APPENDIX F. DATA OF PUMPING TEST

Data of Pumping Test (J. - No. 1)

June 24, 1982

Time hr min sec	Time after Pumping Started t (sec)	Time after Pumping Stopped t' (sec)	Water Level (m)	Drawdown s(m)	t/t'	Log t/t'	Radius of Well r (m)	r^2/t	Pumping Rate Q(m^3/sec)	Remarks
11 31 50	0		3.018	0.000			0.0508		0.0013115	pumping started
	30		8.710	5.692			0.0508	8.602×10^{-5}	"	
	60		9.822	6.804			0.0508	4.301×10^{-5}		
	90		10.764	7.746			0.0508	2.867×10^{-5}		
	120		11.565	8.547			0.0508	2.151×10^{-5}		
	150		12.450	9.432			0.0508	1.720×10^{-5}		
	180		13.082	10.064			0.0508	1.434×10^{-5}		
	210		13.759	10.777			0.0508	1.229×10^{-5}		
	240		14.393	11.375			0.0508	1.075×10^{-5}		Q = 78.689 ℓ/min
	270		15.082	12.064			0.0508	9.558×10^{-6}		
	300		15.661	12.634			0.0508	8.602×10^{-6}		
	360		16.759	13.741			0.0508	7.168×10^{-6}		
	420		17.578	14.560			0.0508	6.144×10^{-6}		
	480		18.391	15.373			0.0508	5.376×10^{-6}		
	540		19.000	15.982			0.0508	4.779×10^{-6}		
	600		19.549	16.531			0.0508	4.301×10^{-6}		
	660		20.099	17.081			0.0508	3.910×10^{-6}		
	720		20.565	17.547			0.0508	3.584×10^{-6}		
	780		20.968	17.950			0.0508	3.309×10^{-6}		
	840		21.330	18.312			0.0508	3.072×10^{-6}		
	900		21.680	18.662			0.0508	2.867×10^{-6}		
	1200		22.915	19.897			0.0508	2.151×10^{-6}		
	1500		23.646	20.628			0.0508	1.720×10^{-6}		
	1800		24.059	21.039			0.0508	1.434×10^{-6}		
	2100		24.280	21.262			0.0508	1.229×10^{-6}		
	2400		24.459	21.441			0.0508	1.075×10^{-6}		
	2700		24.560	21.542			0.0508	9.558×10^{-7}		
	3000		24.745	21.727			0.0508	8.602×10^{-7}		
	3300		24.809	21.791			0.0508	7.820×10^{-7}		
	3600		24.920	21.902			0.0508	7.168×10^{-7}		
	4200		25.115	22.097			0.0508	6.144×10^{-7}		
	4800		25.272	22.254			0.0508	5.376×10^{-7}		
	5400		26.324	23.308			0.0508	4.779×10^{-7}		
	5700		27.317	24.299			0.0508	4.527×10^{-7}		
	6000		27.624	24.606			0.0508	4.301×10^{-7}		
	6300		27.639	24.621			0.0508	4.096×10^{-7}		
	6600		27.600	24.582			0.0508	3.910×10^{-7}		
	6900	0	27.554	24.536	0		0.0508	3.740×10^{-7}		pumping stopped
	6930	30	24.970	21.952	231	2.364	0.0508			
	6960	60	22.390	19.372	116	2.064	0.0508			
	6990	90	20.230	17.212	77.667	1.890	0.0508			
	7020	120	18.273	15.255	58.5	1.767	0.0508			
	7050	150	16.722	13.704	47	1.672	0.0508			
	7080	180	15.105	12.087	39.333	1.595	0.0508			
	7110	210	13.713	10.695	33.857	1.530	0.0508			
	7140	240	12.648	9.630	29.75	1.473	0.0508			
	7170	270	11.628	8.610	26.556	1.424	0.0508			
	7200	300	10.825	7.807	24	1.380	0.0508			
	7260	360	9.446	6.428	20.167	1.305	0.0508			
	7320	420	8.472	4.454	17.429	1.241	0.0508			
	7380	480	6.305	3.287	15.375	1.187	0.0508			
	7440	540	5.647	2.629	13.778	1.139	0.0508			
	7500	600	5.217	2.199	12.5	1.097	0.0508			
	7560	660	4.878	1.860	11.455	1.059	0.0508			
	7620	720	4.655	1.637	10.583	1.025	0.0508			
	7680	780	4.477	1.459	9.846	0.993	0.0508			
	7740	840	4.342	1.324	9.214	0.964	0.0508			
	7800	900	4.292	1.224	8.667	0.938	0.0508			
	8100	1200	3.940	0.922	6.75	0.829	0.0508			
	8400	1500	3.805	0.787	5.6	0.748	0.0508			
	8700	1800	3.687	0.669	4.833	0.684	0.0508			
	9000	2100	3.618	0.600	4.286	0.632	0.0508			
	9300	2400	3.565	0.547	3.875	0.588	0.0508			
	9600	2700	3.525	0.507	3.556	0.551	0.0508			
	9900	3000	3.494	0.476	3.3	0.519	0.0508			

Data of Pumping Test (J - No. 2)

July 17, 1982

Time hr	min	sec	Time after Pumping Started t (sec)	Time after Pumping Stopped t' (sec)	Water Level (m)	Draw-down s(m)	t/t'	Log t/t'	Radius of Well r (m)	r^2/t	Pumping Rate $Q(m^3/sec)$	Remarks
11	30	00	0		1.6	0			0.0508		0.00278	pumping started
			60		-	-			0.0508	4.301×10^{-5}		
			120		12.53	10.93			0.0508	2.151×10^{-5}		
			180		14.01	12.41			0.0508	1.434×10^{-5}		
			240		15.55	13.95			0.0508	1.075×10^{-5}		
			300		16.55	14.95			0.0508	8.602×10^{-6}		
			360		17.31	15.71			0.0508	7.168×10^{-6}		
			600		19.01	17.41			0.0508	4.301×10^{-6}		
			900		19.83	18.23			0.0508	2.867×10^{-6}		
			1200		20.15	18.55			0.0508	2.151×10^{-6}		
			1500		20.37	18.77			0.0508	1.720×10^{-6}		
			1800		20.44	18.84			0.0508	1.434×10^{-6}		
			2400		20.73	19.13			0.0508	1.075×10^{-6}		
			3000		20.87	19.27			0.0508	8.602×10^{-7}		
			3600		20.96	19.36			0.0508	7.168×10^{-7}		
			4200		21.09	19.49			0.0508	6.144×10^{-7}		
			4800		21.24	19.64			0.0508	5.376×10^{-7}		
			5400		21.25	19.65			0.0508	4.779×10^{-7}		
			6000		21.35	19.75			0.0508	4.301×10^{-7}		
			6600		21.41	19.81			0.0508	3.910×10^{-7}		
			7200		21.51	19.91			0.0508	3.584×10^{-7}		
13	40	00	7800	0	21.57	19.97			0.0508	3.308×10^{-7}		pumping stopped
			7860	60	-	-	131	2.117				
			7920	120	9.89	8.29	66	1.820				
			7980	180	6.77	5.17	44.33	1.647				
			8040	240	5.53	3.93	33.50	1.525				
			8100	300	4.85	3.25	27	1.431				
			8160	360	4.33	2.73	22.67	1.355				
			8220	420	4.01	2.41	19.57	1.291				
			8280	480	3.78	2.18	17.25	1.237				
			8340	540	3.59	1.99	15.44	1.189				
			8400	600	3.42	1.82	14	1.146				
			8460	660	3.28	1.68	12.82	1.108				
			8520	720	3.19	1.59	11.83	1.073				
			8580	780	3.05	1.45	11	1.041				
			8640	840	2.99	1.39	10.29	1.012				
			8700	900	2.90	1.30	9.67	0.985				
			8760	960	2.81	1.21	9.13	0.960				
			8820	1020	2.80	1.20	8.65	0.937				
			8880	1080	2.71	1.11	8.22	0.915				
			8940	1140	2.68	1.08	7.84	0.894				
			9000	1200	2.63	1.03	7.50	0.875				
			9060	1260	2.59	0.99	7.19	0.857				
			9120	1320	2.54	0.94	6.91	0.839				
			9180	1380	2.53	0.93	6.65	0.823				
			9240	1440	2.50	0.90	6.42	0.808				
			9300	1500	2.46	0.86	6.20	0.792				
			9600	1800	2.33	0.73	5.33	0.727				
			9900	2100	2.25	0.65	4.71	0.673				
			10200	2400	2.20	0.6	4.25	0.628				
			10500	2700	2.15	0.55	3.89	0.590				
			10800	3000	2.10	0.5	3.60	0.556				
			11100	3300	2.07	0.47	3.36	0.526				
			11700	3900	2.00	0.4	3	0.477				
			12300	4500	1.96	0.36	2.73	0.436				
			12900	5100	1.94	0.34	2.53	0.403				
			14700	6900	1.88	0.28	2.13	0.328				

Data of Pumping Test (J - No. 3)

