資　　料

[資料]

1　調査団員氏名

1-1　基本設計調査団団員氏名

総　括	岡崎　俊夫　(Toshio OKAZAKI) JICA 調達部特任参事 Leader, Procurement Department, JICA
計画管理	三条　明仁　(Akihito SANJO) JICA 無償資金協力調査部調査第 1 課 Project Coordinator, First Project Study Division, Grant Aid Project Study Department, JICA
業務主任/運営・維持管理計画	寺村　靖夫　(Yasuo TERAMURA) 株式会社三祐コンサルタンツ Project Manager, Sanyu Consultants Inc.
水理地質 I	尾崎　弘明　(Komei OZAKI) 株式会社三祐コンサルタンツ Hydrogeologist I, Sanyu Consultants Inc.
水理地質 II	中村　晴彦　(Haruhiko NAKAMURA) 株式会社三祐コンサルタンツ Hydrogeologist II, Sanyu Consultants Inc.
物理探査 I	石川　次男　(Tsugio ISHIKAWA) 株式会社三祐コンサルタンツ Geological Prospector I, Sanyu Consultants Inc.
物理探査 II	杵鞭　政樹　(Masaki KINEMUCHI) 株式会社三祐コンサルタンツ Geological Prospector II, Sanyu Consultants Inc.
積算/調達計画	田中　悦次　(Etsuji TANAKA) 株式会社三祐コンサルタンツ Cost Estimate/Procurement Plan, Sanyu Consultants Inc.

1-2　基本設計概要説明調査団団員氏名

総　括	岡崎　俊夫　(Toshio OKAZAKI) JICA 調達部特任参事 Leader, Procurement Department, JICA
計画管理	境　勝一郎　(Katsuichiro SAKAI) 東京国際研修センター研修第１課 Project Coordinator, First Trainning Division, Tokyo International Center, JICA
業務主任/運営・維持管理計画	寺村　靖夫　(Yasuo TERAMURA) 株式会社三祐コンサルタンツ Project Manager, Sanyu Consultants Inc.
積算/調達計画	田中　悦次　(Etsuji TANAKA) 株式会社三祐コンサルタンツ Cost Estimate/Procurement Plan, Sanyu Consultants Inc.

2　調査日程

2.1　基本設計現地調査日程表

４月　１日（火）	大蔵省表敬、天然資源省表敬
４月　２日（水）	日本大使館表敬、計画省表敬、インセプションレポート説明協議、掘削業者視察調査
４月　３日（木）	サイト調査（キボガ県既存給水施設状況他）
４月　４日（金）	サイト調査（ジンジャワークショップ他）
４月　５日（土）	サイト調査（ムピギ県パイロットプロジェクト村落、衛生教育セミナー他
４月　６日（日）	団内打合及び報告書作成
４月　７日（月）	UNICEF 表敬デンマーク大使館表敬、ミニッツ協議
４月　８日（火）	ミニッツ署名、質問書協議
４月　９日（水）	世銀表敬、現地調査準備、官団員ウガンダ出国
４月１０日（木）	現地調査準備
４月１１日（金）	現地調査詳細行程打合せ、田中団員（積算/調達計画）ウガンダ入国
４月１２日（土）	ムピギ地区物理探査デモンストレーション調査実施
４月１３日（日）	団内打合せ
４月１４日（月）	ムピギ地区物理探査、民間掘削業者訪問調査
４月１５日（火）	ムピギ地区物理探査、民間掘削業者訪問調査
４月１６日（水）	ムピギ地区水理地質及び物理探査、ジンジャワークショップ訪問
４月１７日（木）	ムピギ地区水理地質及び物理探査

４月１８日（金）	ムピギ地区物理探査、水理地質調査結果整理、資機材調査
４月１９日（土）	ムピギ地区物理探査、水理地質調査結果整理、資機材調査
４月２０日（日）	団内打合せ及び資料整理
４月２１日（月）	ムピギ地区水理地質及び物理探査、DWD 打合せ
４月２２日（火）	ムピギ地区水理地質及び物理探査、資料収集
４月２３日（水）	ムピギ地区水理地質及び物理探査、キボガ地区現地調査
４月２４日（木）	ムピギ地区物理探査、ムベンデ地区水理地質調査
４月２５日（金）	物理探査結果整理、ムベンデ地区水理地質調査、資機材調査整理
４月２６日（土）	物理探査結果整理、ムベンデ地区水理地質調査、資機材調査整理
４月２７日（日）	団内打合せ及び資料整理
４月２８日（月）	ムベンデ地区水理地質及び物理探査、資料整理
４月２９日（火）	ムベンデ地区水理地質及び物理探査、資料整理
４月３０日（水）	ムベンデ地区水理地質及び物理探査、現地調査、中村団員（水理地質　II 担当）ウガンダ入国
５月　１日（木）	ムベンデ地区水理地質及び物理探査
５月　２日（金）	ムベンデ地区水理地質及び物理探査
５月　３日（土）	ムベンデ地区水理地質及び物理探査
５月　４日（日）	団内打合せ及び資料整理
５月　５日（月）	ムベンデ地区水理地質及び物理探査、現地調査
５月　６日（火）	ムベンデ地区水理地質及び物理探査、資料収集
５月　７日（水）	ムベンデ地区物理探査、資料収集及び資料整理、尾崎団員御尊父逝去により一時帰国
５月　８日（木）	バララワークショップ訪問調査
５月　９日（金）	資料整理、団内打合せ
５月１０日（土）	キボガ地区物理探査、資料整理
５月１１日（日）	キボガ地区物理探査、資料整理
５月１２日（月）	キボガ地区物理探査及びキボガ Level-II 踏査
５月１３日（火）	キボガ地区物理探査、ムベンデ地区水理地質調査及び現地調査整理
５月１４日（水）	キボガ地区物理探査、ムベンデ地区水理地質調査及び工事関連調査
５月１５日（木）	キボガ地区物理探査、ムピギ地区水理地質調査及び工事関連調査
５月１６日（金）	資料整理
５月１７日（土）	キボガ地区物理探査、資料整理、尾崎団員一時帰国より帰任
５月１８日（日）	キボガ地区物理探査、団内会議及び資料整理
５月１９日（月）	キボガ地区物理探査、キボガ Level-II 調査
５月２０日（火）	キボガ地区物理探査、キボガ地区水質調査、キボガ Level-II 測量
５月２１日（水）	キボガ地区物理探査、キボガ地区水質調査、キボガ Level-II 測量
５月２２日（木）	DWD へ調査経過報告
５月２３日（金）	日本大使館へ報告
５月２４日（土）	資料整理
５月２５日（日）	帰国準備
５月２６日（月）	在ナイロビ日本大使館、JICA ナイロビ事務所へ報告

2.2 基本設計概要説明調査団日程

８月１９日（火）	ナイロビ着、JICA ケニア事務所打合せ、在ケニア日本大使館表敬
８月２０日（水）	エンテベ着、経済計画省表敬
８月２１日（木）	天然資源省水資源開発局にて基本設計概要書説明 WES 関係者と協議
８月２２日（金）	天然資源省水資源開発局にて基本設計概要書について協議
８月２３日（土）	キボガ地区視察、キボガ病院視察
８月２４日（日）	団内打合及び資料整理
８月２５日（月）	水資源開発局にてミニッツ協議
８月２６日（火）	水資源開発局にてミニッツ署名
８月２７日（水）	ウガンダ出国、ナイロビ着
８月２８日（木）	在ケニア日本大使館へ報告、JICA ケニア事務所へ報告 ナイロビ発

3　相手国関係者リスト

在ウガンダ日本国大使館

大竹　米蔵氏	参事官

Ministry of Foreign Affairs

Mr. Arthur Gakwandi	Director Asia, Pacific & South America
Mr. Alfred M. Nabeta	Foreign Service Officer
Mr. Ndoboli	Officer

Ministry of Finance and Economic Planning

Ambassador Daudi M. Taliwako	Commissioner, External Aid Coordination
Mr. Yuichi Sasaoka	JICA Expert, Advisor for Japan's Aid
Mr. Katwe	Coordinator
Mr. Magona	Secretary of Development Committee
Mr. Mark Williams	Senior Economist（英国人）

Ministry of Natural Resources

Mr. Ben Z. Dramadri	Permanent Secretary
Mr. F.A.Kabagambe-Kaliisa	Permanent Secretary

Directorate of Water Development(DWD)

Mr. Patric Kahangire	Director DWD
Mr. S.M.Bomukama	Commissioner of Urban and Institutional Water Development
Mr. Moses K.Gava	Ag. Commissioner of Rural Water Development
Mr. Disan Ssozi	Senior Engineer

Mr. Pantaleo Kabateraine	Hydrologist
Mr. Richard Cong	WES Coordinator
Mr. Sven Jacobi	Chief Advisor to Director DWD
Mr. Omoit Stevenson	Assistant WES Coordinator
Mr. Enoch M. Dribidu	Principal Hydrologist
Mr. Mufisha Shilling	Principal Engineer
Mr. Roger Lubunga	Sr. Engineer
Mr. Patrick Kagoro	Ag. Commisioner(ISSD)
Mr. Henry Twijukye	Hydrogeologist
Mr. Okao	Hydrogeologist
Mr. Ian Arebahona	Coordinator, WES Programme
Mr. S. T. Katuraniu	Senior Driller
Mr. S.Y. R. Busimo	Ag. Borehole Maintenance Superintendent
Mr. Friacious Ssembali	National Coordinator, Gravity Flow Schemes
Mr. Rudolf Glotzbach	Technical Advisor, Gravity Flow Schemes
Ministry of Health	
Mr. Charles Tumwebaze	WES programme
UNICEF	
Mr. Lloyd Donaldson	Senior Project Officer, WES
Royal Danish Embassy	
Mr. Hans Lillelund	Counsellor, Development
DANIDA	
Mr. Mogens Mechta	Sector Advisor
Kiboga T/C	
Mr. Gashenyi Jhon	Town Cleark
Mr. Kabuye Mariin	Town Council Health Officer
Kiboga Hospital	
Ms. Kiyuba Munulo	Senior Nursing Officer

4 協議議事録

4.1 基本設計調査協議議事録 添付資料 1

4.2 基本設計概要説明調査議事録 添付資料 2

5. 当該国の社会・経済事情

国名	ウガンダ共和国
	Republic of Uganda

1997.03　1/2

一般指標					
政体	共和制	*1	首都	カンパラ	*1
元首	Presidnet Yoweri K. MUSEVENI	*1	主要都市名	ｼﾞﾆｱ、ﾑﾊﾞﾚ、ﾏｻｶ	*1
独立年月日	1962年10月09日	*1	経済活動可人口	10,000 千人　(1994年)	*5
人種(部族)構成	ﾊﾞﾝﾂ族、ﾆﾛﾃｲｸｽ族、ﾆﾛﾊﾐﾃｽ族、ｽﾀﾞﾆｸ	*4	義務教育年数	年間	*7
	族		初等教育就学率	－ %	*5
言語・公用語	英語、ｽﾜﾋﾘ語、ﾙｶﾞﾝﾀﾞ語	*1	初等教育終了率	－ %	*5
宗教	ｷﾘｽﾄ教66%、地域信仰18%、回教16%	*1	識字率	59.7 %　(1993年)	*5
国連加盟	1962年10月	*2	人口密度	98.0 人/Km2　(1995年)	*4
世銀・IMF加盟	1963年09月	*3	人口増加率	2.25 %　(1995年)	*4
			平均寿命	平均36.58　男36.26　女36.91	*4
			5歳児未満死亡率	185 /1000　(1994年)	*5
面積	236.04 千Km2	*4	ｶﾛﾘｰ供給量	2,162.0 cal/日/人　(1992年)	*5
人口	19,573.3 千人　(1995年)	*4			

経済指標							
通貨単位	ウガンダ・シリング			*1	貿易量	(1995年)	*8
為替ﾚｰﾄ(1US$)	1US$= 1,029.6	(12月)		*6	輸出	461.0 百万ﾄﾞﾙ	*8
会計年度	7月～　6月			*1	輸入	1,051.0 百万ﾄﾞﾙ	*8
国家予算		(1994年)		*6	輸入ｶﾊﾞｰ率	4.3 % (1994年)	*9
歳入	403.00	百万ﾄﾞﾙ		*6	主要輸出品目	ｺｰﾋｰ、綿花、茶	*4
歳出	866.5	百万ﾄﾞﾙ		*6	主要輸入品目	石油製品、機械、綿製品、鉱石、輸送機	*4
国際収支	102.00	百万ﾄﾞﾙ	(1994年)	*6	日本への輸出	11.0 百万ﾄﾞﾙ　(1995年)	*10
ODA受取額	753.00	百万ﾄﾞﾙ	(1994年)	*8	日本からの輸入	52.0 百万ﾄﾞﾙ　(1995年)	*10
国内総生産(GDP)	4,001.00	百万ﾄﾞﾙ	(1994年)	*8			
一人当たりGNP	190.0	ﾄﾞﾙ	(1994年)	*8	外貨準備総額	490.2 百万ﾄﾞﾙ　(1996年)	*6
GDP産業別構成	農業	49.0 %	(1994年)	*8	対外債務残高	152.0 百万ﾄﾞﾙ　(1994年)	*9
	鉱工業	14.0 %	(1994年)		対外債務返済率	44.0 %　(1994年)	*9
	ｻｰﾋﾞｽ業	37.0 %	(1994年)		ｲﾝﾌﾚ率	30.7 %　(1993年)	*5
産業別雇用	農業	85.0 %	(1990年)	*5			
	鉱工業	5.0 %	(1990年)				
	ｻｰﾋﾞｽ業	11.0 %	(1990年)		国家開発計画		*11
経済成長率		5.6 %	(1994年)	*8			

*12

気象(　　年～　　年平均)　場所：Kampala　　(標高　1312 m)													
月	1	2	3	4	5	6	7	8	9	10	11	12	平均/計
最高気温	28.0	28.0	27.0	26.0	25.0	25.0	25.0	25.0	27.0	27.0	27.0	27.0	26.4 ℃
最低気温	18.0	18.0	18.0	18.0	17.0	17.0	17.0	16.0	17.0	17.0	17.0	17.0	17.2 ℃
平均気温	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 ℃
降水量	46.0	61.0	130.0	175.0	147.0	74.0	46.0	86.0	91.0	97.0	122.0	99.0	1,174.0 mm
雨期/乾期				雨	雨								

*1 CIA World Fact book(1993)
*2 States Menber of the United Nationas
*3 World Bank Fax(1994)
*4 CIA World Fact Book(1996-1997)
*5 Human Development Report(1996)
*6 International Financial Statistics
*7 Statistical Yearbook 1996
*8 World Development Report(1996)
*9 World Debt Tables (1996)
*10 世界の国一覧(外務省外務報道官編集)(1996)
*11 最新世界各国要覧(1996)
*12 理科年表1997(丸善)

国名	ウガンダ共和国
	Republic of Uganda

*13

我が国におけるＯＤＡの実績 (資金協力は約束額ベース、単位：億円)

項目＼年度	1990	1991	1992	1994
技術協力	2,382.47	2,515.30	2,699.97	3,087.67
無償資金協力	1,989.63	2,050.70	2,194.95	2,456.48
有償資金協力	5,676.39	7,364.47	5,852.05	4,352.21
総　額	10,048.49	11,930.47	10,746.97	9,896.36

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当該国に対する我が国ＯＤＡの実績 (支出純額、単位：百万ﾄﾞﾙ)

項目＼歴年	1991	1992	1993	1994
技術協力	1.06	0.82	3.84	4.97
無償資金協力	13.86	13.75	7.19	30.32
有償資金協力	-0.20	-0.21	28.40	13.43
総　額	14.72	14.36	39.43	48.72

*13

ＯＥＣＤ諸国の経済協力実績 (支出純額、単位：百万ﾄﾞﾙ)

	贈　与 (1)		有償資金協力 (2)	政府開発援助 (ODA) (1)+(2)=(3)	その他政府資金及び民間資金 (4)	経済協力総額 (3)+(4)
		技術協力				
二国間援助	230.00	75.80	24.70	254.70	-0.80	253.90
(主要供与国)						
1. イギリス	40.10	11.80	0.50	40.60	0.80	41.40
2. デンマーク	37.10	5.30	0.00	37.10	-0.20	36.90
3. ｽｳｪｰﾃﾞﾝ	29.00	6.10	0.00	29.00	0.00	29.00
4. ドイツ	23.00	15.90	0.00	23.00	-0.40	22.60
多国間援助	212.40	45.80	246.30	458.70	-12.80	445.90
(主要援助機関)						
1. CEC	0.00	0.00	0.00	0.00	0.00	0.00
2. IDA	0.00	0.00	0.00	0.00	0.00	0.00
その他	0.50	0.00	-0.70	-0.20	0.00	-0.20
合　計	442.90	121.60	270.30	713.20	-13.60	699.60

*15

援助受入窓口機関	
技術	
無償	
協力隊	

*13 Geographical Distribution of Financial Flows of Developing Countris(1996)
*14 Japan's Official Development Assistance Annual Report (1995)
*15 国別協力情報(JICA)

6 参考資料リスト

1 F/S Report The Study on Rural Water Supply in Mpigi, Mubende and Kiboga Districts Executive Summary September 1996
2 -do- Main Report
3 -do- Supporting Report
4 -do- Appendix
5 Master Plan of Operation Country Programme 1995-2000, GOU & UNICEF
6 Demographic and Health Survey 1995, Ministry of Finance and Economic Planning(MFEP)
7 Equity and Vulnerability: A Situation Analysis of Women, Adolescents and Children in Uganda, 1994 Uganda National Council for Children
8 RUWASA II Inception Workshop Report Norconsult, October 1996
9 RUWASA Semi Annual Progress Report July - December 1994
10 Programme Plans of Action 1997, GOU & UNICEF Country Programme
11 WES Programme Plan of Action 1997, GOU & UNICEF Country Programme
12 Civil Service Reform Programme
Restructuring Report, Ministry of Natural Resources May 1995 (Copy)
13 UGANDA 1993, Yearly Review
14 Decentralization in Uganda, The Policy and Its Implication 2
15 Key Economic Indicators January 1996, MFEP
16 Statistical Abstract 1996, MFEP
17 Background to the Budget 1996 - 1997, MFEP
18 Social Studies Atlas for Uganda
19 Guidlines for Training of User Committees Using Participatory Tools
A Handbook for Mobilisers. 1994
20 The Water Statuc, 1995 (Copy)
21 Providing for Rural Poor, E. A. Brett
22 Public Investment Plan 1995/96 - 1997/98 (Copy)
23 Stories from Uganda History
24 Draft Phase I Project Completion Report, Rural Water & Sanitation East Uganda Project
25 Organization and Management Study of Water Development Department, Working Document
26 Role of DWD After Restructuring and Decentralization Programmes of Government
27 Kiboga Town Structure Plan, Year 2010. First Draft
28 Topographic Map of Uganda 1 : 900,000
29 Topographic Map of the Project Area, 1 : 250,000
30 Topographic Map of the Project Area, 1 : 50,000
31 Geological Map of the Project Area, 1 : 250,000
32 Geological Map of the Project Area, 1 : 100,000

4.-1 添付資料 1 基本設計現地調査協議議事録

MINUTES OF DISCUSSIONS

THE RURAL WATER SUPPLY PROJECT IN MPIGI, MUBENDE AND KIBOGA DISTRICTS IN THE REPUBLIC OF UGANDA

In response to the request from the Government of the Republic of Uganda, the Government of Japan decided to conduct a Basic Design Study on the Rural Water Supply Project in Mpigi, Mubende and Kiboga in the Republic of Uganda (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Republic of Uganda a study team (hereinafter referred to as "the Team"), which was headed by Mr. Toshio OKAZAKI, Procurement Department, JICA, and was scheduled to stay in the country from 1 April to 26 May, 1997.

The Team held discussions with the officials concerned of the Republic of Uganda and conducted a field survey at the study area.

In the course of the discussions and field survey, both sides confirmed the main items described in the attached sheets. The Team will proceed to further work and prepare a Basic Design Study report.

Kampala, 8 April, 1997

岡崎俊夫

Mr. Toshio Okazaki
Leader
Basic Design Study Team
JICA

Mr. Ben Z. Dramadri
Permanent Secretary
Ministry of Natural Resources
The Republic of Uganda

ATTACHMENT

1. Objective

The objective of the Project is to supply safe drinking water for peoples living in the Districts of Mpigi, Mubende and Kiboga by construction of boreholes and supply of necessary equipment.

2. Project site

The project sites are located in the Districts of Mpigi, Mubende and Kiboga as shown in Annex I.

3. Executing Organization

The Ministry of Natural Resources is responsible for the administration of the project.

Directorate of Water Development, Ministry of Natural Resources (hereinafter referred to as DWD) is responsible for the implementation of the Project.

4. Items requested by the Government of the Republic of Uganda

After discussions with the Team the items finally requested by the Ugandan side are as follows:

1. Facility Construction
   a) Construction of 446 boreholes of 204 villages in the above three districts
   b) Level II system for Kiboga town 1 unit

2. Equipment Supply
   a) Drilling rigs with supporting equipment 2 units
   b) Supporting vehicles 4 units
   c) Water analysis kit 4 lots
   d) Workshop equipment 1 set
   e) Servicing Rig 1 unit

As to the supply of equipment, the background of the request and other information and data such as availability and cap ability of the local drilling contractors, conditions of DWD's equipment, etc. will be studied and confirmed for further

consideration and discussion. And the final components of the Project will be specifically decided after the completion of the Study.

5. Japan's Grant Aid System

(1) The Ugandan side has understood Japan's Grant Aid system in ANNEX II as explained by the Team.
(2) The Ugandan side will take necessary measures described in paragraph 6) of close 3 ANNEX II for the smooth implementation of the Project, in the event the Grant Aid Assistance by the Japanese Government is extended to the Project.

6. Schedule of the Study

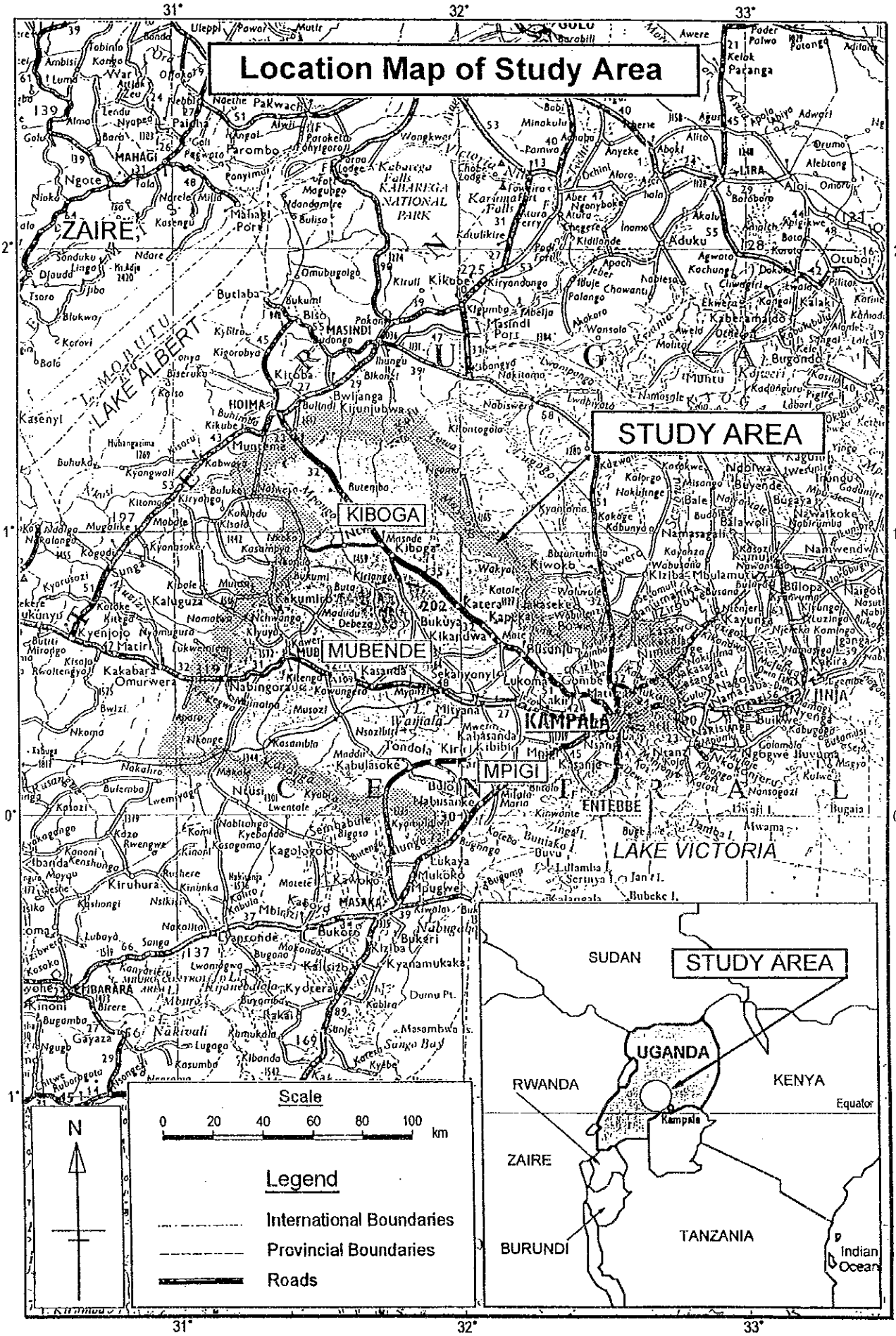
(1) The consultants of the Team will proceed to carry out further studies in the Republic of Uganda until 26 May, 1997.
(2) JICA will prepare the draft final report and dispatch a mission in order to explain its contents at the end of August, 1997.
(3) In the event that the contents of the report are accepted in principle by the Ugandan sides, JICA will complete a final report and send it to the Republic of Uganda by November, 1997.

7. Summary of Discussions

1) The Japanese side explained hereunder:
   (1) The construction target of facilities will be 446 boreholes from the view point of the safe drinking water supply.
   (2) Level II system in Kiboga town shall be studied to be included in the Project.
   (3) Equipment supply will be decided by the Japanese Government basing on the conclusion of studies for its justification.

   And the Ugandan side agreed the above items.
2) The Japanese side explained the system of Japan's Grant Aid Program and the Ugandan side agreed.
3) The Ugandan side agreed that the necessary measures shall be taken in order to execute the Project.
4) The Japanese side explained the implementation schedule for the Project and the Ugandan side agreed.
5) The Ugandan side agreed to set up the Water User's Committee for sustainability of the Project in all villages where water will be supplied.

ANNEX I


Location Map of Study Area
STUDY AREA
KIBOGA
MUBENDE
KAMPALA
MPIGI
ENTEBBE
JINJA
MASINDI
HOIMA
MASAKA
LAKE ALBERT
LAKE VICTORIA
ZAIRE
RWANDA
TANZANIA
KENYA
SUDAN
BURUNDI
UGANDA
Kampala
Equator
Indian Ocean
Scale
0 20 40 60 80 100 km
Legend
International Boundaries
Provincial Boundaries
Roads
N

ANNEX II

JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

- Application
  (request made by a recipient country)
- Study
  (Preliminary Study/Basic Design Study conducted by JICA)
- Appraisal & Approval
  (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- Determination of Implementation
  (Exchange of Notes between the both Governments)
- Implementation
  (Implementation of the Project)

(2) Firstly, an application or a request for a project made by the recipient county is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grand Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency)

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the Results are then submitted for approval by the Cabinet.

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Basic Design Study

1) Contents of the Study

The purpose of the Study (Preliminary Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
c) to confirm items agreed on by the both parties concerning a basic concept of the project,
d) to prepare a basic design of the project,
e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested in. The firm(s) selected carry(ies) out a Basic Design Study and prepares(prepare) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is(are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid possible undue delay in implementation caused if a new selection process is repeated.

3) Status of a preliminary Study in the Grant Aid Program

A preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid scheme

1) What is Grant Aid ?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Government, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

① to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
② to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
③ to secure buildings prior to the installation work in case the Project is providing equipment,
④ to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
⑤ to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
⑥ to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

7) Proper Use

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

8) Re-export

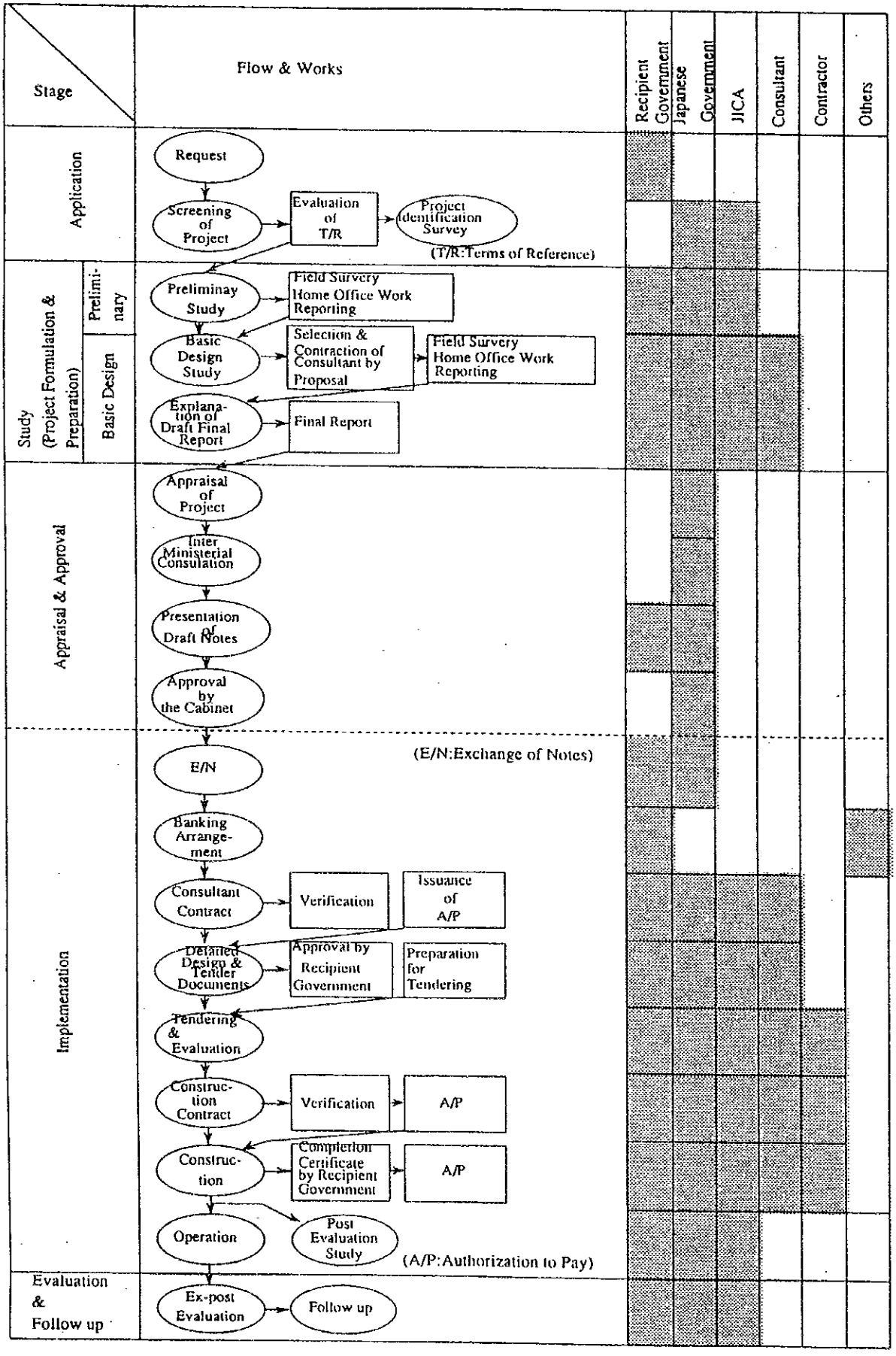
The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) Banking Arrangement (B/A)

(a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.

(b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

ANNEX III Flow Chart of Japan's Grant Aid Procedures



ANNEX IV Major Undertaking to be taken by Each Goverment

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the buildings	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site		●
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contact such facilities as may be neccessary for their entry into the recipient country and stay therein for the performance of their work.		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts.		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant.		●
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well al for the transportation and installation of the equipment.		●

4-2　添付資料 2　基本設計概要説明調査協議議事録

MINUTES OF DISCUSSIONS

BASIC DESIGN STUDY ON THE RURAL WATER SUPPLY PROJECT IN MPIGI, MUBENDE AND KIBOGA DISTRICTS IN THE REPUBLIC OF UGANDA (CONSULTATION ON DRAFT REPORT)

In April 1997, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study team on the Rural Water Supply Project in Mpigi, Mubende and Kiboga in the Republic of Uganda (hereinafter referred to as "the Project") to the Republic of Uganda, and through discussion, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

In order to explain and to consult the Ugandan side on the components of the draft report. JICA sent to the Republic of Uganda a study team (hereinafter referred to as "the Team"), which was headed by Mr. Toshio OKAZAKI, Procurement Department, JICA, and was scheduled to stay in the country from 20th to 27th August, 1997.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

Kampala, 26 August, 1997

Mr. Toshio Okazaki
Leader
Basic Design Study Explanation Team
JICA

Mr. F.A. Kabagambe-Kaliisa
Permanent Secretary
Ministry of Natural Resources
The Republic of Uganda

ATTACHMENT

1. Components of the Draft Report

The Government of the Republic of Uganda (referred to as "The Ugandan side" elsewhere in this document), represented by Mr. F.A. Kabagambe-Kaliisa has agreed and accepted in principle the components of the draft report proposed by the Team.

2. Japan's Grant Aid System

(1) The Government of the Republic of Uganda has understood the system of Japanese Grant Aid explained by the Team, described in ANNEX I

(2) The Government of the Republic of Uganda will take the necessary measures, described in ANNEX II, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

3. Further Schedule

The Team will make the field report in accordance with the confirmed items, and submit it to the Government of the Republic of Uganda by the end of November, 1997.

