225	1580	20	0.01518
1370	21	0.012225	1585	21	0.017147
1375	22	0.012658	1590	19	0.013321
1380	29	0.01533	1595	19	0.013321
1385	30	0.015638	1600	19	0.013321
1390	33	0.016416	1605	24	0.023439
1395	36	0.016946	1610	19	0.013321
1400	40	0.032486	1615	20	0.01518
1405	56	0.004709	1620	20	0.01518
1410	56	0.004709	1625	20	0.01518
1415	42	0.028872	1630	21	0.017147
1420	30	0.034515	1635	25	0.025558
1425	33	0.037182	1640	21	0.017147
1430	30	0.034515	1645	19	0.013321
1435	32	0.036592	1650	19	0.013321
1440	40	0.032486	1655	19	0.013321
1445	50	0.012658	1660	49	0.014472
1450	50	0.012658	1665	35	0.037388
1455	49	0.014472	1670	22	0.019199
1460	44	0.02477	1675	25	0.025558
1465	40	0.032486	1680	21	0.017147
1470	30	0.034515	1685	21	0.017147
1475	30	0.034515	1690	33	0.037182
1480	31	0.035695	1695	33	0.037182
1485	31	0.035695	1700	30	0.034515
1490	30	0.034515	1705	24	0.023439
1495	38	0.035286	1710	28	0.031427
1500	26	0.027623	1715	29	0.03308

**Table B3** Normal distribution ( $f(x)$ ) of hole FAMS5179 (continued).

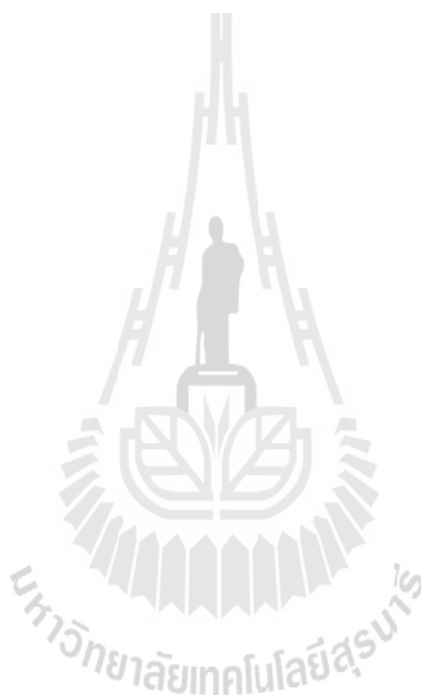
Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1720	27	0.029594	1955	20	0.01518
1725	26	0.027623	1960	25	0.025558
1730	20	0.01518	1965	20	0.01518
1735	25	0.025558	1970	22	0.019199
1740	30	0.034515	1975	26	0.027623
1745	40	0.032486	1980	30	0.034515
1750	40	0.032486	1985	30	0.034515
1755	40	0.032486	1990	27	0.029594
1760	30	0.034515	1995	25	0.025558
1765	33	0.037182	2000	40	0.032486
1770	38	0.035286	2005	26	0.027623
1775	25	0.025558	2010	27	0.029594
1780	23	0.021307	2015	27	0.029594
1785	21	0.017147	2020	25	0.025558
1790	20	0.01518	2025	30	0.034515
1795	25	0.025558	2030	31	0.035695
1800	29	0.03308	2035	27	0.029594
1805	33	0.037182	2040	25	0.025558
1810	29	0.03308	2045	29	0.03308
1815	31	0.035695	2050	20	0.01518
1820	30	0.034515	2055	21	0.017147
1825	25	0.025558	2060	27	0.029594
1830	40	0.032486	2065	22	0.019199
1835	40	0.032486	2070	30	0.034515
1840	30	0.034515	2075	21	0.017147
1845	35	0.037388	2080	29	0.03308
1850	39	0.034007	2085	40	0.032486
1855	33	0.037182	2090	25	0.025558
1860	31	0.035695	2095	30	0.034515
1865	40	0.032486	2100	32	0.036592
1870	32	0.036592	2105	40	0.032486
1875	36	0.036998	2110	40	0.032486
1880	30	0.034515	2115	52	0.009431
1885	45	0.022642	2120	64	0.000769
1910	45	0.022642	2125	56	0.004709
1915	39	0.034007	2130	41	0.030761
1920	40	0.032486	2135	40	0.032486
1925	66	0.000447	2140	31	0.035695
1930	42	0.028872	2145	29	0.03308
1935	47	0.018424	2150	40	0.032486
1940	38	0.035286	2155	36	0.036998
1945	28	0.031427	2160	30	0.034515
1950	20	0.01518	2165	27	0.029594

**Table B3** Normal distribution ( $f(x)$ ) of hole FAMS5179 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2170	29	0.03308	2415	55	0.005676
2175	24	0.023439	2420	38	0.035286
2180	29	0.03308	2425	31	0.035695
2185	29	0.03308	2430	40	0.032486
2190	51	0.010974	2435	30	0.034515
2195	31	0.035695	2440	33	0.037182
2200	51	0.010974	2445	35	0.037388
2205	50	0.012658	2450	29	0.03308
2210	33	0.037182	2455	26	0.027623
2215	50	0.012658	2460	39	0.034007
2220	68	0.000251	2465	35	0.037388
2225	57	0.003872	2470	33	0.037182
2230	44	0.02477	2475	31	0.035695
2235	60	0.002042	2480	31	0.035695
2240	60	0.002042	2485	31	0.035695
2245	61	0.001621	2490	31	0.035695
2250	40	0.032486	2495	40	0.032486
2255	45	0.022642	2500	55	0.005676
2260	64	0.000769	2505	60	0.002042
2265	40	0.032486	2510	51	0.010974
2270	40	0.032486	2515	62	0.001275
2275	42	0.028872	2535	40	0.032486
2280	35	0.037388	2540	40	0.032486
2285	39	0.034007	2545	35	0.037388
2290	33	0.037182	2550	26	0.027623
2295	31	0.035695	2555	40	0.032486
2300	36	0.036998	2560	44	0.02477
2305	41	0.030761	2565	48	0.016401
2310	35	0.037388	2570	30	0.034515
2315	30	0.034515	2575	40	0.032486
2320	26	0.027623	2580	45	0.022642
2325	26	0.027623	2585	53	0.008033
2330	39	0.034007	2590	51	0.010974
2335	38	0.035286	2595	60	0.002042
2340	29	0.03308	2600	33	0.037182
2345	23	0.021307	2605	40	0.032486
2350	24	0.023439	2610	40	0.032486
2355	39	0.034007	2615	33	0.037182
2360	38	0.035286	2645	50	0.012658
2365	37	0.036292	2650	43	0.026861
2370	30	0.034515	2655	40	0.032486
2405	40	0.032486	2660	50	0.012658
2410	40	0.032486	2665	49	0.014472

**Table B3** Normal distribution ( $f(x)$ ) of hole FAMS5179 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2685	45	0.022642	2735	24	0.023439
2705	45	0.022642	2740	25	0.025558
2710	30	0.034515	2745	39	0.034007
2715	26	0.027623	2750	40	0.032486
2720	31	0.035695	2755	32	0.036592
2725	35	0.037388	2760	30	0.034515
2730	27	0.029594			



**Table B4** Normal distribution ( $f(x)$ ) of hole FASS5314.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2310	20	0.024407	2525	50	0.007338
2315	20	0.024407	2530	40	0.023016
2320	21	0.026115	2535	32	0.033653
2325	22	0.027735	2540	30	0.034357
2330	21	0.026115	2545	22	0.027735
2335	21	0.026115	2550	49	0.008506
2340	22	0.027735	2555	40	0.023016
2345	21	0.026115	2560	28	0.03405
2350	21	0.026115	2565	22	0.027735
2355	21	0.026115	2570	20	0.024407
2360	21	0.026115	2575	20	0.024407
2365	21	0.026115	2580	20	0.024407
2370	21	0.026115	2585	20	0.024407
2375	21	0.026115	2590	20	0.024407
2380	20	0.024407	2595	27	0.033522
2385	20	0.024407	2600	30	0.034357
2390	19	0.022643	2605	19	0.022643
2395	21	0.026115	2610	18	0.020851
2400	21	0.026115	2615	30	0.034357
2405	22	0.027735	2620	50	0.007338
2410	23	0.029237	2625	22	0.027735
2415	20	0.024407	2630	19	0.022643
2420	19	0.022643	2635	17	0.019059
2425	19	0.022643	2640	16	0.017291
2430	19	0.022643	2645	17	0.019059
2435	20	0.024407	2650	19	0.022643
2440	19	0.022643	2655	18	0.020851
2445	19	0.022643	2660	16	0.017291
2450	18	0.020851	2665	16	0.017291
2455	20	0.024407	2670	19	0.022643
2460	21	0.026115	2675	20	0.024407
2465	40	0.023016	2680	40	0.023016
2470	30	0.034357	2705	32	0.033653
2475	20	0.024407	2710	30	0.034357
2480	20	0.024407	2715	29	0.034331
2485	20	0.024407	2720	21	0.026115
2490	20	0.024407	2725	19	0.022643
2495	30	0.034357	2730	20	0.024407
2500	50	0.007338	2735	22	0.027735
2505	45	0.01426	2740	39	0.024771
2510	53	0.004505	2770	20	0.024407
2515	60	0.001113	2775	17	0.019059
2520	60	0.001113	2780	17	0.019059



**Table B4** Normal distribution ( $f(x)$ ) of hole FASS5314 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2785	17	0.019059	3140	20	0.024407
2790	17	0.019059	3145	30	0.034357
2795	18	0.020851	3150	51	0.006283
2800	20	0.024407	3155	30	0.034357
2805	27	0.033522	3160	30	0.034357
2810	30	0.034357	3165	40	0.023016
2815	30	0.034357	3170	37	0.02806
2820	26	0.032758	3175	53	0.004505
2825	21	0.026115	3190	40	0.023016
2830	20	0.024407	3195	35	0.030856
2835	18	0.020851	3200	42	0.019433
2840	16	0.017291	3205	60	0.001113
2845	17	0.019059	3210	30	0.034357
2850	17	0.019059	3215	33	0.032937
2855	17	0.019059	3220	49	0.008506
2860	17	0.019059	3255	40	0.023016
2865	17	0.019059	3260	56	0.002588
2870	17	0.019059	3265	56	0.002588
2875	20	0.024407	3270	51	0.006283
2880	20	0.024407	3275	40	0.023016
2910	40	0.023016	3280	50	0.007338
2915	50	0.007338	3285	50	0.007338
2920	44	0.015927	3290	28	0.03405
2960	21	0.026115	3295	21	0.026115
2965	20	0.024407	3300	20	0.024407
2970	30	0.034357	3305	20	0.024407
2975	48	0.009787	3310	18	0.020851
2980	45	0.01426	3315	20	0.024407
2985	49	0.008506	3320	18	0.020851
2990	50	0.007338	3325	22	0.027735
2995	50	0.007338	3330	18	0.020851
3080	39	0.024771	3335	20	0.024407
3085	40	0.023016	3340	22	0.027735
3090	50	0.007338	3345	28	0.03405
3095	37	0.02806	3350	28	0.03405
3100	37	0.02806	3355	23	0.029237
3105	20	0.024407	3360	20	0.024407
3110	20	0.024407	3365	21	0.026115
3115	20	0.024407	3370	20	0.024407
3120	20	0.024407	3375	19	0.022643
3125	20	0.024407	3380	20	0.024407
3130	20	0.024407	3385	23	0.029237
3135	22	0.027735	3390	19	0.022643

**Table B4** Normal distribution ( $f(x)$ ) of hole FASS5314 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3395	28	0.03405	3610	21	0.026115
3400	23	0.029237	3615	19	0.022643
3405	21	0.026115	3620	22	0.027735
3410	21	0.026115	3625	23	0.029237
3415	27	0.033522	3630	21	0.026115
3420	20	0.024407	3635	27	0.033522
3425	19	0.022643	3640	22	0.027735
3430	20	0.024407	3645	24	0.030593
3435	21	0.026115	3650	24	0.030593
3440	27	0.033522	3655	28	0.03405
3445	20	0.024407	3660	35	0.030856
3450	17	0.019059	3675	50	0.007338
3455	19	0.022643	3680	40	0.023016
3460	19	0.022643	3685	50	0.007338
3465	19	0.022643	3690	50	0.007338
3470	18	0.020851	3695	40	0.023016
3475	17	0.019059	3700	38	0.026462
3480	20	0.024407	3705	60	0.001113
3485	17	0.019059	3710	60	0.001113
3490	17	0.019059	3715	38	0.026462
3495	17	0.019059	3720	45	0.01426
3500	19	0.022643	3725	60	0.001113
3505	20	0.024407	3730	68	0.000144
3510	20	0.024407	3735	49	0.008506
3515	20	0.024407	3740	40	0.023016
3520	20	0.024407	3745	30	0.034357
3525	20	0.024407	3750	30	0.034357
3530	20	0.024407	3755	29	0.034331
3535	20	0.024407	3760	29	0.034331
3540	19	0.022643	3765	29	0.034331
3545	19	0.022643	3770	30	0.034357
3550	18	0.020851	3775	30	0.034357
3555	18	0.020851	3780	30	0.034357
3560	18	0.020851	3785	30	0.034357
3565	18	0.020851	3790	30	0.034357
3570	18	0.020851	3795	30	0.034357
3575	18	0.020851	3800	30	0.034357
3580	17	0.019059	3805	35	0.030856
3585	20	0.024407	3810	30	0.034357
3590	19	0.022643	3815	30	0.034357
3595	18	0.020851	3820	30	0.034357
3600	18	0.020851	3825	30	0.034357
3605	19	0.022643	3830	30	0.034357

**Table B4** Normal distribution ( $f(x)$ ) of hole FASS5314 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3835	30	0.034357	4045	38	0.026462
3840	30	0.034357	4050	30	0.034357
3845	30	0.034357	4055	32	0.033653
3850	28	0.03405	4060	31	0.03413
3855	26	0.032758	4065	32	0.033653
3860	26	0.032758	4070	31	0.03413
3865	27	0.033522	4075	32	0.033653
3870	29	0.034331	4080	32	0.033653
3875	29	0.034331	4085	33	0.032937
3880	30	0.034357	4090	36	0.029534
3885	29	0.034331	4095	40	0.023016
3890	29	0.034331	4100	40	0.023016
3895	29	0.034331	4105	40	0.023016
3900	30	0.034357	4110	40	0.023016
3905	31	0.03413	4115	29	0.034331
3910	39	0.024771	4120	50	0.007338
3915	39	0.024771	4125	60	0.001113
3920	27	0.033522	4130	50	0.007338
3945	30	0.034357	4135	40	0.023016
3950	33	0.032937	4140	37	0.02806
3955	33	0.032937	4145	35	0.030856
3960	33	0.032937	4150	38	0.026462
3965	40	0.023016	4155	40	0.023016
3970	37	0.02806	4230	45	0.01426
3975	32	0.033653	4235	45	0.01426
3980	28	0.03405	4240	45	0.01426
3985	33	0.032937	4245	45	0.01426
3990	32	0.033653	4250	48	0.009787
3995	31	0.03413	4255	50	0.007338
4000	35	0.030856	4260	50	0.007338
4005	30	0.034357	4265	48	0.009787
4010	38	0.026462	4270	48	0.009787
4015	38	0.026462	4275	48	0.009787
4020	40	0.023016	4280	48	0.009787
4025	40	0.023016	4285	49	0.008506
4030	38	0.026462	4290	49	0.008506
4035	37	0.02806	4295	50	0.007338
4040	31	0.03413	4300	49	0.008506

**Table B5** Normal distribution ( $f(x)$ ) of hole FASS3001.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2260	22	0.013059	2475	21	0.0268
2265	20	0.012399	2480	21	0.0268
2270	19	0.012053	2485	19	0.022984
2275	23	0.01337	2490	19	0.022984
2280	23	0.01337	2495	30	0.035845
2285	23	0.01337	2500	49	0.0077
2290	25	0.01395	2505	47	0.010388
2295	20	0.012399	2510	53	0.003839
2300	21	0.012734	2515	45	0.013568
2305	21	0.012734	2520	50	0.00655
2310	19	0.022984	2525	56	0.002093
2315	20	0.024919	2530	42	0.019061
2320	22	0.028591	2535	31	0.035554
2325	21	0.0268	2540	30	0.035845
2330	20	0.024919	2545	23	0.030255
2335	20	0.024919	2550	49	0.0077
2340	20	0.024919	2555	41	0.021005
2345	23	0.030255	2560	28	0.035559
2350	21	0.0268	2565	22	0.028591
2355	21	0.0268	2570	21	0.0268
2360	21	0.0268	2575	22	0.028591
2365	19	0.022984	2580	21	0.0268
2370	20	0.024919	2585	19	0.022984
2375	21	0.0268	2590	19	0.022984
2380	20	0.024919	2595	28	0.035559
2385	20	0.024919	2600	31	0.035554
2390	18	0.021028	2605	20	0.024919
2395	24	0.031758	2610	20	0.024919
2400	21	0.0268	2615	27	0.03499
2405	21	0.0268	2620	40	0.022961
2410	24	0.031758	2625	22	0.028591
2415	21	0.0268	2630	20	0.024919
2420	18	0.021028	2635	16	0.017179
2425	20	0.024919	2640	16	0.017179
2430	18	0.021028	2645	16	0.017179
2435	18	0.021028	2650	19	0.022984
2440	18	0.021028	2655	18	0.021028
2445	20	0.024919	2660	17	0.019084
2450	18	0.021028	2665	17	0.019084
2455	19	0.022984	2670	19	0.022984
2460	20	0.024919	2675	21	0.0268
2465	40	0.022961	2680	42	0.019061
2470	29	0.035847	2685	40	0.022961

**Table B5** Normal distribution ( $f(x)$ ) of hole FASS3001 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2690	46	0.01192	2925	46	0.01192
2695	39	0.024896	2930	43	0.017157
2700	32	0.034982	2935	28	0.035559
2705	32	0.034982	2940	20	0.024919
2710	33	0.034142	2945	19	0.022984
2715	28	0.035559	2950	18	0.021028
2720	22	0.028591	2955	22	0.028591
2725	18	0.021028	2960	21	0.0268
2730	21	0.0268	2965	21	0.0268
2735	23	0.030255	2970	32	0.034982
2740	36	0.030236	2975	47	0.010388
2745	69	6.5E-05	2980	46	0.01192
2750	72	2.4E-05	2985	48	0.00898
2755	75	8.26E-06	2990	47	0.010388
2760	70	4.71E-05	2995	49	0.0077
2765	57	0.001682	3030	43	0.017157
2770	20	0.024919	3035	32	0.034982
2775	16	0.017179	3040	23	0.030255
2780	16	0.017179	3045	28	0.035559
2785	17	0.019084	3050	24	0.031758
2790	18	0.021028	3055	45	0.013568
2795	18	0.021028	3060	39	0.024896
2800	21	0.0268	3065	39	0.024896
2805	25	0.033067	3070	33	0.034142
2810	32	0.034982	3075	50	0.00655
2815	31	0.035554	3080	40	0.022961
2820	26	0.034153	3085	41	0.021005
2825	21	0.0268	3090	52	0.004625
2830	20	0.024919	3095	38	0.026778
2835	18	0.021028	3100	36	0.030236
2840	17	0.019084	3105	20	0.024919
2845	16	0.017179	3110	21	0.0268
2850	16	0.017179	3115	21	0.0268
2855	17	0.019084	3120	21	0.0268
2860	18	0.021028	3125	21	0.0268
2865	17	0.019084	3130	20	0.024919
2870	18	0.021028	3135	21	0.0268
2875	21	0.0268	3140	20	0.024919
2880	21	0.0268	3145	31	0.035554
2885	24	0.031758	3180	38	0.026778
2890	26	0.034153	3185	38	0.026778
2895	21	0.0268	3190	40	0.022961
2900	30	0.035845	3195	36	0.030236

**Table B5** Normal distribution ( $f(x)$ ) of hole FASS3001 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3200	47	0.010388	3415	30	0.035845
3205	66	0.000164	3420	21	0.0268
3210	30	0.035845	3425	20	0.024919
3215	31	0.035554	3430	20	0.024919
3220	50	0.00655	3435	21	0.0268
3225	33	0.034142	3440	26	0.034153
3230	33	0.034142	3445	20	0.024919
3235	31	0.035554	3450	19	0.022984
3240	31	0.035554	3455	19	0.022984
3245	42	0.019061	3460	17	0.019084
3250	36	0.030236	3465	20	0.024919
3255	40	0.022961	3470	21	0.0268
3260	53	0.003839	3475	18	0.021028
3265	53	0.003839	3480	22	0.028591
3270	50	0.00655	3485	20	0.024919
3275	42	0.019061	3490	18	0.021028
3280	49	0.0077	3495	20	0.024919
3285	49	0.0077	3500	19	0.022984
3290	27	0.03499	3505	20	0.024919
3295	22	0.028591	3510	21	0.0268
3300	20	0.024919	3515	20	0.024919
3305	21	0.0268	3520	20	0.024919
3310	17	0.019084	3525	22	0.028591
3315	21	0.0268	3530	20	0.024919
3320	21	0.0268	3535	20	0.024919
3325	23	0.030255	3540	20	0.024919
3330	20	0.024919	3545	20	0.024919
3335	18	0.021028	3590	21	0.0268
3340	23	0.030255	3595	17	0.019084
3345	27	0.03499	3600	19	0.022984
3350	29	0.035847	3605	20	0.024919
3355	23	0.030255	3610	21	0.0268
3360	20	0.024919	3615	20	0.024919
3365	22	0.028591	3620	22	0.028591
3370	20	0.024919	3625	24	0.031758
3375	20	0.024919	3630	23	0.030255
3380	20	0.024919	3635	27	0.03499
3385	24	0.031758	3640	23	0.030255
3390	20	0.024919	3645	23	0.030255
3395	29	0.035847	3665	40	0.022961
3400	22	0.028591	3700	40	0.022961
3405	21	0.0268	3755	42	0.019061
3410	21	0.0268	3760	30	0.035845

**Table B5** Normal distribution ( $f(x)$ ) of hole FASS3001 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3765	30	0.035845	4005	31	0.035554
3770	31	0.035554	4010	35	0.031741
3775	30	0.035845	4015	35	0.031741
3780	30	0.035845	4020	35	0.031741
3785	31	0.035554	4025	35	0.031741
3790	30	0.035845	4030	40	0.022961
3795	31	0.035554	4035	35	0.031741
3800	33	0.034142	4040	33	0.034142
3805	33	0.034142	4045	38	0.026778
3810	30	0.035845	4050	31	0.035554
3815	30	0.035845	4055	32	0.034982
3820	32	0.034982	4060	31	0.035554
3825	32	0.034982	4065	33	0.034142
3830	32	0.034982	4070	30	0.035845
3835	35	0.031741	4075	33	0.034142
3840	32	0.034982	4080	33	0.034142
3845	30	0.035845	4085	33	0.034142
3850	30	0.035845	4090	35	0.031741
3855	30	0.035845	4095	37	0.02857
3860	30	0.035845	4100	33	0.034142
3865	29	0.035847	4105	38	0.026778
3870	30	0.035845	4110	44	0.015319
3875	30	0.035845	4115	30	0.035845
3880	30	0.035845	4165	50	0.00655
3885	29	0.035847	4170	44	0.015319
3890	30	0.035845	4175	56	0.002093
3895	29	0.035847	4205	40	0.022961
3925	33	0.034142	4210	49	0.0077
3930	30	0.035845	4215	40	0.022961
3935	27	0.03499	4220	40	0.022961
3940	29	0.035847	4225	45	0.013568
3945	30	0.035845	4230	45	0.013568
3950	30	0.035845	4250	45	0.013568
3955	30	0.035845	4255	39	0.024896
3960	35	0.031741	4260	45	0.013568
3965	38	0.026778	4265	49	0.0077
3970	35	0.031741	4270	49	0.0077
3975	33	0.034142	4275	39	0.024896
3980	30	0.035845	4280	39	0.024896
3985	33	0.034142	4285	39	0.024896
3990	32	0.034982	4290	38	0.026778
3995	30	0.035845	4295	38	0.026778
4000	33	0.034142	4300	38	0.026778

**Table B6** Normal distribution  $f(x)$  of hole FASS3705.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2310	23	0.028684	2525	55	0.003352
2315	21	0.025445	2530	42	0.020173
2320	21	0.025445	2535	37	0.028745
2325	21	0.025445	2540	33	0.033358
2330	22	0.027117	2545	20	0.023698
2335	20	0.023698	2550	50	0.007762
2340	22	0.027117	2555	43	0.018378
2345	20	0.023698	2560	29	0.034349
2350	19	0.021906	2565	23	0.028684
2355	22	0.027117	2570	20	0.023698
2360	20	0.023698	2575	20	0.023698
2365	20	0.023698	2580	21	0.025445
2370	20	0.023698	2585	21	0.025445
2375	19	0.021906	2590	23	0.028684
2380	20	0.023698	2595	25	0.031384
2385	20	0.023698	2600	27	0.033327
2390	20	0.023698	2605	20	0.023698
2395	21	0.025445	2610	18	0.0201
2400	22	0.027117	2615	29	0.034349
2405	14	0.01322	2620	54	0.004025
2410	20	0.023698	2625	21	0.025445
2415	20	0.023698	2630	19	0.021906
2420	20	0.023698	2635	19	0.021906
2425	23	0.028684	2640	17	0.018305
2430	19	0.021906	2645	17	0.018305
2435	19	0.021906	2650	20	0.023698
2440	19	0.021906	2655	17	0.018305
2445	20	0.023698	2660	17	0.018305
2450	20	0.023698	2665	17	0.018305
2455	19	0.021906	2670	20	0.023698
2460	21	0.025445	2675	20	0.023698
2465	35	0.031432	2680	34	0.032502
2470	31	0.034359	2685	35	0.031432
2475	18	0.0201	2690	33	0.033358
2480	18	0.0201	2695	41	0.02198
2485	19	0.021906	2700	30	0.034483
2490	19	0.021906	2705	32	0.033982
2495	20	0.023698	2710	31	0.034359
2500	39	0.025515	2715	30	0.034483
2505	45	0.014913	2720	24	0.030116
2510	45	0.014913	2725	20	0.023698
2515	60	0.001201	2730	20	0.023698
2520	60	0.001201	2735	22	0.027117



**Table B6** Normal distribution ( $f(x)$ ) of hole FASS3705 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2740	40	0.02377	2955	32	0.033982
2745	66	0.000274	2960	33	0.033358
2750	61	0.000956	2965	22	0.027117
2755	64	0.000462	2970	49	0.008978
2760	70	8.8E-05	3005	42	0.020173
2765	70	8.8E-05	3010	47	0.011746
2770	22	0.027117	3015	47	0.011746
2775	18	0.0201	3020	49	0.008978
2780	18	0.0201	3025	50	0.007762
2785	18	0.0201	3030	50	0.007762
2790	18	0.0201	3035	30	0.034483
2795	18	0.0201	3040	33	0.033358
2800	20	0.023698	3045	39	0.025515
2805	23	0.028684	3050	30	0.034483
2810	35	0.031432	3055	30	0.034483
2815	35	0.031432	3060	30	0.034483
2820	38	0.027183	3065	30	0.034483
2825	21	0.025445	3070	32	0.033982
2830	21	0.025445	3075	45	0.014913
2835	21	0.025445	3080	40	0.02377
2840	20	0.023698	3085	40	0.02377
2845	21	0.025445	3090	49	0.008978
2850	18	0.0201	3095	37	0.028745
2855	19	0.021906	3100	37	0.028745
2860	16	0.016546	3105	21	0.025445
2865	16	0.016546	3110	19	0.021906
2870	18	0.0201	3115	21	0.025445
2875	19	0.021906	3120	21	0.025445
2880	21	0.025445	3125	20	0.023698
2885	30	0.034483	3130	20	0.023698
2890	33	0.033358	3135	21	0.025445
2895	39	0.025515	3190	43	0.018378
2900	37	0.028745	3195	37	0.028745
2905	35	0.031432	3200	43	0.018378
2910	40	0.02377	3205	65	0.000357
2915	33	0.033358	3210	29	0.034349
2920	35	0.031432	3215	33	0.033358
2925	40	0.02377	3250	53	0.004796
2930	49	0.008978	3255	38	0.027183
2935	40	0.02377	3260	55	0.003352
2940	40	0.02377	3265	55	0.003352
2945	32	0.033982	3270	55	0.003352
2950	33	0.033358	3275	39	0.025515

**Table B6** Normal distribution ( $f(x)$ ) of hole FASS3705 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3280	45	0.014913	3495	20	0.023698
3285	50	0.007762	3500	19	0.021906
3290	29	0.034349	3505	19	0.021906
3295	20	0.023698	3510	20	0.023698
3300	20	0.023698	3515	19	0.021906
3305	20	0.023698	3520	19	0.021906
3310	20	0.023698	3525	20	0.023698
3315	20	0.023698	3530	19	0.021906
3320	20	0.023698	3535	20	0.023698
3325	21	0.025445	3540	20	0.023698
3330	19	0.021906	3545	21	0.025445
3335	20	0.023698	3550	20	0.023698
3340	21	0.025445	3555	20	0.023698
3345	27	0.033327	3560	19	0.021906
3350	27	0.033327	3565	17	0.018305
3355	24	0.030116	3570	19	0.021906
3360	21	0.025445	3575	19	0.021906
3365	21	0.025445	3580	17	0.018305
3370	21	0.025445	3585	20	0.023698
3375	21	0.025445	3590	20	0.023698
3380	21	0.025445	3595	18	0.0201
3385	23	0.028684	3600	18	0.0201
3390	21	0.025445	3605	18	0.0201
3395	30	0.034483	3610	20	0.023698
3400	23	0.028684	3615	19	0.021906
3405	21	0.025445	3620	21	0.025445
3410	21	0.025445	3625	22	0.027117
3415	28	0.033961	3630	22	0.027117
3420	21	0.025445	3635	26	0.032462
3425	20	0.023698	3640	22	0.027117
3430	20	0.023698	3645	24	0.030116
3435	21	0.025445	3650	25	0.031384
3440	20	0.023698	3695	50	0.007762
3445	20	0.023698	3740	58	0.001852
3450	20	0.023698	3745	30	0.034483
3455	21	0.025445	3750	30	0.034483
3460	21	0.025445	3755	30	0.034483
3465	20	0.023698	3760	30	0.034483
3470	17	0.018305	3765	29	0.034349
3475	17	0.018305	3770	30	0.034483
3480	20	0.023698	3775	29	0.034349
3485	20	0.023698	3780	30	0.034483
3490	20	0.023698	3785	29	0.034349