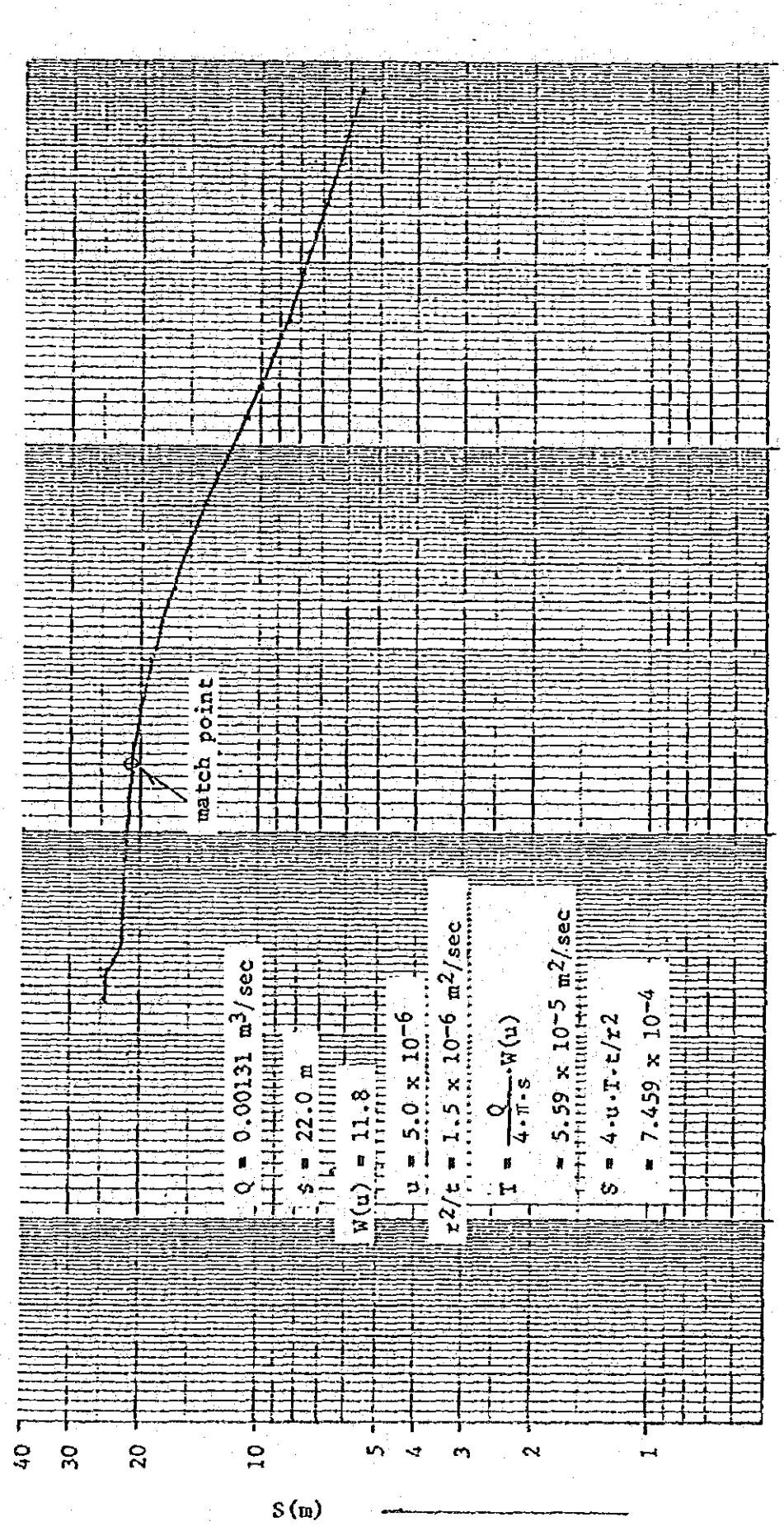
August 11, 1982

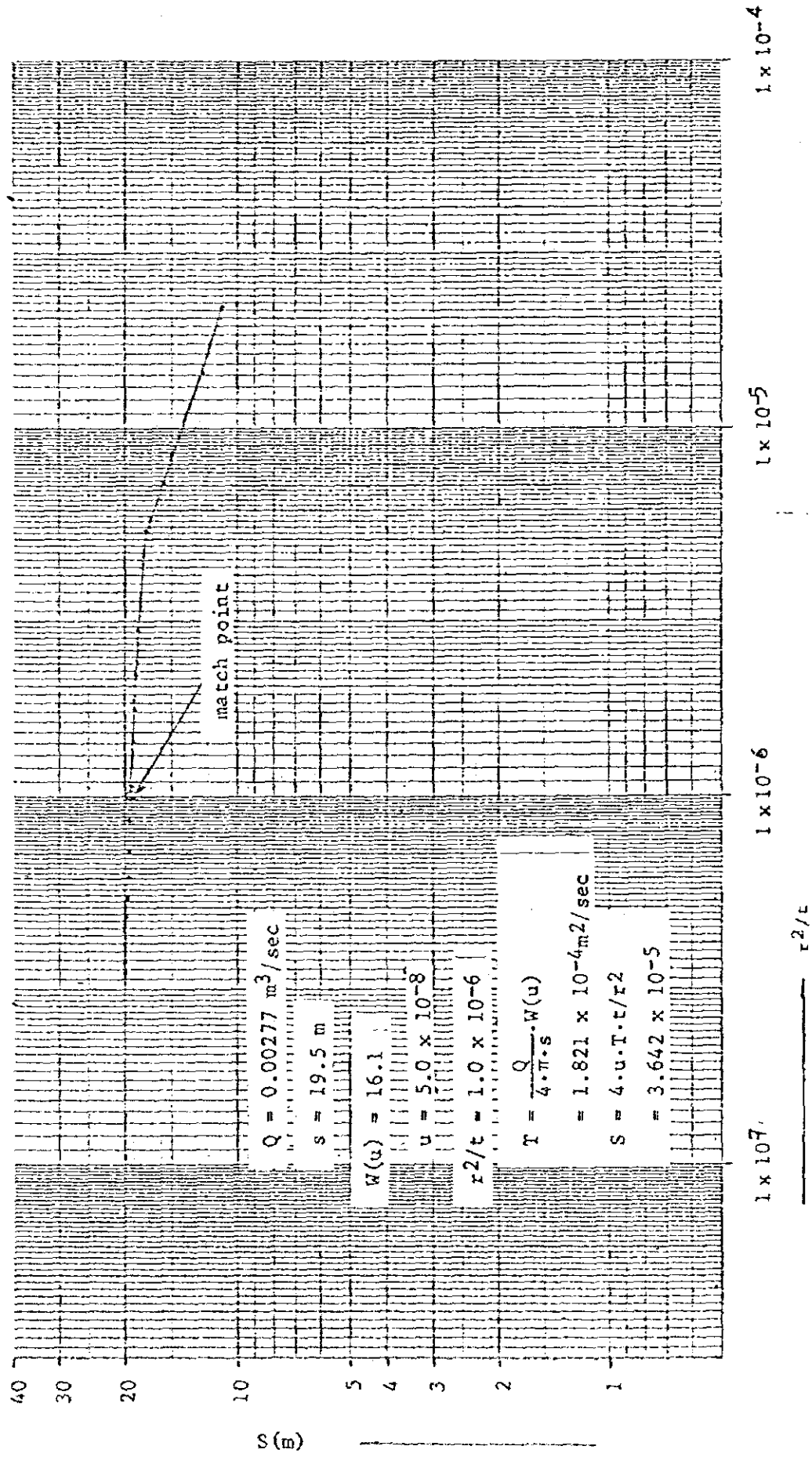
Time hr	min	sec	Time after Pumping Started t (sec)	Time after Pumping Stopped t' (sec)	Water Level (m)	Drawdown s(m)	t/t'	Log t/t'	Radius of Well r (m)	r^2/t	Pumping Rate Q(m^3/sec)	Remarks
13	30	00	0		3.905	0			0.0508		0.0026	pumping started
			60		7.27	3.365			0.0508	4.301×10^{-5}		
			120		8.09	4.185			0.0508	2.151×10^{-5}		
			180		8.65	4.185			0.0508	1.434×10^{-5}		
			240		9.1	5.195			0.0508	1.075×10^{-5}		
			300		9.4	5.495			0.0508	8.602×10^{-6}		
			360		9.67	5.765			0.0508	7.168×10^{-6}		
			420		9.91	6.005			0.0508	6.146×10^{-6}		
			480		10.1	6.195			0.0508	5.376×10^{-6}		
			540		10.29	6.385			0.0508	4.779×10^{-6}		
			600		10.41	6.505			0.0508	4.301×10^{-6}		
			900		11.02	7.115			0.0508	2.867×10^{-6}		
			1200		11.46	7.555			0.0508	2.151×10^{-6}		
			1500		11.83	7.925			0.0508	1.720×10^{-6}		
			1800		12.1	8.195			0.0508	1.434×10^{-6}		
			2400		12.62	8.715			0.0508	1.075×10^{-6}		
			3000		13.01	9.105			0.0508	8.602×10^{-7}		
			3600		13.34	9.435			0.0508	7.168×10^{-7}		
			5400		14.1	10.195			0.0508	4.779×10^{-7}		
			7200		14.48	10.575			0.0508	3.584×10^{-7}		
			9000		14.77	10.865			0.0508	2.867×10^{-7}		
			10800		15.05	11.145			0.0508	2.389×10^{-7}		
17	00	00	12600	0	15.29	11.385			0.0508	2.048×10^{-7}		pumping stopped
			12660	60	12.17	8.265	211	2.324				
			12720	120	11.61	7.705	106	2.025				
			12780	180	11.24	7.335	71	1.851				
			12840	240	10.98	7.075	53.5	1.728				
			12900	300	10.78	6.875	43	1.633				
			12960	360	10.61	6.705	36	1.556				
			13020	420	10.44	6.535	31	1.491				
			13080	480	10.30	6.395	27.25	1.435				
			13140	540	10.17	6.265	24.333	1.3862				
			13200	600	10.06	6.155	22	1.342				
			13500	900	9.61	5.705	15	1.176				
			13800	1200	9.26	5.355	11.5	1.061				
			14100	1500	8.98	5.075	9.4	0.973				
			14400	1800	8.71	4.805	8	0.903				
			15000	2400	8.36	4.455	6.25	0.796				
			15600	3000	8.07	4.165	5.2	0.716				
			16200	3600	7.82	3.915	4.5	0.653				