4. Other Relevant Issues

The following have been confirmed;

(1) The Ugandan side will allocate the necessary budget, staff and system to construct the boreholes in Mpigi, Mubende and Kiboga districts and a Level-II water supply system in Kiboga T/C.

(2) The Ugandan side will undertake the works such as arrangement of access roads, ensuring land acquisition for borehole construction and necessary measures.

ANNEX I JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

- **Application**
  (Request made by a recipient country)
- **Study**
  (Preliminary Study/Basic Design Study conducted by JICA)
- **Appraisal & Approval**
  (Appraisal made by the Government of Japan and Approval made by the Cabinet of Japan)
- **Determination of Implementation**
  (Exchange of Notes between the both Governments)
- **Implementation**
  (Implementation of the Project)

(2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consultant firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the results are then submitted for approval by the Cabinet.

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Basic Design Study

(1) Contents of the Study

The purpose of the Study (Preliminary Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
c) to confirm items agreed on by the both parties concerning a basic concept of the Project,
d) to prepare a basic design of the Project,
e) to estimate cost involved in the Project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the Project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized in the Exchange of Notes.

(2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is(are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid possible undue delay in implementation caused if a new selection process is repeated.

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation and preparation as mentioned above.

A result of the Study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not a form of donation or such.

(2) Exchange of Notes(E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

(3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

(4) Under the Grant, in principal, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consultant, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the followings;

① to secure land necessary for the sites of the Project and to clear and level the land prior to commencement of the construction works,
② to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
③ to secure buildings prior to the installation work in case the Project is providing equipment,
④ to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
⑤ to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
⑥ to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) Proper Use

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

(8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(9) Banking Arrangement (B/A)

(a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.

(b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

ANNEX II Necessary measures to be taken by the Government of the Republic of Uganda on condition that Japan's Grant Aid is executed.

1. To provide necessary data and information for the Project,

2. To secure and clear the site for the Project prior to the commencement of the construction,

3. To arrange the access road to the sites prior to commencement of the construction,

4. To provide facilities for distribution of electricity, telephone, drainage, sewage and other incidental facilities to the Project site as follow;
   1) Electricity distributing line to the site,

5. To bear advising commission of Authorization to Pay (A/P) and payment commission to the Japanese foreign exchange bank for the banking services based upon Banking Arrangement (B/A),

6. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at the port of disembarkation,

7. To ensure prompt unloading of the equipment procured under the Grant,

8. To accord Japanese nationals whose services may required in connection with the supply of products and the services under the verified contract such facilities as may be necessary for their entry into the Republic of Uganda and stay therein for the execution of the Project,

9. To provide necessary permission, licenses and other authorization for carrying out the Project,

10. To provide necessary action to expedite the approval for execution of the Project by the authorities concerned in the Republic of Uganda,

11. To maintain and make proper and effective use of the equipment purchased under the Grant,

13. To bear all the expenses other than those to be born by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment.

巻末図表

表-1　パイロット村落における水質試験結果（F/S 1996）

NO	JA-2	JA-3	JA-5(1)	JA-5(2)	JA-7	JA-8	JA-9
Location	Ssinde-1	Kawawa	Bekina	Bekina	Ssinde-2	Magere	Seeta
Colour	yellow-brown	clear	clear	clear	clear	clear	clear
Odour	no	no	no	no	no	no	no
Taste	slt, bitter	no	no	no	no	no	no
pH	6.05	5.93	6.15	6.49	6.40	6.36	5.96
Turbidity	160.00	0.00	0.00	0.00	2.18	0.00	0.00
E.C.	136.40	143.00	69.80	68.50	310.00	116.80	126.20
Alkalinity	34.00	36.00	12.00	12.00	0.00	24.00	36.00
Ca++	4.80	4.80	2.00	2.00		2.00	7.50
Total Hard.	20.00	30.00	10.00	7.00	142.00	13.00	32.40
CaCO3	12.00	12.00	5.00	5.00	103.00	5.00	18.76
Mg++	1.94	4.37	1.21	0.49	9.50	1.94	3.31
Na++	10.00	20.00	8.00	8.00	13.40	14.00	15.00
K+	1.00	0.00	1.00	1.00	1.60	2.00	3.00
Fe++	0.10	0.08	0.00	0.00	0.01	0.00	0.05
Fe+++	30.50	1.82	0.25	0.17	0.06	0.08	0.08
Mn++	0.14	0.02	0.03	0.02	0.04	0.02	0.01
F-	1.00	0.10	0.35	0.35	0.20	0.85	0.60
CO3-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HCO3-	41.45	43.88	14.63	14.63	153.70	29.26	43.88
PO4-	0.00	0.05	0.05	0.00	0.19	0.43	0.26
Cl-	23.00	20.00	0.00	0.00	6.00	3.00	2.00
NO2-	0.00	0.01	0.02	0.01		0.00	0.02
NO3-	0.00	2.20	2.64	0.00	0.00	0.00	5.28
SO4--	0.00	0.00	2.00	2.00	23.00	0.00	10.00
TDS	68.30	71.70	35.00	34.40	154.00	88.50	63.10

表-2　パイロット村落における水質試験結果（B/D 1997）

Parameters	Units	JA-7	JA-3	JA-5	JA-9	JA-8	WHO Guidelines	DWD Guidelines
Appearance		Brown	Brown	Colourless	Colourless	Colourless	Acceptable	Acceptable
Taste		Earthy	Tasteless	Tasteless	Tasteless	Tasteless	Acceptable	Acceptable
Odour		Rusty	Odourless	Odourless	Odourless	Odourless	Acceptable	Acceptable
Turbidity	NTU	90	107	0.0	5.0	0.0	5.0	10
TDS	Mg/l	50	27	61.5	79.4	30.3	1500	1000
Electrical Conductivity	μs/cm	99.8	54.3	122.7	158.5	60.1		
pH	Mg/l	5.90	5.54	6.21	6.13	5.69	6.5-9.5	5.5-8.5
Alkalinity (Total) as CaCO3	Mg/l	22.0	5.0	32.0	50.0	3.0		
Hardness (Total) as CaCO3	Mg/l	24.34	10.02	27.21	54.52	9.31	500	600
Calcium	Mg/l	2.29	2.0	7.73	9.16	2.0		
Magnesium	Mg/l	2.78	1.22	1.91	7.68	1.04		
Sodium	Mg/l	7.0	12.0	6.0	8.0	11.0		
Potassium	Mg/l	1.0	0.0	1.0	1.0	5.0		
Iron (Total)	Mg/l	1.87	1.36	0.05	0.02	0.26	0.3	1.0
Manganese	Mg/l	0.031	0.032	0.015	0.14	0.15	0.1	1.0
Bicarbonate	Mg/l	26.82	6.1	39.01	60.95	3.66		
Chloride	Mg/l	5.0	23.0	6.0	7.0	3.0	250	250
Fluoride	Mg/l	0.0	0.5	0.6	0.55	0.3	1.5	2.0
Sulphate	Mg/l	10.8	0	6.2	4	12	250	250
Nitrate	Mg/l	0.0	0.0	1.8	2.0	4.35	50	20
Nitrite	Mg/l	0.0	0.02	0.009	0.004	0.0	3.0	0.0
Phosphate	Mg/l	0.3	0.45	0.38	0.25	0.45		

表-3　簡易水質試験結果

No.	community	Sub-County	District	lat.	long.	Geology	Borehole		Water Quality						Note
							Number	Depth (m)	Temp. (℃)	pH	EC (μs/cm)	Iron (mg/l)	micro-org. (MPN)	Coliform (MPN)	
1	Seeta	Nangabo	Mpigi	° ′ ″	° ′ ″	B-T	JA-9	50.1	26.0	6.3	170.0	0.2	–	–	開発調査パイロット井戸。室内試験実施。
2	Magere	Nangabo	Mpigi	° ′ ″	° ′ ″	B-T	JA-8	63.0	25.5	5.4	60.0	0.2	–	–	開発調査パイロット井戸。室内試験実施。
3	Wampeo	Nangabo	Mpigi	° ′ ″	° ′ ″	GC			21.0	6.4	150.0	3.0	58	30	やや濁りあり。
4	Kasangati	Nangabo	Mpigi	0° 26′ 31″	32° 36′ 31″	GC	5576		23.5	6.7	260.0	0.3	18	1	無色透明。
5	Magigyo	Kyambogo	Mpigi	0° 29′ 29″	32° 36′ 48″	GC	S/P	0.5	22.5	5.8	80.0	0.5	6	17	薄茶に濁る。雲母片岩分布。
6	Lukole school	–	Lwelo	0° 34′ 45″	32° 34′ 03″	GC		100f	23.0	6.3	250.0	0.3	2	2	DWD掘井。
7	Kisimbiri	Wakiso	Mpigi	0° 24′ 28″	32° 29′ 25″	GC	P.S/P		22.0	5.6	60.0	0.6	–	5	
8	Kisimbiri	Wakiso	Mpigi	0° 24′ 28″	32° 29′ 25″	GC			24.0	5.7	90.0	0.3	1	–	やや濁る。WATSAN Pro. July '95
9	Kirolo	Musulita	Mpigi	0° 33′ 03″	32° 25′ 41″	GC			21.0	5.9	120.0	0.8	31	11	薄茶に濁る。浅井戸、ニラポンプ。
10	Nabusanke T/C	Nabusanke	Mpigi	0° 00′ 49″	32° 03′ 06″	B-T	CD 3880	120f	22.5	5.7	100.0	6.0	57	31	濁る。DWD 2/2/95
11	Ngando	Ngando	Mpigi	0° 04′ 35″	31° 55′ 01″	B-T			23.0	6.2	150.0	1.5	44	43	濁る。Unicef 13/1/95
12	Kiriri	Mpenja	Mpigi	0° 12′ 34″	32° 03′ 34″	B-T		100f	22.0	6.2	140.0	7.5	24	11	ハンドルかなり重い。
13	Lubare	Kabalusuke	Mpigi	0° 07′ 58″	31° 47′ 30″	B-T		12.0	21.5	6.4	880.0	3.0	6	2	河床。雨期に水没することあり。
14	Bekina	Butanyunja	Mubende	° ′ ″	° ′ ″	B-T	JA-5	59.0	22.0	5.9	50.0	0.1	2	4	開発調査パイロット井戸。室内試験実施。
15	Mwera	Kakindu	Mubende	0° 18′ 54″	32° 07′ 14″	B-T			24.0	6.6	250.0	8.0	10	2	還様使用で濁る。設置後10年経過。
16	Kakungabe	Mayanzi	Mubende	0° 27′ 17″	31° 49′ 19″	B-T			22.5	6.3	130.0	8.0	1	9	かなり濁る。
17	Mawada	Mayanzi	Mubende	0° 20′ 51″	32° 08′ 54″	B-T		45.0	22.0	6.1	160.0	3.0	22	15	揚水時間かかる。乾期濁る。
18	Mubende T/C	Mubende	Mubende	0° 33′ 35″	31° 23′ 22″	B-T			23.0	6.8	300.0	0.1	–	21	
19	Kiboga T/C	Kiboga T/C	Kiboga	0° 33′ 54″	31° 23′ 22″	GC		105f	24.5	7.2	570.0	–	–	–	乾期は早朝のみ揚水可能。午後は湯水。
20	Ntwetwe	Ntwetwe	Kiboga	0° 56′ 57″	31° 35′ 27″	GC			25.5	7.7	360.0	–	–	–	
21	Ssinde-1	Lwamata	Kiboga	° ′ ″	° ′ ″	B-T	JA-2	50.1	20.0	6.8	160.0	8.0	–	–	開発調査パイロット井戸。室内試験実施。
22	Kawawa	Lwamata	Kiboga	° ′ ″	° ′ ″	B-T	JA-3	13.9	23.5	6.8	150.0	0.6	–	–	開発調査パイロット井戸。室内試験実施。

表-4　ムピギ県村落調査一覧表（1/2）

（増圧報告書添付資料）

No.	COMMUNITY	SUB-COUNTY	lat.	long	TOPO.	GEO.	ACCESS	POPULATION		BOREHOLE			JICA F/S	JICA B/D	NOTE
								F/S	B/D	E/X	PLAN	B/D	GEP (m)	GEP (m)	
1	Kyabagamba	Maddu				B-T		857	900	0	3	3		120	水源は0.5Km先のSwamp。
2	Kabale	Maddu				B-T		230	230	0	1	1			
3	Kigaveza	Maddu				B-T		400	400		2	2			
4	Kaivanjuka	Maddu				B-T		450	450		2	2			
5	Kyambobo	Maddu				B-T	雨期不可	300	350	0	1	1			埋設必要。水源は0.8マイル先のDug-Well。
6	Lukonde	Maddu				B-T		400	400		1	1			
7	Makukuru	Maddu				B-T		250	250	0	1	1	○		
8	Kyamabasale	Maddu				B-T		700	700		2	2		200	
9	Kasambya	Maddu				B-T		420	420		2	2		100	
10	Kamenge	Maddu				B-T		436	450		2	2			
11	Kirasi	Maddu				B-T		3550	1500		11	6		200	人口は子ども含む。Uganda政府が過去に掘削したが水量、水位共に少なく失敗。
12	Nakitembe	Maddu				B-T		300	410		1	1		100	
13	Kabwire	Maddu				B-T	雨期不可	600	600	○?	2	2			埋設必要。No.5の南部に位置する。
14	Kalwanga A	Kabulasoke				B-T		450	500	0	1	1			水源は2マイル先のSwamp。乾期は5マイル先のDamを水源とする。
15	Kivanonga	Kabulasoke				B-T		350	350		2	2		140	
16	Kakubantiri B	Kabulasoke				B-T		300	350		1	1		210	Aとは道路が境界。人口は子ども含む。水源は1.5Km先のDug-Well。乾期は2Km先。
17	Lubale B	Kabulasoke				B-T		570	600	1	1	1		120	井戸河床に位置し、雨期に水没することがある。
18	Nkokonjeru	Kabulasoke				B-T		500	0		2	0			No19村落内の地名であり、独立した村落ではない。
19	Lugaaga	Kabulasoke				B-T		350	700	0	2	4			水源はDug-Well。乾期は1Km先。
20	Lusongode	Kabulasoke				B-T	雨期不可	467	450	0	2	2			水源は1Km先のDug-Well。乾期は5Km先のDam。
21	Luzira	Kabulasoke				B-T	雨期不可	1328	1350		5	4			道路埋設必要。調査時降雨による湿食のため4輪侵入不可。
22	Bulwadde East	Kabulasoke				B-T		500	550	0	2	2			水源は1Km先のDug-Well。
23	Bulwadde West	Kabulasoke				B-T		800	800		3	3		100	
24	Kaweko	Kabulasoke				B-T		400	400		1	1		100	
25	Nakulamudde	Kabulasoke				B-T		800	800		3	3			
26	Mewuki	Kabulasoke				B-T		480	500	○	2	2	○		Mewuki East に要請。
27	Kirin	Mpenja				B-T		1500	1500	1	4	4		100	
28	Mpoge	Mpenja				B-T		420	450		2	2		160	
29	Buvinjabutoole	Mpenja				B-T		1000	1000		3	3			
30	Ngeve	Mpenja				B-T		400	450	0	2	2			水源は3箇所のDug-Well。乾期にはこれらのうち1箇所のみが使用可能。約1Km先。
31	Busolo	Mpenja				B-T		500	750	0	1	1			水源は1Km先のDug-Well。乾期は1.5Km先。
32	Maseruka	Mpenja				B-T		900	950		3	3		120	尾根のピーク。露頭あり。
33	Kanzira	Mpenja				B-T		220	250	0	1	1			道路は村落の入り口付近まで。水源は河床の湧泉。乾期は1.5Km先の湧出。
34	Ngomanene	Mpenja				B-T		432	450	1	1	1		110	
35	Kyetume	Mpenja				B-T		800	800	0	3	3			水源は1.6Km先のDug-Well。
36	Wamirongo	Kyamboge				B-T		550	600	0	2	2			水源はDug-Well.1Km先。
37	Busukuma	Kyamboge				GC		340	340		1	1			
38	Kasambya	Kyamboge				GC		491	500		2	2			
39	Kikoko	Kyamboge				B-T		225	250		1	1		100	
40	Sette	Kyamboge				GC		185	200		1	1		100	
41	Njudde	Kyamboge				GC		450	450		2	2		140	
42	Magisi	Kyamboge				GC		450	500	0	1	1		120	

表-5　ムピギ県村落調査一覧表（2/2）

（帰国報告書添付資料）

No.	COMMUNITY	SUB-COUNTY	lat.	long.	TOPO.	GEO	ACCESS	POPULATION F/S	POPULATION B/D	BOREHOLE E/X	BOREHOLE PLAN	BOREHOLE B/D	JICA F/S GEP (m)	JICA B/D GEP (m)	NOTE
43	Kiwanda T/C	Kyambogo				GC		950	950		3	3		160	既存井戸深度200ft(井戸作成番号なし)
44	Nabitalo	Kyambogo				GC		750	750		2	2			
45	Menvu	Kyambogo				B-T		1700	1700		5	5		110	
46	Kasozi	Kyambogo				GC		1500	1500		5	5			
47	Mairve	Kyambogo				GC		800	850		2	2		100	WES programu にリクエスト済み。(Bulesa P Sch名)
48	Kasengati TC/Kazinga	Nangabo				GC		200	300	0	1	1			水源は浅井戸やDug-Well、乾期は水購入。
49	Kazinga	Nangabo				GC		330	0	1/3	1	0			行政上48に含まれ、存在しない。Wampewoに変更要請有。
50	Kiwalimu	Nangabo				GC		300	350	0/1	1	1			水源は1Km先の湧水のみ。
51	Manvangwa	Nangabo				GC		750	750	0	1	1			
52	Nalvamagonia	Nangabo				GC		450	450	0	1	1			
53	Kiwala	Ngando				B-T		800	750	0	3	3			水源は1.5Km先のDug-Well、乾期は6Km先のSwamp。
54	Ngando	Ngando				B-T		550	550	1	2	2		160	
55	Bwetyaba	Ngando				B-T		475	500	0	1	1			水源は0.5Km先の湧水。人口は子供420人、大人300人。
56	Ndibulungi	Ngando				B-T		1000	1000	0	3	3			水源は2Km先のSwamp、乾期は2.5Km先。
57	Butende	Ngando				B-T		700	650		3	2		200	
58	Bukesa	Ngando				B-T		300	300	0	1	1			Bukesa Aに事務
59	Tufube	Ngando				B-T		400	400	0	2	2		200	TufubeはSch名。Community名は、Kasozibabengwe LC1。
60	Bugobango	Ngando				B-T		428	450	0	1	1		200	既存井戸なし。
61	Kvengeze	Masulita/Kiziba				GC		500	500	0	2	2			水源はDug-Well、乾期は1km先のSwamp。
62	Wabivinja	Masulita/Kiziba				GC		750	750		2	2		110	浅井戸。片麻岩の露頭あり。
63	Nakikungube	Masulita/Kiziba				GC	北側道路のみ可	249	250	0	1	1			水源はSwampの水。
64	Masulita A	Masulita/Kiziba				GC		250	300	○	1	1		100	近くに学校専用のB/Hあり。
65	Kvanuna	Namayumba				B-T		1300	1300	○	4	4		100	
66	Kvamoipai	Namayumba				B-T		500	500		2	2			
67	Malangaata	Namayumba				B-T		420	450	0	2	2			水源は3Km先のSwamp。
68	Bugimba	Namayumba				B-T		526	550		1	1		200	
69	Muguluka	Namayumba				B-T		600	600	0	2	2			水源はDug-Well、乾期は1Km先のSwamp。
70	Buso	Namayumba				B-T		250	250		1	1		140	
71	Kvasa	Namayumba				B-T		630	650		2	2			
72	Bembe	Namayumba				B-T		500	500		2	2		110	
73	Namavumba	Namayumba				B-T		500	500	1	2	2		140	WDD10958.130ft。
74	Busaku	Namayumba				B-T		800	800		2	2		200	
75	Buwambo	Namayumba				B-T	北側道路のみ可	250	250	0	1	1			水源は河床の湧泉。
76	Kasengejje	Wakiso				GC		960	1000	1	3	3		100	
77	Mende Central	Wakiso				GC		1000	1000	0	3	3			水源は河床の浅井戸(濁る)。乾期は北西側の河川、約3Km。
78	Bukasa T/C	Wakiso				GC		600	600	1	2	2	○		
79	Kituntu T/C	Kituntu				B-T		630	630		2	2		180	
80	Kikomazi	Nkozi				B-T		650	650		2	2		130	Schの生徒を合わせると人口は1600人。
Total								49799	48080		165	157			

表-6　ムベンデ県村落調査一覧表（1/2）

（帰国報告書添付資料）

No.	COMMUNITY	SUB-COUNTY	lat.	long.	TOPO.	GEO.	ACCESS	POPULATION		BOREHOLE			JICA F/S	JICA B/D	NOTE
								F/S	B/D	E/X	PLAN	B/D	GEP	GEP	
1	Kibangwa	Kitenga				GC		327	350	0	2	2			水源は2マイル先のVally-Dam。人口は80世帯×8人。
2	Kyengeza	Kitenga				GC	雨期不可	595	600	0	2	2			調査時4輪侵入不可。水源は1Km先のSwamp。乾期は1.6Km先。
3	Budigaba	Kitenga				GC		602	600		2	2			
4	Bukongo	Kitenga				GC		400	380		2	2		120	人口は、Bukongo RCのみ。小学児童数15人。
5	Kalonga	Bageza				Gr		600	600		1	1	○		
6	Mugungulu	Bageza				B-T		700	700	0	3	3		120	P.Schの児童数400人。水源はSwamp。乾期は1.5Km先が水源。
7	Kisingizi	Bageza				B-T		800	800		3	3		200	人口は、86世帯×7人で計算。雨期はスワンプ、乾期は2km先のB/Hを利用。
8	Kyamkoowa	Bageza				B-T		700	750	0	3	3			水源は2.5マイル先のSwamp。乾期は5マイル先。180世帯×10人。
9	Kyegulueo	Bageza				B-T		400	400		2	2			水源は3Km先のDug-Well。乾期は5km先のSwamp。
10	Bakijulia	Bageza				B-T		325	350	○	1	1		180	人口は、子供除いて120人。0.5マイル先のshallow well使用。
11	Kabowa	Bageza				Gr		350	350		2	2			
12	Kabubu	Bageza				Gr		400	400		2	2			
13	Nakasaga	Kasambya				GC		500	550	0	2	2			水源は0.8Km先のSwamp。乾期は1.6Km先のDam。200世帯×7人。
14	Kasambya T/C	Kasambya				GC		800	800		3	3	○		
15	Kikoma	Madudu				Gr		575	600	0	1	1			水源は1.6Km先のVally-Dam。乾期は4Km先のSwamp。
16	Ngabano	Madudu				Gr		700	650		3	3		100	人口は世帯数から算出。湧泉の保護に失敗して、現在はDug-Wellを利用。
17	Katoma	Kiyuni				Gr		400	400		2	2		120	人口は世帯数200から算出。小学校の児童数を加算すると860人増加。
18	Kasanda T/C	Kassande				B-T		1700	1500	0/1	6	5	○		6本の立地は困難。井戸2年前に故障。水源は1Km先のDug-Well。乾期3Km先。
19	Namabasic	Kassande				Gr		350	350		2	2		120	人口・世帯数不明。
20	Kyabalanzi	Kassande				B-T	雨期不可	280	300		1	1			
21	Kamuli	Kassande				B-T		300	300		1	1		120	乾期は、5マイル先のKikandwa村にあるValley Damを利用。
22	Kasazi A	Kassande				B-T		700	700		3	3		140	人口は子供除いて150人。
23	Kalema	Kassande				Gr	雨期困難	360	400	0	1	1			水源はDug-Well。
24	Kikandwa	Kassande				B-T	雨期困難	200	250	0	1	1			水源はSwampの水。乾期は3Km先まで揚水。
25	Buhamagunju A	Myanzi				B-T		560	560		2	2			
26	Makata	Myanzi				B-T		700	700		3	3		200	Shallow Wellは5km先にあり、乾期、1マイル先の隣村から揚水。
27	Milembe	Myanzi				M		390	400		2	2	○		
28	Kalema	Myanzi				B-T		450	450		2	2		200	Shallow Well もなし。
29	Kyakapengulu	Myanzi				M		420	420		2	2		200	人口は子供含む。
30	Kabenvi	Myanzi				M		532	550	0	2	2			水源はSwampの水。乾期は7マイル先まで揚水。
31	Bukoba	Myanzi				B-T		285	300		1	1			
32	Lukira	Myanzi				B-T		910	950	1	3	3			湧井戸(深度15m)。
33	Kyawatuba	Myanzi				M		630	650		2	2		200	
34	Kasana	Myanzi				B-T		450	450		2	2		200	人口は子供含む。
35	Mabuubi	Bukuya				B-T		200	200		1	1		200	世帯数は32。小学校の児童数を加えると360人増加。水源は乾期にも湧水しない湧泉。
36	Kalonge	Bukuya				Gr		400	400		1	1		200	世帯数は64。
37	Kitumbi	Bukuya				B-T	雨期不可	300	300		1	1			調査時4輪走行不可。
38	Kanoga	Bukuya				B-T		200	300	0	1	1			
39	Kikumbi-Kaba	Busimbi				B-T		360	350		1	1		180	
40	Nakasetta	Busimbi				B-T		1200	1200	1?	4	4			97/3月に井戸掘削(DWD)。ポンプ設置待ち。水源は改良湧泉。乾期は7マイル先。
41	Namveso	Busimbi				M		300	350		1	1		200	世帯数は76。96/8月に井戸掘削したが水位低く故障。
42	Bugabo	Busimbi				M		500	500		2	2			

表-7　ムベンデ県村落調査一覧表（2/2）

（帰国報告書添付資料）

No.	COMMUNITY	SUB-COUNTY	lat.	long.	TOPO.	GEO.	ACCESS	POPULATION		BOREHOLE			JICA F/S	JICA B/D	NOTE
								F/S	B/D	E/X	PLAN	B/D	GEP	GEP	
43	Katakala	Busimbi				M		600	600		2	2		180	乾期、1マイル先のKidde RC1　の水源利用。
44	Magongolo	Busimbi				M		700	700		3	3			
45	Nakibinga-Nyanzi	Busimbi				M		300	300	0	1	1			水源は0.8Km先のDug-Well。
46	Kalangalo	Bulera				B-T		520	550	1	2	2		200	既存井戸は放棄したまま放置。既存井戸脇で更新。
47	Lwogero B	Bulera				M		890	900		3	3		200	人口は子供含むか？。調査地に変成岩の露頭有り。
48	Kiwanda	Bulera				B-T		350	400		1	1			村落は学校関係者のみ在住。小学校～高校まで有り。改良湧泉、乾期7マイル先。
49	Kasikombe	Sekanyonyi				B-T		700	700		2	2			
50	Katunguluu	Sekanyonyi				B-T		450	450		2	2			
51	Budimbo	Sekanyonyi				B-T	雨期不可	1000	1000		4	4			
52	Kisamba	Sekanyonyi				B-T		450	450		2	2		90	Shallow Well 3箇所有り。深度6Feet。村の中心から各0.5マイルに位置する。
53	Kawolongolo	Sekanyonyi				B-T		680	680		2	2			
54	Sekanyonyi	Sekanyonyi				B-T		600	650	1	1	1		180	井戸故障。水源は1Km先のDug-Well。乾期は5Km先のSwamp。
55	Kabulamuliro	Kikandwa				B-T		430	450		2	2		200	井戸故障は小学校横に発生。人口に小学校の児童含まず。
56	Bambula	Kikandwa				B-T		620	650	0/1	1	1			学校用井戸のみ。乾期には周辺の村落も利用する。
57	Serinnya	Maanyi				B-T		600	600		2	2		120	人口は子供除く。
58	Nabale	Maanyi				B-T		500	600		2	2		100	世帯数は58。
59	Maanyi	Maanyi				B-T		600	600		2	2		110	Shallow Well 西1マイル先にあり。
60	Mpongo	Maanyi				M		200	250		1	1		200	世帯数は60。乾期にはWamara湖（3マイル先）の水を利用。
61	Misimba	Maanyi				B-T	雨期不可	400	450	0	1	1			水源は2Km先のDug-Well。乾期は6km先のDam。
62	Kabaale	Maanyi				B-T	雨期不可	400	400	0	2	2			水源は3Km先のDug-Well。乾期は7km先のDam。
63	Buwala	Maanyi				B-T		500	500		2	2			
64	Bekina	Butayunja				B-T		800	850	0	2	2		110	Bekina Aに集積有り。世帯数は200。Bekina BにJA-5有り。
65	Kkande	Butayunja				B-T		240	250	1	1	1		140	井戸故障。乾期、5マイル先の河川を利用。
66	Kitonjo	Butayunja				B-T		400	400		1	1			
67	Nakaziba	Butayunja				B-T		400	400		2	2			
68	Kitebere	Butayunja				B-T		1000	1000	0	3	3			JA-4不成功井戸。水源は1Km先のSwampに設置したDug-Well。
69	Watuba	Butayunja				B-T		650	650		3	3			
70	Nabwiri	Kakindu				B-T		1000	1000		4	4		140	人口は、RC1の数。
71	Bulunduguu	Kakindu				B-T		365	370	1	1	1			
72	Bananze	Kakindu				B-T		1200	1200		4	4			
73	Kalama	Kakindu				B-T		460	460		2	2			
74	Nagudo	Kakindu				B-T		280	300		1	1		200	世帯数は84。後背地の裏側に湧泉有り。
75	Mwera	Kakindu				B-T		780	800	1/2	1	1		200	病院専用。連続揚水不可。他の1井戸共に濁り（赤錆び？）見られる。世帯数60。
76	Kakindu	Kakindu				B-T		1000	950	1/1	3	3			学校専用井戸。村民はDug-Wellを水源とする。
77	Mawanda	Kakindu				B-T		330	350	1	1	1			乾期井戸水涸れる。他に改良湧泉有り。
78	Kiwawu	Malangala				B-T		600	600	1/1	2	2			学校専用井戸。村民はSwampを水源とする。
79	Magonga	Malangala				B-T		370	400		1	1		130	世帯数は25。3本の浅井戸（内2本は乾期に枯渇）を利用。
80	Lulumbu	Malangala				B-T		700	700		2	2			
81	Kasalaga	Malangala				B-T		500	500		2	2		200	Shallow Well 1Km先に有り。
Total								44516	45170		160	159			

表-8　キボガ県村落調査一覧表（1/2）

（帰国報告書添付資料）

No.	COMMUNITY	SUB-COUNTY	lat	long	TOPO	GEO.	ACCESS	POPULATION F/S	POPULATION B/D	BOREHOLE E/X	BOREHOLE PLAN	BOREHOLE B/D	JICA F/S GEP	JICA B/D GEP	NOTE
1	Kateera	Bukomero				B-T		504	810		1	1			
2	Kalangala A	Bukomero				B-T		900	900		2	2			
3	Masiriba	Bukomero				GC		300	350		1	1		200	Masinba A B有り。納税者数A=240, B=120。
4	Katwe	Bukomero				GC	雨期不可	470	470	○	2	2		120	納税者および世帯数150。乾期Valley Dam利用。
5	Muvenje	Bukomero				GC	雨期不可	690	690		3	3			Bukomero 村から7Km先道路冠水。調査時4輪侵入不可能。
6	Kavunga	Bukomero				GC		800	800		3	3			
7	Kabamba West	Bukomero				M		250	250		1	1		200	納税者および世帯数150。2マイル先MpangelaにSpring Well。
8	Kabamba East	Bukomero				M		320	320		1	1			
9	Bukomero T/C	Bukomero				B-T		806	810	○	2	2	○		
10	Namukoko	Bukomero				GC		750	750		3	3			
11	Kagogo	Bukomero				B-T		350	350	1	2	2		160	B/H Sch.の近くにあり。乾期も問題なし。納税者120・世帯数300(Kagogo AとBのTotal)。
12	Kanbizi	Ntwetwe				GC	雨期不可	175	180		1	1			Ntwetwe村から1.8Km先道路冠水。
13	Ndibata	Ntwetwe				GC		1320	1320	○	4	4			
14	Bugomolwa	Ntwetwe				GC		450	450		2	2	○		
15	Ntwetwe T/C	Ntwetwe				GC		524	530	○	2	2	○		
16	Kilemeera/Lubuga	Ntwetwe				GC		288	300		1	1			
17	Bulagwe	Ntwetwe				GC	雨期不可	222	250		1	1			Ntwetwe村から1.8Km先道路冠水。調査時4輪侵入不可。
18	Nkandwa B	Ntwetwe				GC		500	500		2	2			
19	Nakalama St. Kizito	Ntwetwe				GC		200	200		1	1		140	納税者100人。
20	Ntuuti	Ntwetwe				GC		540	540		2	2		120	納税者100・世帯数150。乾期3マイル先の水源利用。
21	Kikajjo	Ntwetwe				GC		200	200		1	1			
22	Lwanjolo	Ntwetwe				GC		450	450	0	2	2			Dug-Wellを水源とし、乾期は河川(5マイル先)を利用。
49	Natvole fagala Mem	Ntwetwe				GC		400	400		2	2		120	納税者85。
67	Kasambya B	Ntwetwe				GC		350	350		1	1		140	60世帯。
23	Kasega	Kiboga				GC		380	380		2	2			
24	Kirinda	Kiboga				GC		600	600		2	2	○		
25	Kizinga	Kiboga				B-T		500	500		2	2		200	納税者110・世帯数70。
26	Nvamiringa	Kiboga				GC		210	210		1	1			
27	Kagobe	Kiboga				GC		330	350		2	2			
28	Sesesa	Kiboga				GC		300	300		1	1			
29	Kambugu	Kiboga				B-T	雨期不可	400	400		2	2		200	100世帯。
30	Kambugu	Kiboga				B-T		468	470		1	1			
31	Kilvankozi	Kiboga				B-T		350	350		1	1			
32	Kibiga	Kiboga				GC		800	800		1	1		120	160世帯。乾期2Km先のSpring Protection利用。
33	Gogonya	Kiboga				GC		500	500		1	1			
34	Nikokonjeru	Lwamata				M		1400	1500		3	0			Luwamata 給水システム範囲内。Busabulonge(Dug-Well,Dry-2マイル先水源)に変更要請。
35	Kvarika	Lwamata				M		300	300		1	1			改良湧泉2基、村落内に設置、年中揚水可能。
36	Lunnva	Lwamata				M		400	400		1	1		200	Lunnva Aに要請。100世帯。人口は子供含む。
37	Kijumagwa	Lwamata				M	雨期不可	280	300		1	1			
38	Naanjo	Lwamata				GC		350	350		2	2		120	納税者125、0.5マイルにShallow Well。
39	Buvonga	Lwamata				M		470	500	0	1	1			