**Table B6** Normal distribution ( $f(x)$ ) of hole FASS3705 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3790	31	0.034359	4030	37	0.028745
3795	29	0.034349	4035	36	0.030171
3800	32	0.033982	4040	31	0.034359
3805	33	0.033358	4045	39	0.025515
3810	30	0.034483	4050	30	0.034483
3815	31	0.034359	4055	32	0.033982
3820	31	0.034359	4060	32	0.033982
3825	30	0.034483	4065	32	0.033982
3830	31	0.034359	4070	32	0.033982
3835	30	0.034483	4075	32	0.033982
3840	31	0.034359	4080	32	0.033982
3845	30	0.034483	4085	35	0.031432
3850	30	0.034483	4090	35	0.031432
3855	25	0.031384	4095	42	0.020173
3860	25	0.031384	4100	41	0.02198
3865	26	0.032462	4105	41	0.02198
3870	30	0.034483	4110	41	0.02198
3875	29	0.034349	4135	50	0.007762
3880	32	0.033982	4140	39	0.025515
3885	28	0.033961	4145	32	0.033982
3890	30	0.034483	4195	42	0.020173
3895	29	0.034349	4200	45	0.014913
3900	34	0.032502	4205	40	0.02377
3905	33	0.033358	4210	40	0.02377
3910	40	0.02377	4215	41	0.02198
3915	40	0.02377	4220	42	0.020173
3945	29	0.034349	4225	53	0.004796
3950	30	0.034483	4230	48	0.010308
3955	30	0.034483	4235	44	0.016617
3960	29	0.034349	4240	42	0.020173
3965	40	0.02377	4245	44	0.016617
3970	36	0.030171	4250	49	0.008978
3975	33	0.033358	4255	50	0.007762
3980	30	0.034483	4260	50	0.007762
3985	32	0.033982	4265	50	0.007762
3990	31	0.034359	4270	50	0.007762
3995	32	0.033982	4275	47	0.011746
4000	36	0.030171	4280	47	0.011746
4005	31	0.034359	4285	47	0.011746
4010	33	0.033358	4290	50	0.007762
4015	40	0.02377	4295	50	0.007762
4020	40	0.02377	4300	49	0.008978
4025	40	0.02377			

**Table B7** Normal distribution  $f(x)$  of hole FABT4503/3.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1750	3.1	0.038777	1965	3.9	0.041227
1755	3.3	0.039411	1970	3.5	0.040031
1760	3.1	0.038777	1975	4.2	0.042081
1765	3	0.038456	1980	4	0.041516
1770	3	0.038456	1985	4	0.041516
1775	3	0.038456	1990	3.2	0.039096
1780	3	0.038456	1995	3.9	0.041227
1785	3	0.038456	2000	4.2	0.042081
1790	3.3	0.039411	2005	4.5	0.042895
1795	4.5	0.042895	2010	4	0.041516
1800	3.5	0.040031	2015	4	0.041516
1805	3.2	0.039096	2020	4.5	0.042895
1810	3.8	0.040934	2025	4.1	0.0418
1815	5	0.044155	2030	6	0.046267
1820	4	0.041516	2035	5	0.044155
1825	3.5	0.040031	2040	3.8	0.040934
1830	2.9	0.038131	2045	3	0.038456
1835	2.8	0.037804	2050	3.5	0.040031
1840	3	0.038456	2055	3	0.038456
1845	2.8	0.037804	2060	4	0.041516
1850	3.1	0.038777	2065	4	0.041516
1855	5	0.044155	2070	3.3	0.039411
1860	4	0.041516	2075	2.8	0.037804
1865	2.9	0.038131	2080	2.8	0.037804
1870	2.8	0.037804	2085	2.9	0.038131
1875	2.5	0.036805	2090	2.9	0.038131
1880	2.3	0.036127	2095	3.3	0.039411
1885	2.8	0.037804	2100	3.3	0.039411
1890	3	0.038456	2105	3.1	0.038777
1895	3	0.038456	2110	3.1	0.038777
1900	3.5	0.040031	2115	3	0.038456
1905	3.2	0.039096	2120	3.2	0.039096
1910	3.9	0.041227	2125	3.2	0.039096
1915	3.6	0.040336	2130	3.1	0.038777
1920	3.3	0.039411	2135	3.8	0.040934
1925	3	0.038456	2140	3.8	0.040934
1930	3	0.038456	2145	3.2	0.039096
1935	3.5	0.040031	2150	3.5	0.040031
1940	3	0.038456	2155	3.4	0.039723
1945	3.2	0.039096	2160	3.7	0.040637
1950	3.1	0.038777	2165	3.1	0.038777
1955	4	0.041516	2170	4.9	0.043913
1960	6	0.046267	2175	10	0.048047

**Table B7** Normal distribution ( $f(x)$ ) of hole FABT4503/3 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2180	8	0.048577	2395	3.2	0.039096
2185	2.8	0.037804	2400	3	0.038456
2190	4	0.041516	2405	3.2	0.039096
2195	5	0.044155	2410	3	0.038456
2200	3.5	0.040031	2415	2.7	0.037474
2205	2.6	0.037141	2420	3	0.038456
2210	2.8	0.037804	2425	3.2	0.039096
2215	2.8	0.037804	2430	3.2	0.039096
2220	3.2	0.039096	2435	3.7	0.040637
2225	2.8	0.037804	2440	2.7	0.037474
2230	3.7	0.040637	2445	2.7	0.037474
2235	3.1	0.038777	2450	2.5	0.036805
2240	3.3	0.039411	2455	4	0.041516
2245	3.5	0.040031	2460	2.8	0.037804
2250	2.8	0.037804	2465	2.7	0.037474
2255	3.7	0.040637	2470	5	0.044155
2260	3	0.038456	2475	3	0.038456
2265	2.8	0.037804	2480	3.1	0.038777
2270	4.2	0.042081	2485	5	0.044155
2275	2.9	0.038131	2490	4.7	0.043414
2280	3	0.038456	2495	6	0.046267
2285	2.9	0.038131	2500	6	0.046267
2290	3.1	0.038777	2505	5.7	0.045695
2295	5.1	0.044392	2510	6	0.046267
2300	4	0.041516	2515	4.4	0.042628
2305	4.9	0.043913	2520	5.4	0.045069
2310	2.7	0.037474	2525	3.5	0.040031
2315	3	0.038456	2530	3.5	0.040031
2320	2.6	0.037141	2535	3.9	0.041227
2325	2.6	0.037141	2540	3.5	0.040031
2330	2.7	0.037474	2545	3.9	0.041227
2335	2.9	0.038131	2550	4.2	0.042081
2340	4.9	0.043913	2555	4	0.041516
2345	3.3	0.039411	2560	5	0.044155
2350	3.1	0.038777	2565	4.7	0.043414
2355	5.5	0.045283	2570	4.5	0.042895
2360	6.2	0.046618	2575	4.7	0.043414
2365	6.2	0.046618	2580	4.7	0.043414
2370	5.5	0.045283	2585	5.1	0.044392
2375	4.7	0.043414	2590	4.9	0.043913
2380	3.2	0.039096	2595	5	0.044155
2385	3	0.038456	2600	5	0.044155
2390	4	0.041516	2605	5	0.044155

**Table B7** Normal distribution ( $f(x)$ ) of hole FABT4503/3 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2610	5	0.044155	2825	11	0.046728
2615	5	0.044155	2830	5	0.044155
2620	5	0.044155	2835	5.5	0.045283
2625	5	0.044155	2840	5	0.044155
2630	5.9	0.046083	2845	4.8	0.043666
2635	6.1	0.046446	2850	4.2	0.042081
2640	5	0.044155	2855	6	0.046267
2645	7	0.047763	2860	3.6	0.040336
2650	6	0.046267	2865	3.6	0.040336
2655	5.4	0.045069	2870	4	0.041516
2660	7	0.047763	2875	4.5	0.042895
2665	6.5	0.047097	2880	7	0.047763
2670	6.2	0.046618	2885	5	0.044155
2675	11	0.046728	2890	15	0.03601
2680	6	0.046267	2895	15	0.03601
2685	6	0.046267	2900	12	0.044771
2690	8.5	0.048715	2905	4.9	0.043913
2695	6.4	0.046944	2910	25	0.006608
2700	9.9	0.048142	2915	4	0.041516
2705	6.6	0.047243	2920	4.9	0.043913
2710	19	0.021859	2925	3.4	0.039723
2715	8	0.048577	2930	3.5	0.040031
2720	7.5	0.048258	2935	5	0.044155
2725	14	0.039303	2940	4	0.041516
2730	14	0.039303	2945	4.2	0.042081
2735	13.5	0.040832	2950	3.9	0.041227
2740	24	0.008373	2955	7	0.047763
2745	14	0.039303	2960	9	0.048673
2750	5.2	0.044623	2965	4	0.041516
2755	4	0.041516	2970	5	0.044155
2760	8.5	0.048715	2975	5.3	0.044849
2765	9	0.048673	2980	3.6	0.040336
2770	7	0.047763	2985	6	0.046267
2775	6	0.046267	2990	5	0.044155
2780	10	0.048047	2995	16	0.032504
2785	7	0.047763	3000	13	0.042262
2790	5	0.044155	3005	7.8	0.04847
2795	5	0.044155	3010	7.8	0.04847
2800	8	0.048577	3015	5.1	0.044392
2805	3.8	0.040934	3020	15	0.03601
2810	4.5	0.042895	3025	7	0.047763
2815	4	0.041516	3030	11.5	0.045824
2820	5.9	0.046083	3035	8	0.048577

**Table B7** Normal distribution ( $f(x)$ ) of hole FABT4503/3 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3040	8	0.048577	3255	23	0.010452
3045	4	0.041516	3260	25	0.006608
3050	8	0.048577	3265	8	0.048577
3055	17	0.028905	3270	6	0.046267
3060	17	0.028905	3275	6	0.046267
3065	15	0.03601	3280	6	0.046267
3070	12	0.044771	3285	4.9	0.043913
3075	11	0.046728	3290	5	0.044155
3080	11	0.046728	3295	6	0.046267
3085	5	0.044155	3300	5	0.044155
3090	7	0.047763	3305	5	0.044155
3095	9	0.048673	3310	7	0.047763
3100	14	0.039303	3315	7	0.047763
3105	14	0.039303	3320	8	0.048577
3110	6	0.046267	3325	5.1	0.044392
3115	7.3	0.048081	3330	5.5	0.045283
3120	4.5	0.042895	3335	5.3	0.044849
3125	14	0.039303	3340	5.1	0.044392
3130	8	0.048577	3345	7	0.047763
3135	6	0.046267	3350	9	0.048673
3140	6	0.046267	3355	6	0.046267
3145	10	0.048047	3360	5	0.044155
3150	5	0.044155	3365	5	0.044155
3155	3.9	0.041227	3370	5.6	0.045492
3160	6.6	0.047243	3375	5.5	0.045283
3165	20	0.018588	3380	7	0.047763
3170	5	0.044155	3385	6	0.046267
3175	6.5	0.047097	3390	6	0.046267
3180	5	0.044155	3395	6	0.046267
3185	4	0.041516	3400	5.7	0.045695
3190	8	0.048577	3405	7	0.047763
3195	5	0.044155	3410	6.9	0.047643
3200	6	0.046267	3415	5.9	0.046083
3205	3.6	0.040336	3420	6.9	0.047643
3210	4.5	0.042895	3425	6	0.046267
3215	5.5	0.045283	3430	6.5	0.047097
3220	4	0.041516	3435	7	0.047763
3225	6	0.046267	3440	7	0.047763
3230	4.3	0.042357	3445	11	0.046728
3235	10	0.048047	3450	10	0.048047
3240	10	0.048047	3455	10	0.048047
3245	5	0.044155	3460	9	0.048673
3250	12	0.044771	3465	8	0.048577

**Table B7** Normal distribution ( $f(x)$ ) of hole FABT4503/3 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3470	10	0.048047	3725	5.8	0.045892
3475	8	0.048577	3730	6	0.046267
3480	8	0.048577	3735	7	0.047763
3485	11	0.046728	3740	6	0.046267
3490	8	0.048577	3745	6.7	0.047383
3495	12	0.044771	3750	6	0.046267
3500	7	0.047763	3755	7	0.047763
3505	6.5	0.047097	3760	7.2	0.047982
3510	7	0.047763	3765	6.5	0.047097
3515	7	0.047763	3770	6.8	0.047516
3520	9.9	0.048142	3775	6.5	0.047097
3525	7	0.047763	3780	6	0.046267
3530	9.5	0.048449	3785	10	0.048047
3535	10	0.048047	3790	10	0.048047
3540	6.5	0.047097	3795	15	0.03601
3550	7	0.047763	3800	14	0.039303
3555	16	0.032504	3805	19	0.021859
3560	7.1	0.047876	3815	35	0.000273
3570	7.8	0.04847	3820	7	0.047763
3575	20	0.018588	3825	7	0.047763
3580	10	0.048047	3830	10	0.048047
3585	11	0.046728	3835	10	0.048047
3595	21	0.015572	3845	7	0.047763
3600	25	0.006608	3850	15	0.03601
3605	16	0.032504	3855	7	0.047763
3635	28	0.002971	3860	5.1	0.044392
3640	8	0.048577	3865	5.9	0.046083
3645	6.9	0.047643	3870	8	0.048577
3650	7	0.047763	3875	25	0.006608
3655	8	0.048577	3885	12	0.044771
3660	6.1	0.046446	3890	37	0.000121
3665	6.5	0.047097	3895	10	0.048047
3670	6	0.046267	3920	10	0.048047
3675	7	0.047763	3925	11	0.046728
3680	10	0.048047	3930	20	0.018588
3685	6	0.046267	3935	40	3.17E-05
3690	6.9	0.047643	3940	30	0.001618
3695	7	0.047763	3945	10	0.048047
3700	6	0.046267	3950	7	0.047763
3705	7	0.047763	3955	9	0.048673
3710	10	0.048047	3960	17	0.028905
3715	8	0.048577	3965	17	0.028905
3720	5.3	0.044849	3970	10	0.048047



**Table B7** Normal distribution ( $f(x)$ ) of hole FABT4503/3 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3975	12	0.044771	4075	30	0.001618
3980	20	0.018588	4080	40	3.17E-05
3985	30	0.001618	4085	35	0.000273
3990	19	0.021859	4090	39	5.02E-05
3995	21	0.015572	4095	47	8.32E-07
4000	22	0.012853	4100	28	0.002971
4005	14	0.039303	4105	23	0.010452
4010	29	0.002209	4110	21	0.015572
4015	30	0.001618	4115	30	0.001618
4020	40	3.17E-05	4150	30	0.001618
4025	32	0.00083	4155	27	0.003936
4030	40	3.17E-05	4160	27	0.003936
4035	35	0.000273	4165	20	0.018588
4040	41	1.97E-05	4170	24	0.008373
4045	30	0.001618	4175	28	0.002971
4050	15	0.03601	4180	29	0.002209
4055	27	0.003936	4185	36	0.000183
4060	30	0.001618	4190	39	5.02E-05
4065	30	0.001618	4195	19	0.021859
4070	42	1.21E-05	4200	20	0.018588



**Table B8** Normal distribution ( $f(x)$ ) of hole FABT4503/1.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1750	4.5	0.039309	1965	4	0.037979
1755	4.1	0.038252	1970	4	0.037979
1760	4	0.037979	1975	4.1	0.038252
1765	4	0.037979	1980	4	0.037979
1770	4	0.037979	1985	4	0.037979
1775	4.2	0.038521	1990	3.6	0.036859
1780	4.1	0.038252	1995	4	0.037979
1785	3	0.035099	2000	4.1	0.038252
1790	3.9	0.037703	2005	5	0.040549
1795	5	0.040549	2010	4.6	0.039564
1800	4.5	0.039309	2015	4	0.037979
1805	4	0.037979	2020	4.9	0.040309
1810	4	0.037979	2025	4	0.037979
1815	4	0.037979	2030	5	0.040549
1820	4	0.037979	2035	6	0.042718
1825	4	0.037979	2040	4	0.037979
1830	4	0.037979	2045	3.3	0.03599
1835	3	0.035099	2050	3.9	0.037703
1840	3	0.035099	2055	4	0.037979
1845	3	0.035099	2060	4	0.037979
1850	3	0.035099	2065	4	0.037979
1855	3.3	0.03599	2070	4	0.037979
1860	3.1	0.035398	2075	4	0.037979
1865	3	0.035099	2080	4.5	0.039309
1870	2.8	0.034494	2085	4.5	0.039309
1875	2.9	0.034798	2090	3	0.035099
1880	2	0.032006	2095	3.1	0.035398
1885	2	0.032006	2100	3.4	0.036282
1890	2.5	0.033573	2105	3	0.035099
1895	2.5	0.033573	2110	3	0.035099
1900	3	0.035099	2115	3	0.035099
1905	3	0.035099	2120	3.1	0.035398
1910	4	0.037979	2125	3.5	0.036572
1915	3	0.035099	2130	3.5	0.036572
1920	3.5	0.036572	2135	4	0.037979
1925	3	0.035099	2140	3	0.035099
1930	3	0.035099	2145	3.2	0.035695
1935	4	0.037979	2150	4	0.037979
1940	3.3	0.03599	2155	3.8	0.037425
1945	3	0.035099	2160	3.2	0.035695
1950	3.1	0.035398	2165	3.3	0.03599
1955	3.5	0.036572	2170	5	0.040549
1960	4	0.037979	2175	5	0.040549

**Table B8** Normal distribution ( $f(x)$ ) of hole FABT4503/1 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2180	6	0.042718	2395	3.3	0.03599
2185	3	0.035099	2400	3.3	0.03599
2190	4.3	0.038787	2405	3.3	0.03599
2195	5.2	0.041018	2410	3	0.035099
2200	3.4	0.036282	2415	3	0.035099
2205	2.7	0.034189	2420	3	0.035099
2210	2.9	0.034798	2425	4	0.037979
2215	2.9	0.034798	2430	4	0.037979
2220	3.2	0.035695	2435	4	0.037979
2225	3	0.035099	2440	3	0.035099
2230	3.7	0.037143	2445	3.6	0.036859
2235	3.2	0.035695	2450	3.6	0.036859
2240	3.5	0.036572	2455	3.9	0.037703
2245	3.5	0.036572	2460	3.1	0.035398
2250	3	0.035099	2465	2.7	0.034189
2255	3.9	0.037703	2470	4.6	0.039564
2260	2.9	0.034798	2475	3.3	0.03599
2265	3	0.035099	2480	3.2	0.035695
2270	3	0.035099	2485	5.5	0.041689
2275	3	0.035099	2490	5	0.040549
2280	3	0.035099	2495	6	0.042718
2285	4.6	0.039564	2500	5	0.040549
2290	3.5	0.036572	2505	5	0.040549
2295	5	0.040549	2510	6	0.042718
2300	4.4	0.03905	2515	4.9	0.040309
2305	5	0.040549	2520	4.5	0.039309
2310	2.6	0.033882	2525	3.2	0.035695
2315	3	0.035099	2530	3.8	0.037425
2320	2.7	0.034189	2535	4	0.037979
2325	2.7	0.034189	2540	4	0.037979
2330	2.7	0.034189	2545	4	0.037979
2335	2.7	0.034189	2550	4	0.037979
2340	5	0.040549	2555	4.3	0.038787
2345	3.2	0.035695	2560	4	0.037979
2350	3.1	0.035398	2565	5	0.040549
2355	4	0.037979	2570	5	0.040549
2360	6	0.042718	2575	5	0.040549
2365	6	0.042718	2580	5	0.040549
2370	5.3	0.041246	2585	5.6	0.041904
2375	4.4	0.03905	2590	5	0.040549
2380	3.4	0.036282	2595	5	0.040549
2385	3	0.035099	2600	5	0.040549
2390	4.1	0.038252	2605	5	0.040549

**Table B8** Normal distribution ( $f(x)$ ) of hole FABT4503/1 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2610	5	0.040549	2825	8	0.045545
2615	5	0.040549	2830	6	0.042718
2620	5	0.040549	2835	6	0.042718
2625	5	0.040549	2840	5.9	0.042522
2630	6	0.042718	2845	5	0.040549
2635	6	0.042718	2850	5	0.040549
2640	6	0.042718	2855	5.9	0.042522
2645	6	0.042718	2860	4	0.037979
2650	6	0.042718	2865	4	0.037979
2655	5	0.040549	2870	4	0.037979
2660	7.5	0.045046	2875	4.9	0.040309
2665	7	0.044405	2880	7	0.044405
2670	7	0.044405	2885	6	0.042718
2675	7	0.044405	2890	8	0.045545
2680	10	0.046029	2895	8	0.045545
2685	13	0.0423	2900	15	0.037397
2690	8.9	0.046066	2905	13	0.0423
2695	7	0.044405	2910	14	0.04004
2700	11	0.045353	2915	6	0.042718
2705	7	0.044405	2920	5	0.040549
2710	15	0.037397	2925	3	0.035099
2715	10	0.046029	2930	3	0.035099
2720	8	0.045545	2935	5.2	0.041018
2725	9	0.046093	2940	4	0.037979
2730	12	0.044094	2945	4	0.037979
2735	10	0.046029	2950	4	0.037979
2740	22	0.015943	2955	6.5	0.043626
2745	21	0.018745	2960	6.5	0.043626
2750	6	0.042718	2965	5	0.040549
2755	5	0.040549	2970	5	0.040549
2760	10	0.046029	2975	6	0.042718
2765	10	0.046029	2980	4	0.037979
2770	10	0.046029	2985	6	0.042718
2775	10	0.046029	2990	5	0.040549
2780	10	0.046029	2995	13	0.0423
2785	8	0.045545	3000	13	0.0423
2790	6	0.042718	3005	7	0.044405
2795	9	0.046093	3010	7	0.044405
2800	7	0.044405	3015	7	0.044405
2805	4	0.037979	3020	9	0.046093
2810	3	0.035099	3025	7	0.044405
2815	4	0.037979	3030	10	0.046029
2820	6	0.042718	3035	7	0.044405

**Table B8** Normal distribution ( $f(x)$ ) of hole FABT4503/1 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3040	7.5	0.045046	3255	10	0.046029
3045	4.2	0.038521	3260	16	0.034464
3050	4.4	0.03905	3265	13	0.0423
3055	4.4	0.03905	3270	20	0.021747
3060	19	0.024895	3275	20	0.021747
3065	14	0.04004	3280	22	0.015943
3070	12	0.044094	3285	5	0.040549
3075	16	0.034464	3290	5.5	0.041689
3080	16	0.034464	3295	6.3	0.043278
3085	16	0.034464	3300	5.2	0.041018
3090	16	0.034464	3305	4.6	0.039564
3095	9	0.046093	3310	4.9	0.040309
3100	13	0.0423	3315	6.4	0.043455
3105	14	0.04004	3320	9	0.046093
3110	7	0.044405	3325	5	0.040549
3115	7.9	0.045457	3330	5	0.040549
3120	6	0.042718	3335	5	0.040549
3125	9.1	0.046115	3340	5	0.040549
3130	7	0.044405	3345	7.5	0.045046
3135	5	0.040549	3350	12	0.044094
3140	8	0.045545	3355	4	0.037979
3145	7	0.044405	3360	9	0.046093
3150	7	0.044405	3365	6.9	0.04426
3155	7	0.044405	3370	5	0.040549
3160	6	0.042718	3375	4.2	0.038521
3165	6.6	0.043792	3380	6.6	0.043792
3170	4	0.037979	3385	6.6	0.043792
3175	4.5	0.039309	3390	6.6	0.043792
3180	5	0.040549	3395	6.6	0.043792
3185	4	0.037979	3400	6	0.042718
3190	9	0.046093	3405	8	0.045545
3195	5	0.040549	3410	8	0.045545
3200	7	0.044405	3415	8	0.045545
3205	5	0.040549	3420	8	0.045545
3210	5	0.040549	3425	8	0.045545
3215	5	0.040549	3430	8	0.045545
3220	5	0.040549	3435	7.3	0.044807
3225	3.8	0.037425	3440	10	0.046029
3230	4	0.037979	3445	11	0.045353
3235	13	0.0423	3450	10	0.046029
3240	13	0.0423	3455	10	0.046029
3245	10	0.046029	3460	10	0.046029
3250	14	0.04004	3465	10	0.046029

**Table B8** Normal distribution ( $f(x)$ ) of hole FABT4503/1 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3470	10	0.046029	3725	6	0.042718
3475	7	0.044405	3730	6	0.042718
3480	7	0.044405	3735	8	0.045545
3485	7	0.044405	3740	6	0.042718
3490	10	0.046029	3745	8.5	0.045895
3495	15	0.037397	3750	6.3	0.043278
3500	12	0.044094	3755	5.6	0.041904
3505	12	0.044094	3760	8	0.045545
3510	8	0.045545	3765	8	0.045545
3515	14	0.04004	3770	8	0.045545
3520	19	0.024895	3775	8.9	0.046066
3525	7.1	0.044544	3780	7	0.044405
3530	30	0.002697	3785	20	0.021747
3555	23	0.013379	3790	29	0.003529
3560	6	0.042718	3795	20	0.021747
3565	7.2	0.044678	3820	23	0.013379
3570	8	0.045545	3825	22	0.015943
3575	15	0.037397	3830	29	0.003529
3580	19	0.024895	3835	39	0.000131
3585	16	0.034464	3850	27	0.005805
3610	33	0.001111	3855	20	0.021747
3615	21	0.018745	3860	10	0.046029
3620	20	0.021747	3865	9	0.046093
3625	27	0.005805	3870	9	0.046093
3630	38	0.000194	3875	20	0.021747
3635	20	0.021747	3880	21	0.018745
3640	12	0.044094	3885	21	0.018745
3645	7	0.044405	3890	39	0.000131
3650	8.1	0.045627	3895	31	0.002033
3655	7.3	0.044807	3930	25	0.009052
3660	6	0.042718	3935	39	0.000131
3665	6	0.042718	3940	25	0.009052
3670	6	0.042718	3945	12	0.044094
3675	6	0.042718	3950	10	0.046029
3680	9	0.046093	3955	10	0.046029
3685	6	0.042718	3960	10	0.046029
3690	5	0.040549	3965	14	0.04004
3695	5	0.040549	3970	18	0.028119
3700	6	0.042718	3975	10	0.046029
3705	5	0.040549	3980	21	0.018745
3710	8	0.045545	3985	33	0.001111
3715	8	0.045545	4000	22	0.015943
3720	8	0.045545	4005	21	0.018745

**Table B8** Normal distribution ( $f(x)$ ) of hole FABT4503/1 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
4010	30	0.002697	4120	35	0.000575
4015	33	0.001111	4125	30	0.002697
4020	33	0.001111	4130	21	0.018745
4025	32	0.001513	4135	21	0.018745
4030	33	0.001111	4140	21	0.018745
4035	39	0.000131	4145	30	0.002697
4040	40	8.78E-05	4150	33	0.001111
4045	30	0.002697	4155	30	0.002697
4050	18	0.028119	4160	30	0.002697
4055	30	0.002697	4165	28	0.004556
4060	30	0.002697	4170	30	0.002697
4065	30	0.002697	4175	30	0.002697
4070	30	0.002697	4180	35	0.000575
4075	30	0.002697	4185	30	0.002697
4080	35	0.000575	4190	35	0.000575
4085	35	0.000575	4195	30	0.002697
4110	32	0.001513	4200	24	0.011079
4115	30	0.002697			



**Table B9** Normal distribution  $f(x)$  of hole FABT4503/2.

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
1750	3	0.034337	1965	3.5	0.035604
1755	3	0.034337	1970	3.5	0.035604
1760	3	0.034337	1975	4	0.036808
1765	3	0.034337	1980	4	0.036808
1770	3	0.034337	1985	4	0.036808
1775	3	0.034337	1990	4	0.036808
1780	3	0.034337	1995	3.9	0.036573
1785	3	0.034337	2000	4	0.036808
1790	4	0.036808	2005	4	0.036808
1795	4	0.036808	2010	4	0.036808
1800	4	0.036808	2015	4	0.036808
1805	4	0.036808	2020	5	0.038989
1810	4	0.036808	2025	5	0.038989
1815	3.5	0.035604	2030	7	0.042207
1820	3.5	0.035604	2035	7	0.042207
1825	3.5	0.035604	2040	6.9	0.042088
1830	3	0.034337	2045	8	0.043135
1835	3	0.034337	2050	3	0.034337
1840	4	0.036808	2055	3	0.034337
1845	4	0.036808	2060	3.5	0.035604
1850	4	0.036808	2065	3.9	0.036573
1855	6	0.040809	2070	3.9	0.036573
1860	5	0.038989	2075	3	0.034337
1865	3	0.034337	2080	3	0.034337
1870	3	0.034337	2085	3	0.034337
1875	3.1	0.034595	2090	2.9	0.034077
1880	3.1	0.034595	2095	3	0.034337
1885	3.1	0.034595	2100	3.6	0.03585
1890	3.1	0.034595	2105	3.2	0.034851
1895	3.1	0.034595	2110	3.2	0.034851
1900	3.6	0.03585	2115	3.2	0.034851
1905	4	0.036808	2120	3.2	0.034851
1910	4.2	0.03727	2125	3.2	0.034851
1915	4	0.036808	2130	3	0.034337
1920	4	0.036808	2135	3	0.034337
1925	4.2	0.03727	2140	3	0.034337
1930	3.9	0.036573	2145	3	0.034337
1935	3	0.034337	2150	3.2	0.034851
1940	3	0.034337	2155	3	0.034337
1945	3	0.034337	2160	3	0.034337
1950	3.4	0.035355	2165	3	0.034337
1955	3.5	0.035604	2170	3.2	0.034851
1960	3.5	0.035604	2175	4	0.036808



**Table B9** Normal distribution ( $f(x)$ ) of hole FABT4503/2 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2180	4	0.036808	2395	3.3	0.035104
2185	5.6	0.040128	2400	3.1	0.034595
2190	7	0.042207	2405	4.1	0.03704
2195	7	0.042207	2410	4.1	0.03704
2200	7	0.042207	2415	4.1	0.03704
2205	3.1	0.034595	2420	4.7	0.038369
2210	3.1	0.034595	2425	4.2	0.03727
2215	3	0.034337	2430	4.9	0.038786
2220	4	0.036808	2435	5	0.038989
2225	3	0.034337	2440	5.3	0.039576
2230	3.9	0.036573	2445	4	0.036808
2235	3.1	0.034595	2450	3.5	0.035604
2240	3.3	0.035104	2455	4.6	0.038156
2245	3.7	0.036094	2460	3	0.034337
2250	3	0.034337	2465	3	0.034337
2255	3.5	0.035604	2470	3	0.034337
2260	3.3	0.035104	2475	3	0.034337
2265	3	0.034337	2480	3	0.034337
2270	4	0.036808	2485	6.9	0.042088
2275	3	0.034337	2490	7	0.042207
2280	4.1	0.03704	2495	7	0.042207
2285	3	0.034337	2500	7	0.042207
2290	3.3	0.035104	2505	7	0.042207
2295	6.3	0.041275	2510	7.1	0.042322
2300	4.2	0.03727	2515	5	0.038989
2305	5	0.038989	2520	5.5	0.039948
2310	3	0.034337	2525	5.5	0.039948
2315	3.1	0.034595	2530	4	0.036808
2320	2.9	0.034077	2535	4	0.036808
2325	2.9	0.034077	2540	4	0.036808
2330	2.9	0.034077	2545	4	0.036808
2335	2.9	0.034077	2550	4	0.036808
2340	3	0.034337	2555	4.6	0.038156
2345	3	0.034337	2560	4.9	0.038786
2350	3.3	0.035104	2565	4	0.036808
2355	3.5	0.035604	2570	4.1	0.03704
2360	5	0.038989	2575	4.1	0.03704
2365	5	0.038989	2580	4.1	0.03704
2370	6	0.040809	2585	5	0.038989
2375	5	0.038989	2590	5	0.038989
2380	3.1	0.034595	2595	5	0.038989
2385	3.1	0.034595	2600	5	0.038989
2390	3	0.034337	2605	5	0.038989