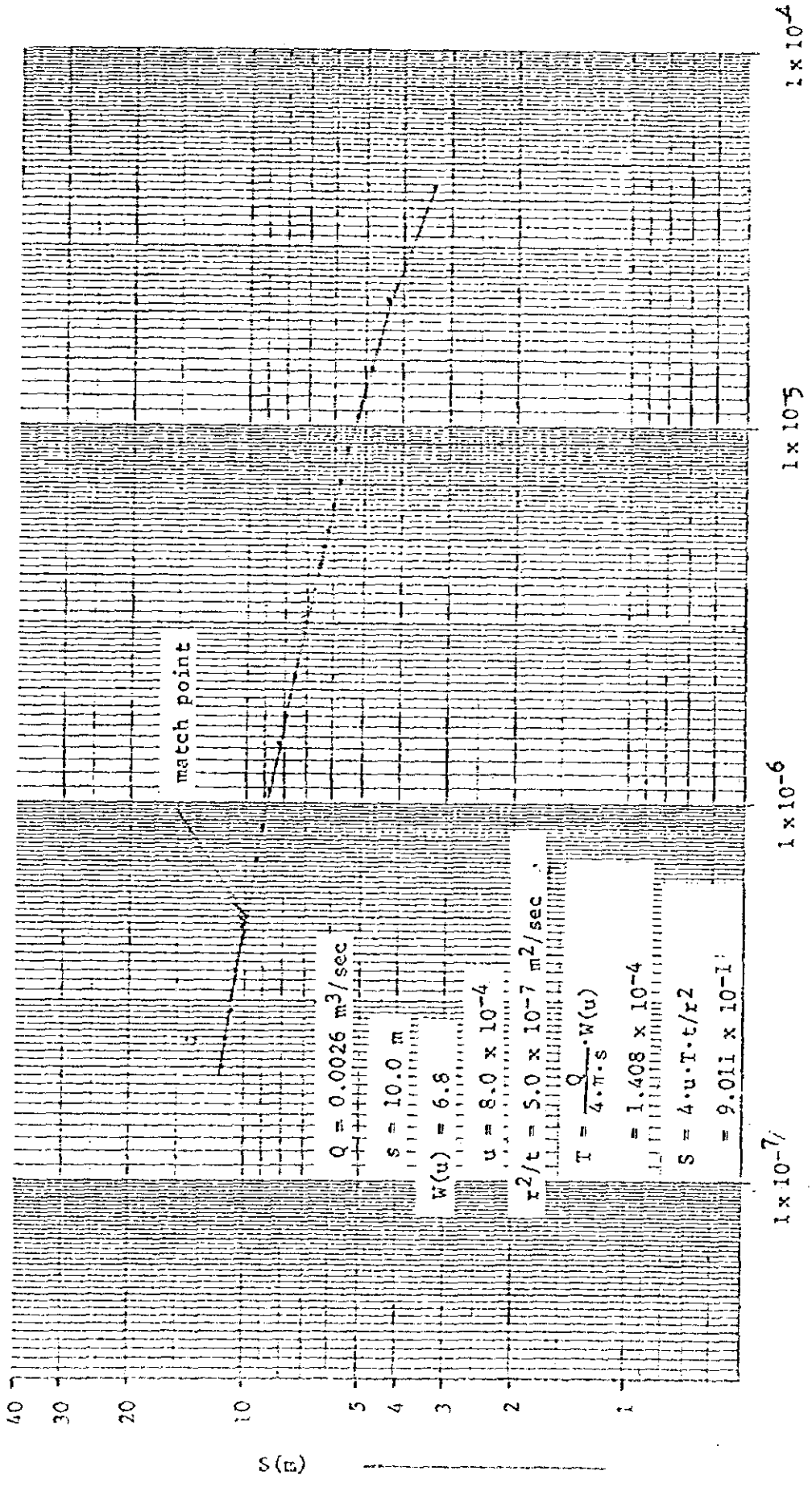
Data of Pumping Test (J - No. 4)