表-9　キボガ県村落調査一覧表（2/2）

（帰国報告書添付資料）

No.	COMMUNITY	SUB-COUNTY	lat.	long.	TOPO.	GEO.	ACCESS	POPULATION		BOREHOLE			JICA F/S	JICA B/D	NOTE
								F/S	B/D	E/X	PLAN	B/D	GEP	GEP	
40	Kambugu	Butemba				GC		235	250	0	1	1			水源はDug-Well(in Swamp)。乾期はDamの水を利用。
41	Kavonza	Butemba				GC		200	200		1	1			
42	Kvarieni	Butemba				GC		515	530	○	2	2			
43	Katanabiro	Butemba				GC		350	350		2	2		160	50世帯。
44	Kagalama	Butemba				GC		480	500		2	2		160	
45	Bwerima B	Butemba				GC	雨期不可	380	380	1	2	2		200	88世帯。B/Hは97年1月に掘削された。(Privateであるが住民も使用可能)
46	Bikoma B	Butemba				GC		272	300	1	1	1		200	成人の人口は270。教育施設の小学校の生徒数は420。
47	Bugulumu	Butemba				GC		310	300		1	1			B/Hは97年3月に前大臣の出資で掘削。住民が利用中。
59	Kavunga	Butemba				GC		280	300		1	1		160	130世帯。乾期5マイル先の隣村の水源利用。
48	Nakasozi	Muwanga				B-T	要Muwanga経由	350	350		1	1		200	200世帯。
50	Kikonde	Nsambya				GC		140	150	○	1	1	○		
52	Kvambogo	Nsambya				GC		560	600		2	2			
53	Kigando/Buraza	Nsambya				GC		126	150		1	1		200	世帯数は50。
54	Mujjunza	Nsambya				GC	雨期不可	356	350		2	2			
55	Banamwa	Nsambya				GC	雨期不可	1439	1400		4	4			
56	Nsanbya	Nsambya				GC		195	200		1	1		180	人口は子供含まず。
57	Kvakabuga	Nsambya				GC		150	160		1	1			水源はSwamp内の不特定の場所(季節により採水可能な地点が変化する)。
51	Nakakabala	Masodde				GC		300	300		1	1			
58	Bamusuuta	Masodde				GC		850	850	○	2	2	○		
60	Masodde	Masodde				GC		900	900	○	2	2		140	60世帯。乾期5マイル先の河川利用。
61	Vvumba	Masodde				GC		500	500		2	2		100	世帯数は60。付近に片麻岩の露頭・転石あり。
62	Kalegi	Masodde				GC		350	350	○	1	1			
63	Kivombva	Masodde				GC		500	500		2	2			
64	Mulegi	Masodde				GC	雨期不可	350	350		1	1			
65	Bulvanzige	Gayaza				GC		450	450	0	2	2			水源はDug-Well。乾期は河川(3Km先)を利用。人口は28世帯×5人。
66	Gayaza West	Gayaza				GC		586	600		2	2			
68	Nkondo	Gayaza				GC		500	500		2	2			
69	Butambuka	Gayaza				B-T		520	520		2	2		160	120世帯。Kitumbi River(Permanent)の水を利用。
70	Kinyajobwo West	Gayaza				GC		400	400		2	2			
71	Luwuna	Gayaza				B-T		300	300		1	1			
72	Kisala	Gayaza				B-T	雨期不可	750	750		3	3			
73	Kverere East	Gayaza				GC		600	600		2	2		200	納税者は200。
	Kiboga town	kiboga				GC				1/2	4	4		1700	System III 1井故障。1井は乾期早朝のみ揚水可能。
								34021	34420		125	122			
Total															

表 － 10 電気探査数量一覧表 (MPIGI DISTRICT : 37点)

No.	COMMUNITY	SUB-COUNTY	GEOLOGY	SOUNDING DEPTH(m)
1	Kyabagamba	Maddu	B-T	120
8	Kyamabaale	Maddu	B-T	200
9	Kasambya	Maddu	B-T	100
11	Kirasi	Maddu	B-T	200
12	Nakitembe	Maddu	B-T	100
15	Kiryanongo	Kabulasoke	B-T	140
16	Kakubansiri B	Kabulasoke	B-T	210
17	Lubale B	Kabulasoke	B-T	120
23	Bulwadda West	Kabulasoke	B-T	100
24	Kawoko	Kabulasoke	B-T	100
27	Kiriri	Mpenja	B-T	100
28	Mpogo	Mpenja	B-T	160
32	Maseruka	Mpenja	B-T	120
34	Ngomanene	Mpenja	B-T	110
39	Kikoko	Kyambogo	B-T	100
40	Setta	Kyambogo	GC	100
41	Kjiudde	Kyambogo	GC	140
42	Magigye	Kyambogo	GC	120
43	Kiwenda _T/C	Kyambogo	GC	160
45	Menvu	Kyambogo	B-T	110
47	Mairye	Kyambogo	GC	100
54	Ngando	Ngando	B-T	160
57	Butende	Ngando	B-T	200
59	Tufube	Ngando	B-T	200
60	Bugobango	Ngando	B-T	200
62	Wabiyinja	Masulita/Kiziba	GC	110
64	Masulita A	Masulita/Kiziba	GC	100
65	Kyanuna	Namayumba	B-T	100
68	Bugimba	Namayumba	B-T	200
70	Buso	Namayumba	B-T	140
72	Bbembe	Namayumba	B-T	110
73	Namayumba	Namayumba	B-T	140
74	Busaku	Namayumba	B-T	200
76	Kasengejje	Wakiso	GC	100
79	Kituntu T/C	Kituntu	B-T	180
80	Kikomazzi	Nkozi	B-T	130
	Seeta(E/X,B.H)	Nangabo	GC	100
		電気探査平均深度		137

B-T:Buganda-Toro System
GC:Gneiss Complex

表 －11 電気探査数量一覧表 (MUBENDE DISTRICT : 35点)

No.	COMMUNITY	SUB-COUNTY	GEOLOGY	SOUNDING DEPTH(m)
4	Bukongo	Kitenga		120
6	Mugunglu	Bagezza	B-T	120
7	Kisingizi	Bagezza	B-T	200
10	Bakijjulala	Bagezza	B-T	180
16	Ngabano	Madudu	Gr	100
17	Katoma	Kiyuni	Gr	120
19	Namabale	Kassanda	Gr	120
21	Kamuli	Kassanda	B-T	120
22	Kasaazi A	Kassanda	B-T	140
26	Makata	Myanzi	B-T	200
28	Kalama	Myanzi	B-T	200
29	Kyakasengula	Myanzi	M	200
33	Kyawatuba	Myanzi	M	200
34	Kasana	Myanzi	B-T	200
35	Mabuubi	Bukuya	B-T	200
36	Kalongo	Bukuya	Gr	200
39	Kikumbi	Busimbi	B-T	180
41	Namyeso	Busimbi	M	200
43	Katakala	Busimbi	M	180
46	Kalangalo	Bulera	B-T	200
47	Lwogero	Bulera	M	200
52	Kisamba	Sekanyonyi	B-T	90
54	Sekanyonyi	Sekanyonyi	B-T	180
55	Kabulamuliro	Kikandwa	B-T	200
57	Serinnya	Maanyi	B-T	120
58	Nabale	Maanyi	B-T	100
59	Maanyi	Maanyi	B-T	110
60	Mpongo	Maanyi	M	200
64	Bekina A	Butayunja	B-T	110
65	Kande	Butayunja	B-T	140
70	Nabwiri	Kakindu	B-T	140
74	Ngugulo	Kakindu	B-T	200
75	Mwera	Kakindu	B-T	200
79	Malangala	Malangala	B-T	130
81	Kasalaga B	Malangala	B-T	200
		電気探査平均深度		163

B-T:Buganda-Toro System
Gr:Granite
M:Mityana Series

表 －12 電気探査数量一覧表 (KIBOGA DISTRICT : 36点)

No.	COMMUNITY	SUB-COUNTY	GEOLOGY	SOUNDING DEPTH(m)
3	Masiriba	Bukomero	GC	200
4	Katwe	Bukomero	GC	120
7	Kabamba West	Bukomero	M	200
11	Kagogo	Bukomero	B-T	160
19	Nakalama St. Kizito	Ntwetwe	GC	140
20	Ntuuti	Ntwetwe	GC	120
49	Natvole.fagala Mem	Ntwetwe	GC	120
67	Kasambva B	Ntwetwe	GC	140
25	Kizinga	Kiboga	B-T	200
29	Kambugu	Kiboga	B-T	200
32	Kibiga	Kiboga	B-T	120
36	Lunnva	Lwamata	M	200
38	Nsanje	Lwamata	GC	120
43	Katanabiro	Butemba	GC	160
44	Kagalama	Butemba	GC	160
45	Bvenima B	Butemba	GC	200
46	Bikoma B	Butemba	GC	200
59	Kavunga	Butemba	GC	160
48	Nakasozi	Nakasozi	B-T	200
53	Kigando/Buraza	Nsambya	GC	200
56	Nsanbva	Nsambya	GC	180
60	Masodde	Masodde	GC	140
61	Vvumba	Masodde	GC	100
69	Butambuka	Gayaza	B-T	160
73	Kverere East	Gayaza	GC	200
	Kiboga town(A230m)	Kiboga	GC	200
	Kiboga town(A320m)	Kiboga	GC	140
	Kiboga town(A390m)	Kiboga	GC	140
	Kiboga town(A680m)	Kiboga	GC	100
	Kiboga town(B220m)	Kiboga	GC	200
	Kiboga town(C120m)	Kiboga	GC	200
	Kiboga town(C460m)	Kiboga	GC	200
	Kiboga town(D790m)	Kiboga	GC	140
	Kiboga town(D930m)	Kiboga	GC	140
	Kiboga town(D1180m)	Kiboga	GC	140
	Kiboga town(E/X,B.H)	Kiboga	GC	100
		電気探査平均深度		161

B-T:Buganda-Toro System
GC:Gneiss Complex
M:Mityana Series

表 －13 電気探査解析結果一覧表 (MPIGI DISTRICT : 37点)

No.	COMMUNITY	SUB-COUNTY	比抵抗値(Ωm)						下底深度(m)				
			第1層	第2層	第3層	第4層	第5層	第6層	第1層	第2層	第3層	第4層	第5層
1	Kyabagamba	Maddu	58	26	222	45	588	1,760	1.1	5.6	18	46	84
8	Kyamabaale	Maddu	155	1,080	56	89	2,360		0.4	1.5	23	69	
9	Kasambya	Maddu	22	59	39	660	3,300		2.1	8.1	11	47	
11	Kirasi	Maddu	39	89	51	582	147	1,360	0.4	3.7	7.9	31	78
12	Nakitembe	Maddu	73	20	94	806			1.8	15	40		
15	Kiryanongo	Kabulasoke	46	27	454	62	354		2.3	9.0	25	86	
16	Kakubansiri B	Kabulasoke	226	580	59	194	60	357	0.6	2.8	8.8	23	119
17	Lubale B	Kabulasoke	12	222	122	3,600			8.3	41	62		
23	Bulwadda West	Kabulasoke	43	69	40	270	118	306	1.3	6.0	9.4	27	51
24	Kawoko	Kabulasoke	83	8	981	4,730			2.3	5.1	50		
27	Kiriri	Mpenja	54	380	87	489	382	1,170	0.8	1.9	7.5	38	71
28	Mpogo	Mpenja	81	3,610	207	3,110			1.0	9.8	51		
32	Masaruka	Mpenja	418	3,730	1,590	6,940	1,100	7,290	0.7	3.2	7.2	22	48
34	Ngomanene	Mpenja	96	176	162	1,440			2.8	13	40		
39	Kikoko	Kyambogo	94	1,080	228	1,410			0.9	14	37		
40	Setta	Kyambogo	305	500	261	901			3.0	8.3	22		
41	Kjiudde	Kyambogo	149	85	518	73	721	2,300	3.1	5.4	14	40	67
42	Magigye	Kyambogo	122	502	266	746	2,980		1.6	7.4	34	61	
43	Kiwenda _T/C	Kyambogo	87	311	173	741	3,630		3.4	11	35	57	
45	Menvu	Kyambogo	332	507	217	515	116	1,990	2.0	4.8	9.8	22	44
47	Mairye	Kyambogo	82	176	50	293	175	6,490	0.7	1.3	2.6	8.5	19
54	Ngando	Ngando	127	349	147	248	55	455	1.1	3.9	19	38	77
57	Butende	Ngando	284	182	549	123	183	108	1.8	4.3	9.5	37	76
59	Tufube	Ngando	35	1,460	295	111			0.5	1.4	46		
60	Bugobango	Ngando	126	440	311	131	508		0.6	2.5	20	125	
62	Wabiyinja	Masulita/Kiziba	75	259	2,010	595			0.8	7.8	28		
64	Masulita A	Masulita/Kiziba	71	264	153	669	255	694	0.9	6.5	9.4	21	42
65	Kyanuna	Namayumba	127	452	190	971	165	10,500	0.9	2.4	5.4	13	39
68	Bugimba	Namayumba	68	729	316	4,110			1.0	15	96		
70	Buso	Namayumba	126	720	203	648			4.6	27	77		
72	Bbembe	Namayumba	46	92	71	409	79	1,170	0.9	3.8	6.2	14	39
73	Namayumba	Namayumba	111	505	215	1,420	214	3,760	0.8	2.8	6.2	15	39
74	Busaku	Namayumba	71	592	214	2,070			1.1	24	66		
76	Kasengejja	Wakiso	100	867	143	1,850			4.4	19	40		
79	Kituntu T/C	Kituntu	18	571	36	20			2.7	17	79		
80	Kikomazzi	Nkozi	267	698	98	36	101		1.1	15	42	94	
	Seeta(E/X,B.H)	Nangabo	183	536	77	208	702		0.9	2.9	12	39	

表 －14 電気探査解析結果一覧表 (MUBENDE DISTRICT : 35点)

No.	COMMUNITY	SUB-COUNTY	比抵抗値(Ωm)						下底深度(m)				
			第1層	第2層	第3層	第4層	第5層	第6層	第1層	第2層	第3層	第4層	第5層
4	Bukongo	Kitenga	171	27	529	163	4,810		1.9	4.5	13	29	
6	Mugunglu	Bagezza	469	193	439	147	2,250		2.6	7.7	19	39	
7	Kisingizi	Bagezza	96	380	252	1,170	140	7,490	0.6	2.9	6.5	15	43
10	Bakijjulala	Bagezza	91	293	120	910	207	5,040	1.0	3.1	6.5	17	39
16	Ngabano	Madudu	121	339	218	2,120			3.2	21	28		
17	Katoma	Kiyuni	120	202	132	888	3,010		0.8	1.7	8.1	19	
19	Namabale	Kassanda	62	28	659	8,170			3.2	6.4	30		
21	Kamuli	Kassanda	115	214	99	30	2,600		2.5	25	47	61	
22	Kasaazi A	Kassanda	101	342	217	2,650			2.0	17	28		
26	Makata	Myanzi	74	639	476	750			1.6	32	81		
28	Kalama	Myanzi	300	134	1,450	285	706		1.7	6.0	30	132	
29	Kyakasengula	Myanzi	569	95	1,070	264	1,660	317	0.7	1.7	4.9	10	39
33	Kyawatuba	Myanzi	111	217	1,860	759			3.0	6.4	25		
34	Kasana	Myanzi	112	421	3,870	982	1,670		0.4	3.8	27	90	
35	Mabuubi	Bukuya	126	506	308	701			4.4	34	129		
36	Kalongo	Bukuya	67	46	643	222	2,720		2.1	7.5	24	52	
39	Kikumbi	Busimbi	90	3,080	985	714			0.7	12	88		
41	Namyeso	Busimbi	53	777	541	3,100			0.8	28	64		
43	Katakala	Busimbi	123	1,310	503	720			2.3	21	93		
46	Kalangalo	Bulera	46	700	143	795	230	1,350	0.5	1.4	4.8	15	83
47	Lwogero	Bulera	34	1,210	350	8,390			0.4	3.4	9.7		
52	Kisamba	Sekanyonyi	195	377	1,680				2.5	16			
54	Sekanyonyi	Sekanyonyi	94	650	110	1,490			1.9	19	75		
55	Kabulamuliro	Kikandwa	63	579	133	498			1.8	6.7	111		
57	Serinnya	Maanyi	75	58	372	219	947		1.0	5.8	13	49	
58	Nabale	Maanyi	156	89	123	42	424		0.9	8.2	17	46	
59	Maanyi	Maanyi	23	187	55	494	184	828	0.8	2.1	5.5	16	49
60	Mpongo	Maanyi	62	1,340	167	254	90	371	0.4	1.8	6.2	17	42
64	Bekina A	Butayunja	62	194	437	253	556		1.1	2.9	15	76	
65	Kande	Butayunja	111	268	580	179	1,520		1.1	7.5	20	52	
70	Nabwiri	Kakindu	103	173	32	515	3,510		0.9	7.4	22	40	
74	Ngugulo	Kakindu	40	90	604	38	57		0.4	5.0	12	105	
75	Mwera	Kakindu	51	382	169	511	78	2,050	0.4	1.8	4.5	9.9	47
79	Malangala	Malangala	56	485	417	7,330			1.1	19	43		
81	Kasalaga B	Malangala	66	418	156	839			2.3	22	122		

表 －15 電気探査解析結果一覧表 (KIBOGA DISTRICT : 36点)

No.	COMMUNITY	SUB-COUNTY	比抵抗値(Ωm)						下底深度(m)				
			第1層	第2層	第3層	第4層	第5層	第6層	第1層	第2層	第3層	第4層	第5層
3	Masiriba	Bukomero	254	1,470	52	245	143	3,690	0.5	1.9	6.8	17	42
4	Katwe	Bukomero	648	68	794				3.8	31			
7	Kabamba West	Bukomero	147	762	63	275			0.6	13	102		
11	Kagogo	Bukomero	79	314	153	837			1.6	7.0	37		
19	Nakalama St. Kizito	Ntwetwe	75	232	117	472	52	2,320	0.8	2.8	5.3	11	68
20	Ntuuti	Ntwetwe	320	519	172	1,760	272	1,280	1.2	3.1	6.1	15	56
49	Natvole.fagala Mem	Ntwetwe	111	354	230	450	104	2,430	1.0	3.4	6.9	12	61
67	Kasambva B	Ntwetwe	81	392	144	340	106	2,770	0.7	2.6	6.4	16	46
25	Kizinga	Kiboga	91	684	89				7.1	76			
29	Kambugu	Kiboga	34	357	23	809	3,670		1.7	15	38	94	
32	Kibiga	Kiboga	233	2,120	269	448			0.9	6.1	25		
36	Lunnva	Lwamata	60	15	3,190				13	24			
38	Nsanje	Lwamata	299	926	103	815			0.9	4.7	63		
43	Katanabiro	Butemba	72	587	274	114	1,070		0.2	3.7	18	72	
44	Kagalama	Butemba	208	1,350	306	74	418		0.9	6.2	30	74	
45	Bvenima B	Butemba	103	269	111	979	289	1,020	0.4	1.4	3.1	11	106
46	Bikoma B	Butemba	188	805	126	4,140	122	868	0.3	1.1	2.7	10	72
59	Kavunga	Butemba	142	22	318	17	383	4,910	1.9	4.3	10	30	68
48	Nakasozi	Nakasozi	9.5	201	40	3,210			0.3	15	58		
53	Kigando/Buraza	Nsambya	109	757	125	699	9,140		0.6	2.4	19	34	
56	Nsanbva	Nsambya	209	87	6.5	121	2,350		1.1	11	19	42	
60	Masodde	Masodde	83	2,370	53	226	3,720		0.7	3.9	13	33	
61	Vvumba	Masodde	47	709	396	1,040	9,690		0.4	6.3	18	34	
69	Butambuka	Gayaza	56	194	157	6,160			1.0	5.6	28		
73	Kverere East	Gayaza	68	890	350	110	2,410		0.5	3.4	19	54	
	Kiboga town(A230m)	Kiboga	418	635	385	258	7,310		1.3	2.5	18	54	
	Kiboga town(A320m)	Kiboga	96	955	168	2,700			0.9	6.1	41		
	Kiboga town(A390m)	Kiboga	105	790	133	4,290			0.6	3.5	33		
	Kiboga town(A680m)	Kiboga	72	546	217	2,770			0.8	3.2	13		
	Kiboga town(B220m)	Kiboga	60	8.4	592				3.2	52			
	Kiboga town(C120m)	Kiboga	38	8.5	3,930				1.0	8.1			
	Kiboga town(C460m)	Kiboga	59	17	36	28	1,240		1.0	3.1	8.7	19	
	Kiboga town(D790m)	Kiboga	53	353	21	173	66	4,620	0.6	1.8	5.4	15	29
	Kiboga town(D930m)	Kiboga	78	495	31	642	170	595	0.6	2.2	6.5	21	61
	Kiboga town(D1180m)	Kiboga	119	33	93	22	4,800		1.2	2.8	6.9	16	
	Kiboga town(E/X,B.H)	Kiboga	240	1,810	332	496			1.1	2.9	25		

表 －16 電気探査結果による深井戸計画深度 (MPIGI DISTRICT : 37点)

No.	COMMUNITY	SUB-COUNTY	GEOLOGY	SOUNDING DEPTH(m)	WEATHERING DEPTH(m)	BASEMANT DEPTH(m)	BOREHOLE DEPTH(m)
1	Kyabagamba	Maddu	B-T	120	70	40	110
8	Kyamabaale	Maddu	B-T	200	70	10	80
9	Kasambya	Maddu	B-T	100	21	49	70
11	Kirasi	Maddu	B-T	200	55	35	90
12	Nakitembe	Maddu	B-T	100	40	50	90
15	Kiryanongo	Kabulasoke	B-T	140	70	40	110
16	Kakubansiri B	Kabulasoke	B-T	210	120	20	140
17	Lubale B	Kabulasoke	B-T	120	62	8	70
23	Bulwadda West	Kabulasoke	B-T	100	34	66	100
24	Kawoko	Kabulasoke	B-T	100	5	55	60
27	Kiriri	Mpenja	B-T	100	8	72	80
28	Mpogo	Mpenja	B-T	160	86	34	120
32	Maseruka	Mpenja	B-T	120	59	51	110
34	Ngomanene	Mpenja	B-T	110	40	20	60
39	Kikoko	Kyambogo	B-T	100	36	34	70
40	Setta	Kyambogo	GC	100	22	18	40
41	Kjiudde	Kyambogo	GC	140	48	52	100
42	Magigye	Kyambogo	GC	120	28	42	70
43	Kiwenda T/C	Kyambogo	GC	160	35	35	70
45	Menvu	Kyambogo	B-T	110	36	34	70
47	Mairye	Kyambogo	GC	100	pending		－
54	Ngando	Ngando	B-T	160	120	10	130
57	Butende	Ngando	B-T	200	70	20	90
59	Tufube	Ngando	B-T	200	90	－	90
60	Bugobango	Ngando	B-T	200	105	30	135
62	Wabiyinja	Masulita/Kiziba	GC	110	8	82	90
64	Masulita A	Masulita/Kiziba	GC	100	24	46	70
65	Kyanuna	Namayumba	B-T	100	43	27	70
68	Bugimba	Namayumba	B-T	200	1	104	105
70	Buso	Namayumba	B-T	140	60	70	130
72	Bbembe	Namayumba	B-T	110	30	35	65
73	Namayumba	Namayumba	B-T	140	40	50	90
74	Busaku	Namayumba	B-T	200	40	60	100
76	Kasengejje	Wakiso	GC	100	30	50	80
79	Kituntu T/C	Kituntu	B-T	180	80	10	90
80	Kikomazzi	Nkozi	B-T	130	90	40	130
	Seeta(E/X,B.H)	Nangabo	GC	100	40	20	60

B-T:Buganda-Toro System
GC:Gneiss Complex

水理地質単元による深井戸計画平均深度

単位: m

水理地質	調査地点数 (箇所数)	掘削深度		
		軟岩	硬岩	計
Buganda-Toro System	28	1581	1074	2655
		56	40	95
Gneiss Complex	8	235	345	580
		29	43	73

注:上段の数値は総掘削深度
下段の数値は平均掘削深度

表 －17 電気探査結果による深井戸計画深度 (MUBENDE DISTRICT : 35点)

No.	COMMUNITY	SUB-COUNTY	GEOLOGY	SOUNDING DEPTH(m)	WEATHERING DEPTH(m)	BASEMANT DEPTH(m)	BOREHOLE DEPTH(m)
4	Bukongo	Kitenga		120	30	65	95
6	Mugunglu	Bagezza	B-T	120	45	35	80
7	Kisingizi	Bagezza	B-T	200	65	35	100
10	Bakijjulala	Bagezza	B-T	180	50	30	80
16	Ngabano	Madudu	Gr	100	40	30	70
17	Katoma	Kiyuni	Gr	120	pending		-
19	Namabale	Kassanda	Gr	120	10	45	55
21	Kamuli	Kassanda	B-T	120	60	20	80
22	Kasaazi A	Kassanda	B-T	140	40	20	60
26	Makata	Myanzi	B-T	200	50	40	90
28	Kalama	Myanzi	B-T	200	115	35	150
29	Kyakasengula	Myanzi	M	200	25	75	100
33	Kyawatuba	Myanzi	M	200	20	100	120
34	Kasana	Myanzi	B-T	200	-	150	150
35	Mabuubi	Bukuya	B-T	200	70	80	150
36	Kalongo	Bukuya	Gr	200	10	60	70
39	Kikumbi	Busimbi	B-T	180	-	100	100
41	Namyeso	Busimbi	M	200	-	75	75
43	Katakala	Busimbi	M	180	-	100	100
46	Kalangalo	Bulera	B-T	200	65	35	100
47	Lwogero	Bulera	M	200	pending		-
52	Kisamba	Sekanyonyi	B-T	90	20	50	70
54	Sekanyonyi	Sekanyonyi	B-T	180	70	50	120
55	Kabulamuliro	Kikandwa	B-T	200	105	45	150
57	Serinnya	Maanyi	B-T	120	30	50	80
58	Nabale	Maanyi	B-T	100	60	40	100
59	Maanyi	Maanyi	B-T	110	50	50	100
60	Mpongo	Maanyi	M	200	45	55	100
64	Bekina A	Butayunja	B-T	110	25	75	100
65	Kande	Butayunja	B-T	140	60	40	100
70	Nabwiri	Kakindu	B-T	140	40	25	65
74	Ngugulo	Kakindu	B-T	200	75	15	90
75	Mwera	Kakindu	B-T	200	60	30	90
79	Malangala	Malangala	B-T	130	-	90	90
81	Kasalaga B	Malangala	B-T	200	100	50	150

B-T:Buganda-Toro System
Gr:Granite
M:Mityana Series

水理地質単元による深井戸計画平均深度

単位: m

水理地質	調査地点 (箇所数)	掘削深度		
		軟岩	硬岩	計
Buganda-Toro System	24	1255	1190	2445
		52	50	102
Granite	3	60	135	195
		20	45	65
Mityana Series	5	90	405	495
		18	81	99
Gneiss Complex	3	30	65	95
		1	1	1

注:上段の数値は総掘削深度
下段の数値は平均掘削深度

表 －18 電気探査結果による深井戸計画深度 (KIBOGA DISTRICT : 36点)

No.	COMMUNITY	SUB-COUNTY	GEOLOGY	SOUNDING DEPTH(m)	WEATHERING DEPTH(m)	BASEMANT DEPTH(m)	BOREHOLE DEPTH(m)
3	Masiriba	Bukomero	GC	300	55	20	75
4	Katwe	Bukomero	GC	120	30	30	60
7	Kabamba West	Bukomero	M	200	90	40	130
11	Kagogo	Bukomero	B-T	160	20	60	80
19	Nakalama St. Kizito	Ntwetwe	GC	140	60	40	100
20	Ntuuti	Ntwetwe	GC	120	55	30	85
49	Natvole.fagala Mem	Ntwetwe	GC	120	40	40	80
67	Kasambva B	Ntwetwe	GC	140	35	25	60
25	Kizinga	Kiboga	B-T	200	10	90	100
29	Kambugu	Kiboga	B-T	200	75	45	120
32	Kibiga	Kiboga	B-T	120	20	50	70
36	Lunnva	Lwamata	M	200	40	40	80
38	Nsanje	Lwamata	GC	120	45	25	70
43	Katanabiro	Butemba	GC	160	65	25	90
44	Kagalama	Butemba	GC	160	60	50	110
45	Bvenima B	Butemba	GC	200	90	30	120
46	Bikoma B	Butemba	GC	200	110	40	150
59	Kavunga	Butemba	GC	160	65	45	110
48	Nakasozi	Nakasozi	B-T	200	60	30	90
53	Kigando/Buraza	Nsambya	GC	200	15	55	70
56	Nsanbva	Nsambya	GC	180	60	20	80
60	Masodde	Masodde	GC	140	35	25	60
61	Vvumba	Masodde	GC	100	pendimg	–	–
69	Butambuka	Gayaza	B-T	160	40	10	50
73	Kverere East	Gayaza	GC	200	40	50	90
	Kiboga town(120m)	Kiboga	GC	200	pending	–	–
	Kiboga town(460m)	Kiboga	GC	200	pending	–	–
	Kiboga town(790m)	Kiboga	GC	140	30	15	45
	Kiboga town(930m)	Kiboga	GC	140	45	55	100
	Kiboga town(1180m)	Kiboga	GC	140	pending	–	–
	Kiboga town(A230m)	Kiboga	GC	200	45	25	70
	Kiboga town(A320m)	Kiboga	GC	140	45	25	70
	Kiboga town(A390m)	Kiboga	GC	140	30	20	50
	Kiboga town(A680m)	Kiboga	GC	100	pending	–	–
	Kiboga town(B220m)	Kiboga	GC	200	50	20	70
	Kiboga town(E/X,B.H)	Kiboga	GC	100	–	50	50

B-T:Buganda-Toro System
GC:Gneiss Complex
M:Mityana Series

水理地質単元による深井戸計画平均深度

単位: m

水理地質	調査地点 (箇所数)	掘削深度		
		軟岩	硬岩	計
Buganda-Toro System	6	225	285	510
		37	48	85
Mityana Series	2	130	80	210
		65	40	105
Gneiss Complex	23	1105	760	1865
		48	33	81