**Table B9** Normal distribution ( $f(x)$ ) of hole FABT4503/2 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
2610	5	0.038989	2825	7	0.042207
2615	6	0.040809	2830	7	0.042207
2620	6	0.040809	2835	5.9	0.040645
2625	6	0.040809	2840	6	0.040809
2630	6	0.040809	2845	5	0.038989
2635	6	0.040809	2850	4.1	0.03704
2640	6	0.040809	2855	7	0.042207
2645	5.5	0.039948	2860	4	0.036808
2650	5	0.038989	2865	3.1	0.034595
2655	5	0.038989	2870	4.2	0.03727
2660	4.6	0.038156	2875	4.2	0.03727
2665	4.1	0.03704	2880	6.4	0.041422
2670	4.7	0.038369	2885	5	0.038989
2675	3	0.034337	2890	5	0.038989
2680	4.9	0.038786	2895	5	0.038989
2685	4.9	0.038786	2900	5	0.038989
2690	5	0.038989	2905	5.2	0.039384
2695	5	0.038989	2910	5	0.038989
2700	5	0.038989	2915	4.1	0.03704
2705	6.3	0.041275	2920	5	0.038989
2710	9	0.04356	2925	4	0.036808
2715	8.1	0.0432	2930	4.1	0.03704
2720	8.1	0.0432	2935	5.9	0.040645
2725	8	0.043135	2940	5.9	0.040645
2730	8	0.043135	2945	4.5	0.037939
2735	8.9	0.043541	2950	4	0.036808
2740	3	0.034337	2955	6	0.040809
2745	3	0.034337	2960	10	0.043468
2750	3	0.034337	2965	5	0.038989
2755	4	0.036808	2970	6	0.040809
2760	3	0.034337	2975	5.9	0.040645
2765	3.5	0.035604	2980	4	0.036808
2770	3.9	0.036573	2985	6.3	0.041275
2775	5	0.038989	2990	6.1	0.040968
2780	6.7	0.041835	2995	6	0.040809
2785	7.1	0.042322	3000	6	0.040809
2790	7.1	0.042322	3005	6	0.040809
2795	7.5	0.042732	3010	6	0.040809
2800	7.9	0.043064	3015	7.9	0.043064
2805	4	0.036808	3020	7	0.042207
2810	4	0.036808	3025	7	0.042207
2815	4.1	0.03704	3030	7.5	0.042732
2820	6.5	0.041564	3035	9.9	0.0435

**Table B9** Normal distribution ( $f(x)$ ) of hole FABT4503/2 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3040	9	0.04356	3255	23	0.01427
3045	6	0.040809	3260	25	0.010051
3050	6	0.040809	3265	20	0.02207
3055	20	0.02207	3270	15	0.035958
3060	10.1	0.04343	3275	15	0.035958
3065	19	0.024921	3280	7	0.042207
3070	16	0.033401	3285	5	0.038989
3075	13	0.040206	3290	5.2	0.039384
3080	12	0.041761	3295	5.1	0.039188
3085	10	0.043468	3300	4.9	0.038786
3090	8	0.043135	3305	4.9	0.038786
3095	8	0.043135	3310	5	0.038989
3100	8.5	0.043412	3315	5	0.038989
3105	8.5	0.043412	3320	9	0.04356
3110	7	0.042207	3325	5	0.038989
3115	7	0.042207	3330	5	0.038989
3120	5	0.038989	3335	4	0.036808
3125	9	0.04356	3340	4	0.036808
3130	8	0.043135	3345	4	0.036808
3135	8	0.043135	3350	10	0.043468
3140	8	0.043135	3355	11	0.042861
3145	9.9	0.0435	3360	7	0.042207
3150	5.2	0.039384	3365	7	0.042207
3155	4	0.036808	3370	7	0.042207
3160	4	0.036808	3375	6.5	0.041564
3165	4.7	0.038369	3380	6.9	0.042088
3170	6	0.040809	3385	5.1	0.039188
3175	7	0.042207	3390	5.5	0.039948
3180	7.5	0.042732	3395	6	0.040809
3185	4	0.036808	3400	6	0.040809
3190	4	0.036808	3405	7.1	0.042322
3195	4	0.036808	3410	7	0.042207
3200	4	0.036808	3415	7	0.042207
3205	4	0.036808	3420	7	0.042207
3210	4	0.036808	3425	5.9	0.040645
3215	6	0.040809	3430	5.4	0.039764
3220	4	0.036808	3435	5.1	0.039188
3225	6	0.040809	3440	7	0.042207
3230	4	0.036808	3445	10	0.043468
3235	10.5	0.043228	3450	10	0.043468
3240	10.5	0.043228	3455	10	0.043468
3245	6	0.040809	3460	10	0.043468
3250	21	0.019313	3465	10	0.043468

**Table B9** Normal distribution ( $f(x)$ ) of hole FABT4503/2 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3470	10	0.043468	3720	5.5	0.039948
3475	8.1	0.0432	3725	5.5	0.039948
3480	8.1	0.0432	3730	5.9	0.040645
3485	9	0.04356	3735	5.9	0.040645
3490	9	0.04356	3740	6	0.040809
3495	15	0.035958	3745	6	0.040809
3500	21	0.019313	3750	6	0.040809
3505	21	0.019313	3755	6	0.040809
3510	7	0.042207	3760	7	0.042207
3515	7.5	0.042732	3765	6	0.040809
3520	10	0.043468	3770	6	0.040809
3525	5	0.038989	3775	6	0.040809
3530	10	0.043468	3780	6	0.040809
3535	10	0.043468	3785	6.5	0.041564
3560	10	0.043468	3790	7	0.042207
3565	15	0.035958	3795	20	0.02207
3570	15	0.035958	3800	25	0.010051
3575	22	0.0167	3805	25	0.010051
3580	16	0.033401	3810	30	0.003396
3585	10	0.043468	3850	15	0.035958
3590	18	0.027807	3855	15	0.035958
3595	19	0.024921	3860	15	0.035958
3600	19.5	0.023488	3865	30	0.003396
3605	18	0.027807	3870	39	0.000227
3610	19	0.024921	3895	40	0.000158
3615	15	0.035958	3900	50	2.24E-06
3620	19	0.024921	3905	31	0.002638
3625	25	0.010051	3910	14	0.03825
3630	35	0.000852	3915	10	0.043468
3635	30	0.003396	3920	10	0.043468
3640	29	0.004322	3925	11	0.042861
3645	30	0.003396	3930	21	0.019313
3665	18	0.027807	3935	21	0.019313
3670	10	0.043468	3940	30	0.003396
3675	10	0.043468	3945	30	0.003396
3680	10	0.043468	3950	15	0.035958
3685	6	0.040809	3955	10	0.043468
3690	7	0.042207	3960	20	0.02207
3695	7.3	0.042536	3965	20	0.02207
3700	7	0.042207	3970	26	0.008286
3705	7.1	0.042322	3975	13	0.040206
3710	7	0.042207	3980	20	0.02207
3715	8	0.043135	3985	29	0.004322

**Table B9** Normal distribution ( $f(x)$ ) of hole FABT4503/2 (continued).

Depth	Resistivity	$f(x)$	Depth	Resistivity	$f(x)$
3990	20	0.02207	4085	30	0.003396
3995	21	0.019313	4090	43	5E-05
4000	20	0.02207	4100	28	0.005433
4005	20	0.02207	4125	42	7.44E-05
4010	30	0.003396	4130	30	0.003396
4015	30	0.003396	4135	33	0.001535
4020	41	0.000109	4140	33	0.001535
4025	31	0.002638	4145	33	0.001535
4030	35	0.000852	4150	39	0.000227
4035	35	0.000852	4155	40	0.000158
4040	40	0.000158	4160	31	0.002638
4045	41	0.000109	4165	35	0.000852
4050	40	0.000158	4170	30	0.003396
4055	30	0.003396	4175	30	0.003396
4060	33	0.001535	4180	27	0.00675
4065	33	0.001535	4185	24	0.012048
4070	40	0.000158	4190	18	0.027807
4075	19	0.024921	4195	19	0.024921
4080	19	0.024921	4200	19	0.024921



**Table B10** Normal trend resistivity of holes FAMS.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
5	0.08692	220	3.824491	435	7.562061
10	0.17384	225	3.911411	440	7.648981
15	0.260761	230	3.998331	445	7.735902
20	0.347681	235	4.085251	450	7.822822
25	0.434601	240	4.172172	455	7.909742
30	0.521521	245	4.259092	460	7.996662
35	0.608442	250	4.346012	465	8.083583
40	0.695362	255	4.432932	470	8.170503
45	0.782282	260	4.519853	475	8.257423
50	0.869202	265	4.606773	480	8.344343
55	0.956123	270	4.693693	485	8.431263
60	1.043043	275	4.780613	490	8.518184
65	1.129963	280	4.867534	495	8.605104
70	1.216883	285	4.954454	500	8.692024
75	1.303804	290	5.041374	505	8.778944
80	1.390724	295	5.128294	510	8.865865
85	1.477644	300	5.215215	515	8.952785
90	1.564564	305	5.302135	520	9.039705
95	1.651485	310	5.389055	525	9.126625
100	1.738405	315	5.475975	530	9.213546
105	1.825325	320	5.562895	535	9.300466
110	1.912245	325	5.649816	540	9.387386
115	1.999166	330	5.736736	545	9.474306
120	2.086086	335	5.823656	550	9.561227
125	2.173006	340	5.910576	555	9.648147
130	2.259926	345	5.997497	560	9.735067
135	2.346847	350	6.084417	565	9.821987
140	2.433767	355	6.171337	570	9.908908
145	2.520687	360	6.258257	575	9.995828
150	2.607607	365	6.345178	580	10.08275
155	2.694528	370	6.432098	585	10.16967
160	2.781448	375	6.519018	590	10.25659
165	2.868368	380	6.605938	595	10.34351
170	2.955288	385	6.692859	600	10.43043
175	3.042208	390	6.779779	605	10.51735
180	3.129129	395	6.866699	610	10.60427
185	3.216049	400	6.953619	615	10.69119
190	3.302969	405	7.04054	620	10.77811
195	3.389889	410	7.12746	625	10.86503
200	3.47681	415	7.21438	630	10.95195
205	3.56373	420	7.3013	635	11.03887
210	3.65065	425	7.388221	640	11.12579
215	3.73757	430	7.475141	645	11.21271

**Table B10** Normal trend resistivity of holes FAMS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
650	11.29963	865	15.0372	1080	18.77477
655	11.38655	870	15.12412	1085	18.86169
660	11.47347	875	15.21104	1090	18.94861
665	11.56039	880	15.29796	1095	19.03553
670	11.64731	885	15.38488	1100	19.12245
675	11.73423	890	15.4718	1105	19.20937
680	11.82115	895	15.55872	1110	19.29629
685	11.90807	900	15.64564	1115	19.38321
690	11.99499	905	15.73256	1120	19.47013
695	12.08191	910	15.81948	1125	19.55705
700	12.16883	915	15.9064	1130	19.64397
705	12.25575	920	15.99332	1135	19.73089
710	12.34267	925	16.08024	1140	19.81782
715	12.42959	930	16.16717	1145	19.90474
720	12.51651	935	16.25409	1150	19.99166
725	12.60344	940	16.34101	1155	20.07858
730	12.69036	945	16.42793	1160	20.1655
735	12.77728	950	16.51485	1165	20.25242
740	12.8642	955	16.60177	1170	20.33934
745	12.95112	960	16.68869	1175	20.42626
750	13.03804	965	16.77561	1180	20.51318
755	13.12496	970	16.86253	1185	20.6001
760	13.21188	975	16.94945	1190	20.68702
765	13.2988	980	17.03637	1195	20.77394
770	13.38572	985	17.12329	1200	20.86086
775	13.47264	990	17.21021	1205	20.94778
780	13.55956	995	17.29713	1210	21.0347
785	13.64648	1000	17.38405	1215	21.12162
790	13.7334	1005	17.47097	1220	21.20854
795	13.82032	1010	17.55789	1225	21.29546
800	13.90724	1015	17.64481	1230	21.38238
805	13.99416	1020	17.73173	1235	21.4693
810	14.08108	1025	17.81865	1240	21.55622
815	14.168	1030	17.90557	1245	21.64314
820	14.25492	1035	17.99249	1250	21.73006
825	14.34184	1040	18.07941	1255	21.81698
830	14.42876	1045	18.16633	1260	21.9039
835	14.51568	1050	18.25325	1265	21.99082
840	14.6026	1055	18.34017	1270	22.07774
845	14.68952	1060	18.42709	1275	22.16466
850	14.77644	1065	18.51401	1280	22.25158
855	14.86336	1070	18.60093	1285	22.3385
860	14.95028	1075	18.68785	1290	22.42542

**Table B10** Normal trend resistivity of holes FAMS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1295	22.51234	1510	26.24991	1725	29.98748
1300	22.59926	1515	26.33683	1730	30.0744
1305	22.68618	1520	26.42375	1735	30.16132
1310	22.7731	1525	26.51067	1740	30.24824
1315	22.86002	1530	26.59759	1745	30.33516
1320	22.94694	1535	26.68451	1750	30.42208
1325	23.03386	1540	26.77143	1755	30.509
1330	23.12078	1545	26.85835	1760	30.59593
1335	23.2077	1550	26.94528	1765	30.68285
1340	23.29462	1555	27.0322	1770	30.76977
1345	23.38155	1560	27.11912	1775	30.85669
1350	23.46847	1565	27.20604	1780	30.94361
1355	23.55539	1570	27.29296	1785	31.03053
1360	23.64231	1575	27.37988	1790	31.11745
1365	23.72923	1580	27.4668	1795	31.20437
1370	23.81615	1585	27.55372	1800	31.29129
1375	23.90307	1590	27.64064	1805	31.37821
1380	23.98999	1595	27.72756	1810	31.46513
1385	24.07691	1600	27.81448	1815	31.55205
1390	24.16383	1605	27.9014	1820	31.63897
1395	24.25075	1610	27.98832	1825	31.72589
1400	24.33767	1615	28.07524	1830	31.81281
1405	24.42459	1620	28.16216	1835	31.89973
1410	24.51151	1625	28.24908	1840	31.98665
1415	24.59843	1630	28.336	1845	32.07357
1420	24.68535	1635	28.42292	1850	32.16049
1425	24.77227	1640	28.50984	1855	32.24741
1430	24.85919	1645	28.59676	1860	32.33433
1435	24.94611	1650	28.68368	1865	32.42125
1440	25.03303	1655	28.7706	1870	32.50817
1445	25.11995	1660	28.85752	1875	32.59509
1450	25.20687	1665	28.94444	1880	32.68201
1455	25.29379	1670	29.03136	1885	32.76893
1460	25.38071	1675	29.11828	1890	32.85585
1465	25.46763	1680	29.2052	1895	32.94277
1470	25.55455	1685	29.29212	1900	33.02969
1475	25.64147	1690	29.37904	1905	33.11661
1480	25.72839	1695	29.46596	1910	33.20353
1485	25.81531	1700	29.55288	1915	33.29045
1490	25.90223	1705	29.6398	1920	33.37737
1495	25.98915	1710	29.72672	1925	33.46429
1500	26.07607	1715	29.81364	1930	33.55121
1505	26.16299	1720	29.90056	1935	33.63813



**Table B10** Normal trend resistivity of holes FAMS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1940	33.72505	2155	37.46262	2370	41.20019
1945	33.81197	2160	37.54954	2375	41.28711
1950	33.89889	2165	37.63646	2380	41.37404
1955	33.98581	2170	37.72339	2385	41.46096
1960	34.07273	2175	37.81031	2390	41.54788
1965	34.15966	2180	37.89723	2395	41.6348
1970	34.24658	2185	37.98415	2400	41.72172
1975	34.3335	2190	38.07107	2405	41.80864
1980	34.42042	2195	38.15799	2410	41.89556
1985	34.50734	2200	38.24491	2415	41.98248
1990	34.59426	2205	38.33183	2420	42.0694
1995	34.68118	2210	38.41875	2425	42.15632
2000	34.7681	2215	38.50567	2430	42.24324
2005	34.85502	2220	38.59259	2435	42.33016
2010	34.94194	2225	38.67951	2440	42.41708
2015	35.02886	2230	38.76643	2445	42.504
2020	35.11578	2235	38.85335	2450	42.59092
2025	35.2027	2240	38.94027	2455	42.67784
2030	35.28962	2245	39.02719	2460	42.76476
2035	35.37654	2250	39.11411	2465	42.85168
2040	35.46346	2255	39.20103	2470	42.9386
2045	35.55038	2260	39.28795	2475	43.02552
2050	35.6373	2265	39.37487	2480	43.11244
2055	35.72422	2270	39.46179	2485	43.19936
2060	35.81114	2275	39.54871	2490	43.28628
2065	35.89806	2280	39.63563	2495	43.3732
2070	35.98498	2285	39.72255	2500	43.46012
2075	36.0719	2290	39.80947	2505	43.54704
2080	36.15882	2295	39.89639	2510	43.63396
2085	36.24574	2300	39.98331	2515	43.72088
2090	36.33266	2305	40.07023	2520	43.8078
2095	36.41958	2310	40.15715	2525	43.89472
2100	36.5065	2315	40.24407	2530	43.98164
2105	36.59342	2320	40.33099	2535	44.06856
2110	36.68034	2325	40.41791	2540	44.15548
2115	36.76726	2330	40.50483	2545	44.2424
2120	36.85418	2335	40.59175	2550	44.32932
2125	36.9411	2340	40.67867	2555	44.41624
2130	37.02802	2345	40.76559	2560	44.50316
2135	37.11494	2350	40.85251	2565	44.59008
2140	37.20186	2355	40.93943	2570	44.677
2145	37.28878	2360	41.02635	2575	44.76392
2150	37.3757	2365	41.11327	2580	44.85084

**Table B10** Normal trend resistivity of holes FAMS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2585	44.93777	2645	45.98081	2705	47.02385
2590	45.02469	2650	46.06773	2710	47.11077
2595	45.11161	2655	46.15465	2715	47.19769
2600	45.19853	2660	46.24157	2720	47.28461
2605	45.28545	2665	46.32849	2725	47.37153
2610	45.37237	2670	46.41541	2730	47.45845
2615	45.45929	2675	46.50233	2735	47.54537
2620	45.54621	2680	46.58925	2740	47.63229
2625	45.63313	2685	46.67617	2745	47.71921
2630	45.72005	2690	46.76309	2750	47.80613
2635	45.80697	2695	46.85001	2755	47.89305
2640	45.89389	2700	46.93693	2760	47.97997



**Table B11** Normal trend resistivity of holes FASS.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
5	0.051202	220	2.252898	435	4.454594
10	0.102404	225	2.3041	440	4.505796
15	0.153607	230	2.355303	445	4.556998
20	0.204809	235	2.406505	450	4.608201
25	0.256011	240	2.457707	455	4.659403
30	0.307213	245	2.508909	460	4.710605
35	0.358416	250	2.560111	465	4.761807
40	0.409618	255	2.611314	470	4.813009
45	0.46082	260	2.662516	475	4.864212
50	0.512022	265	2.713718	480	4.915414
55	0.563225	270	2.76492	485	4.966616
60	0.614427	275	2.816123	490	5.017818
65	0.665629	280	2.867325	495	5.069021
70	0.716831	285	2.918527	500	5.120223
75	0.768033	290	2.969729	505	5.171425
80	0.819236	295	3.020931	510	5.222627
85	0.870438	300	3.072134	515	5.27383
90	0.92164	305	3.123336	520	5.325032
95	0.972842	310	3.174538	525	5.376234
100	1.024045	315	3.22574	530	5.427436
105	1.075247	320	3.276943	535	5.478638
110	1.126449	325	3.328145	540	5.529841
115	1.177651	330	3.379347	545	5.581043
120	1.228853	335	3.430549	550	5.632245
125	1.280056	340	3.481752	555	5.683447
130	1.331258	345	3.532954	560	5.73465
135	1.38246	350	3.584156	565	5.785852
140	1.433662	355	3.635358	570	5.837054
145	1.484865	360	3.68656	575	5.888256
150	1.536067	365	3.737763	580	5.939458
155	1.587269	370	3.788965	585	5.990661
160	1.638471	375	3.840167	590	6.041863
165	1.689674	380	3.891369	595	6.093065
170	1.740876	385	3.942572	600	6.144267
175	1.792078	390	3.993774	605	6.19547
180	1.84328	395	4.044976	610	6.246672
185	1.894482	400	4.096178	615	6.297874
190	1.945685	405	4.14738	620	6.349076
195	1.996887	410	4.198583	625	6.400279
200	2.048089	415	4.249785	630	6.451481
205	2.099291	420	4.300987	635	6.502683
210	2.150494	425	4.352189	640	6.553885
215	2.201696	430	4.403392	645	6.605087

**Table B11** Normal trend resistivity of holes FASS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
650	6.65629	865	8.857985	1080	11.05968
655	6.707492	870	8.909188	1085	11.11088
660	6.758694	875	8.96039	1090	11.16209
665	6.809896	880	9.011592	1095	11.21329
670	6.861099	885	9.062794	1100	11.26449
675	6.912301	890	9.113997	1105	11.31569
680	6.963503	895	9.165199	1110	11.36689
685	7.014705	900	9.216401	1115	11.4181
690	7.065908	905	9.267603	1120	11.4693
695	7.11711	910	9.318806	1125	11.5205
700	7.168312	915	9.370008	1130	11.5717
705	7.219514	920	9.42121	1135	11.62291
710	7.270716	925	9.472412	1140	11.67411
715	7.321919	930	9.523614	1145	11.72531
720	7.373121	935	9.574817	1150	11.77651
725	7.424323	940	9.626019	1155	11.82771
730	7.475525	945	9.677221	1160	11.87892
735	7.526728	950	9.728423	1165	11.93012
740	7.57793	955	9.779626	1170	11.98132
745	7.629132	960	9.830828	1175	12.03252
750	7.680334	965	9.88203	1180	12.08373
755	7.731536	970	9.933232	1185	12.13493
760	7.782739	975	9.984435	1190	12.18613
765	7.833941	980	10.03564	1195	12.23733
770	7.885143	985	10.08684	1200	12.28853
775	7.936345	990	10.13804	1205	12.33974
780	7.987548	995	10.18924	1210	12.39094
785	8.03875	1000	10.24045	1215	12.44214
790	8.089952	1005	10.29165	1220	12.49334
795	8.141154	1010	10.34285	1225	12.54455
800	8.192357	1015	10.39405	1230	12.59575
805	8.243559	1020	10.44525	1235	12.64695
810	8.294761	1025	10.49646	1240	12.69815
815	8.345963	1030	10.54766	1245	12.74935
820	8.397165	1035	10.59886	1250	12.80056
825	8.448368	1040	10.65006	1255	12.85176
830	8.49957	1045	10.70127	1260	12.90296
835	8.550772	1050	10.75247	1265	12.95416
840	8.601974	1055	10.80367	1270	13.00537
845	8.653177	1060	10.85487	1275	13.05657
850	8.704379	1065	10.90607	1280	13.10777
855	8.755581	1070	10.95728	1285	13.15897
860	8.806783	1075	11.00848	1290	13.21017

**Table B11** Normal trend resistivity of holes FASS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1295	13.26138	1510	15.46307	1725	17.66477
1300	13.31258	1515	15.51428	1730	17.71597
1305	13.36378	1520	15.56548	1735	17.76717
1310	13.41498	1525	15.61668	1740	17.81838
1315	13.46619	1530	15.66788	1745	17.86958
1320	13.51739	1535	15.71908	1750	17.92078
1325	13.56859	1540	15.77029	1755	17.97198
1330	13.61979	1545	15.82149	1760	18.02318
1335	13.67099	1550	15.87269	1765	18.07439
1340	13.7222	1555	15.92389	1770	18.12559
1345	13.7734	1560	15.9751	1775	18.17679
1350	13.8246	1565	16.0263	1780	18.22799
1355	13.8758	1570	16.0775	1785	18.2792
1360	13.92701	1575	16.1287	1790	18.3304
1365	13.97821	1580	16.1799	1795	18.3816
1370	14.02941	1585	16.23111	1800	18.4328
1375	14.08061	1590	16.28231	1805	18.484
1380	14.13182	1595	16.33351	1810	18.53521
1385	14.18302	1600	16.38471	1815	18.58641
1390	14.23422	1605	16.43592	1820	18.63761
1395	14.28542	1610	16.48712	1825	18.68881
1400	14.33662	1615	16.53832	1830	18.74002
1405	14.38783	1620	16.58952	1835	18.79122
1410	14.43903	1625	16.64072	1840	18.84242
1415	14.49023	1630	16.69193	1845	18.89362
1420	14.54143	1635	16.74313	1850	18.94482
1425	14.59264	1640	16.79433	1855	18.99603
1430	14.64384	1645	16.84553	1860	19.04723
1435	14.69504	1650	16.89674	1865	19.09843
1440	14.74624	1655	16.94794	1870	19.14963
1445	14.79744	1660	16.99914	1875	19.20084
1450	14.84865	1665	17.05034	1880	19.25204
1455	14.89985	1670	17.10154	1885	19.30324
1460	14.95105	1675	17.15275	1890	19.35444
1465	15.00225	1680	17.20395	1895	19.40564
1470	15.05346	1685	17.25515	1900	19.45685
1475	15.10466	1690	17.30635	1905	19.50805
1480	15.15586	1695	17.35756	1910	19.55925
1485	15.20706	1700	17.40876	1915	19.61045
1490	15.25826	1705	17.45996	1920	19.66166
1495	15.30947	1710	17.51116	1925	19.71286
1500	15.36067	1715	17.56236	1930	19.76406
1505	15.41187	1720	17.61357	1935	19.81526

**Table B11** Normal trend resistivity of holes FASS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1940	19.86646	2155	22.06816	2370	24.26986
1945	19.91767	2160	22.11936	2375	24.32106
1950	19.96887	2165	22.17056	2380	24.37226
1955	20.02007	2170	22.22177	2385	24.42346
1960	20.07127	2175	22.27297	2390	24.47467
1965	20.12248	2180	22.32417	2395	24.52587
1970	20.17368	2185	22.37537	2400	24.57707
1975	20.22488	2190	22.42658	2405	24.62827
1980	20.27608	2195	22.47778	2410	24.67947
1985	20.32728	2200	22.52898	2415	24.73068
1990	20.37849	2205	22.58018	2420	24.78188
1995	20.42969	2210	22.63138	2425	24.83308
2000	20.48089	2215	22.68259	2430	24.88428
2005	20.53209	2220	22.73379	2435	24.93549
2010	20.5833	2225	22.78499	2440	24.98669
2015	20.6345	2230	22.83619	2445	25.03789
2020	20.6857	2235	22.8874	2450	25.08909
2025	20.7369	2240	22.9386	2455	25.14029
2030	20.7881	2245	22.9898	2460	25.1915
2035	20.83931	2250	23.041	2465	25.2427
2040	20.89051	2255	23.0922	2470	25.2939
2045	20.94171	2260	23.14341	2475	25.3451
2050	20.99291	2265	23.19461	2480	25.39631
2055	21.04412	2270	23.24581	2485	25.44751
2060	21.09532	2275	23.29701	2490	25.49871
2065	21.14652	2280	23.34822	2495	25.54991
2070	21.19772	2285	23.39942	2500	25.60111
2075	21.24892	2290	23.45062	2505	25.65232
2080	21.30013	2295	23.50182	2510	25.70352
2085	21.35133	2300	23.55303	2515	25.75472
2090	21.40253	2305	23.60423	2520	25.80592
2095	21.45373	2310	23.65543	2525	25.85713
2100	21.50494	2315	23.70663	2530	25.90833
2105	21.55614	2320	23.75783	2535	25.95953
2110	21.60734	2325	23.80904	2540	26.01073
2115	21.65854	2330	23.86024	2545	26.06193
2120	21.70974	2335	23.91144	2550	26.11314
2125	21.76095	2340	23.96264	2555	26.16434
2130	21.81215	2345	24.01385	2560	26.21554
2135	21.86335	2350	24.06505	2565	26.26674
2140	21.91455	2355	24.11625	2570	26.31795
2145	21.96576	2360	24.16745	2575	26.36915
2150	22.01696	2365	24.21865	2580	26.42035

**Table B11** Normal trend resistivity of holes FASS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2585	26.47155	2800	28.67325	3015	30.87494
2590	26.52275	2805	28.72445	3020	30.92615
2595	26.57396	2810	28.77565	3025	30.97735
2600	26.62516	2815	28.82685	3030	31.02855
2605	26.67636	2820	28.87806	3035	31.07975
2610	26.72756	2825	28.92926	3040	31.13095
2615	26.77877	2830	28.98046	3045	31.18216
2620	26.82997	2835	29.03166	3050	31.23336
2625	26.88117	2840	29.08287	3055	31.28456
2630	26.93237	2845	29.13407	3060	31.33576
2635	26.98357	2850	29.18527	3065	31.38697
2640	27.03478	2855	29.23647	3070	31.43817
2645	27.08598	2860	29.28767	3075	31.48937
2650	27.13718	2865	29.33888	3080	31.54057
2655	27.18838	2870	29.39008	3085	31.59177
2660	27.23959	2875	29.44128	3090	31.64298
2665	27.29079	2880	29.49248	3095	31.69418
2670	27.34199	2885	29.54369	3100	31.74538
2675	27.39319	2890	29.59489	3105	31.79658
2680	27.44439	2895	29.64609	3110	31.84779
2685	27.4956	2900	29.69729	3115	31.89899
2690	27.5468	2905	29.74849	3120	31.95019
2695	27.598	2910	29.7997	3125	32.00139
2700	27.6492	2915	29.8509	3130	32.05259
2705	27.70041	2920	29.9021	3135	32.1038
2710	27.75161	2925	29.9533	3140	32.155
2715	27.80281	2930	30.00451	3145	32.2062
2720	27.85401	2935	30.05571	3150	32.2574
2725	27.90521	2940	30.10691	3155	32.30861
2730	27.95642	2945	30.15811	3160	32.35981
2735	28.00762	2950	30.20931	3165	32.41101
2740	28.05882	2955	30.26052	3170	32.46221
2745	28.11002	2960	30.31172	3175	32.51341
2750	28.16123	2965	30.36292	3180	32.56462
2755	28.21243	2970	30.41412	3185	32.61582
2760	28.26363	2975	30.46533	3190	32.66702
2765	28.31483	2980	30.51653	3195	32.71822
2770	28.36603	2985	30.56773	3200	32.76943
2775	28.41724	2990	30.61893	3205	32.82063
2780	28.46844	2995	30.67013	3210	32.87183
2785	28.51964	3000	30.72134	3215	32.92303
2790	28.57084	3005	30.77254	3220	32.97424
2795	28.62205	3010	30.82374	3225	33.02544

