DATA BOOK B

CONTENTS OF DATA BOOK B

B-1 DRILL LOG

B-1 DRILL LOG

DRILL LOG

HOLE NO. GB-1 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY	DEPTH	13.5 m	ELEVATION	approx. 1320.0 m
SITE	COORDINATE X : 85°19'0" Y : 27°31'51"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS UK
AVERAGE CORE RECOVERY	DATE FROM TO	DRILLED	NISSAKU	LOGGED	M. Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY %	CORE RECOVERY cm	RQD(%)	SPT: N-VALUE PERMEABILITY TEST: LU-VALUE K-VALUE	DEPTH
	0		Residual soil		Light brownish clayey soil with weathered rock fragments					50	10 20 30 40	0
	3				2.4-3.0 m; rounded gravel of 2 -5 cm in dia.							3
	6		Calcareous sandy schist		Light greenish sandy calcareous sandstones; inclination of schistosity is about 30 deg.		▽ 6.0m				K = 1.4×10⁻³	6
	7				Generally short cylindric cores are only recovered. (CM)						K = 5.9×10⁻⁴	7
	8										Lu = 8.2	8
	10										K = 3.1×10⁻⁴	10
	11				10.5-11.0 m; weathered fragmental cores with clayey materials (CL)						K = 3.2×10⁻⁴	11
	12										Lu = 5.1	12
	13.5		BOTTOM								K = 2.2×10⁻⁴	13

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation, R.Q.D= Total length of cylindric cores longer than 10 cm / Total core length × 100%
*LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

DRILL LOG

HOLE NO. GB-2 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	18.5 m	ELEVATION	approx. 1455.0 m
SITE	NEAR HU 0.2M	COORDINATE	X : 85°18'4", Y : 27°35'39"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.K
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	NOV. 1979	LOGGED	M.Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY %	CORE RECOVERY cm	RQD(%)	SPT: N-VALUE PERMEABILITY TEST: K-VALUE LU-UNIT	DEPTH
	1		Sandy limestone		Siliceous limestones or marbles; inclination of schistosities dip 30 to 40 deg. above 5 m in depth.		(Artesian spring at 1.5 m and head of 1.0 m above ground)			50	10 20 30 40	1
	2											2
	3											3
	4											4
	5											5
	6				Recovered cores appear to be light greyish in weathered portions generally. 5.0-5.5 m; only rock fragments are recovered.						$K = 1 \times 10^{-2}$ cm/s	6
	7											7
	8				Core are very hard but fragmental because of weathering. (CH)							8
	9											9
	10				9.3-9.8 m; sandy weathered soil materials with rock fragments						$K = 5 \times 10^{-3}$ cm/s	10
	11											11
	12											12
	13				12.5-12.95 m; weathered sandy soil with brownish fragments 12.95-13.6 m; only fragments are recovedred.						$K = 3 \times 10^{-3}$? (LU = 218)	13
	14				13.6-14.8 m; weathered sandy soil with fragments (CL)							14
	15				14.8 m to the bottom; slightly weathered calcareous sandstones; inclination of schistosities is 10 to 20 deg. (CH)							15
	16											16
	18.5		BOTTOM									

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation. R.Q.D=(Total length of cylindric cores longer than 10 cm / Total core length) x 100%
*LUGEON VALUE is l/min m under injection water pressure of 10kg/cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

DRILL LOG

HOLE NO. GB-3 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	10.0 m	ELEVATION	Appox. 1299.0 m
SITE		COORDINATE	X : 85°18'39", Y : 27°43'31"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.K
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	10/12/80	LOGGED	M. T

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY % cm	SPT: N-VALUE ● PERMEABILITY TEST: K-VALUE LU-UNIT 10 20 30 50	DEPTH
	1		River deposits		River deposits, Clay layer, Sandy clay layer, Clay layer		▽ -2.2 m		K = 6.7×10⁻⁴ cm/s	1
	2									2
	3									3
	3.5									
	4		Clay layer		0.0-3.5 m; whitish coarse sandy materials with gneiss rock fragments of 2 mm to 5 cm in dia.; loose in condition					4
	5				Dark greyish; stiff clay layer					5
	6									6
	7		Sandy clay layer		5.5-8.0 m; sandy in general					7
	8				8.0-9.5 m; dark greyish; stiff					8
	9		Clay layer							9
	9.5				9.5-10.0 m; sandy clay layer					
	10		BOTTOM						K=3.5×10⁻⁴ cm/s	10

LACUSTRINE DEPOSITS

HOLE NO.

LOG FORM-B

※R.Q.D is Rock Quality Designation. R.Q.D= Total length of cylindric cores longer than 10 cm / Total core length × 100

※LUGEON VALUE is 1 min m under injection water pressure of 10kg cm²

※DEPTH and ELEVATION are in meter

※DIAMETER is in millimeter

NIPPON KOEI CO., LTD.

CONSULTING ENGINEERS, TOKYO

DRILL LOG

HOLE NO. GB-4 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	100 m	ELEVATION	Appox. 1298 m
SITE		COORDINATE	X : 85°05'55", Y : 27°43'30"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.C
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	NISSAKU	LOGGED	M. Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY % / cm	SPT: N-VALUE PERMEABILITY TEST: K-VALUE LU-UNIT	DEPTH
	1 2 3 30 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	LACUSTRINE DEPOSITS	River deposits		Rivedr deposits, Coarse sand layer, Clay layer, Stiff clay layer		▽ -0.5 m		K=1.9×10⁻³ cm/s K=2.0×10⁻³ K=1.3×10⁻³ K=1.0×10⁻³	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
			Coarse sand layer		3.0-5.0 m; coarse sand with rounded granitic gravel Greyish; coarse, loose					
			Clay layer		Dark greysih; medium stiff 6.5-7.0 m; sandy layer 7.0-10.0 m; silty; poor core recovery zone					
			Stiff clay layer		10.0-20.0 m; dark greyish; silty; very stiff clayey layer; core recovery is good.					
			BOTTOM							

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation, R.Q.D= Total length of cylindric cores longer than 10 cm / Total core length × 100%
*LUGEON VALUE is 1 min/m under injection water pressure of 10kg/cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

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DRILL LOG

HOLE NO. GB-5 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY	DEPTH	10.0 m	ELEVATION	approx. 1302.0 m
SITE	COORDINATE X: 85°20'52", Y: 27°42'58"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.K
AVERAGE CORE RECOVERY	DATE FROM TO	DRILLED	11.5.94	LOGGED	M.Y.

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY %	CORE RECOVERY cm	SPT: N-VALUE PERMEABILITY TEST: K-VALUE LU-UNIT (10, 20, 30, 40)	DEPTH
	1	LACUSTRINE DEPOSITS	River deposits		River deposits, Coarse sand layer, Clay layer, Sandy clay layer		▽ -1.2 m				1
	2		Coarse sand layer		Light greyish sand with rock fragments of gneisses 1.4-6.9 m; coarse sand; greyish to dark greyish; partly silty clayey layers A lots of micaccous contents; 1 to 2 mm in size					K=4.4×10⁻² cm/s	2
	3										3
	4										4
	5										5
	6										6
	7										7
	8		Clay layer		6.9-9.3 m; dark greyish silty clay 9.3-10.0 m; clay with sand; dark greyish; rather poor core recovery					K=1.4×10⁻³ cm/s	8
	9										9
	10		BOTTOM								10

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation, R.Q.D= Total length of cylindric cores longer than 10 cm / Total core length × 100%
*LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

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DRILL LOG

HOLE NO. GB-6 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	20.0 m	ELEVATION	Approx. 1302.0 m
SITE		COORDINATE	X : 85°26'49" Y : 27°42'42"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS UK
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	NISSAKU	LOGGED	M Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY (cm)	SPT: N-VALUE PERMEABILITY TEST: K-VALUE LU-UNIT (10 20 30 40)	DEPTH
	2.0	LACUSTRINE DEPOSITS	River deposits		River deposits, Medium sand layer, Clay layer, Medium sandy layer, Loose sand layer, Coarse sand layer 0.0-0.3 m; silty layer		▽ -0.7 m			
			Medium sand layer		0.3-2.0 m; coarse sand with rounded gravels of gneiss; whitish Loose sand; greyish to dark greyish; medium grain; a lots of micaceous small fragments are included.				K=2.2×10⁻²	
			Clay layer		Weak clayey layer; a lots of small fragments of micaceous materials				K=6.0×10⁻³	
			MEDIUM TO FINE SAND LAYER		10.0-14.0 m; loose sandy layer; same as the section of 2.0-7.0 m; dark greyish; a lots of micaceous fragments; small to medium size of gravel					
			Loose sand layer		14.0-15.0 m; whitish; loose sand				K=1.4×10⁻³	
			Coarse sand layer		15.0 to the bottom; coarse grain sand layer; loose sandy materials; small fragments of granitic rocks; loose in condition					
			BOTTOM						K=2.4×10⁻³	

HOLE NO.

LOG FORM -B

* R.Q.D is Rock Quality Designation, R.Q.D = : Total length of cylindric cores longer than 10 cm / Total core length × 100%
* LUGEON VALUE is 1 min m under injection water pressure of 10kg cm²
* DEPTH and ELEVATION are in meter
* DIAMETER is in millimeter

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DRILL LOG

HOLE NO. GB-7 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	10.0 m	ELEVATION	APPROX. 1318.0 m
SITE		COORDINATE	X : 28°23'38", Y: 27°43'23"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.K
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	NISSAKU	LOGGED	M. Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY	SPT: N-VALUE PERMEABILITY TEST: K-VALUE LU-UNIT	DEPTH
	1	LACUSTRINE DEPOSITS	River deposits		River deposits, Medium sand layer 0.0-0.7 m; silty soil 0.9-1.0 m; coarse sand layer		▽ -2.2 m			1
	10		Medium sand layer		Below 1.0 m to the bottom; almost homogenous condition of medium grain sand layer; dark greyish; a lots of micaceous small fragments are contained.				K=8.0×10⁻⁴ cm/s K=1.2×10⁻³ cm/s	10
			BOTTOM							

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation, R.Q.D= Total length of cylindric cores longer than 10 cm / Total core length × 100%
*LUGEON VALUE is l min m under injection water pressure of 10kg cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

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DRILL LOG

HOLE NO. GB-8 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	20.0 m	ELEVATION	APPROX. 1318.0 m
SITE		COORDINATE	X : 85°23'09", Y: 27°43'41"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.K
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	NISSHO	LOGGED	M. Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY %	CORE RECOVERY cm	SPT: N-VALUE PERMEABILITY TEST: K-VALUE LU-UNIT	DEPTH
	3.0	LACUSTRINE DEPOSITS	River deposits		River deposits, Medium sand layer, Coarse sand layer 0.2-0.4 m; silty soil with some organic materials		-0.8 m				
			Medium sand layer		Coarse sand with rock fragments of gneisses occasionally 3.0-11.0 m medium grain sandy layer; dark greyish Almost the same condition continue to 11.0 m; some contents of micaceuos fragments						
			Coarse sand layer		11.0 m to the bottom; coarse sandy layer with occasional contents of granitic fragments of 1-2 mm in size						
			BOTTOM								

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation. R.Q.D= Total length of cylindric cores longer than 10 cm / Total core length × 100%
*LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

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DRILL LOG

HOLE NO. GB-9 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	12.0 m	ELEVATION	1199m, 1345.0 m
SITE		COORDINATE	X: 85°19'11", Y: 27°40'44"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.K
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	NISSAKU	LOGGED	M.Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY %	CORE RECOVERY cm	RQD(%)	SPT: N-VALUE PERMEABILITY TEST: LU-VALUE K-VALUE	DEPTH
	1.25		Residual soil		Clayey soil with fragments							
			Siliciuos sandy schist		1.3-5.5 m; small angular fragmental samples of 1-5 cm in size with clayey materials; cracks are weathered and appear to be brownish. (CL)		▽ -6.0m				K=2.5×10⁻⁴ LU=6.2 K=9.5×10⁻³	
					Below 5.5 m, short cylindric cores are recovered but core recovery is not good. (CL-CH) Schistosities incline 35 to 50 deg.						K=6.2×10⁻⁴ LU=1.1	
					2.3-2.5, 3.3-3.7, 10.2-10.6 and 11.2-11.7 m; only slime is recovered.						K=9.2×10⁻⁴ K=8.5×10⁻⁴ LU=5.6 K=9.4×10⁻⁴	
	12.0		BOTTOM									

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation, R.Q.D=(Total length of cylindric cores longer than 10 cm / Total core length) × 100%
*LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

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DRILL LOG

HOLE NO. GB-10 SHEET NO. 1 OF 1

PROJECT	GROUNDWATER MANAGEMENT PROJECT IN KATHMANDU VALLEY			DEPTH	18.0 m	ELEVATION	APPROX. 1315.0 m
SITE		COORDINATE	X : 85°16'8", Y : 27°40'19"	INCLINATION	VERTICAL	DRILL RIG	BOYLES BROS U.K
AVERAGE CORE RECOVERY		DATE	FROM TO	DRILLED	NISSAKU	LOGGED	M.Y

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY % / cm	RQD(%)	SPT: N-VALUE PERMEABILITY TEST: LU-VALUE K-VALUE	DEPTH
	1				0.0-0.3 m; residual soil		Artesian springs at about 13 m (and 18 m with heads of 0.6 and 0.8 kg/cm²)				1
	2				Below 0.3 m, short cylindric cores or fragmental samples are recovered in general; fresh parts are very hard; sandy slime with short cores are recovered from the section of 1-6 m. (CL)						2
	3										3
	4									K = 4.2 x 10⁻⁶ cm/s	4
	5									Lu = 16.1	5
	6									K = 2.5 x 10⁻⁶ cm/s	6
	7				6 to 15 m; only fragmental and short cores with sandy materials are recovered. (CL-CH)						7
	8									K = 1.4 x 10⁻⁶ cm/s	8
	9		Silicius sandy schist							Lu = 14.6	9
	10										10
	11									K = 2.4 x 10⁻⁶ cm/s	11
	12				Cores are borken by mechanical vibration and scratched, and they are shortened in general.						12
	13				Artesian springs with pressure of 0.6 kg/sq.cm at about 13 m and with pressure of 0.8 kg/sq.cm at about 18 m.					K = 9.1 x 10⁻⁶ cm/s	13
	14									Lu = 8.9	14
	15				15 to 18 m; small fragments with calyey materials are recovered; small dots of brownish limonite are observed. (CL)						15
	16										16
	17									K = 2.7 x 10⁻⁶ cm/s	17
	18	18.0								Lu = 13.9	18
			BOTTOM								

HOLE NO.

LOG FORM-B

*R.Q.D is Rock Quality Designation. R.Q.D= Total length of cylindric cores longer than 10 cm / Total core length x 100%
*LUGEON VALUE is 1 l/min/m under injection water pressure of 10kg/cm²
*DEPTH and ELEVATION are in meter
*DIAMETER is in millimeter

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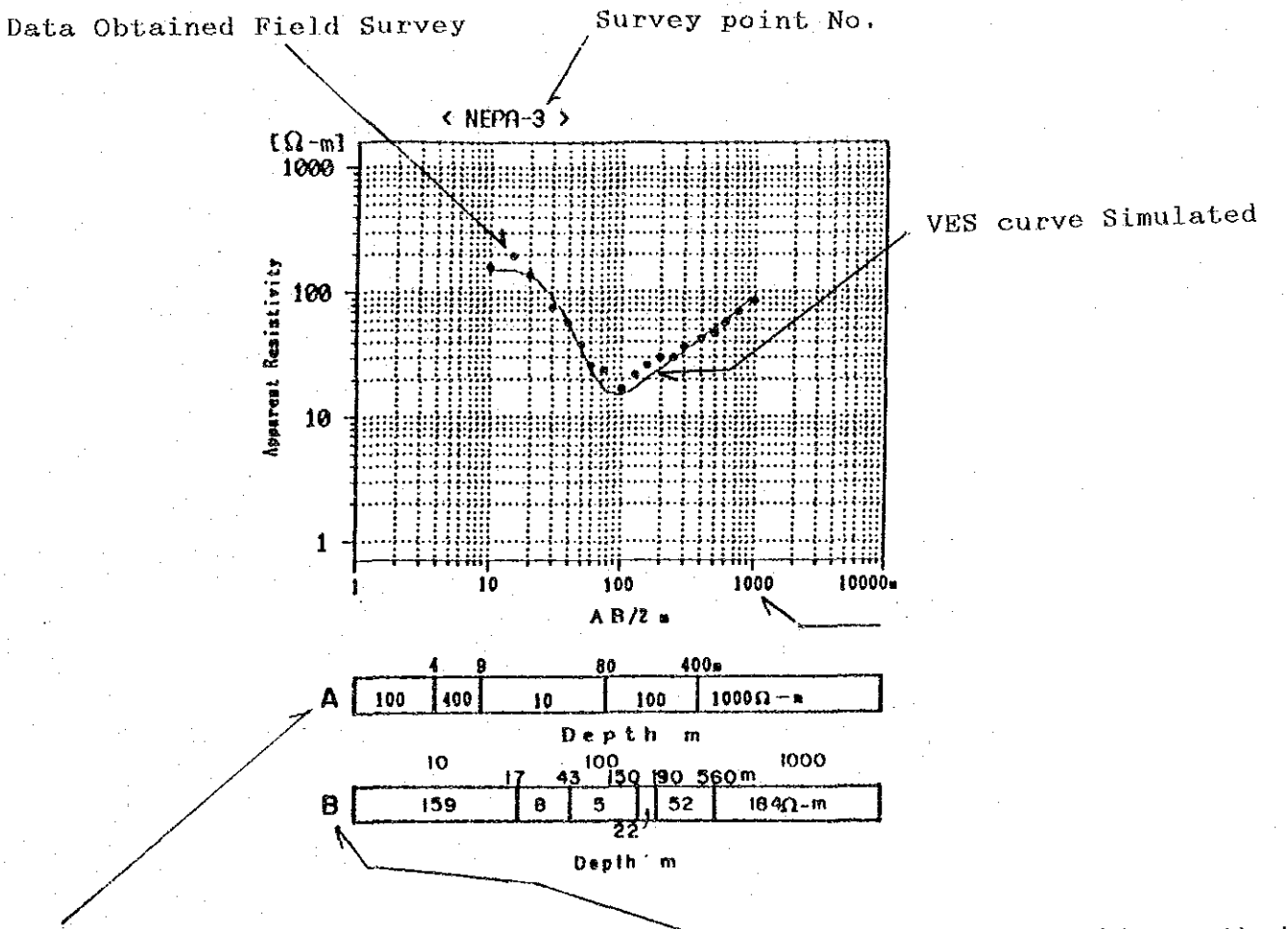
DATA BOOK C

CONTENTS OF DATA BOOK C

C-1 VES CURVE

LEGEND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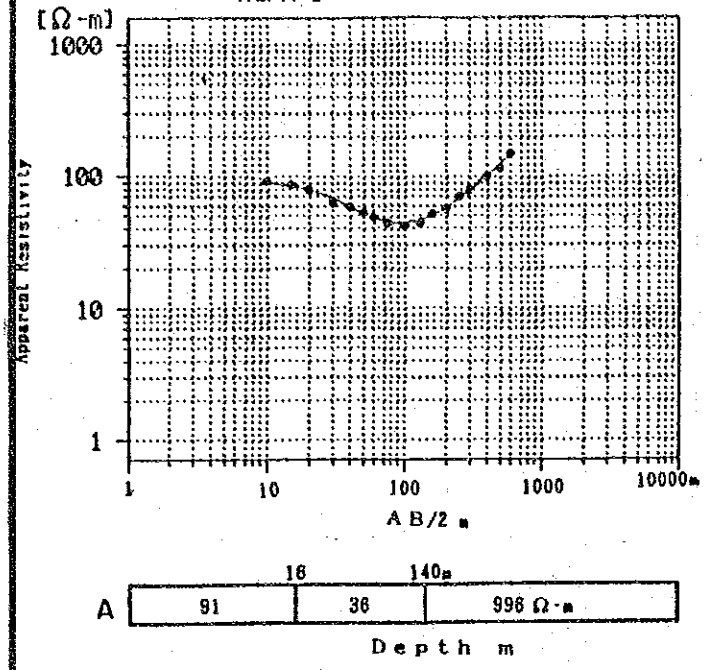

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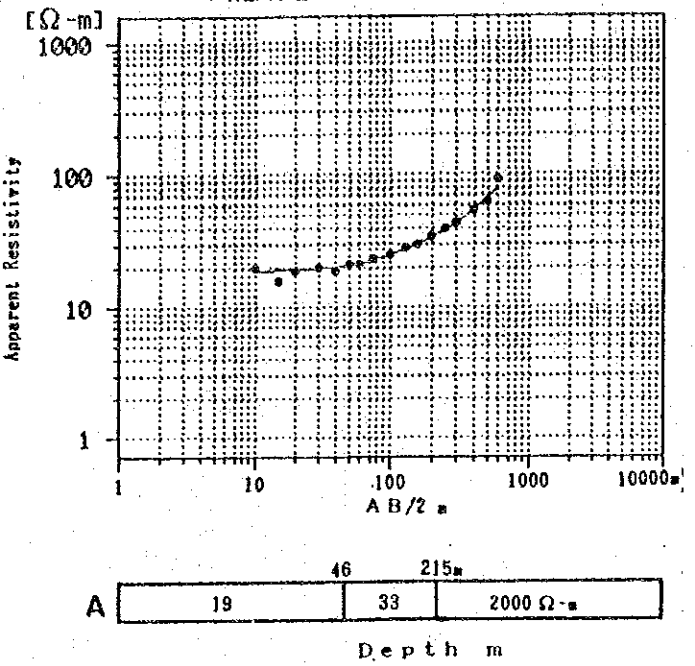

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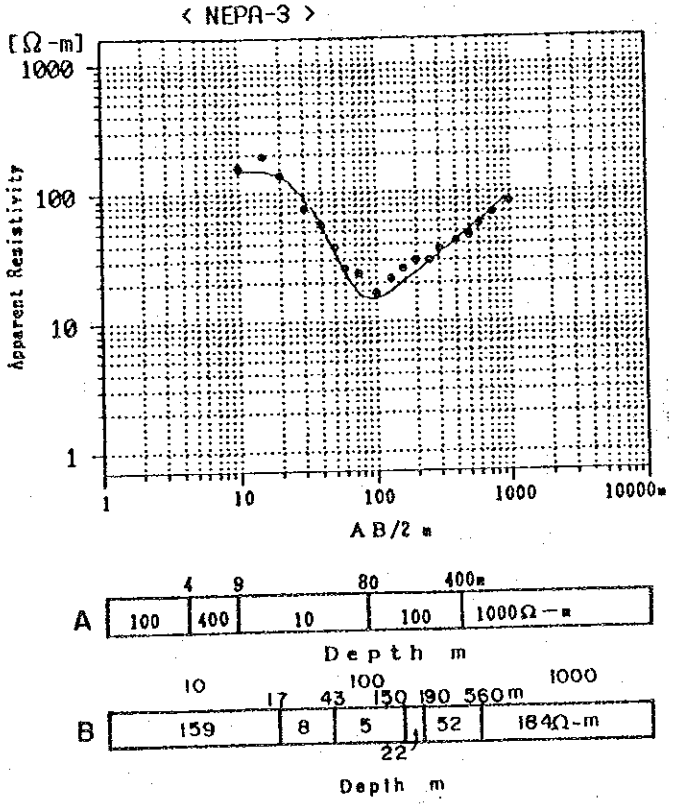

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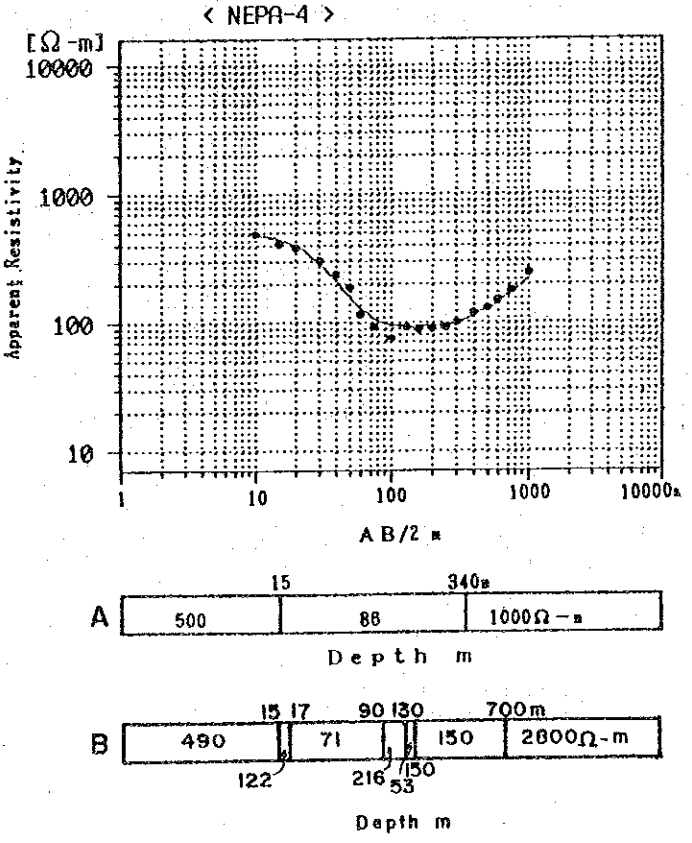