注: 上段の数値は総掘削深度
下段の数値は平均掘削深度

図-1　深井戸位置図（ムピギ）

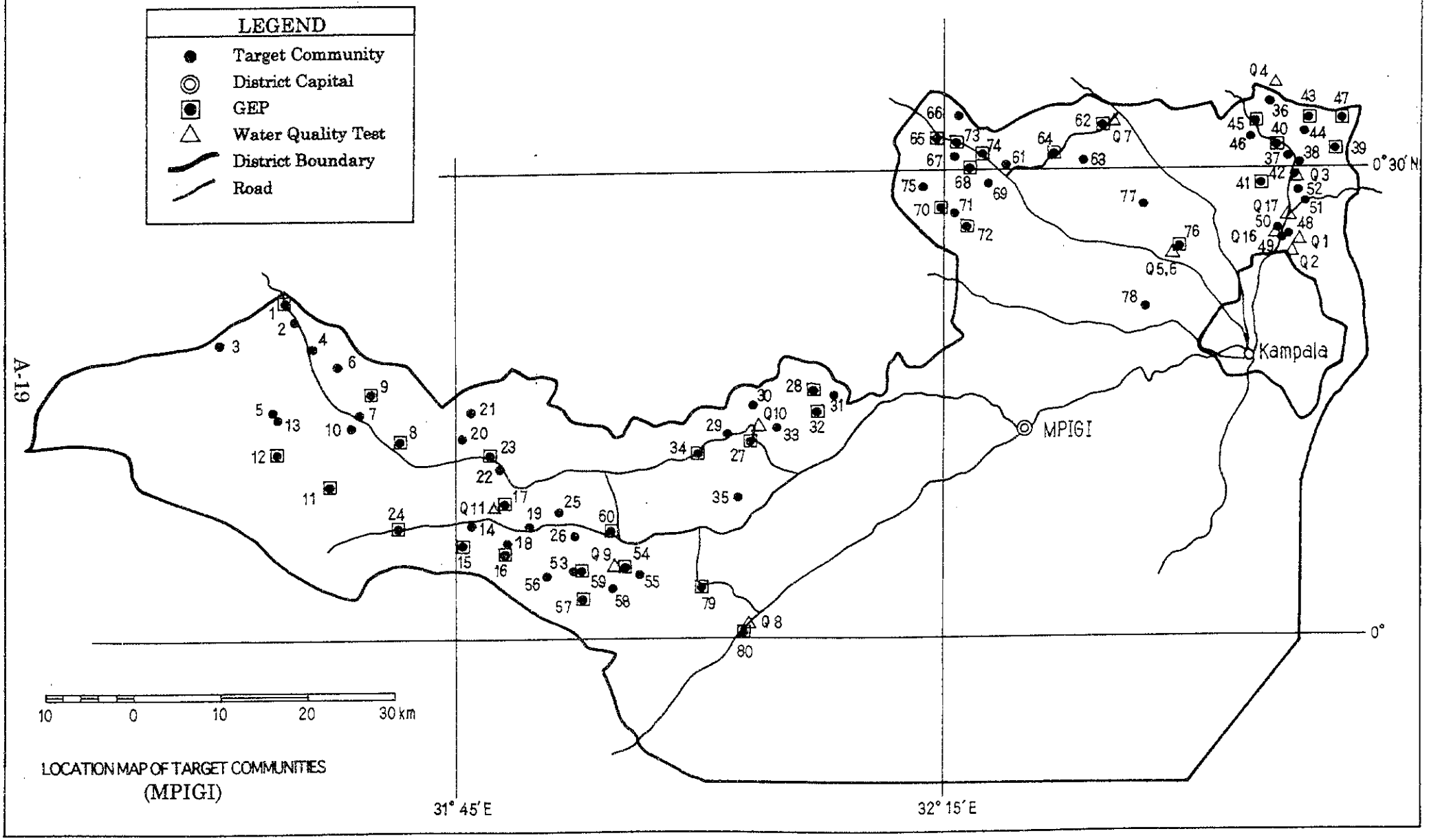
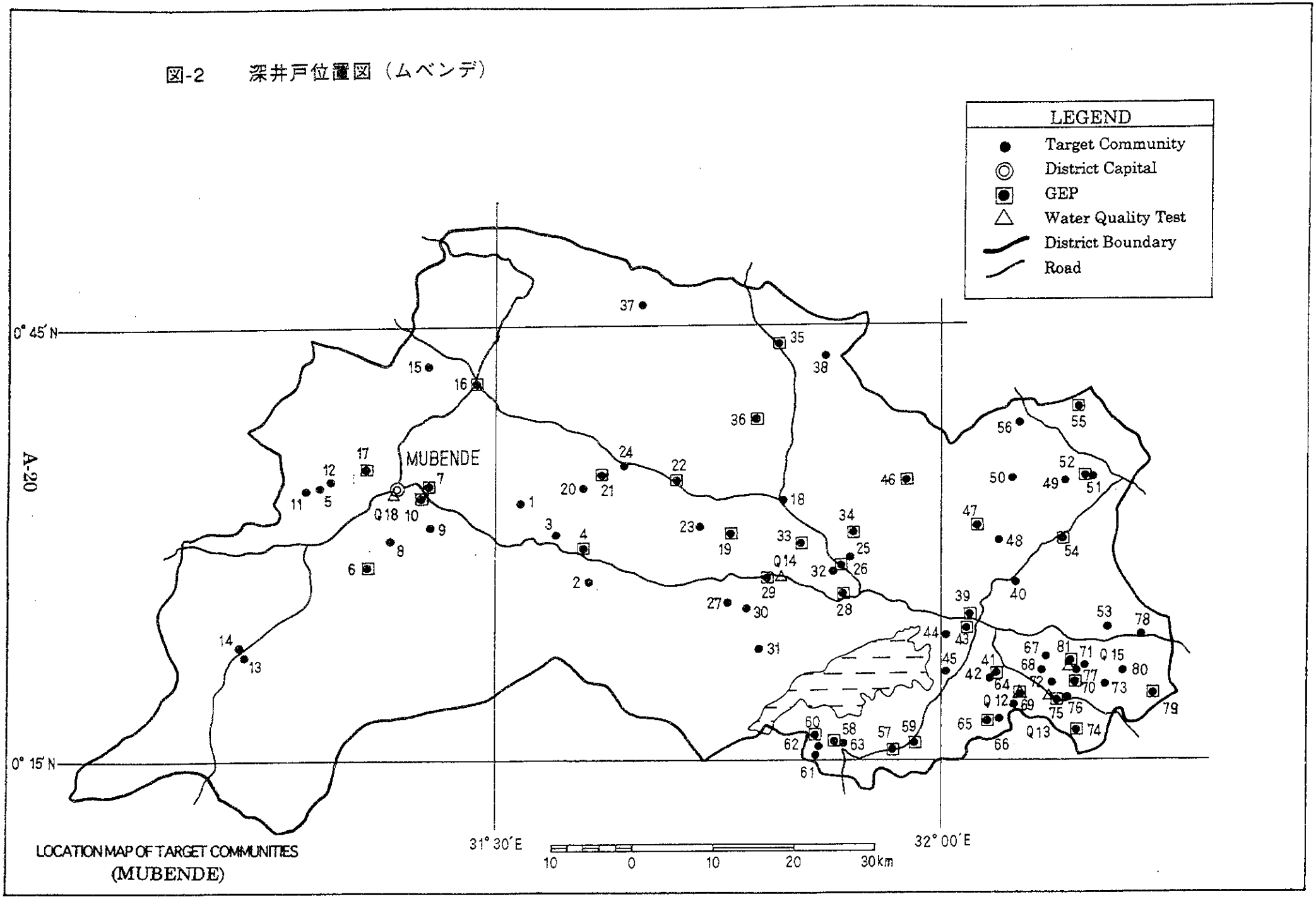


図-2　深井戸位置図（ムベンデ）



LOCATION MAP OF TARGET COMMUNITIES
(MUBENDE)

図-3　深井戸位置図（キボガ）

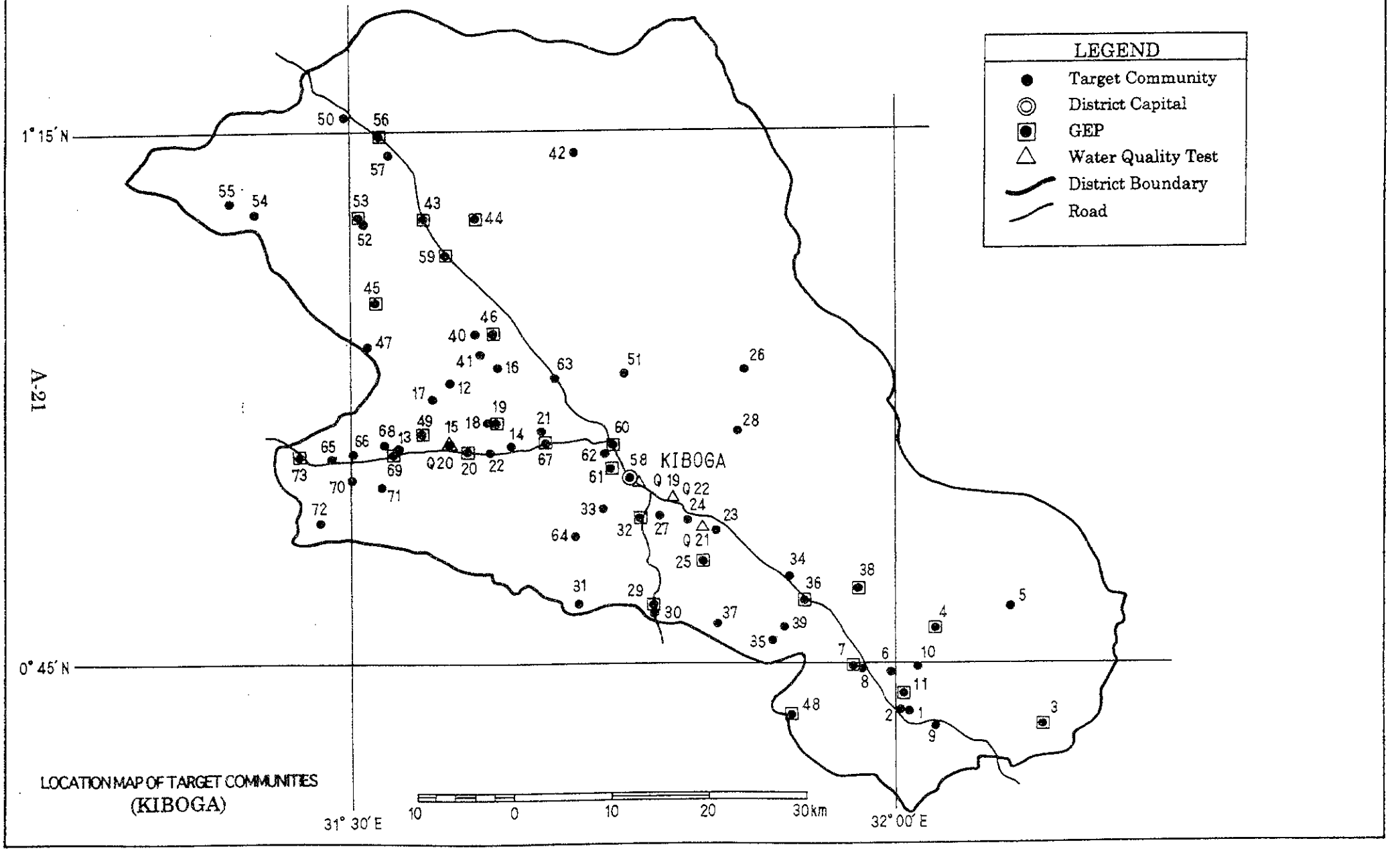
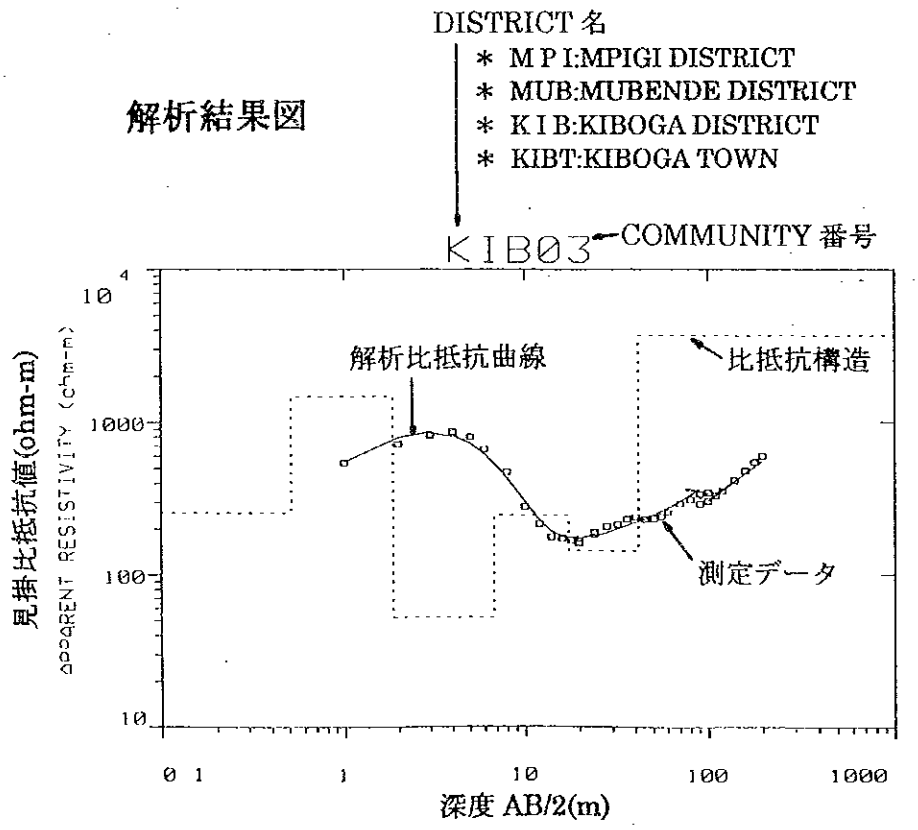


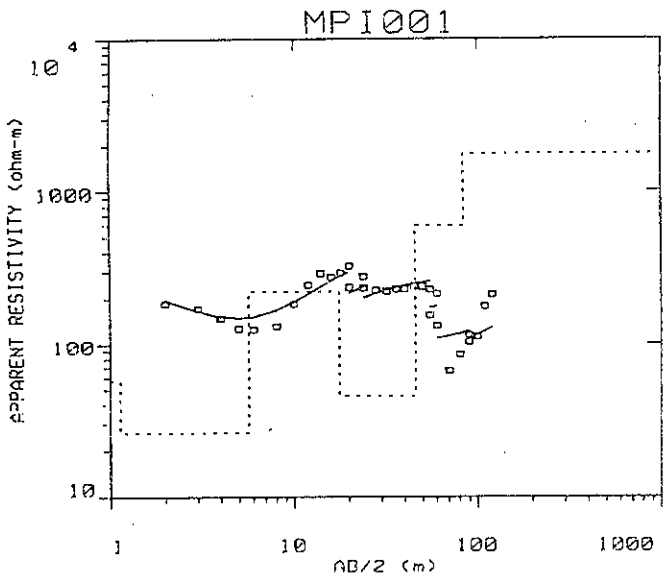
図-4　電気探査解析結果図（ムピギ）

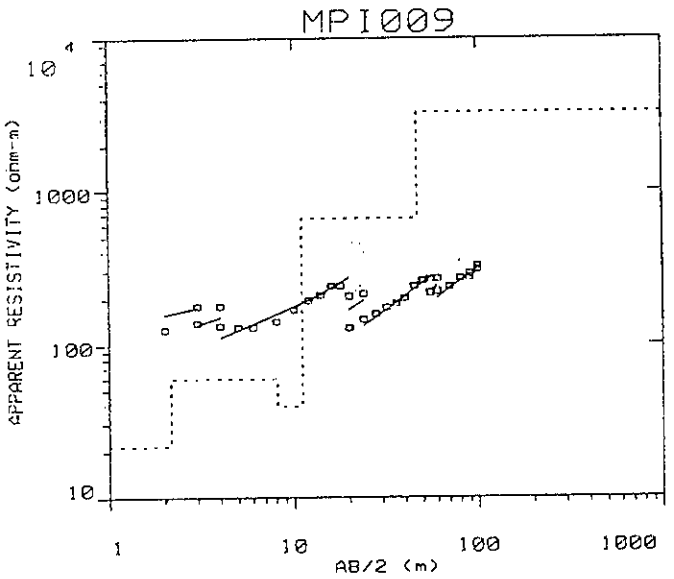
電気探査解析結果図

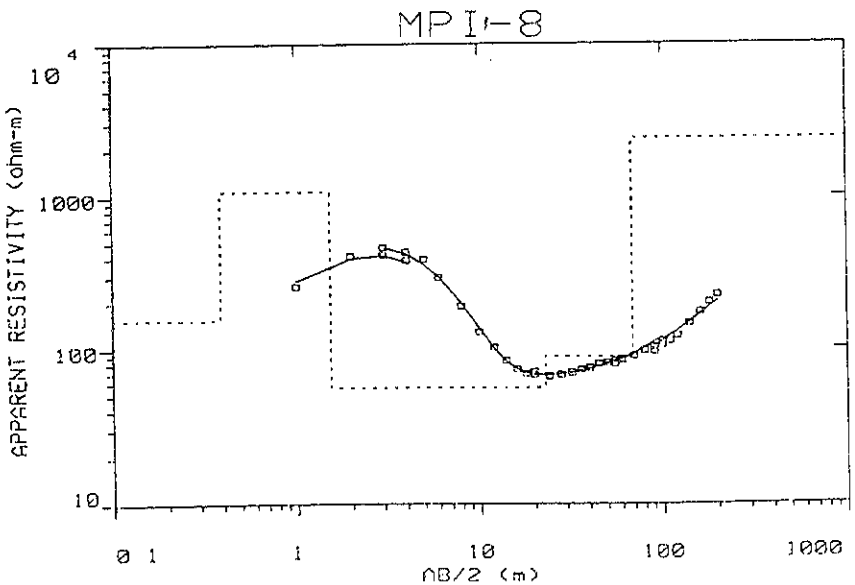
(MPIGI DISTRICT)

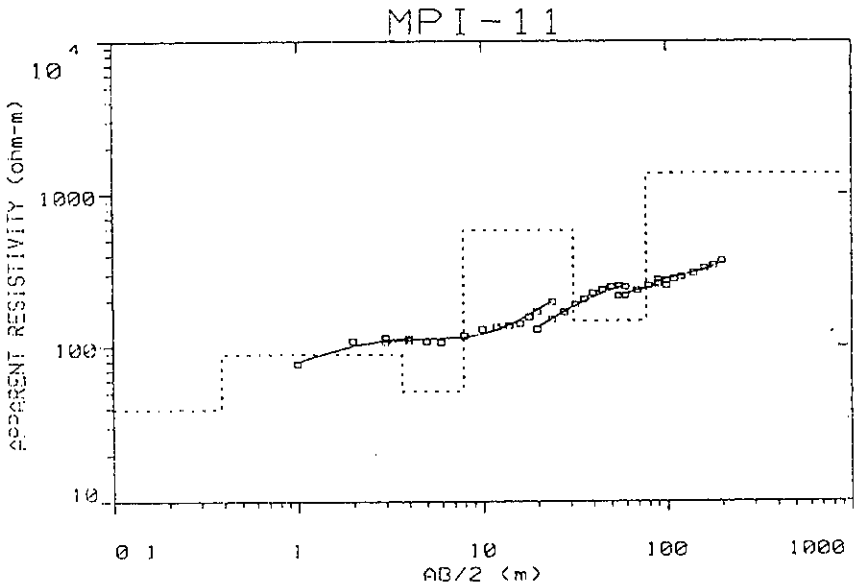
凡　例

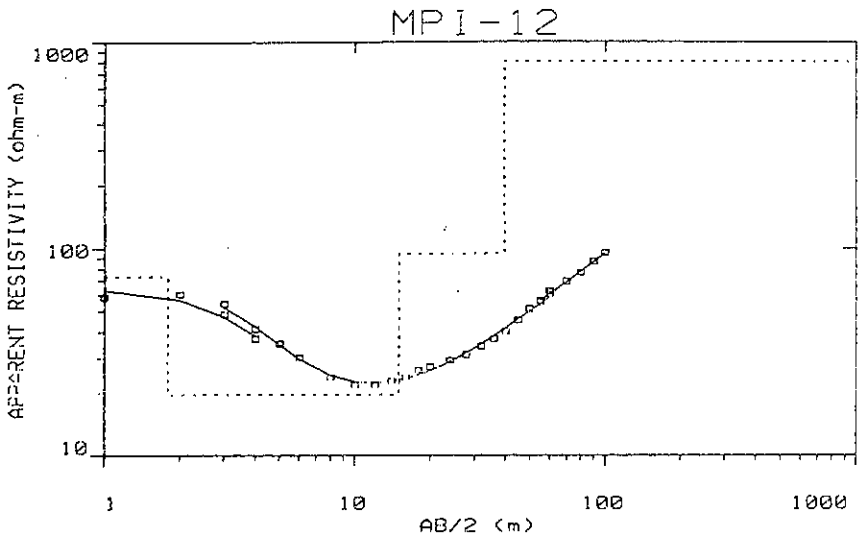


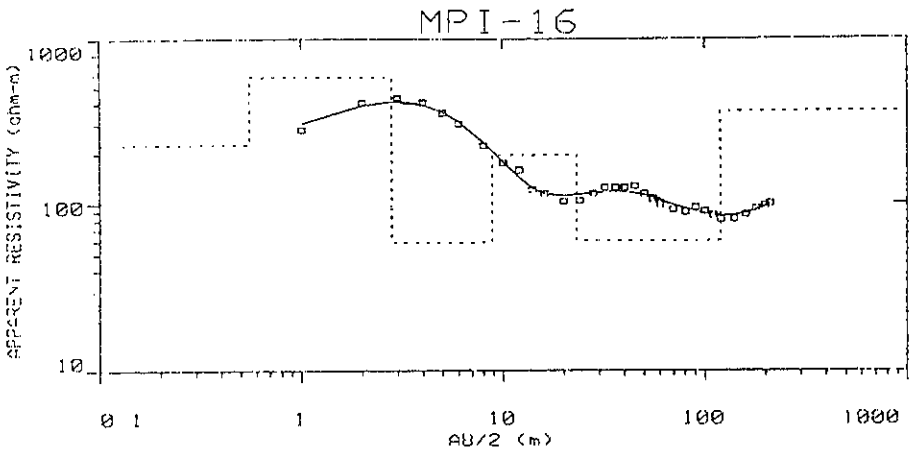

MPI001
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

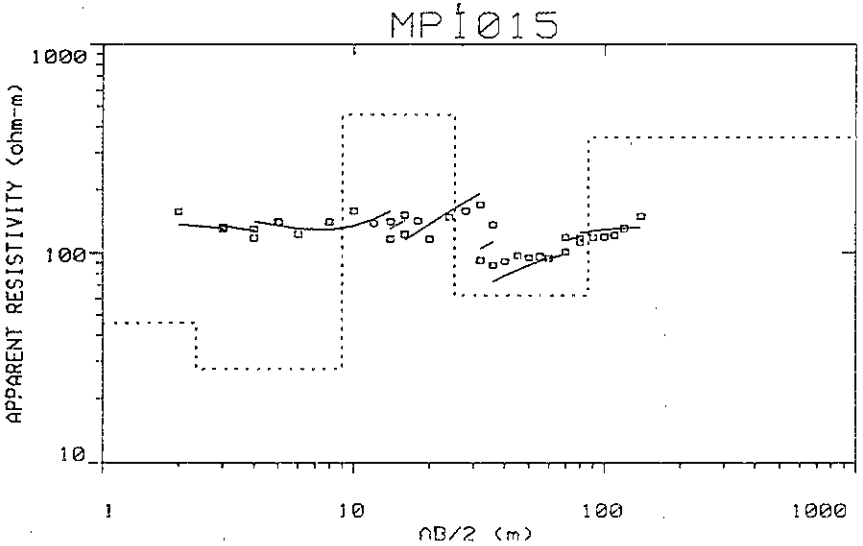

MPI009
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

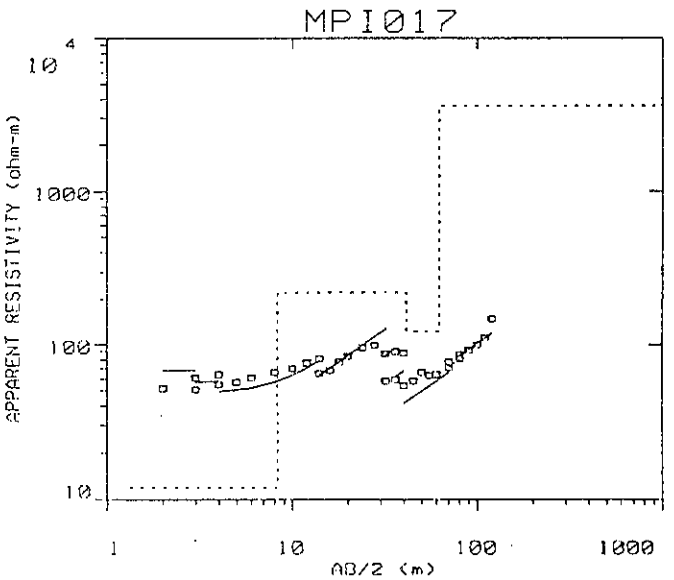

MPI-8
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

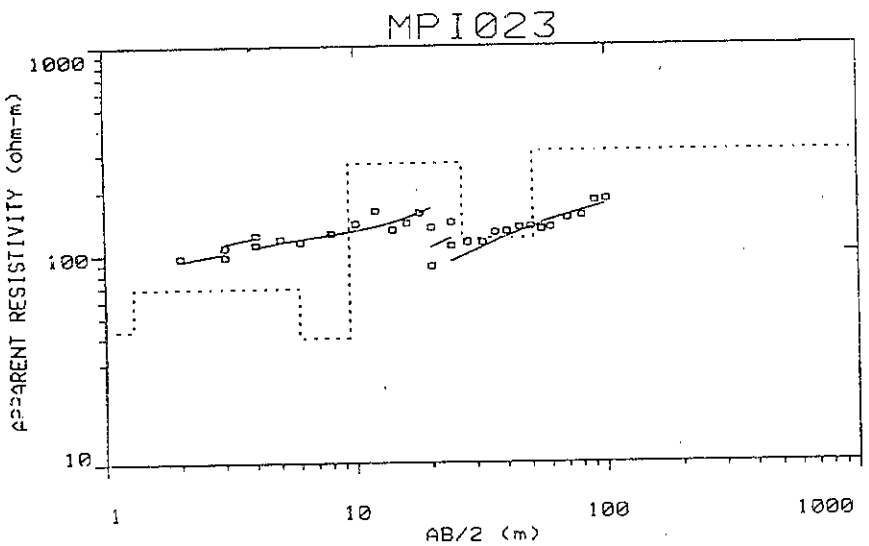

MPI-11
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

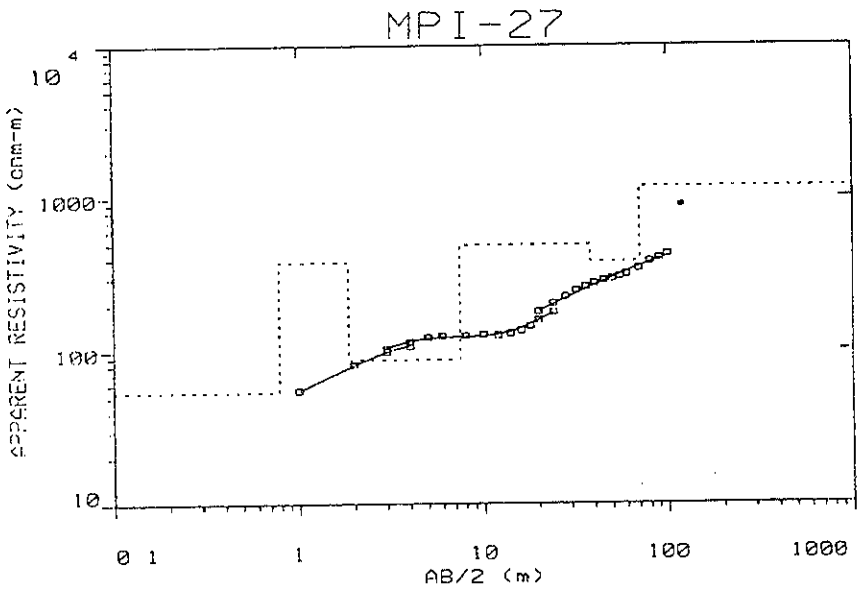

MPI-12
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

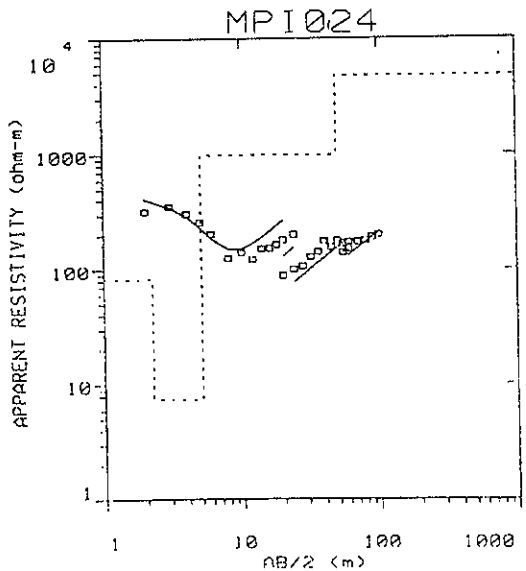

MPI-16
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

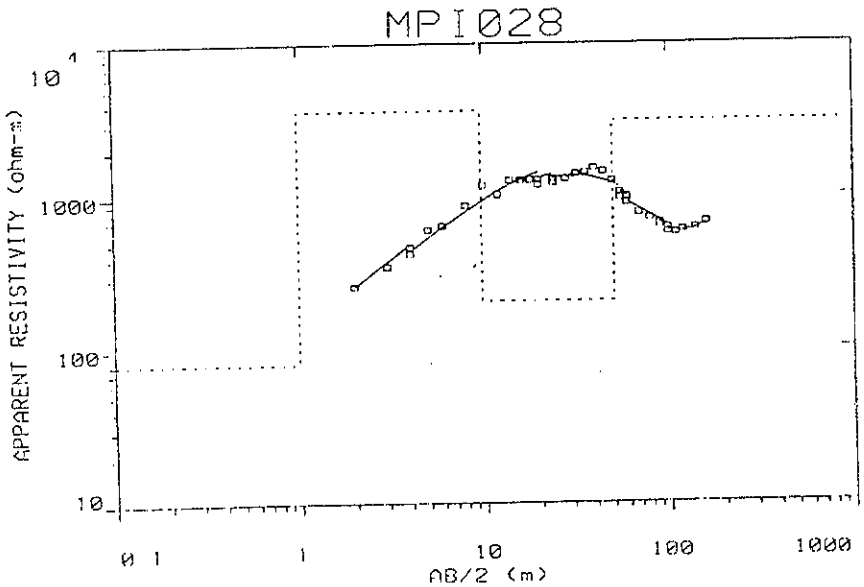

MPI015
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

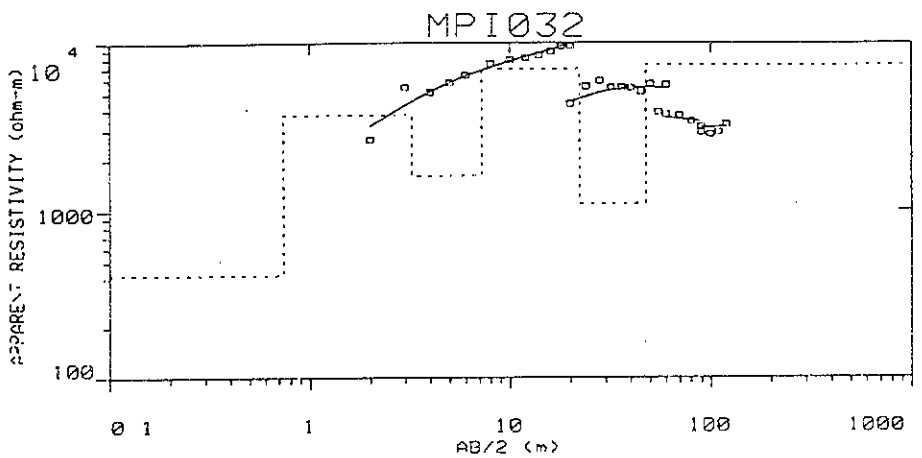

MPI017
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
10
1
10
100
1000
AB/2 (m)

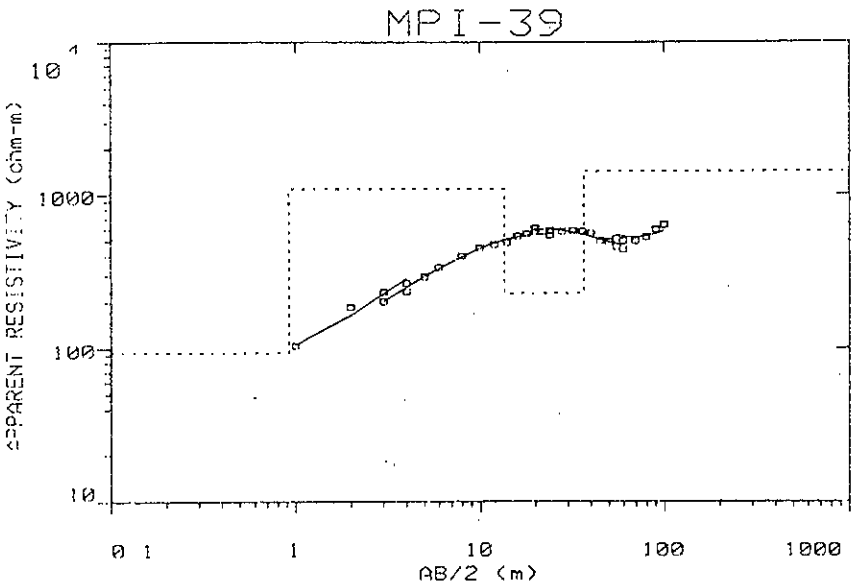

MPI023
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

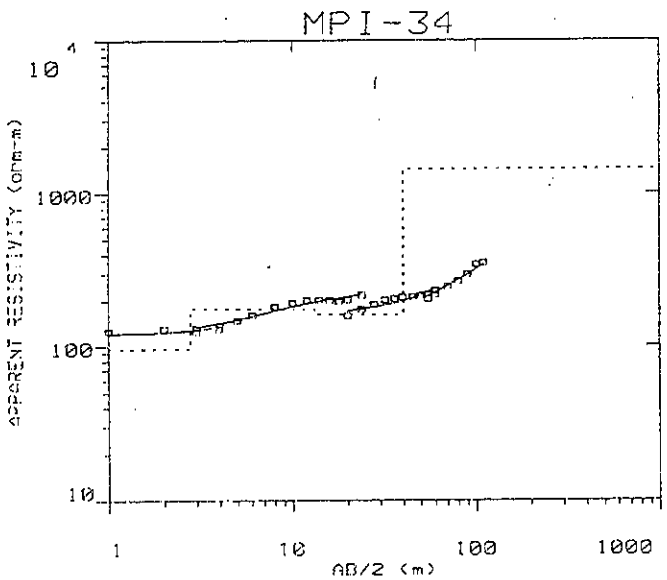

MPI-27
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

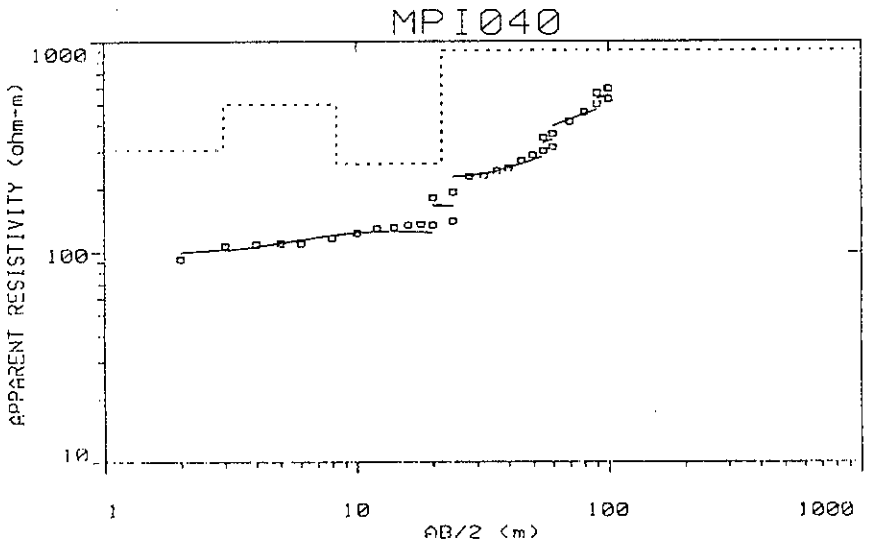

MPI024
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
1
10
100
1000
AB/2 (m)