**Table B11** Normal trend resistivity of holes FASS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3230	33.07664	3445	35.27834	3660	37.48003
3235	33.12784	3450	35.32954	3665	37.53123
3240	33.17904	3455	35.38074	3670	37.58244
3245	33.23025	3460	35.43194	3675	37.63364
3250	33.28145	3465	35.48314	3680	37.68484
3255	33.33265	3470	35.53435	3685	37.73604
3260	33.38385	3475	35.58555	3690	37.78724
3265	33.43506	3480	35.63675	3695	37.83845
3270	33.48626	3485	35.68795	3700	37.88965
3275	33.53746	3490	35.73916	3705	37.94085
3280	33.58866	3495	35.79036	3710	37.99205
3285	33.63986	3500	35.84156	3715	38.04326
3290	33.69107	3505	35.89276	3720	38.09446
3295	33.74227	3510	35.94396	3725	38.14566
3300	33.79347	3515	35.99517	3730	38.19686
3305	33.84467	3520	36.04637	3735	38.24806
3310	33.89588	3525	36.09757	3740	38.29927
3315	33.94708	3530	36.14877	3745	38.35047
3320	33.99828	3535	36.19998	3750	38.40167
3325	34.04948	3540	36.25118	3755	38.45287
3330	34.10068	3545	36.30238	3760	38.50408
3335	34.15189	3550	36.35358	3765	38.55528
3340	34.20309	3555	36.40478	3770	38.60648
3345	34.25429	3560	36.45599	3775	38.65768
3350	34.30549	3565	36.50719	3780	38.70888
3355	34.3567	3570	36.55839	3785	38.76009
3360	34.4079	3575	36.60959	3790	38.81129
3365	34.4591	3580	36.6608	3795	38.86249
3370	34.5103	3585	36.712	3800	38.91369
3375	34.5615	3590	36.7632	3805	38.9649
3380	34.61271	3595	36.8144	3810	39.0161
3385	34.66391	3600	36.8656	3815	39.0673
3390	34.71511	3605	36.91681	3820	39.1185
3395	34.76631	3610	36.96801	3825	39.1697
3400	34.81752	3615	37.01921	3830	39.22091
3405	34.86872	3620	37.07041	3835	39.27211
3410	34.91992	3625	37.12162	3840	39.32331
3415	34.97112	3630	37.17282	3845	39.37451
3420	35.02232	3635	37.22402	3850	39.42572
3425	35.07353	3640	37.27522	3855	39.47692
3430	35.12473	3645	37.32642	3860	39.52812
3435	35.17593	3650	37.37763	3865	39.57932
3440	35.22713	3655	37.42883	3870	39.63052



**Table B11** Normal trend resistivity of holes FASS (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3875	39.68173	4020	41.16659	4165	42.65146
3880	39.73293	4025	41.21779	4170	42.70266
3885	39.78413	4030	41.269	4175	42.75386
3890	39.83533	4035	41.3202	4180	42.80506
3895	39.88654	4040	41.3714	4185	42.85627
3900	39.93774	4045	41.4226	4190	42.90747
3905	39.98894	4050	41.4738	4195	42.95867
3910	40.04014	4055	41.52501	4200	43.00987
3915	40.09134	4060	41.57621	4205	43.06107
3920	40.14255	4065	41.62741	4210	43.11228
3925	40.19375	4070	41.67861	4215	43.16348
3930	40.24495	4075	41.72982	4220	43.21468
3935	40.29615	4080	41.78102	4225	43.26588
3940	40.34736	4085	41.83222	4230	43.31709
3945	40.39856	4090	41.88342	4235	43.36829
3950	40.44976	4095	41.93462	4240	43.41949
3955	40.50096	4100	41.98583	4245	43.47069
3960	40.55216	4105	42.03703	4250	43.52189
3965	40.60337	4110	42.08823	4255	43.5731
3970	40.65457	4115	42.13943	4260	43.6243
3975	40.70577	4120	42.19064	4265	43.6755
3980	40.75697	4125	42.24184	4270	43.7267
3985	40.80818	4130	42.29304	4275	43.77791
3990	40.85938	4135	42.34424	4280	43.82911
3995	40.91058	4140	42.39545	4285	43.88031
4000	40.96178	4145	42.44665	4290	43.93151
4005	41.01298	4150	42.49785	4295	43.98271
4010	41.06419	4155	42.54905	4300	44.03392
4015	41.11539	4160	42.60025		

**Table B12** Normal trend resistivity of holes FABT.

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
5	0.025619	220	1.127222	435	2.228826
10	0.051237	225	1.152841	440	2.254445
15	0.076856	230	1.17846	445	2.280064
20	0.102475	235	1.204078	450	2.305682
25	0.128093	240	1.229697	455	2.331301
30	0.153712	245	1.255316	460	2.35692
35	0.179331	250	1.280935	465	2.382538
40	0.20495	255	1.306553	470	2.408157
45	0.230568	260	1.332172	475	2.433776
50	0.256187	265	1.357791	480	2.459394
55	0.281806	270	1.383409	485	2.485013
60	0.307424	275	1.409028	490	2.510632
65	0.333043	280	1.434647	495	2.53625
70	0.358662	285	1.460265	500	2.561869
75	0.38428	290	1.485884	505	2.587488
80	0.409899	295	1.511503	510	2.613107
85	0.435518	300	1.537121	515	2.638725
90	0.461136	305	1.56274	520	2.664344
95	0.486755	310	1.588359	525	2.689963
100	0.512374	315	1.613978	530	2.715581
105	0.537993	320	1.639596	535	2.7412
110	0.563611	325	1.665215	540	2.766819
115	0.58923	330	1.690834	545	2.792437
120	0.614849	335	1.716452	550	2.818056
125	0.640467	340	1.742071	555	2.843675
130	0.666086	345	1.76769	560	2.869293
135	0.691705	350	1.793308	565	2.894912
140	0.717323	355	1.818927	570	2.920531
145	0.742942	360	1.844546	575	2.94615
150	0.768561	365	1.870164	580	2.971768
155	0.794179	370	1.895783	585	2.997387
160	0.819798	375	1.921402	590	3.023006
165	0.845417	380	1.947021	595	3.048624
170	0.871036	385	1.972639	600	3.074243
175	0.896654	390	1.998258	605	3.099862
180	0.922273	395	2.023877	610	3.12548
185	0.947892	400	2.049495	615	3.151099
190	0.97351	405	2.075114	620	3.176718
195	0.999129	410	2.100733	625	3.202336
200	1.024748	415	2.126351	630	3.227955
205	1.050366	420	2.15197	635	3.253574
210	1.075985	425	2.177589	640	3.279192
215	1.101604	430	2.203207	645	3.304811

**Table B12** Normal trend resistivity of holes FABT (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
650	3.33043	865	4.432034	1080	5.533637
655	3.356049	870	4.457652	1085	5.559256
660	3.381667	875	4.483271	1090	5.584875
665	3.407286	880	4.50889	1095	5.610493
670	3.432905	885	4.534508	1100	5.636112
675	3.458523	890	4.560127	1105	5.661731
680	3.484142	895	4.585746	1110	5.687349
685	3.509761	900	4.611364	1115	5.712968
690	3.535379	905	4.636983	1120	5.738587
695	3.560998	910	4.662602	1125	5.764206
700	3.586617	915	4.688221	1130	5.789824
705	3.612235	920	4.713839	1135	5.815443
710	3.637854	925	4.739458	1140	5.841062
715	3.663473	930	4.765077	1145	5.86668
720	3.689092	935	4.790695	1150	5.892299
725	3.71471	940	4.816314	1155	5.917918
730	3.740329	945	4.841933	1160	5.943536
735	3.765948	950	4.867551	1165	5.969155
740	3.791566	955	4.89317	1170	5.994774
745	3.817185	960	4.918789	1175	6.020392
750	3.842804	965	4.944407	1180	6.046011
755	3.868422	970	4.970026	1185	6.07163
760	3.894041	975	4.995645	1190	6.097249
765	3.91966	980	5.021264	1195	6.122867
770	3.945278	985	5.046882	1200	6.148486
775	3.970897	990	5.072501	1205	6.174105
780	3.996516	995	5.09812	1210	6.199723
785	4.022135	1000	5.123738	1215	6.225342
790	4.047753	1005	5.149357	1220	6.250961
795	4.073372	1010	5.174976	1225	6.276579
800	4.098991	1015	5.200594	1230	6.302198
805	4.124609	1020	5.226213	1235	6.327817
810	4.150228	1025	5.251832	1240	6.353435
815	4.175847	1030	5.27745	1245	6.379054
820	4.201465	1035	5.303069	1250	6.404673
825	4.227084	1040	5.328688	1255	6.430292
830	4.252703	1045	5.354307	1260	6.45591
835	4.278321	1050	5.379925	1265	6.481529
840	4.30394	1055	5.405544	1270	6.507148
845	4.329559	1060	5.431163	1275	6.532766
850	4.355178	1065	5.456781	1280	6.558385
855	4.380796	1070	5.4824	1285	6.584004
860	4.406415	1075	5.508019	1290	6.609622

**Table B12** Normal trend resistivity of holes FABT (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1295	6.635241	1510	7.736845	1725	8.838449
1300	6.66086	1515	7.762463	1730	8.864067
1305	6.686478	1520	7.788082	1735	8.889686
1310	6.712097	1525	7.813701	1740	8.915305
1315	6.737716	1530	7.83932	1745	8.940923
1320	6.763335	1535	7.864938	1750	8.966542
1325	6.788953	1540	7.890557	1755	8.992161
1330	6.814572	1545	7.916176	1760	9.017779
1335	6.840191	1550	7.941794	1765	9.043398
1340	6.865809	1555	7.967413	1770	9.069017
1345	6.891428	1560	7.993032	1775	9.094635
1350	6.917047	1565	8.01865	1780	9.120254
1355	6.942665	1570	8.044269	1785	9.145873
1360	6.968284	1575	8.069888	1790	9.171492
1365	6.993903	1580	8.095506	1795	9.19711
1370	7.019521	1585	8.121125	1800	9.222729
1375	7.04514	1590	8.146744	1805	9.248348
1380	7.070759	1595	8.172363	1810	9.273966
1385	7.096378	1600	8.197981	1815	9.299585
1390	7.121996	1605	8.2236	1820	9.325204
1395	7.147615	1610	8.249219	1825	9.350822
1400	7.173234	1615	8.274837	1830	9.376441
1405	7.198852	1620	8.300456	1835	9.40206
1410	7.224471	1625	8.326075	1840	9.427678
1415	7.25009	1630	8.351693	1845	9.453297
1420	7.275708	1635	8.377312	1850	9.478916
1425	7.301327	1640	8.402931	1855	9.504535
1430	7.326946	1645	8.428549	1860	9.530153
1435	7.352564	1650	8.454168	1865	9.555772
1440	7.378183	1655	8.479787	1870	9.581391
1445	7.403802	1660	8.505406	1875	9.607009
1450	7.429421	1665	8.531024	1880	9.632628
1455	7.455039	1670	8.556643	1885	9.658247
1460	7.480658	1675	8.582262	1890	9.683865
1465	7.506277	1680	8.60788	1895	9.709484
1470	7.531895	1685	8.633499	1900	9.735103
1475	7.557514	1690	8.659118	1905	9.760721
1480	7.583133	1695	8.684736	1910	9.78634
1485	7.608751	1700	8.710355	1915	9.811959
1490	7.63437	1705	8.735974	1920	9.837577
1495	7.659989	1710	8.761592	1925	9.863196
1500	7.685607	1715	8.787211	1930	9.888815
1505	7.711226	1720	8.81283	1935	9.914434

**Table B12** Normal trend resistivity of holes FABT (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
1940	9.940052	2155	11.04166	2370	12.14326
1945	9.965671	2160	11.06727	2375	12.16888
1950	9.99129	2165	11.09289	2380	12.1945
1955	10.01691	2170	11.11851	2385	12.22012
1960	10.04253	2175	11.14413	2390	12.24573
1965	10.06815	2180	11.16975	2395	12.27135
1970	10.09376	2185	11.19537	2400	12.29697
1975	10.11938	2190	11.22099	2405	12.32259
1980	10.145	2195	11.24661	2410	12.34821
1985	10.17062	2200	11.27222	2415	12.37383
1990	10.19624	2205	11.29784	2420	12.39945
1995	10.22186	2210	11.32346	2425	12.42507
2000	10.24748	2215	11.34908	2430	12.45068
2005	10.2731	2220	11.3747	2435	12.4763
2010	10.29871	2225	11.40032	2440	12.50192
2015	10.32433	2230	11.42594	2445	12.52754
2020	10.34995	2235	11.45156	2450	12.55316
2025	10.37557	2240	11.47717	2455	12.57878
2030	10.40119	2245	11.50279	2460	12.6044
2035	10.42681	2250	11.52841	2465	12.63001
2040	10.45243	2255	11.55403	2470	12.65563
2045	10.47804	2260	11.57965	2475	12.68125
2050	10.50366	2265	11.60527	2480	12.70687
2055	10.52928	2270	11.63089	2485	12.73249
2060	10.5549	2275	11.6565	2490	12.75811
2065	10.58052	2280	11.68212	2495	12.78373
2070	10.60614	2285	11.70774	2500	12.80935
2075	10.63176	2290	11.73336	2505	12.83496
2080	10.65738	2295	11.75898	2510	12.86058
2085	10.68299	2300	11.7846	2515	12.8862
2090	10.70861	2305	11.81022	2520	12.91182
2095	10.73423	2310	11.83584	2525	12.93744
2100	10.75985	2315	11.86145	2530	12.96306
2105	10.78547	2320	11.88707	2535	12.98868
2110	10.81109	2325	11.91269	2540	13.0143
2115	10.83671	2330	11.93831	2545	13.03991
2120	10.86233	2335	11.96393	2550	13.06553
2125	10.88794	2340	11.98955	2555	13.09115
2130	10.91356	2345	12.01517	2560	13.11677
2135	10.93918	2350	12.04078	2565	13.14239
2140	10.9648	2355	12.0664	2570	13.16801
2145	10.99042	2360	12.09202	2575	13.19363
2150	11.01604	2365	12.11764	2580	13.21924

**Table B12** Normal trend resistivity of holes FABT (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
2585	13.24486	2800	14.34647	3015	15.44807
2590	13.27048	2805	14.37209	3020	15.47369
2595	13.2961	2810	14.3977	3025	15.49931
2600	13.32172	2815	14.42332	3030	15.52493
2605	13.34734	2820	14.44894	3035	15.55055
2610	13.37296	2825	14.47456	3040	15.57616
2615	13.39858	2830	14.50018	3045	15.60178
2620	13.42419	2835	14.5258	3050	15.6274
2625	13.44981	2840	14.55142	3055	15.65302
2630	13.47543	2845	14.57704	3060	15.67864
2635	13.50105	2850	14.60265	3065	15.70426
2640	13.52667	2855	14.62827	3070	15.72988
2645	13.55229	2860	14.65389	3075	15.7555
2650	13.57791	2865	14.67951	3080	15.78111
2655	13.60353	2870	14.70513	3085	15.80673
2660	13.62914	2875	14.73075	3090	15.83235
2665	13.65476	2880	14.75637	3095	15.85797
2670	13.68038	2885	14.78198	3100	15.88359
2675	13.706	2890	14.8076	3105	15.90921
2680	13.73162	2895	14.83322	3110	15.93483
2685	13.75724	2900	14.85884	3115	15.96044
2690	13.78286	2905	14.88446	3120	15.98606
2695	13.80847	2910	14.91008	3125	16.01168
2700	13.83409	2915	14.9357	3130	16.0373
2705	13.85971	2920	14.96132	3135	16.06292
2710	13.88533	2925	14.98693	3140	16.08854
2715	13.91095	2930	15.01255	3145	16.11416
2720	13.93657	2935	15.03817	3150	16.13978
2725	13.96219	2940	15.06379	3155	16.16539
2730	13.98781	2945	15.08941	3160	16.19101
2735	14.01342	2950	15.11503	3165	16.21663
2740	14.03904	2955	15.14065	3170	16.24225
2745	14.06466	2960	15.16627	3175	16.26787
2750	14.09028	2965	15.19188	3180	16.29349
2755	14.1159	2970	15.2175	3185	16.31911
2760	14.14152	2975	15.24312	3190	16.34473
2765	14.16714	2980	15.26874	3195	16.37034
2770	14.19276	2985	15.29436	3200	16.39596
2775	14.21837	2990	15.31998	3205	16.42158
2780	14.24399	2995	15.3456	3210	16.4472
2785	14.26961	3000	15.37121	3215	16.47282
2790	14.29523	3005	15.39683	3220	16.49844
2795	14.32085	3010	15.42245	3225	16.52406

**Table B12** Normal trend resistivity of holes FABT (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3230	16.54967	3445	17.65128	3660	18.75288
3235	16.57529	3450	17.6769	3665	18.7785
3240	16.60091	3455	17.70252	3670	18.80412
3245	16.62653	3460	17.72813	3675	18.82974
3250	16.65215	3465	17.75375	3680	18.85536
3255	16.67777	3470	17.77937	3685	18.88098
3260	16.70339	3475	17.80499	3690	18.90659
3265	16.72901	3480	17.83061	3695	18.93221
3270	16.75462	3485	17.85623	3700	18.95783
3275	16.78024	3490	17.88185	3705	18.98345
3280	16.80586	3495	17.90747	3710	19.00907
3285	16.83148	3500	17.93308	3715	19.03469
3290	16.8571	3505	17.9587	3720	19.06031
3295	16.88272	3510	17.98432	3725	19.08593
3300	16.90834	3515	18.00994	3730	19.11154
3305	16.93396	3520	18.03556	3735	19.13716
3310	16.95957	3525	18.06118	3740	19.16278
3315	16.98519	3530	18.0868	3745	19.1884
3320	17.01081	3535	18.11241	3750	19.21402
3325	17.03643	3540	18.13803	3755	19.23964
3330	17.06205	3545	18.16365	3760	19.26526
3335	17.08767	3550	18.18927	3765	19.29087
3340	17.11329	3555	18.21489	3770	19.31649
3345	17.1389	3560	18.24051	3775	19.34211
3350	17.16452	3565	18.26613	3780	19.36773
3355	17.19014	3570	18.29175	3785	19.39335
3360	17.21576	3575	18.31736	3790	19.41897
3365	17.24138	3580	18.34298	3795	19.44459
3370	17.267	3585	18.3686	3800	19.47021
3375	17.29262	3590	18.39422	3805	19.49582
3380	17.31824	3595	18.41984	3810	19.52144
3385	17.34385	3600	18.44546	3815	19.54706
3390	17.36947	3605	18.47108	3820	19.57268
3395	17.39509	3610	18.4967	3825	19.5983
3400	17.42071	3615	18.52231	3830	19.62392
3405	17.44633	3620	18.54793	3835	19.64954
3410	17.47195	3625	18.57355	3840	19.67515
3415	17.49757	3630	18.59917	3845	19.70077
3420	17.52318	3635	18.62479	3850	19.72639
3425	17.5488	3640	18.65041	3855	19.75201
3430	17.57442	3645	18.67603	3860	19.77763
3435	17.60004	3650	18.70164	3865	19.80325
3440	17.62566	3655	18.72726	3870	19.82887

**Table B12** Normal trend resistivity of holes FABT (continued).

<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>	<b>Depth</b>	<b>Resistivity</b>
3875	19.85449	3985	20.4181	4095	20.98171
3880	19.8801	3990	20.44372	4100	21.00733
3885	19.90572	3995	20.46933	4105	21.03295
3890	19.93134	4000	20.49495	4110	21.05856
3895	19.95696	4005	20.52057	4115	21.08418
3900	19.98258	4010	20.54619	4120	21.1098
3905	20.0082	4015	20.57181	4125	21.13542
3910	20.03382	4020	20.59743	4130	21.16104
3915	20.05944	4025	20.62305	4135	21.18666
3920	20.08505	4030	20.64867	4140	21.21228
3925	20.11067	4035	20.67428	4145	21.2379
3930	20.13629	4040	20.6999	4150	21.26351
3935	20.16191	4045	20.72552	4155	21.28913
3940	20.18753	4050	20.75114	4160	21.31475
3945	20.21315	4055	20.77676	4165	21.34037
3950	20.23877	4060	20.80238	4170	21.36599
3955	20.26438	4065	20.828	4175	21.39161
3960	20.29	4070	20.85361	4180	21.41723
3965	20.31562	4075	20.87923	4185	21.44284
3970	20.34124	4080	20.90485	4190	21.46846
3975	20.36686	4085	20.93047	4195	21.49408
3980	20.39248	4090	20.95609	4200	21.5197



**Table B13** Pressure (psi) and pressure gradient (psi/ft) of holes FAMS.

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
1400	692	0.493929	1615	798	0.493938
1405	694	0.493929	1620	800	0.493938
1410	696	0.493929	1625	803	0.493938
1415	699	0.493929	1630	805	0.493939
1420	701	0.49393	1635	808	0.493939
1425	704	0.49393	1640	810	0.493939
1430	706	0.49393	1645	813	0.493939
1435	709	0.49393	1650	815	0.493939
1440	711	0.493931	1655	817	0.49394
1445	714	0.493931	1660	820	0.49394
1450	716	0.493931	1665	822	0.49394
1455	719	0.493931	1670	825	0.49394
1460	721	0.493932	1675	827	0.49394
1465	724	0.493932	1680	830	0.49394
1470	726	0.493932	1685	832	0.493941
1475	729	0.493932	1690	835	0.493941
1480	731	0.493932	1695	837	0.493941
1485	733	0.493933	1700	840	0.493941
1490	736	0.493933	1705	842	0.493941
1495	738	0.493933	1710	845	0.493942
1500	741	0.493933	1715	847	0.493942
1505	743	0.493934	1720	850	0.493942
1510	746	0.493934	1725	852	0.493942
1515	748	0.493934	1730	855	0.493942
1520	751	0.493934	1735	857	0.493942
1525	753	0.493934	1740	859	0.493943
1530	756	0.493935	1745	862	0.493943
1535	758	0.493935	1750	864	0.493943
1540	761	0.493935	1755	867	0.493943
1545	763	0.493935	1760	869	0.493943
1550	766	0.493935	1765	872	0.493943
1555	768	0.493936	1770	874	0.493944
1560	771	0.493936	1775	877	0.493944
1565	773	0.493936	1780	879	0.493944
1570	775	0.493936	1785	882	0.493944
1575	778	0.493937	1790	884	0.493944
1580	780	0.493937	1795	887	0.493944
1585	783	0.493937	1800	889	0.493944
1590	785	0.493937	1805	892	0.493945
1595	788	0.493937	1810	894	0.493945
1600	790	0.493938	1815	897	0.493945
1605	793	0.493938	1820	899	0.493945
1610	795	0.493938	1825	901	0.493945

**Table B13** Pressure (psi) and pressure gradient (psi/ft) of holes FAMS (continued).

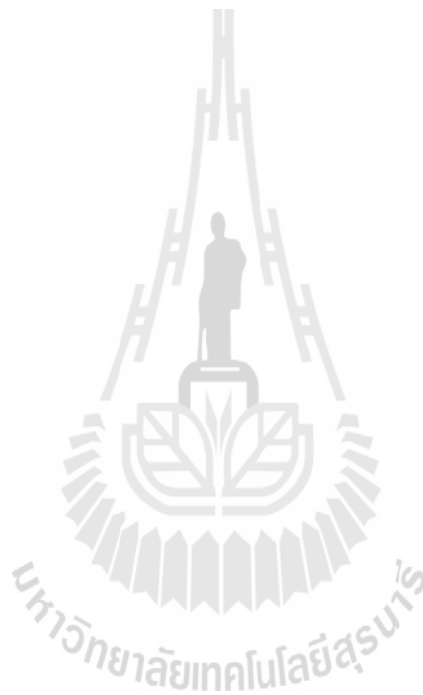
<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
1830	904	0.493945	2045	1010	0.493951
1835	906	0.493946	2050	1013	0.493951
1840	909	0.493946	2055	1015	0.493951
1845	911	0.493946	2060	1018	0.493951
1850	914	0.493946	2065	1020	0.493952
1855	916	0.493946	2070	1022	0.493952
1860	919	0.493946	2075	1025	0.493952
1865	921	0.493946	2080	1027	0.493952
1870	924	0.493947	2085	1030	0.493952
1875	926	0.493947	2090	1032	0.493952
1880	929	0.493947	2095	1035	0.493952
1885	931	0.493947	2100	1037	0.493952
1890	934	0.493947	2105	1040	0.493952
1895	936	0.493947	2110	1042	0.493953
1900	939	0.493947	2115	1045	0.493953
1905	941	0.493948	2120	1047	0.493953
1910	943	0.493948	2125	1050	0.493953
1915	946	0.493948	2130	1052	0.493953
1920	948	0.493948	2135	1055	0.493953
1925	951	0.493948	2140	1057	0.493953
1930	953	0.493948	2145	1060	0.493953
1935	956	0.493948	2150	1062	0.493953
1940	958	0.493948	2155	1064	0.493954
1945	961	0.493949	2160	1067	0.493954
1950	963	0.493949	2165	1069	0.493954
1955	966	0.493949	2170	1072	0.493954
1960	968	0.493949	2175	1074	0.493954
1965	971	0.493949	2180	1077	0.493954
1970	973	0.493949	2185	1079	0.493954
1975	976	0.493949	2190	1082	0.493954
1980	978	0.493949	2195	1084	0.493954
1985	980	0.49395	2200	1087	0.493955
1990	983	0.49395	2205	1089	0.493955
1995	985	0.49395	2210	1092	0.493955
2000	988	0.49395	2215	1094	0.493955
2005	990	0.49395	2220	1097	0.493955
2010	993	0.49395	2225	1099	0.493955
2015	995	0.49395	2230	1102	0.493955
2020	998	0.49395	2235	1104	0.493955
2025	1000	0.493951	2240	1106	0.493955
2030	1003	0.493951	2245	1109	0.493955
2035	1005	0.493951	2250	1111	0.493956
2040	1008	0.493951	2255	1114	0.493956

**Table B13** Pressure (psi) and pressure gradient (psi/ft) of holes FAMS (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
2260	1116	0.493956	2475	1223	0.49396
2265	1119	0.493956	2480	1225	0.49396
2270	1121	0.493956	2485	1227	0.49396
2275	1124	0.493956	2490	1230	0.49396
2280	1126	0.493956	2495	1232	0.49396
2285	1129	0.493956	2500	1235	0.49396
2290	1131	0.493956	2505	1237	0.49396
2295	1134	0.493956	2510	1240	0.49396
2300	1136	0.493957	2515	1242	0.49396
2305	1139	0.493957	2520	1245	0.49396
2310	1141	0.493957	2525	1247	0.49396
2315	1144	0.493957	2530	1250	0.49396
2320	1146	0.493957	2535	1252	0.493961
2325	1148	0.493957	2540	1255	0.493961
2330	1151	0.493957	2545	1257	0.493961
2335	1153	0.493957	2550	1260	0.493961
2340	1156	0.493957	2555	1262	0.493961
2345	1158	0.493957	2560	1265	0.493961
2350	1161	0.493957	2565	1267	0.493961
2355	1163	0.493958	2570	1269	0.493961
2360	1166	0.493958	2575	1272	0.493961
2365	1168	0.493958	2580	1274	0.493961
2370	1171	0.493958	2585	1277	0.493961
2375	1173	0.493958	2590	1279	0.493961
2380	1176	0.493958	2595	1282	0.493961
2385	1178	0.493958	2600	1284	0.493962
2390	1181	0.493958	2605	1287	0.493962
2395	1183	0.493958	2610	1289	0.493962
2400	1186	0.493958	2615	1292	0.493962
2405	1188	0.493958	2620	1294	0.493962
2410	1190	0.493959	2625	1297	0.493962
2415	1193	0.493959	2630	1299	0.493962
2420	1195	0.493959	2635	1302	0.493962
2425	1198	0.493959	2640	1304	0.493962
2430	1200	0.493959	2645	1307	0.493962
2435	1203	0.493959	2650	1309	0.493962
2440	1205	0.493959	2655	1311	0.493962
2445	1208	0.493959	2660	1314	0.493962
2450	1210	0.493959	2665	1316	0.493962
2455	1213	0.493959	2670	1319	0.493963
2460	1215	0.493959	2675	1321	0.493963
2465	1218	0.493959	2680	1324	0.493963
2470	1220	0.49396	2685	1326	0.493963

**Table B13** Pressure (psi) and pressure gradient (psi/ft) of holes FAMS (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
2690	1329	0.493963	2730	1349	0.493963
2695	1331	0.493963	2735	1351	0.493963
2700	1334	0.493963	2740	1353	0.493964
2705	1336	0.493963	2745	1356	0.493964
2710	1339	0.493963	2750	1358	0.493964
2715	1341	0.493963	2755	1361	0.493964
2720	1344	0.493963	2760	1363	0.493964
2725	1346	0.493963			



**Table B14** Pressure (psi) and pressure gradient (psi/ft) of holes FASS.

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
2310	1141	0.49387	2525	1247	0.493881
2315	1143	0.49387	2530	1250	0.493881
2320	1146	0.493871	2535	1252	0.493882
2325	1148	0.493871	2540	1254	0.493882
2330	1151	0.493871	2545	1257	0.493882
2335	1153	0.493872	2550	1259	0.493882
2340	1156	0.493872	2555	1262	0.493883
2345	1158	0.493872	2560	1264	0.493883
2350	1161	0.493872	2565	1267	0.493883
2355	1163	0.493873	2570	1269	0.493883
2360	1166	0.493873	2575	1272	0.493883
2365	1168	0.493873	2580	1274	0.493884
2370	1170	0.493873	2585	1277	0.493884
2375	1173	0.493874	2590	1279	0.493884
2380	1175	0.493874	2595	1282	0.493884
2385	1178	0.493874	2600	1284	0.493885
2390	1180	0.493874	2605	1287	0.493885
2395	1183	0.493875	2610	1289	0.493885
2400	1185	0.493875	2615	1292	0.493885
2405	1188	0.493875	2620	1294	0.493885
2410	1190	0.493876	2625	1296	0.493886
2415	1193	0.493876	2630	1299	0.493886
2420	1195	0.493876	2635	1301	0.493886
2425	1198	0.493876	2640	1304	0.493886
2430	1200	0.493877	2645	1306	0.493887
2435	1203	0.493877	2650	1309	0.493887
2440	1205	0.493877	2655	1311	0.493887
2445	1208	0.493877	2660	1314	0.493887
2450	1210	0.493878	2665	1316	0.493887
2455	1212	0.493878	2670	1319	0.493888
2460	1215	0.493878	2675	1321	0.493888
2465	1217	0.493878	2680	1324	0.493888
2470	1220	0.493879	2685	1326	0.493888
2475	1222	0.493879	2690	1329	0.493888
2480	1225	0.493879	2695	1331	0.493889
2485	1227	0.493879	2700	1334	0.493889
2490	1230	0.49388	2705	1336	0.493889
2495	1232	0.49388	2710	1338	0.493889
2500	1235	0.49388	2715	1341	0.49389
2505	1237	0.49388	2720	1343	0.49389
2510	1240	0.49388	2725	1346	0.49389
2515	1242	0.493881	2730	1348	0.49389
2520	1245	0.493881	2735	1351	0.49389