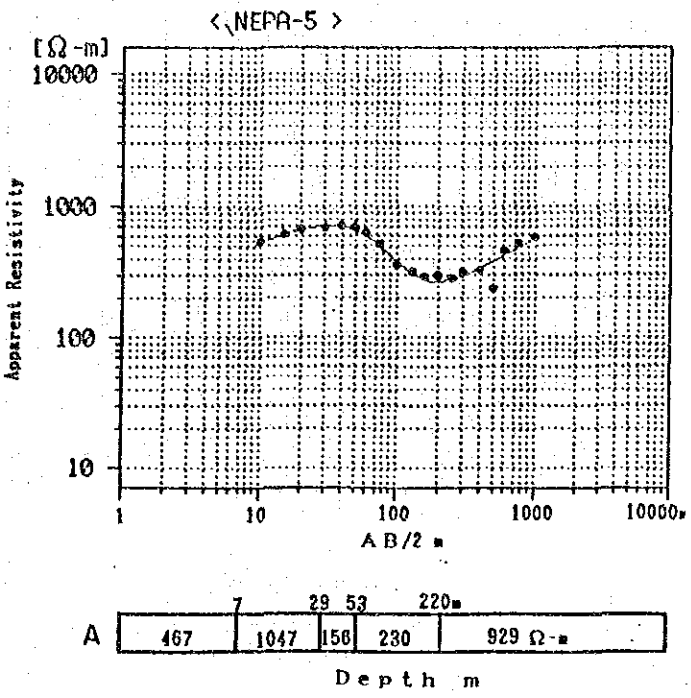
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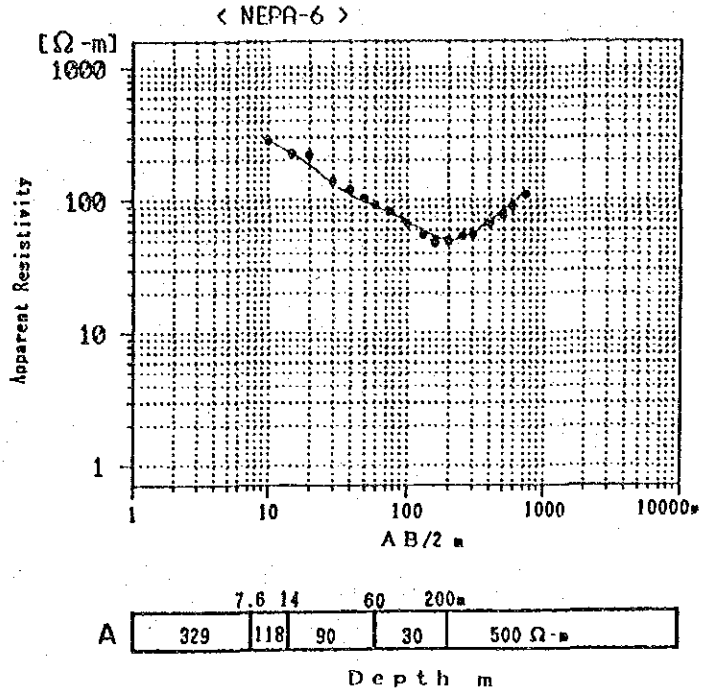
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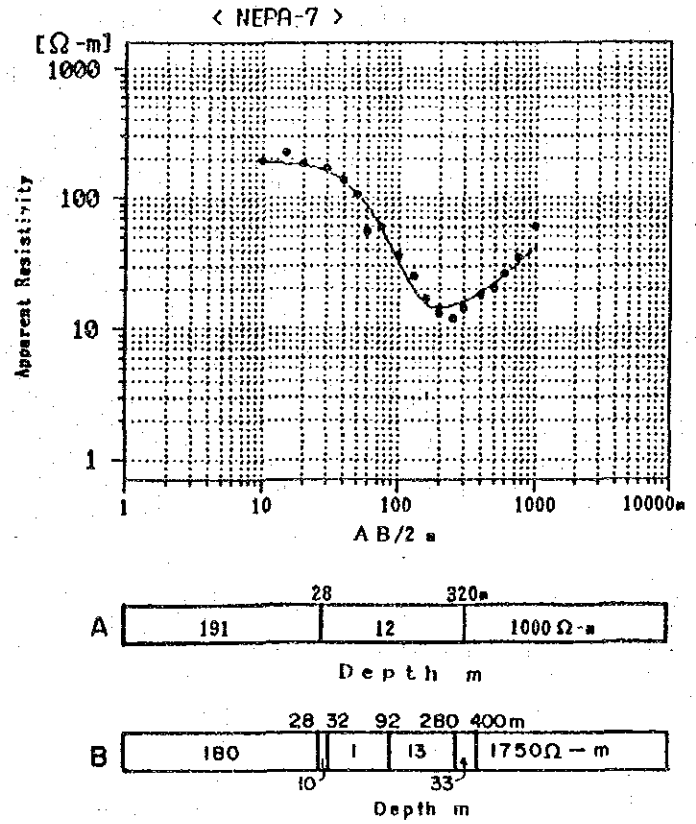
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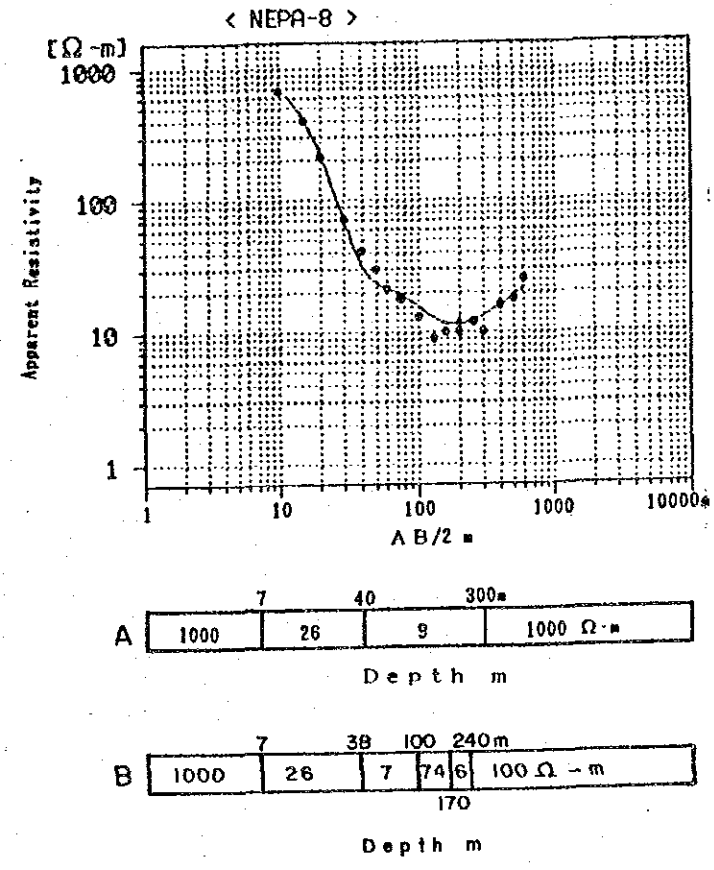
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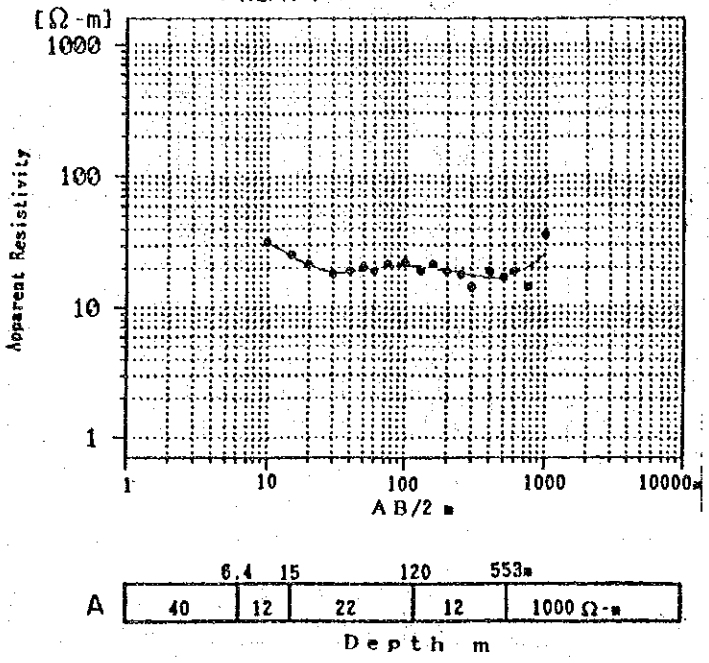

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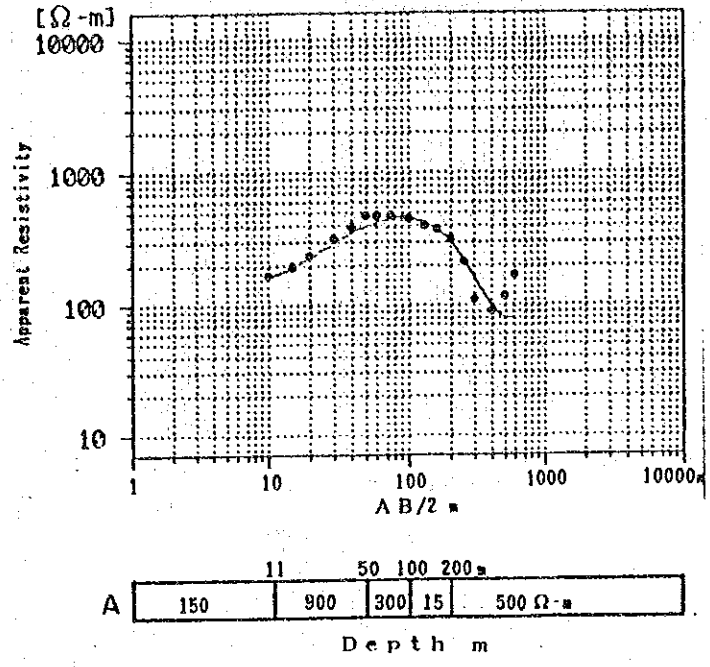

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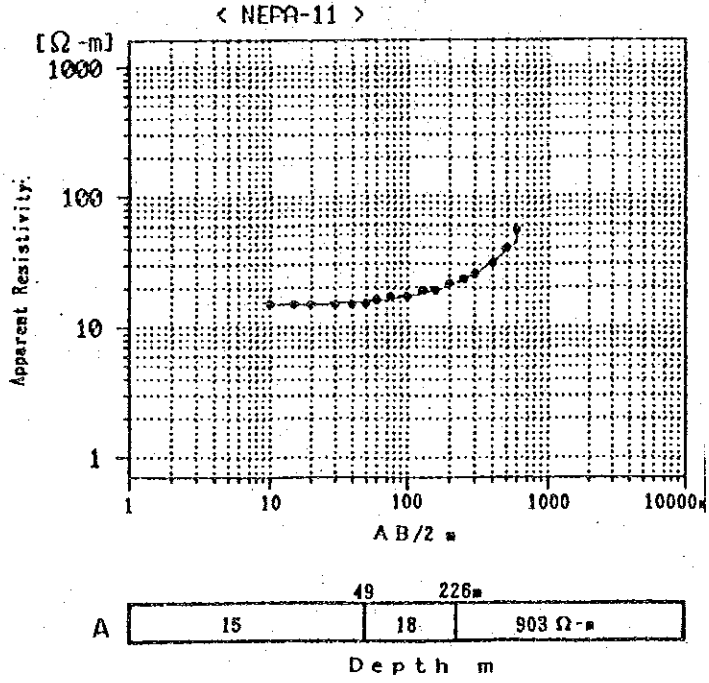

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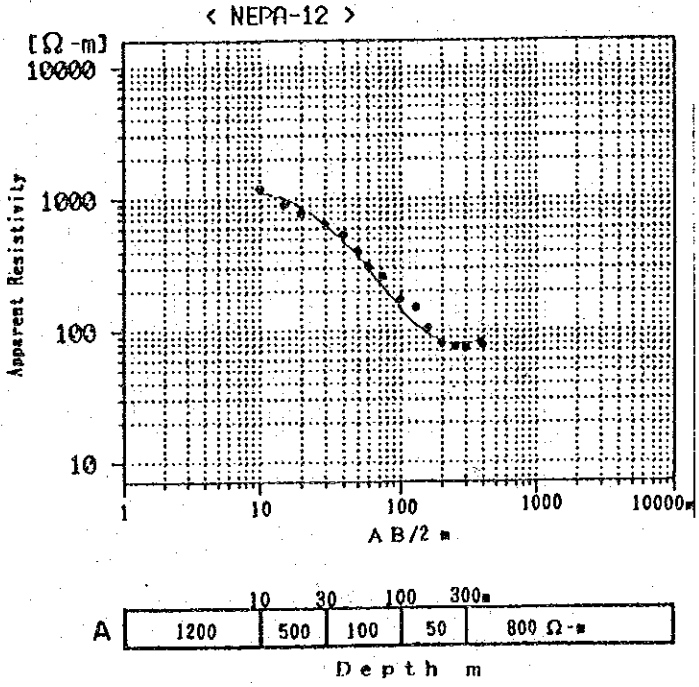

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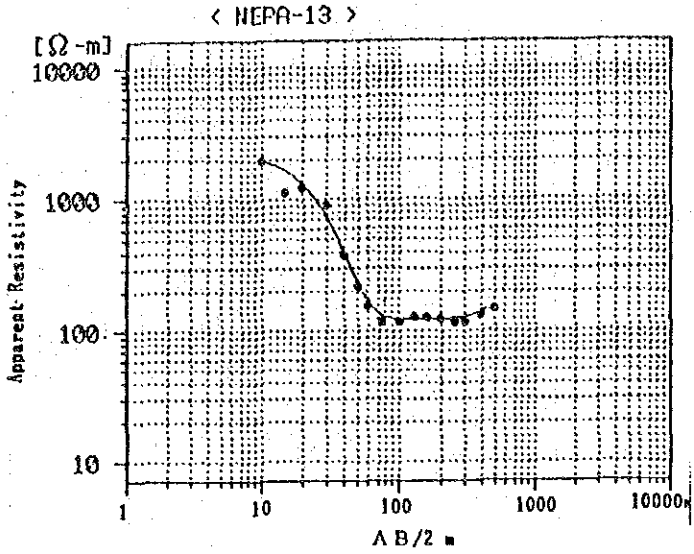

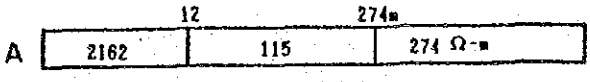

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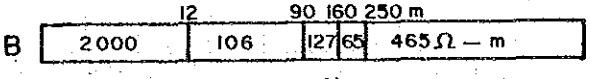

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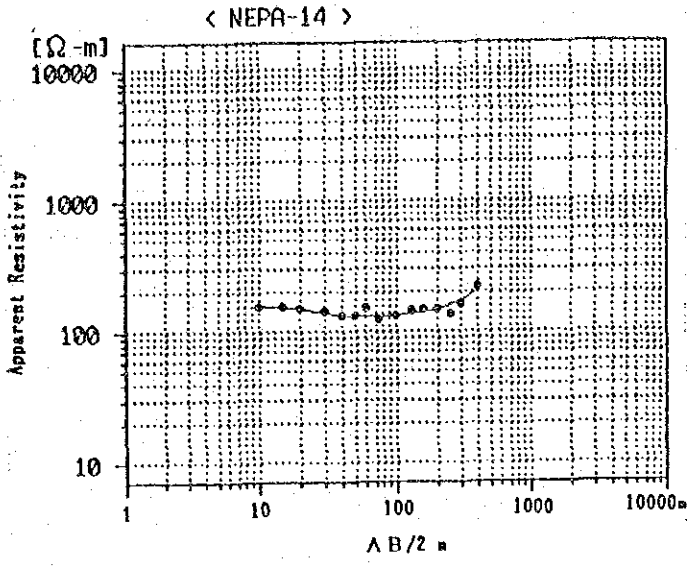

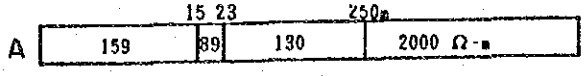

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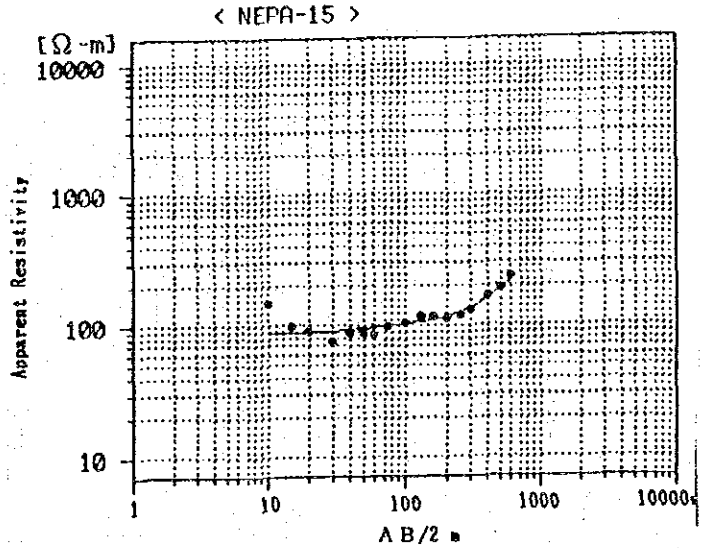

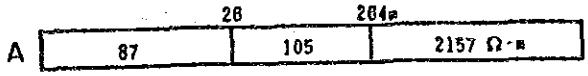

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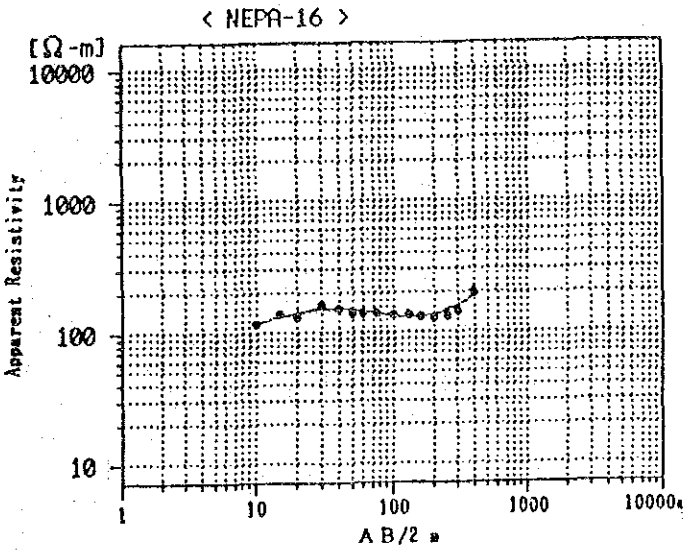

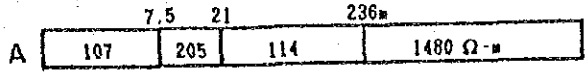

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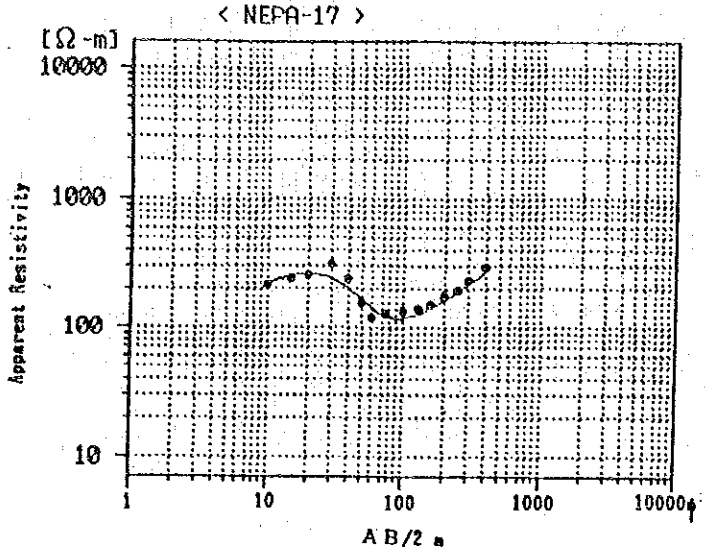

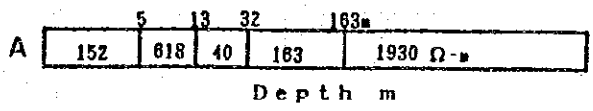

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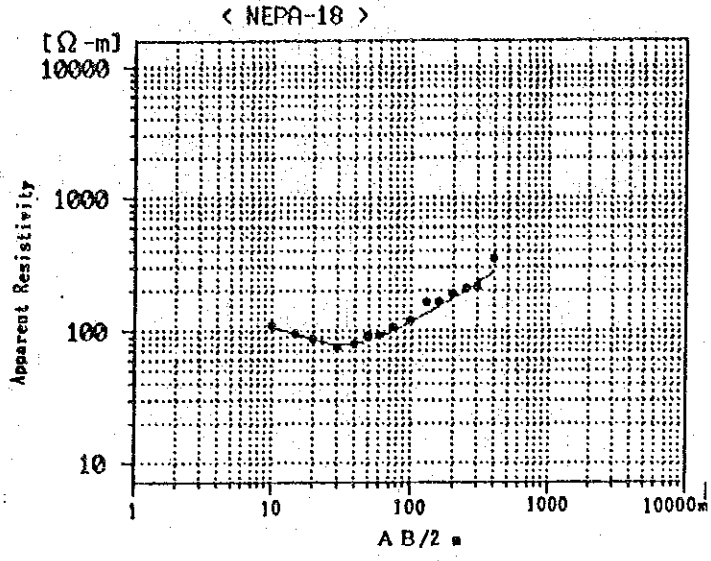

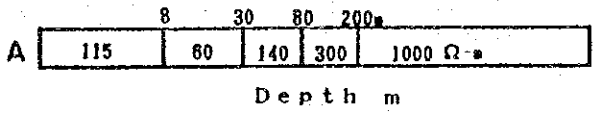

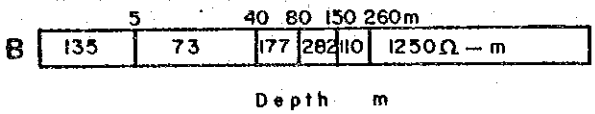

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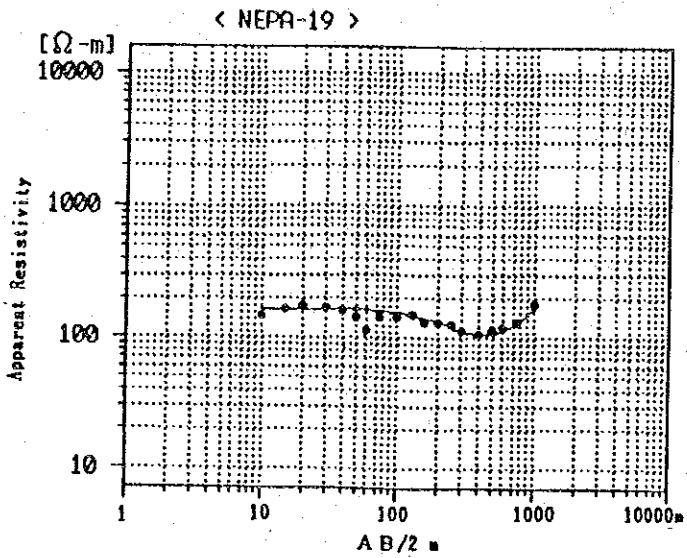

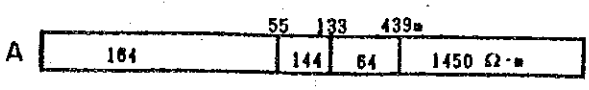

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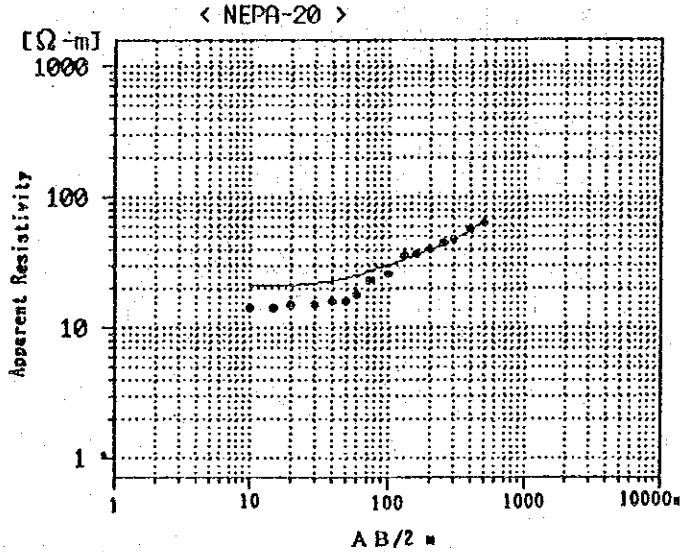

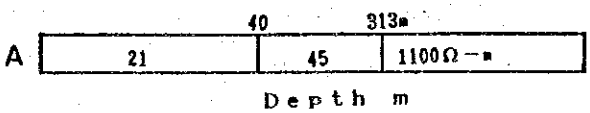

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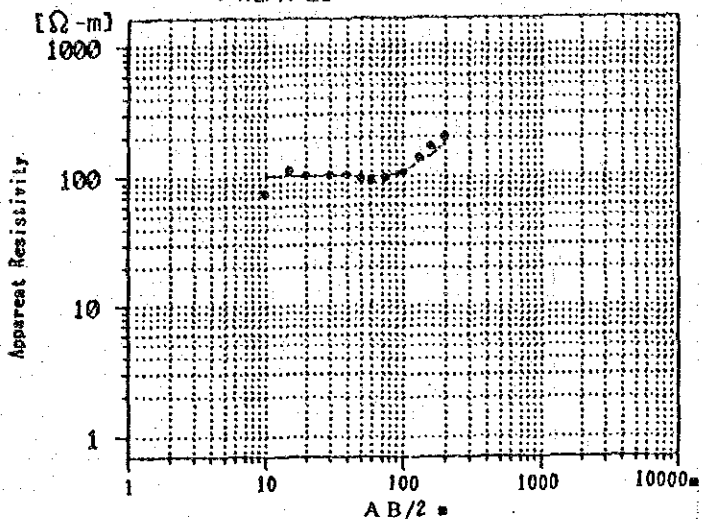

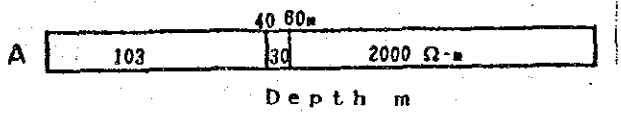

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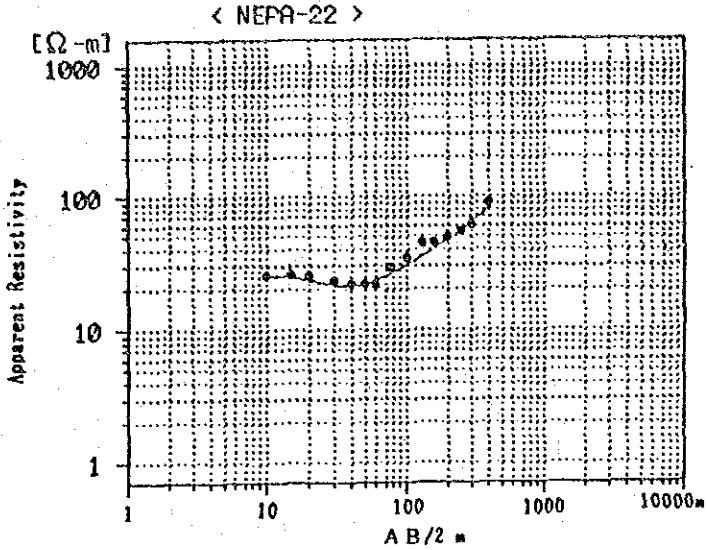

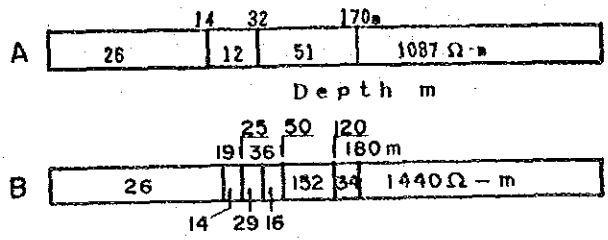

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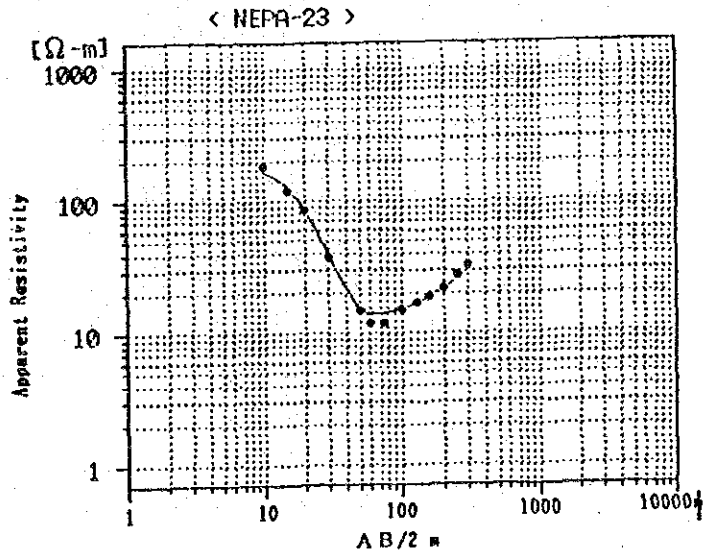