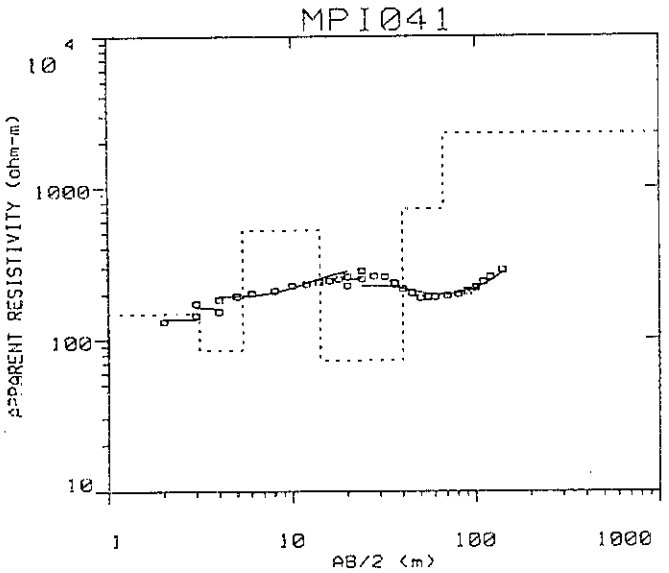

MPI028
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

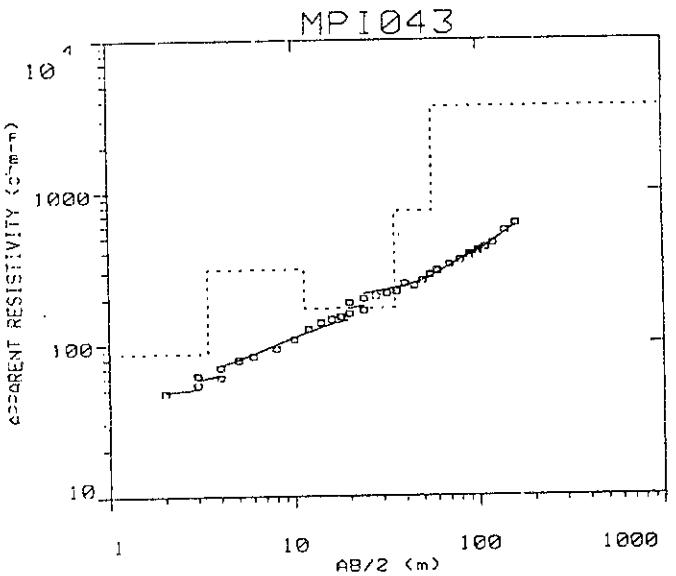

MPI032
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
0 1
1
10
100
1000
AB/2 (m)

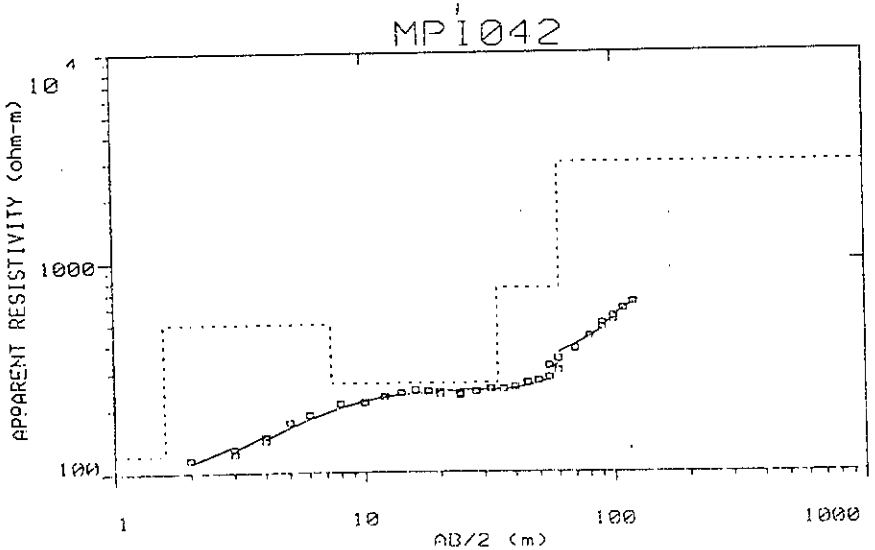

MPI-39
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

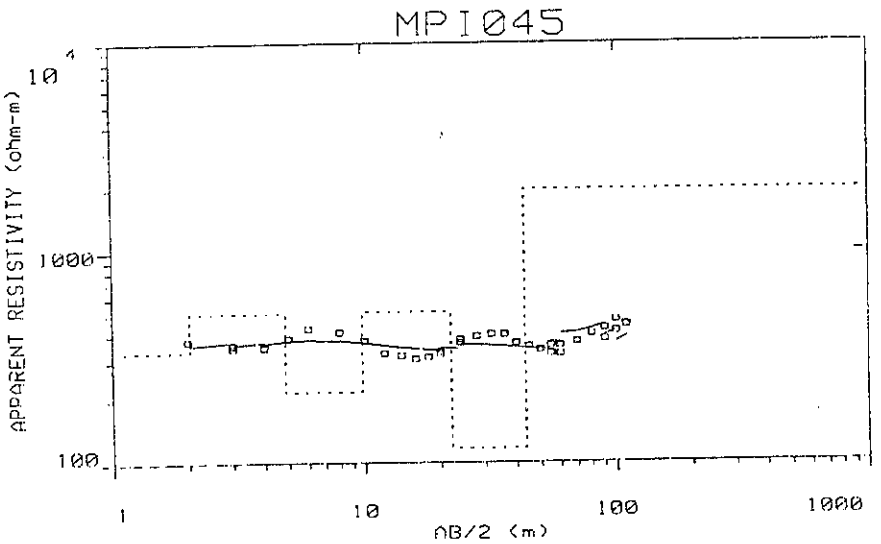

MPI-34
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

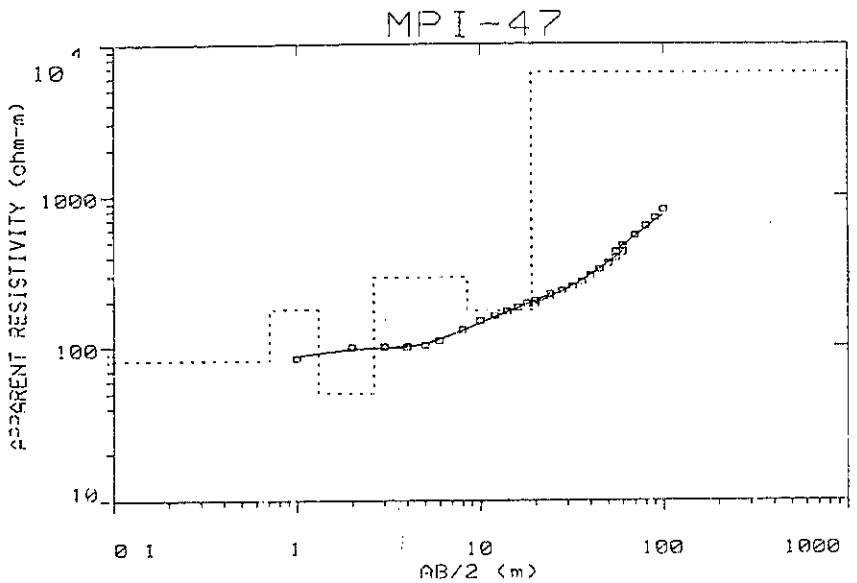

MPI040
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

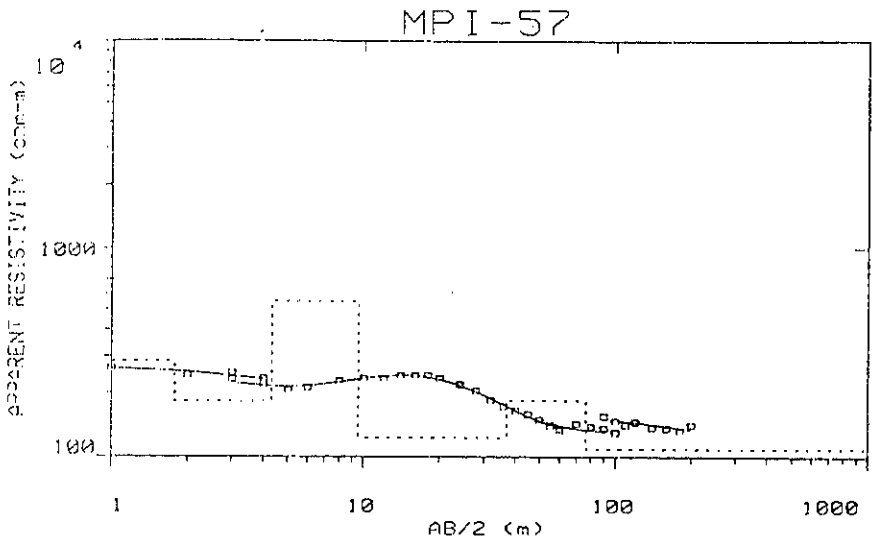

MPI041
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

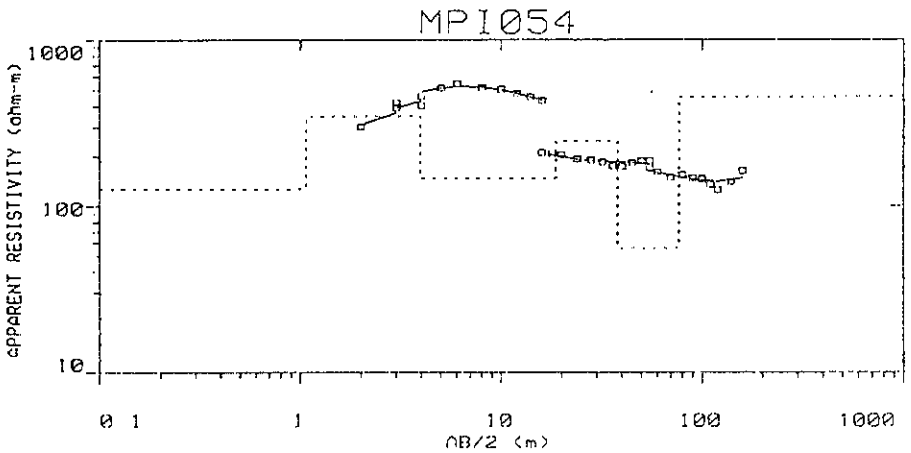

MPI043
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

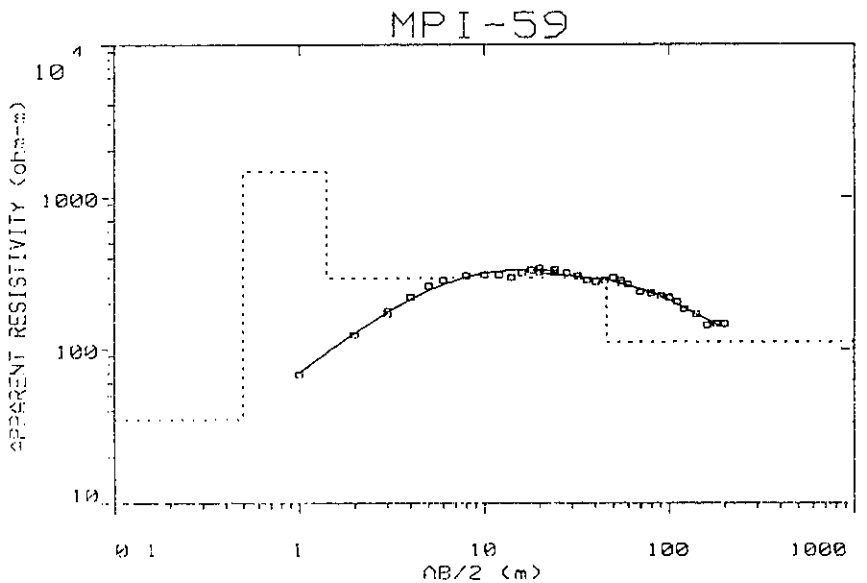

MPI042
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

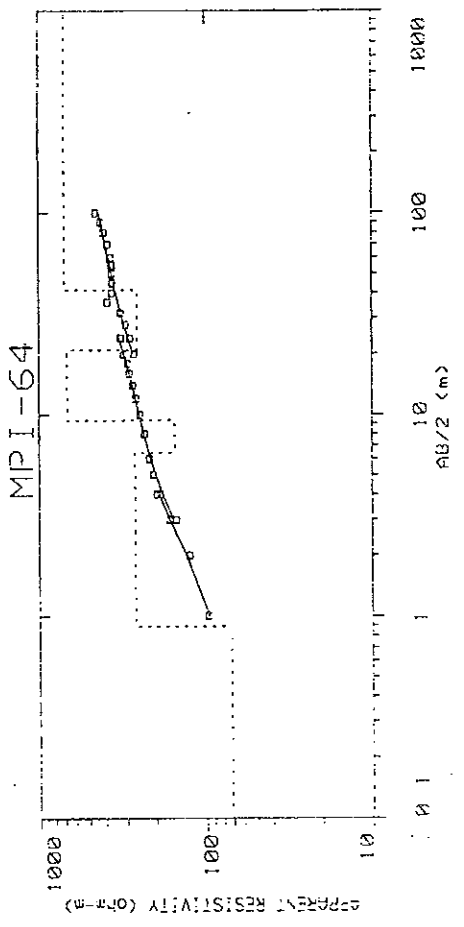

MPI045
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

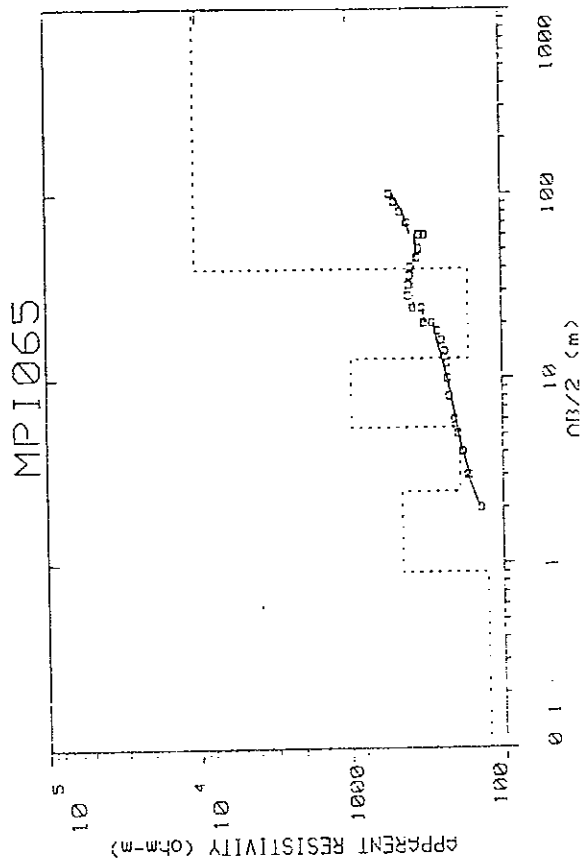

MPI-47
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

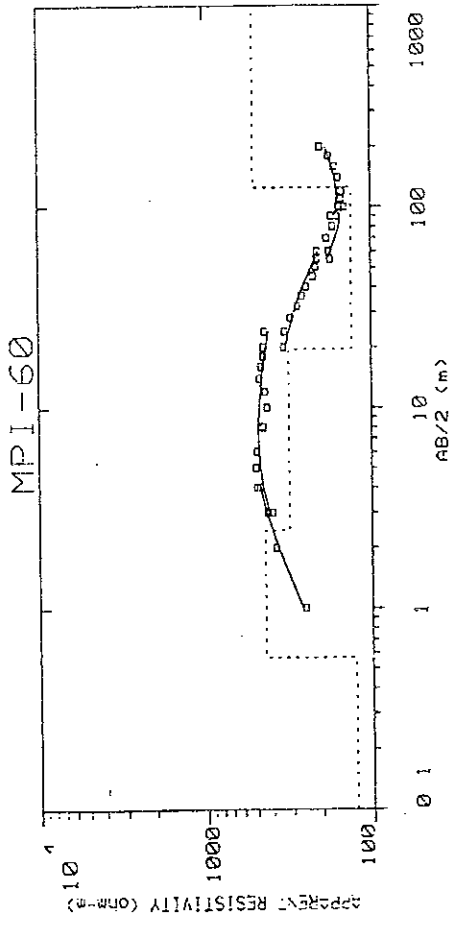

MPI-57
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

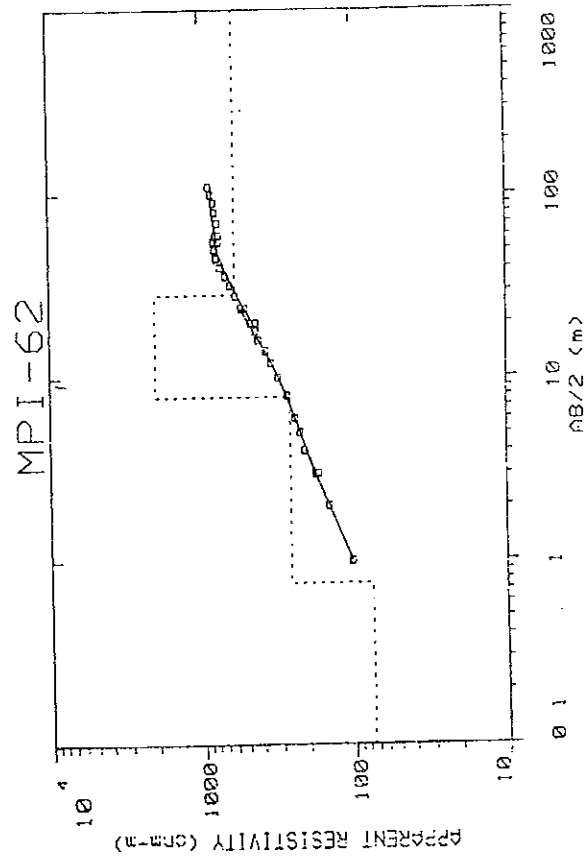

MPI054
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

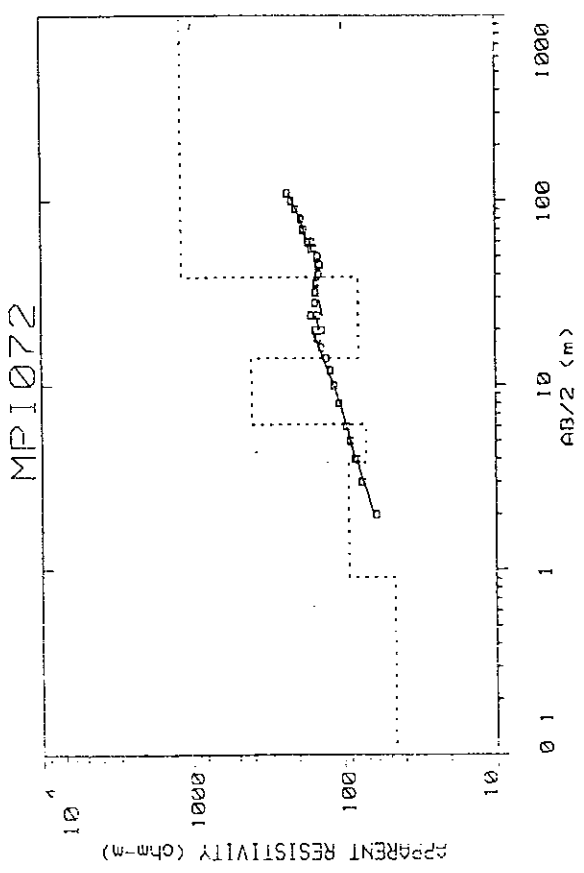

MPI-59
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

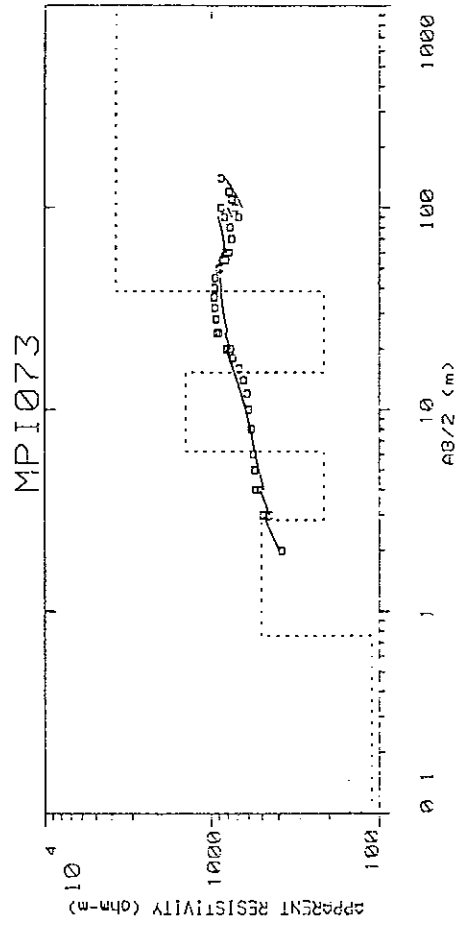

MPI-64
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)

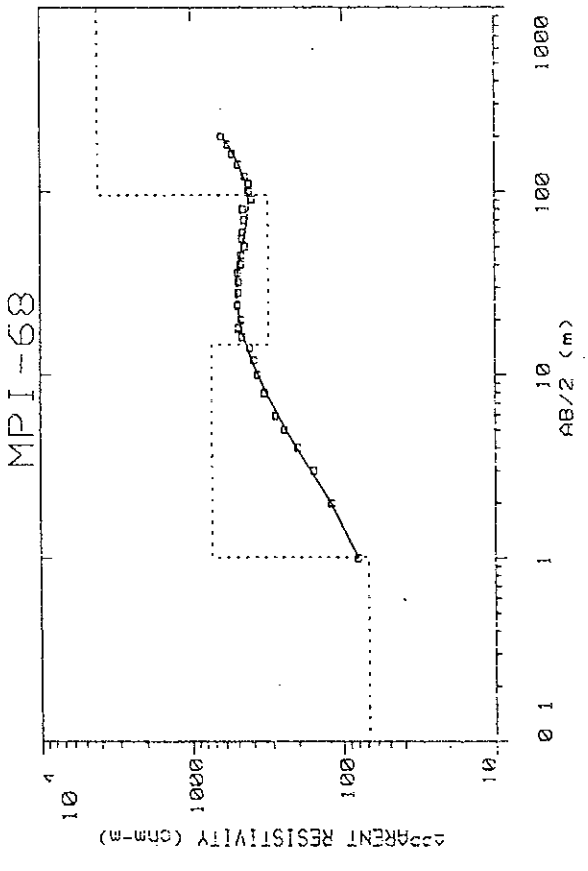

MPI065
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)

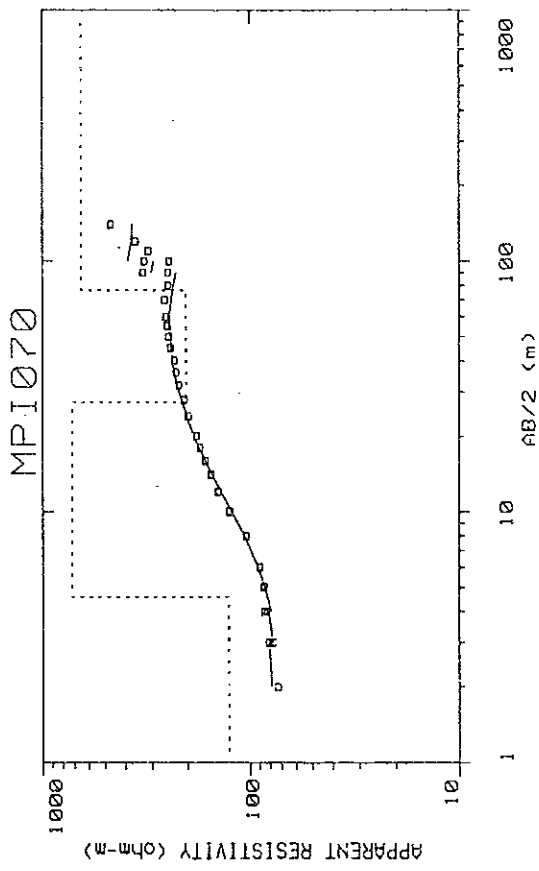

MPI-60
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)

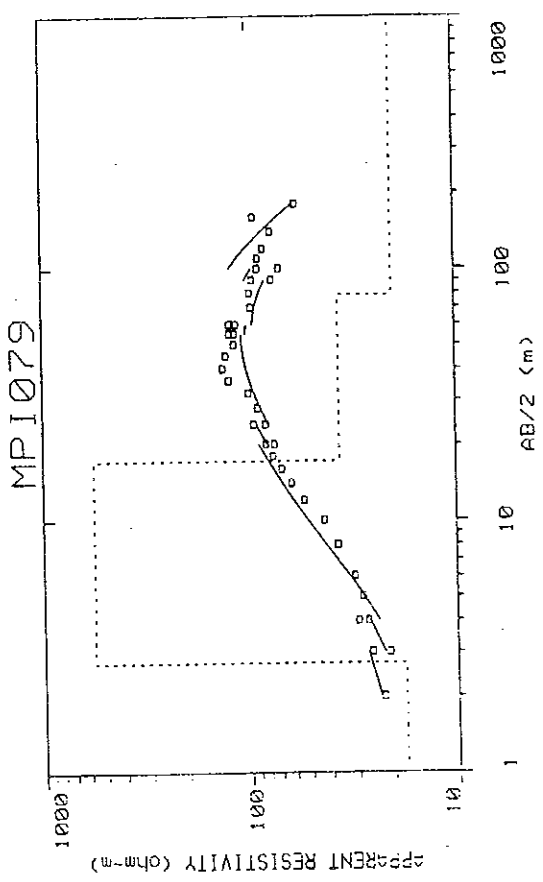

MPI-62
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)

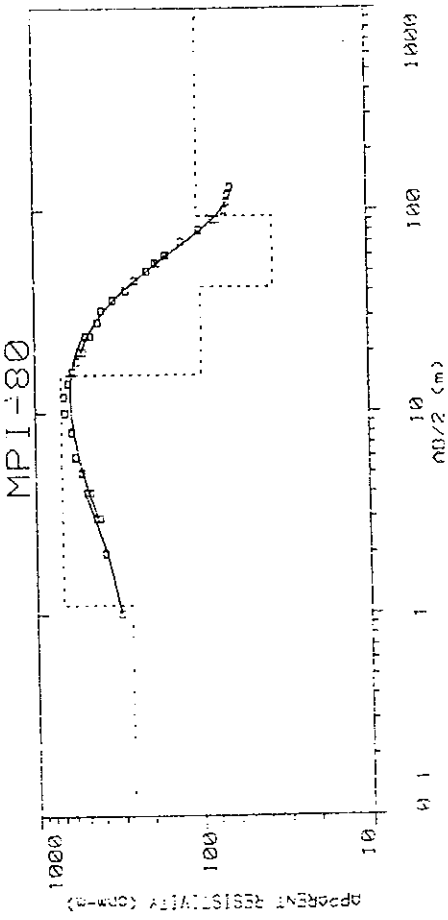

MPI072
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)

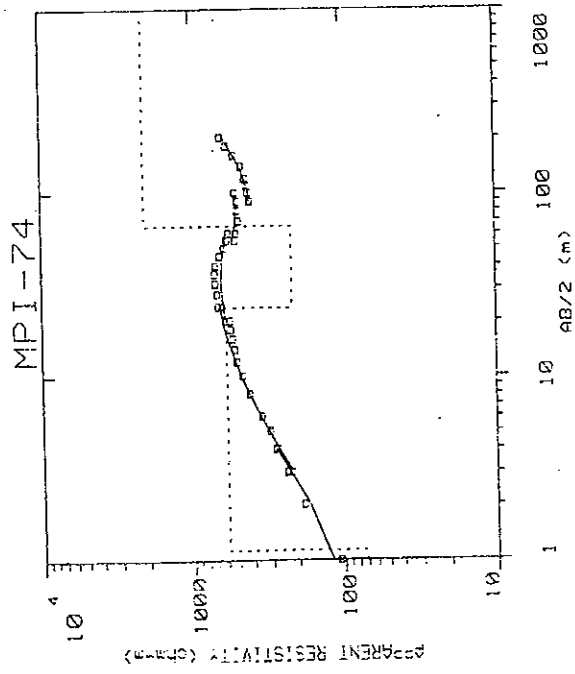

MPI073
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)

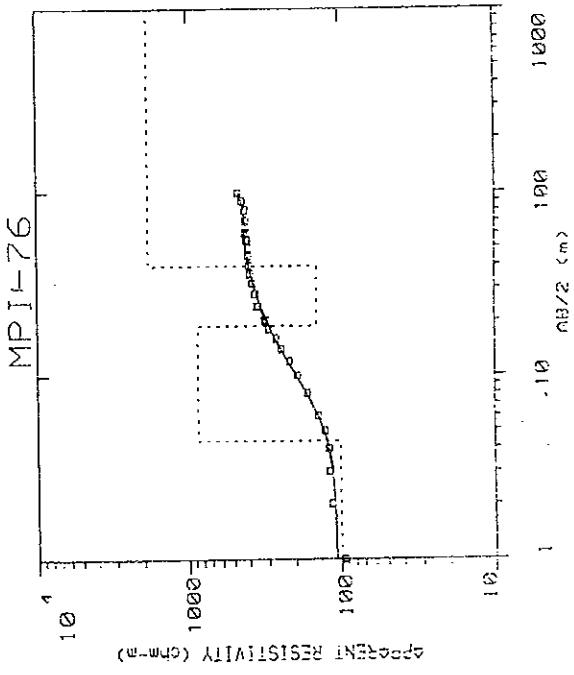

MPI-68
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)


MPI070
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)


MPI079
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)
1000
100
10
1
10
100
1000


MPI-80
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)
1000
100
10
1
10
100
1000


MPI-74
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)
10000
1000
100
10
1
10
100
1000

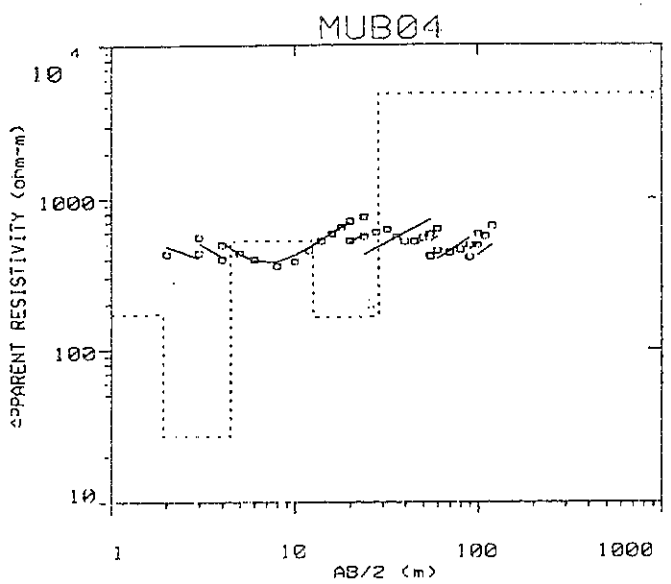

MPI-76
APPARENT RESISTIVITY (ohm-m)
AB/2 (m)
10000
1000
100
10
1
.10
100
1000

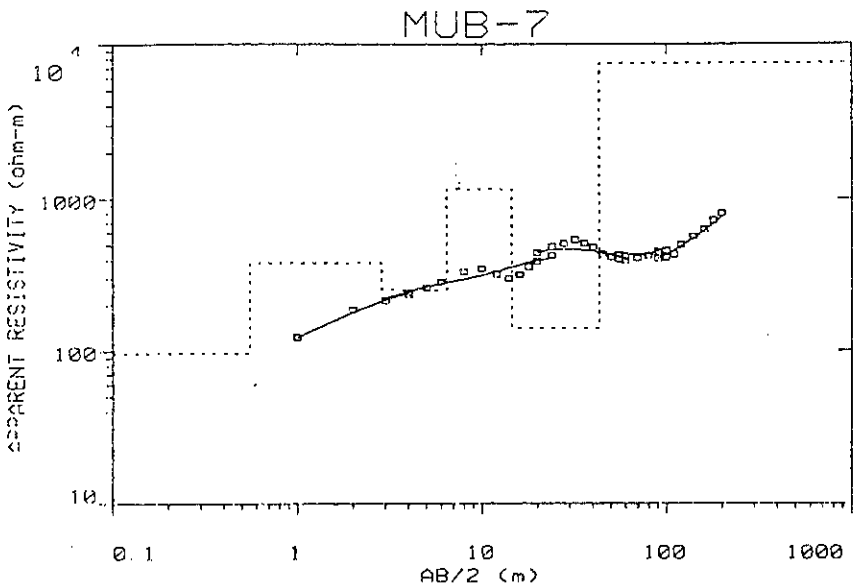
SEETA, BH
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