**Table B14** Pressure (psi) and pressure gradient (psi/ft) of holes FASS (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
2740	1353	0.493891	2955	1459	0.493898
2745	1356	0.493891	2960	1462	0.493899
2750	1358	0.493891	2965	1464	0.493899
2755	1361	0.493891	2970	1467	0.493899
2760	1363	0.493891	2975	1469	0.493899
2765	1366	0.493892	2980	1472	0.493899
2770	1368	0.493892	2985	1474	0.493899
2775	1371	0.493892	2990	1477	0.4939
2780	1373	0.493892	2995	1479	0.4939
2785	1375	0.493892	3000	1482	0.4939
2790	1378	0.493892	3005	1484	0.4939
2795	1380	0.493893	3010	1487	0.4939
2800	1383	0.493893	3015	1489	0.4939
2805	1385	0.493893	3020	1492	0.493901
2810	1388	0.493893	3025	1494	0.493901
2815	1390	0.493893	3030	1497	0.493901
2820	1393	0.493894	3035	1499	0.493901
2825	1395	0.493894	3040	1501	0.493901
2830	1398	0.493894	3045	1504	0.493901
2835	1400	0.493894	3050	1506	0.493902
2840	1403	0.493894	3055	1509	0.493902
2845	1405	0.493895	3060	1511	0.493902
2850	1408	0.493895	3065	1514	0.493902
2855	1410	0.493895	3070	1516	0.493902
2860	1413	0.493895	3075	1519	0.493902
2865	1415	0.493895	3080	1521	0.493903
2870	1417	0.493895	3085	1524	0.493903
2875	1420	0.493896	3090	1526	0.493903
2880	1422	0.493896	3095	1529	0.493903
2885	1425	0.493896	3100	1531	0.493903
2890	1427	0.493896	3105	1534	0.493903
2895	1430	0.493896	3110	1536	0.493904
2900	1432	0.493897	3115	1539	0.493904
2905	1435	0.493897	3120	1541	0.493904
2910	1437	0.493897	3125	1543	0.493904
2915	1440	0.493897	3130	1546	0.493904
2920	1442	0.493897	3135	1548	0.493904
2925	1445	0.493897	3140	1551	0.493904
2930	1447	0.493898	3145	1553	0.493905
2935	1450	0.493898	3150	1556	0.493905
2940	1452	0.493898	3155	1558	0.493905
2945	1455	0.493898	3160	1561	0.493905
2950	1457	0.493898	3165	1563	0.493905

**Table B14** Pressure (psi) and pressure gradient (psi/ft) of holes FASS (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
3170	1566	0.493905	3385	1672	0.493911
3175	1568	0.493906	3390	1674	0.493912
3180	1571	0.493906	3395	1677	0.493912
3185	1573	0.493906	3400	1679	0.493912
3190	1576	0.493906	3405	1682	0.493912
3195	1578	0.493906	3410	1684	0.493912
3200	1581	0.493906	3415	1687	0.493912
3205	1583	0.493906	3420	1689	0.493912
3210	1585	0.493907	3425	1692	0.493912
3215	1588	0.493907	3430	1694	0.493913
3220	1590	0.493907	3435	1697	0.493913
3225	1593	0.493907	3440	1699	0.493913
3230	1595	0.493907	3445	1702	0.493913
3235	1598	0.493907	3450	1704	0.493913
3240	1600	0.493907	3455	1706	0.493913
3245	1603	0.493908	3460	1709	0.493913
3250	1605	0.493908	3465	1711	0.493913
3255	1608	0.493908	3470	1714	0.493914
3260	1610	0.493908	3475	1716	0.493914
3265	1613	0.493908	3480	1719	0.493914
3270	1615	0.493908	3485	1721	0.493914
3275	1618	0.493908	3490	1724	0.493914
3280	1620	0.493909	3495	1726	0.493914
3285	1622	0.493909	3500	1729	0.493914
3290	1625	0.493909	3505	1731	0.493914
3295	1627	0.493909	3510	1734	0.493915
3300	1630	0.493909	3515	1736	0.493915
3305	1632	0.493909	3520	1739	0.493915
3310	1635	0.493909	3525	1741	0.493915
3315	1637	0.49391	3530	1744	0.493915
3320	1640	0.49391	3535	1746	0.493915
3325	1642	0.49391	3540	1748	0.493915
3330	1645	0.49391	3545	1751	0.493915
3335	1647	0.49391	3550	1753	0.493915
3340	1650	0.49391	3555	1756	0.493916
3345	1652	0.49391	3560	1758	0.493916
3350	1655	0.49391	3565	1761	0.493916
3355	1657	0.493911	3570	1763	0.493916
3360	1660	0.493911	3575	1766	0.493916
3365	1662	0.493911	3580	1768	0.493916
3370	1664	0.493911	3585	1771	0.493916
3375	1667	0.493911	3590	1773	0.493916
3380	1669	0.493911	3595	1776	0.493917

**Table B14** Pressure (psi) and pressure gradient (psi/ft) of holes FASS (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
3600	1778	0.493917	3815	1884	0.493921
3605	1781	0.493917	3820	1887	0.493921
3610	1783	0.493917	3825	1889	0.493922
3615	1786	0.493917	3830	1892	0.493922
3620	1788	0.493917	3835	1894	0.493922
3625	1790	0.493917	3840	1897	0.493922
3630	1793	0.493917	3845	1899	0.493922
3635	1795	0.493917	3850	1902	0.493922
3640	1798	0.493918	3855	1904	0.493922
3645	1800	0.493918	3860	1907	0.493922
3650	1803	0.493918	3865	1909	0.493922
3655	1805	0.493918	3870	1911	0.493922
3660	1808	0.493918	3875	1914	0.493923
3665	1810	0.493918	3880	1916	0.493923
3670	1813	0.493918	3885	1919	0.493923
3675	1815	0.493918	3890	1921	0.493923
3680	1818	0.493918	3895	1924	0.493923
3685	1820	0.493919	3900	1926	0.493923
3690	1823	0.493919	3905	1929	0.493923
3695	1825	0.493919	3910	1931	0.493923
3700	1828	0.493919	3915	1934	0.493923
3705	1830	0.493919	3920	1936	0.493923
3710	1832	0.493919	3925	1939	0.493924
3715	1835	0.493919	3930	1941	0.493924
3720	1837	0.493919	3935	1944	0.493924
3725	1840	0.493919	3940	1946	0.493924
3730	1842	0.49392	3945	1949	0.493924
3735	1845	0.49392	3950	1951	0.493924
3740	1847	0.49392	3955	1953	0.493924
3745	1850	0.49392	3960	1956	0.493924
3750	1852	0.49392	3965	1958	0.493924
3755	1855	0.49392	3970	1961	0.493924
3760	1857	0.49392	3975	1963	0.493925
3765	1860	0.49392	3980	1966	0.493925
3770	1862	0.49392	3985	1968	0.493925
3775	1865	0.493921	3990	1971	0.493925
3780	1867	0.493921	3995	1973	0.493925
3785	1869	0.493921	4000	1976	0.493925
3790	1872	0.493921	4005	1978	0.493925
3795	1874	0.493921	4010	1981	0.493925
3800	1877	0.493921	4015	1983	0.493925
3805	1879	0.493921	4020	1986	0.493925
3810	1882	0.493921	4025	1988	0.493925



**Table B14** Pressure (psi) and pressure gradient (psi/ft) of holes FASS (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
4030	1991	0.493926	4170	2060	0.493928
4035	1993	0.493926	4175	2062	0.493928
4040	1995	0.493926	4180	2065	0.493928
4045	1998	0.493926	4185	2067	0.493928
4050	2000	0.493926	4190	2070	0.493928
4055	2003	0.493926	4195	2072	0.493928
4060	2005	0.493926	4200	2075	0.493929
4065	2008	0.493926	4205	2077	0.493929
4070	2010	0.493926	4210	2079	0.493929
4075	2013	0.493926	4215	2082	0.493929
4080	2015	0.493926	4220	2084	0.493929
4085	2018	0.493927	4225	2087	0.493929
4090	2020	0.493927	4230	2089	0.493929
4095	2023	0.493927	4235	2092	0.493929
4100	2025	0.493927	4240	2094	0.493929
4105	2028	0.493927	4245	2097	0.493929
4110	2030	0.493927	4250	2099	0.493929
4115	2033	0.493927	4255	2102	0.493929
4120	2035	0.493927	4260	2104	0.49393
4125	2037	0.493927	4265	2107	0.49393
4130	2040	0.493927	4270	2109	0.49393
4135	2042	0.493927	4275	2112	0.49393
4140	2045	0.493928	4280	2114	0.49393
4145	2047	0.493928	4285	2116	0.49393
4150	2050	0.493928	4290	2119	0.49393
4155	2052	0.493928	4295	2121	0.49393
4160	2055	0.493928	4300	2124	0.49393
4165	2057	0.493928			

**Table B15** Pressure (psi) and pressure gradient (psi/ft) of holes FABT.

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
1750	854	0.488229	1965	959	0.488291
1755	857	0.48823	1970	962	0.488292
1760	859	0.488232	1975	964	0.488294
1765	862	0.488233	1980	967	0.488295
1770	864	0.488235	1985	969	0.488296
1775	867	0.488237	1990	972	0.488297
1780	869	0.488238	1995	974	0.488299
1785	872	0.48824	2000	977	0.4883
1790	874	0.488241	2005	979	0.488301
1795	876	0.488243	2010	981	0.488302
1800	879	0.488244	2015	984	0.488304
1805	881	0.488246	2020	986	0.488305
1810	884	0.488248	2025	989	0.488306
1815	886	0.488249	2030	991	0.488307
1820	889	0.488251	2035	994	0.488309
1825	891	0.488252	2040	996	0.48831
1830	894	0.488254	2045	999	0.488311
1835	896	0.488255	2050	1001	0.488312
1840	898	0.488257	2055	1003	0.488313
1845	901	0.488258	2060	1006	0.488315
1850	903	0.488259	2065	1008	0.488316
1855	906	0.488261	2070	1011	0.488317
1860	908	0.488262	2075	1013	0.488318
1865	911	0.488264	2080	1016	0.488319
1870	913	0.488265	2085	1018	0.48832
1875	916	0.488267	2090	1021	0.488322
1880	918	0.488268	2095	1023	0.488323
1885	920	0.488269	2100	1025	0.488324
1890	923	0.488271	2105	1028	0.488325
1895	925	0.488272	2110	1030	0.488326
1900	928	0.488274	2115	1033	0.488327
1905	930	0.488275	2120	1035	0.488328
1910	933	0.488276	2125	1038	0.488329
1915	935	0.488278	2130	1040	0.488331
1920	937	0.488279	2135	1043	0.488332
1925	940	0.488281	2140	1045	0.488333
1930	942	0.488282	2145	1047	0.488334
1935	945	0.488283	2150	1050	0.488335
1940	947	0.488285	2155	1052	0.488336
1945	950	0.488286	2160	1055	0.488337
1950	952	0.488287	2165	1057	0.488338
1955	955	0.488288	2170	1060	0.488339
1960	957	0.48829	2175	1062	0.48834

**Table B15** Pressure (psi) and pressure gradient (psi/ft) of holes FABT (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
2180	1065	0.488341	2395	1170	0.488382
2185	1067	0.488342	2400	1172	0.488383
2190	1069	0.488343	2405	1175	0.488384
2195	1072	0.488344	2410	1177	0.488385
2200	1074	0.488345	2415	1179	0.488386
2205	1077	0.488346	2420	1182	0.488387
2210	1079	0.488348	2425	1184	0.488388
2215	1082	0.488349	2430	1187	0.488388
2220	1084	0.48835	2435	1189	0.488389
2225	1087	0.488351	2440	1192	0.48839
2230	1089	0.488352	2445	1194	0.488391
2235	1091	0.488353	2450	1197	0.488392
2240	1094	0.488354	2455	1199	0.488393
2245	1096	0.488355	2460	1201	0.488393
2250	1099	0.488356	2465	1204	0.488394
2255	1101	0.488357	2470	1206	0.488395
2260	1104	0.488358	2475	1209	0.488396
2265	1106	0.488358	2480	1211	0.488397
2270	1109	0.488359	2485	1214	0.488398
2275	1111	0.48836	2490	1216	0.488398
2280	1113	0.488361	2495	1219	0.488399
2285	1116	0.488362	2500	1221	0.4884
2290	1118	0.488363	2505	1223	0.488401
2295	1121	0.488364	2510	1226	0.488402
2300	1123	0.488365	2515	1228	0.488402
2305	1126	0.488366	2520	1231	0.488403
2310	1128	0.488367	2525	1233	0.488404
2315	1131	0.488368	2530	1236	0.488405
2320	1133	0.488369	2535	1238	0.488406
2325	1135	0.48837	2540	1241	0.488406
2330	1138	0.488371	2545	1243	0.488407
2335	1140	0.488372	2550	1245	0.488408
2340	1143	0.488373	2555	1248	0.488409
2345	1145	0.488374	2560	1250	0.488409
2350	1148	0.488374	2565	1253	0.48841
2355	1150	0.488375	2570	1255	0.488411
2360	1153	0.488376	2575	1258	0.488412
2365	1155	0.488377	2580	1260	0.488412
2370	1157	0.488378	2585	1263	0.488413
2375	1160	0.488379	2590	1265	0.488414
2380	1162	0.48838	2595	1267	0.488415
2385	1165	0.488381	2600	1270	0.488415
2390	1167	0.488382	2605	1272	0.488416

**Table B15** Pressure (psi) and pressure gradient (psi/ft) of holes FABT (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
2610	1275	0.488417	2825	1380	0.488446
2615	1277	0.488418	2830	1382	0.488447
2620	1280	0.488418	2835	1385	0.488447
2625	1282	0.488419	2840	1387	0.488448
2630	1285	0.48842	2845	1390	0.488449
2635	1287	0.48842	2850	1392	0.488449
2640	1289	0.488421	2855	1395	0.48845
2645	1292	0.488422	2860	1397	0.48845
2650	1294	0.488423	2865	1399	0.488451
2655	1297	0.488423	2870	1402	0.488452
2660	1299	0.488424	2875	1404	0.488452
2665	1302	0.488425	2880	1407	0.488453
2670	1304	0.488425	2885	1409	0.488453
2675	1307	0.488426	2890	1412	0.488454
2680	1309	0.488427	2895	1414	0.488455
2685	1311	0.488428	2900	1417	0.488455
2690	1314	0.488428	2905	1419	0.488456
2695	1316	0.488429	2910	1421	0.488456
2700	1319	0.48843	2915	1424	0.488457
2705	1321	0.48843	2920	1426	0.488458
2710	1324	0.488431	2925	1429	0.488458
2715	1326	0.488432	2930	1431	0.488459
2720	1329	0.488432	2935	1434	0.488459
2725	1331	0.488433	2940	1436	0.48846
2730	1333	0.488434	2945	1439	0.48846
2735	1336	0.488434	2950	1441	0.488461
2740	1338	0.488435	2955	1443	0.488462
2745	1341	0.488436	2960	1446	0.488462
2750	1343	0.488436	2965	1448	0.488463
2755	1346	0.488437	2970	1451	0.488463
2760	1348	0.488438	2975	1453	0.488464
2765	1351	0.488438	2980	1456	0.488464
2770	1353	0.488439	2985	1458	0.488465
2775	1355	0.48844	2990	1461	0.488466
2780	1358	0.48844	2995	1463	0.488466
2785	1360	0.488441	3000	1465	0.488467
2790	1363	0.488442	3005	1468	0.488467
2795	1365	0.488442	3010	1470	0.488468
2800	1368	0.488443	3015	1473	0.488468
2805	1370	0.488443	3020	1475	0.488469
2810	1373	0.488444	3025	1478	0.488469
2815	1375	0.488445	3030	1480	0.48847
2820	1377	0.488445	3035	1483	0.488471

**Table B15** Pressure (psi) and pressure gradient (psi/ft) of holes FABT (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
3040	1485	0.488471	3255	1590	0.488493
3045	1487	0.488472	3260	1592	0.488493
3050	1490	0.488472	3265	1595	0.488494
3055	1492	0.488473	3270	1597	0.488494
3060	1495	0.488473	3275	1600	0.488495
3065	1497	0.488474	3280	1602	0.488495
3070	1500	0.488474	3285	1605	0.488496
3075	1502	0.488475	3290	1607	0.488496
3080	1505	0.488475	3295	1610	0.488497
3085	1507	0.488476	3300	1612	0.488497
3090	1509	0.488476	3305	1614	0.488497
3095	1512	0.488477	3310	1617	0.488498
3100	1514	0.488477	3315	1619	0.488498
3105	1517	0.488478	3320	1622	0.488499
3110	1519	0.488478	3325	1624	0.488499
3115	1522	0.488479	3330	1627	0.4885
3120	1524	0.488479	3335	1629	0.4885
3125	1527	0.48848	3340	1632	0.488501
3130	1529	0.488481	3345	1634	0.488501
3135	1531	0.488481	3350	1636	0.488501
3140	1534	0.488482	3355	1639	0.488502
3145	1536	0.488482	3360	1641	0.488502
3150	1539	0.488483	3365	1644	0.488503
3155	1541	0.488483	3370	1646	0.488503
3160	1544	0.488484	3375	1649	0.488504
3165	1546	0.488484	3380	1651	0.488504
3170	1548	0.488485	3385	1654	0.488505
3175	1551	0.488485	3390	1656	0.488505
3180	1553	0.488486	3395	1658	0.488505
3185	1556	0.488486	3400	1661	0.488506
3190	1558	0.488487	3405	1663	0.488506
3195	1561	0.488487	3410	1666	0.488507
3200	1563	0.488488	3415	1668	0.488507
3205	1566	0.488488	3420	1671	0.488508
3210	1568	0.488488	3425	1673	0.488508
3215	1570	0.488489	3430	1676	0.488508
3220	1573	0.488489	3435	1678	0.488509
3225	1575	0.48849	3440	1680	0.488509
3230	1578	0.48849	3445	1683	0.48851
3235	1580	0.488491	3450	1685	0.48851
3240	1583	0.488491	3455	1688	0.488511
3245	1585	0.488492	3460	1690	0.488511
3250	1588	0.488492	3465	1693	0.488511

**Table B15** Pressure (psi) and pressure gradient (psi/ft) of holes FABT (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
3470	1695	0.488512	3685	1800	0.488529
3475	1698	0.488512	3690	1803	0.488529
3480	1700	0.488513	3695	1805	0.488529
3485	1702	0.488513	3700	1808	0.48853
3490	1705	0.488513	3705	1810	0.48853
3495	1707	0.488514	3710	1812	0.48853
3500	1710	0.488514	3715	1815	0.488531
3505	1712	0.488515	3720	1817	0.488531
3510	1715	0.488515	3725	1820	0.488532
3515	1717	0.488516	3730	1822	0.488532
3520	1720	0.488516	3735	1825	0.488532
3525	1722	0.488516	3740	1827	0.488533
3530	1724	0.488517	3745	1830	0.488533
3535	1727	0.488517	3750	1832	0.488533
3540	1729	0.488518	3755	1834	0.488534
3545	1732	0.488518	3760	1837	0.488534
3550	1734	0.488518	3765	1839	0.488534
3555	1737	0.488519	3770	1842	0.488535
3560	1739	0.488519	3775	1844	0.488535
3565	1742	0.488519	3780	1847	0.488535
3570	1744	0.48852	3785	1849	0.488536
3575	1746	0.48852	3790	1852	0.488536
3580	1749	0.488521	3795	1854	0.488536
3585	1751	0.488521	3800	1856	0.488537
3590	1754	0.488521	3805	1859	0.488537
3595	1756	0.488522	3810	1861	0.488538
3600	1759	0.488522	3815	1864	0.488538
3605	1761	0.488523	3820	1866	0.488538
3610	1764	0.488523	3825	1869	0.488539
3615	1766	0.488523	3830	1871	0.488539
3620	1768	0.488524	3835	1874	0.488539
3625	1771	0.488524	3840	1876	0.48854
3630	1773	0.488525	3845	1878	0.48854
3635	1776	0.488525	3850	1881	0.48854
3640	1778	0.488525	3855	1883	0.488541
3645	1781	0.488526	3860	1886	0.488541
3650	1783	0.488526	3865	1888	0.488541
3655	1786	0.488526	3870	1891	0.488542
3660	1788	0.488527	3875	1893	0.488542
3665	1790	0.488527	3880	1896	0.488542
3670	1793	0.488528	3885	1898	0.488543
3675	1795	0.488528	3890	1900	0.488543
3680	1798	0.488528	3895	1903	0.488543

**Table B15** Pressure (psi) and pressure gradient (psi/ft) of holes FABT (continued).

<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>	<b>Depth</b>	<b>psi</b>	<b>psi/ft</b>
3900	1905	0.488544	4055	1981	0.488553
3905	1908	0.488544	4060	1984	0.488554
3910	1910	0.488544	4065	1986	0.488554
3915	1913	0.488545	4070	1988	0.488554
3920	1915	0.488545	4075	1991	0.488555
3925	1918	0.488545	4080	1993	0.488555
3930	1920	0.488546	4085	1996	0.488555
3935	1922	0.488546	4090	1998	0.488556
3940	1925	0.488546	4095	2001	0.488556
3945	1927	0.488547	4100	2003	0.488556
3950	1930	0.488547	4105	2006	0.488556
3955	1932	0.488547	4110	2008	0.488557
3960	1935	0.488547	4115	2010	0.488557
3965	1937	0.488548	4120	2013	0.488557
3970	1940	0.488548	4125	2015	0.488558
3975	1942	0.488548	4130	2018	0.488558
3980	1944	0.488549	4135	2020	0.488558
3985	1947	0.488549	4140	2023	0.488558
3990	1949	0.488549	4145	2025	0.488559
3995	1952	0.48855	4150	2028	0.488559
4000	1954	0.48855	4155	2030	0.488559
4005	1957	0.48855	4160	2032	0.48856
4010	1959	0.488551	4165	2035	0.48856
4015	1962	0.488551	4170	2037	0.48856
4020	1964	0.488551	4175	2040	0.48856
4025	1966	0.488552	4180	2042	0.488561
4030	1969	0.488552	4185	2045	0.488561
4035	1971	0.488552	4190	2047	0.488561
4040	1974	0.488552	4195	2050	0.488562
4045	1976	0.488553	4200	2052	0.488562
4050	1979	0.488553			



**APPENDIX C**

**COMPARISON BETWEEN THE PRESSURE WHICH WAS  
ESTIMATED BY USING MONOGRAPHS AND THE  
ACTUAL PRESSURE WHICH WAS FOUND IN OIL FIELD**



**Table C1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FAMS hole.

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2)\times 100)/1$
1400	692	24	660	4.555315
1405	694	24	660	4.895024
1410	696	23	631	9.396359
1415	699	25	708	-1.3006
1420	701	25	708	-0.94385
1425	704	24	660	6.230021
1430	706	25	708	-0.23785
1435	709	22	605	14.64327
1440	711	26	738	-3.75953
1445	714	27	766	-7.3235
1450	716	27	766	-6.95336
1455	719	30	852	-18.5523
1460	721	26	738	-2.33796
1465	724	25	708	2.157239
1470	726	25	708	2.490084
1475	729	24	660	9.4091
1480	731	23	631	13.68225
1485	733	26	738	-0.61487
1490	736	28	795	-8.02218
1495	738	30	852	-15.3799
1500	741	28	795	-7.30193
1505	743	26	738	0.722386
1510	746	25	708	5.073474
1515	748	26	738	1.377771
1520	751	25	708	5.698074
1525	753	27	766	-1.69267
1530	756	29	822	-8.77044
1535	758	30	852	-12.3729
1540	761	27	766	-0.70202
1545	763	26	738	3.293017
1550	766	24	660	13.7931
1555	768	25	708	7.820902
1560	771	26	738	4.223012
1565	773	29	822	-6.33756
1570	775	29	822	-5.99887
1575	778	26	738	5.135291
1580	780	25	708	9.279619
1585	783	27	766	2.157391
1590	785	23	631	19.65468
1595	788	27	766	2.770902

**Table C1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FAMS hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
1600	790	29	822	-4.01114
1605	793	30	852	-7.47127
1610	795	30	852	-7.13747
1615	798	28	795	0.339722
1620	800	30	852	-6.47604
1625	803	27	766	4.566125
1630	805	25	708	12.0628
1635	808	26	738	8.616996
1640	810	26	738	8.895637
1645	813	30	852	-4.85767
1650	815	30	852	-4.53988
1655	817	27	766	6.296256
1660	820	29	822	-0.25124
1665	822	28	795	3.332887
1670	825	29	822	0.349142
1675	827	30	852	-2.97939
1680	830	30	852	-2.67287
1685	832	29	822	1.236348
1690	835	29	822	1.528583
1695	837	29	822	1.819094
1700	840	29	822	2.107896
1705	842	32	909	-7.93545
1710	845	31	879	-4.06801
1715	847	33	936	-10.4933
1720	850	30	852	-0.28485
1725	852	27	766	10.09917
1730	855	29	822	3.805645
1735	857	32	909	-6.06892
1740	859	32	909	-5.76408
1745	862	35	995	-15.4386
1750	864	31	879	-1.68903
1755	867	39	1109	-27.9315
1760	869	30	852	1.994617
1765	872	33	936	-7.36284
1770	874	31	879	-0.53987
1775	877	36	1022	-16.5669
1780	879	30	852	3.095926
1785	882	30	852	3.367397
1790	884	31	879	0.583605
1795	887	30	852	3.905801

**Table C1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FAMS hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
1800	889	31	879	1.13598
1805	892	30	852	4.438238
1810	894	33	936	-4.6933
1815	897	31	879	1.953129
1820	899	30	852	5.225923
1825	901	33	936	-3.83271
1830	904	34	966	-6.86786
1835	906	34	966	-6.57664
1840	909	37	1050	-15.5293
1845	911	35	995	-9.18109
1850	914	33	936	-2.42942
1855	916	30	852	7.014308
1860	919	30	852	7.264297
1865	921	32	909	1.325431
1870	924	32	909	1.589295
1875	926	31	879	5.090968
1880	929	36	1022	-10.0558
1885	931	33	936	-0.52734
1890	934	36	1022	-9.47341
1895	936	27	766	18.16502
1900	939	31	879	6.339904
1905	941	34	966	-2.66002
1910	943	33	936	0.788603
1915	946	35	995	-5.18971
1920	948	33	936	1.305384
1925	951	35	995	-4.64321
1930	953	33	936	1.816809
1935	956	35	995	-4.10237
1975	976	37	1050	-7.63159
1980	978	32	909	7.057115
1985	980	35	995	-1.47987
1990	983	35	995	-1.22487
1995	985	35	995	-0.97115
2000	988	30	852	13.75645
2005	990	33	936	5.489867
2010	993	32	909	8.444462
2015	995	30	852	14.39853
2020	998	33	936	6.191746
2025	1000	35	995	0.524869
2030	1003	35	995	0.769906

**Table C1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FAMS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2035	1005	32	909	9.569335
2040	1008	33	936	7.111526
2045	1010	37	1050	-3.94702
2050	1013	37	1050	-3.69346
2055	1015	36	1022	-0.68271
2060	1018	39	1109	-8.98834
2065	1020	40	1136	-11.3715
2070	1022	40	1136	-11.1024
2075	1025	36	1022	0.287819
2080	1027	35	995	3.155477
2085	1030	35	995	3.38774
2090	1032	32	909	11.94932
2095	1035	36	1022	1.239817
2100	1037	35	995	4.077895
2105	1040	36	1022	1.709032
2110	1042	36	1022	1.941971
2115	1045	36	1022	2.173809
2120	1047	33	936	10.61709
2125	1050	38	1079	-2.79617
2130	1052	38	1079	-2.55484
2135	1055	37	1050	0.43524
2140	1057	36	1022	3.316746
2145	1060	31	879	17.03869
2150	1062	30	852	19.77401
2155	1064	35	995	6.526253
2160	1067	35	995	6.742647
2165	1069	33	936	12.4751
2170	1072	32	909	15.19573
2175	1074	35	995	7.385861
2180	1077	37	1050	2.490667
2185	1079	38	1079	0.02687
2190	1082	40	1136	-5.01405
2195	1084	40	1136	-4.77482
2200	1087	41	1163	-7.02126
2205	1089	39	1109	-1.82065
2210	1092	38	1079	1.157891
2215	1094	39	1109	-1.36092
2220	1097	39	1109	-1.13261
2225	1099	40	1136	-3.36199
2230	1102	38	1079	2.044448

**Table C1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FAMS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2235	1104	37	1050	4.890443
2280	1126	40	1136	-0.86839
2285	1129	40	1136	-0.64765
2290	1131	35	995	12.0372
2295	1134	37	1050	7.377187
2300	1136	40	1136	0.008802
2305	1139	45	1279	-12.3339
2310	1141	42	1193	-4.55374
2315	1144	35	995	12.98721
2320	1146	39	1109	3.226932
2325	1148	39	1109	3.435065
2330	1151	35	995	13.54742
2335	1153	30	852	26.1308
2340	1156	49	1393	-20.5163
2345	1158	42	1193	-2.9931
2350	1161	38	1079	7.046864
2355	1163	40	1136	2.344254
2360	1166	45	1279	-9.71572
2365	1168	41	1163	0.445981
2370	1171	37	1050	10.30854
2375	1173	39	1109	5.468184
2380	1176	40	1136	3.370137
2385	1178	40	1136	3.572732
2390	1181	36	1022	13.43091
2395	1183	39	1109	6.25766
2400	1186	40	1136	4.175453
2405	1188	42	1193	-0.42341
2410	1190	45	1279	-7.43927
2415	1193	40	1136	4.770687
2420	1195	36	1022	14.50417
2425	1198	45	1279	-6.77464
2430	1200	40	1136	5.358571
2435	1203	37	1050	12.70297
2440	1205	35	995	17.4452
2445	1208	39	1109	8.17484
2450	1210	40	1136	6.131218
2455	1213	45	1279	-5.46975
2460	1215	40	1136	6.51283
2465	1218	42	1193	2.021173
2470	1220	37	1050	13.94007

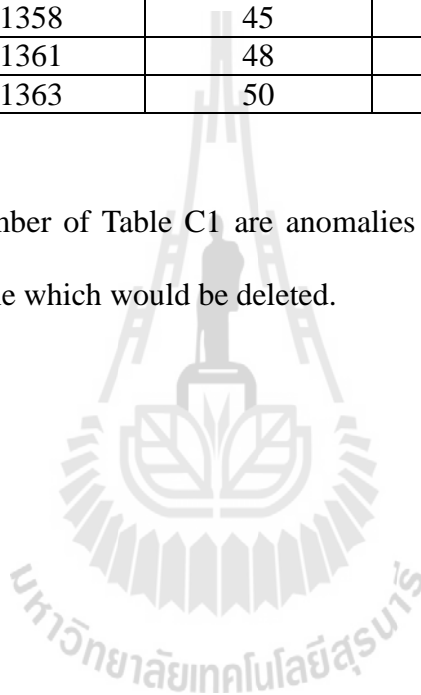
**Table C1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FAMS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
2475	1223	45	1279	-4.6174
2480	1225	40	1136	7.26682
2485	1227	47	1336	-8.83999
2490	1230	45	1279	-3.98712
2495	1232	46	1307	-6.05065
2545	1257	42	1193	5.101302
2550	1260	42	1193	5.287393
2555	1262	42	1193	5.472755
2560	1265	40	1136	10.16496
2565	1267	44	1250	1.342531
2570	1269	42	1193	6.024514
2575	1272	45	1279	-0.55427
2580	1274	45	1279	-0.35938
2585	1277	48	1363	-6.74373
2590	1279	47	1336	-4.42721
2595	1282	44	1250	2.483169
2600	1284	44	1250	2.670716
2605	1287	43	1223	4.95582
2610	1289	44	1250	3.043654
2615	1292	43	1223	5.319305
2620	1294	45	1279	1.172943
2625	1297	45	1279	1.3612
2630	1299	45	1279	1.548741
2635	1302	40	1136	12.72213
2640	1304	45	1279	1.921691
2645	1307	50	1407	-7.68983
2650	1309	48	1363	-4.12529
2655	1311	48	1363	-3.92918
2660	1314	50	1407	-7.08252
2665	1316	47	1336	-1.48814
2670	1319	45	1279	3.023778
2675	1321	45	1279	3.205055
2680	1324	46	1307	1.270565
2685	1326	47	1336	-0.73212
2690	1329	49	1393	-4.83458
2695	1331	47	1336	-0.35832
2700	1334	40	1136	14.82342
2705	1336	42	1193	10.71495
2710	1339	48	1363	-1.81976
2715	1341	45	1279	4.631238

**Table C1** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FAMS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2720	1344	45	1279	4.806562
2725	1346	33	936	30.46321
2730	1349	38	1079	19.98636
2735	1351	39	1079	20.13264
2740	1353	39	1109	18.06186
2745	1356	45	1279	5.673597
2750	1358	45	1279	5.845112
2755	1361	48	1363	-0.15652
2760	1363	50	1407	-3.20243

Remark : The red number of Table C1 are anomalies value took place in abnormal pressure zone which would be deleted.