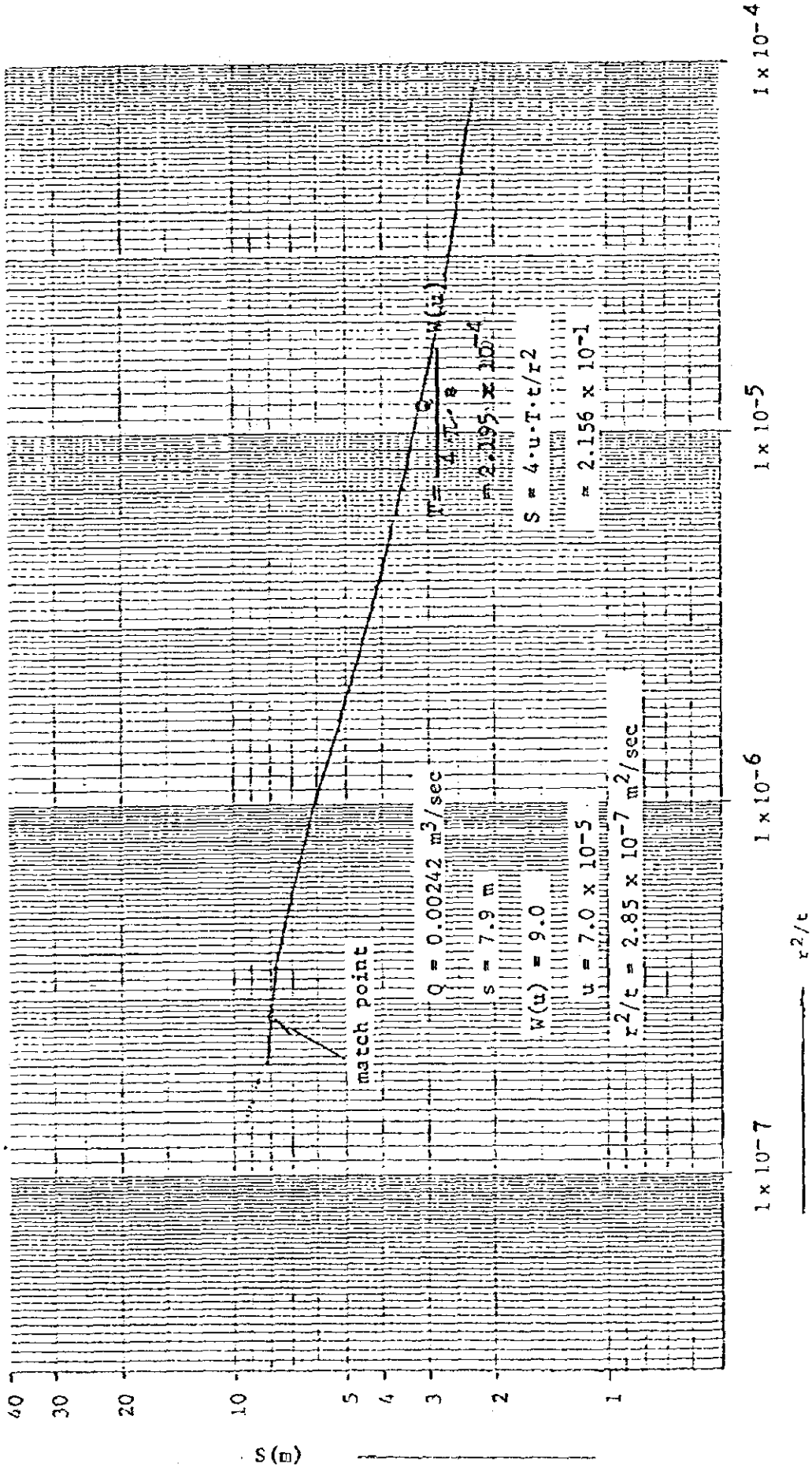
October 7, 1982

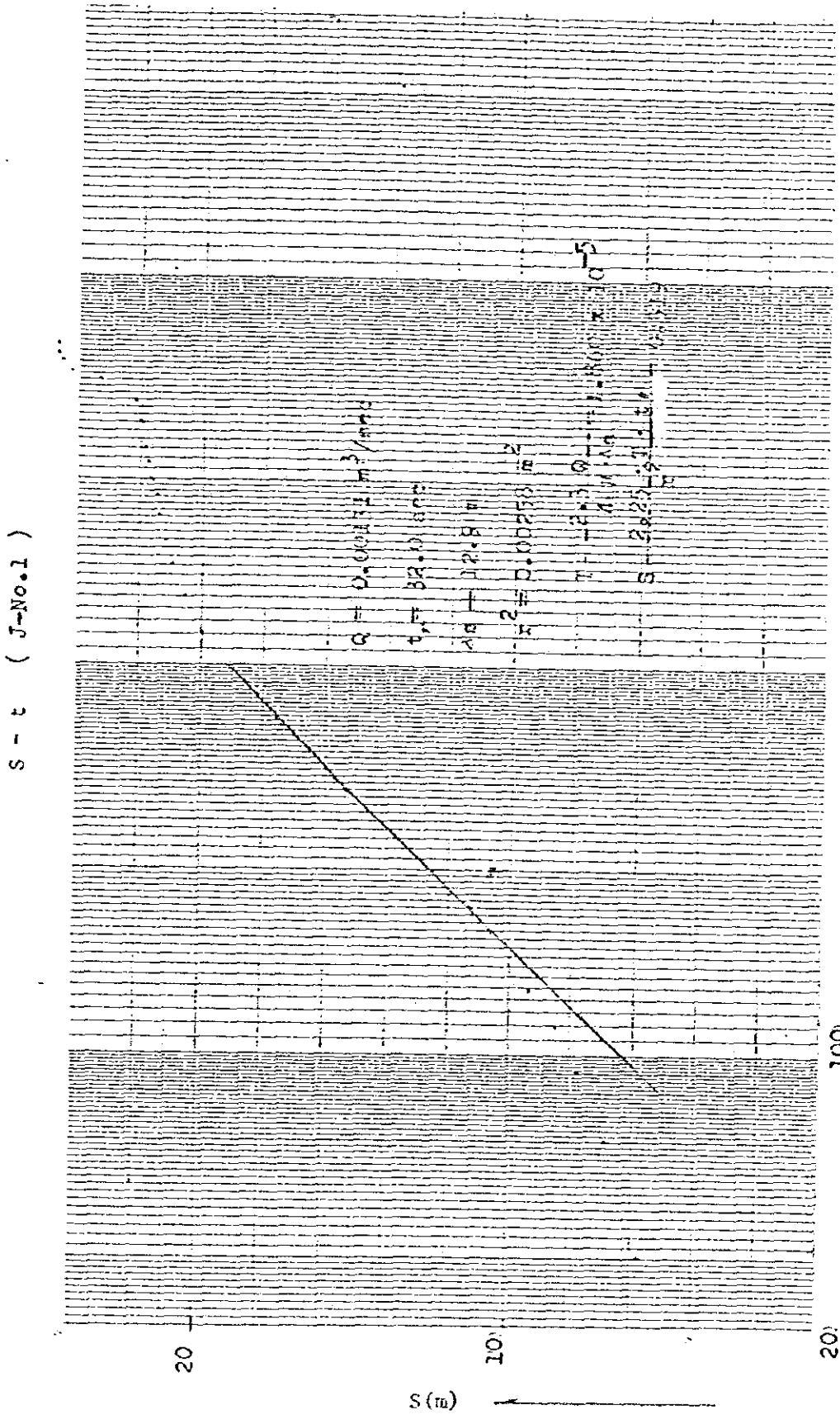
Time hr	min	sec	Time after Pumping Started t (sec)	Time after Pumping Stopped t' (sec)	Water Level (m)	Draw-down s(m)	t/t'	Log t/t'	Radius of Well r (m)	r^2/t	Pumping Rate $Q(m^3/sec)$	Remarks
11	05	00	0		2.86	0			0.0508		0.00242	pumping started
			30		5.05	2.19			0.0508	8.602×10^{-5}		145ℓ/min
			60		5.34	2.48			0.0508	4.301×10^{-5}		
			90		5.52	2.66			0.0508	2.867×10^{-5}		
			120		5.64	2.78			0.0508	2.151×10^{-5}		
			150		5.77	2.91			0.0508	1.720×10^{-5}		
			180		4.89	3.03			0.0508	1.434×10^{-5}		
			210		6.00	3.14			0.0508	1.229×10^{-5}		
			240		6.08	3.22			0.0508	1.075×10^{-5}		
			270		6.14	3.28			0.0508	9.558×10^{-6}		
			300		6.24	3.38			0.0508	8.602×10^{-6}		
			360		6.38	3.52			0.0508	7.168×10^{-6}		
			420		6.51	3.65			0.0508	6.144×10^{-6}		
			480		6.64	3.78			0.0508	5.376×10^{-6}		
			540		6.74	3.88			0.0508	4.779×10^{-6}		
			600		6.86	4.00			0.0508	4.301×10^{-6}		
			900		7.34	4.48			0.0508	2.867×10^{-6}		
			1200		7.71	4.85			0.0508	2.151×10^{-6}		
			1500		8.00	5.14			0.0508	1.720×10^{-6}		
			1800		8.30	5.44			0.0508	1.434×10^{-6}		
			2400		8.76	5.90			0.0508	1.075×10^{-6}		
			3000		9.15	6.29			0.0508	8.602×10^{-7}		
			3600		9.46	6.60			0.0508	7.168×10^{-7}		
			5400		10.09	7.23			0.0508	4.779×10^{-7}		
			7200		10.53	7.67			0.0508	3.584×10^{-7}		
			9000		10.80	7.94			0.0508	2.867×10^{-7}		
			10800		11.00	8.14			0.0508	2.389×10^{-7}		
			12600		11.15	8.29			0.0508	2.048×10^{-7}		
14	35	00	12900		11.40	8.54			0.0508	2.000×10^{-7}	0.00265	159ℓ/min
			13200		11.45	8.59			0.0508	1.955×10^{-7}		
			13800		11.60	8.74			0.0508	1.870×10^{-7}		
			15000		11.71	8.85			0.0508	1.720×10^{-7}		
			16200		11.82	8.96			0.0508	1.593×10^{-7}		
15	35	00	16500		12.05	9.19			0.0508	1.564×10^{-7}	0.00275	165ℓ/min
			17400		12.185	9.325			0.0508	1.483×10^{-7}	"	
16	05	00	18000	0	12.26	9.40			0.0508	1.434×10^{-7}	"	pumping stopped
			18180	180	8.77	5.91	101.0	2.004				
			18360	360	8.23	5.37	51.0	1.708				
			18540	540	7.82	4.96	34.3	1.535				
			18900	900	7.26	4.30	21.0	1.322				
			19080	1080	6.89	4.03	17.7	1.248				
			19260	1260	6.63	3.77	15.3	1.185				