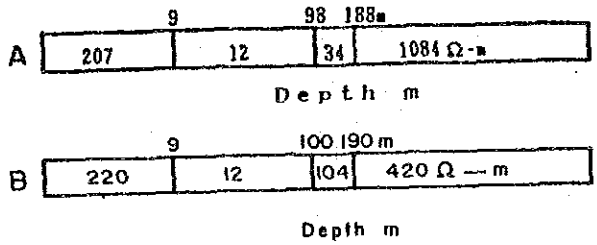

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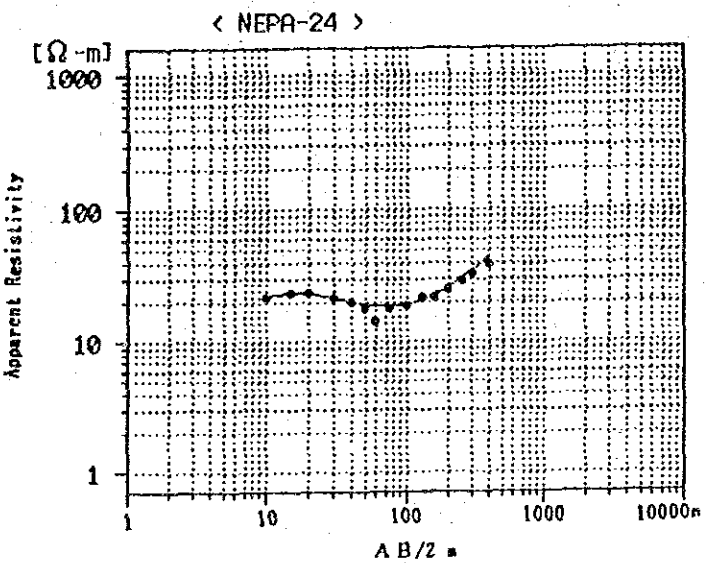

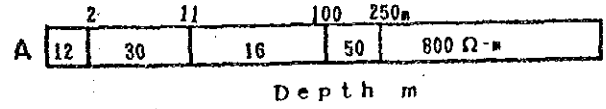

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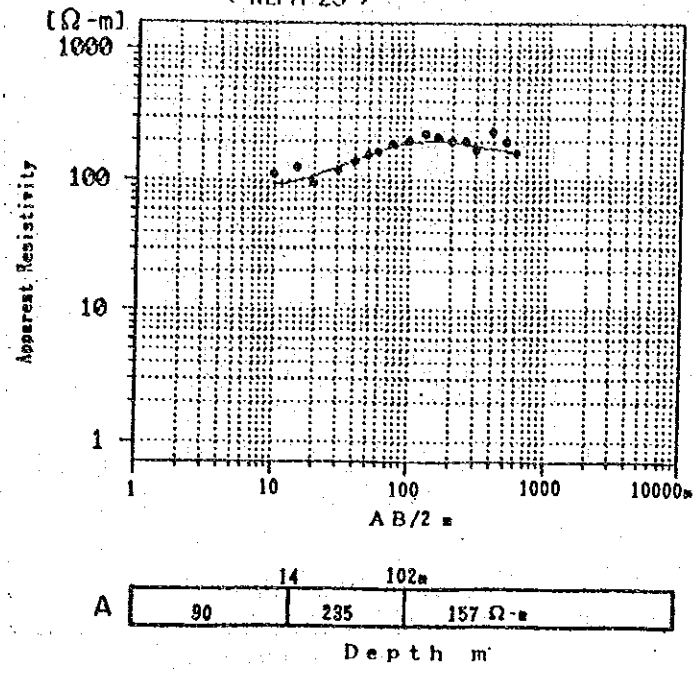

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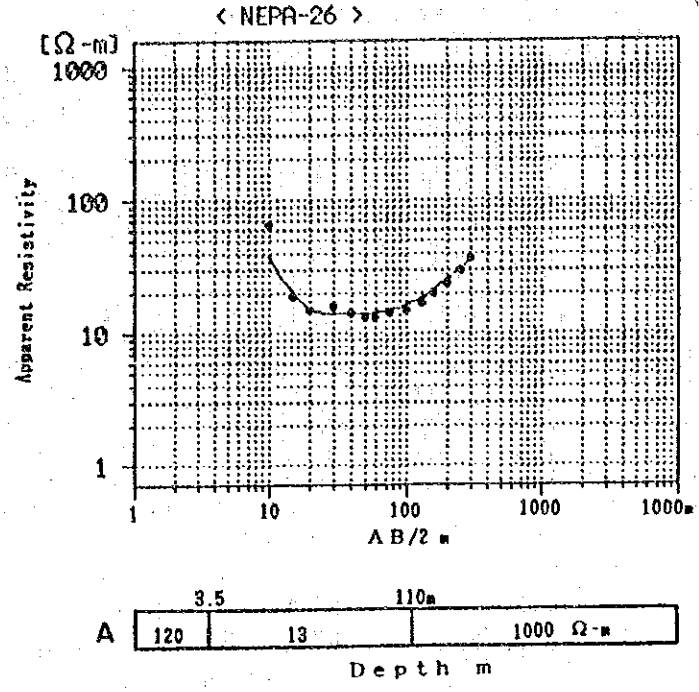

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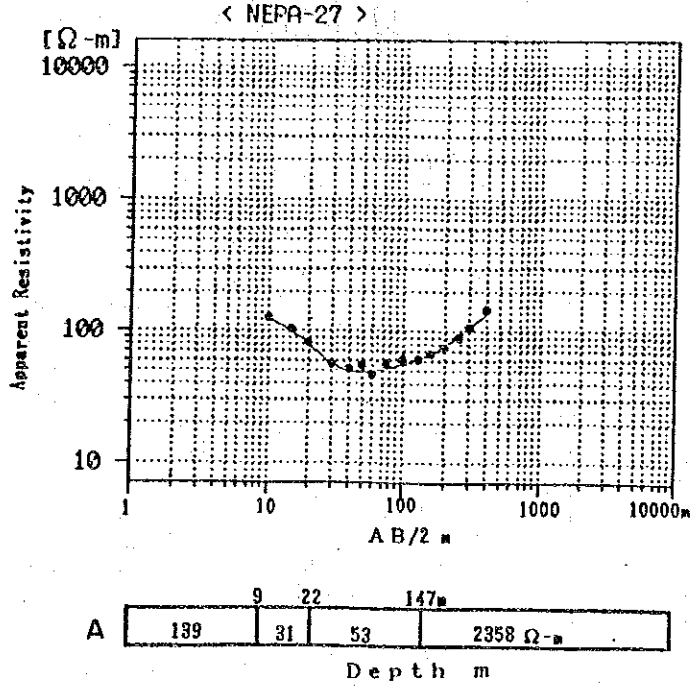

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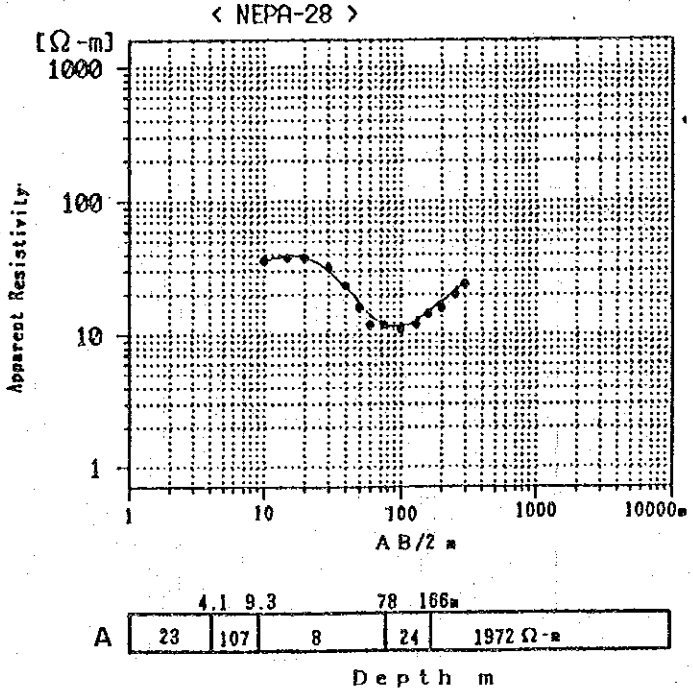

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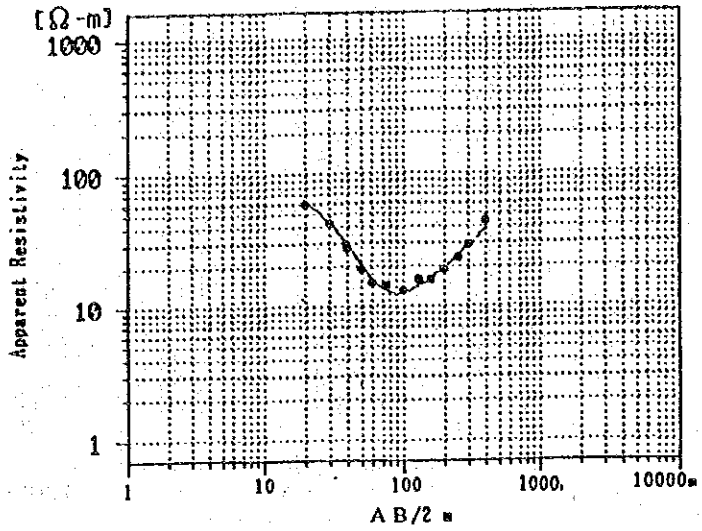

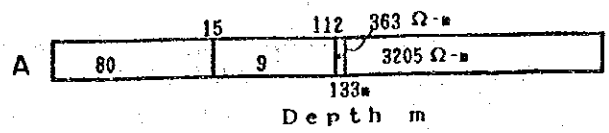

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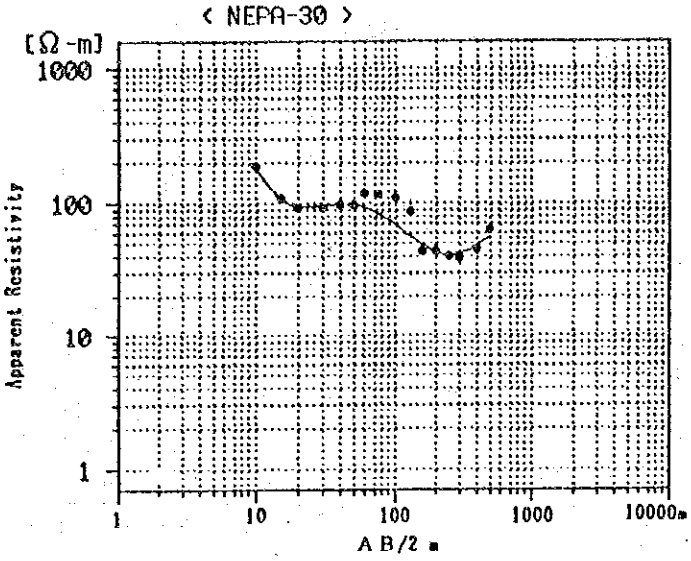

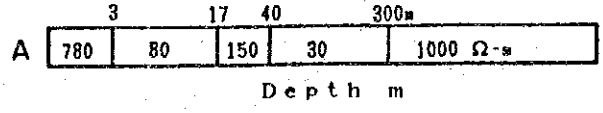

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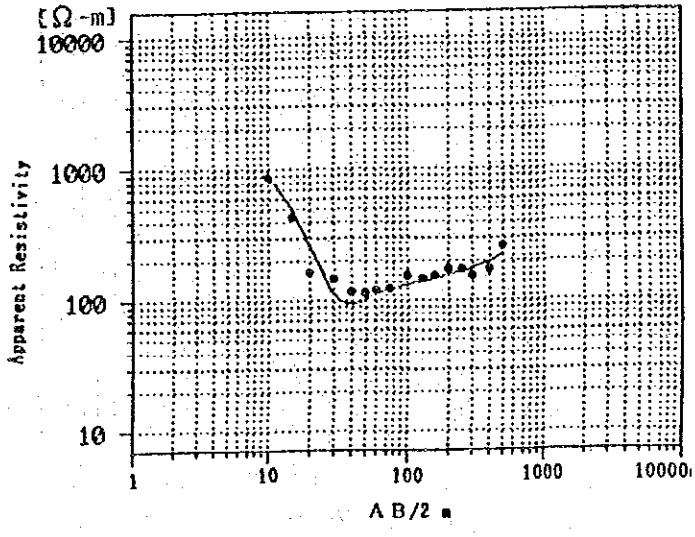

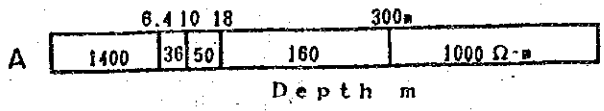

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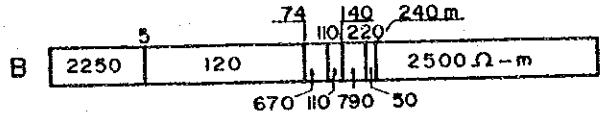

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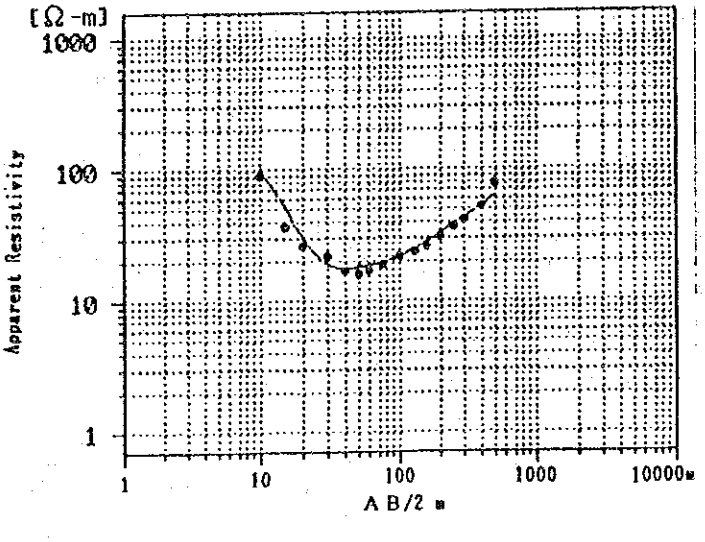

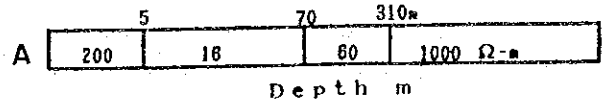

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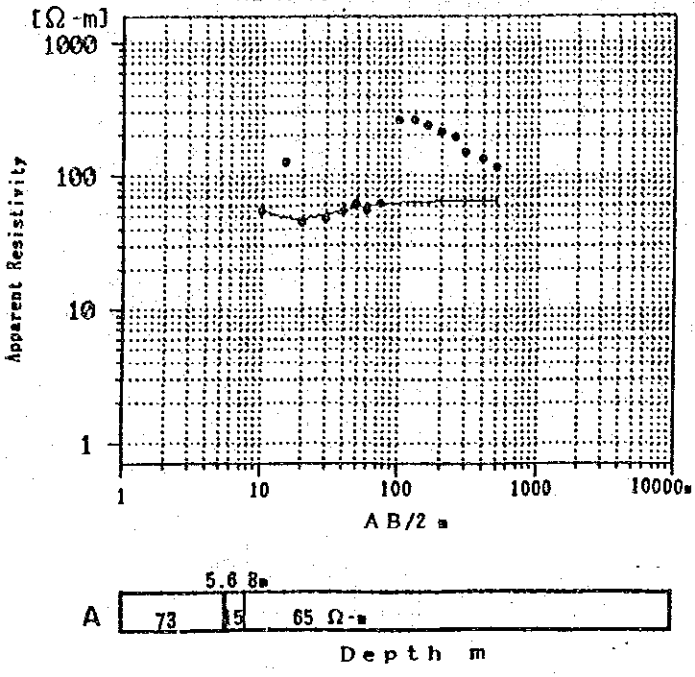

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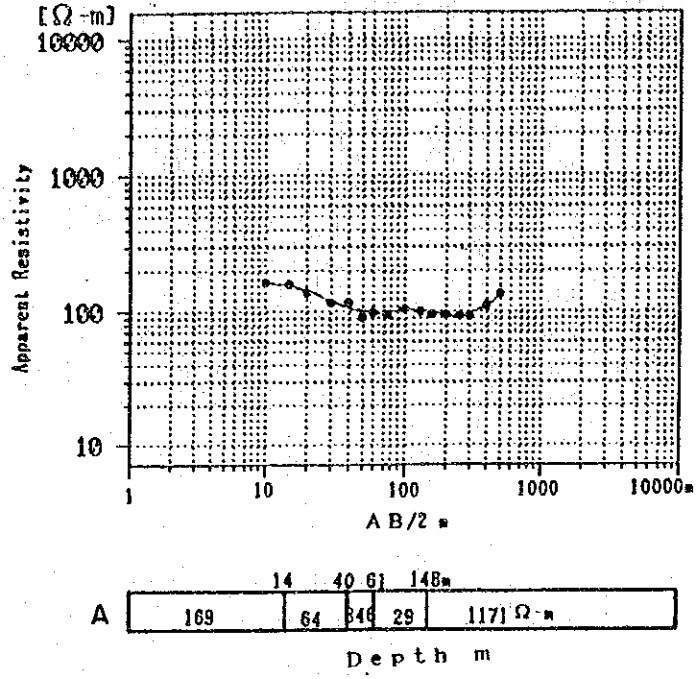

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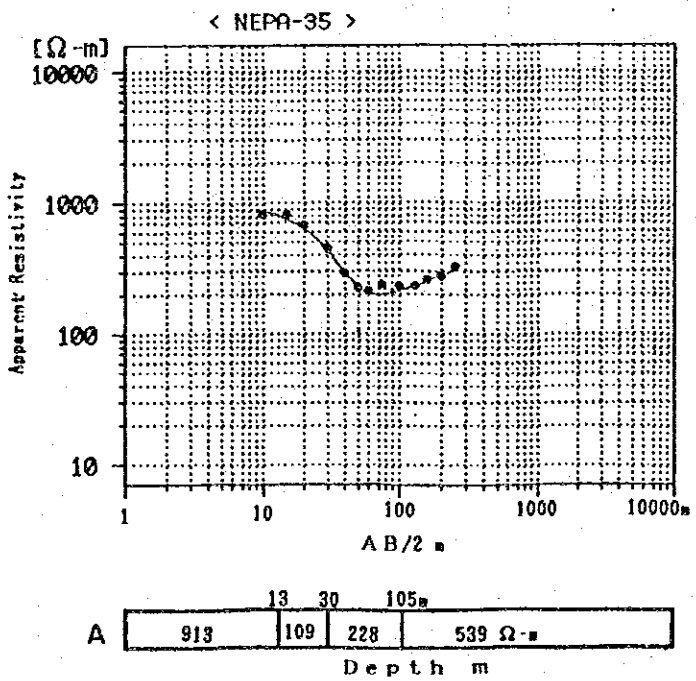

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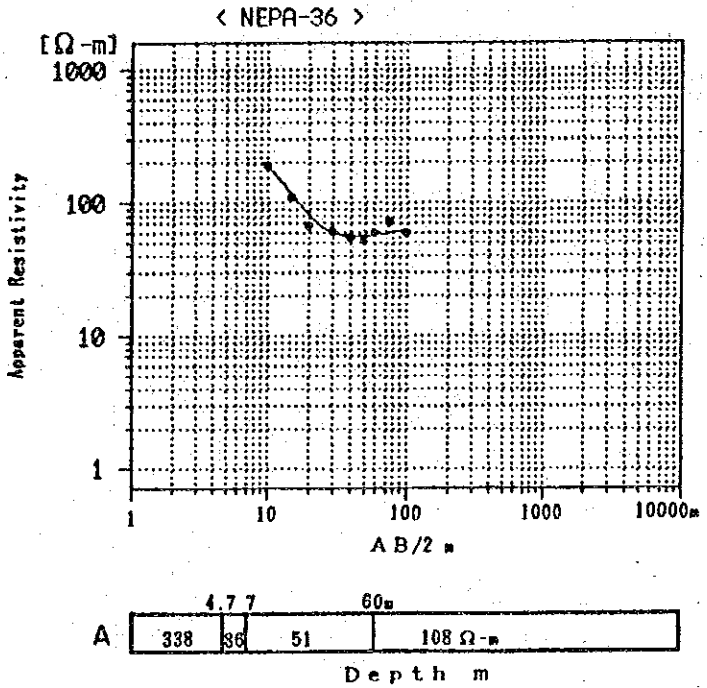

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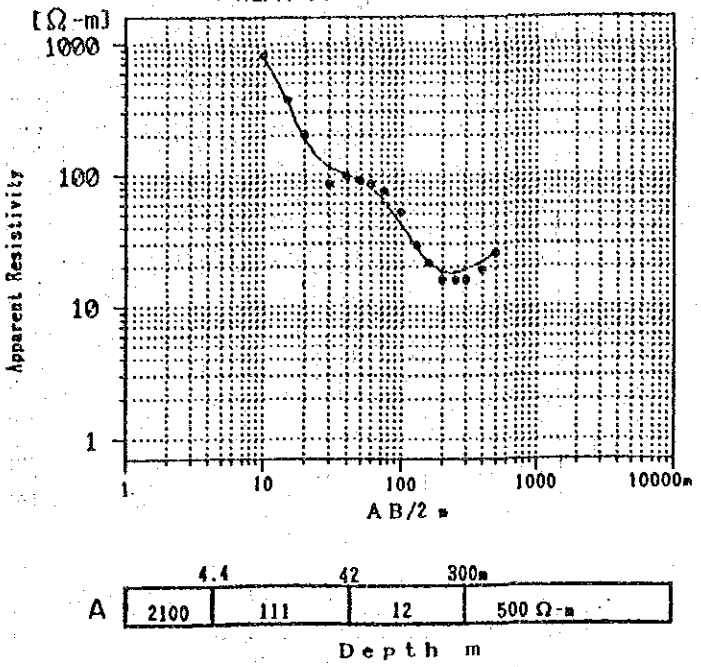

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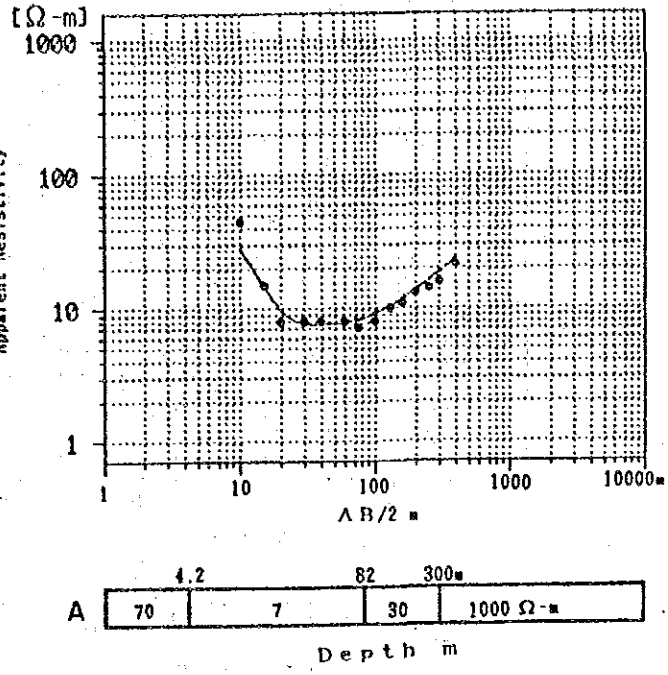

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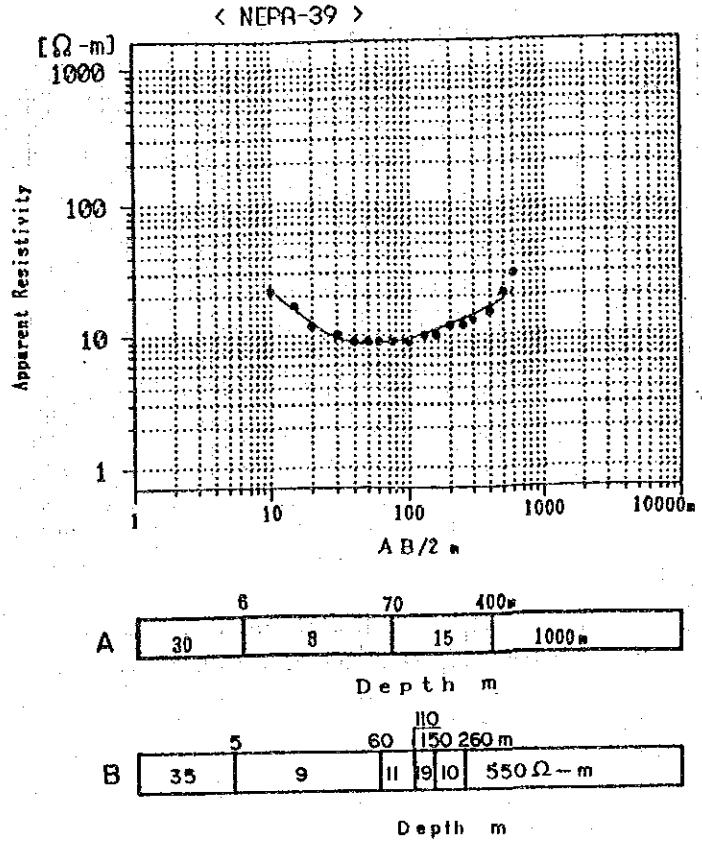

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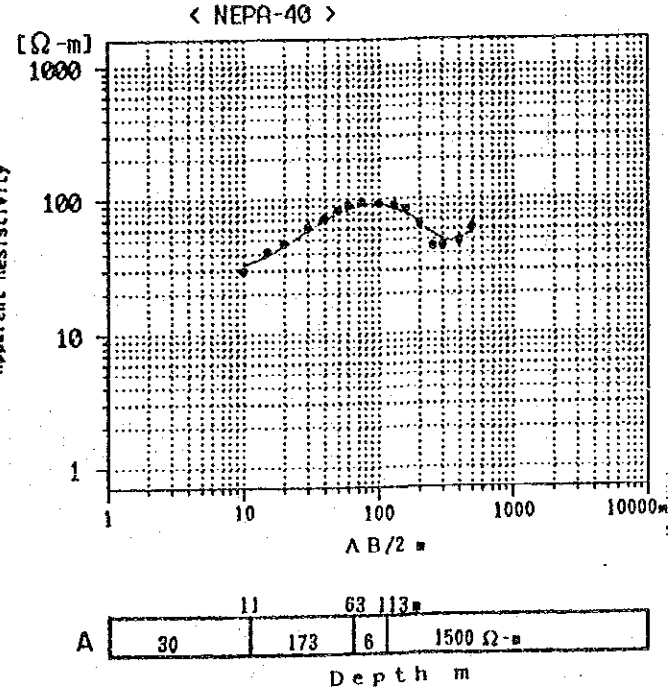