**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole.

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2310	1141	22	1062	6.910697
2315	1143	23	1109	3.000936
2320	1146	25	1205	-5.16853
2325	1148	22	1062	7.51143
2330	1151	21	1013	11.96816
2335	1153	21	1013	12.15671
2340	1156	22	1062	8.10446
2345	1158	20	963	16.84871
2350	1161	24	1158	0.224022
2355	1163	23	1109	4.648903
2360	1166	25	1205	-3.38556
2365	1168	26	1254	-7.36209
2370	1170	29	1398	-19.4382
2375	1173	30	1447	-23.3642
2380	1175	25	1205	-2.51655
2385	1178	25	1205	-2.30157
2390	1180	26	1254	-6.23877
2395	1183	25	1205	-1.87432
2400	1185	25	1205	-1.66203
2405	1188	25	1205	-1.45062
2410	1190	27	1301	-9.30569
2415	1193	30	1447	-21.3204
2420	1195	30	1447	-21.0696
2425	1198	31	1494	-24.7443
2430	1200	21	1013	15.59177
2435	1203	22	1062	11.6906
2440	1205	24	1158	3.9052
2445	1208	24	1158	4.101761
2450	1210	25	1205	0.413223
2455	1212	27	1301	-7.30162
2460	1215	27	1301	-7.08348
2465	1217	25	1205	1.019377
2470	1220	26	1254	-2.797
2475	1222	29	1398	-14.3699
2480	1225	25	1205	1.618197
2485	1227	25	1205	1.816197
2490	1230	24	1158	5.835285
2495	1232	23	1109	10.00057
2500	1235	21	1013	17.95578
2505	1237	23	1109	10.35993



**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
2510	1240	23	1109	10.53854
2515	1242	24	1158	6.771542
2520	1245	27	1301	-4.53326
2525	1247	26	1254	-0.55732
2530	1250	29	1398	-11.883
2535	1252	26	1254	-0.16054
2540	1254	27	1301	-3.70996
2545	1257	26	1254	0.233108
2550	1259	27	1301	-3.30316
2555	1262	25	1205	4.506803
2560	1264	24	1158	8.410712
2565	1267	31	1494	-17.934
2570	1269	26	1254	1.203832
2575	1272	33	1593	-25.2605
2580	1274	31	1494	-17.2482
2585	1277	30	1447	-13.34
2590	1279	30	1447	-13.1211
2595	1282	31	1494	-16.5703
2600	1284	30	1447	-12.6859
2605	1287	29	1398	-8.66101
2610	1289	26	1254	2.718302
2615	1292	25	1205	6.698361
2620	1294	24	1158	10.50866
2625	1296	21	1013	21.86355
2630	1299	27	1301	-0.16013
2635	1301	28	1351	-3.81208
2640	1304	26	1254	3.82403
2645	1306	27	1301	0.408013
2650	1309	27	1301	0.595966
2655	1311	28	1351	-3.02989
2660	1314	28	1351	-2.83618
2665	1316	30	1447	-9.93686
2670	1319	26	1254	4.904905
2675	1321	27	1301	1.525186
2680	1324	27	1301	1.70895
2685	1326	25	1205	9.131356
2690	1329	26	1254	5.612091
2695	1331	26	1254	5.787247
2700	1334	25	1205	9.636295
2705	1336	30	1447	-8.31082

**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2710	1338	30	1447	-8.11094
2715	1341	31	1494	-11.4169
2720	1343	27	1301	3.154729
2725	1346	27	1301	3.332466
2730	1348	28	1351	-0.19877
2735	1351	28	1351	-0.01555
2740	1353	25	1205	10.95577
2745	1356	29	1398	-3.11788
2750	1358	28	1351	0.530113
2755	1361	27	1301	4.38534
2790	1378	27	1301	5.585068
2795	1380	26	1254	9.15874
2800	1383	29	1398	-1.09191
2805	1385	28	1351	2.480926
2810	1388	26	1254	9.643763
2815	1390	29	1398	-0.55311
2820	1393	26	1254	9.964244
2825	1395	29	1398	-0.1971
2830	1398	29	1398	-0.02003
2835	1400	30	1447	-3.34312
2840	1403	31	1494	-6.51191
2845	1405	35	1689	-20.2024
2850	1408	29	1398	0.682012
2855	1410	28	1351	4.189154
2860	1413	28	1351	4.356691
2865	1415	29	1398	1.202112
2870	1417	25	1205	14.98998
2875	1420	30	1447	-1.905
2880	1422	26	1254	11.84038
2885	1425	27	1301	8.694706
2890	1427	26	1254	12.1455
2895	1430	29	1398	2.226139
2900	1432	30	1447	-1.02632
2905	1435	29	1398	2.56278
2910	1437	24	1158	19.42891
2915	1440	27	1301	9.634579
2920	1442	27	1301	9.789347
2925	1445	29	1398	3.229156
2970	1467	34	1640	-11.8019
2975	1469	32	1543	-5.01242

**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2980	1472	30	1447	1.686348
2985	1474	28	1351	8.362669
2990	1477	29	1398	5.333297
2995	1479	33	1593	-7.69116
3000	1482	31	1494	-0.83013
3005	1484	30	1447	2.50443
3010	1487	27	1301	12.48722
3015	1489	28	1351	9.274667
3020	1492	29	1398	6.273884
3025	1494	29	1398	6.428834
3030	1497	30	1447	3.30901
3035	1499	27	1301	13.20823
3040	1501	27	1301	13.35101
3045	1504	28	1351	10.16869
3050	1506	28	1351	10.31599
3055	1509	33	1593	-5.5757
3100	1531	40	1929	-25.9879
3105	1534	35	1689	-10.1352
3110	1536	33	1593	-3.70824
3115	1539	30	1447	5.947963
3120	1541	28	1351	12.32852
3125	1543	29	1398	9.423694
3130	1546	33	1593	-3.04544
3135	1548	29	1398	9.712669
3140	1551	30	1447	6.696929
3145	1553	33	1593	-2.55387
3150	1556	35	1689	-8.56151
3155	1558	37	1786	-14.6143
3160	1561	30	1447	7.287569
3165	1563	31	1494	4.427428
3170	1566	31	1494	4.578202
3175	1568	32	1543	1.603801
3180	1571	33	1593	-1.42492
3185	1573	35	1689	-7.3683
3190	1576	30	1447	8.159638
3195	1578	35	1689	-7.03219
3200	1581	30	1447	8.446694
3205	1583	29	1398	11.685
3210	1585	27	1301	17.94076
3215	1588	28	1351	14.91961

**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
3220	1590	30	1447	9.015455
3225	1593	29	1398	12.23279
3230	1595	25	1205	24.46656
3235	1598	30	1447	9.43741
3240	1600	33	1593	0.453676
3245	1603	33	1593	0.607089
3250	1605	36	1736	-8.14852
3255	1608	32	1543	4.022592
3260	1610	32	1543	4.169824
3265	1613	31	1494	7.355157
3270	1615	32	1543	4.462937
3275	1618	34	1640	-1.3879
3280	1620	33	1593	1.667881
3285	1622	30	1447	10.81609
3290	1625	37	1786	-9.9104
3295	1627	38	1832	-12.5701
3300	1630	36	1736	-6.5096
3305	1632	35	1689	-3.46919
3310	1635	39	1882	-15.1183
3315	1637	40	1929	-17.8152
3320	1640	33	1593	2.852822
3325	1642	36	1736	-5.70863
3330	1645	34	1640	0.286979
3335	1647	34	1640	0.436501
3340	1650	30	1447	12.28496
3345	1652	34	1640	0.734204
3350	1655	25	1205	27.17273
3355	1657	33	1593	3.866463
3360	1660	28	1351	18.5919
3365	1662	30	1447	12.93675
3370	1664	33	1593	4.294434
3375	1667	34	1640	1.616725
3380	1669	33	1593	4.577638
3385	1672	35	1689	-1.02339
3390	1674	29	1398	16.50541
3395	1677	33	1593	4.999314
3400	1679	36	1736	-3.37641
3405	1682	33	1593	5.278367
3410	1684	33	1593	5.41728
3415	1687	36	1736	-2.92226

**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
3420	1689	39	1882	-11.415
3425	1692	34	1640	3.053232
3430	1694	40	1929	-13.8644
3435	1697	35	1689	0.447368
3440	1699	34	1640	3.47604
3445	1702	31	1494	12.19667
3450	1704	39	1882	-10.446
3455	1706	30	1447	15.20507
3460	1709	33	1593	6.784322
3465	1711	36	1736	-1.43683
3470	1714	38	1832	-6.89196
3475	1716	37	1786	-4.05803
3480	1719	37	1786	-3.9085
3485	1721	30	1447	15.93514
3490	1724	30	1447	16.0556
3495	1726	36	1736	-0.56597
3500	1729	35	1689	2.296523
3505	1731	34	1640	5.266381
3510	1734	39	1882	-8.55772
3550	1753	37	1786	-1.85924
3555	1756	38	1832	-4.33574
3560	1758	40	1929	-9.70575
3565	1761	37	1786	-1.43059
3570	1763	40	1929	-9.39839
3575	1766	35	1689	4.346595
3580	1768	34	1640	7.25136
3585	1771	33	1593	10.03507
3590	1773	33	1593	10.16039
3595	1776	33	1593	10.28536
3600	1778	35	1689	5.010967
3605	1781	34	1640	7.894663
3610	1783	36	1736	2.638191
3615	1786	34	1640	8.149492
3620	1788	38	1832	-2.462
3625	1790	37	1786	0.248541
3630	1793	32	1543	13.93927
3635	1795	35	1689	5.925732
3640	1798	36	1736	3.440757
3645	1800	36	1736	3.573234
3650	1803	36	1736	3.705347

**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
3655	1805	36	1736	3.837099
3660	1808	38	1832	-1.34201
3665	1810	37	1786	1.337414
3670	1813	37	1786	1.471854
3675	1815	38	1832	-0.9283
3680	1818	40	1929	-6.12779
3685	1820	40	1929	-5.98377
3690	1823	40	1929	-5.84014
3695	1825	42	2025	-10.9571
3700	1828	38	1832	-0.24624
3705	1830	36	1736	5.135057
3710	1832	39	1882	-2.70459
3715	1835	39	1882	-2.56634
3720	1837	38	1832	0.292808
3725	1840	40	1929	-4.8455
3730	1842	40	1929	-4.70494
3735	1845	42	2025	-9.76859
3740	1847	38	1832	0.826088
3745	1850	31	1494	19.23146
3750	1852	37	1786	3.574128
3755	1855	35	1689	8.932586
3760	1857	37	1786	3.830621
3765	1860	33	1593	14.33688
3770	1862	33	1593	14.45051
3775	1865	38	1832	1.74573
3780	1867	39	1882	-0.80235
3785	1869	40	1929	-3.18322
3790	1872	46	2218	-18.4854
3795	1874	40	1929	-2.91129
3800	1877	40	1929	-2.77585
3805	1879	41	1978	-5.24804
3810	1882	40	1929	-2.50606
3815	1884	43	2075	-10.1199
3820	1887	40	1929	-2.23767
3825	1889	39	1882	0.38375
3830	1892	39	1882	0.513818
3835	1894	39	1882	0.643547
3840	1897	39	1882	0.772938
3845	1899	34	1640	13.64467
3850	1902	39	1882	1.030711

**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

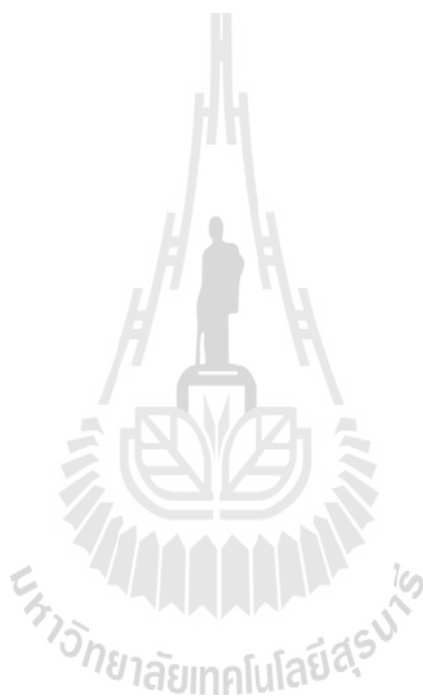
Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
3855	1904	38	1832	3.78505
3860	1907	36	1736	8.945
3865	1909	38	1832	4.034028
3870	1911	34	1640	14.20261
3875	1914	41	1978	-3.34648
3880	1916	40	1929	-0.65643
3885	1919	40	1929	-0.52687
3890	1921	42	2025	-5.3941
3895	1924	41	1978	-2.81574
3900	1926	38	1832	4.895395
3905	1929	40	1929	-0.01192
3910	1931	30	1447	25.07405
3915	1934	39	1882	2.674134
3920	1936	38	1832	5.380698
3925	1939	39	1882	2.922137
3930	1941	40	1929	0.624382
3935	1944	40	1929	0.750673
3940	1946	41	1978	-1.64126
3945	1949	40	1929	1.002294
3950	1951	40	1929	1.127627
3955	1953	38	1832	6.218166
3960	1956	43	2075	-6.0871
3965	1958	42	2025	-3.40021
3970	1961	41	1978	-0.87308
3975	1963	42	2025	-3.14004
3980	1966	42	2025	-3.01045
3985	1968	41	1978	-0.49332
3990	1971	42	2025	-2.75224
3995	1973	46	2218	-12.4045
4000	1976	50	2413	-22.1339
4005	1978	43	2075	-4.89493
4010	1981	40	1929	2.607238
4015	1983	41	1978	0.257676
4020	1986	44	2121	-6.82017
4025	1988	38	1832	7.8494
4030	1991	39	1882	5.451842
4035	1993	39	1882	5.569019
4040	1995	39	1882	5.685907
4045	1998	40	1929	3.450071
4050	2000	41	1978	1.119776

**Table C2** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FASS hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
4055	2003	40	1929	3.688207
4060	2005	39	1882	6.150578
4065	2008	29	1398	30.3719
4070	2010	32	1543	23.24452
4075	2013	25	1205	40.13166
4080	2015	26	1254	37.77354
4085	2018	39	1882	6.725017
4090	2020	40	1929	4.512514
4095	2023	36	1736	14.17115
4100	2025	42	2025	0.004938
4105	2028	43	2075	-2.33925
4110	2030	30	1447	28.72062
4115	2033	39	1882	7.40513
4120	2035	40	1929	5.207914
4125	2037	41	1978	2.917863
4130	2040	41	1978	3.035413
4135	2042	40	1929	5.551829
4140	2045	44	2121	-3.72348
4145	2047	43	2075	-1.35152
4215	2082	45	2171	-4.27924
4220	2084	43	2075	0.450014
4225	2087	43	2075	0.567841
4230	2089	42	2025	3.078514
4235	2092	42	2025	3.192959
4240	2094	42	2025	3.307135
4245	2097	43	2075	1.036376
4250	2099	43	2075	1.15282
4255	2102	43	2075	1.268991
4260	2104	43	2075	1.384889
4265	2107	44	2121	-0.68309
4270	2109	46	2218	-5.16434
4275	2112	46	2218	-5.04132
4280	2114	45	2171	-2.69534
4285	2116	45	2171	-2.57549
4290	2119	45	2171	-2.45592
4295	2121	45	2171	-2.33663
4300	2124	44	2121	0.136541



Remark : The red number of Table C2 are anomalies value took place in abnormal pressure zone which would be deleted.



**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole.

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
1750	854	13	1238	-44.897
1755	857	9	857	-0.01821
1760	859	8	762	11.32193
1765	862	9	857	0.549127
1770	864	10	952	-10.1627
1775	867	10	952	-9.85207
1780	869	8	762	12.31946
1785	872	9	857	1.664701
1790	874	10	952	-8.93047
1795	876	11	1047	-19.4665
1800	879	12	1143	-30.0578
1805	881	12	1143	-29.6971
1810	884	10	952	-7.72545
1815	886	9	857	3.291912
1820	889	15	1431	-61.0369
1825	891	11	1047	-17.5005
1830	894	8	762	14.71779
1835	896	9	857	4.347127
1840	898	8	762	15.18179
1845	901	8	762	15.41191
1850	903	9	857	5.12355
1855	906	13	1238	-36.6862
1860	908	10	952	-4.82642
1865	911	13	1238	-35.9525
1870	913	12	1143	-25.184
1875	916	10	952	-3.98689
1880	918	13	1238	-34.8666
1885	920	10	952	-3.43464
1890	923	9	857	7.133693
1895	925	10	952	-2.88822
1900	928	10	952	-2.61717
1905	930	14	1333	-43.3081
1910	933	13	1238	-32.746
1915	935	10	952	-1.81252
1920	937	14	1333	-42.1873
1925	940	15	1431	-52.2438
1930	942	11	1047	-11.1012
1935	945	10	952	-0.75908
1940	947	10	952	-0.49912
1945	950	9	857	9.762497

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
1950	952	9	857	9.994119
1955	955	9	857	10.22455
1960	957	9	857	10.45381
1965	959	10	952	0.78083
1970	962	10	952	1.032917
1975	964	12	1143	-18.5217
1980	967	11	1047	-8.29272
1985	969	19	1812	-86.9452
1990	972	16	1527	-57.1453
1995	974	13	1238	-27.0844
2000	977	17	1622	-66.0864
2005	979	10	952	2.762286
2010	981	13	1238	-26.135
2015	984	15	1431	-45.4369
2020	986	11	1047	-6.14613
2025	989	13	1238	-25.1997
2030	991	13	1238	-24.891
2035	994	9	857	13.75736
2040	996	12	1143	-14.7415
2045	999	17	1622	-62.428
2050	1001	15	1431	-42.9513
2055	1003	8	762	24.06456
2060	1006	16	1527	-51.8001
2065	1008	17	1622	-60.8533
2070	1011	13	1238	-22.4753
2075	1013	14	1333	-31.5556
2080	1016	14	1333	-31.239
2085	1018	12	1143	-12.2627
2090	1021	10	952	6.720805
2095	1023	12	1143	-11.7263
2100	1025	14	1333	-29.9879
2105	1028	12	1143	-11.195
2110	1030	10	952	7.605826
2115	1033	15	1431	-38.5538
2120	1035	13	1238	-19.5839
2125	1038	13	1238	-19.3023
2130	1040	14	1333	-28.1553
2135	1043	16	1527	-46.4625
2140	1045	16	1527	-46.1199
2145	1047	16	1527	-45.779

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
2150	1050	17	1622	-54.488
2155	1052	13	1238	-17.6399
2160	1055	15	1431	-35.6645
2165	1057	9	857	18.9408
2170	1060	9	857	19.12775
2175	1062	11	1047	1.425424
2180	1065	10	952	10.5754
2185	1067	11	1047	1.876989
2190	1069	15	1431	-33.8043
2195	1072	10	952	11.18707
2200	1074	10	952	11.38911
2205	1077	10	952	11.59022
2210	1079	14	1333	-23.5119
2215	1082	12	1143	-5.66779
2220	1084	13	1238	-14.1923
2225	1087	12	1143	-5.19244
2230	1089	11	1047	3.858868
2235	1091	11	1047	4.074146
2240	1094	15	1431	-30.8149
2245	1096	12	1143	-4.25446
2250	1099	10	952	13.36003
2255	1101	9	857	22.17892
2260	1104	8	762	30.95875
2265	1106	8	762	31.1113
2270	1109	9	857	22.69362
2275	1111	11	1047	5.762273
2280	1113	9	857	23.03299
2285	1116	12	1143	-2.4278
2290	1118	12	1143	-2.20396
2295	1121	10	952	15.06037
2300	1123	19	1812	-61.319
2305	1126	8	762	32.30782
2310	1128	9	857	24.03344
2315	1131	13	1238	-9.50209
2320	1133	14	1333	-17.6506
2325	1135	14	1333	-17.3974
2330	1138	13	1238	-8.79652
2335	1140	11	1047	8.185922
2340	1143	12	1143	-0.0182
2345	1145	10	952	16.87303

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2)\times 100)/1$
2350	1148	10	952	17.05005
2355	1150	10	952	17.22632
2360	1153	10	952	17.40184
2365	1155	12	1143	1.039989
2370	1157	12	1143	1.248946
2375	1160	13	1238	-6.73334
2380	1162	15	1431	-23.1133
2385	1165	10	952	18.26839
2390	1167	19	1812	-55.2391
2395	1170	21	2003	-71.244
2400	1172	14	1333	-13.7256
2405	1175	15	1431	-21.8324
2410	1177	16	1527	-29.7357
2415	1179	13	1238	-4.964
2420	1182	12	1143	3.290983
2425	1184	12	1143	3.490552
2430	1187	12	1143	3.689298
2435	1189	10	952	19.94807
2440	1192	14	1333	-11.8596
2445	1194	15	1431	-19.8376
2450	1197	16	1527	-27.6158
2455	1199	12	1143	4.670877
2460	1201	12	1143	4.864796
2465	1204	13	1238	-2.83314
2470	1206	13	1238	-2.62481
2475	1209	15	1431	-18.3838
2480	1211	11	1047	13.55852
2485	1214	10	952	21.5601
2490	1216	9	857	29.52952
2495	1219	8	762	37.46697
2500	1221	10	952	22.03112
2505	1223	10	952	22.18688
2510	1226	13	1238	-0.98802
2515	1228	12	1143	6.946982
2520	1231	12	1143	7.131761
2525	1233	14	1333	-8.09101
2530	1236	13	1238	-0.18905
2535	1238	17	1622	-31.0063
2540	1241	19	1812	-46.064
2545	1243	17	1622	-30.4912

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
2550	1245	14	1333	-7.03045
2555	1248	15	1431	-14.6741
2560	1250	14	1333	-6.61203
2565	1253	10	952	24.00852
2570	1255	13	1238	1.371557
2575	1258	13	1238	1.563221
2580	1260	13	1238	1.754141
2585	1263	13	1238	1.944322
2590	1265	14	1333	-5.37616
2595	1267	16	1527	-20.4795
2600	1270	16	1527	-20.2476
2605	1272	13	1238	2.697741
2610	1275	12	1143	10.33663
2615	1277	15	1431	-12.0409
2620	1280	17	1622	-26.7528
2625	1282	16	1527	-19.1015
2630	1285	14	1333	-3.77223
2635	1287	12	1143	11.18798
2640	1289	18	1717	-33.1594
2645	1292	18	1717	-32.9075
2650	1294	14	1333	-2.98844
2655	1297	14	1333	-2.79434
2660	1299	21	2003	-54.1708
2665	1302	20	1908	-46.583
2670	1304	16	1527	-17.0926
2675	1307	15	1431	-9.52592
2680	1309	14	1333	-1.83471
2685	1311	12	1143	12.8431
2690	1314	16	1527	-16.2214
2695	1316	12	1143	13.16675
2700	1319	14	1333	-1.0798
2705	1321	17	1622	-22.7668
2710	1324	13	1238	6.470602
2715	1326	13	1238	6.642978
2720	1329	14	1333	-0.33601
2725	1331	16	1527	-14.7275
2730	1333	10	952	28.60485
2735	1336	18	1717	-28.5307
2740	1338	13	1238	7.495412
2745	1341	12	1143	14.74959

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2750	1343	12	1143	14.90471
2755	1346	12	1143	15.05926
2760	1348	11	1047	22.33445
2765	1351	11	1047	22.475
2770	1353	10	952	29.63659
2775	1355	13	1238	8.662997
2780	1358	15	1431	-5.38611
2785	1360	13	1238	8.991199
2790	1363	14	1333	2.183229
2795	1365	14	1333	2.358343
2800	1368	15	1431	-4.6328
2805	1370	14	1333	2.706695
2810	1373	16	1527	-11.2546
2815	1375	19	1812	-31.7845
2820	1377	21	2003	-45.4172
2825	1380	15	1431	-3.70617
2830	1382	16	1527	-10.4677
2835	1385	15	1431	-3.3401
2840	1387	16	1527	-10.0785
2845	1390	18	1717	-23.5575
2850	1392	19	1812	-30.1649
2855	1395	15	1431	-2.61566
2860	1397	15	1431	-2.43613
2865	1399	11	1047	25.18286
2870	1402	12	1143	18.46523
2875	1404	10	952	32.20822
2880	1407	9	857	39.07918
2885	1409	9	857	39.18484
2890	1412	10	952	32.56033
2895	1414	8	762	46.11322
2900	1417	14	1333	5.89614
2905	1419	16	1527	-7.61372
2910	1421	15	1431	-0.67482
2915	1424	21	2003	-40.6747
2920	1426	19	1812	-27.0424
2925	1429	18	1717	-20.1758
2930	1431	20	1908	-33.3162
2935	1434	20	1908	-33.0889
2940	1436	18	1717	-19.5623
2945	1439	16	1527	-6.15106

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
2950	1441	15	1431	0.691206
2955	1443	12	1143	20.81219
2960	1446	14	1333	7.80497
2965	1448	14	1333	7.960549
2970	1451	15	1431	1.360413
2975	1453	11	1047	27.95111
2980	1456	13	1238	14.95056
2985	1458	14	1333	8.577652
2990	1461	15	1431	2.020661
2995	1463	17	1622	-10.8714
3000	1465	18	1717	-17.1694
3005	1468	18	1717	-16.9743
3010	1470	14	1333	9.33749
3015	1473	12	1143	22.38914
3020	1475	16	1527	-3.51307
3025	1478	11	1047	29.14281
3030	1480	10	952	35.67846
3035	1483	14	1333	10.0848
3040	1485	19	1812	-22.0241
3045	1487	21	2003	-34.6649
3050	1490	15	1431	3.949417
3055	1492	16	1527	-2.32637
3060	1495	15	1431	4.263518
3065	1497	16	1527	-1.99229
3070	1500	16	1527	-1.82607
3075	1502	17	1622	-7.98503
3080	1505	11	1047	30.40896
3085	1507	13	1238	17.8472
3090	1509	13	1238	17.98022
3095	1512	13	1238	18.11281
3100	1514	14	1333	11.97137
3105	1517	14	1333	12.11321
3110	1519	16	1527	-0.51555
3115	1522	15	1431	5.955
3120	1524	12	1143	25.00276
3125	1527	10	952	37.63511
3130	1529	11	1047	31.52136
3135	1531	11	1047	31.63065
3140	1534	15	1431	6.704254
3145	1536	13	1238	19.41552



**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
3150	1539	17	1622	-5.41229
3155	1541	18	1717	-11.4093
3160	1544	17	1622	-5.07849
3165	1546	17	1622	-4.91238
3170	1548	17	1622	-4.7468
3175	1551	15	1431	7.733375
3180	1553	14	1333	14.18735
3185	1556	17	1622	-4.25317
3190	1558	18	1717	-10.1862
3195	1561	19	1812	-16.1006
3200	1563	20	1908	-22.0604
3205	1566	19	1812	-15.7381
3210	1568	22	2099	-33.8607
3215	1570	23	2195	-39.7651
3220	1573	20	1908	-21.3018
3225	1575	17	1622	-2.95929
3230	1578	16	1527	3.221145
3235	1580	15	1431	9.44574
3240	1583	15	1431	9.585572
3245	1585	14	1333	15.90733
3250	1588	16	1527	3.817082
3255	1590	15	1431	10.00249
3260	1592	13	1238	22.26001
3265	1595	13	1238	22.37914
3270	1597	12	1143	28.44515
3275	1600	12	1143	28.55446
3280	1602	11	1047	34.65496
3285	1605	19	1812	-12.9177
3290	1607	14	1333	17.05825
3295	1610	17	1622	-0.77063
3300	1612	15	1431	11.23049
3305	1614	17	1622	-0.46554
3310	1617	16	1527	5.561658
3315	1619	19	1812	-11.8952
3320	1622	20	1908	-17.6459
3325	1624	20	1908	-17.4689
3330	1627	18	1717	-5.55086
3335	1629	18	1717	-5.39251
3340	1632	16	1527	6.410426
3345	1634	18	1717	-5.07724

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
3350	1636	21	2003	-22.3969
3355	1639	16	1527	6.829115
3360	1641	15	1431	12.81663
3365	1644	15	1431	12.94625
3370	1646	15	1431	13.07549
3375	1649	13	1238	24.91054
3380	1651	17	1622	1.765079
3385	1654	19	1812	-9.5799
3390	1656	11	1047	36.77658
3395	1658	14	1333	19.62501
3400	1661	17	1622	2.34328
3405	1663	19	1812	-8.93587
3410	1666	20	1908	-14.539
3415	1668	20	1908	-14.3712
3420	1671	18	1717	-2.77154
3425	1673	20	1908	-14.0371
3430	1676	17	1622	3.19793
3435	1678	17	1622	3.338919
3440	1680	16	1527	9.132672
3445	1683	14	1333	20.79224
3450	1685	19	1812	-7.51412
3455	1688	18	1717	-1.72982
3460	1690	13	1238	26.75631
3465	1693	11	1047	38.14586
3470	1695	16	1527	9.918732
3475	1698	17	1622	4.45222
3480	1700	19	1812	-6.58673
3485	1702	15	1431	15.94556
3490	1705	20	1908	-11.9119
3495	1707	22	2099	-22.9386
3500	1710	23	2195	-28.3776
3505	1712	15	1431	16.42546
3510	1715	17	1622	5.405532
3515	1717	14	1333	22.37056
3520	1720	18	1717	0.149804
3525	1722	13	1238	28.10769
3530	1724	16	1527	11.45075
3535	1727	19	1812	-4.92742
3540	1729	14	1333	22.9191
3545	1732	14	1333	23.02789

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
3550	1734	17	1622	6.471999
3555	1737	17	1622	6.603619
3560	1739	17	1622	6.734869
3565	1742	18	1717	1.410909
3570	1744	19	1812	-3.89813
3575	1746	20	1908	-9.24957
3580	1749	20	1908	-9.0969
3585	1751	20	1908	-8.94465
3590	1754	19	1812	-3.31898
3595	1756	19	1812	-3.1752
3600	1759	18	1717	2.369959
3605	1761	18	1717	2.505445
3610	1764	14	1333	24.4146
3615	1766	14	1333	24.5192
3620	1768	15	1431	19.08196
3625	1771	11	1047	40.87752
3630	1773	13	1238	30.18839
3635	1776	10	952	46.39
3640	1778	19	1812	-1.89896
3645	1781	18	1717	3.575945
3650	1783	20	1908	-7.00345
3655	1786	25	2385	-33.5712
3660	1788	20	1908	-6.71093
3665	1790	20	1908	-6.56527
3670	1793	19	1812	-1.06554
3675	1795	25	2385	-32.8439
3680	1798	22	2099	-16.7548
3685	1800	20	1908	-5.98658
3690	1803	21	2003	-11.1128
3735	1825	20	1908	-4.56697
3740	1827	22	2099	-14.8808
3745	1830	21	2003	-9.48011
3750	1832	20	1908	-4.14847
3755	1834	20	1908	-4.00972
3760	1837	19	1812	1.3549
3765	1839	20	1908	-3.73331
3770	1842	20	1908	-3.59566
3800	1856	23	2195	-18.2371
3805	1859	20	1908	-2.64223
3810	1861	20	1908	-2.50746

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

<b>Depth</b>	<b>Real Pressure (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Pressure from Graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
3815	1864	18	1717	7.874998
3820	1866	19	1812	2.90513
3825	1869	20	1908	-2.10525
3830	1871	20	1908	-1.97188
3835	1874	19	1812	3.285104
3840	1876	19	1812	3.411102
3845	1878	18	1717	8.594171
3905	1908	24	2290	-20.0358
3910	1910	20	1908	0.11559
3915	1913	20	1908	0.243222
3920	1915	19	1812	5.383333
3925	1918	19	1812	5.503927
3930	1920	19	1812	5.624214
3935	1922	18	1717	10.68586
3940	1925	10	952	50.54217
3945	1927	10	952	50.60488
3950	1930	21	2003	-3.79529
3955	1932	21	2003	-3.664
3960	1935	20	1908	1.377408
3965	1937	20	1908	1.501839
3970	1940	22	2099	-8.22176
3975	1942	23	2195	-13.029
3980	1944	20	1908	1.873254
3985	1947	20	1908	1.996437
3990	1949	19	1812	7.044126
3995	1952	20	1908	2.241879
4000	1954	20	1908	2.364139
4005	1957	19	1812	7.392454
4010	1959	21	2003	-2.24145
4015	1962	21	2003	-2.11406
4020	1964	21	2003	-1.98699
4025	1966	21	2003	-1.86023
4030	1969	20	1908	3.091326
4035	1971	17	1622	17.71961
4040	1974	18	1717	13.00832
4045	1976	18	1717	13.11591
4050	1979	19	1812	8.421946
4055	1981	20	1908	3.689091
4060	1984	21	2003	-0.98169
4065	1986	21	2003	-0.85741

**Table C3** Comparison between the pressure which was estimated by using a monograph and the actual pressure which was found in FABT hole (continued).