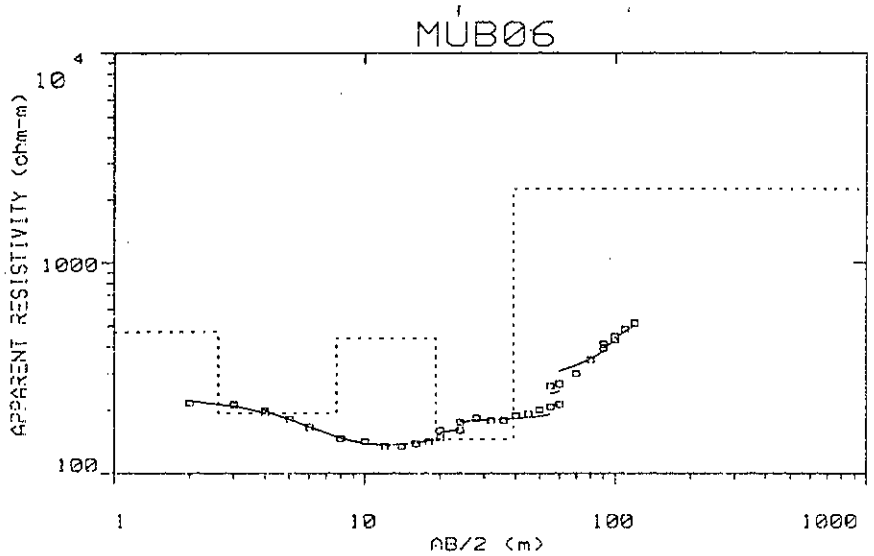
図-5　電気探査解析結果図（ムベンデ）

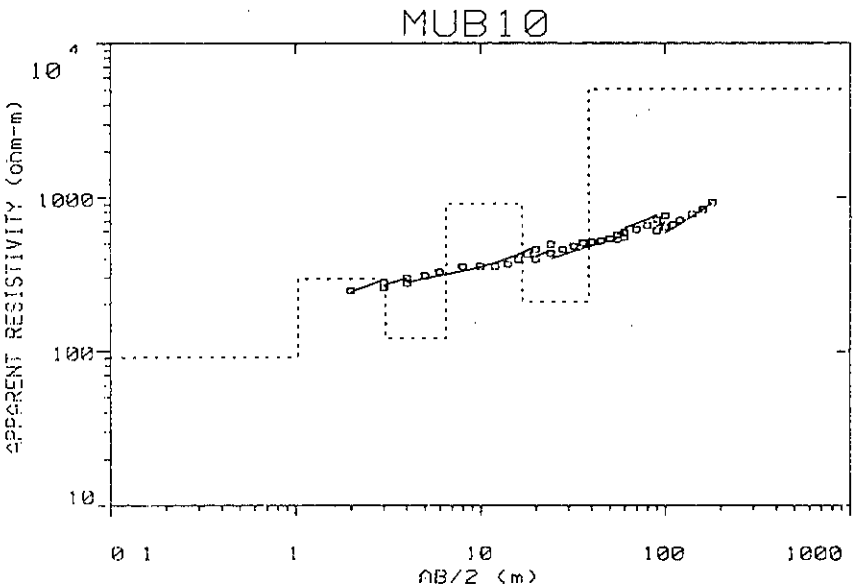
電気探査解析結果図

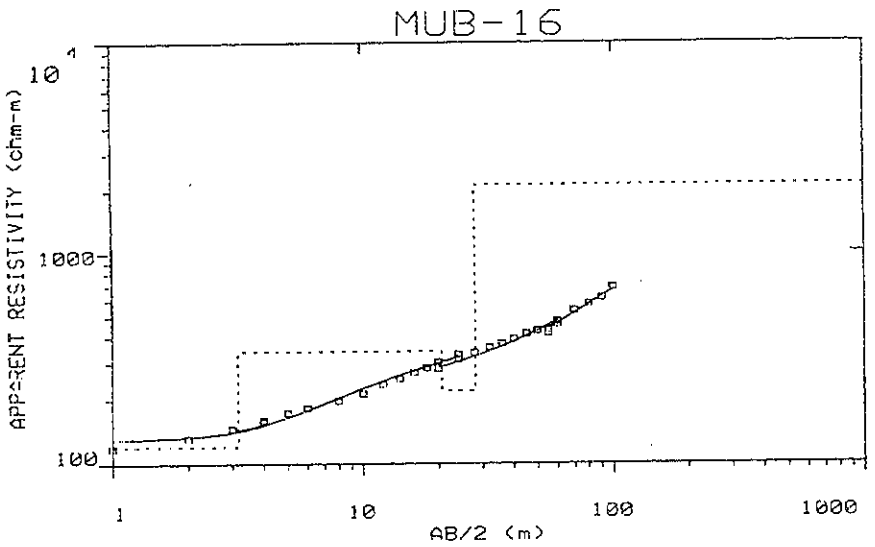
(MUBENDE DISTRICT)

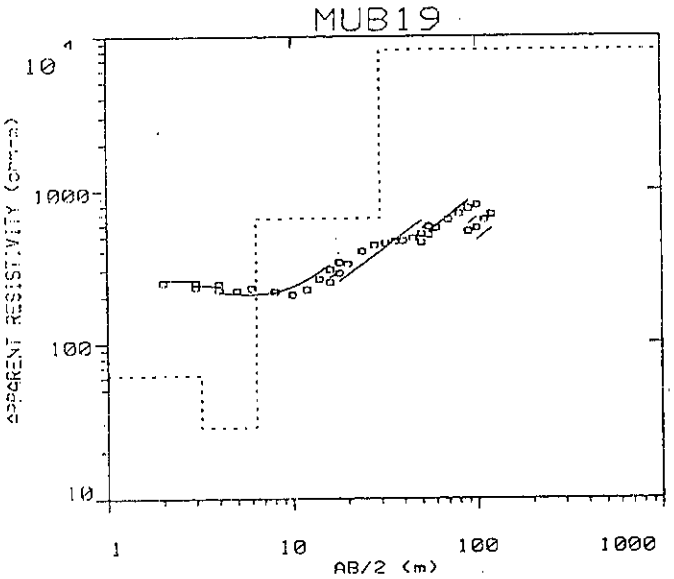

MUB04
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

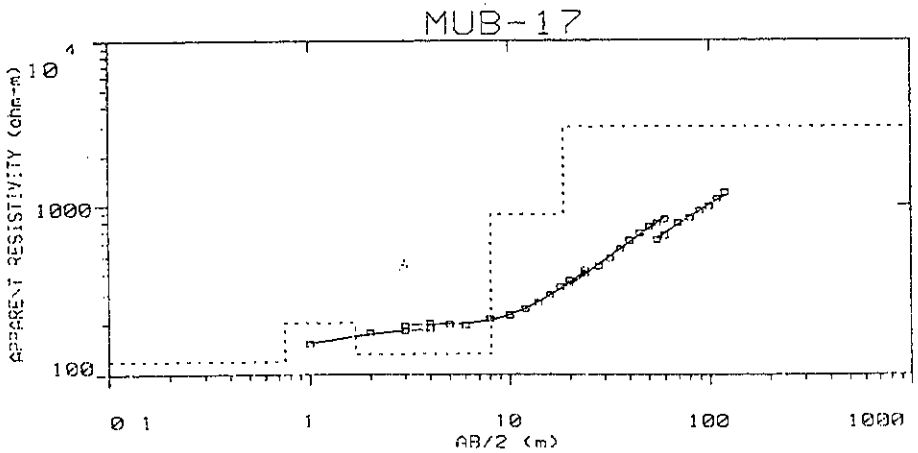

MUB-7
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0.1
1
10
100
1000
AB/2 (m)

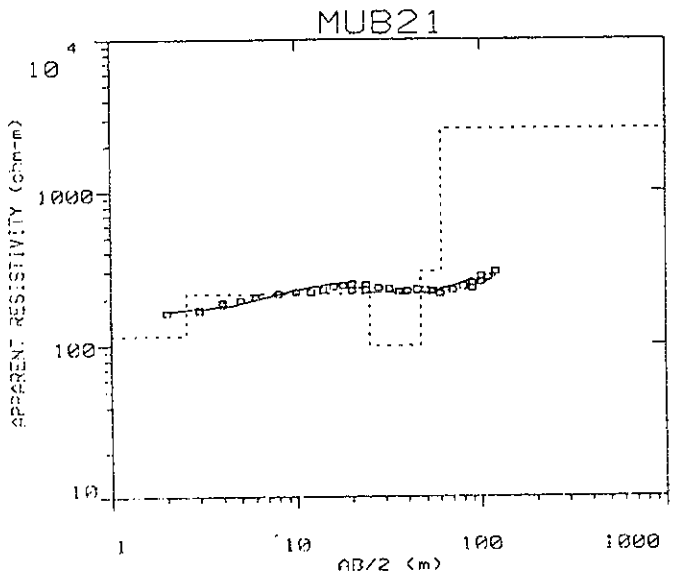

MUB06
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

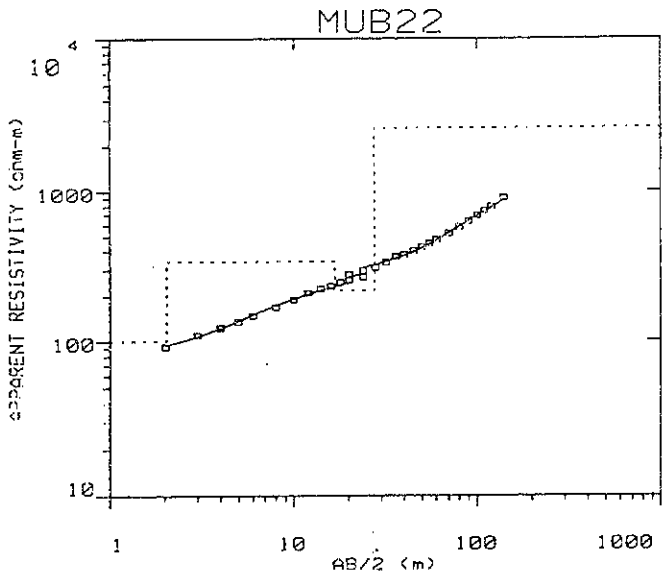

MUB10
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0.1
1
10
100
1000
AB/2 (m)

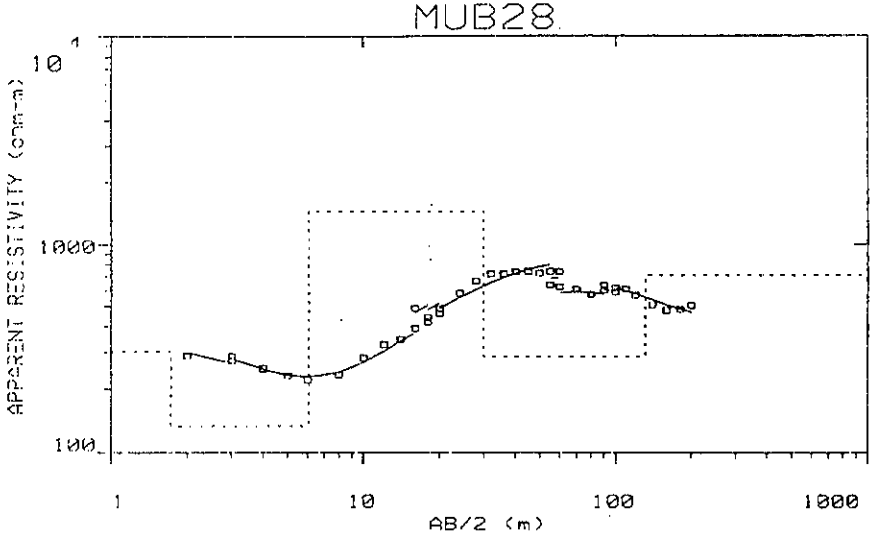

MUB-16
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

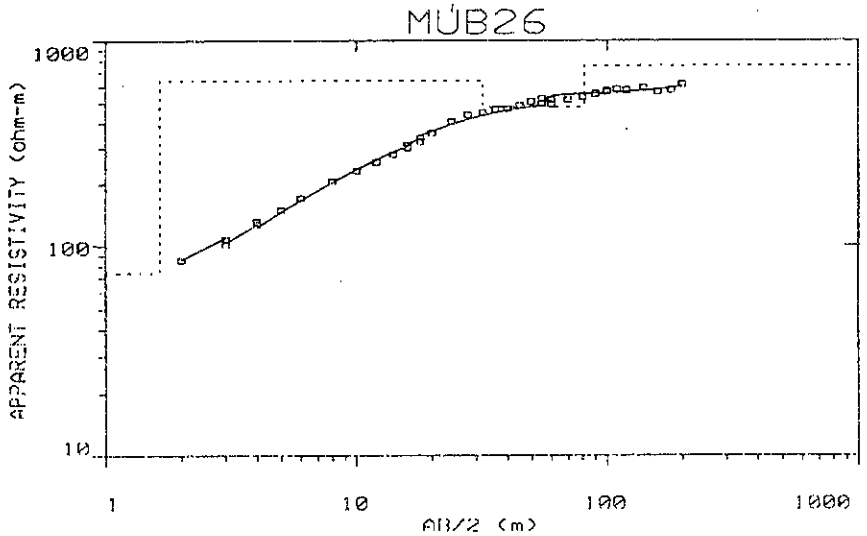

MUB19
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

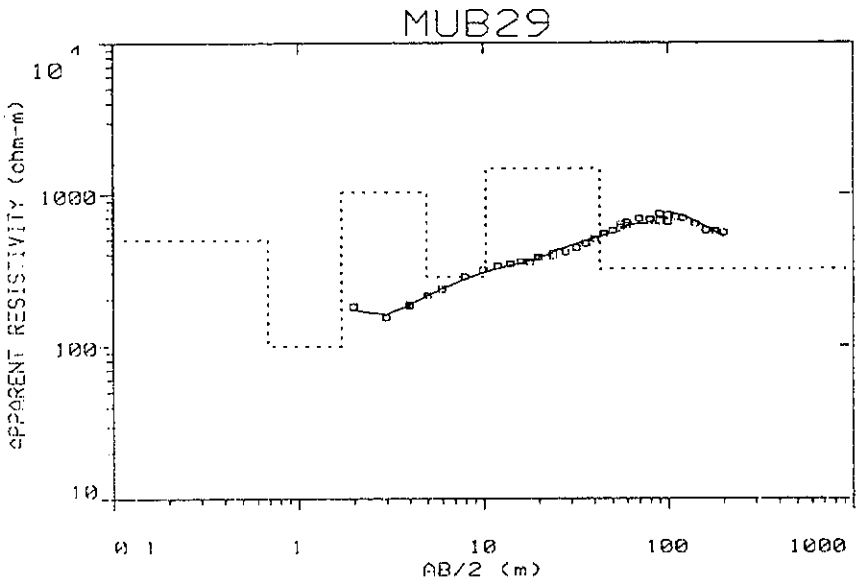

MUB-17
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
0 1
1
10
100
1000
AB/2 (m)

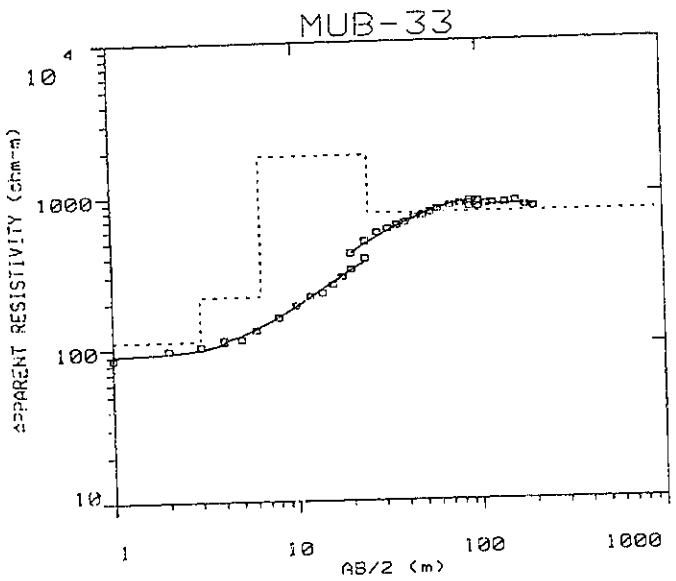

MUB21
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

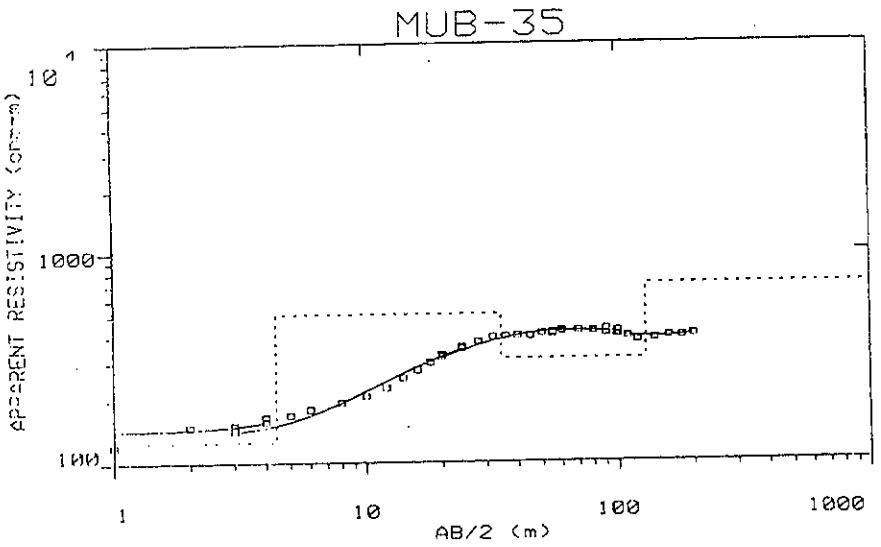

MUB22
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

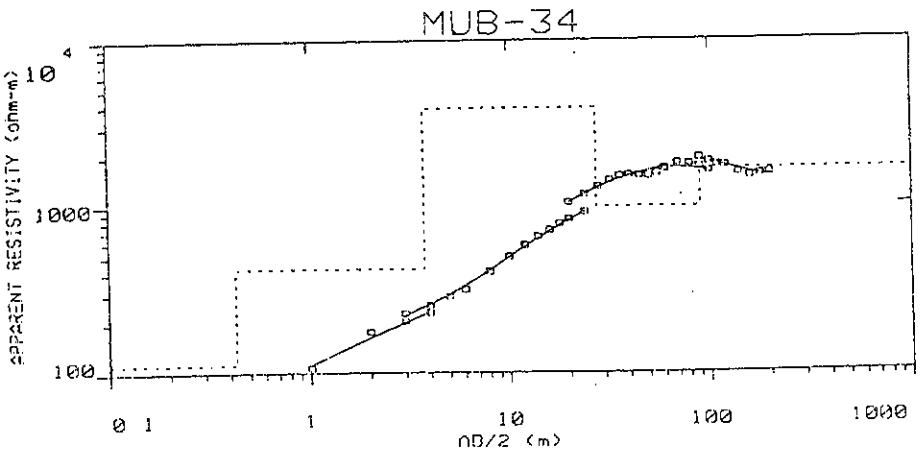

MUB28
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

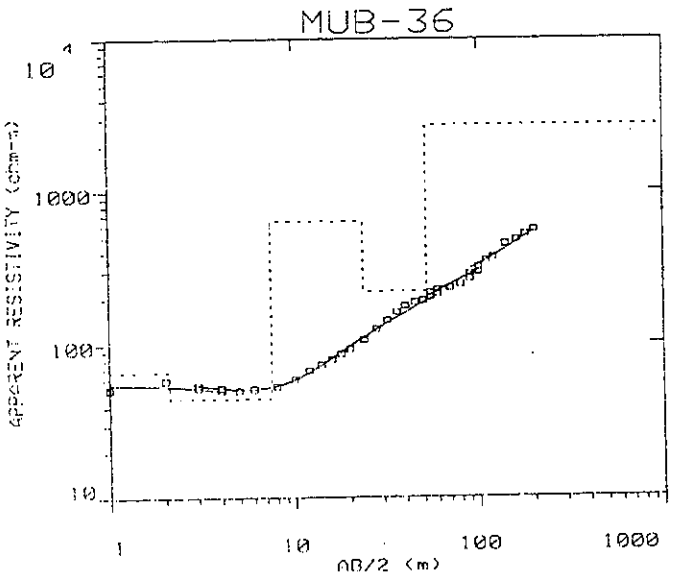

MUB26
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

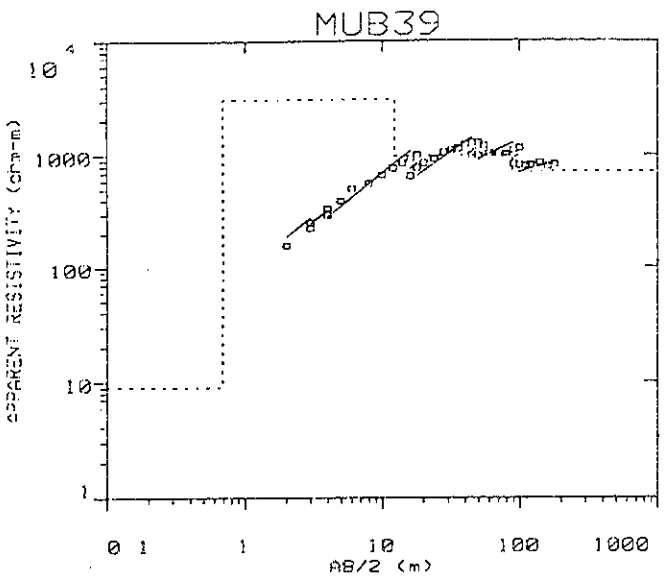

MUB29
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0.1
1
10
100
1000
AB/2 (m)

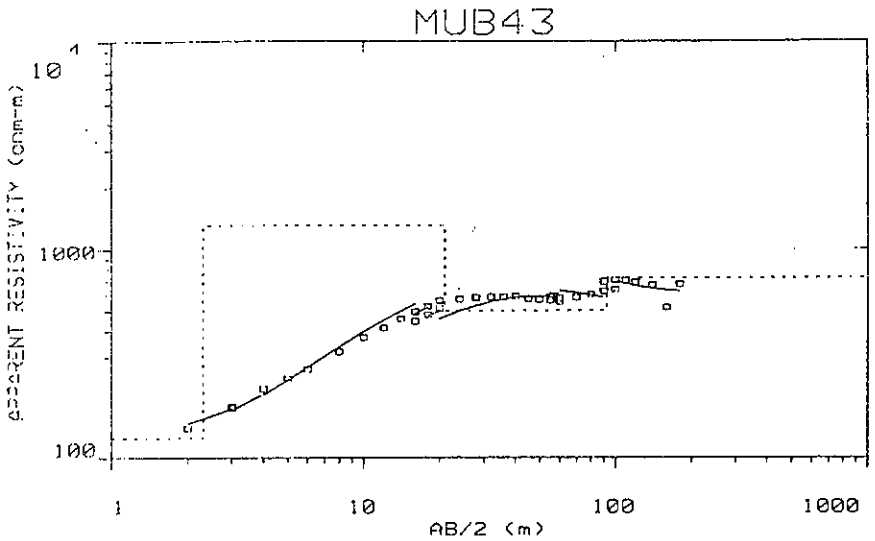

MUB-33
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

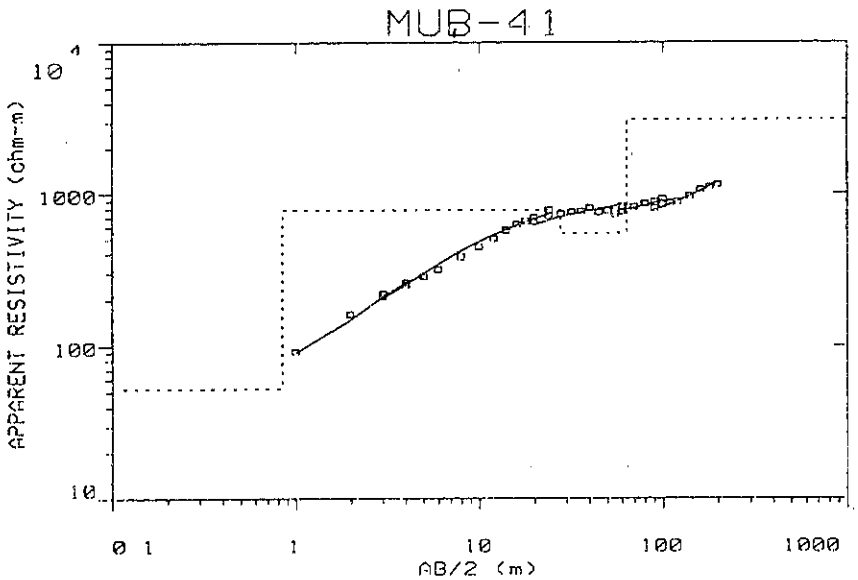

MUB-35
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

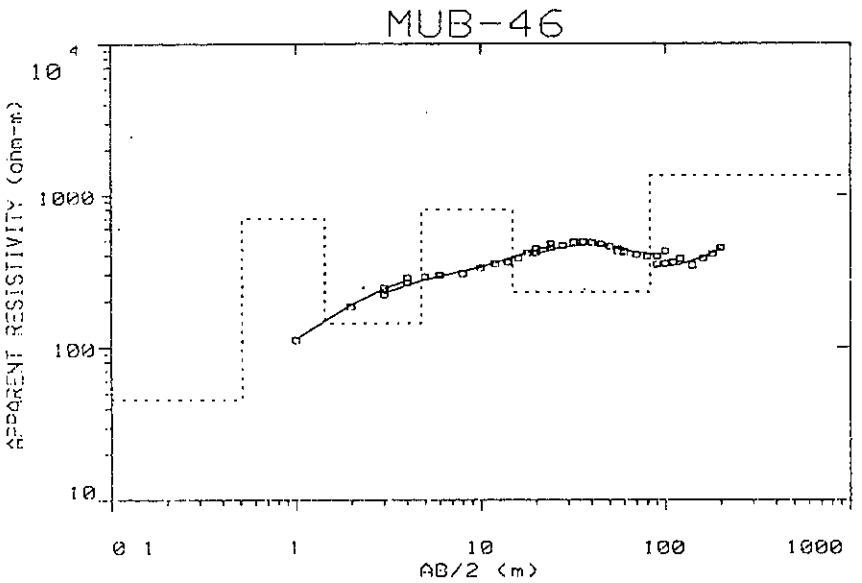

MUB-34
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
0 1
1
10
100
1000
AB/2 (m)

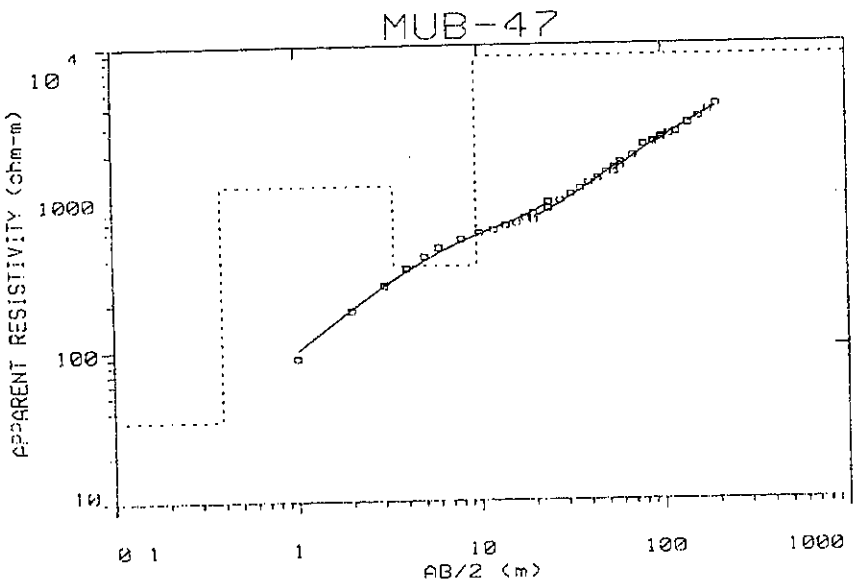

MUB-36
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

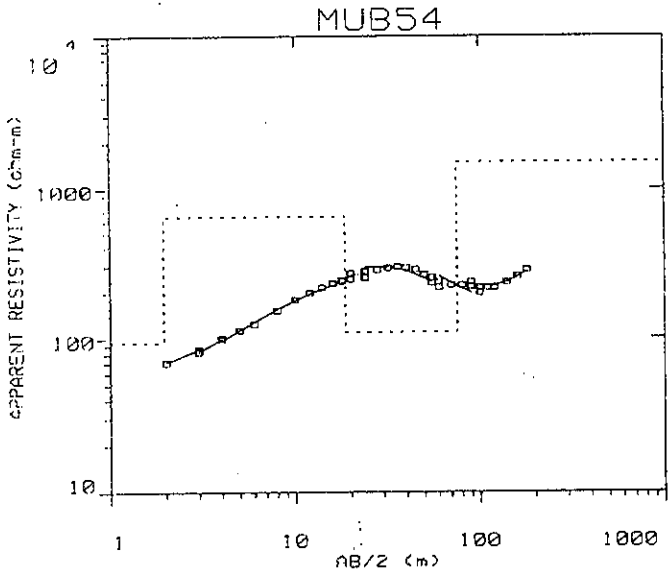

MUB39
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
0 1
1
10
100
1000
AB/2 (m)

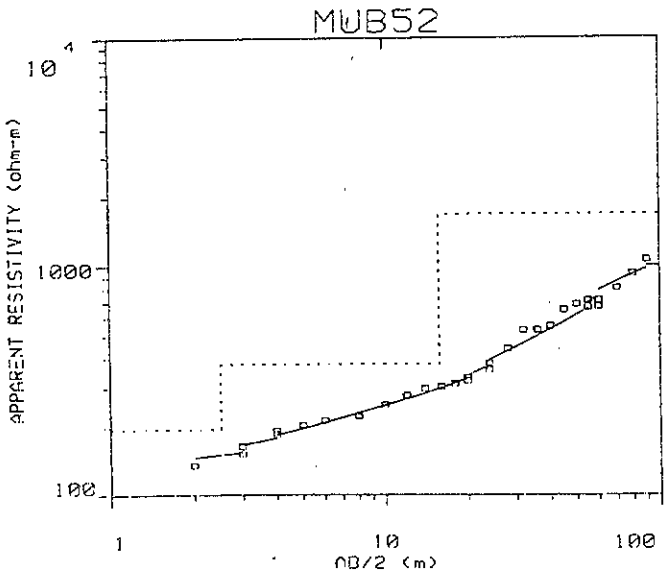

MUB43
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

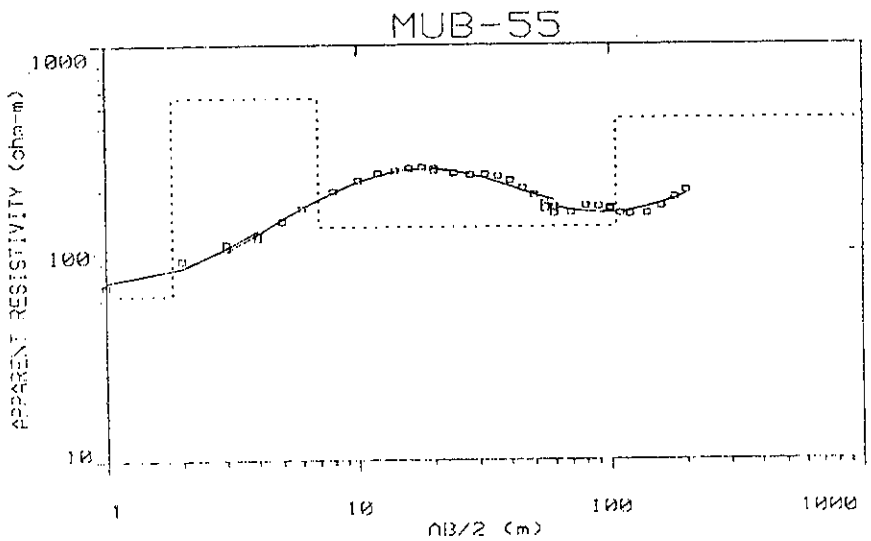

MUB-41
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

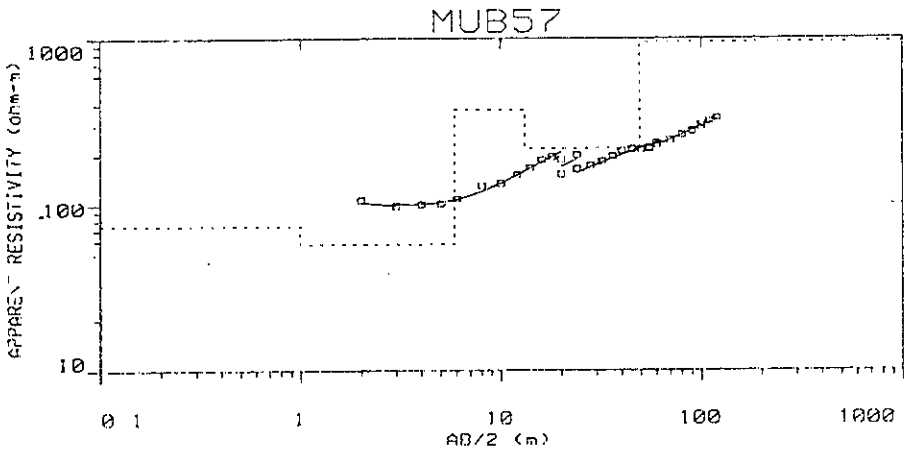

MUB-46
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

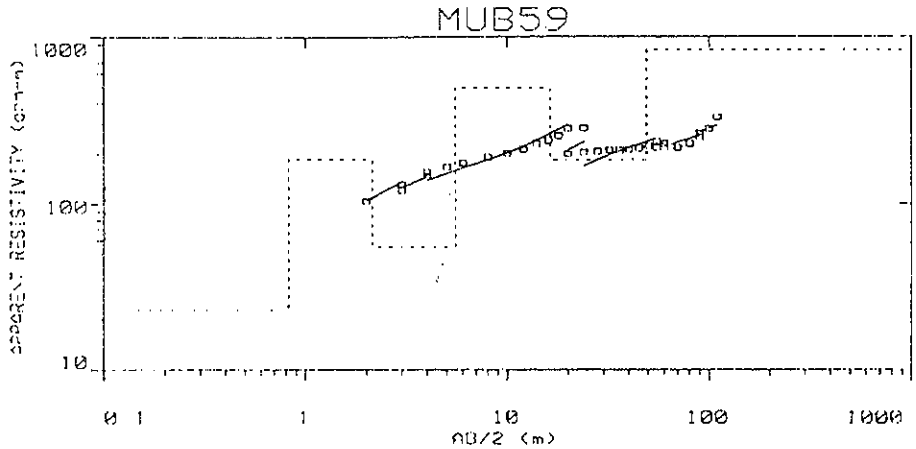

MUB-47
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

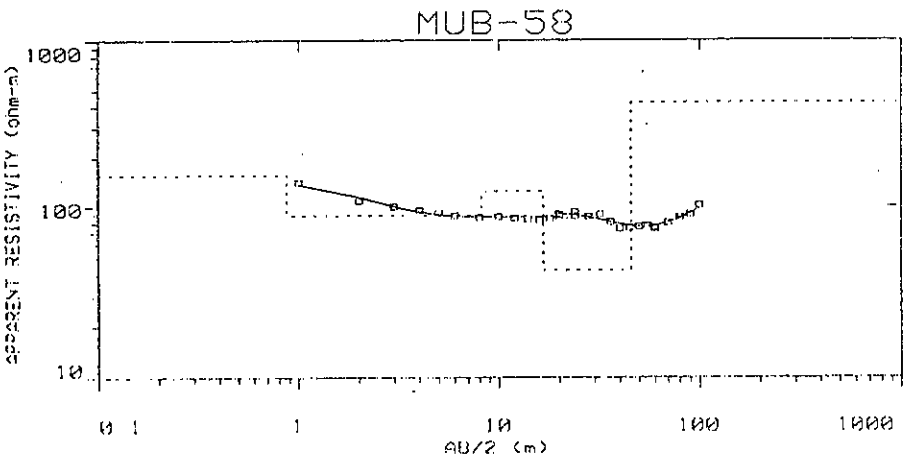

MUB54
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

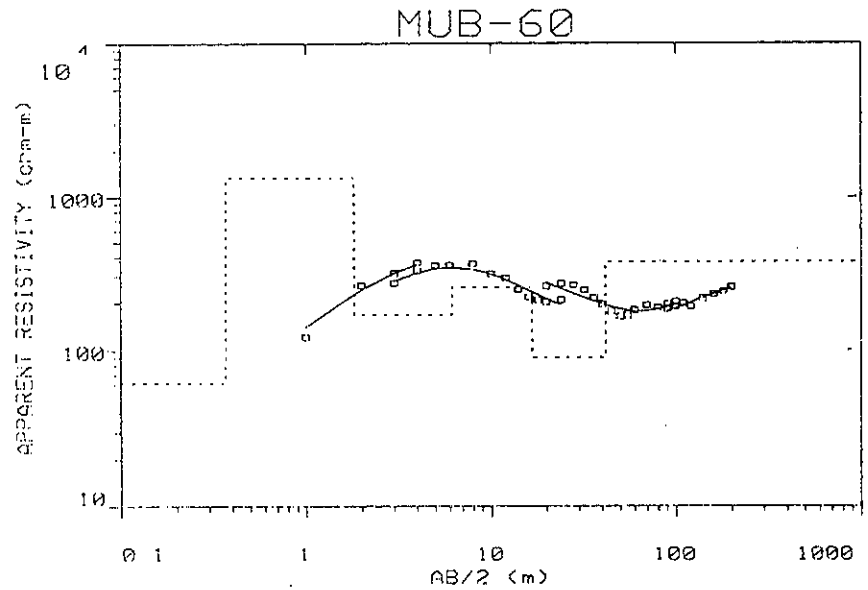

MUB52
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
AB/2 (m)