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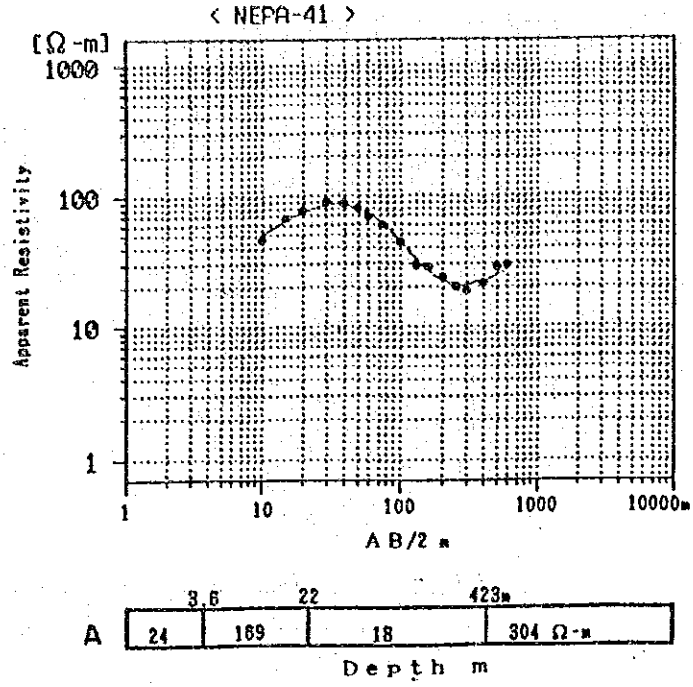

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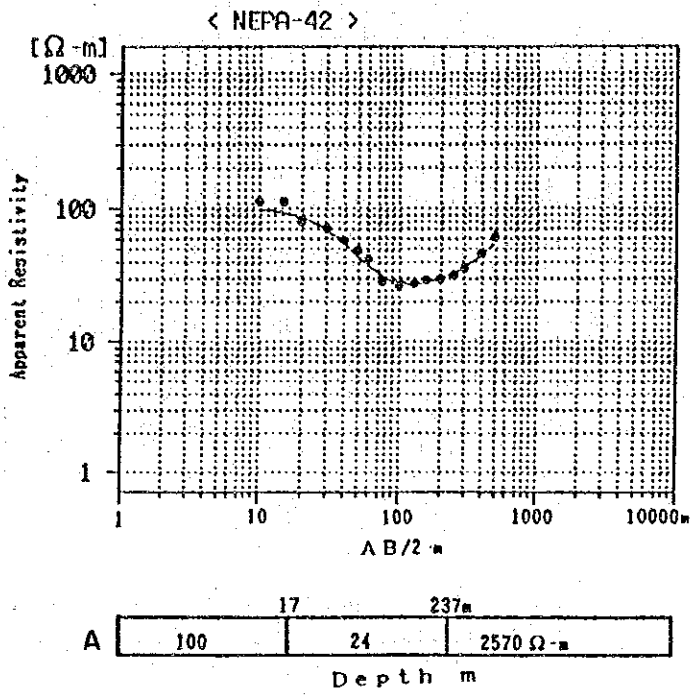

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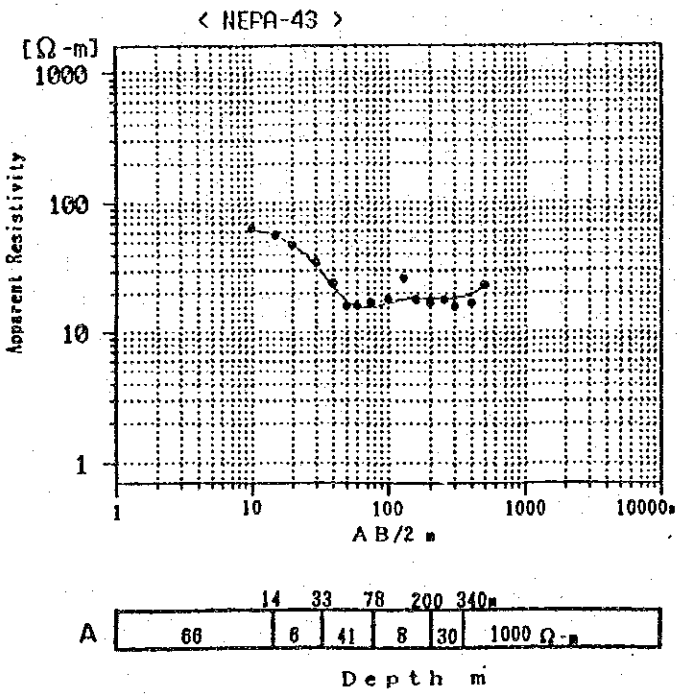

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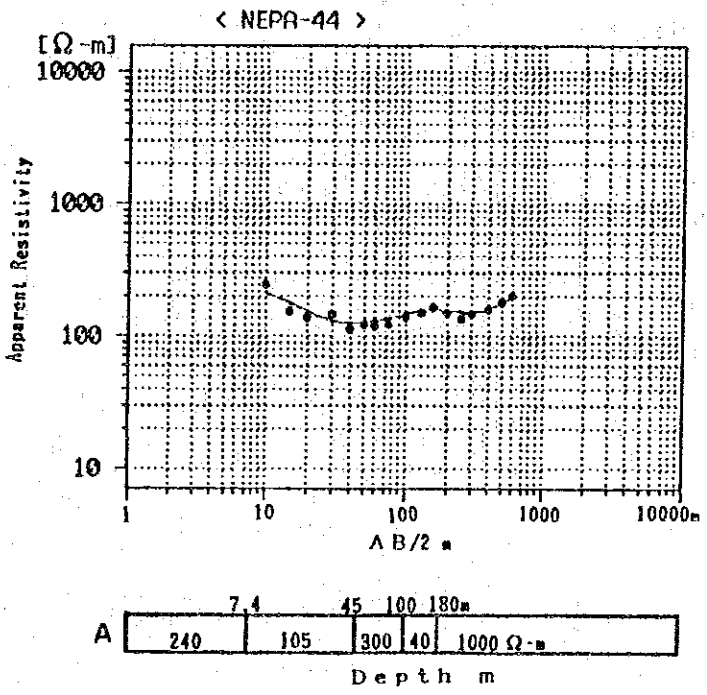

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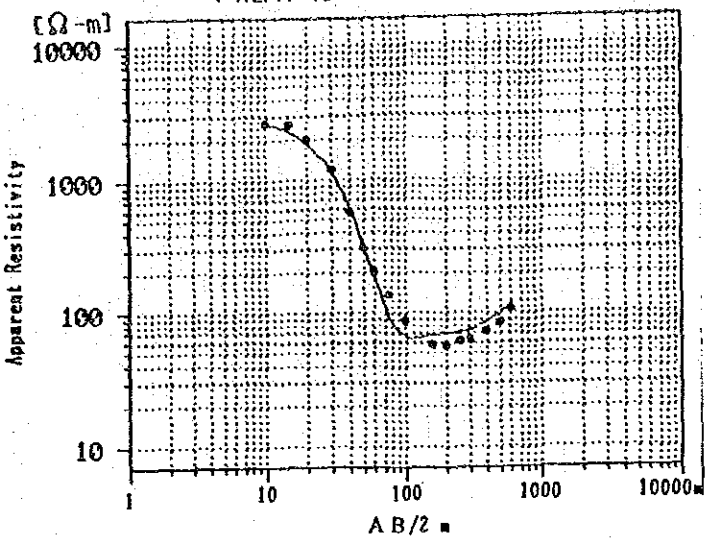

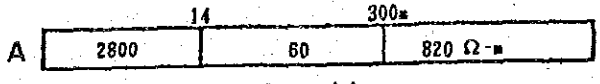

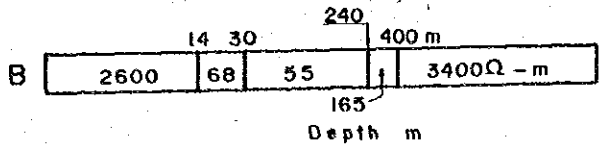

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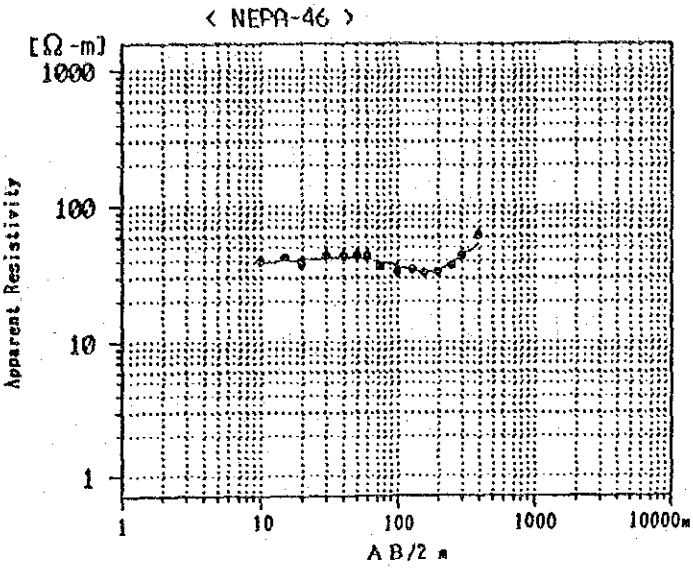

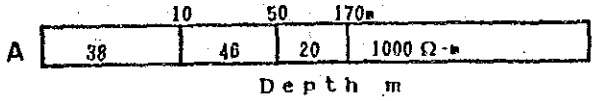

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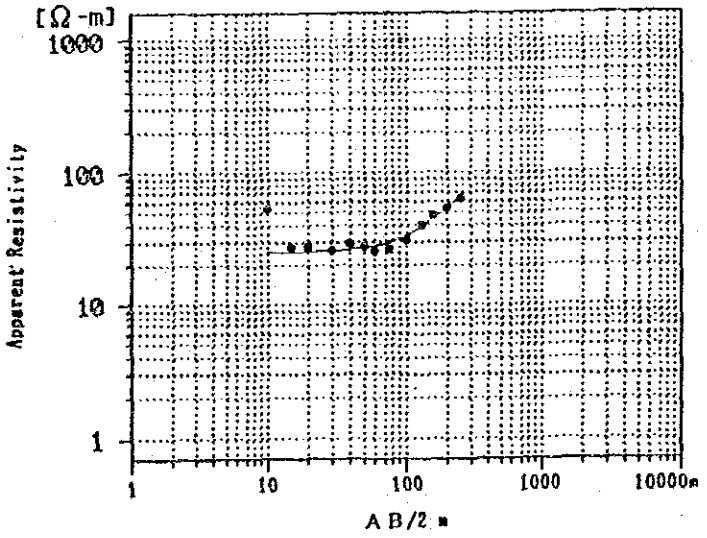

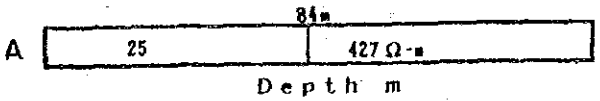

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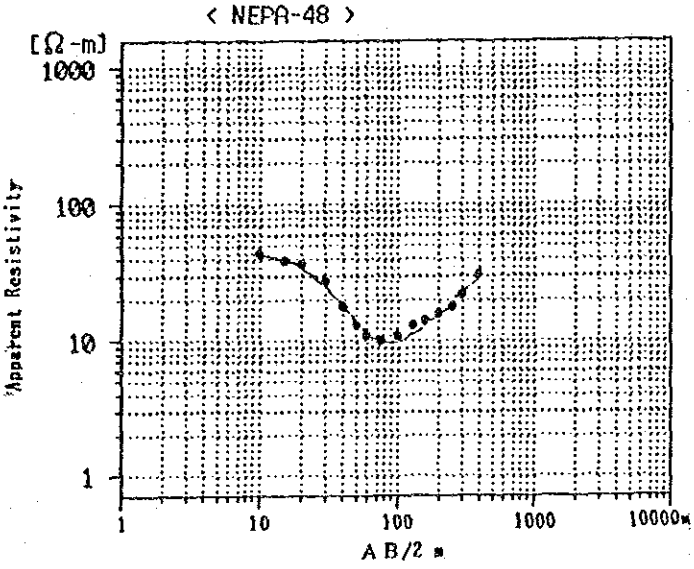

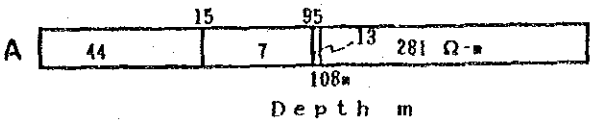

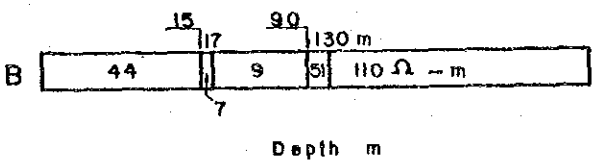

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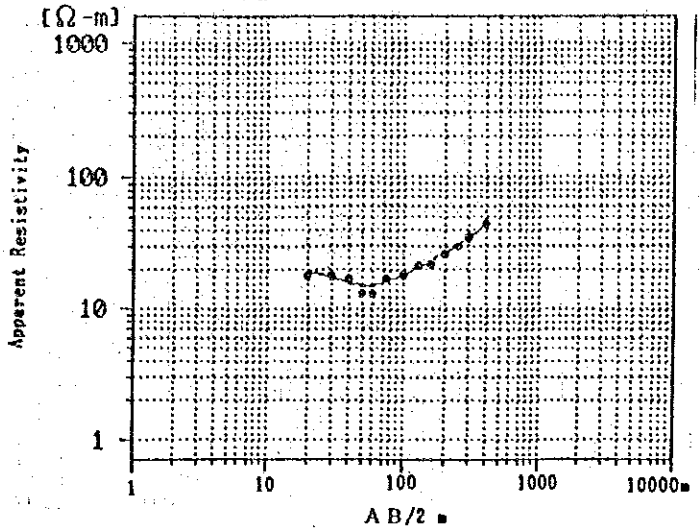

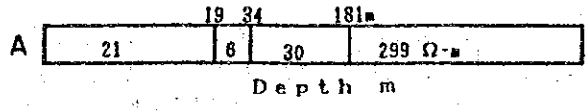

Depth m

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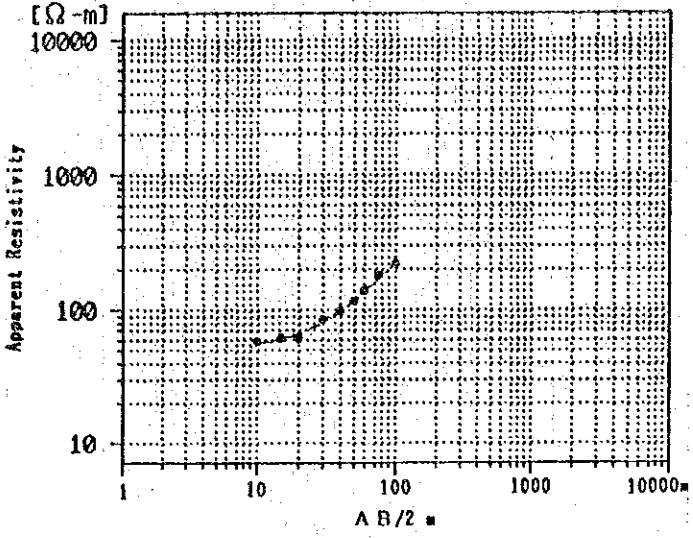
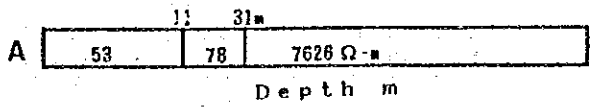




Depth m

C-2 INVENTORY OF WELLS

INVENTORY OF WELLS (1/22)

Well No.	BB1	BB2	BB3	BB4
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Dec.22'83	Mar.11'84	Mar.30'84	Dec.26'84
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	277.72	225.32	217.33	254.09
Well depth(m)	238.5	190.0	100.5	234.88
Casing dia.(mm)	300	300 250	300	300 250
Casing dep.(m)	238.5	91.41 190	100.5	62.13 234.88
Screen dep.(m)	63-84.5 118-123 129-134 151-156 167-178 184-189 222-233	64-86 92-98 100-108 118-129 143-170 179-184	24-29.5 39-49.5 51-56.5 73.4-95	20-31 39-50 84-90 94-100 120-163 169.5-175 188-217 228-229
Elevation(m)	1324.71	1353.49	1315.49	1311.59
Casing height(m)				
SWL(m)*	48.08	31.95	1.36	0.58
SWL(m)			18.05	
PWL(m)*	67.60	64.35	14.88	9.64
PWL(m)			26.73	
Q(L/s)*	34.25	20.46	43.24	44.11
Q(L/s)		20.00	40.00	36.70
S.C(L/s/m)*	1.75	0.63	3.20	4.87
S.C(L/s/m)			4.61	
Transmissibility (m2/d)*	182	44	320	340
Pump Installed	No	Submers.P	Submers.P	Submers.P
Type				
Operation (hour/day)	Abandoned			
Daily production(ML/d)				
E.C(MS/cm)		120	110	160
Temp.(C)		20	20	22.5

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (2/22)

Well No.	BB5	BB6	BB7	BB8
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Jan.18'85	Apr.13'84	Mar.19'85	Sep.7'84
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	283.79	198.42	259.20	221.3
Well depth(m)	250.2	195.5	252.80	206.0
Casing dia.(mm)	300	300	300	300
	250	250	250	250
Casing dep.(m)	45.0	107.17	37.03	70.0
	250.2	195.5	252.80	206.0
Screen dep.(m)	78-102	33-38	85-189	91-104
	140-152	55-60	211-217	132-138.5
	161-167	85-107	222.5-251	148-200
	170-215	145-195.5		
	233-244			
Elevation(m)	1309.89	1310.68	1305.78	1313.96
Casing height(m)				
SWL(m)*	1.75	2.05	+2.20	6.08
SWL(m)	17.71			
PWL(m)*	9.57	19.09	6.12	12.58
PWL(m)				
Q(L/s)*	41.00	43.67	46.32	40.58
Q(L/s)	36.70	41.70	34.30	34.30
S.C(L/s/m)*	5.24	2.56	5.57	6.24
S.C(L/s/m)				
Transmissibility (m2/d)*	737	109	561	369
Pump Installed Type	Submers.P	Submers.P	Submers.P	Submers.P
Operation (hour/day)				
Daily production(ML/d)				
E.C(MS/cm)	177	160	180	290
Temp.(C)	19	20	21	21

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (3/22)

Well No.	DK-1	DK-2	DK-3	DK-4
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Jan.17'84	May.7'84	Feb.13'84	Apr.30'84
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	92.91	63.56	201.50	50.91
Well depth(m)	72.00	38.07	187.90	49.00
Casing dia.(mm)	300	300	300 250	300
Casing dep.(m)	72	38.07	45.55 187.90	49.00
Screen dep.(m)	37-42 48-64	11-32.5	22-38 125-141.5 164-182	11-38
Elevation(m)	1336.94		1326.78	1331.72
Casing height(m)				
SWL(m)*	29.38	+0.40	1.07	5.80
SWL(m)	42.35			
PWL(m)*	34.95	17.11	20.81	12.05
PWL(m)				28.00
Q(L/s)*	23.93	28.22	28.55	44.55
Q(L/s)			5.80	13.00
S.C(L/s/m)*	4.30	1.61	1.45	7.13
S.C(L/s/m)				
Transmissibility (m2/d)*	1963	313	515	465
Pump Installed Type			Submers.P	Submers.P
Operation (hour/day)	Abandoned	Abandoned		
Daily production(ML/d)				
E.C(MS/cm)	95		175	175
Temp.(C)	17		21	20

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (4/22)

Well No.	DK-5	DK-6	DK-7	DK-8
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Dec.28'83	Jan.27'84	Jan.7.'84	Mar.1'84
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	150	110.68	120.73	33.85
Well depth(m)	64.66	35	54.5	
Casing dia.(mm)	300	300	300 250	300
Casing dep.(m)	64.66	35	54.5	
Screen dep.(m)	43-59	13-24	35-46	9-19
Elevation(m)	1337.72	1313.15		
Casing height(m)				
SWL(m)*	29.58	1.95	30.09	3.20
SWL(m)		9.64		
PWL(m)*	32.58	16.00	30.42	12.45
PWL(m)		11.49		
Q(L/s)*	27.89	39.76	9.73	28.89
Q(L/s)	18.00	8.30		
S.C(L/s/m)*	9.30	2.83	1.84	3.12
S.C(L/s/m)				
Transmissibility (m2/d)*	1174	416	300	673
Pump Installed Type	Submers.P			
Operation (hour/day)			Abandoned	Abandoned
Daily production(ML/d)				
E.C(MS/cm)	173	210		
Temp.(C)	17	18		

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (5/22)

Well No.	DK-9	GK-1	GK-2	GK-3
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	May.14'84	Dec.24'85	May.31'84	Jul.4'84
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	82.48	278.5	151.3	263.22
Well depth(m)	54.06	268	149.3	251.10
Casing dia.(mm)	300	300	300	300
		250	250	250
Casing dep.(m)	54.06	92.0	75.5	69.82
		268	149.3	251.1
Screen dep.(m)	12-17.5	50-61	31.5-37	37-43
	38-48.5	81-92	40.5-51.5	48-59
		109-120	58-64	70-251
		131-137	65.5-71	
		148-153	76-138	
		170-186		
		214-219		
		225-252		
		258-269		
Elevation(m)		1345.09	1339.90	1346.13
Casing height(m)				
SWL(m)*	3.50	8.60	6.13	10.03
SWL(m)		18.42		
PWL(m)*	20.35	21.17	27.29	30.85
PWL(m)				
Q(L/s)*	5.0	35.77	28.55	29.58
Q(L/s)		32.00	28.00	23.00
S.C(L/s/m)*	0.3	2.85	1.35	1.42
S.C(L/s/m)				
Transmissibility (m2/d)*	38	291	83	143
Pump Installed Type		Submers.P	Submers.P	Submers.P
Operation (hour/day)	Abandoned			
Daily production(ML/d)				
E.C(MS/cm)		97	110	120
Temp.(C)		20	20	21

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity.

INVENTORY OF WELLS (6/22)

Well No.	GK-4	GK-5	MH2	MH3
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	July 15'85	Jun.8'84	Oct.18'84	Nov.26'84
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	253.6	164.7	322.09	330.3
Well depth(m)	249.12	105.5	307.8	323.1
Casing dia.(mm)	300	300	300	300
	250		250	250
Casing dep.(m)	68.31	105.5	92.65	146
	249.12		307.8	323.1
Screen dep.(m)	46-68	36-41.5	41-47	44.5-50
	69-96.5	47-69	62-72.65	70-92
	107-118	79.5-85	72.65-102	106-123
	152-157.5	89-100	125-131	129.5-146
	174-185		137.5-212	158-169
	208-241		224-264	174-180
			270-288.5	202-235
			296-302	246-252
				263-314
				317-323
Elevation(m)	1347.69	1358.00	1339.53	1337.13
Casing height(m)				
SWL(m)*	11.25	20.16	17.50	14.40
SWL(m)	26.27	27.30		
PWL(m)*	44.38	37.10	32.40	29.58
PWL(m)	53.95		43.40	
Q(L/s)*	29.24	20.19	37.33	38.14
Q(L/s)	16.78		40.00	36.10
S.C(L/s/m)*	0.88	1.19	2.47	2.51
S.C(L/s/m)	0.61			
Transmissibility (m2/d)*	113	195	785	162
Pump Installed Type	Submers.P		Submers.P	Submers.P
Operation (hour/day)				
Daily production(ML/d)				
E.C(MS/cm)	142		154	147
Temp.(C)	20		20	21

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (7/22)

Well No.	MH4	MH5	MH6	MH7
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Nov.1'85	Apr.13'85	May.4'85	Nov.4'85
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	254.64	304.68	305.97	303.58
Well depth(m)	236.94	201.5	197.76	267.0
Casing dia.(mm)	300	300	300	300
	250	250	250	250
Casing dep.(m)	40.62	124.5	59.44	80.5
	236.94	201.5	197.96	267.0
Screen dep.(m)	19.5-25	53-124.5	22-39	20-36.5
	30-41	129-141	60-78	42-80.5
	58-63	145-163.5	80.5-149	176-187
	72-83	173.5-195.5		199-210
	94-146			219-222
	155-161			247-263
	169-174			
	185-234			
Elevation(m)	1329.08	1321.21	1316.30	
Casing height(m)				
SWL(m)*	5.15	1.25	+1.20	2.38
SWL(m)			7.86	27.19
PWL(m)*	17.64	10.27	6.07	12.04
PWL(m)				
Q(L/s)*	39.75	39.34	43.13	38.50
Q(L/s)	35.00	40.00		25.00
S.C(L/s/m)*	3.18	4.36	7.10	4.0
S.C(L/s/m)				
Transmissibility (m2/d)*	861	570	465	614
Pump Installed Type	Submers.P	Submers.P		Submers.P
Operation (hour/day)				
Daily production(ML/d)				
E.C(MS/cm)		200		200
Temp.(C)		21.3		24

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (8/22)

Well No.	BH-1	BH-3	BH-4	JP1
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Dec.8'84	Feb.3'85	Feb.26'85	May.22'84
Use	Municipal	Municipal	Municipal	
Drilling depth(m)	273.6	253.0	252.6	151.0
Well depth(m)	174.17	150.76	160.86	440
Casing dia.(mm)	300 250	300 250	300 250	300
Casing dep.(m)	91.09 174.17	91.92 150.76	90.41 160.86	44.0
Screen dep.(m)	41-57.5 75-86 92-110 139-168	53-92 96-102 115-146	45-51 52-57 63-90 91-97 120-126 132-155	18-34.5
Elevation(m)				
Casing height(m)	1341.85	1331.05	1318.67	1322.41
SWL(m)*	20.73	10.16	+1.50	7.44
SWL(m)		23.01	12.97	
PWL(m)*	38.59	19.01	10.52	17.46
PWL(m)				
Q(L/s)*	31.33	43.13	46.31	12.20
Q(L/s)	28.30	33.00	30.50	
S.C(L/s/m)*	1.75	4.87	3.85	1.22
S.C(L/s/m)				
Transmissibility (m2/d)*	316	364	646	180
Pump Installed Type	Submers.p	Submers.P	Submers.P	
Operation (hour/day)				Abandoned
Daily production(ML/d)				
E.C(MS/cm)	203	260	184	
Temp.(C)	19	19	18	

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (9/22)

Well No.	BBold	BHold2	B12	WHO3A
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Feb12'72	Feb.14'76	Jun.24'60	Feb.'72
Use	Municipal	Municipal	Monitoring	Monitoring
Drilling depth(m)	112.2	219.45	239.0	94.5
Well depth(m)	87.0	217.62		
Casing dia.(mm)	200	300 250		
Casing dep.(m)	87.0	12.19 217.62		
Screen dep.(m)	7-87	12-24 26-41 81-85 88-96 99-109 188-197 203-208		
Elevation(m)	1332.79	1345.65	1326.62	1332.79
Casing height(m)				
SWL(m)*	27.0			24.00
SWL(m)	40.46			
PWL(m)*				
PWL(m)	43.64			
Q(L/s)*				
Q(L/s)	15.80	19.00		
S.C(L/s/m)*	4.19			
S.C(L/s/m)				
Transmissibility (m2/d)*				
Pump Installed Type	Submers.p	Submers.p		
Operation (hour/day)				
Daily production(ML/d)				
E.C(MS/cm)	145	184	250	
Temp.(C)	21	20	19	

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (10/22)

Well No.	PH1	PH2	SK1	Balaju
Owner/Location	NWSC	NWSC	NWSC	NWSC
Date drilled	Oct,31'76	Feb.12'77	Dec.30'83	Aug.24'76
Use	Municipal	Municipal	Municipal	Municipal
Drilling depth(m)	212.24	90.9	104.63	201.22
Well depth(m)	175	90		
Casing dia.(mm)	300	300		300
	250	250		250
Casing dep.(m)	33.83	25		28
	175	90		
Screen dep.(m)	74-172	36-58		81-85
		65-83		101-140
Elevation(m)		1250.98		1298.49
Casing height(m)				
SWL(m)*			Selfflowing	
SWL(m)	Selfflowing	2.64	1.01	Selffowing
PWL(m)*				
PWL(m)				
Q(L/s)*				
Q(L/s)	10.00	33.30		
S.C(L/s/m)*				
S.C(L/s/m)				
Transmissibility (m2/d)*				
Pump Installed	Submers.p	Submers.p		Submers.p
Type				
Operation (hour/day)			Abandoned	
Daily production(ML/d)				
E.C(MS/cm)	330	567		280
Temp.(C)	21	21		19

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (11/22)

Well No.	WHO5A	WHO7	P1	P2
Owner/Location	NWSC	NWSC	BID1	BID2
Date drilled	Mar,8'72	May.3'72	Jul.25'84	Aug.17'84
Use	Monitoring	Monitoring	Industry	Industry
Drilling depth(m)	39.0	166.9	72.18	276.90
Well depth(m)	39.0	154.8	21.58	36.10
Casing dia.(mm)	50	150	250	200
Casing dep.(m)	39.0	154.8	21.58	32.5
Screen dep.(m)	20-40	20.7-60.2 75.6-100 142.6-154.8	4.73-7.4 10.4-18.5	7.8-13.8 17-32.5
Elevation(m)	1332.4	1358.8		
Casing height(m)				
SWL(m)*	21.17			5.65
SWL(m)	23.61	14.80		6.64
PWL(m)*				
PWL(m)			3.0	
Q(L/s)*				
Q(L/s)				
S.C(L/s/m)*				
S.C(L/s/m)				
Transmissibility (m2/d)*				
Pump Installed Type			Centrif.P	Centrif.P
Operation (hour/day)			24	
Daily production(ML/d)				
E.C(MS/cm)		84	260	260
Temp.(C)		21	18	20

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (12/22)

Well No.	P3	P4	P5	P6
Owner/Location	Cocacola	Kathmandu hatchery	Maharajganj	Teaching hospital
Date drilled	1984	Jul.10'85	Mar.27'88	1985
Use	Industry		Domestic	Domestic
Drilling depth(m)		140	150	
Well depth(m)	253.5	140	150	
Casing dia.(mm)	200 100	250 150	150 100	
Casing dep.(m)	60 253.5	41 140	44 150	
Screen dep.(m)	206-253	90-137	66-72 90-108 135-141 144-150	
Elevation(m)				
Casing height(m)				
SWL(m)*		+0.55	19.10	46.26
SWL(m)		Selfflowing		
PWL(m)*		31.13	25.49	
PWL(m)				
Q(L/s)*		20.33	7.69	5.56
Q(L/s)	2.5			
S.C(L/s/m)*			0.04	
S.C(L/s/m)				
Transmissibility (m2/d)*			40	
Pump Installed	Centrif.P			
Submers.P				
Type				
Operation (hour/day)	1-24	24		4
Daily production(ML/d)	0.01-0.2			0.08
E.C(MS/cm)	1400	300		180
Temp.(C)	23	19.5		21

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity.