Depth	Real Pressure (1)	Resistivity of FAMS4770	Pressure from Graph (2)	% Error $((1-2) \times 100) / 1$
4070	1988	24	2290	-15.167
4075	1991	27	2576	-29.3913
4080	1993	25	2385	-19.6506
4085	1996	22	2099	-5.1736
4090	1998	28	2671	-33.6708
4095	2001	23	2195	-9.71511
4100	2003	21	2003	0.003994
4105	2006	21	2003	0.125852
4110	2008	20	1908	4.978565
4115	2010	20	1908	5.09408
4120	2013	19	1812	9.978657
4125	2015	19	1812	10.08783
4130	2018	19	1812	10.19673
4135	2020	21	2003	0.850812
4140	2023	21	2003	0.970617
4145	2025	22	2099	-3.65043
4150	2028	23	2195	-8.26034
4155	2030	21	2003	1.328299
4160	2032	21	2003	1.446954
4165	2035	21	2003	1.565323
4170	2037	21	2003	1.683408
4175	2040	23	2195	-7.61175
4180	2042	21	2003	1.91873
4185	2045	19	1812	11.37752
4190	2047	28	2671	-30.479
4195	2050	21	2003	2.269609
4200	2052	22	2099	-2.29244

Remark : The red number of Table C3 are anomalies value took place in abnormal pressure zone which would be deleted.

**Table C4** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FAMS hole.

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
1400	0.493929	24	0.493928	0.000116
1405	0.493929	24	0.493928	0.000167
1410	0.493929	23	0.493925	0.000826
1415	0.493929	25	0.493931	-0.00034
1420	0.49393	25	0.493931	-0.00029
1425	0.49393	24	0.493928	0.000369
1430	0.49393	25	0.493931	-0.00019
1435	0.49393	22	0.493921	0.001886
1440	0.493931	26	0.493933	-0.00049
1445	0.493931	27	0.493936	-0.00105
1450	0.493931	27	0.493936	-0.00101
1455	0.493931	30	0.493942	-0.00217
1460	0.493932	26	0.493933	-0.0003
1465	0.493932	25	0.493931	0.00015
1470	0.493932	25	0.493931	0.000197
1475	0.493932	24	0.493928	0.000851
1480	0.493932	23	0.493925	0.001505
1485	0.493933	26	0.493933	-6.9E-05
1490	0.493933	28	0.493938	-0.00104
1495	0.493933	30	0.493942	-0.0018
1500	0.493933	28	0.493938	-0.00094
1505	0.493934	26	0.493933	0.000112
1510	0.493934	25	0.493931	0.000562
1515	0.493934	26	0.493933	0.000201
1520	0.493934	25	0.493931	0.00065
1525	0.493934	27	0.493936	-0.00032
1530	0.493935	29	0.49394	-0.00109
1535	0.493935	30	0.493942	-0.00145
1540	0.493935	27	0.493936	-0.00019
1545	0.493935	26	0.493933	0.000461
1550	0.493935	24	0.493928	0.001515
1555	0.493936	25	0.493931	0.00095
1560	0.493936	26	0.493933	0.000587
1565	0.493936	29	0.49394	-0.00079
1570	0.493936	29	0.49394	-0.00075
1575	0.493937	26	0.493933	0.00071
1580	0.493937	25	0.493931	0.001156
1585	0.493937	27	0.493936	0.000184
1590	0.493937	23	0.493925	0.002451
1595	0.493937	27	0.493936	0.000264

**Table C4** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FAMS hole (continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
1600	0.493938	29	0.49394	-0.00051
1605	0.493938	30	0.493942	-0.00087
1610	0.493938	30	0.493942	-0.00083
1615	0.493938	28	0.493938	1.63E-05
1620	0.493938	30	0.493942	-0.00075
1625	0.493938	27	0.493936	0.000498
1630	0.493939	25	0.493931	0.001549
1635	0.493939	26	0.493933	0.001182
1640	0.493939	26	0.493933	0.00122
1645	0.493939	30	0.493942	-0.00056
1650	0.493939	30	0.493942	-0.00053
1655	0.49394	27	0.493936	0.000724
1660	0.49394	29	0.49394	-4.9E-05
1665	0.49394	28	0.493938	0.000393
1670	0.49394	29	0.49394	2.42E-05
1675	0.49394	30	0.493942	-0.00034
1680	0.49394	30	0.493942	-0.00031
1685	0.493941	29	0.49394	0.000132
1690	0.493941	29	0.49394	0.000168
1695	0.493941	29	0.49394	0.000203
1700	0.493941	29	0.49394	0.000238
1705	0.493941	32	0.493946	-0.00094
1710	0.493942	31	0.493944	-0.0005
1715	0.493942	33	0.493947	-0.00107
1720	0.493942	30	0.493942	-2.8E-05
1725	0.493942	27	0.493936	0.001221
1730	0.493942	29	0.49394	0.000445
1735	0.493942	32	0.493946	-0.00074
1740	0.493943	32	0.493946	-0.0007
1745	0.493943	35	0.49395	-0.00148
1750	0.493943	31	0.493944	-0.00023
1755	0.493943	39	0.493955	-0.00243
1760	0.493943	30	0.493942	0.000239
1765	0.493943	33	0.493947	-0.00074
1770	0.493944	31	0.493944	-0.0001
1775	0.493944	36	0.493952	-0.00169
1780	0.493944	30	0.493942	0.000369
1785	0.493944	30	0.493942	0.0004

**Table C4** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FAMS hole (continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
1790	0.493944	31	0.493944	2.71E-05
1795	0.493944	30	0.493942	0.000464
1800	0.493944	31	0.493944	9E-05
1805	0.493945	30	0.493942	0.000526
1810	0.493945	33	0.493947	-0.00046
1815	0.493945	31	0.493944	0.000183
1820	0.493945	30	0.493942	0.000618
1825	0.493945	33	0.493947	-0.00036
1830	0.493945	34	0.493949	-0.00074
1835	0.493946	34	0.493949	-0.00071
1840	0.493946	37	0.493953	-0.00149
1845	0.493946	35	0.49395	-0.00085
1850	0.493946	33	0.493947	-0.00021
1855	0.493946	30	0.493942	0.000828
1860	0.493946	30	0.493942	0.000858
1865	0.493946	32	0.493946	7.71E-05
1870	0.493947	32	0.493946	0.000106
1875	0.493947	31	0.493944	0.00054
1880	0.493947	36	0.493952	-0.00105
1885	0.493947	33	0.493947	-1E-05
1890	0.493947	36	0.493952	-0.00099
1895	0.493947	27	0.493936	0.002273
1900	0.493947	31	0.493944	0.000682
1905	0.493948	34	0.493949	-0.0003
1910	0.493948	33	0.493947	0.00013
1915	0.493948	35	0.49395	-0.00045
1920	0.493948	33	0.493947	0.000186
1925	0.493948	35	0.49395	-0.00039
1930	0.493948	33	0.493947	0.00024
1935	0.493948	35	0.49395	-0.00034
1975	0.493949	37	0.493953	-0.00074
1980	0.493949	32	0.493946	0.000708
1985	0.49395	35	0.49395	-7.6E-05
1990	0.49395	35	0.49395	-5.1E-05
1995	0.49395	35	0.49395	-2.5E-05
2000	0.49395	30	0.493942	0.00162
2005	0.49395	33	0.493947	0.000633
2010	0.49395	32	0.493946	0.00086



**Table C4** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FAMS hole (continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2015	0.49395	30	0.493942	0.001695
2020	0.49395	33	0.493947	0.000708
2025	0.493951	35	0.49395	0.000125
2030	0.493951	35	0.49395	0.00015
2035	0.493951	32	0.493946	0.000984
2040	0.493951	33	0.493947	0.000806
2045	0.493951	37	0.493953	-0.00038
2050	0.493951	37	0.493953	-0.00036
2055	0.493951	36	0.493952	-0.00013
2060	0.493951	39	0.493955	-0.00072
2065	0.493952	40	0.493957	-0.0011
2070	0.493952	40	0.493957	-0.00107
2075	0.493952	36	0.493952	-3.9E-05
2080	0.493952	35	0.49395	0.000389
2085	0.493952	35	0.49395	0.000413
2090	0.493952	32	0.493946	0.001246
2095	0.493952	36	0.493952	5.41E-05
2100	0.493952	35	0.49395	0.000482
2105	0.493952	36	0.493952	0.0001
2110	0.493953	36	0.493952	0.000123
2115	0.493953	36	0.493952	0.000145
2120	0.493953	33	0.493947	0.00118
2125	0.493953	38	0.493954	-0.00021
2130	0.493953	38	0.493954	-0.00019
2135	0.493953	37	0.493953	3.27E-05
2140	0.493953	36	0.493952	0.000257
2145	0.493953	31	0.493944	0.001899
2150	0.493953	30	0.493942	0.002326
2155	0.493954	35	0.49395	0.000728
2160	0.493954	35	0.49395	0.00075
2165	0.493954	33	0.493947	0.001379
2170	0.493954	32	0.493946	0.001603
2175	0.493954	35	0.49395	0.000814
2180	0.493954	37	0.493953	0.000228
2185	0.493954	38	0.493954	4.73E-05
2190	0.493954	40	0.493957	-0.00054
2195	0.493954	40	0.493957	-0.00052
2200	0.493955	41	0.493958	-0.0007

**Table C4** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FAMS hole (continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2205	0.493955	39	0.493955	-7.1E-05
2210	0.493955	38	0.493954	0.000152
2215	0.493955	39	0.493955	-3E-05
2220	0.493955	39	0.493955	-9.1E-06
2225	0.493955	40	0.493957	-0.00039
2230	0.493955	38	0.493954	0.000234
2235	0.493955	37	0.493953	0.000457
2280	0.493956	40	0.493957	-0.00017
2285	0.493956	40	0.493957	-0.00015
2290	0.493956	35	0.49395	0.001282
2295	0.493956	37	0.493953	0.000694
2300	0.493957	40	0.493957	-9.7E-05
2305	0.493957	45	0.493961	-0.00089
2310	0.493957	42	0.493959	-0.00046
2315	0.493957	35	0.49395	0.001377
2320	0.493957	39	0.493955	0.000384
2325	0.493957	39	0.493955	0.000403
2330	0.493957	35	0.49395	0.001434
2335	0.493957	30	0.493942	0.003072
2340	0.493957	49	0.493965	-0.00157
2345	0.493957	42	0.493959	-0.00033
2350	0.493957	38	0.493954	0.000698
2355	0.493958	40	0.493957	0.000109
2360	0.493958	45	0.493961	-0.00068
2365	0.493958	41	0.493958	-5.7E-05
2370	0.493958	37	0.493953	0.000973
2375	0.493958	39	0.493955	0.000586
2380	0.493958	40	0.493957	0.000199
2385	0.493958	40	0.493957	0.000217
2390	0.493958	36	0.493952	0.001247
2395	0.493958	39	0.493955	0.000657
2400	0.493958	40	0.493957	0.00027
2405	0.493958	42	0.493959	-0.00012
2410	0.493959	45	0.493961	-0.0005
2415	0.493959	40	0.493957	0.000322
2420	0.493959	36	0.493952	0.001352
2425	0.493959	45	0.493961	-0.00045
2430	0.493959	40	0.493957	0.000374

**Table C4** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FAMS hole (continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2435	0.493959	37	0.493953	0.001201
2440	0.493959	35	0.49395	0.001825
2445	0.493959	39	0.493955	0.00083
2450	0.493959	40	0.493957	0.000442
2455	0.493959	45	0.493961	-0.00035
2460	0.493959	40	0.493957	0.000476
2465	0.493959	42	0.493959	8.75E-05
2470	0.49396	37	0.493953	0.001319
2475	0.49396	45	0.493961	-0.00028
2480	0.49396	40	0.493957	0.000542
2485	0.49396	47	0.493963	-0.00066
2490	0.49396	45	0.493961	-0.00023
2495	0.49396	46	0.493962	-0.00042
2545	0.493961	42	0.493959	0.000346
2550	0.493961	42	0.493959	0.000361
2555	0.493961	42	0.493959	0.000377
2560	0.493961	40	0.493957	0.000797
2565	0.493961	44	0.49396	0.000205
2570	0.493961	42	0.493959	0.000423
2575	0.493961	45	0.493961	3.34E-05
2580	0.493961	45	0.493961	4.86E-05
2585	0.493961	48	0.493964	-0.00054
2590	0.493961	47	0.493963	-0.00033
2595	0.493961	44	0.49396	0.000296
2600	0.493962	44	0.49396	0.000311
2605	0.493962	43	0.49396	0.000326
2610	0.493962	44	0.49396	0.000341
2615	0.493962	43	0.49396	0.000356
2620	0.493962	45	0.493961	0.000168
2625	0.493962	45	0.493961	0.000183
2630	0.493962	45	0.493961	0.000198
2635	0.493962	40	0.493957	0.001022
2640	0.493962	45	0.493961	0.000227
2645	0.493962	50	0.493966	-0.00077
2650	0.493962	48	0.493964	-0.00035
2655	0.493962	48	0.493964	-0.00034
2660	0.493962	50	0.493966	-0.00073
2665	0.493962	47	0.493963	-0.00011

**Table C4** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FAMS hole (continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2670	0.493963	45	0.493961	0.000313
2675	0.493963	45	0.493961	0.000327
2680	0.493963	46	0.493962	0.000139
2685	0.493963	47	0.493963	-4.9E-05
2690	0.493963	49	0.493965	-0.00044
2695	0.493963	47	0.493963	-2.1E-05
2700	0.493963	40	0.493957	0.001207
2705	0.493963	42	0.493959	0.000816
2710	0.493963	48	0.493964	-0.00018
2715	0.493963	45	0.493961	0.000439
2720	0.493963	45	0.493961	0.000453
2725	0.493963	33	0.493947	0.0033
2730	0.493963	38	0.493954	0.001897
2735	0.493963	39	0.493955	0.001708
2740	0.493964	39	0.493955	0.001722
2745	0.493964	45	0.493961	0.00052
2750	0.493964	45	0.493961	0.000534
2755	0.493964	48	0.493964	-6E-05
2760	0.493964	50	0.493966	-0.00045

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole.

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2310	0.49387	22	0.493863	0.001444
2315	0.49387	23	0.493867	0.000691
2320	0.493871	25	0.493877	-0.00128
2325	0.493871	22	0.493863	0.001613
2330	0.493871	21	0.493858	0.002682
2335	0.493872	21	0.493858	0.002738
2340	0.493872	22	0.493863	0.001781
2345	0.493872	20	0.493853	0.003861
2350	0.493872	24	0.493872	6.89E-05
2355	0.493873	23	0.493867	0.001136
2360	0.493873	25	0.493877	-0.00083
2365	0.493873	26	0.493882	-0.00179
2370	0.493873	29	0.493894	-0.00417
2375	0.493874	30	0.493898	-0.00492
2380	0.493874	25	0.493877	-0.00062
2385	0.493874	25	0.493877	-0.00056
2390	0.493874	26	0.493882	-0.00152
2395	0.493875	25	0.493877	-0.00046
2400	0.493875	25	0.493877	-0.0004
2405	0.493875	25	0.493877	-0.00035
2410	0.493876	27	0.493886	-0.00212
2415	0.493876	30	0.493898	-0.0045
2420	0.493876	30	0.493898	-0.00445
2425	0.493876	31	0.493901	-0.005
2430	0.493877	21	0.493858	0.003755
2435	0.493877	22	0.493863	0.002794
2440	0.493877	24	0.493872	0.001022
2445	0.493877	24	0.493872	0.001073
2450	0.493878	25	0.493877	0.000112
2455	0.493878	27	0.493886	-0.00166
2460	0.493878	27	0.493886	-0.00161
2465	0.493878	25	0.493877	0.000262
2470	0.493879	26	0.493882	-0.0007
2475	0.493879	29	0.493894	-0.00308
2480	0.493879	25	0.493877	0.000411
2485	0.493879	25	0.493877	0.000461
2490	0.49388	24	0.493872	0.001522
2495	0.49388	23	0.493867	0.002584
2500	0.49388	21	0.493858	0.004455
2505	0.49388	23	0.493867	0.002681

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2510	0.49388	23	0.493867	0.002729
2515	0.493881	24	0.493872	0.001765
2520	0.493881	27	0.493886	-0.00102
2525	0.493881	26	0.493882	-0.00016
2530	0.493881	29	0.493894	-0.00255
2535	0.493882	26	0.493882	-6.9E-05
2540	0.493882	27	0.493886	-0.00083
2545	0.493882	26	0.493882	2.47E-05
2550	0.493882	27	0.493886	-0.00074
2555	0.493883	25	0.493877	0.00113
2560	0.493883	24	0.493872	0.002189
2565	0.493883	31	0.493901	-0.00364
2570	0.493883	26	0.493882	0.000257
2575	0.493883	33	0.493907	-0.00476
2580	0.493884	31	0.493901	-0.0035
2585	0.493884	30	0.493898	-0.00285
2590	0.493884	30	0.493898	-0.0028
2595	0.493884	31	0.493901	-0.00336
2600	0.493885	30	0.493898	-0.00271
2605	0.493885	29	0.493894	-0.00186
2610	0.493885	26	0.493882	0.000619
2615	0.493885	25	0.493877	0.001676
2620	0.493885	24	0.493872	0.002733
2625	0.493886	21	0.493858	0.005611
2630	0.493886	27	0.493886	-1.4E-05
2635	0.493886	28	0.49389	-0.00078
2640	0.493886	26	0.493882	0.000884
2645	0.493887	27	0.493886	0.000117
2650	0.493887	27	0.493886	0.00016
2655	0.493887	28	0.49389	-0.00061
2660	0.493887	28	0.49389	-0.00056
2665	0.493887	30	0.493898	-0.00214
2670	0.493888	26	0.493882	0.001142
2675	0.493888	27	0.493886	0.000375
2680	0.493888	27	0.493886	0.000417
2685	0.493888	25	0.493877	0.002282
2690	0.493888	26	0.493882	0.001311
2695	0.493889	26	0.493882	0.001353

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2700	0.493889	25	0.493877	0.002407
2705	0.493889	30	0.493898	-0.0018
2710	0.493889	30	0.493898	-0.00176
2715	0.49389	31	0.493901	-0.00233
2720	0.49389	27	0.493886	0.00075
2725	0.49389	27	0.493886	0.000791
2730	0.49389	28	0.49389	2.22E-05
2735	0.49389	28	0.49389	6.29E-05
2740	0.493891	25	0.493877	0.002736
2745	0.493891	29	0.493894	-0.00067
2750	0.493891	28	0.49389	0.000184
2755	0.493891	27	0.493886	0.001034
2790	0.493892	27	0.493886	0.001311
2795	0.493893	26	0.493882	0.002159
2800	0.493893	29	0.493894	-0.00023
2805	0.493893	28	0.49389	0.000617
2810	0.493893	26	0.493882	0.002275
2815	0.493893	29	0.493894	-0.00012
2820	0.493894	26	0.493882	0.002352
2825	0.493894	29	0.493894	-3.9E-05
2830	0.493894	29	0.493894	-1.4E-06
2835	0.493894	30	0.493898	-0.00077
2840	0.493894	31	0.493901	-0.00134
2845	0.493895	35	0.493912	-0.00353
2850	0.493895	29	0.493894	0.000149
2855	0.493895	28	0.49389	0.000996
2860	0.493895	28	0.49389	0.001034
2865	0.493895	29	0.493894	0.000261
2870	0.493895	25	0.493877	0.00374
2875	0.493896	30	0.493898	-0.00048
2880	0.493896	26	0.493882	0.002801
2885	0.493896	27	0.493886	0.002028
2890	0.493896	26	0.493882	0.002874
2895	0.493896	29	0.493894	0.00048
2900	0.493897	30	0.493898	-0.00029
2905	0.493897	29	0.493894	0.000553
2910	0.493897	24	0.493872	0.005043
2915	0.493897	27	0.493886	0.002244

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2920	0.493897	27	0.493886	0.00228
2925	0.493897	29	0.493894	0.000696
2970	0.493899	34	0.49391	-0.00223
2975	0.493899	32	0.493904	-0.00098
2980	0.493899	30	0.493898	0.000269
2985	0.493899	28	0.49389	0.001923
2990	0.4939	29	0.493894	0.001147
2995	0.4939	33	0.493907	-0.00145
3000	0.4939	31	0.493901	-0.0002
3005	0.4939	30	0.493898	0.000439
3010	0.4939	27	0.493886	0.002902
3015	0.4939	28	0.49389	0.002125
3020	0.493901	29	0.493894	0.001349
3025	0.493901	29	0.493894	0.001382
3030	0.493901	30	0.493898	0.000605
3035	0.493901	27	0.493886	0.003068
3040	0.493901	27	0.493886	0.003101
3045	0.493901	28	0.49389	0.002324
3050	0.493902	28	0.49389	0.002357
3055	0.493902	33	0.493907	-0.00105
3100	0.493903	40	0.493923	-0.004
3105	0.493903	35	0.493912	-0.00174
3110	0.493904	33	0.493907	-0.0007
3115	0.493904	30	0.493898	0.001152
3120	0.493904	28	0.49389	0.002803
3125	0.493904	29	0.493894	0.002025
3130	0.493904	33	0.493907	-0.00058
3135	0.493904	29	0.493894	0.002087
3140	0.493904	30	0.493898	0.001308
3145	0.493905	33	0.493907	-0.00048
3150	0.493905	35	0.493912	-0.00147
3155	0.493905	37	0.493917	-0.00245
3160	0.493905	30	0.493898	0.00143
3165	0.493905	31	0.493901	0.000853
3170	0.493905	31	0.493901	0.000883
3175	0.493906	32	0.493904	0.000306
3180	0.493906	33	0.493907	-0.00027
3185	0.493906	35	0.493912	-0.00125



**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3190	0.493906	30	0.493898	0.001611
3195	0.493906	35	0.493912	-0.00119
3200	0.493906	30	0.493898	0.00167
3205	0.493906	29	0.493894	0.00251
3210	0.493907	27	0.493886	0.004159
3215	0.493907	28	0.49389	0.003379
3220	0.493907	30	0.493898	0.001788
3225	0.493907	29	0.493894	0.002627
3230	0.493907	25	0.493877	0.006098
3235	0.493907	30	0.493898	0.001876
3240	0.493907	33	0.493907	8.25E-05
3245	0.493908	33	0.493907	0.000111
3250	0.493908	36	0.493915	-0.00148
3255	0.493908	32	0.493904	0.000776
3260	0.493908	32	0.493904	0.000805
3265	0.493908	31	0.493901	0.001441
3270	0.493908	32	0.493904	0.000862
3275	0.493908	34	0.49391	-0.00032
3280	0.493909	33	0.493907	0.000311
3285	0.493909	30	0.493898	0.002161
3290	0.493909	37	0.493917	-0.00166
3295	0.493909	38	0.493919	-0.00203
3300	0.493909	36	0.493915	-0.0012
3305	0.493909	35	0.493912	-0.00056
3310	0.493909	39	0.493921	-0.00236
3315	0.49391	40	0.493923	-0.00273
3320	0.49391	33	0.493907	0.000534
3325	0.49391	36	0.493915	-0.00106
3330	0.49391	34	0.49391	-1.8E-05
3335	0.49391	34	0.49391	9.11E-06
3340	0.49391	30	0.493898	0.002466
3345	0.49391	34	0.49391	6.36E-05
3350	0.49391	25	0.493877	0.006772
3355	0.493911	33	0.493907	0.000725
3360	0.493911	28	0.49389	0.004194
3365	0.493911	30	0.493898	0.002601
3370	0.493911	33	0.493907	0.000806
3375	0.493911	34	0.49391	0.000225

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
3380	0.493911	33	0.493907	0.000859
3385	0.493911	35	0.493912	-0.00013
3390	0.493912	29	0.493894	0.003544
3395	0.493912	33	0.493907	0.000938
3400	0.493912	36	0.493915	-0.00066
3405	0.493912	33	0.493907	0.000991
3410	0.493912	33	0.493907	0.001017
3415	0.493912	36	0.493915	-0.00058
3420	0.493912	39	0.493921	-0.00177
3425	0.493912	34	0.49391	0.000488
3430	0.493913	40	0.493923	-0.00212
3435	0.493913	35	0.493912	0.000134
3440	0.493913	34	0.49391	0.000565
3445	0.493913	31	0.493901	0.002413
3450	0.493913	39	0.493921	-0.00161
3455	0.493913	30	0.493898	0.003071
3460	0.493913	33	0.493907	0.001274
3465	0.493913	36	0.493915	-0.00032
3470	0.493914	38	0.493919	-0.0011
3475	0.493914	37	0.493917	-0.00067
3480	0.493914	37	0.493917	-0.00065
3485	0.493914	30	0.493898	0.003223
3490	0.493914	30	0.493898	0.003248
3495	0.493914	36	0.493915	-0.00017
3500	0.493914	35	0.493912	0.000463
3505	0.493914	34	0.49391	0.000892
3510	0.493915	39	0.493921	-0.00131
3550	0.493915	37	0.493917	-0.00031
3555	0.493916	38	0.493919	-0.00069
3560	0.493916	40	0.493923	-0.00147
3565	0.493916	37	0.493917	-0.00023
3570	0.493916	40	0.493923	-0.00142
3575	0.493916	35	0.493912	0.000827
3580	0.493916	34	0.49391	0.001255
3585	0.493916	33	0.493907	0.001887
3590	0.493916	33	0.493907	0.00191
3595	0.493917	33	0.493907	0.001934
3600	0.493917	35	0.493912	0.000945

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
3605	0.493917	34	0.49391	0.001373
3610	0.493917	36	0.493915	0.000384
3615	0.493917	34	0.49391	0.00142
3620	0.493917	38	0.493919	-0.00038
3625	0.493917	37	0.493917	4.89E-05
3630	0.493917	32	0.493904	0.002704
3635	0.493917	35	0.493912	0.001107
3640	0.493918	36	0.493915	0.000523
3645	0.493918	36	0.493915	0.000546
3650	0.493918	36	0.493915	0.000569
3655	0.493918	36	0.493915	0.000591
3660	0.493918	38	0.493919	-0.0002
3665	0.493918	37	0.493917	0.000232
3670	0.493918	37	0.493917	0.000254
3675	0.493918	38	0.493919	-0.00013
3680	0.493918	40	0.493923	-0.00092
3685	0.493919	40	0.493923	-0.00089
3690	0.493919	40	0.493923	-0.00087
3695	0.493919	42	0.493927	-0.00166
3700	0.493919	38	0.493919	-1.6E-05
3705	0.493919	36	0.493915	0.000816
3710	0.493919	39	0.493921	-0.00038
3715	0.493919	39	0.493921	-0.00036
3720	0.493919	38	0.493919	7.18E-05
3725	0.493919	40	0.493923	-0.00072
3730	0.49392	40	0.493923	-0.00069
3735	0.49392	42	0.493927	-0.00148
3740	0.49392	38	0.493919	0.000159
3745	0.49392	31	0.493901	0.003825
3750	0.49392	37	0.493917	0.000607
3755	0.49392	35	0.493912	0.001641
3760	0.49392	37	0.493917	0.00065
3765	0.49392	33	0.493907	0.002697
3770	0.49392	33	0.493907	0.002718
3775	0.493921	38	0.493919	0.00031
3780	0.493921	39	0.493921	-7.4E-05
3785	0.493921	40	0.493923	-0.00046
3790	0.493921	46	0.493935	-0.00287