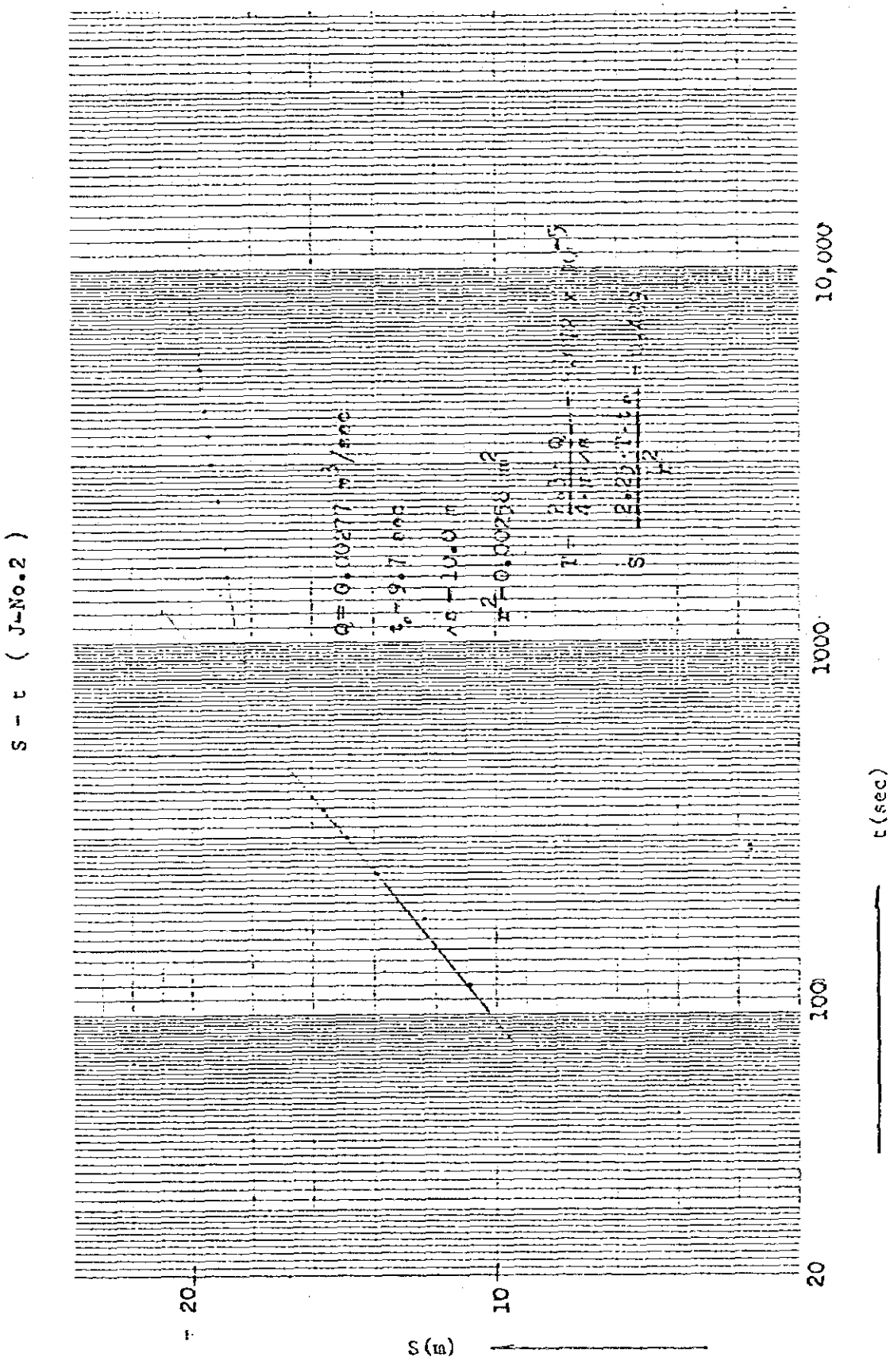

S - r²/t (J - No.1)
match point
Q = 0.00131 m³/sec
s = 22.0 m
W(u) = 11.8
u = 5.0 x 10⁻⁶
r²/t = 1.5 x 10⁻⁶ m²/sec
T = Q/(4·π·s)·W(u)
= 5.59 x 10⁻⁵ m²/sec
S = 4·u·T·t/r²
= 7.459 x 10⁻⁴
40
30
20
10
5
4
3
2
1
S(m)
1 x 10⁻⁷
1 x 10⁻⁶
1 x 10⁻⁵
1 x 10⁻⁴
r²/t

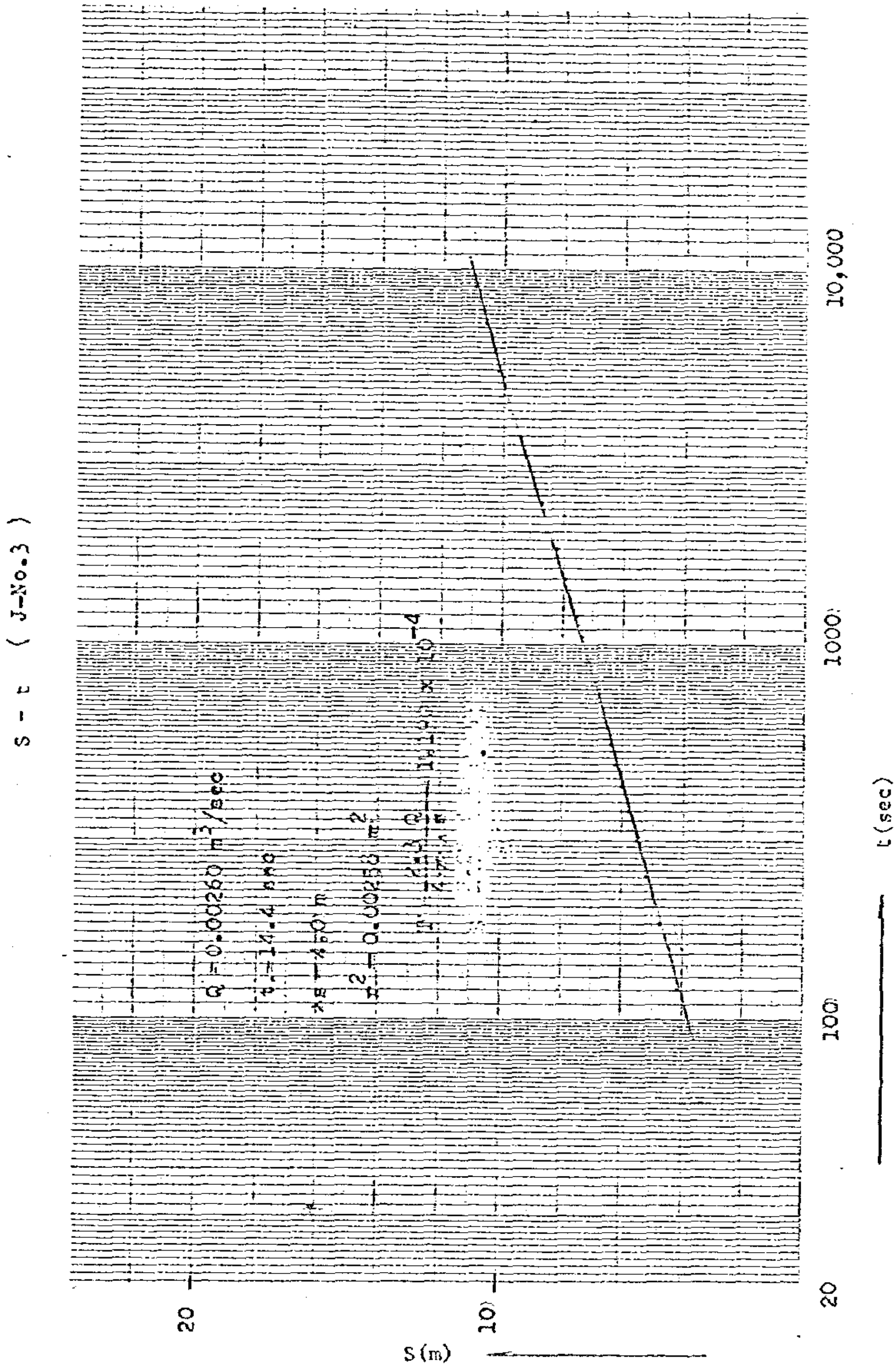

S - r²/t (J - No.2)
match point
Q = 0.00277 m³/sec
s = 19.5 m
W(u) = 16.1
u = 5.0 x 10⁻⁸
r²/t = 1.0 x 10⁻⁶
T = Q/(4·π·s) · W(u)
= 1.821 x 10⁻⁴m²/sec
S = 4·u·T·t/r²
= 3.642 x 10⁻⁵
S(m)
40
30
20
10
5
4
3
2
1
1 x 10⁷
1 x 10⁻⁶
1 x 10⁻⁵
1 x 10⁻⁴
r²/t