INVENTORY OF WELLS (13/22)

Well No.	P7	P8	P9	P10
Owner/Location	Kathmandu hotel	British embassy	Indian pesion camp	Hotel Malla
Date drilled	Jul.30'88	1972	Jan.11'87	1975
Use	Domestic	Domestic	Domestic	Domestic
Drilling depth(m)	250		260	
Well depth(m)	250	219	260	277
Casing dia.(mm)	200	200	150	200
	150		100	100
Casing dep.(m)	60		50	61
	250		260	277
Screen dep.(m)	160-172		209-227	205-214
	178-196		233-257	220-226
				246-266
Elevation(m)				
Casing height(m)				
SWL(m)*	41.60	8.23	13.75	4.6
SWL(m)				
PWL(m)*	44.08		21.06	
PWL(m)				
Q(L/s)*	4.42		11.11	
Q(L/s)				
S.C(L/s/m)*			0.04	
S.C(L/s/m)				
Transmissibility (m2/d)*	164		329	
Pump Installed				
Type				
Operation (hour/day)	6-8	5		6
Daily production(ML/d)		0.034		0.072
E.C(MS/cm)				680
Temp.(C)				

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (14/22)

Well No.	P11	P12	P13	P14
Owner/Location	Armitcampus (sience)	Hotel Bajra	Hotel Annapurna	Hotel Yaku&Yeti
Date drilled	1978	1981	1976	1975
Use	Domestic	Domestic	Domestic	Domestic
Drilling depth(m)	245		293	325
Well depth(m)	241	66.8		226
Casing dia.(mm)	200 100	200	250 150	150
Casing dep.(m)	61 241		90 293	
Screen dep.(m)	175-178 207-222 225-235 238-241			
Elevation(m)				
Casing height(m)				
SWL(m)*	6.1	21.30	Selfflowing	Selfflowing
SWL(m)	18.7	3.5		
PWL(m)*				
PWL(m)				
Q(L/s)*	3.3	1.26	7.58	5.66
Q(L/s)				
S.C(L/s/m)*				
S.C(L/s/m)				
Transmissibility (m2/d)*				
Pump Installed Type	Turbine.P	Jet.P	Turbine.P	Turbine.P
Operation (hour/day)	6	18	7-10	6
Daily production(ML/d)	0.072	0.04	0.23	0.072
E.C(MS/cm)	480	520	580	440
Temp.(C)	22	22.5	24	24

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (15/22)

Well No.	P15	P16	P17	P18
Owner/Location	Hotel Sherpa	Japanese Ambassador residence	Hotel Soltee Oberoi5	Hotel Soltee Oberoi4
Date drilled	1980		Apr.24'87	Aug. 26'86
Use	Domestic	Domestic	Domestic	Domestic
Drilling depth(m)		176		
Well depth(m)	262	176		
Casing dia.(mm)	200 100			425 150
Casing dep.(m)	64 259			53 305
Screen dep.(m)	190-197 221-224 229-259	131-175	213-219 225-232 243-249 261-297	210-243 270-275 280-300
Elevation(m)				
Casing height(m)				
SWL(m)*	0.76		4.10	6.75
SWL(m)				
PWL(m)*			43.70	30.49
PWL(m)				
Q(L/s)*	10.6	2.0	4.64	34.90
Q(L/s)				
S.C(L/s/m)*			0.12	1.47
S.C(L/s/m)				
Transmissibility (m2/d)*			32	186
Pump Installed Type				
Operation (hour/day)	5			
Daily production(ML/d)	0.19			
E.C(MS/cm)	590		1000	
Temp.(C)	26.5		24	

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (16/22)

Well No.	P19	P20	P21	P22
Owner/Location	HEM Trading	Nirvana vanaspati	Rabi Bhawar	Royal Drugs Ltd.
Date drilled	Oct.20'87	Sep.24'88	Oct.12'60	1978
Use	Domestic	Domestic	Domestic	Domestic
Drilling depth(m)	250	280	272	
Well depth(m)		280		183
Casing dia.(mm)	100	250 200	200	150
Casing dep.(m)	250	60 280		
Screen dep.(m)	214-244	226-250 265-277		
Elevation(m)				
Casing height(m)				
SWL(m)*	9.00	0		
SWL(m)				
PWL(m)*	14.70	66.00		
PWL(m)				
Q(L/s)*	11.11	0.8	1.0	6.25
Q(L/s)				
S.C(L/s/m)*	1.95	0.01		
S.C(L/s/m)				
Transmissibility (m2/d)*	314	1		
Pump Installed				
Type				
Operation (hour/day)			6	2
Daily production(ML/d)			0.022	0.045
E.C(MS/cm)				1200
Temp.(C)				25.5

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (17/22)

Well No.	P23	P24	P25	P26
Owner/Location	Everst Hotel	Tribuwan Airport	Pepsicola No.1	Pepsicola No.2
Date drilled	Jan.24'78	Jul.27'86	Jun.2'86	Oct.2'86
Use	Domestic	Domestic	Industry	Industry
Drilling depth(m)	268.2	35	256	300
Well depth(m)	268.2	35	255	300
Casing dia.(mm)	250	100	250	250
			150	200
				150
Casing dep.(m)	60	35	54	62
	268.2		255	68
				300
Screen dep.(m)	198-201	16-22	191-210	234-296
	205-257	26-35	216-241	
	262-268		249-253	
Elevation(m)				
Casing height(m)				0.4
SWL(m)*	Selfflowing	9.5	7.0	2.55
SWL(m)	15			9.96
PWL(m)*	24	14.36	16.31	14.25
PWL(m)				
Q(L/s)*	18.95	5.0	33.4	44.0
Q(L/s)				
S.C(L/s/m)*		1.03		
S.C(L/s/m)				
Transmissibility (m2/d)*			860	996
Pump Installed Type	Submers.P 25HP		Submers.P	Submers.P
Operation (hour/day)	7-8		4-24	
Daily production(ML/d)	0.51		0.1-0.6	
E.C(MS/cm)	720		520	
Temp.(C)	25		25	

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (18/22)

Well No.	P27	P28	P29	P30
Owner/Location	SOS	UCEP thimi	Hotel Himalaya	Hotel Narayani
Date drilled	1983	Jul.1982	1985	1986
Use	Domestic	Domestic	Mar,10'85	Domestic
Drilling depth(m)	253	213	218	60
Well depth(m)	253			
Casing dia.(mm)	250		218	100
	150	250	250	
		150	150	
Casing dep.(m)	60	60	58.5	
	253	213	218	
Screen dep.(m)	209-239	100-111	175-218	
	244-253	188-213		
Elevation(m)				
Casing height(m)			0.3	
SWL(m)*	14.1	3.0	5.1	
SWL(m)			11.4	
PWL(m)*				
PWL(m)				
Q(L/s)*				
Q(L/s)	1.94	3.33	15	
S.C(L/s/m)*				
S.C(L/s/m)				
Transmissibility (m2/d)*				
Pump Installed Type	Submers.P	Submers.P	Submers.P 13.5HP	Submers.P
Operation (hour/day)	5	5	10	4
Daily production(ML/d)	0.035	0.06	0.43	0.0048
E.C(MS/cm)	320		980	
Temp.(C)	21		25	

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (19/22)

Well No.	P31	P32	P33	P34
Owner/Location	Horticulture Farm	Pashupati Tixtile	Jawlakhel Distillery	Narayan Bhawan
Date drilled		1989	1978	Dec.1979
Use	Domestic	Industry	Industry	Domestic
Drilling depth(m)	277.2	220	160	219
Well depth(m)	277	205.59	159	218
Casing dia.(mm)	300	150	200	250
	150		100	100
Casing dep.(m)	45	205.59	105	59
	277		159	218
Screen dep.(m)	102-106	132-205	112-159	177-193
	213-219			200-218
	230-233			
	242-277			
Elevation(m)				
Casing height(m)				
SWL(m)*		2.93	22.0	6.1
SWL(m)	0			
PWL(m)*		40.34		
PWL(m)	12.15			
Q(L/s)*		1.24	1.0	
Q(L/s)	0.4			
S.C(L/s/m)*				
S.C(L/s/m)				
Transmissibility (m2/d)*				
Pump Installed Type		Submers.P 3HP	Submers.P	
Operation (hour/day)			7	
Daily production(ML/d)				0.028
E.C(MS/cm)	660	1300	580	
Temp.(C)	23	21	25	

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (20/22)

Well No.	P35	P36	P37	DMG1
Owner/Location	Himal cement No.1	Himal cemnet No.2	Interknit	DMG gas project
Date drilled	Oct.26'86	May.10'87	Jul.27'87	Jan.11'87
Use	Industry	Industry	Industry	Gassupply
Drilling depth(m)	153	90	370	260
Well depth(m)	153	90	370	260
Casing dia.(mm)	250	150	250	150
			150	100
Casing dep.(m)	48	90	50	50
	153		370	260
Screen dep.(m)	119-148	62-90	173-187	209-227
			270-282	233-257
			312-342	
			354-360	
Elevation(m)				
Casing height(m)				
SWL(m)*	Selfflowing	1.5	22.50	13.75
SWL(m)				
PWL(m)*	21.95	17.05	43.51	21.06
PWL(m)				
Q(L/s)*	21.17	20.3	2.38	11.11
Q(L/s)				
S.C(L/s/m)*				
S.C(L/s/m)				
Transmissibility (m2/d)*	25	108	6	
Pump Installed				
Type				
Operation (hour/day)				
Daily production(ML/d)				
E.C(MS/cm)				
Temp.(C)				

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (21/22)

Well No.	DMG2	DMG3	DMG4	DMG5
Owner/Location	DMG gas project	DMG gas project	DMG gas project	DMG gas project
Date drilled	1984	1983	Jun.9'86	Jul.7'86
Use	Gassupply	Gassuply	Gassuply	Gassuply
Drilling depth(m)	302	302	300	450.5
Well depth(m)	298.7	300.85	300	450
Casing dia.(mm)	150 100	150	100	150 100
Casing dep.(m)	66.22 298.77	300.85	300	100 450
Screen dep.(m)	190-201 207-229 235-246 257-296	171-174 180-189 191-216 220-227 234-253 258-297	190-196 201-204 209-229 234-253 265-282 286-299	298-338 345-354 364-424 430-450
Elevation(m)		1279	1285.18	
Casing height(m)				
SWL(m)*			+0.50	+0.65
SWL(m)				
PWL(m)*			42.0	
PWL(m)				
Q(L/s)*	5.6	11.11	4.42	
Q(L/s)				
S.C(L/s/m)*				
S.C(L/s/m)				
Transmissibility (m2/d)*				
Pump Installed				
Type				
Operation (hour/day)				
Daily production(ML/d)		1100	880	1000
E.C(MS/cm)				
Temp.(C)		25	26	25

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

INVENTORY OF WELLS (22/22)

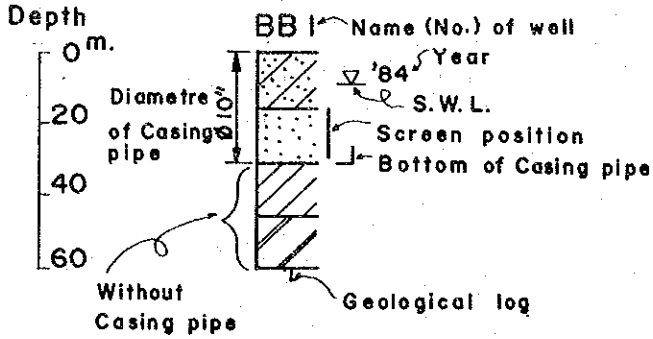
Well No.	DMG6	DMG7	DMG8
Owner/Location	DMG gas project	DMG gas project	DMG gas project
Date drilled	1988	1988	1988
Use	Gassupply	Gassuply	Gassuply
Drilling depth(m)	570.13	358.80	455.31
Well depth(m)	552	355	444
Casing dia.(mm)	150 100	150 100	150
Casing dep.(m)	100 570	105 355	444
Screen dep.(m)	176-179 202-238 246-266 277-279 294-339 360-370 380-400 440-470 482-490 520-550	186-214 216-228 236-254 260-280 297-339	183-230 244-360 388-443
Elevation(m)	1293.5	1279	
Casing height(m)			
SWL(m)*	+6.0		
SWL(m)			
PWL(m)*			
PWL(m)			
Q(L/s)*			
Q(L/s)			
S.C(L/s/m)*			
S.C(L/s/m)			
Transmissibility (m2/d)*			
Pump Installed			
Type			
Operation (hour/day)			
Daily production(ML/d)			
E.C(MS/cm)		810	
Temp.(C)		26	

Note;*:Pumping test data at year drilled, SWL:Static Water Level, PWL:Pumping Water Level, Q:Discharge rtae,S.C:Specific Capacity, E.C:Electric Conductivity