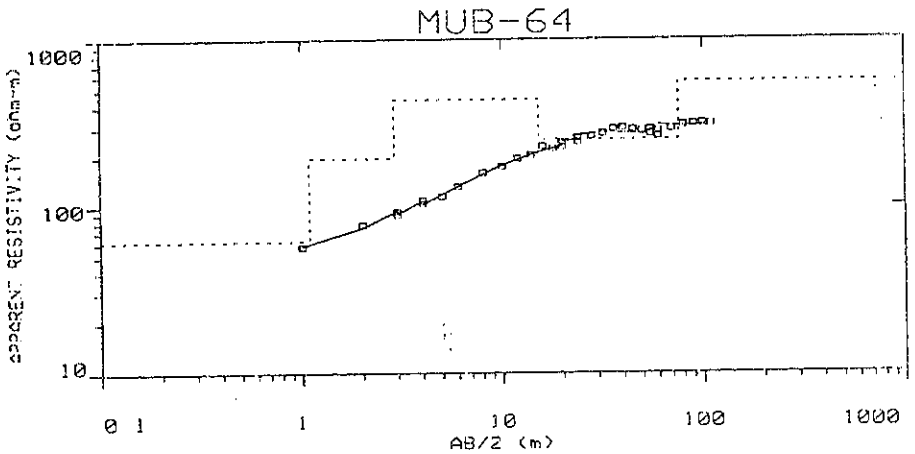

MUB-55
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

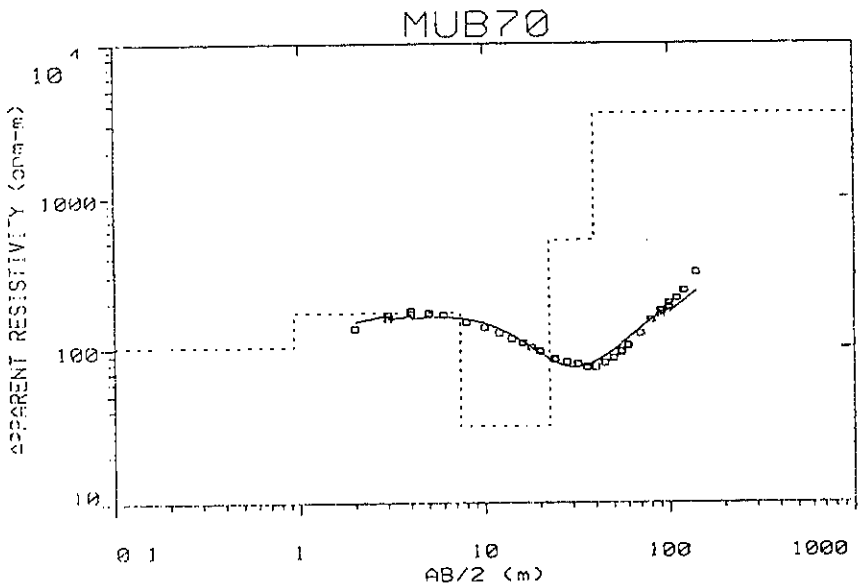

MUB57
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

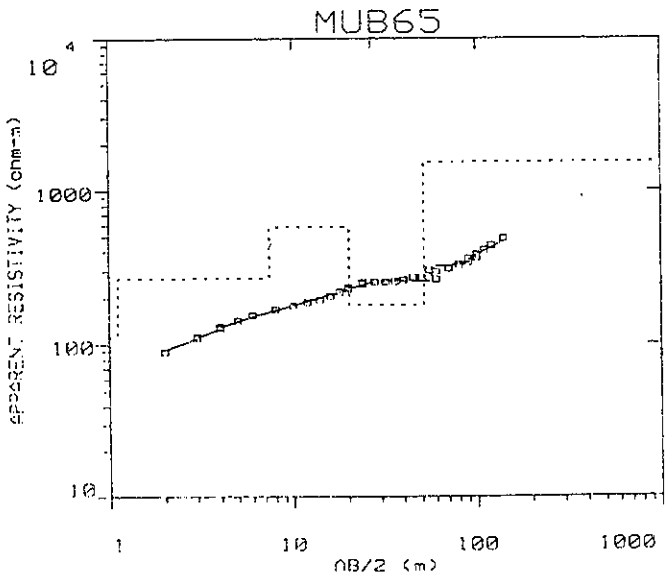

MUB59
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

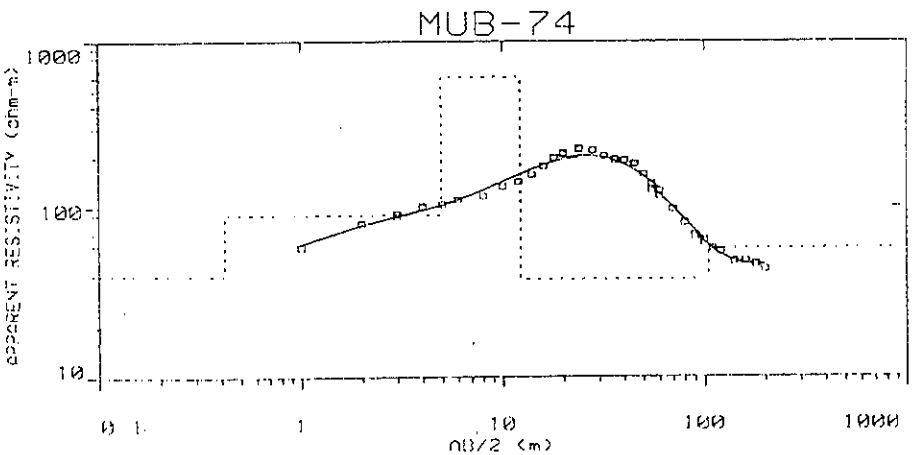

MUB-58
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

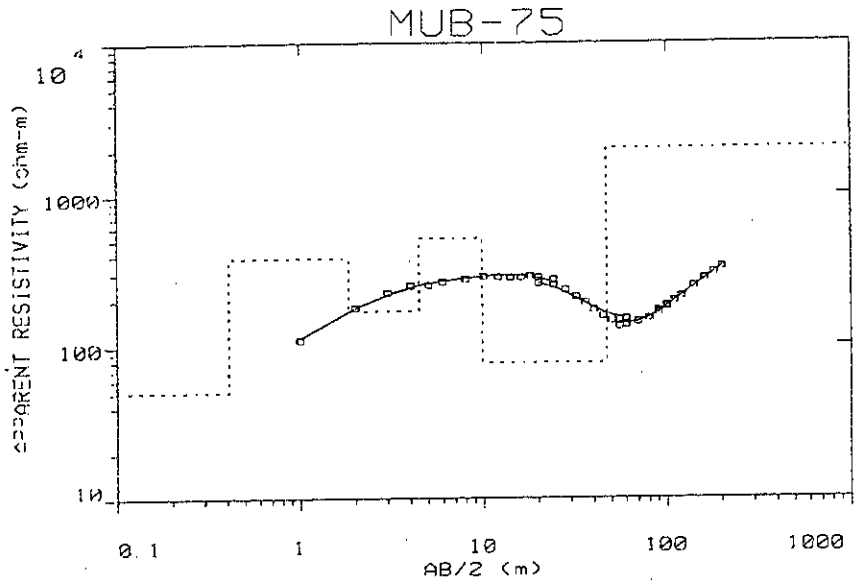

MUB-60
APPARENT RESISTIVITY (ohm-m)
10000
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

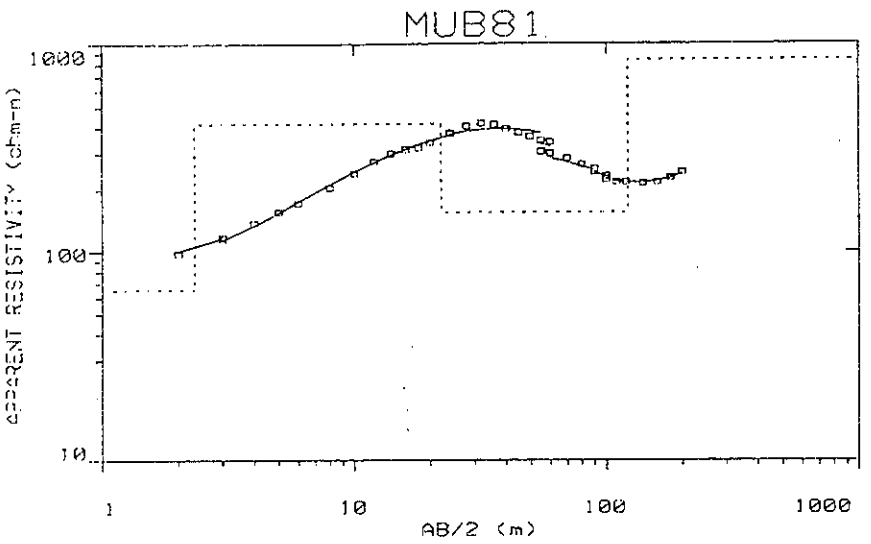

MUB-64
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


MUB70
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


MUB65
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
10
1
10
100
1000
AB/2 (m)


MUB-74
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


MUB-75
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0.1
1
10
100
1000
AB/2 (m)


MUB81
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

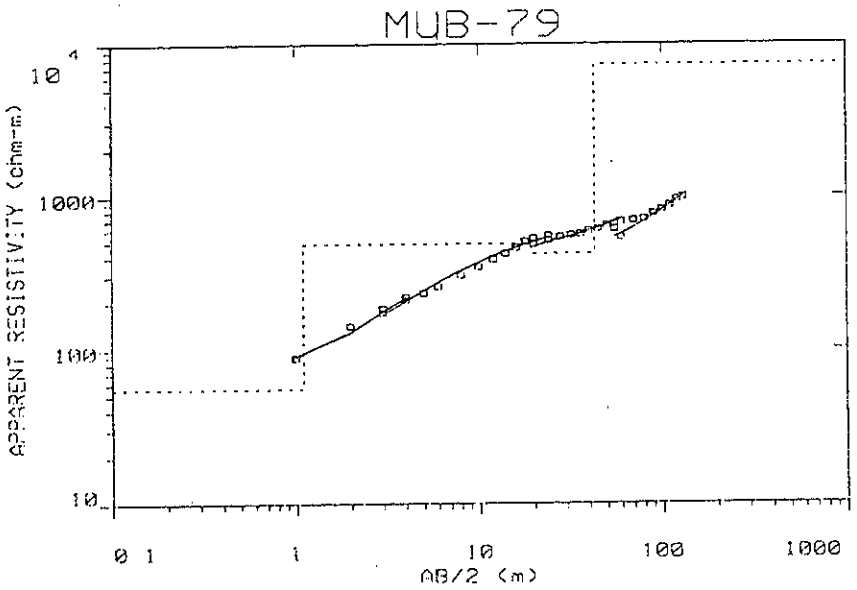
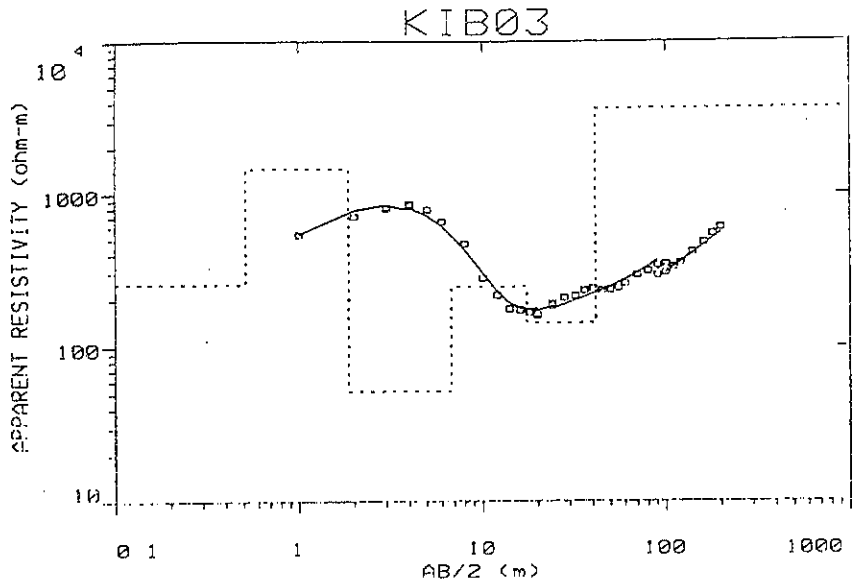
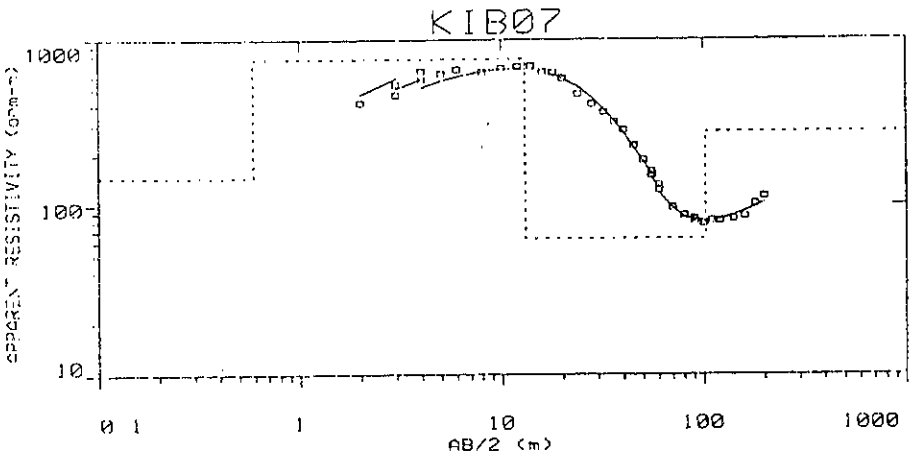

MUB-79
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0.1
1
10
100
1000
AB/2 (m)

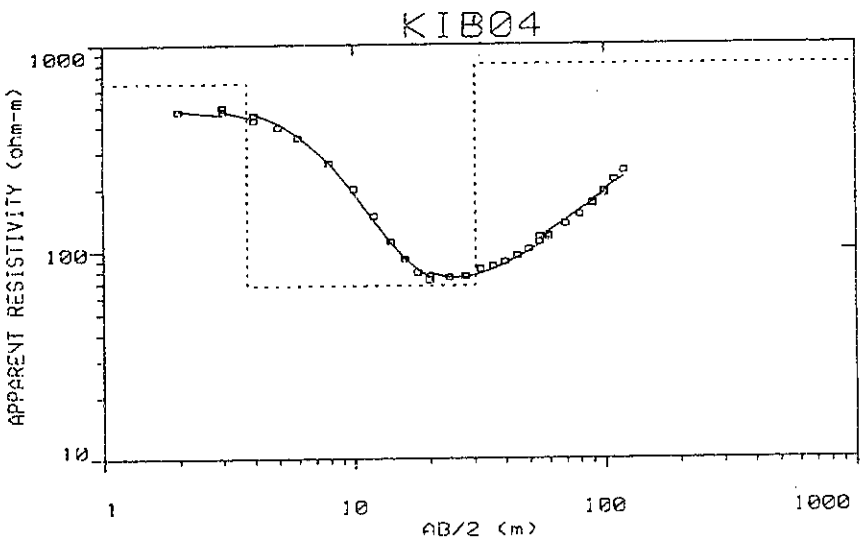
図-6　電気探査解析結果図（キボガ）

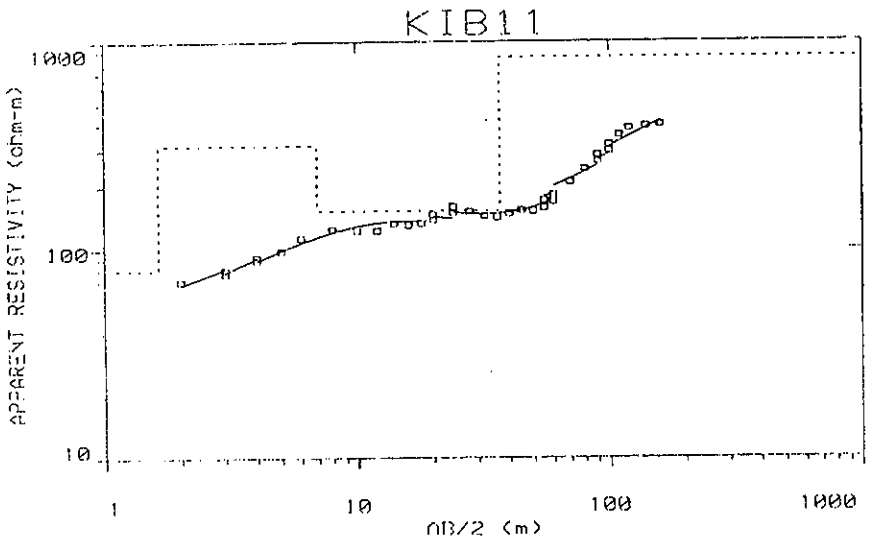
電気探査解析結果図

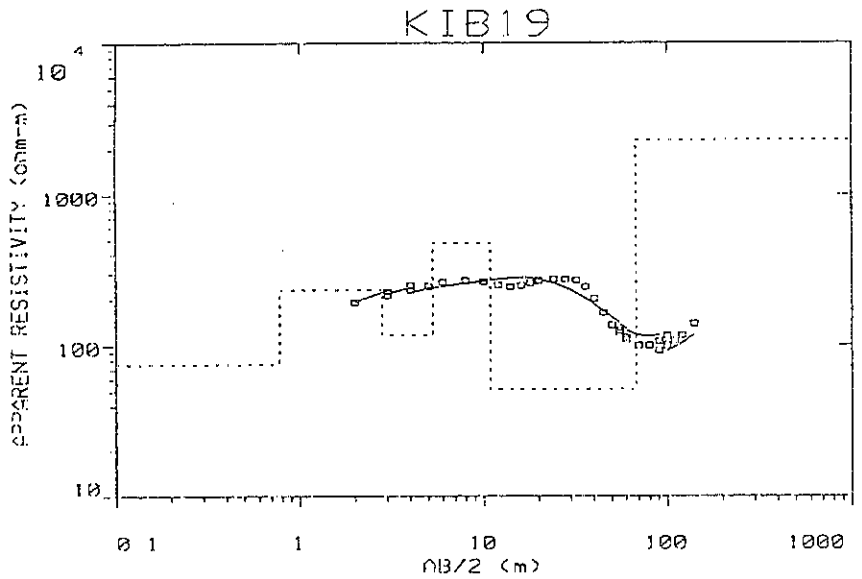
(KIBOGA DISTRICT)

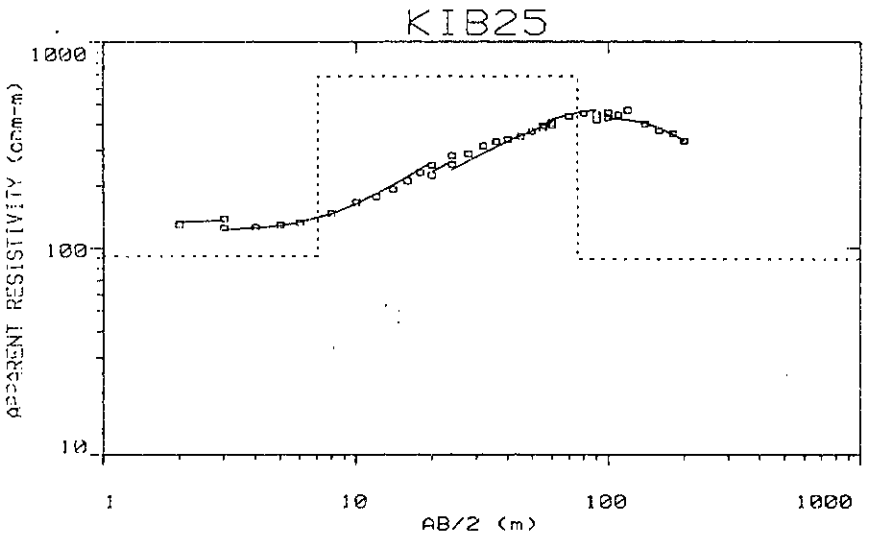

KIB03
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

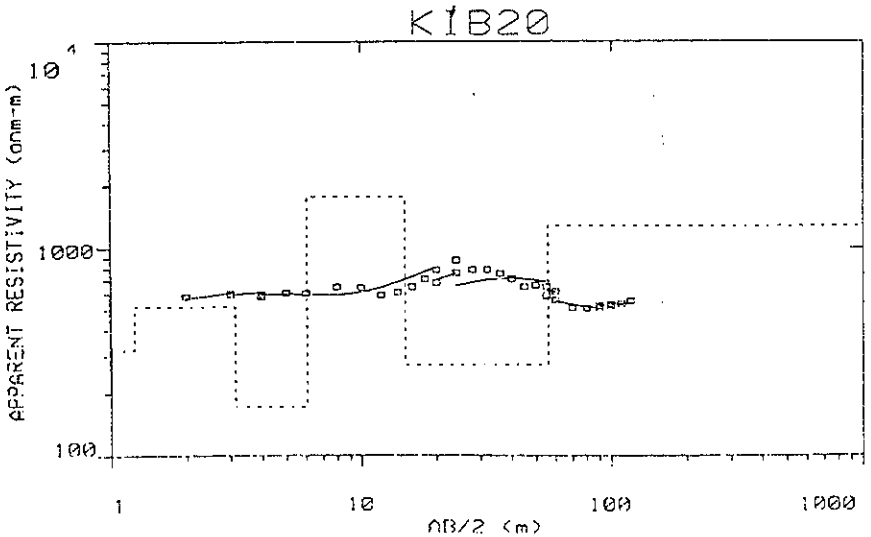

KIB07
APPARENT RESISTIVITY (ohm-m)
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

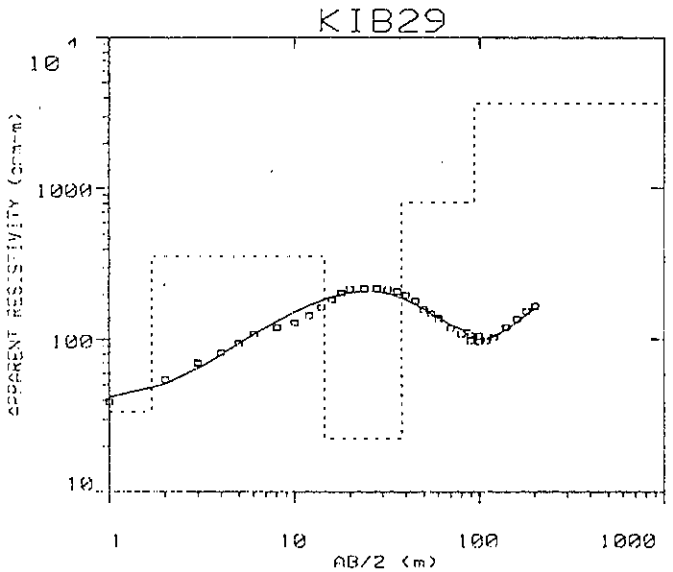

KIB04
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

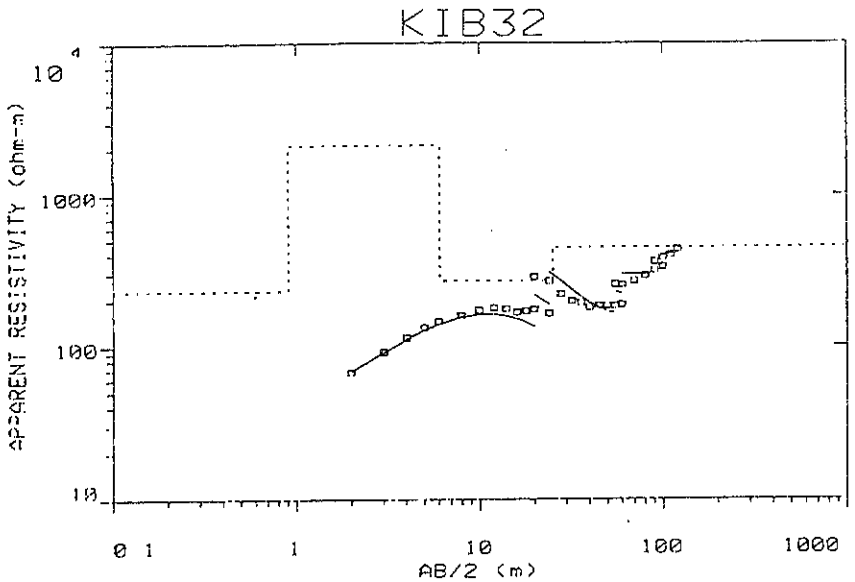

KIB11
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

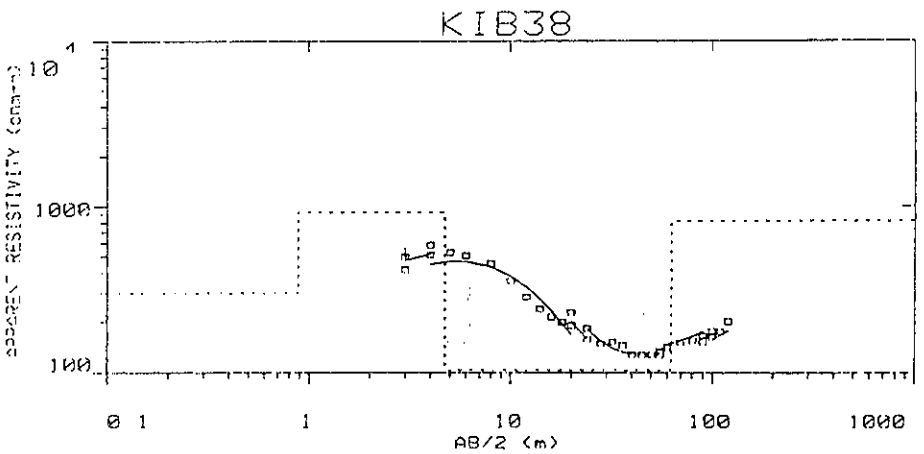

KIB19
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

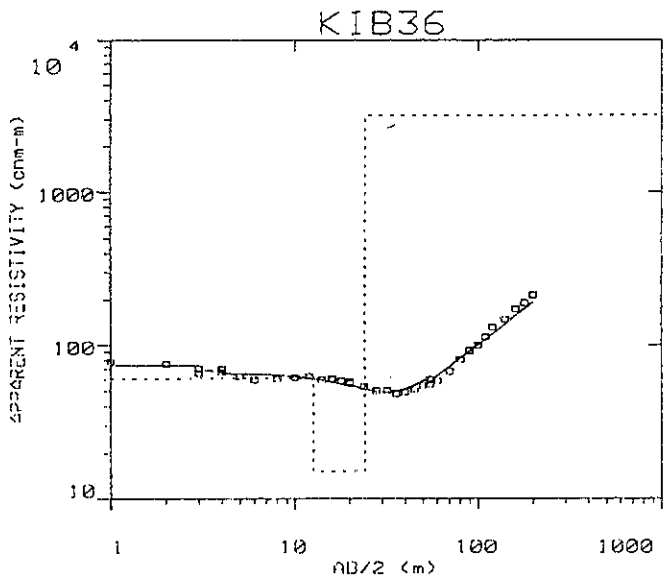

KIB25
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
10
100
1000
AB/2 (m)

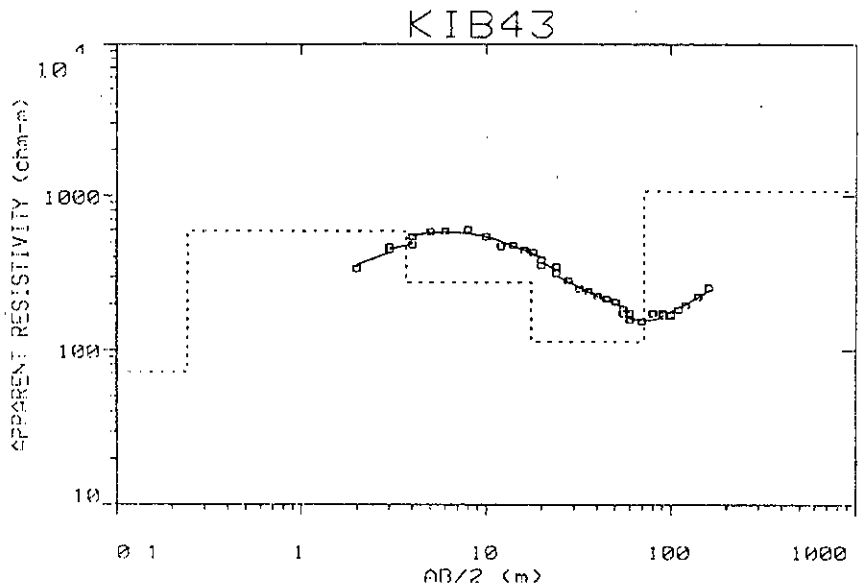

KIB20
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

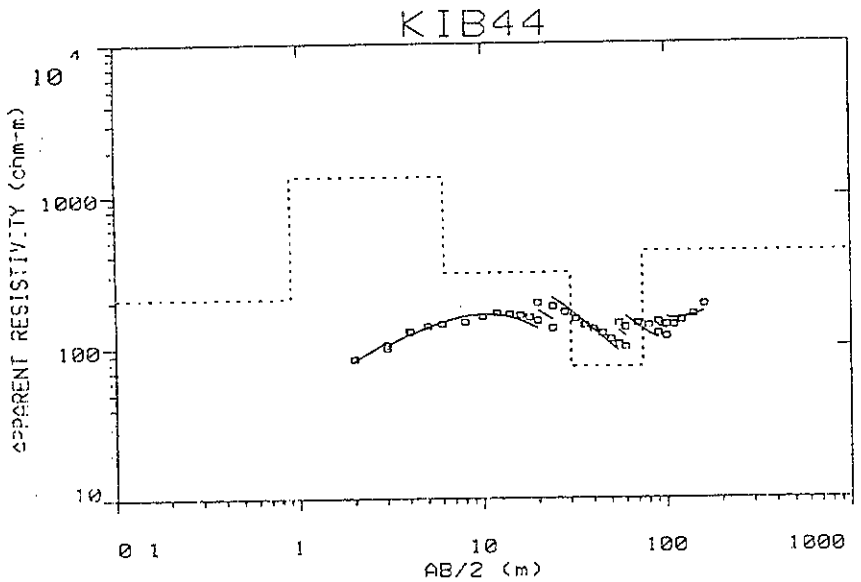

KIB29
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

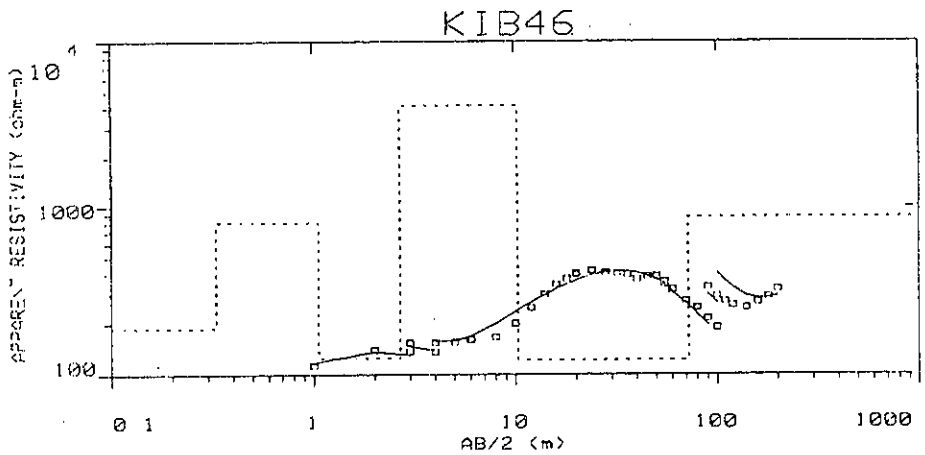

KIB32
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

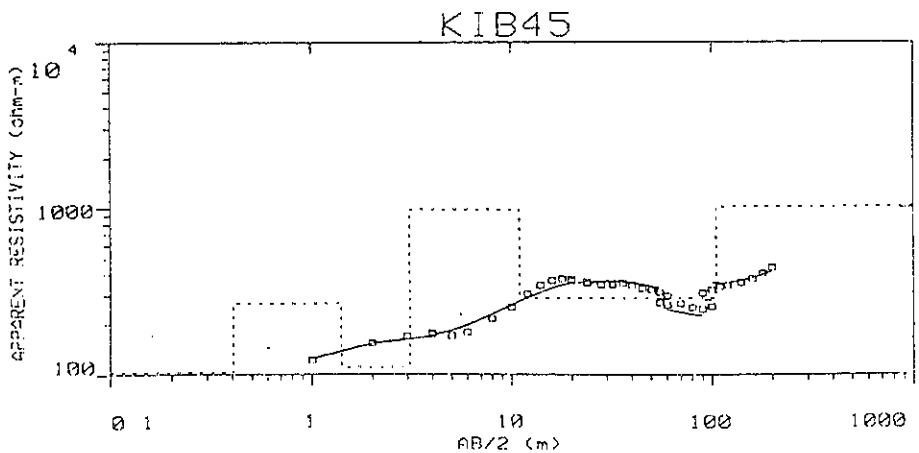

KIB38
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
0 1
1
10
100
1000
AB/2 (m)