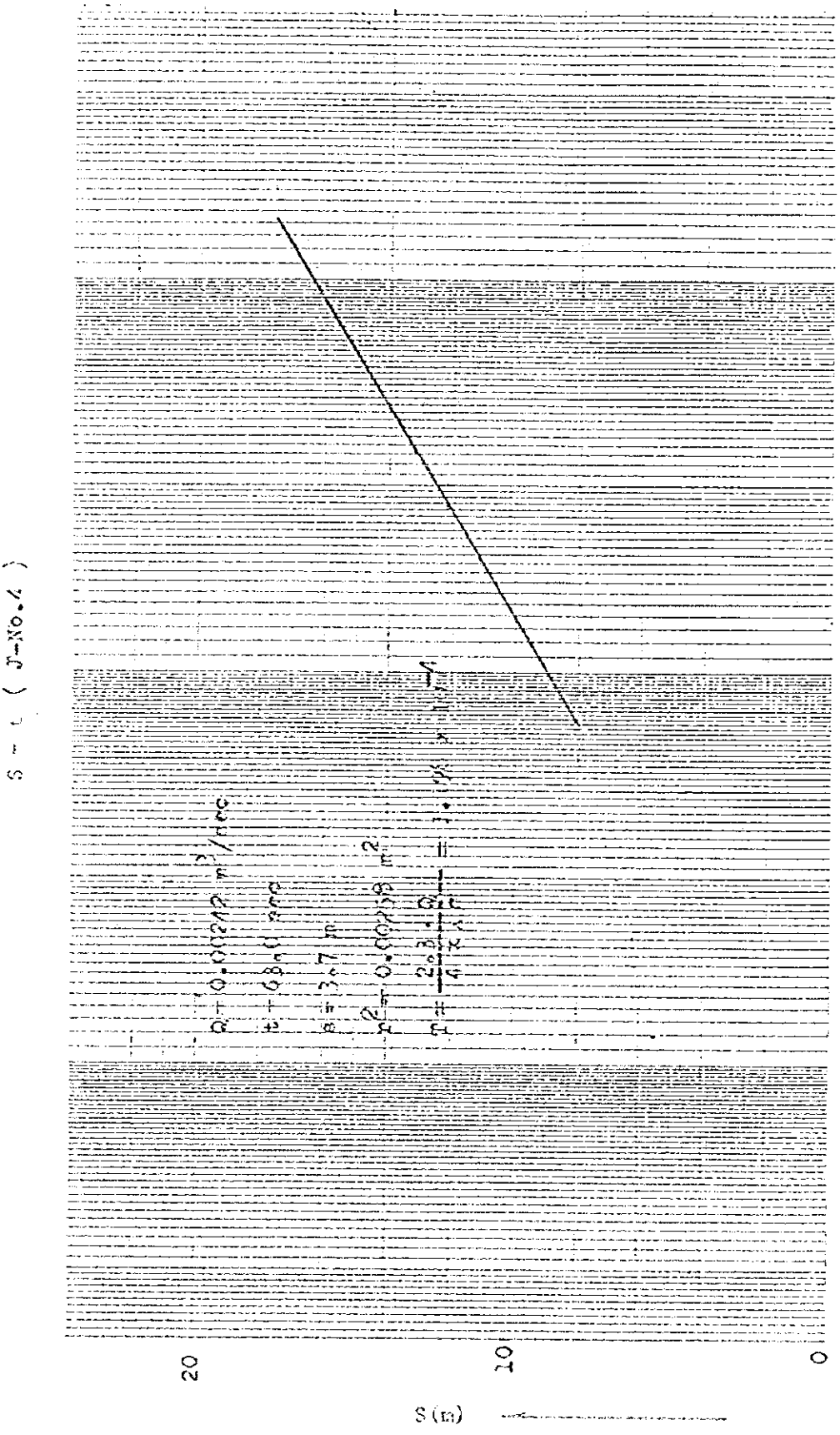

S - r²/t (J - No.3)
match point
Q = 0.0026 m³/sec
s = 10.0 m
W(u) = 6.8
u = 8.0 x 10⁻⁴
r²/t = 5.0 x 10⁻⁷ m²/sec
T = Q/(4·π·s)·W(u)
= 1.408 x 10⁻⁴
S = 4·u·T·t/r²
= 9.011 x 10⁻¹
40
30
20
10
5
4
3
2
1
S(m)
1 x 10⁻⁷
1 x 10⁻⁶
1 x 10⁻⁵
1 x 10⁻⁴
r²/t


S - r2/t (J - No.4)
match point
Q = 0.00242 m3/sec
s = 7.9 m
w(u) = 9.0
u = 7.0 x 10-5
r2/t = 2.85 x 10-7 m2/sec
T = 4πs w(u)
= 2.195 x 10-4
S = 4·u·T·t/r2
= 2.156 x 10-1
40
30
20
10
5
4
3
2
1
S (m)
1 x 10-7
1 x 10-6
1 x 10-5
1 x 10-4
r2/t


S - t (J-No.1)
S(m)
t(sec)
20
10
20
100
1000
10,000


S – t (J-No.2)
S(m)
t(sec)
20
10
20
100
1000
10,000


S - t (J-No.3)
Q = 0.00260 m3/sec
t = 14.4 hrs
Δs = 4.0 m
T = 0.00253 m2
10,000
1000
100
20
t (sec)
20
10
S (m)


S - t (y-x0.4)
S (m)
t (sec)
0
10
20
100
1000
10,000

APPENDIX G THAI STANDARD OF DRINKING WATER

APPENDIX G

THAI STANDARD OF DRINKING WATER
(The Ministry of Public Health No.61, 1981)

1) Physical Properties

. Colour	not more than 20
. Ordor	not other ordor (not incl. chlorine)
. Turbidity	not more than 5
. PH value	between 6.5 - 8.5

2) Chemical Properties

. Total solid	not more than 500 mg/kg
. Total hardness	not more than 100 mg/kg
. Arsenic	not more than 0.05 mg/kg
. Barium	not more than 1.0 mg/kg
. Cadmium	not more than 0.01 mg/kg
. Chloride (expressed as chlorine)	not more than 250 mg/kg
. Chromium	not more than 0.05 mg/kg
. Copper	not more than 1.0 mg/kg
. Iron	not more than 0.5 mg/kg
. Lead	not more than 0.1 mg/kg
. Managanese	not more than 0.05 mg/kg
. Mercury (Hg)	not more than 0.002 mg/kg
. Nitrates (expressed as nitrogen)	not more than 4.0 mg/kg
. PL	not more than 0.001 mg/kg
. Silver	not more than 0.01 mg/kg
. Sulfate	not more than 250.0 mg/kg
. Zine	not more than 5.0 mg/kg
. Fluoride (express as fluorine)	not more than 1.5 mg/kg

3) Baetrial Properties

. Most probable number of coliform organism per 100 mℓ (m.p,n.) less than 2.3

. Free from Eschericha coli type I

. There are not bacterial for illness

APPENDIX H. BORING LOG

APPENDIX H – 1

BORING LOG

1982

PROJECT · LOCATION PAK CHOM CAMP

GROUND ELEVATION 267.85 m

DATE OF INVESTIGATION 29MAY~17JUN

BORING HOLE No. J – 1

DEPTH TO GROUND WATER LEVEL IN HOLE 2.95 m

INVESTIGATED BY K. NARITA

STAFF m	ELEVATION m	DEPTH m	THICKNESS m	FIELD OBSERVATIONAL RECORD: COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION
	267.45	0.4	0.4		Top Soil	Black	Very Soft
	264.95	2.9	2.5		Clay	Bluish Gray	Stiff and Sticky
	263.75	4.1	1.2		Coarse Sand	Brownish Gray	Loose with Gravel
	260.95	6.9	2.8		Slate	Dark Gray	Weathered Slate. Soft and Friable
	225.85	42.0	35.1		Greywacke	Dark Bluish Gray to Dark Gray	Very Hard Rock with Quartz Vein and some Slate 93m to 21.0m some cracks and permeable (a little) 22.8m to 24.9m Permeable (a little) 31.2m to 32.1m Crack and Permeable 34.8m Permeable (a little)

DRILLING TIME (min) 1 2 3 4 5

CASING PIPE and PUMP: Pumping Pipe (2); Casing Pipe (4); Submersible Pump

ELECTRICAL LOG — RESISTIVITY (Ω - m): a = 25, a = 50, a = 100; 0, 200, 400, 600

APPENDIX H – 1

APPENDIX H-2 | BORING LOG

1982

PROJECT · LOCATION PAK CHOM CAMP | GROUND ELEVATION 259.21 m | DATE OF INVESTIGATION JUN~JULY

BORING HOLE No. J-2 | DEPTH TO GROUND WATER LEVEL IN HOLE 1.60 m | INVESTIGATED BY T. HAGIWARA

STAFF m	ELEVATION m	DEPTH m	THICKNESS m	FIELD OBSERVATIONAL RECORD: COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION
	257.91	1.3	1.3		Top Soil	Brownish Gray	Soft and Humid
2						Dark Brownish Gray	Many Cracks and Friable
4	255.01	4.2	2.9		Slate		
6							With Quartz Vein
8							
10							11.0m to 13.0m Crack and Permeable (a little)
12							
14							
16							14.8m to 15.0m Crack and Permeable
18							18.9m to 21.0m Crack and Permeable
20						Dark Bluish Gray	
22	236.51	22.7	18.5		Greywacke		
24	234.61	24.6	1.9		Slit Stone	Dark Bluish Gray	Some Cracks
26							Very Hard With Quartz Vein
28							28.8m Crack and Permeable (a little)
30						Dark Bluish Gray	30.2m 30.9m Cracks
32	227.21	32.0	7.4		Greywacke		
	226.21	33.0	1.0		Silt Stone	Dark Gray	Crack and Permeable
34							With Quartz Vein 35.8m 38.7m Crack
36							40.2m Crack and Permeable
38						Dark Bluish Gray	
40	218.71	40.5	7.5		Greywacke		
	217.21	42.0	1.5		Silt Stone	Dark Bluish Gray	Very Hard
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							

DRILLING TIME (min) 1 2 3 4 5

CASING PIPE and PUMP: Pumping Pipe (2") | Casing Pipe (4") | Submersible Pump

ELECTRICAL LOG: RESISTIVITY (Ω - m) a = 25 | a = 50 | a = 100; 0 | 50 | 100 | 150; 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40

BORING LOG

PROJECT · LOCATION PAK CHOM CAMP　GROUND ELEVATION 257.74 m　DATE OF INVESTIGATION 20 JULY~3AUG. 1982

BORING HOLE No. J-3　DEPTH TO GROUND WATER LEVEL IN HOLE 4.50 m　INVESTIGATED BY T. HAGIWARA

STAFF m	ELEVATION m	DEPTH m	THICKNESS m	FIELD OBSERVATIONAL RECORD: COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION
	257.04	0.7	0.7		Top Soil	Dark Brown	With Organic matter
	256.04	1.7	1.0		Clay	Brown	With Gravel Stiff
							Weathered Slate
							Soft and Friable
	252.24	5.5	3.8		Slate	Brown	
						Dark Bluish Gray	With Quartz Vein 8.0m to 10.0m Very Hard 9.5m Crack
	247.54	10.2	4.7		Greywacke		
	245.74	12.0	1.8		Silt Stone	Dark Gray	10.5m Crack 11m to 12m V. Hard
							With Quartz Vein 12.0m to 13.0m Very Hard 13.3m Crack and Permeable
						Dark Gray	17.5m Crack
	238.64	19.1	3.1		Greywacke		
	237.84	19.9	0.8		Silt Stone	Dark Gray	Some Cracks
							Very Hard With Many Quartz Vein 21.9m and 27.2m Crack and Permeable 24.9, 25.7m and 31.4m Crack
						Dark Bluish Gray	
	224.74	33.0	13.1		Greywacke		

DRILLING TIME (min) 1 2 3 4 5

CASING PIPE and PUMP: Pumping Pipe(2); Casing Pipe(4); Submersible Pump

ELECTRICAL LOG: RESISTIVITY (Ω - m)　a = 25　a = 50　a = 100

0　50　100　150

5　10　15　20　25　30

APPENDIX H-4	BORING LOG	

1982

PROJECT · LOCATION PAK CHOM CAMP GROUND ELEVATION 258.07 m DATE OF INVESTIGATION 28AUG~29SEP.