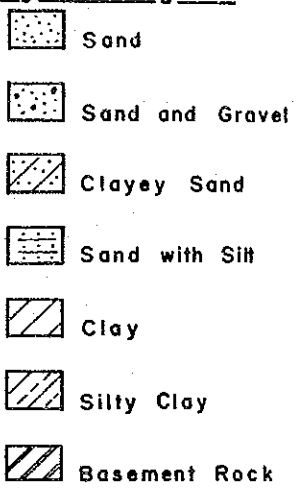
C-3 WELL LOGS

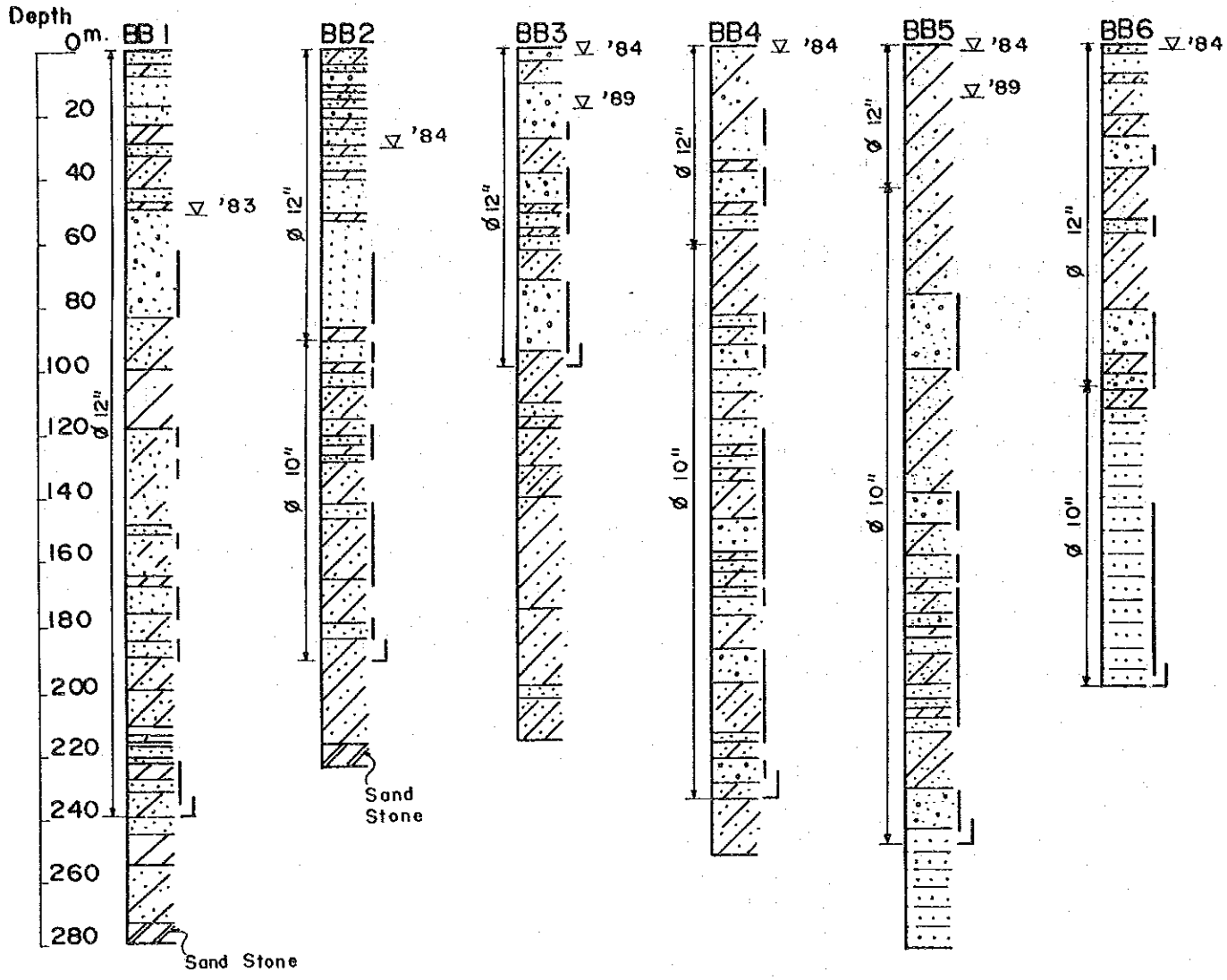
LEGEND

WELL or BORING



Geological Legend

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Sand Stone
BB2
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Sand Stone
BB3
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BB4
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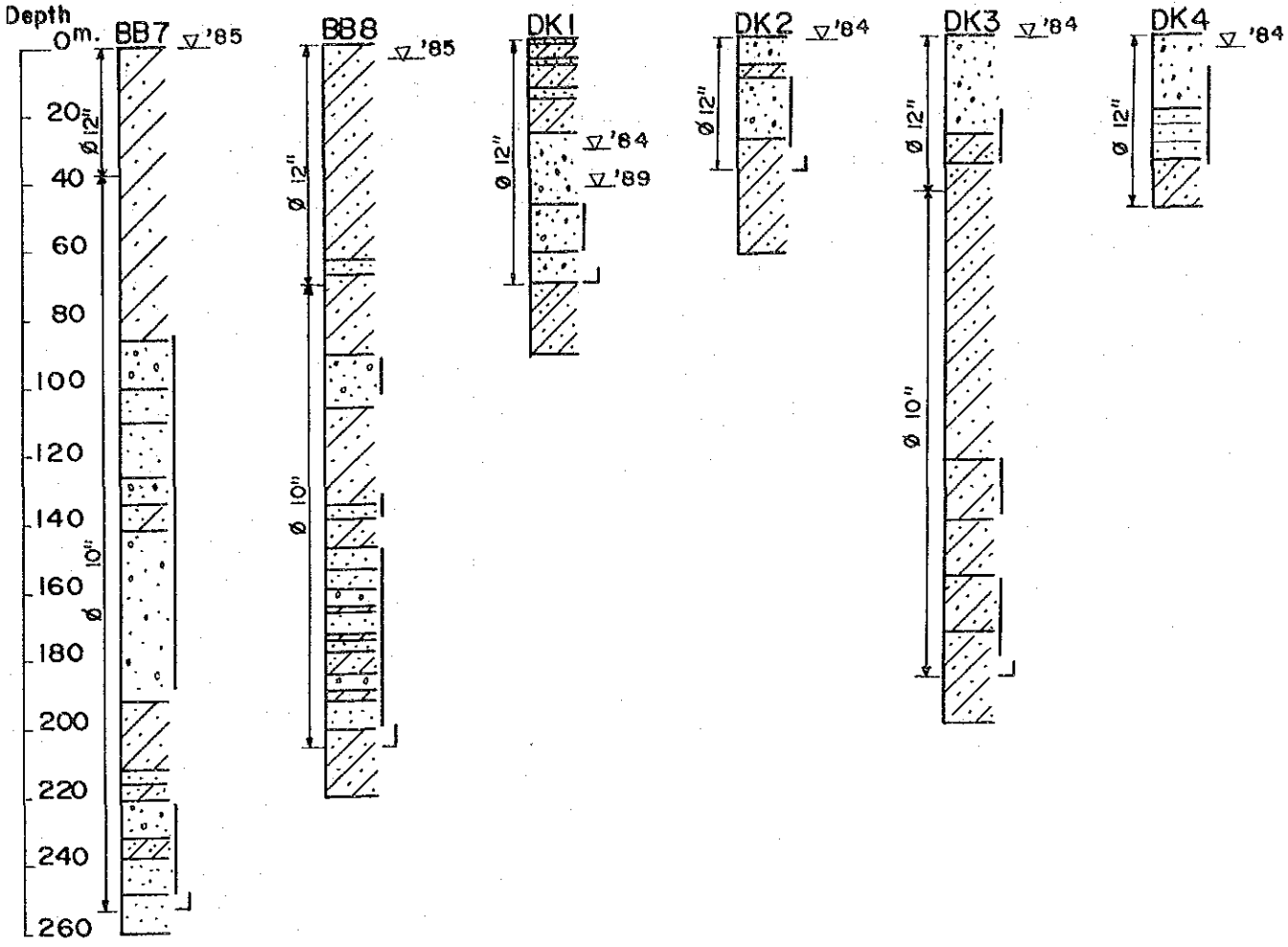
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BB8
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Ø 10"
DK1
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DK4
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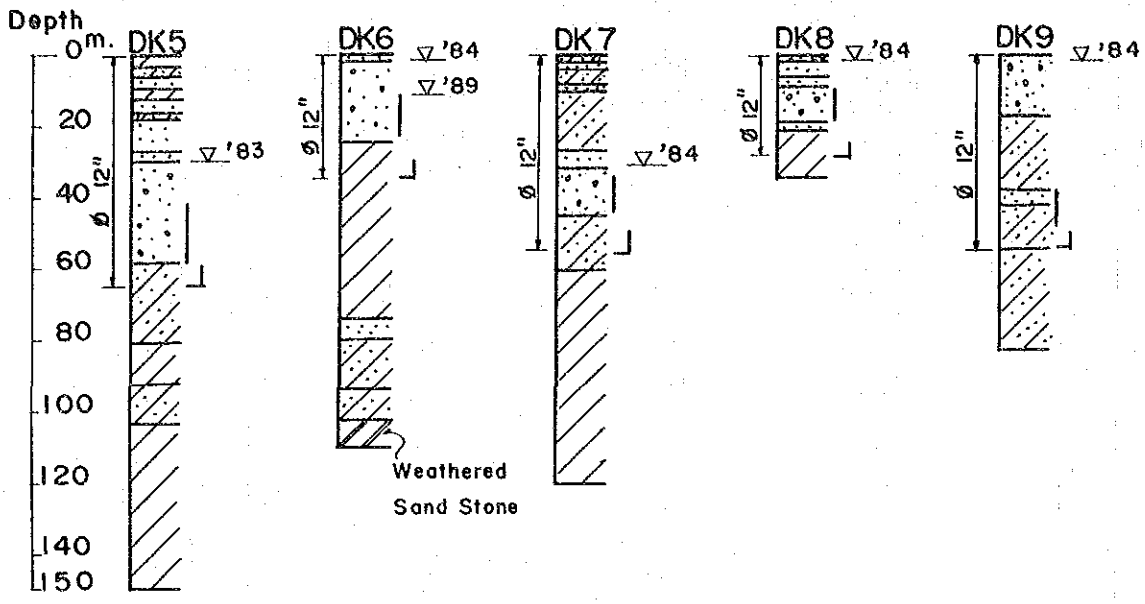
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DK8
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DK9
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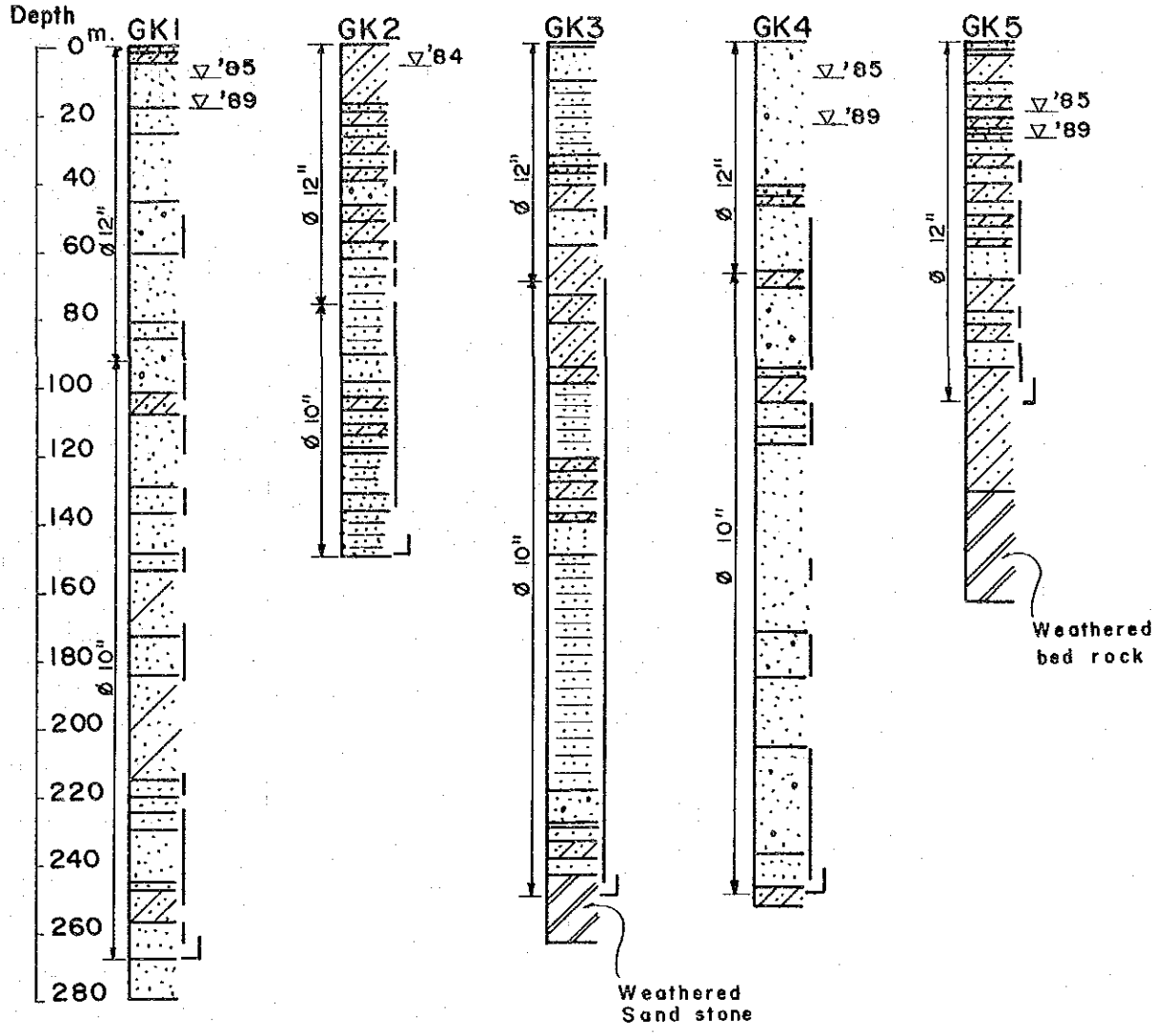
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Ø 10"
GK2
▽'84
Ø 12"
Ø 10"
GK3
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Ø 10"
Weathered
Sand stone
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GK5
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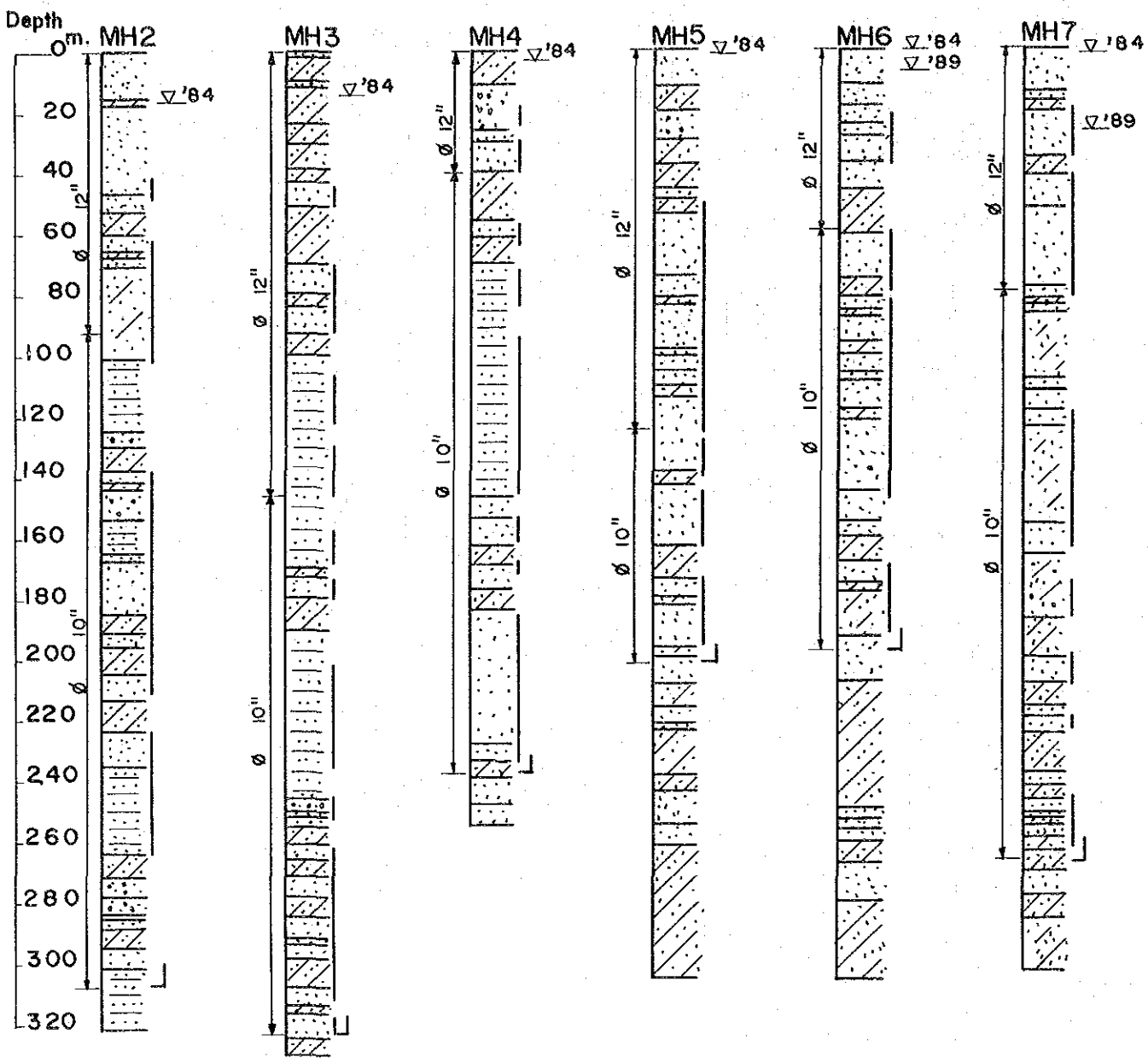
Weathered
bed rock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MH7
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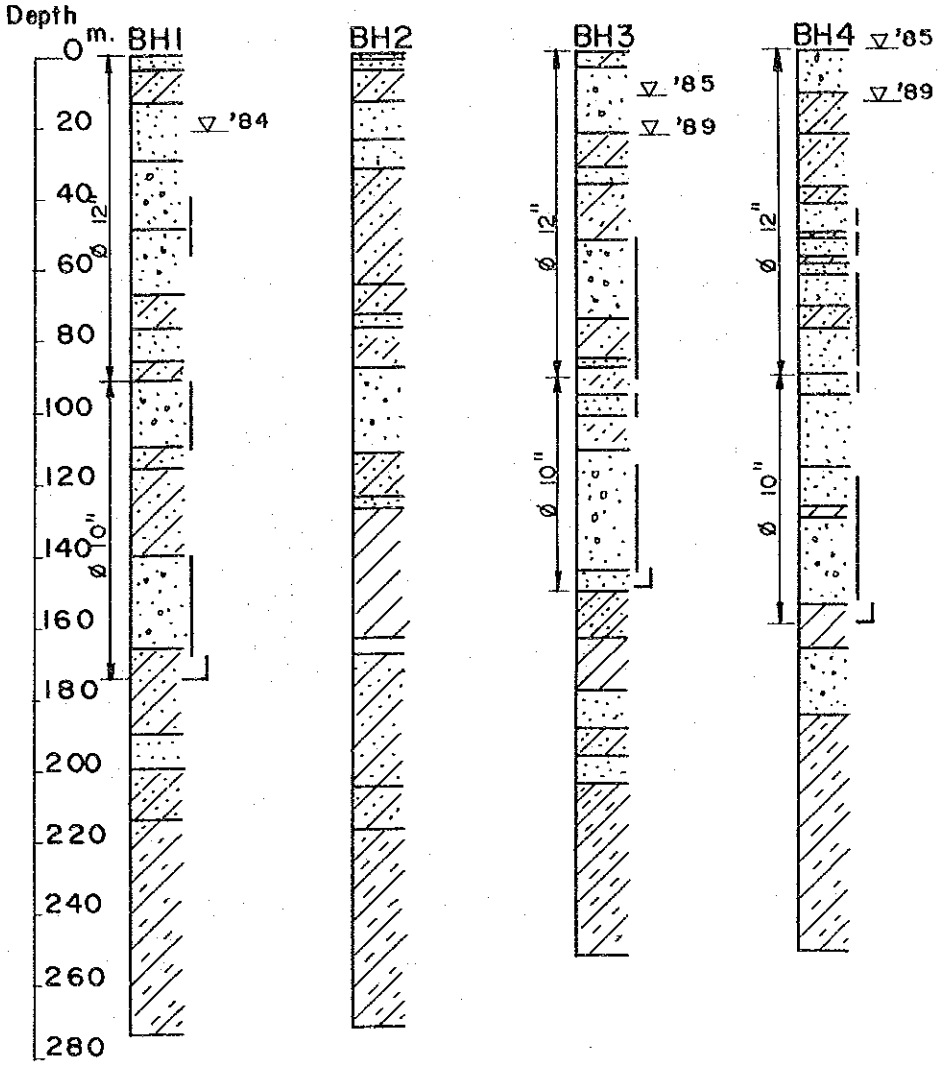
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BH4
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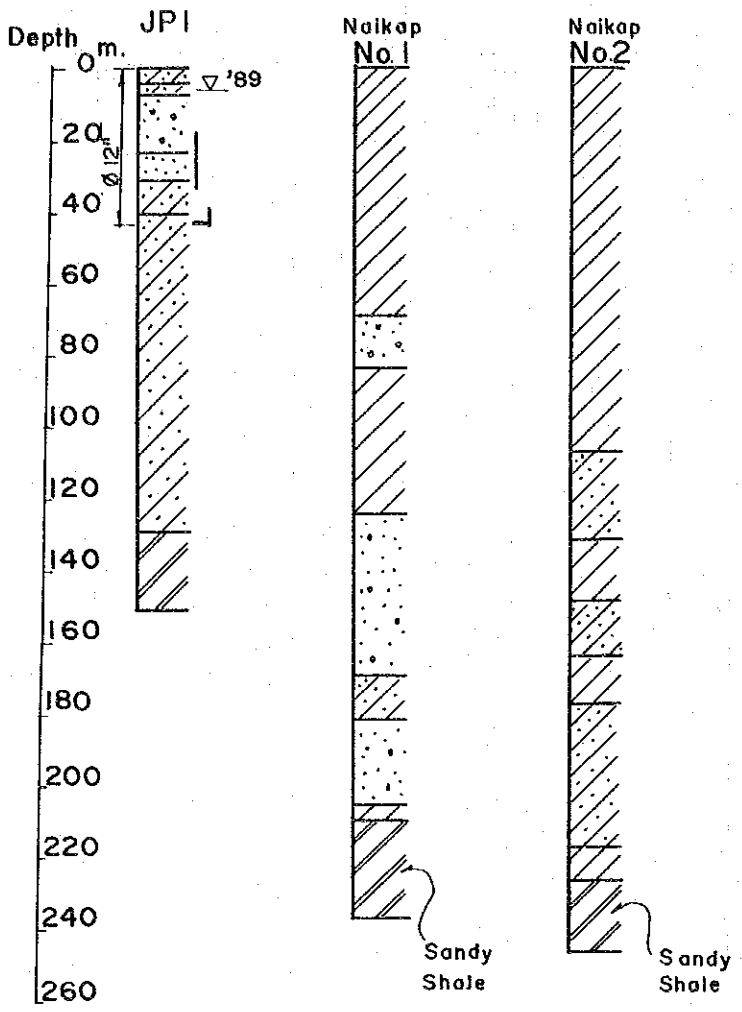
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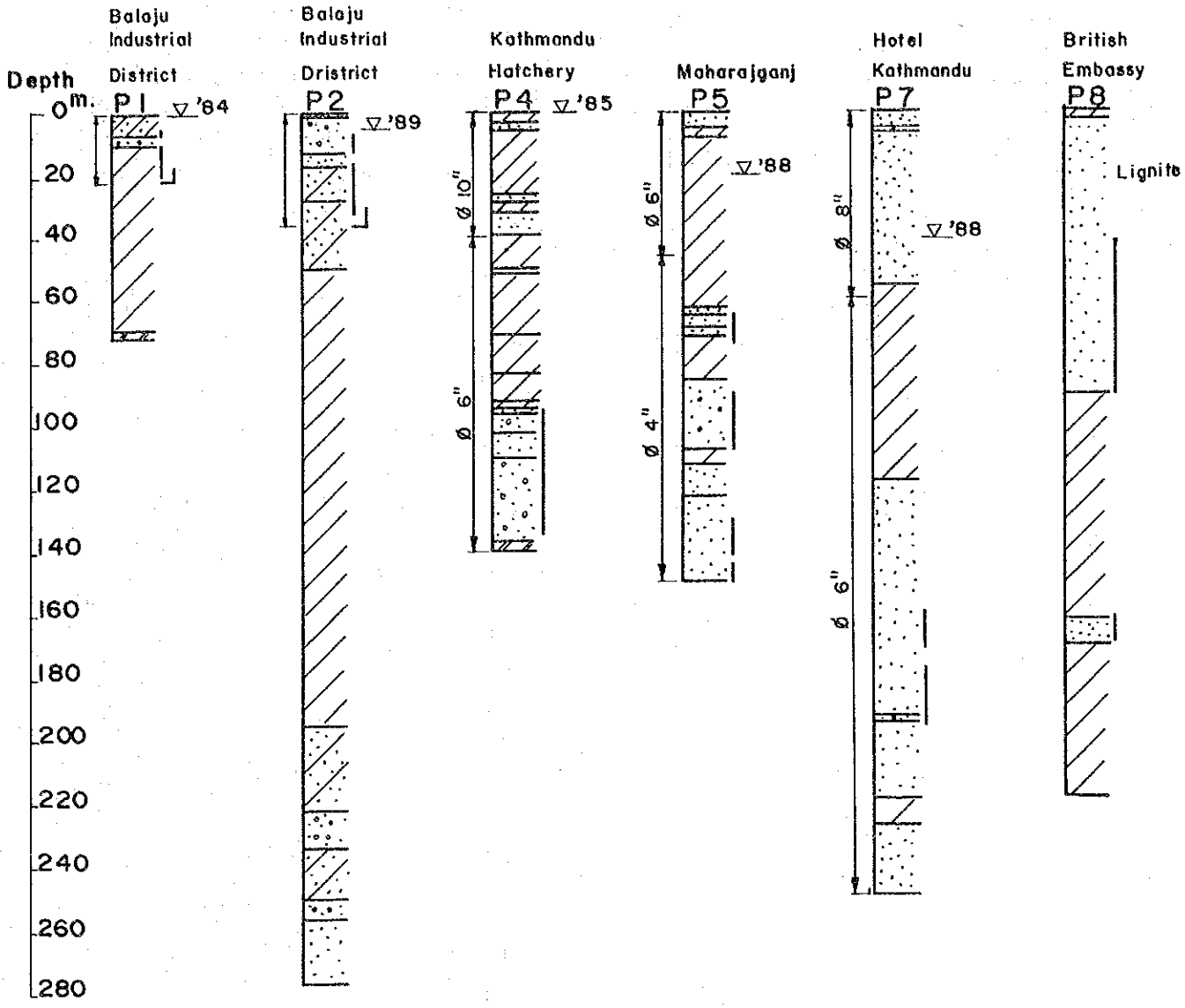
Naikap
No.2
Sandy
Shale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District
P1
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P2
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Kathmandu
Hatchery
P4
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Ø 6"
Maharajganj
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Hotel
Kathmandu
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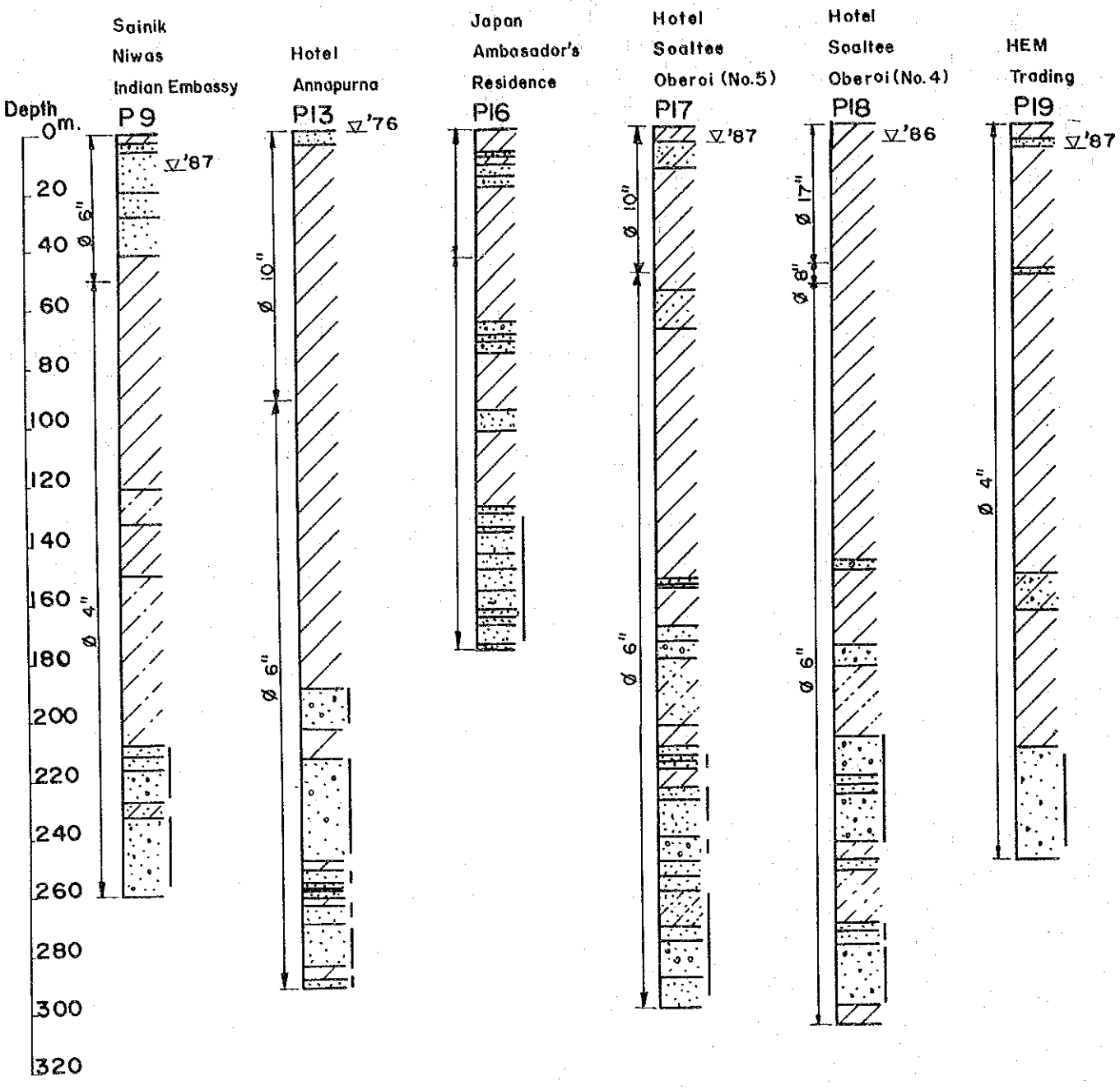
British
Embassy
P8
Lignite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P9
▽'87
Ø 6"
Ø 4"
Hotel Annapurna
P13
▽'76
Ø 10"
Ø 6"
Japan Ambasador's Residence
P16
Hotel Soaltee Oberoi (No.5)
P17
▽'87
Ø 10"
Ø 6"
Hotel Soaltee Oberoi (No.4)
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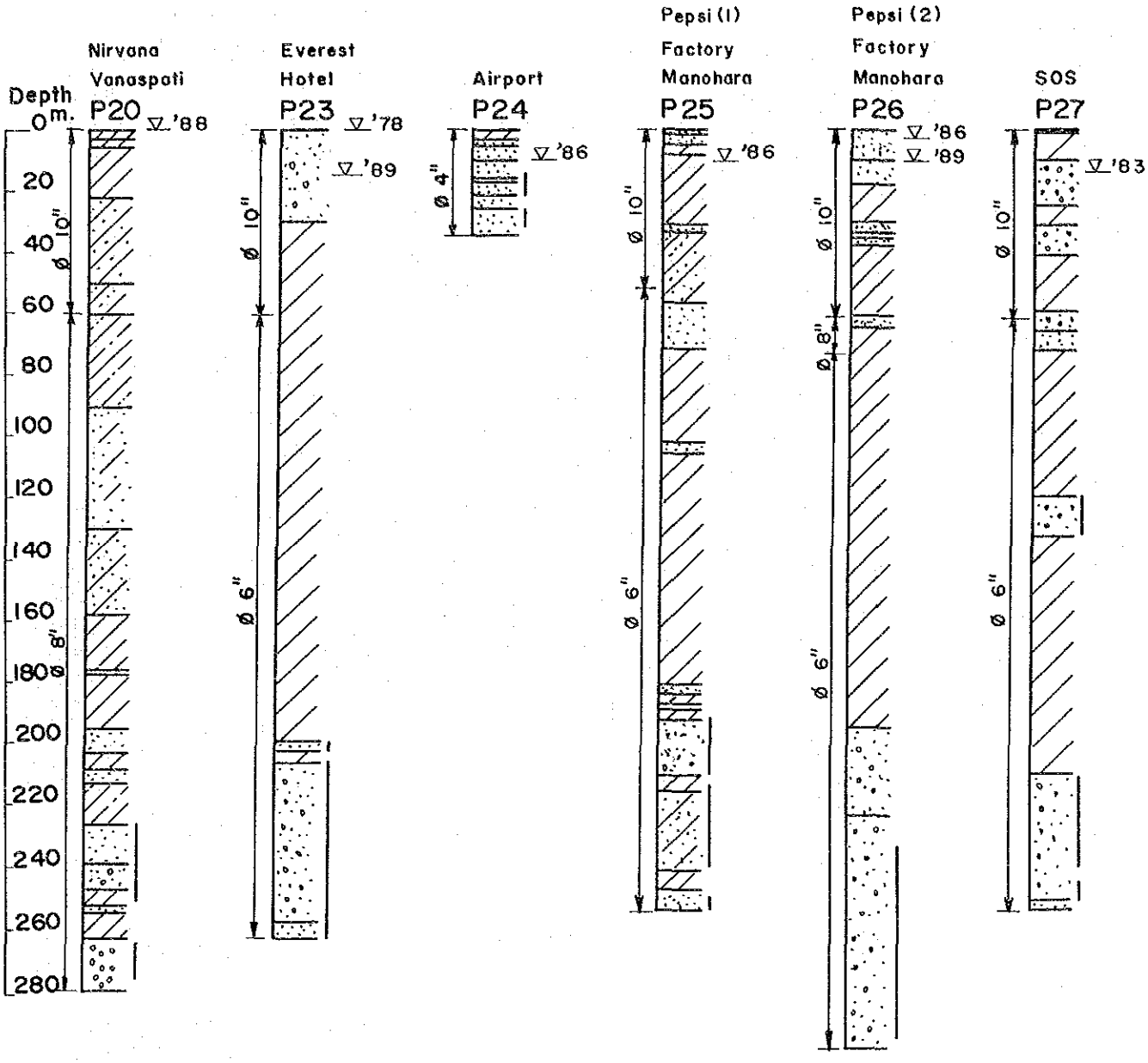
▽'86
Ø 17"
Ø 8"
Ø 6"
HEM Trading
P19
▽'87
Ø 4"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Vanaspati
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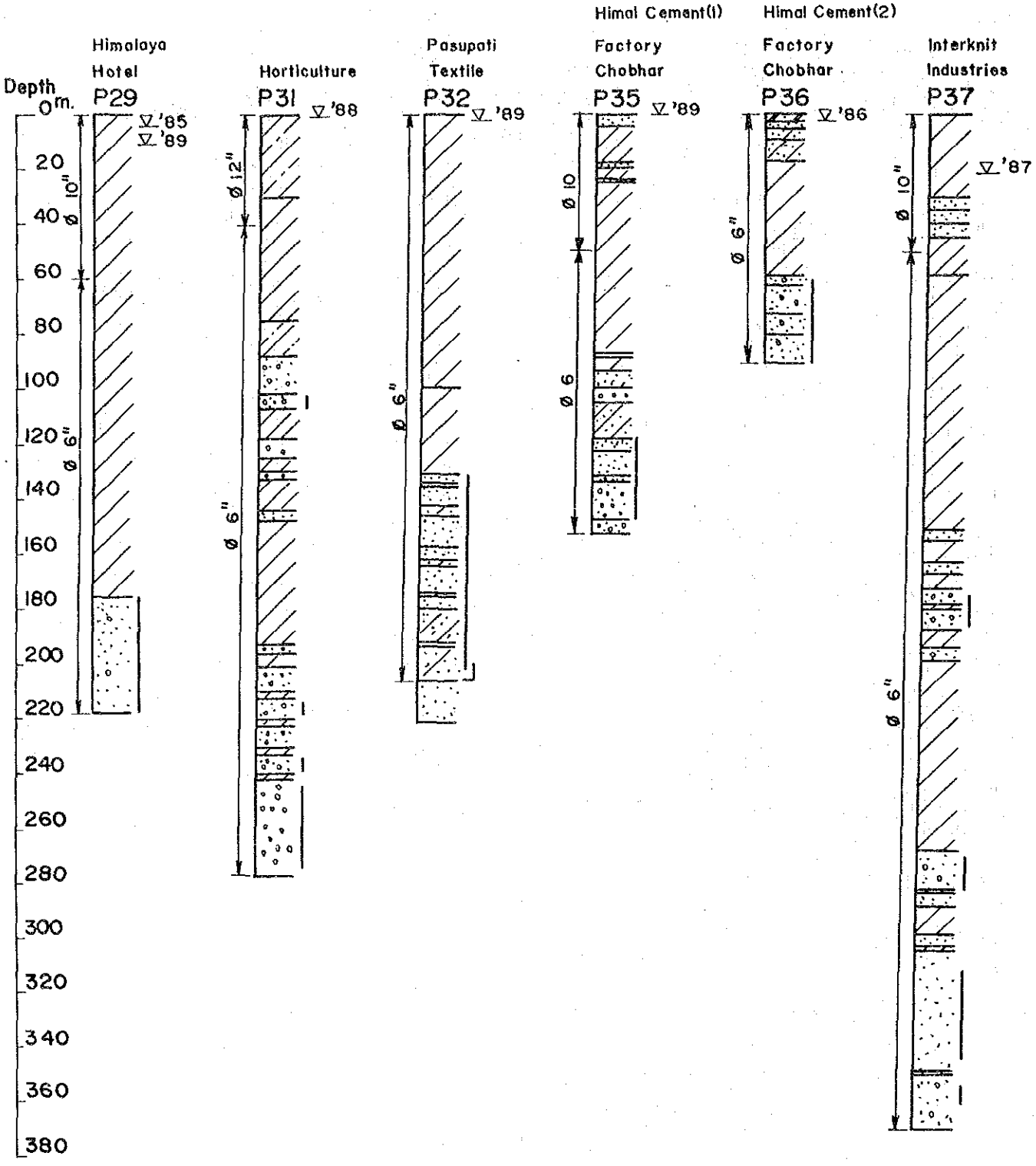
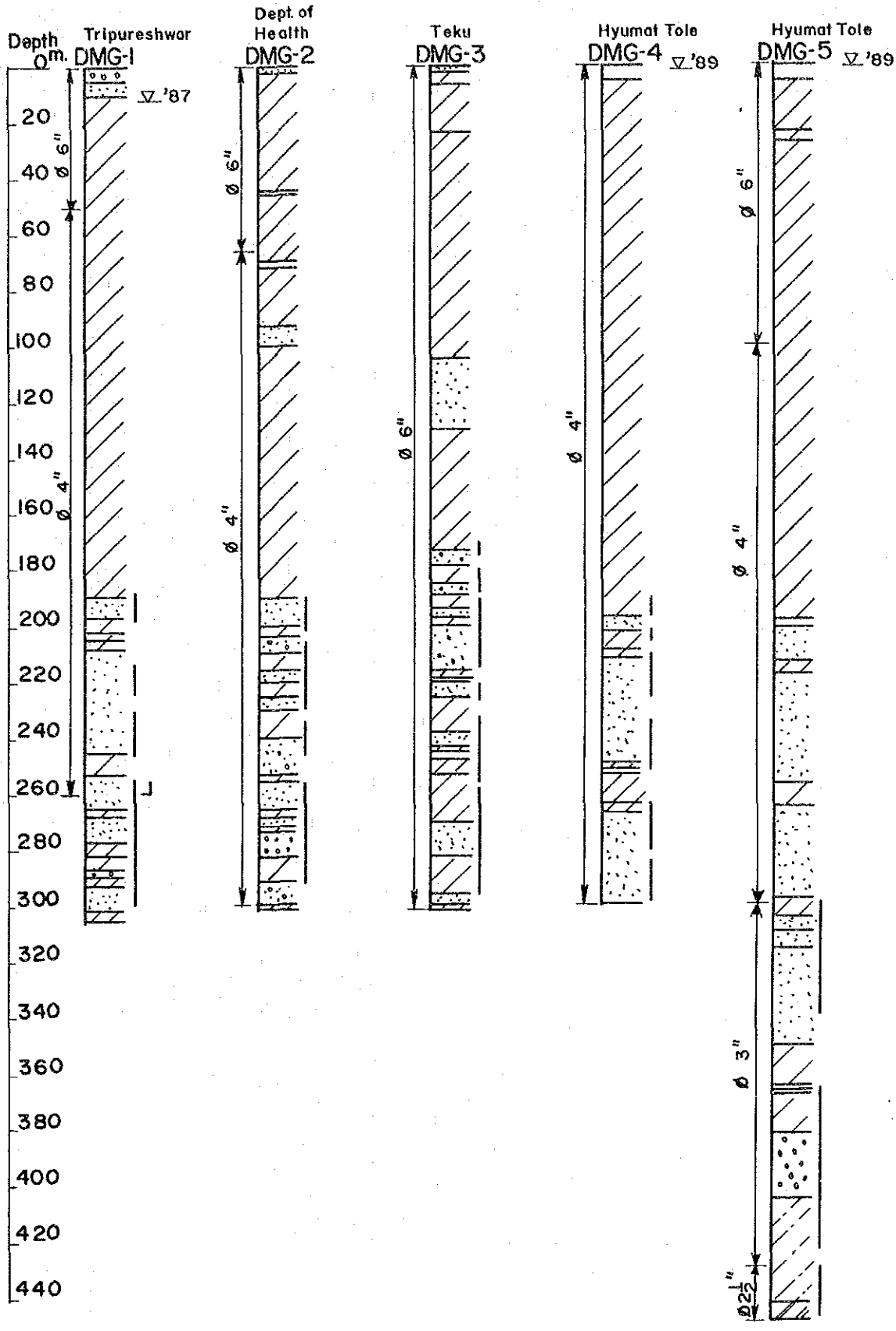
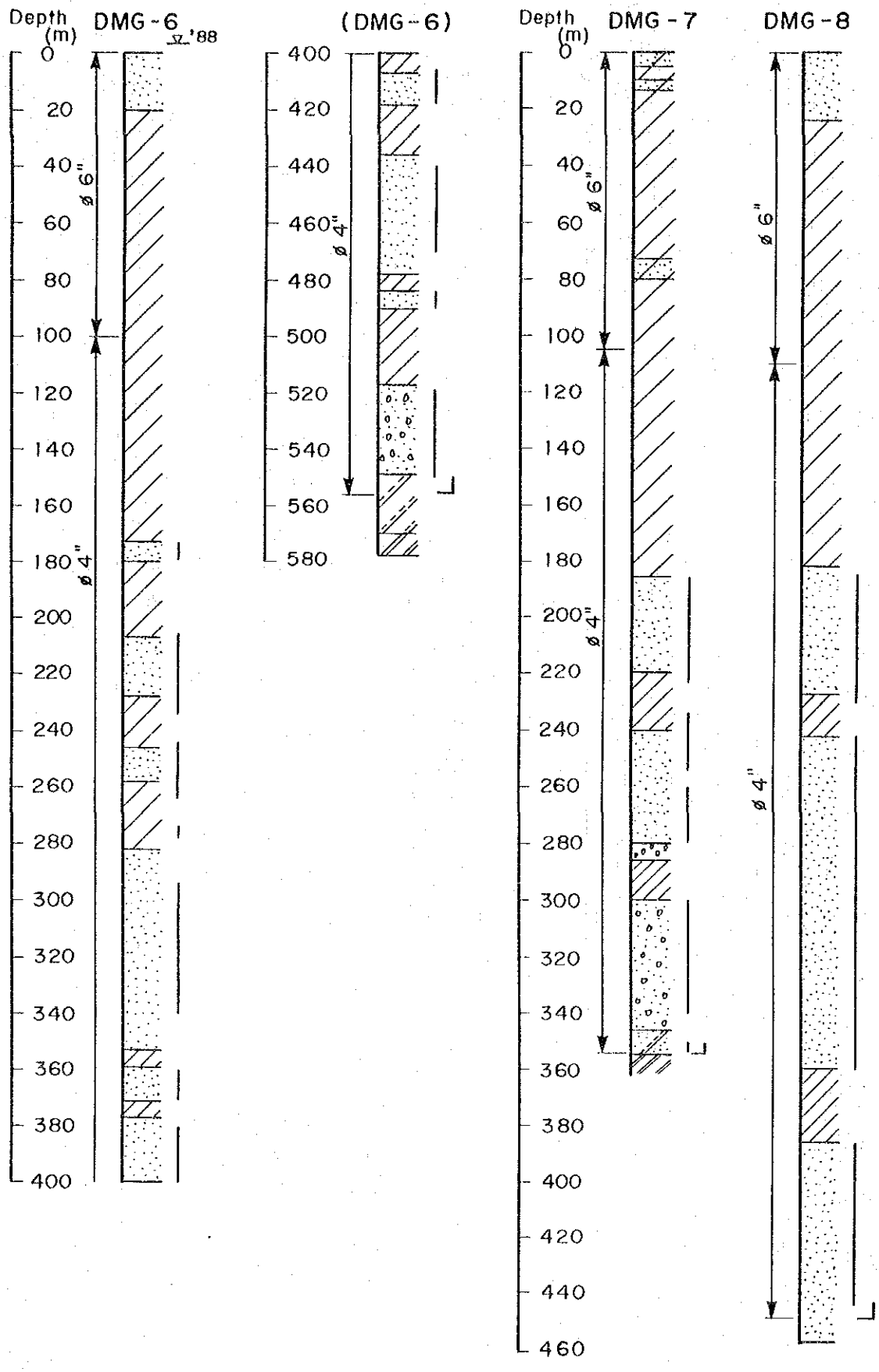
Ø 8"
Everest
Hotel
P23
'78
'89
Ø 10"
Ø 6"
Airport
P24
'86
Ø 4"
Pepsi (1)
Factory
Manohara
P25
'86
Ø 10"
Ø 6"
Pepsi (2)
Factory
Manohara
P26
'86
'89
Ø 10"
Ø 8"
Ø 6"
SOS
P27
'83
Ø 10"
Ø 6"