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3795	0.493921	40	0.493923	-0.00042
3800	0.493921	40	0.493923	-0.00039
3805	0.493921	41	0.493925	-0.00078
3810	0.493921	40	0.493923	-0.00035
3815	0.493921	43	0.493929	-0.00155
3820	0.493921	40	0.493923	-0.00031
3825	0.493922	39	0.493921	0.000115
3830	0.493922	39	0.493921	0.000136
3835	0.493922	39	0.493921	0.000157
3840	0.493922	39	0.493921	0.000177
3845	0.493922	34	0.49391	0.002425
3850	0.493922	39	0.493921	0.000218
3855	0.493922	38	0.493919	0.000644
3860	0.493922	36	0.493915	0.001474
3865	0.493922	38	0.493919	0.000684
3870	0.493922	34	0.49391	0.002527
3875	0.493923	41	0.493925	-0.00049
3880	0.493923	40	0.493923	-6.5E-05
3885	0.493923	40	0.493923	-4.5E-05
3890	0.493923	42	0.493927	-0.00083
3895	0.493923	41	0.493925	-0.00041
3900	0.493923	38	0.493919	0.000825
3905	0.493923	40	0.493923	3.55E-05
3910	0.493923	30	0.493898	0.005117
3915	0.493923	39	0.493921	0.00048
3920	0.493923	38	0.493919	0.000905
3925	0.493924	39	0.493921	0.00052
3930	0.493924	40	0.493923	0.000134
3935	0.493924	40	0.493923	0.000154
3940	0.493924	41	0.493925	-0.00023
3945	0.493924	40	0.493923	0.000193
3950	0.493924	40	0.493923	0.000213
3955	0.493924	38	0.493919	0.001042
3960	0.493924	43	0.493929	-0.00096
3965	0.493924	42	0.493927	-0.00054
3970	0.493924	41	0.493925	-0.00011
3975	0.493925	42	0.493927	-0.0005
3980	0.493925	42	0.493927	-0.00048

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3985	0.493925	41	0.493925	-5.7E-05
3990	0.493925	42	0.493927	-0.00044
3995	0.493925	46	0.493935	-0.00204
4000	0.493925	50	0.493944	-0.00385
4005	0.493925	43	0.493929	-0.00079
4010	0.493925	40	0.493923	0.000443
4015	0.493925	41	0.493925	5.67E-05
4020	0.493925	44	0.49393	-0.00094
4025	0.493925	38	0.493919	0.001309
4030	0.493926	39	0.493921	0.000923
4035	0.493926	39	0.493921	0.000942
4040	0.493926	39	0.493921	0.00096
4045	0.493926	40	0.493923	0.000574
4050	0.493926	41	0.493925	0.000187
4055	0.493926	40	0.493923	0.000611
4060	0.493926	39	0.493921	0.001034
4065	0.493926	29	0.493894	0.006519
4070	0.493926	32	0.493904	0.004513
4075	0.493926	25	0.493877	0.009998
4080	0.493926	26	0.493882	0.009003
4085	0.493927	39	0.493921	0.001126
4090	0.493927	40	0.493923	0.000739
4095	0.493927	36	0.493915	0.002377
4100	0.493927	42	0.493927	-3.5E-05
4105	0.493927	43	0.493929	-0.00042
4110	0.493927	30	0.493898	0.005873
4115	0.493927	39	0.493921	0.001234
4120	0.493927	40	0.493923	0.000847
4125	0.493927	41	0.493925	0.00046
4130	0.493927	41	0.493925	0.000478
4135	0.493927	40	0.493923	0.000901
4140	0.493928	44	0.49393	-0.0005
4145	0.493928	43	0.493929	-0.00028
4215	0.493929	45	0.493932	-0.00064
4220	0.493929	43	0.493929	-1.8E-05
4225	0.493929	43	0.493929	-1.2E-06
4230	0.493929	42	0.493927	0.000421
4235	0.493929	42	0.493927	0.000438

**Table C5** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FASS hole (Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
4240	0.493929	42	0.493927	0.000455
4245	0.493929	43	0.493929	6.65E-05
4250	0.493929	43	0.493929	8.34E-05
4255	0.493929	43	0.493929	0.0001
4260	0.49393	43	0.493929	0.000117
4265	0.49393	44	0.49393	-6.9E-05
4270	0.49393	46	0.493935	-0.00106
4275	0.49393	46	0.493935	-0.00105
4280	0.49393	45	0.493932	-0.00042
4285	0.49393	45	0.493932	-0.00041
4290	0.49393	45	0.493932	-0.00039
4295	0.49393	45	0.493932	-0.00037
4300	0.49393	44	0.49393	4.71E-05



**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole.

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error <math>((1-2) \times 100) / 1</math></b>
1750	0.488229	13	0.488406	-0.0363413
1755	0.48823	9	0.48823	0.0000408
1760	0.488232	8	0.488178	0.0110231
1765	0.488233	9	0.48823	0.0007021
1770	0.488235	10	0.488287	-0.0106448
1775	0.488237	10	0.488287	-0.0103188
1780	0.488238	8	0.488178	0.0123305
1785	0.48824	9	0.48823	0.0020023
1790	0.488241	10	0.488287	-0.0093518
1795	0.488243	11	0.488334	-0.0186594
1800	0.488244	12	0.488373	-0.0263302
1805	0.488246	12	0.488373	-0.0260149
1810	0.488248	10	0.488287	-0.0080873
1815	0.488249	9	0.48823	0.0038988
1820	0.488251	15	0.488459	-0.0426934
1825	0.488252	11	0.488334	-0.0167834
1830	0.488254	8	0.488178	0.0154739
1835	0.488255	9	0.48823	0.0051286
1840	0.488257	8	0.488178	0.0160821
1845	0.488258	8	0.488178	0.0163837
1850	0.488259	9	0.48823	0.0060336
1855	0.488261	13	0.488406	-0.0297144
1860	0.488262	10	0.488287	-0.0050453
1865	0.488264	13	0.488406	-0.0291222
1870	0.488265	12	0.488373	-0.0220698
1875	0.488267	10	0.488287	-0.0041644
1880	0.488268	13	0.488406	-0.0282457
1885	0.488269	10	0.488287	-0.0035849
1890	0.488271	9	0.48823	0.0083764
1895	0.488272	10	0.488287	-0.0030115
1900	0.488274	10	0.488287	-0.0027271
1905	0.488275	14	0.488434	-0.0325502
1910	0.488276	13	0.488406	-0.0265342
1915	0.488278	10	0.488287	-0.0018828
1920	0.488279	14	0.488434	-0.0317100
1925	0.488281	15	0.488459	-0.0365529
1930	0.488282	11	0.488334	-0.0106772
1935	0.488283	10	0.488287	-0.0007774
1940	0.488285	10	0.488287	-0.0005046
1945	0.488286	9	0.48823	0.0114403

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
1950	0.488287	9	0.48823	0.0117102
1955	0.488288	9	0.48823	0.0119788
1960	0.48829	9	0.48823	0.0122460
1965	0.488291	10	0.488287	0.0008385
1970	0.488292	10	0.488287	0.0011030
1975	0.488294	12	0.488373	-0.0162462
1980	0.488295	11	0.488334	-0.0079973
1985	0.488296	19	0.48853	-0.0478763
1990	0.488297	16	0.48848	-0.0373773
1995	0.488299	13	0.488406	-0.0219647
2000	0.4883	17	0.488499	-0.0407536
2005	0.488301	10	0.488287	0.0029176
2010	0.488302	13	0.488406	-0.0211984
2015	0.488304	15	0.488459	-0.0317995
2020	0.488305	11	0.488334	-0.0059490
2025	0.488306	13	0.488406	-0.0204436
2030	0.488307	13	0.488406	-0.0201944
2035	0.488309	9	0.48823	0.0160963
2040	0.48831	12	0.488373	-0.0129418
2045	0.488311	17	0.488499	-0.0384996
2050	0.488312	15	0.488459	-0.0300637
2055	0.488313	8	0.488178	0.0277244
2060	0.488315	16	0.48848	-0.0338792
2065	0.488316	17	0.488499	-0.0375293
2070	0.488317	13	0.488406	-0.0182447
2075	0.488318	14	0.488434	-0.0237402
2080	0.488319	14	0.488434	-0.0235029
2085	0.48832	12	0.488373	-0.0107750
2090	0.488322	10	0.488287	0.0070714
2095	0.488323	12	0.488373	-0.0103061
2100	0.488324	14	0.488434	-0.0225650
2105	0.488325	12	0.488373	-0.0098417
2110	0.488326	10	0.488287	0.0080001
2115	0.488327	15	0.488459	-0.0269928
2120	0.488328	13	0.488406	-0.0159110
2125	0.488329	13	0.488406	-0.0156837
2130	0.488331	14	0.488434	-0.0211913
2135	0.488332	16	0.48848	-0.0303859



**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole (Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2140	0.488333	16	0.48848	-0.0301618
2145	0.488334	16	0.48848	-0.0299386
2150	0.488335	17	0.488499	-0.0336073
2155	0.488336	13	0.488406	-0.0143420
2160	0.488337	15	0.488459	-0.0249752
2165	0.488338	9	0.48823	0.0221376
2170	0.488339	9	0.48823	0.0223555
2175	0.48834	11	0.488334	0.0012757
2180	0.488341	10	0.488287	0.0111161
2185	0.488342	11	0.488334	0.0017066
2190	0.488343	15	0.488458	-0.0234714
2195	0.488344	10	0.488287	0.0117579
2200	0.488345	10	0.488287	0.0119699
2205	0.488346	10	0.488287	0.0121810
2210	0.488348	14	0.488434	-0.0177105
2215	0.488349	12	0.488373	-0.0050102
2220	0.48835	13	0.488406	-0.0115594
2225	0.488351	12	0.488373	-0.0045947
2230	0.488352	11	0.488334	0.0035977
2235	0.488353	11	0.488334	0.0038031
2240	0.488354	15	0.488459	-0.0215886
2245	0.488355	12	0.488373	-0.0037748
2250	0.488356	10	0.488287	0.0140380
2255	0.488357	9	0.48823	0.0259116
2260	0.488358	8	0.488178	0.0367604
2265	0.488358	8	0.488178	0.0369603
2270	0.488359	9	0.48823	0.0265115
2275	0.48836	11	0.488334	0.0054139
2280	0.488361	9	0.48823	0.0269070
2285	0.488362	12	0.488373	-0.0021780
2290	0.488363	12	0.488373	-0.0019824
2295	0.488364	10	0.488287	0.0158222
2300	0.488365	19	0.48853	-0.0337417
2305	0.488366	8	0.488178	0.0385286
2310	0.488367	9	0.48823	0.0280731
2315	0.488368	13	0.488406	-0.0077739
2320	0.488369	14	0.488434	-0.0133167
2325	0.48837	14	0.488434	-0.0131268

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
2330	0.488371	13	0.488406	-0.0072045
2335	0.488372	11	0.488334	0.0077266
2340	0.488373	12	0.488373	-0.0000718
2345	0.488374	10	0.488287	0.0177243
2350	0.488374	10	0.488287	0.0179100
2355	0.488375	10	0.488287	0.0180950
2360	0.488376	10	0.488287	0.0182792
2365	0.488377	12	0.488373	0.0008532
2370	0.488378	12	0.488373	0.0010359
2375	0.488379	13	0.488406	-0.0055393
2380	0.48838	15	0.488459	-0.0162103
2385	0.488381	10	0.488287	0.0191885
2390	0.488382	19	0.48853	-0.0303881
2395	0.488382	21	0.488544	-0.0330758
2400	0.488383	14	0.488434	-0.0103744
2405	0.488384	15	0.488459	-0.0153159
2410	0.488385	16	0.48848	-0.0194391
2415	0.488386	13	0.488406	-0.0041112
2420	0.488387	12	0.488373	0.0028209
2425	0.488388	12	0.488373	0.0029953
2430	0.488388	12	0.488373	0.0031691
2435	0.488389	10	0.488287	0.0209510
2440	0.48839	14	0.488434	-0.0089756
2445	0.488391	15	0.488459	-0.0139229
2450	0.488392	16	0.48848	-0.0180517
2455	0.488393	12	0.488373	0.0040271
2460	0.488393	12	0.488373	0.0041966
2465	0.488394	13	0.488406	-0.0023914
2470	0.488395	13	0.488406	-0.0022233
2475	0.488396	15	0.488459	-0.0129076
2480	0.488397	11	0.488334	0.0128531
2485	0.488398	10	0.488287	0.0226425
2490	0.488398	9	0.48823	0.0344787
2495	0.488399	8	0.488178	0.0452905
2500	0.4884	10	0.488287	0.0231368
2505	0.488401	10	0.488287	0.0233002
2510	0.488402	13	0.488406	-0.0009022
2515	0.488402	12	0.488373	0.0060167

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2520	0.488403	12	0.488373	0.0061782
2525	0.488404	14	0.488434	-0.0061506
2530	0.488405	13	0.488406	-0.0002574
2535	0.488406	17	0.488499	-0.0191393
2540	0.488406	19	0.48853	-0.0253274
2545	0.488407	17	0.488499	-0.0188219
2550	0.488408	14	0.488434	-0.0053555
2555	0.488409	15	0.488459	-0.0103171
2560	0.488409	14	0.488434	-0.0050419
2565	0.48841	10	0.488287	0.0252117
2570	0.488411	13	0.488406	0.0010022
2575	0.488412	13	0.488406	0.0011569
2580	0.488412	13	0.488406	0.0013110
2585	0.488413	13	0.488406	0.0014645
2590	0.488414	14	0.488434	-0.0041154
2595	0.488415	16	0.48848	-0.0133813
2600	0.488415	16	0.48848	-0.0132296
2605	0.488416	13	0.488406	0.0020726
2610	0.488417	12	0.488373	0.0089797
2615	0.488418	15	0.488459	-0.0084782
2620	0.488418	17	0.488499	-0.0165185
2625	0.488419	16	0.48848	-0.0124795
2630	0.48842	14	0.488434	-0.0029131
2635	0.48842	12	0.488373	0.0097239
2640	0.488421	18	0.488516	-0.0194070
2645	0.488422	18	0.488516	-0.0192604
2650	0.488423	14	0.488434	-0.0023255
2655	0.488423	14	0.488434	-0.0021800
2660	0.488424	21	0.488544	-0.0245565
2665	0.488425	20	0.488544	-0.0244121
2670	0.488425	16	0.48848	-0.0111648
2675	0.488426	15	0.488459	-0.0067220
2680	0.488427	14	0.488434	-0.0014607
2685	0.488428	12	0.488373	0.0111706
2690	0.488428	16	0.48848	-0.0105946
2695	0.488429	12	0.488373	0.0114536
2700	0.48843	14	0.488434	-0.0008948
2705	0.48843	17	0.488499	-0.0140626

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2710	0.488431	13	0.488406	0.0051177
2715	0.488432	13	0.488406	0.0052568
2720	0.488432	14	0.488434	-0.0003372
2725	0.488433	16	0.48848	-0.0096170
2730	0.488434	10	0.488287	0.0300347
2735	0.488434	18	0.488516	-0.0167127
2740	0.488435	13	0.488406	0.0059448
2745	0.488436	12	0.488373	0.0128372
2750	0.488436	12	0.488373	0.0129728
2755	0.488437	12	0.488373	0.0131079
2760	0.488438	11	0.488334	0.0212271
2765	0.488438	11	0.488334	0.0213612
2770	0.488439	10	0.488287	0.0311173
2775	0.48844	13	0.488406	0.0068872
2780	0.48844	15	0.488459	-0.0038310
2785	0.488441	13	0.488406	0.0071521
2790	0.488442	14	0.488434	0.0015513
2795	0.488442	14	0.488434	0.0016825
2800	0.488443	15	0.488459	-0.0033050
2805	0.488443	14	0.488434	0.0019437
2810	0.488444	16	0.48848	-0.0073441
2815	0.488445	19	0.48853	-0.0174513
2820	0.488445	21	0.488544	-0.0201885
2825	0.488446	15	0.488459	-0.0026579
2830	0.488447	16	0.48848	-0.0068292
2835	0.488447	15	0.488459	-0.0024022
2840	0.488448	16	0.48848	-0.0065744
2845	0.488449	18	0.488516	-0.0138180
2850	0.488449	19	0.48853	-0.0165580
2855	0.48845	15	0.488459	-0.0018963
2860	0.48845	15	0.488459	-0.0017710
2865	0.488451	11	0.488334	0.0239451
2870	0.488452	12	0.488373	0.0160851
2875	0.488452	10	0.488287	0.0338158
2880	0.488453	9	0.48823	0.0456089
2885	0.488453	9	0.48823	0.0457320
2890	0.488454	10	0.488287	0.0341853
2895	0.488455	8	0.488178	0.0566228

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
2900	0.488455	14	0.488434	0.0043346
2905	0.488456	16	0.48848	-0.0049614
2910	0.488456	15	0.488459	-0.0005410
2915	0.488457	21	0.488544	-0.0178221
2920	0.488458	19	0.48853	-0.0148356
2925	0.488458	18	0.488516	-0.0118496
2930	0.488459	20	0.488544	-0.0174625
2935	0.488459	20	0.488544	-0.0173434
2940	0.48846	18	0.488516	-0.0114925
2945	0.48846	16	0.48848	-0.0040041
2950	0.488461	15	0.488459	0.0004129
2955	0.488462	12	0.488373	0.0181366
2960	0.488462	14	0.488434	0.0057655
2965	0.488463	14	0.488434	0.0058821
2970	0.488463	15	0.488459	0.0008802
2975	0.488464	11	0.488334	0.0265865
2980	0.488464	13	0.488406	0.0119619
2985	0.488465	14	0.488434	0.0063447
2990	0.488466	15	0.488459	0.0013413
2995	0.488466	17	0.488499	-0.0067333
3000	0.488467	18	0.488516	-0.0100996
3005	0.488467	18	0.488516	-0.0099861
3010	0.488468	14	0.488434	0.0069143
3015	0.488468	12	0.488373	0.0195151
3020	0.488469	16	0.48848	-0.0022777
3025	0.488469	11	0.488334	0.0277236
3030	0.48847	10	0.488287	0.0374572
3035	0.488471	14	0.488434	0.0074745
3040	0.488471	19	0.48853	-0.0120677
3045	0.488472	21	0.488544	-0.0148232
3050	0.488472	15	0.488459	0.0026882
3055	0.488473	16	0.48848	-0.0015011
3060	0.488473	15	0.488459	0.0029076
3065	0.488474	16	0.48848	-0.0012824
3070	0.488474	16	0.48848	-0.0011736
3075	0.488475	17	0.488499	-0.0049549
3080	0.488475	11	0.488334	0.0289318
3085	0.488476	13	0.488406	0.0142998

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole (Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3090	0.488476	13	0.488406	0.0144071
3095	0.488477	13	0.488406	0.0145141
3100	0.488477	14	0.488434	0.0088887
3105	0.488478	14	0.488434	0.0089950
3110	0.488478	16	0.48848	-0.0003160
3115	0.488479	15	0.488459	0.0040888
3120	0.488479	12	0.488373	0.0217997
3125	0.48848	10	0.488287	0.0395103
3130	0.488481	11	0.488334	0.0299933
3135	0.488481	11	0.488334	0.0300975
3140	0.488482	15	0.488459	0.0046120
3145	0.488482	13	0.488406	0.0155656
3150	0.488483	17	0.488499	-0.0033697
3155	0.488483	18	0.488516	-0.0067468
3160	0.488484	17	0.488499	-0.0031640
3165	0.488484	17	0.488499	-0.0030617
3170	0.488485	17	0.488499	-0.0029596
3175	0.488485	15	0.488459	0.0053306
3180	0.488486	14	0.488434	0.0105499
3185	0.488486	17	0.488499	-0.0026555
3190	0.488487	18	0.488516	-0.0060349
3195	0.488487	19	0.48853	-0.0088004
3200	0.488488	20	0.488544	-0.0115663
3205	0.488488	19	0.48853	-0.0086005
3210	0.488488	22	0.488567	-0.0160754
3215	0.488489	23	0.488577	-0.0180233
3220	0.488489	20	0.488544	-0.0111689
3225	0.48849	17	0.488499	-0.0018583
3230	0.48849	16	0.48848	0.0021295
3235	0.488491	15	0.488459	0.0065264
3240	0.488491	15	0.488459	0.0066241
3245	0.488492	14	0.488434	0.0118392
3250	0.488492	16	0.48848	0.0025195
3255	0.488493	15	0.488459	0.0069152
3260	0.488493	13	0.488406	0.0178614
3265	0.488494	13	0.488406	0.0179575
3270	0.488494	12	0.488373	0.0248088
3275	0.488495	12	0.488373	0.0249044

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3280	0.488495	11	0.488334	0.0329833
3285	0.488496	19	0.48853	-0.0070449
3290	0.488496	14	0.488434	0.0127020
3295	0.488497	17	0.488499	-0.0005098
3300	0.488497	15	0.488459	0.0077728
3305	0.488497	17	0.488499	-0.0003218
3310	0.488498	16	0.48848	0.0036613
3315	0.488498	19	0.48853	-0.0064809
3320	0.488499	20	0.488544	-0.0092538
3325	0.488499	20	0.488544	-0.0091611
3330	0.4885	18	0.488516	-0.0033368
3335	0.4885	18	0.488516	-0.0032446
3340	0.488501	16	0.48848	0.0042167
3345	0.488501	18	0.488516	-0.0030611
3350	0.488501	21	0.488544	-0.0087016
3355	0.488502	16	0.48848	0.0044908
3360	0.488502	15	0.488459	0.0088804
3365	0.488503	15	0.488459	0.0089709
3370	0.488503	15	0.488459	0.0090612
3375	0.488504	13	0.488406	0.0200006
3380	0.488504	17	0.488499	0.0010526
3385	0.488505	19	0.48853	-0.0052038
3390	0.488505	11	0.488334	0.0350078
3395	0.488505	14	0.488434	0.0146261
3400	0.488506	17	0.488499	0.0014089
3405	0.488506	19	0.48853	-0.0048486
3410	0.488507	20	0.488544	-0.0076263
3415	0.488507	20	0.488544	-0.0075384
3420	0.488508	18	0.488516	-0.0017190
3425	0.488508	20	0.488544	-0.0073634
3430	0.488508	17	0.488499	0.0019354
3435	0.488509	17	0.488499	0.0020223
3440	0.488509	16	0.48848	0.0059983
3445	0.48851	14	0.488434	0.0155011
3450	0.48851	19	0.48853	-0.0040644
3455	0.488511	18	0.488516	-0.0011127
3460	0.488511	13	0.488406	0.0214903
3465	0.488511	11	0.488334	0.0363143

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole (Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3470	0.488512	16	0.48848	0.0065128
3475	0.488512	17	0.488499	0.0027083
3480	0.488513	19	0.48853	-0.0035529
3485	0.488513	15	0.488459	0.0110654
3490	0.488513	20	0.488544	-0.0062502
3495	0.488514	22	0.488567	-0.0108744
3500	0.488514	23	0.488577	-0.0128378
3505	0.488515	15	0.488459	0.0114005
3510	0.488515	17	0.488499	0.0032956
3515	0.488516	14	0.488434	0.0166842
3520	0.488516	18	0.488516	-0.0000186
3525	0.488516	13	0.488406	0.0225810
3530	0.488517	16	0.48848	0.0075154
3535	0.488517	19	0.48853	-0.0026377
3540	0.488518	14	0.488434	0.0170954
3545	0.488518	14	0.488434	0.0171770
3550	0.488518	17	0.488499	0.0039527
3555	0.488519	17	0.488499	0.0040338
3560	0.488519	17	0.488499	0.0041147
3565	0.488519	18	0.488516	0.0007154
3570	0.48852	19	0.48853	-0.0020699
3575	0.48852	20	0.488544	-0.0048555
3580	0.488521	20	0.488544	-0.0047756
3585	0.488521	20	0.488544	-0.0046958
3590	0.488521	19	0.48853	-0.0017505
3595	0.488522	19	0.48853	-0.0016712
3600	0.488522	18	0.488516	0.0012737
3605	0.488523	18	0.488516	0.0013525
3610	0.488523	14	0.488434	0.0182165
3615	0.488523	14	0.488434	0.0182949
3620	0.488524	15	0.488459	0.0132556
3625	0.488524	11	0.488334	0.0389209
3630	0.488525	13	0.488406	0.0242604
3635	0.488525	10	0.488287	0.0486970
3640	0.488525	19	0.48853	-0.0009673
3645	0.488526	18	0.488516	0.0019757
3650	0.488526	20	0.488544	-0.0036789
3655	0.488526	25	0.488595	-0.0140418



**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole (Continued).

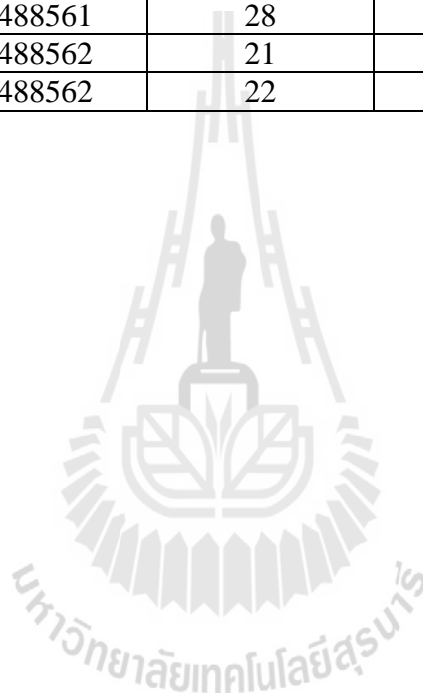
Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3660	0.488527	20	0.488544	-0.0035257
3665	0.488527	20	0.488544	-0.0034494
3670	0.488528	19	0.48853	-0.0005076
3675	0.488528	25	0.488595	-0.0137370
3680	0.488528	22	0.488567	-0.0079298
3685	0.488529	20	0.488544	-0.0031463
3690	0.488529	21	0.488544	-0.0030710
3735	0.488532	20	0.488544	-0.0024026
3740	0.488533	22	0.488567	-0.0070373
3745	0.488533	21	0.488544	-0.0022563
3750	0.488533	20	0.488544	-0.0021834
3755	0.488534	20	0.488544	-0.0021107
3760	0.488534	19	0.48853	0.0008275
3765	0.488534	20	0.488544	-0.0019659
3770	0.488535	20	0.488544	-0.0018938
3805	0.488537	20	0.488544	-0.0013944
3810	0.488538	20	0.488544	-0.0013238
3815	0.488538	18	0.488516	0.0044780
3820	0.488538	19	0.48853	0.0016825
3825	0.488539	20	0.488544	-0.0011131
3830	0.488539	20	0.488544	-0.0010432
3835	0.488539	19	0.48853	0.0018921
3840	0.48854	19	0.48853	0.0019616
3845	0.48854	18	0.488516	0.0048966
3910	0.488544	20	0.488544	0.0000503
3915	0.488545	20	0.488544	0.0001171
3920	0.488545	19	0.48853	0.0030495
3925	0.488545	19	0.48853	0.0031160
3930	0.488546	19	0.48853	0.0031823
3935	0.488546	18	0.488516	0.0061141
3940	0.488546	10	0.488287	0.0530539
3945	0.488547	10	0.488287	0.0531197
3950	0.488547	21	0.488544	0.0005804
3955	0.488547	21	0.488544	0.0006459
3960	0.488547	20	0.488544	0.0007112
3965	0.488548	20	0.488544	0.0007764
3970	0.488548	22	0.488567	-0.0038664
3975	0.488548	23	0.488577	-0.0058484

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

Depth	Real Pressure Gradient (1)	Resistivity of FAMS4770	Psi/ft from graph (2)	% Error $((1-2) \times 100) / 1$
3980	0.488549	20	0.488544	0.0009710
3985	0.488549	20	0.488544	0.0010355
3990	0.488549	19	0.48853	0.0039655
3995	0.48855	20	0.488544	0.0011641
4000	0.48855	20	0.488544	0.0012281
4005	0.48855	19	0.48853	0.0041576
4010	0.488551	21	0.488544	0.0013557
4015	0.488551	21	0.488544	0.0014193
4020	0.488551	21	0.488544	0.0014827
4025	0.488552	21	0.488544	0.0015460
4030	0.488552	20	0.488544	0.0016090
4035	0.488552	17	0.488499	0.0108829
4040	0.488552	18	0.488516	0.0074660
4045	0.488553	18	0.488516	0.0075286
4050	0.488553	19	0.48853	0.0047255
4055	0.488553	20	0.488544	0.0019222
4060	0.488554	21	0.488544	0.0019843
4065	0.488554	21	0.488544	0.0020464
4070	0.488554	24	0.488587	-0.0066933
4075	0.488555	27	0.48861	-0.0113393
4080	0.488555	25	0.488595	-0.0082075
4085	0.488555	22	0.488567	-0.0024149
4090	0.488556	28	0.488617	-0.0125879
4095	0.488556	23	0.488577	-0.0043394
4100	0.488556	21	0.488544	0.0024762
4105	0.488556	21	0.488544	0.0025370
4110	0.488557	20	0.488544	0.0025977
4115	0.488557	20	0.488544	0.0026582
4120	0.488557	19	0.48853	0.0055841
4125	0.488558	19	0.48853	0.0056443
4130	0.488558	19	0.48853	0.0057044
4135	0.488558	21	0.488544	0.0028987
4140	0.488558	21	0.488544	0.0029585
4145	0.488559	22	0.488567	-0.0016896
4150	0.488559	23	0.488577	-0.0036769
4155	0.488559	21	0.488544	0.0031370
4160	0.48856	21	0.488544	0.0031962
4165	0.48856	21	0.488544	0.0032553

**Table C6** Comparison between the pressure gradient which was estimated by using a monograph and the actual pressure gradient which was found in FABT hole  
(Continued).

<b>Depth</b>	<b>Real Pressure Gradient (1)</b>	<b>Resistivity of FAMS4770</b>	<b>Psi/ft from graph (2)</b>	<b>% Error ((1-2)x100)/1</b>
4170	0.48856	21	0.488544	0.0033142
4175	0.48856	23	0.488577	-0.0033816
4180	0.488561	21	0.488544	0.0034316
4185	0.488561	19	0.48853	0.0063557
4190	0.488561	28	0.488617	-0.0113933
4195	0.488562	21	0.488544	0.0036067
4200	0.488562	22	0.488567	-0.0010429



## **BIOGRAPHY**

Sattasak Puewthong was born on 21 October 1982 and got a bachelor degree from Physics Department, Faculty of Sciences, Prince of Songkhla University. He started studying at School of Geotechnology, Faculty of Engineering, Suranaree University of Technology in 2009. He conducted this research because of interesting in wireline log, pressure gradient, and pressure estimation.