BORING HOLE No. J-4 DEPTH TO GROUND WATER LEVEL IN HOLE 2.86 m INVESTIGATED BY T. HAGIWARA

STAFF m	ELEVATION m	DEPTH m	THICKNESS m	FIELD OBSERVATIONAL RECORD: COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION
	256.67	1.4	1.4		Top Soil	Dark Brown	Clay with Gravel Soft and Humid
							Many Craks
	254.17	3.9	2.5		Slate	Brown	Soft and Frable
							Very Hard With Mony Quartz Vein and Cracks
							12.3m Crack and Permeable (a little)
							20.6m Crack and Permeable (a little)
							23.0m Crack and Permeable
						Dark Bluish Gray	27.9m Crack and Permeable (a little)
	225.87	32.2	28.3		Greywacke		
	224.97	33.1	0.9		Chart	Greenish Gray	Many Cracks
						Greenisr Bluish Gray	Soft. With Chart and some Cracks. Permeable
	220.97	37.1	4.0		Silt Stone		
						Dark Bluish Gray	With Some Quartz Vein and Cracks 38.9m Permeable (a little)
	216.07	42.0	4.9		Greywacke		

DRILLING TIME (min) 1 2 3 4 5

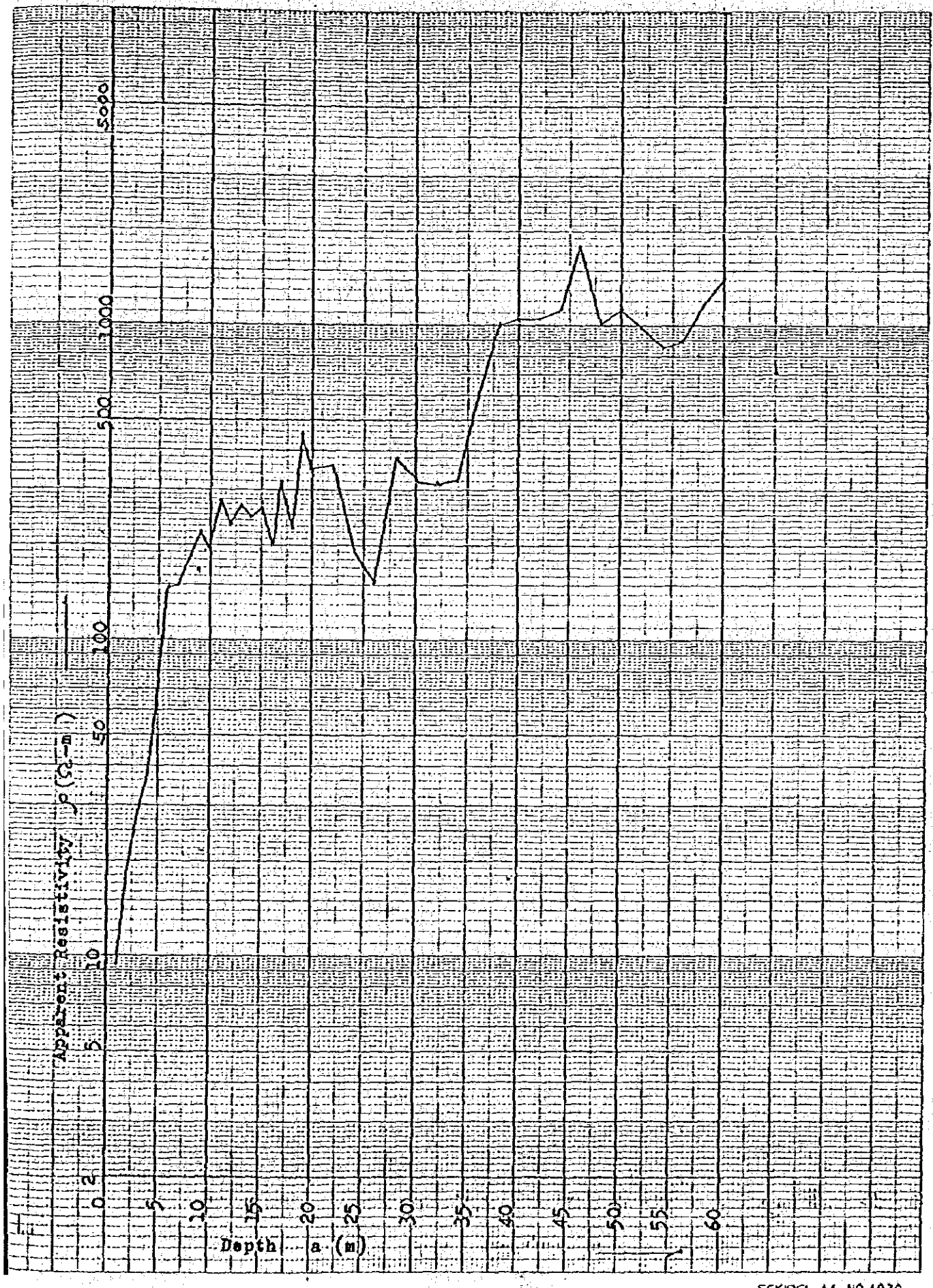
CASING PIPE and PUMP: Pumping Pipe (2); Casing Pipe (4); Submersible pump

ELECTRICAL LOG — RESISTIVITY (Ω - m): a = 25, a = 50, a = 100; 0, 20, 40, 60; 5, 10, 15, 20, 25, 30, 35, 40

APPENDIX H-4

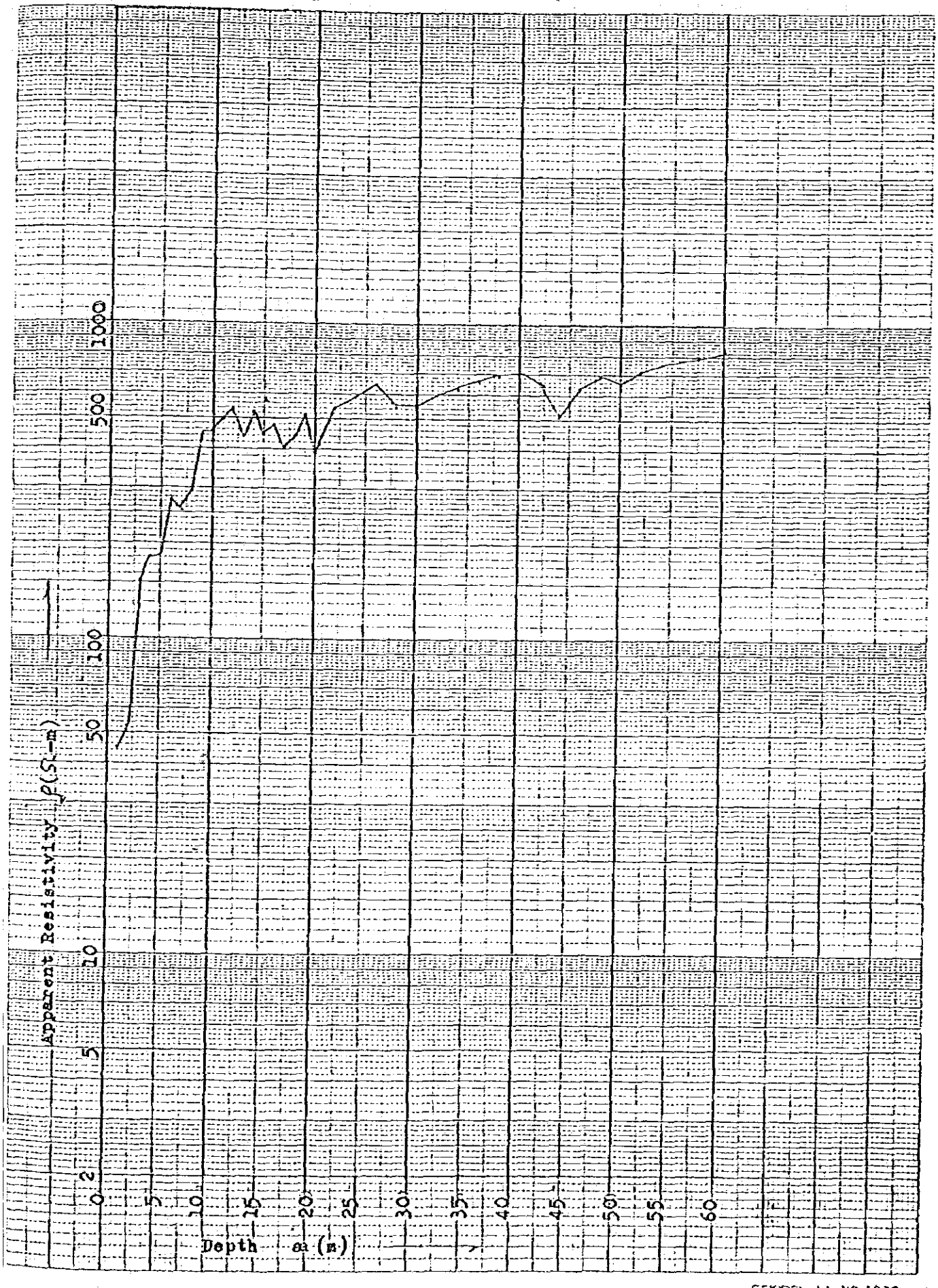
APPENDIX I. β - a CURVE

ρ - a Curve (E - 1)