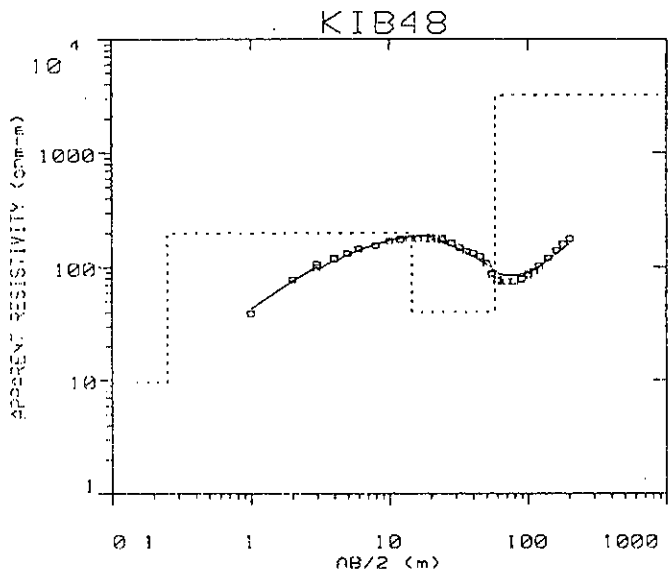

KIB36
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
10
100
1000
AB/2 (m)

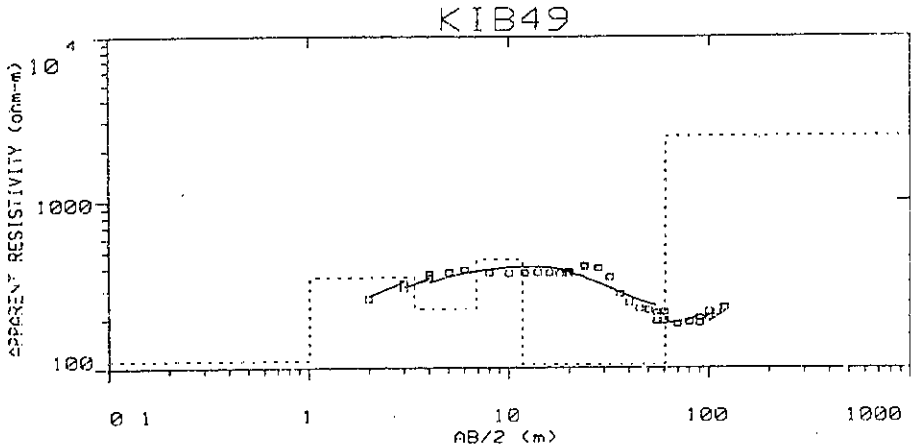

KIB43
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

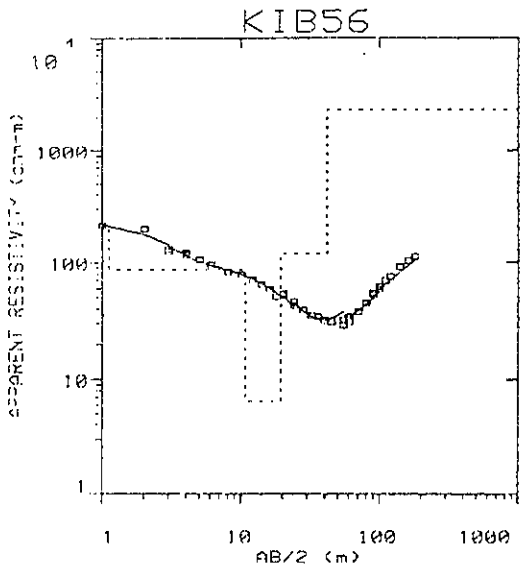

KIB44
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

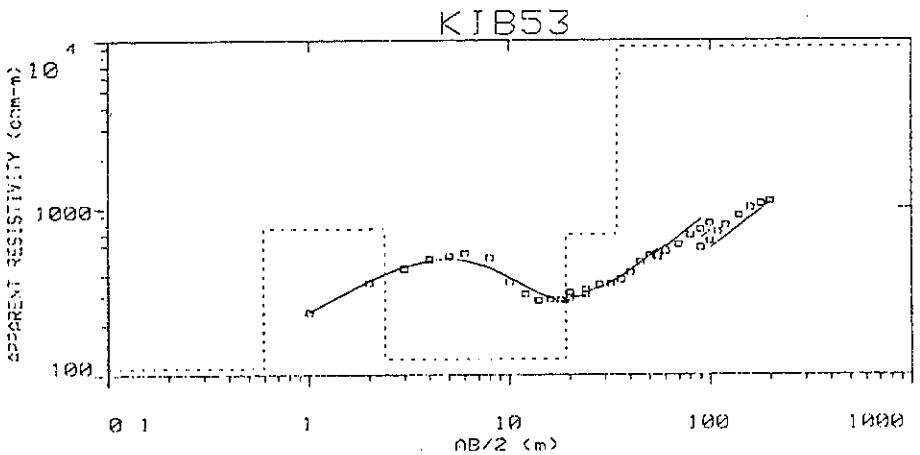

KIB46
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
0 1
1
10
100
1000
AB/2 (m)

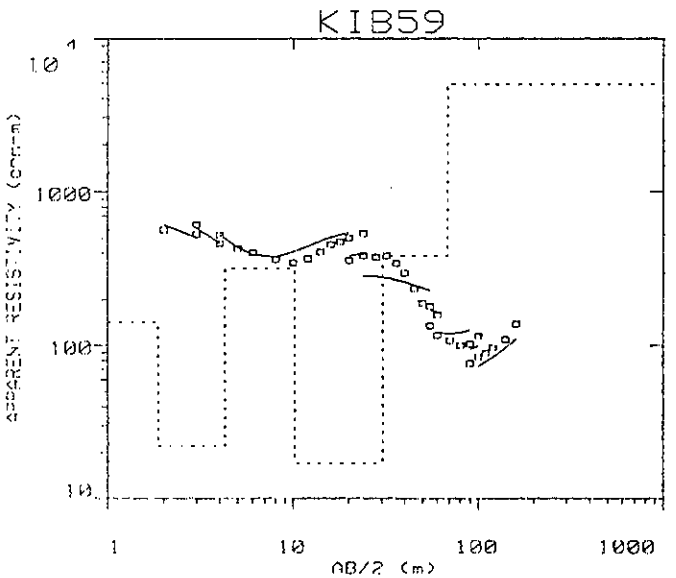

KIB45
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
0 1
1
10
100
1000
AB/2 (m)

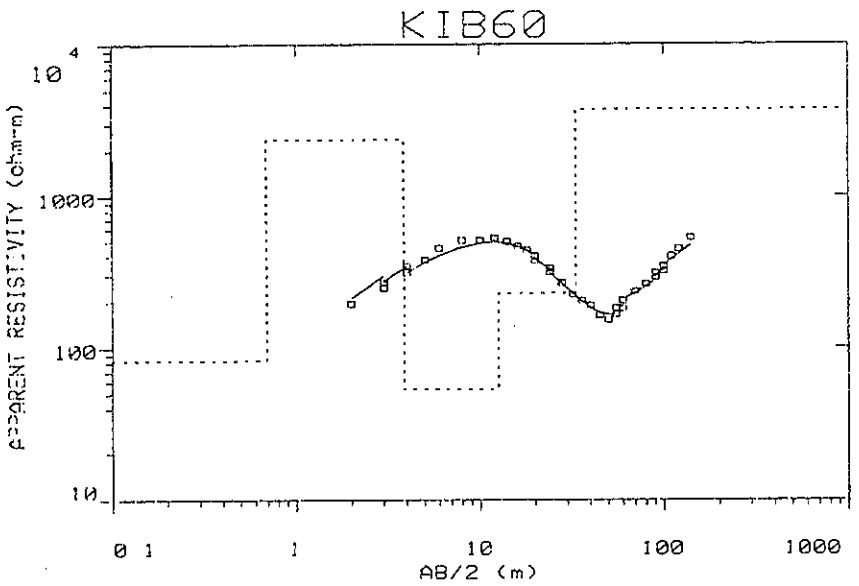

KIB48
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
1
0 1
1
10
100
1000
AB/2 (m)

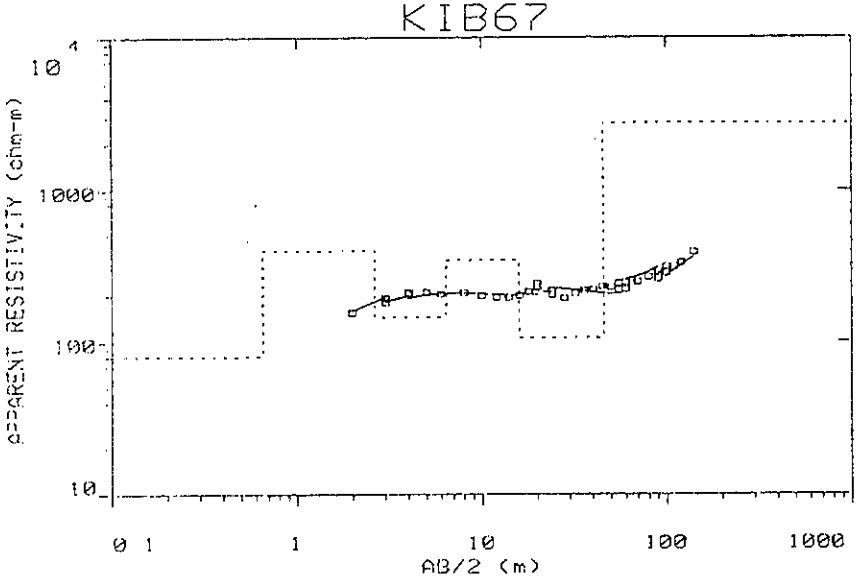

KIB49
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
0 1
1
10
100
1000
AB/2 (m)

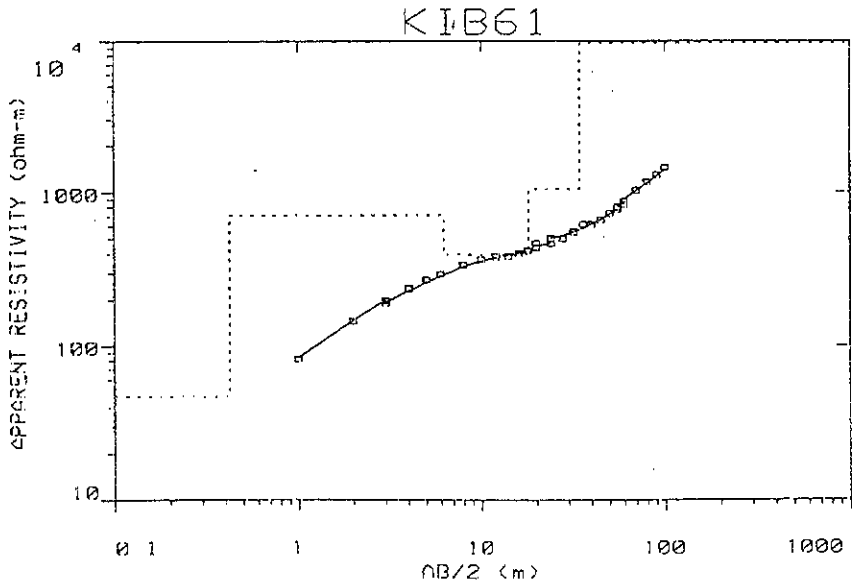

KIB56
10 4
1000
100
10
1
1
10
100
1000
AB/2 (m)

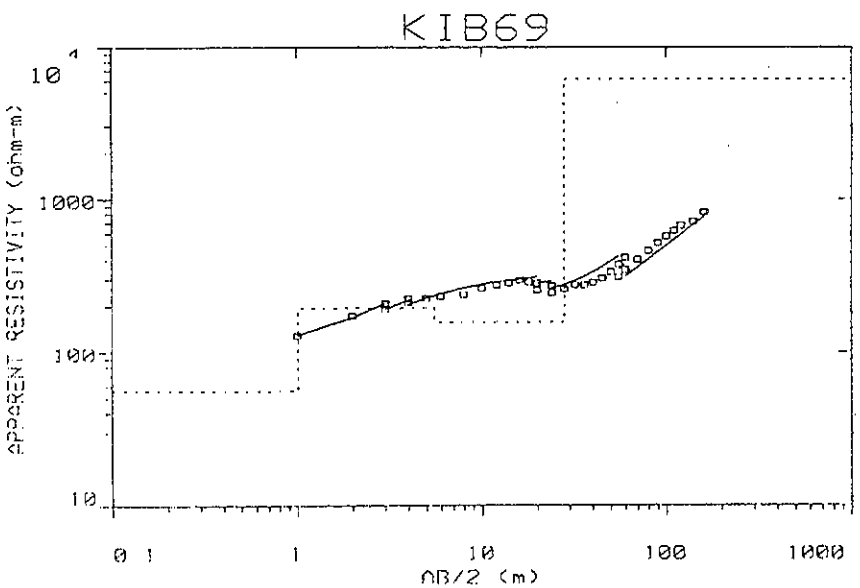

KIB53
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
0 1
1
10
100
1000
AB/2 (m)


KIB59
10 4
1000
100
10
1
10
100
1000
AB/2 (m)


KIB60
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


KIB67
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


KIB61
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


KIB69
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

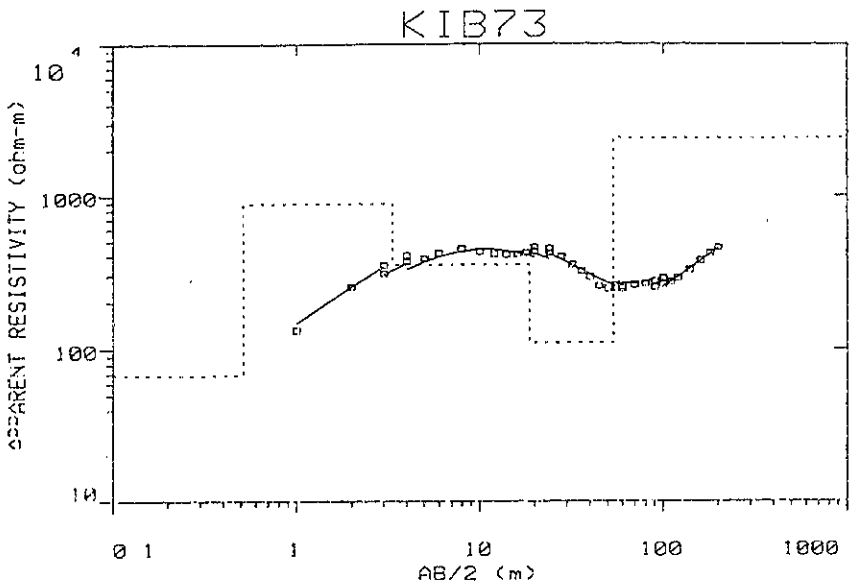
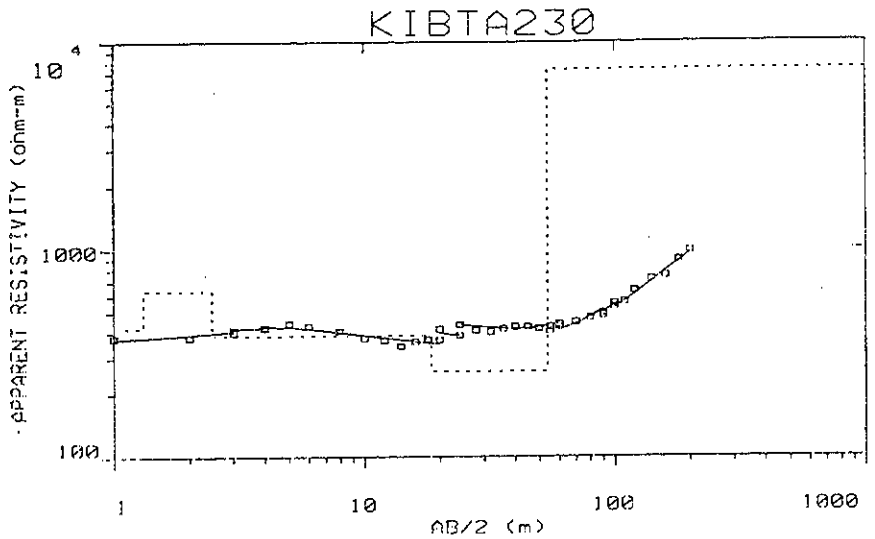
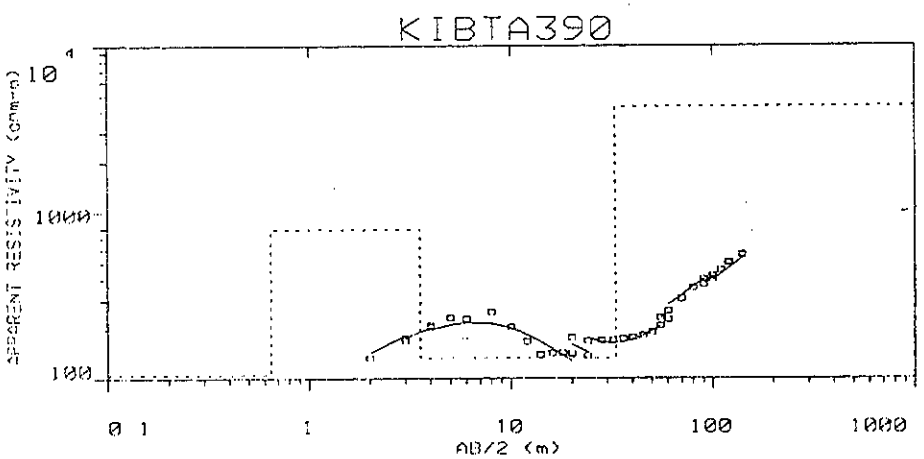

KIB73
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

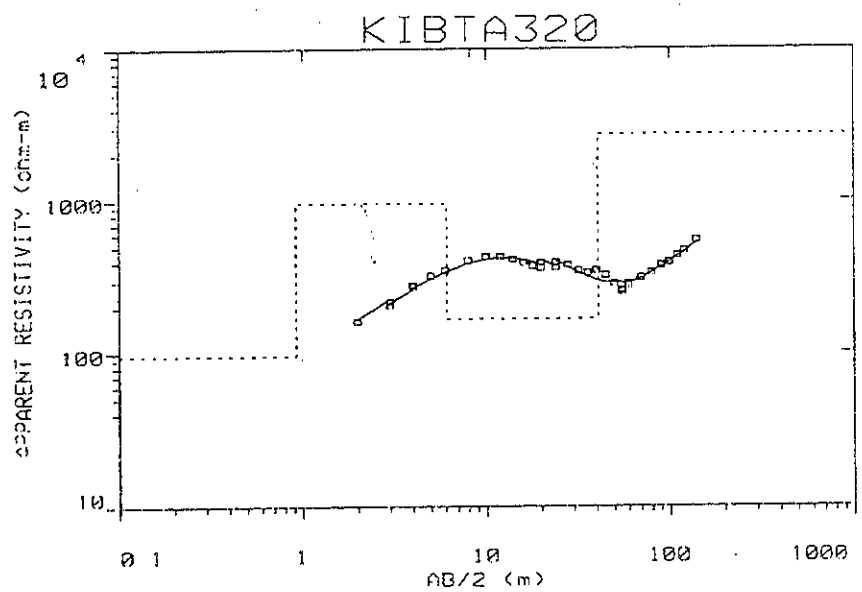
図-7　電気探査解析結果図（キボガ：レベル-II）

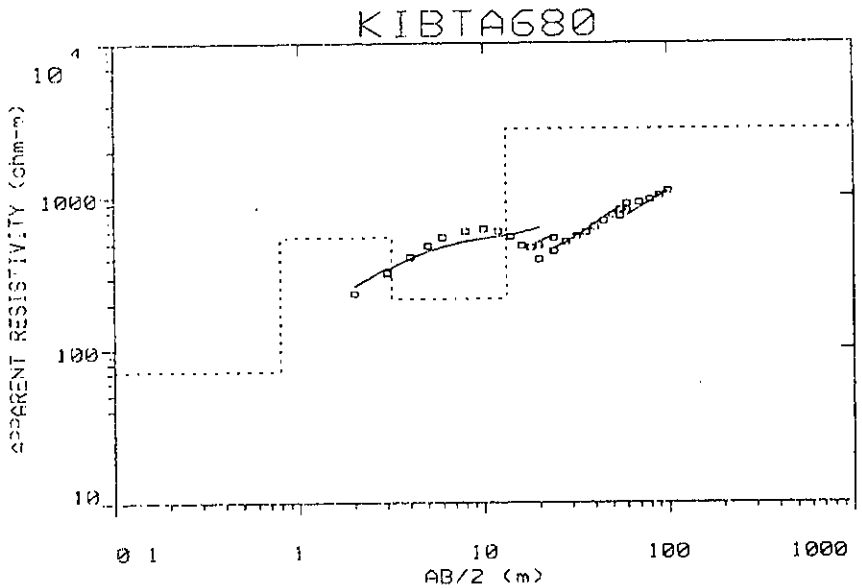
電気探査解析結果図

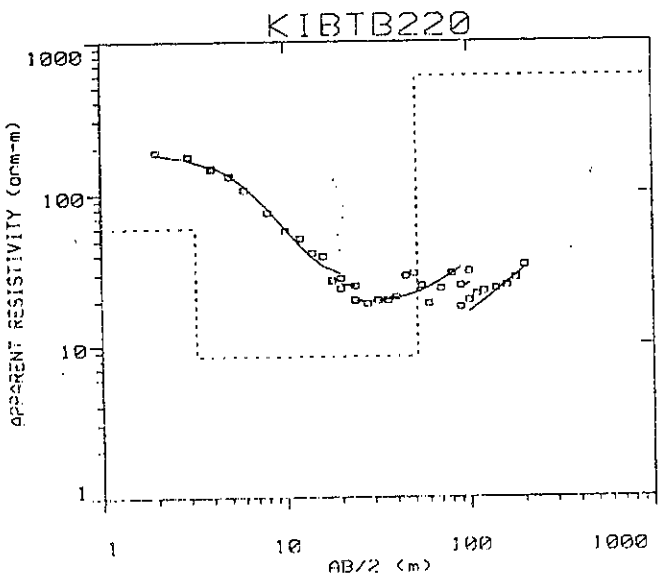
(KIBOGA TOWN)

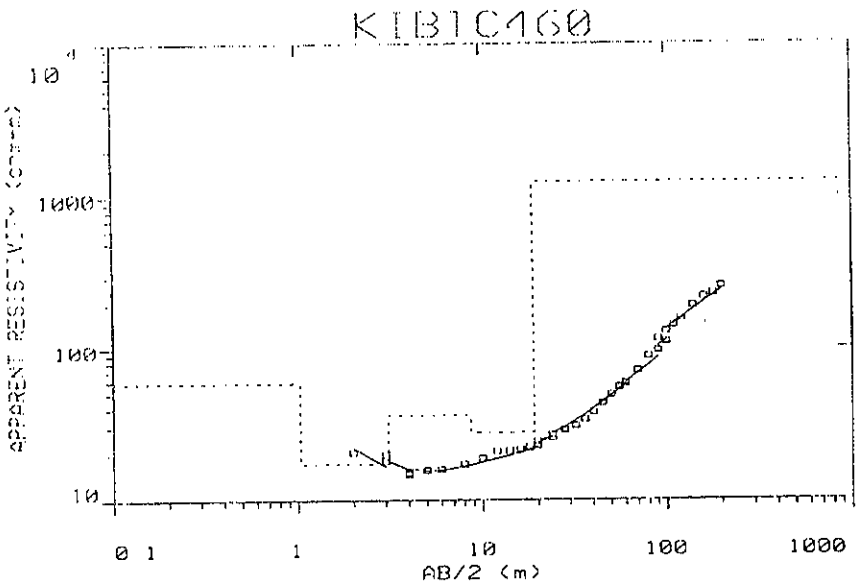

KIBTA230
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
1
10
100
1000
AB/2 (m)

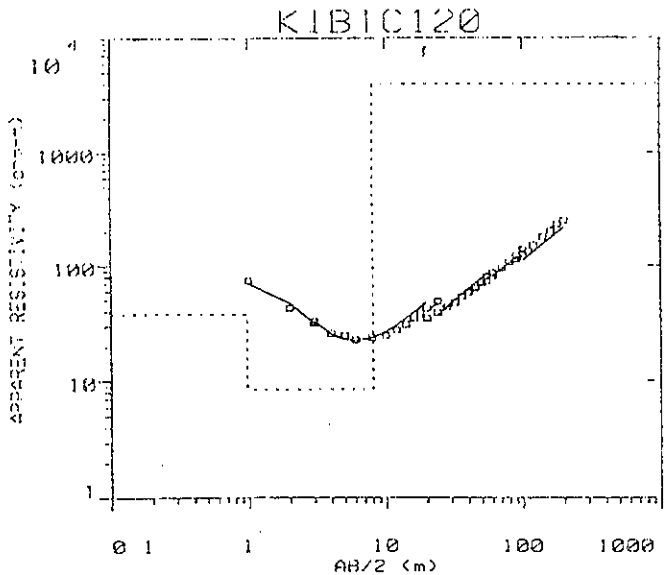

KIBTA390
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
0 1
1
10
100
1000
AB/2 (m)

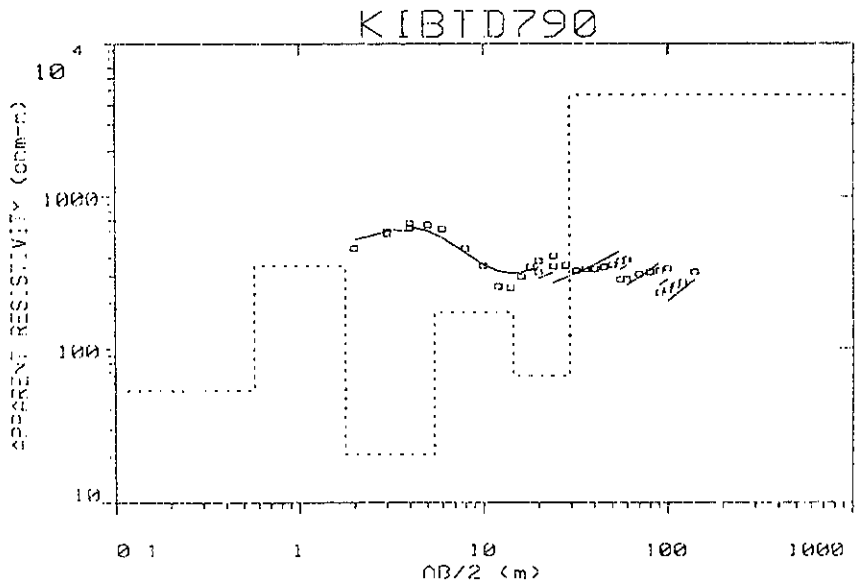

KIBTA320
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

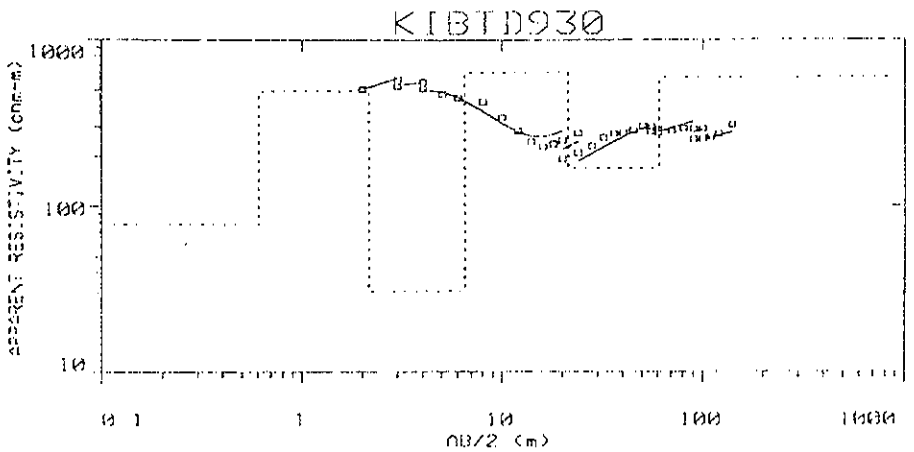

KIBTA680
APPARENT RESISTIVITY (ohm-m)
10^4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)

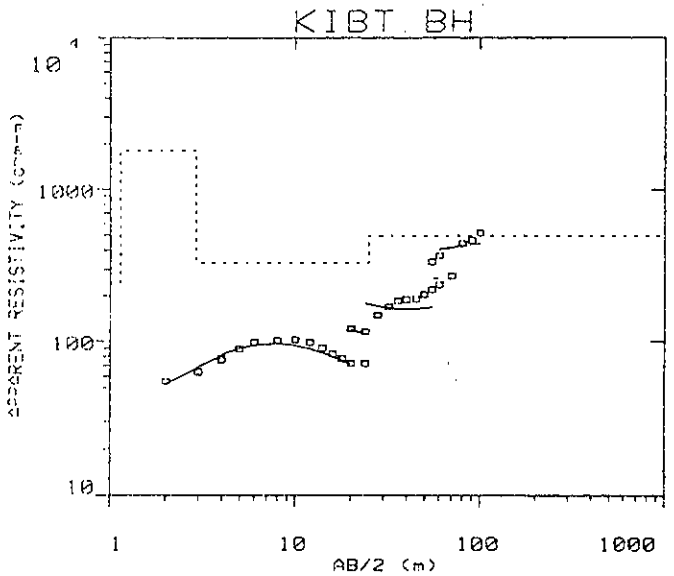

KIBTB220
APPARENT RESISTIVITY (ohm-m)
1000
100
10
1
1
10
100
1000
AB/2 (m)

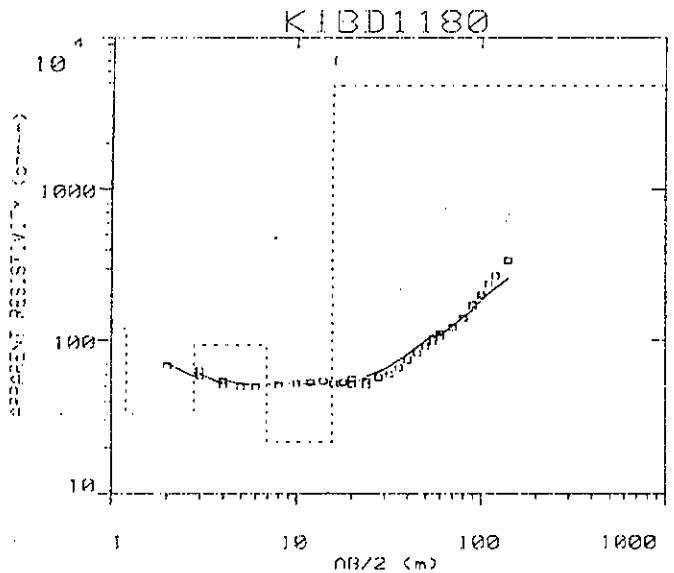

KIBIC160
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


KIBIC120
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
10
1
0 1
1
10
100
1000
AB/2 (m)


KIBTD790
APPARENT RESISTIVITY (ohm-m)
10 4
1000
100
10
0 1
1
10
100
1000
AB/2 (m)


KIBTD930
1000
100
10
0.1
1
10
100
1000
AB/2 (m)


KIBT_BH
10
1000
100
10
1
10
100
1000
AB/2 (m)


KIBD1180
10
1000
100
10
1
10
100
1000
AB/2 (m)