Depth
0 m.
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
Himalaya
Hotel
P29
▽'85
▽'89
Ø 10"
Ø 6"
Horticulture
P31
▽'88
Ø 12"
Ø 6"
Pasupati
Textile
P32
▽'89
Ø 6"
Himal Cement(1)
Factory
Chobhar
P35
▽'89
Ø 10
Ø 6
Himal Cement(2)
Factory
Chobhar
P36
▽'86
Ø 6"
Interknit
Industries
P37
▽'87
Ø 10"
Ø 6"

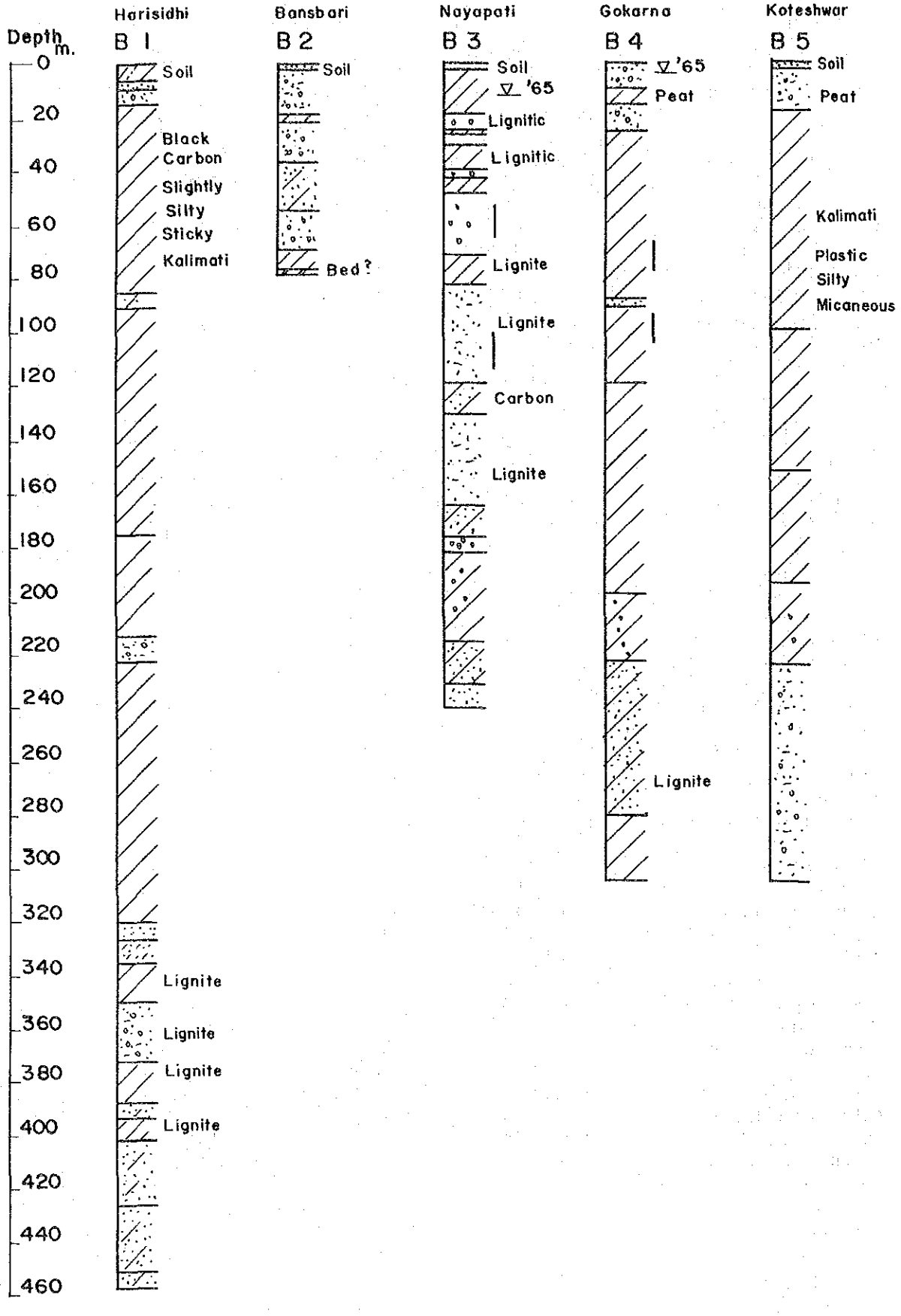

Depth
0 m.
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
Tripureshwar
DMG-1
▽ '87
Ø 6"
Ø 4"
Dept. of
Health
DMG-2
Ø 6"
Ø 4"
Teku
DMG-3
Ø 6"
Hyumat Tole
DMG-4
▽ '89
Ø 4"
Hyumat Tole
DMG-5
▽ '89
Ø 6"
Ø 4"
Ø 3"
Ø 2½"

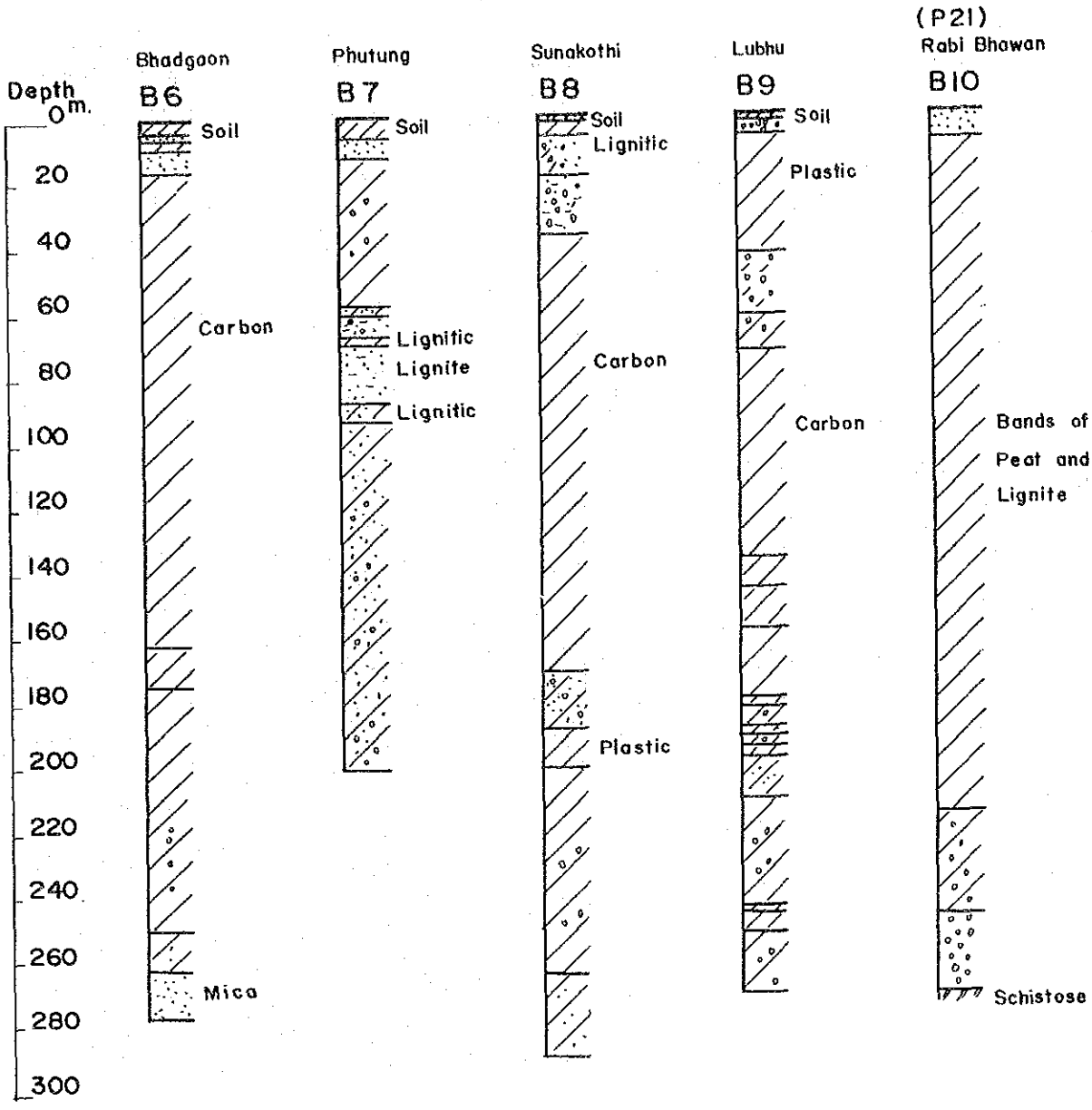

Depth (m)
DMG-6
立'88
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
ø 6"
ø 4"
(DMG-6)
400
420
440
460
480
500
520
540
560
580
ø 4"
Depth (m)
DMG-7
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
ø 6"
ø 4"
DMG-8
ø 6"
ø 4"

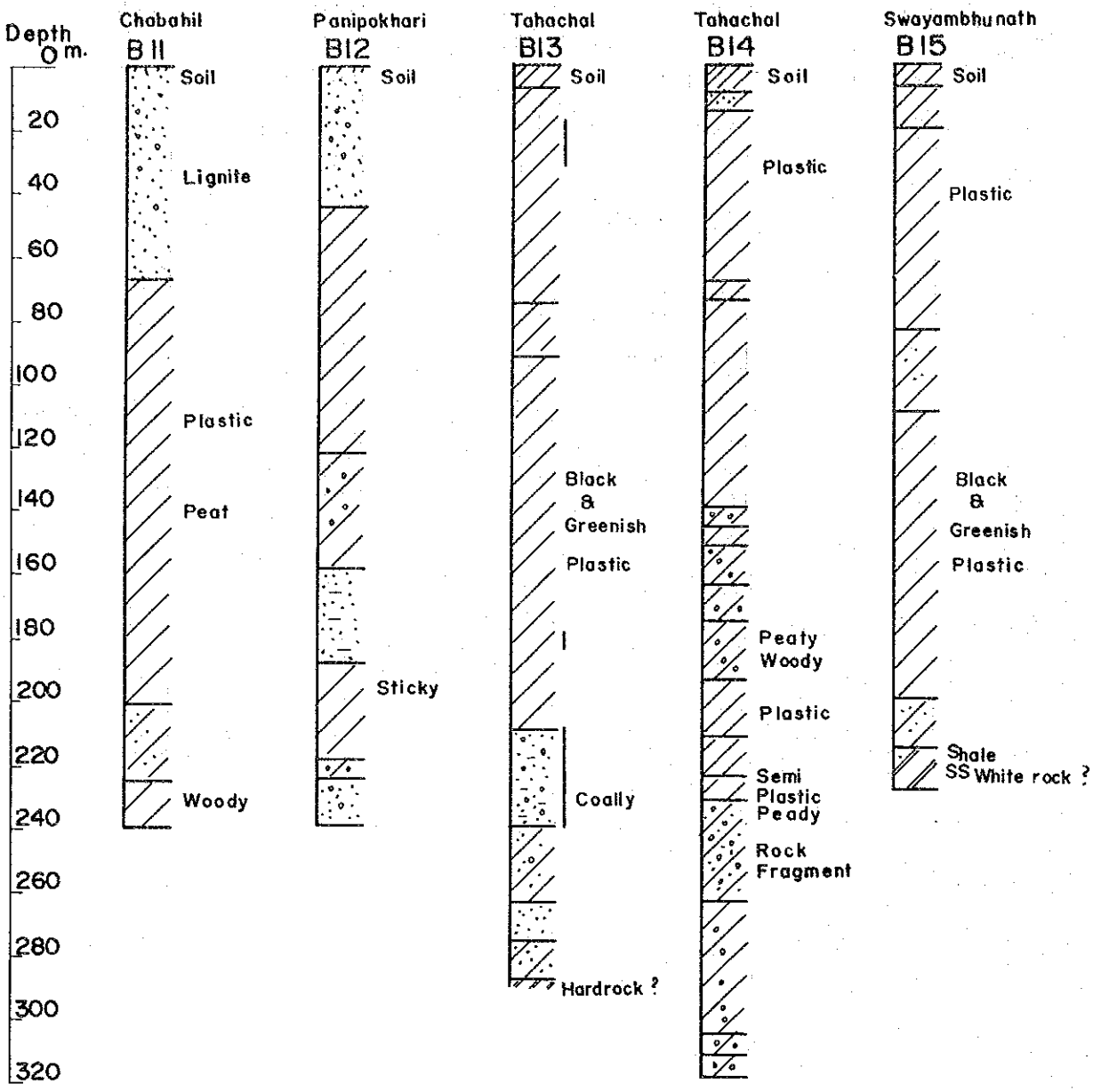
C-4 BOREHOLE LOGS

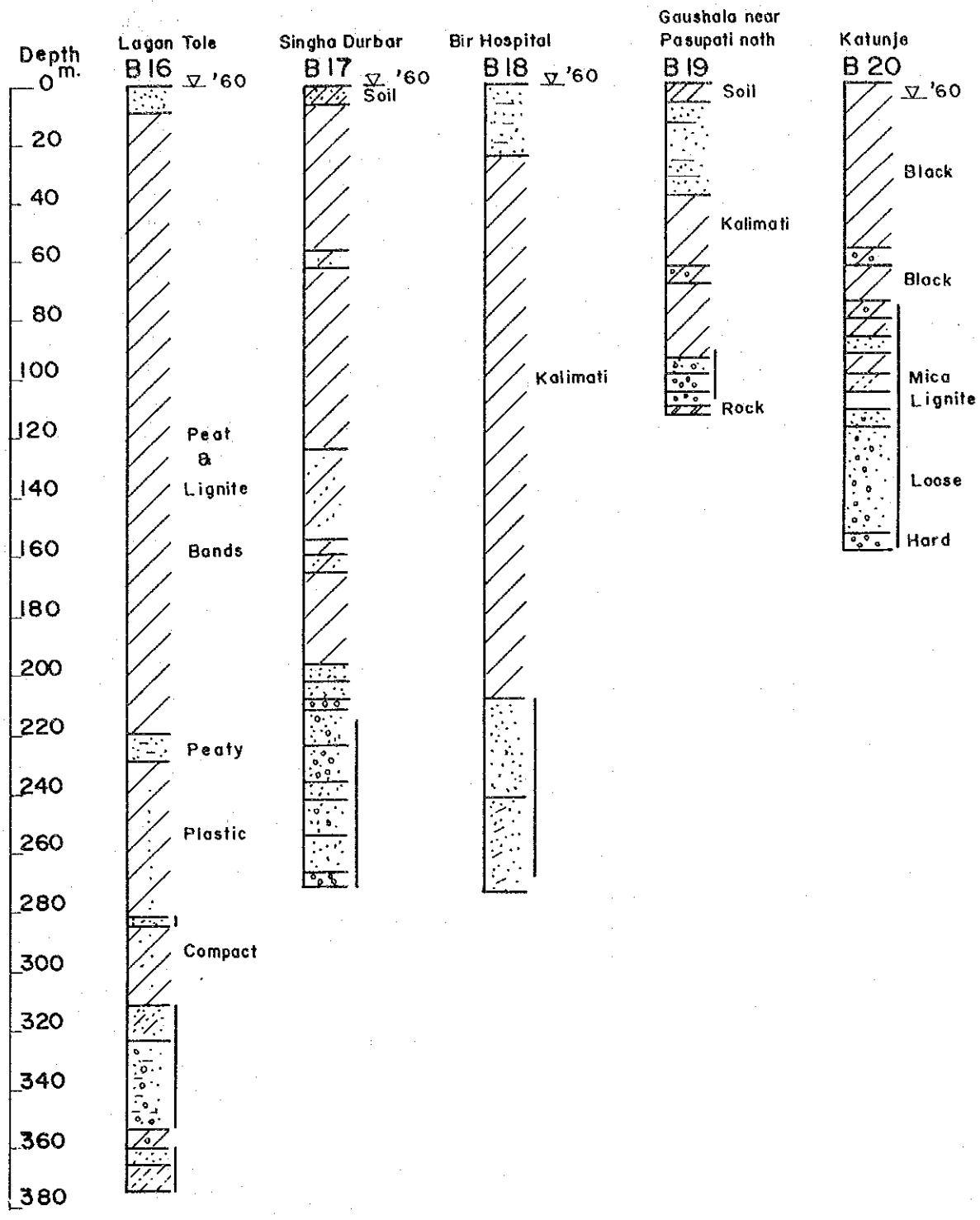
LIST OF BOREHOLE

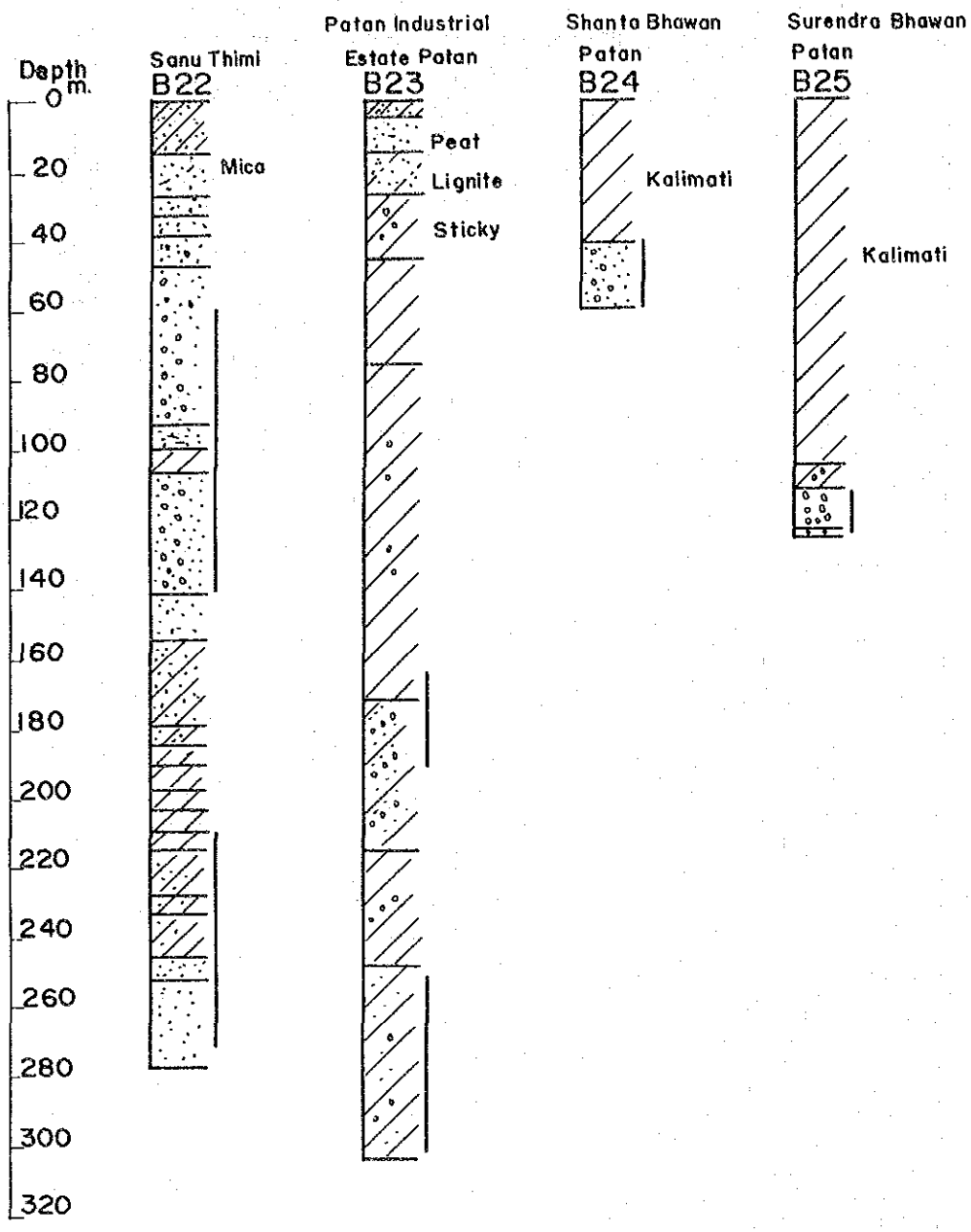
No.	Location	Drilling Date	Drilling Depth (m)	Elevation (a.s.l.m)	Drilled by
B1	Harisidhi	Jan.5.65	457.20	1353.11	GSI
B2	Bansbari	Jan.28'65	79.25	1340.0	"
B3	Nayapati	Feb.23'65	241.14	1346.2	"
B4	Gokarna	Mar.14'65	305.1	1317.7	"
B5	Koteshwar	Mar.28'65	305.1	1307.7	"
B6	Bhadgaon		277.67		"
B7	Phauting	July.16'65	201.61		"
B8	Sunakothi	Aug.3'65	290.78		"
B9	Labhu	Sep.3'65	271.57		"
B10	Rabi Bhawan	Oct.12'60	272.0	Irrigation Dep.	
B11	Chabhill	Jun.20'60	240.0		"
B12	Pani Pokhari	Jun.24'60	239.0		"
B13	Tahachal	Nov.3'60	300.0		"
B14	"	Nov.21'60	319.0		"
B15	Swyambunath	Oct.28'60	229.0		"
B16	Logan Toll	Aug.26'60	376.0		"
B17	Singha Durbar		273.31		"
B18	Bir Hospital		274.31		"
B19	Gaushala near Pashupatinath		113.38		"
B20	Katunje		160.0		"
B22	Sanu Thimi		278.28		"
B23	Patan Industrial Estate	Nov.14'63	304.19		"
B24	Shanta Bhawan		60.04		"
B25	Surendra Bhawan		123.0		"
WH01	Golphutar	Nov.5'71	160.5	1326,10	WHO
WH02	Tigni	Dec.11'71	146.0		"
WH02a	"	Dec.14'71	109.8		"
WH03	Bansbari	Feb.16'72	112.2		"
WH03a	"	Feb.14'72	94.5		"
WH05	Thimi	Feb.28'72	141.9	1332.79	"
WH05a	"	Mar.1'72	38.8	1332.49	"
WH06	Gokarna	Apr.10'72	129.5	1336.32	"
WH07	Sundarijal	May.3'72	166.9	1358.85	"
WH07a	"	May.2'72	123.3	"	"
WH08	Bungmati	July.12'72	360.0	"	"
WH09	Bramhakel	Jun.5'72	215.6	"	"
OW3	Nayapati		184.7		"
OW4	Alapot Bhadaa Bas	Oct.'73	239.8		"
OW7	Budhanilkanth	Jun.'73	120.8	1389.58	"
OW8	Pasikhel	Aug.'73	126.8		"
OW9	Alapot	Jan.'74	184.0	1389.58	"
OW10	Sankhu	July'73	126.8	1347.22	"

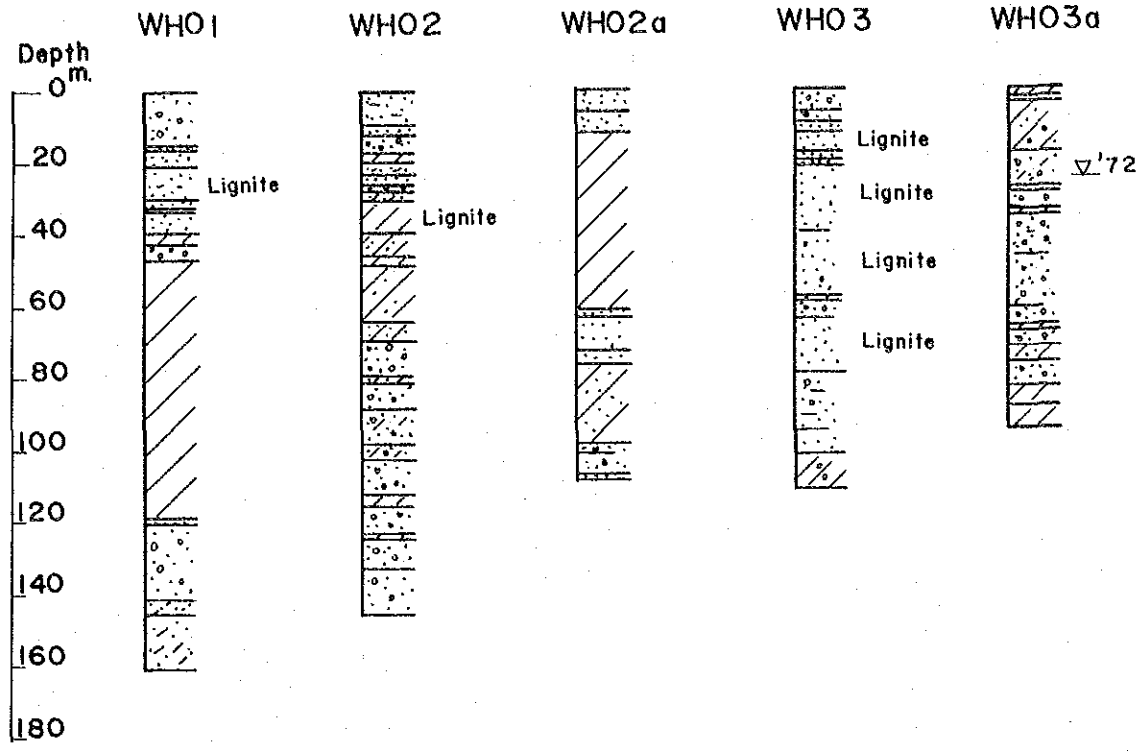

Depth m.
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
Harisidhi
B 1
Soil
Black Carbon
Slightly Silty Sticky
Kalimati
Lignite
Lignite
Lignite
Lignite
Bansbari
B 2
Soil
Bed?
Nayapati
B 3
Soil
▽ '65
Lignitic
Lignitic
Lignite
Lignite
Carbon
Lignite
Gokarna
B 4
▽ '65
Peat
Lignite
Koteshwar
B 5
Soil
Peat
Kalimati
Plastic Silty Micaneous

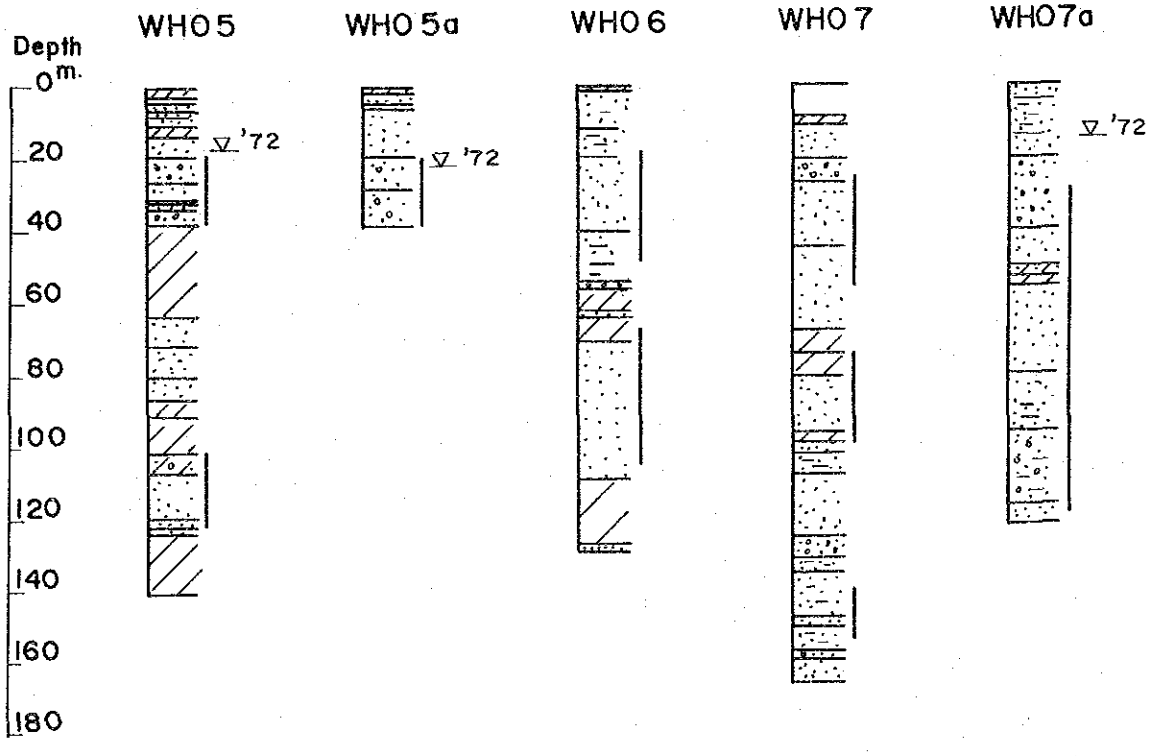

Depth m.
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
Bhadgaon
B6
Soil
Carbon
Mica
Phutung
B7
Soil
Lignitic
Lignite
Lignitic
Sunakothi
B8
Soil
Lignitic
Carbon
Plastic
Lubhu
B9
Soil
Plastic
Carbon
(P21)
Rabi Bhawan
B10
Bands of
Peat and
Lignite
Schistose

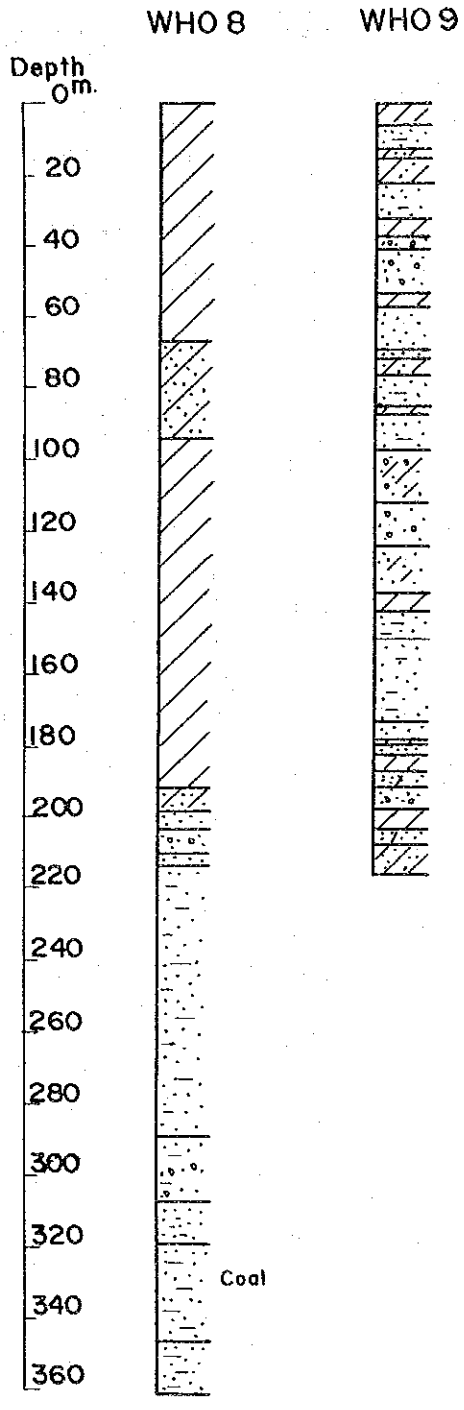

Depth
0 m.
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
Chabahil
B 11
Soil
Lignite
Plastic
Peat
Woody
Panipokhari
B12
Soil
Sticky
Tahachal
B13
Soil
Black
&
Greenish
Plastic
Coally
Hardrock ?
Tahachal
B14
Soil
Plastic
Peaty
Woody
Plastic
Semi
Plastic
Peady
Rock
Fragment
Swayambhunath
B15
Soil
Plastic
Black
&
Greenish
Plastic
Shale
SS White rock ?

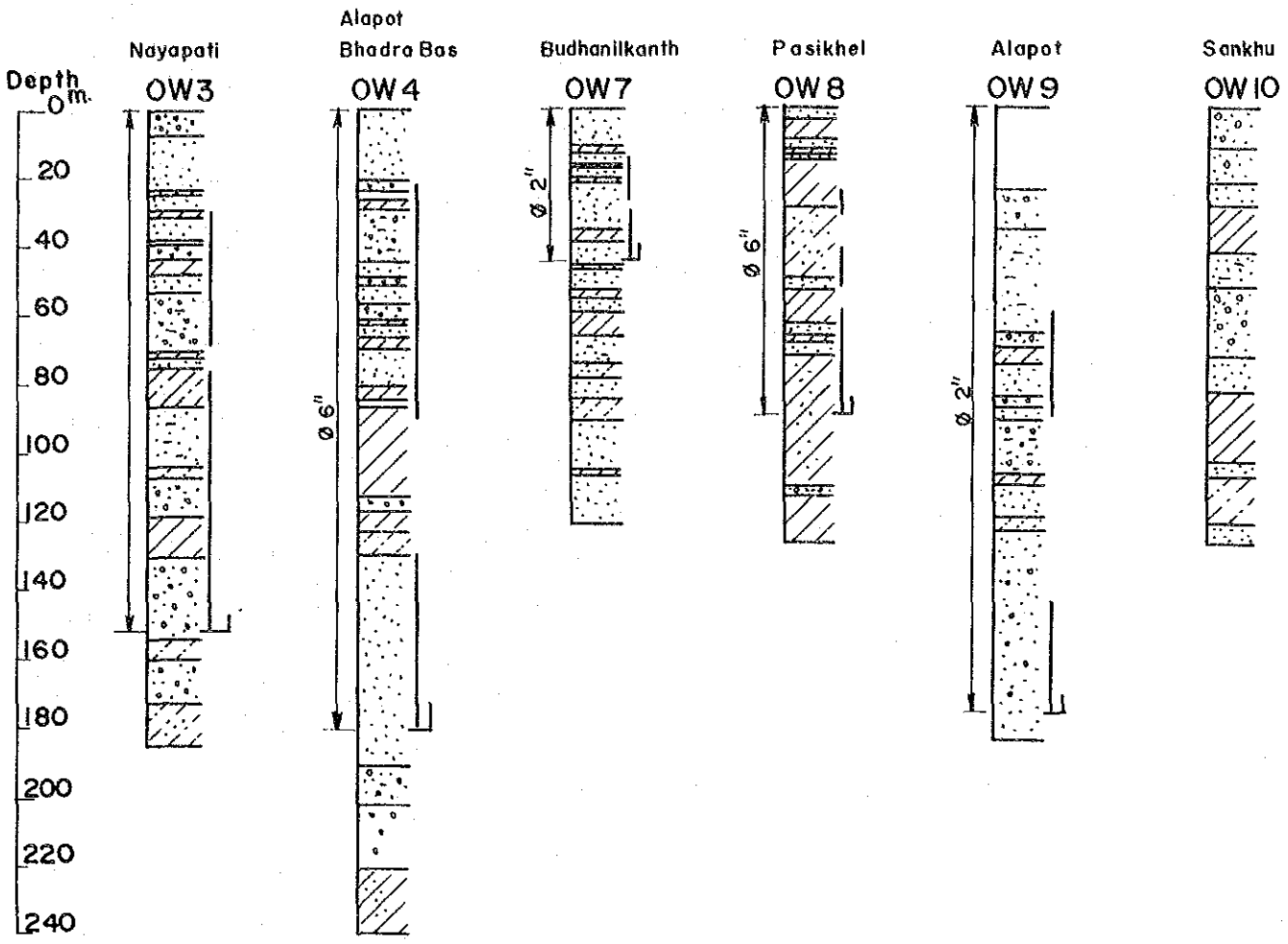

Depth m.
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
Lagan Tole
B 16
'60
Peat & Lignite Bands
Peaty
Plastic
Compact
Singha Durbar
B 17
'60
Soil
Bir Hospital
B 18
'60
Kalimati
Gaushala near Pasupati nath
B 19
Soil
Kalimati
Rock
Katunje
B 20
'60
Black
Black
Mica Lignite
Loose
Hard


Depth m.
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
Sanu Thimi
B22
Mica
Patan Industrial
Estate Patan
B23
Peat
Lignite
Sticky
Shanta Bhawan
Patan
B24
Kalimati
Surendra Bhawan
Patan
B25
Kalimati


WH01
WH02
WH02a
WH03
WH03a
Depth
m.
0
20
40
60
80
100
120
140
160
180
Lignite
Lignite
Lignite
Lignite
Lignite
▽'72


WH05
WH05a
WH06
WH07
WH07a
Depth
m.
0
20
40
60
80
100
120
140
160
180
▽'72
▽'72
▽'72


WHO 8
WHO 9
Depth
0m.
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
Coal


Depth
0 m.
20
40
60
80
100
120
140
160
180
200
220
240
Nayapati
OW3
Alapot
Bhadra Bas
OW4
Ø 6"
Budhanilkanth
OW7
Ø 2"
Pasikhel
OW8
Ø 6"
Alapot
OW9
Ø 2"
Sankhu
OW10

C-5 ESTIMATED GROUNDWATER ABSTRACTION FROM TUBE WELLS IN THE KATHMANDU VALLEY (1972-1989)

ESTIMATED GROUNDWATER ABSTRACTION (1/4) (UNIT IN CUBIC M)

YEAR	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
BB1										
BB2										
BB3										
BB4										
BB5										
BB6										
BB7										
BB8										
DK1										
DK2										
DK3										
DK4										
DK5										
DK6										
DK7										
DK8										
DK9										
GK1										
GK2										
GK3										
GK4										
GK5										
KH2										
KH3										
KH4										
KH5										
KH6										
KH7										
BH1										
BH3										
BH4										
JP1										
BBOLD	0	0	0	0	0	0	0	0	177,230	265,845
BHOLD2						0	0	0	447,917	537,500
B12	0	0	0	0	0	0	0	0	0	0
WHO3A	0	0	0	0	0	0	0	0	0	0
PH1						0	0	0	0	0
PH2							0	0	0	127,124
SK1										
BALAJU						0	0	0	14,759	177,112
WHO5A	0	0	0	0	0	0	0	0	0	0
WHO7	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	639,906	1,107,581

ESTIMATED GROUNDWATER ABSTRACTION (2/4) (UNIT IN CUBIC M)

YEAR	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
P1										
P2										
P3										
P4										
P5										
P6										
P7										
P8	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200
P9										
P10				42,336	42,336	42,336	42,336	42,336	42,336	42,336
P11							1,688	1,688	1,688	1,688
P12										2,625
P13					80,500	80,500	80,500	80,500	80,500	80,500
P14				25,200	25,200	25,200	25,200	25,200	25,200	25,200
P15									66,500	66,500
P16										
P17										
P18										
P19										
P20										
P21										
P22							94,608	94,608	94,608	94,608
P23							178,500	178,500	178,500	178,500
P24										
P25										
P26										
P27										
P28										
P29										
P30										
P31										
P32										
P33							33,091	33,091	33,091	33,091
P34								0	0	0
P35										
P36										
P37										
DMG1										
DMG2										
DMG3										
DMG4										
DMG5										
DMG6										
DMG7										
DMG8										
JW1										
JW2										
JW3										
JW4										
SUBTOTAL	10,200	10,200	10,200	77,736	158,236	158,236	466,123	466,123	532,623	535,248
Total	10,200	10,200	10,200	77,736	158,236	158,236	466,123	466,123	1,172,529	1,642,828
NWSC	0	0	0	0	0	0	0	0	639,906	1,107,581
PRIVATE	10,200	10,200	10,200	77,736	158,236	158,236	466,123	466,123	532,623	535,248
GAS	0	0	0	0	0	0	0	0	0	0

ESTIMATED GROUNDWATER ABSTRACTION (3/4) (UNIT IN CUBIC M)

YEAR	1982	1983	1984	1985	1986	1987	1988	1989
BB1			0	0	0	0	0	0
BB2			521,124	521,124	521,124	521,124	521,124	508,481
BB3			0	88,683	1,064,199	1,064,199	1,064,199	967,138
BB4			0	0	24,319	291,832	291,833	229,923
BB5				0	0	0	0	587,194
BB6			0	0	175,205	1,051,227	1,051,227	1,064,994
BB7				0	530,207	795,310	795,310	626,837
BB8			0	0	563,588	676,305	676,305	593,125
DK1			91,080	91,080	91,080	91,080	83,490	0
DK2			59,400	118,800	118,800	118,800	108,900	0
DK3			24,000	144,000	144,000	144,000	144,000	149,224
DK4			0	0	224,504	336,756	336,756	344,873
DK5			465,020	465,020	465,020	465,020	465,020	460,637
DK6			78,120	133,920	133,920	133,920	133,920	127,440
DK7			0	0	0	0	0	0
DK8			0	0	0	0	0	0
DK9			0	0	0	0	0	0
GK1				0	0	0	0	372,195
GK2			0	0	0	144,000	216,000	122,989
GK3			0	0	0	153,000	204,000	332,723
GK4				0	0	120,000	180,000	93,395
GK5			0	0	0	0	0	0
MH2			0	0	0	77,528	930,336	894,298
MH3			0	0	0	0	584,000	882,958
MH4				0	0	0	0	502,620
MH5				0	0	0	0	543,234
MH6				0	0	0	0	0
MH7				0	162,000	648,000	648,000	462,489
BH1			0	0	97,461	584,763	584,763	477,868
BH3				0	0	0	0	205,655
BH4				0	0	0	0	59,634
JP1			0	0	0	0	0	0
BBOLD	265,845	265,845	265,845	265,845	265,845	265,845	265,845	264,939
BHOLD2	537,500	537,500	537,500	537,500	537,500	537,500	537,500	468,697
B12	0	0	0	0	0	0	0	0
WHO3A	0	0	0	0	0	0	0	0
PH1	21,600	0	0	0	0	0	0	21,600
PH2	127,124	127,124	127,124	127,124	127,124	127,124	127,124	127,124
SK1			0	0	0	0	0	0
BALAJU	177,112	177,112	177,112	177,112	177,112	177,112	177,112	183,117
WHO5A	0	0	0	0	0	0	0	0
WHO7	0	0	0	0	0	0	0	0
	1,129,181	1,107,581	2,346,324	2,670,207	5,423,006	8,524,444	10,126,763	11,675,401

ESTIMATED GROUNDWATER ABSTRACTION (4/4) (UNIT IN CUBIC M)

YEAR	1982	1983	1984	1985	1986	1987	1988	1989
P1			32,400	32,400	32,400	32,400	32,400	32,400
P2			32,400	32,400	32,400	32,400	32,400	32,400
P3			32,400	32,400	32,400	32,400	32,400	32,400
P4				157,680	157,680	157,680	157,680	157,680
P5							30,240	30,240
P6				17,280	17,280	17,280	17,280	17,280
P7							30,240	30,240
P8	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200
P9						21,600	21,600	21,600
P10	33,768	33,768	33,768	33,768	33,768	33,768	33,768	33,768
P11	1,688	1,688	338	338	338	338	338	338
P12	2,625	2,625	2,625	2,625	2,625	2,625	2,625	2,625
P13	80,500	80,500	80,500	80,500	80,500	80,500	80,500	80,500
P14	25,200	25,200	25,200	25,200	25,200	25,200	25,200	25,200
P15	66,500	66,500	66,500	66,500	66,500	66,500	66,500	66,500
P16								0
P17						0	0	0
P18					75,600	75,600	75,600	75,600
P19						16,200	16,200	16,200
P20							0	0
P21								0
P22	94,608	94,608	94,608	94,608	94,608	94,608	94,608	94,608
P23	178,500	178,500	178,500	178,500	178,500	178,500	178,500	178,500
P24					0	0	0	0
P25					72,000	72,000	72,000	72,000
P26					0	0	0	0
P27		10,500	10,500	10,500	10,500	10,500	10,500	10,500
P28	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
P29				129,000	129,000	129,000	129,000	129,000
P30					0	0	0	0
P31						1,728	1,728	1,728
P32								0
P33	33,091	33,091	33,091	33,091	33,091	33,091	33,091	33,091
P34	0	0	0	0	0	0	0	0
P35					31,536	31,536	31,536	31,536
P36						0	0	0
P37						0	0	0
DMG1						217,598	217,598	217,598
DMG2			176,602	176,602	176,602	176,602	176,602	176,602
DMG3		178,139	178,139	178,139	178,139	178,139	178,139	178,139
DMG4					39,420	39,420	39,420	39,420
DMG5					12,930	12,930	12,930	12,930
DMG6							267,110	267,110
DMG7							79,155	79,155
DMG8							107,538	107,538
JW1								0
JW2								0
JW3								0
JW4								0
	538,680	727,319	999,770	1,303,730	1,535,216	1,792,342	2,306,625	2,306,626
Total	1,667,860	1,834,899	3,346,094	3,973,938	6,958,222	10,316,786	12,433,389	13,982,027
NWSC	1,129,181	1,107,581	2,346,324	2,670,207	5,423,006	8,524,444	10,126,763	11,675,401
PRIVATE	538,680	549,180	645,030	948,990	1,128,126	1,167,654	1,228,134	1,228,134
GAS	0	178,139	354,741	354,741	407,090	624,689	1,078,492	1,078,492