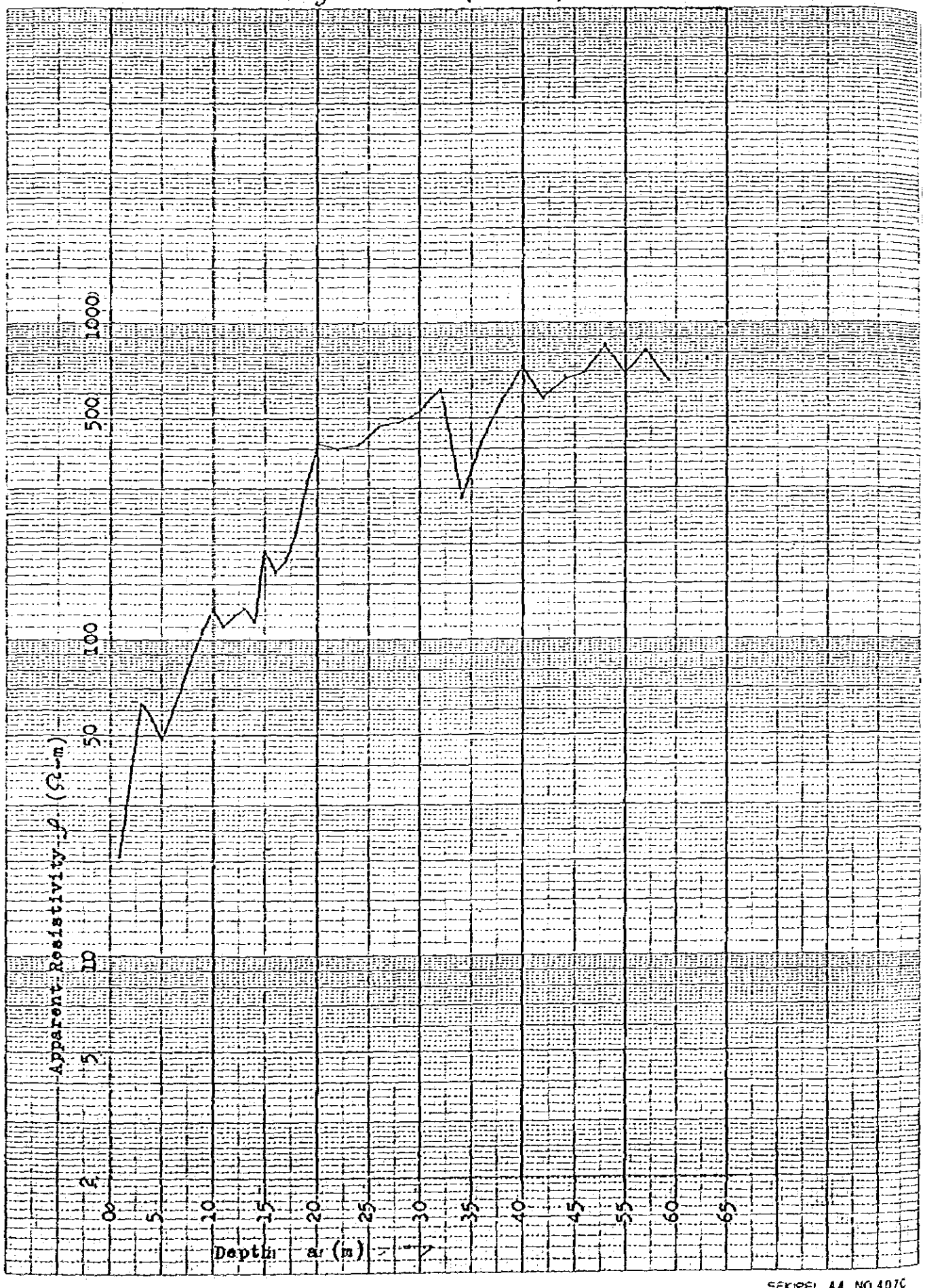


ρ - a Curve (E - 2)

ρ - a Curve (E - 3)

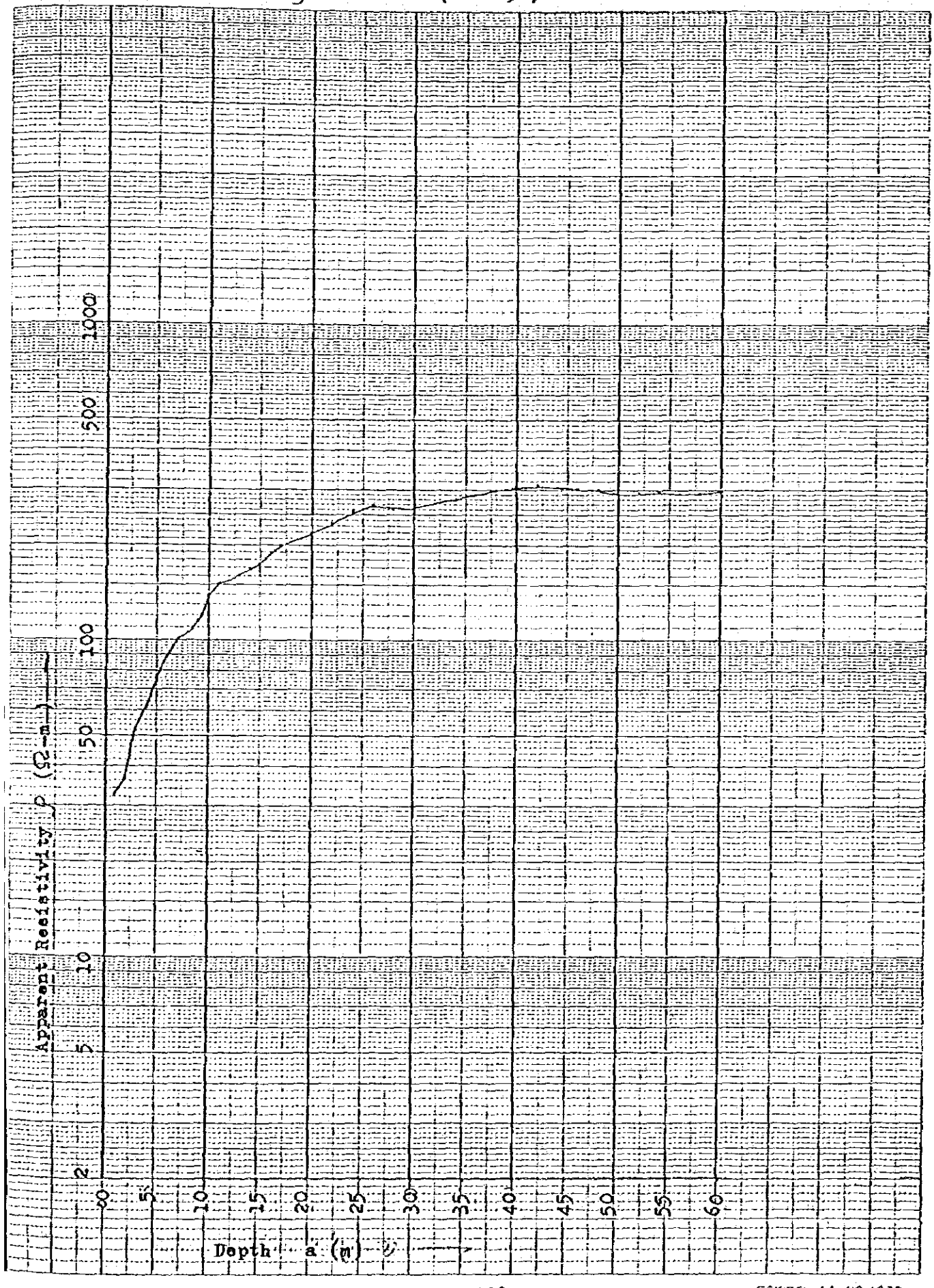


ρ - a Curve (E - 4)

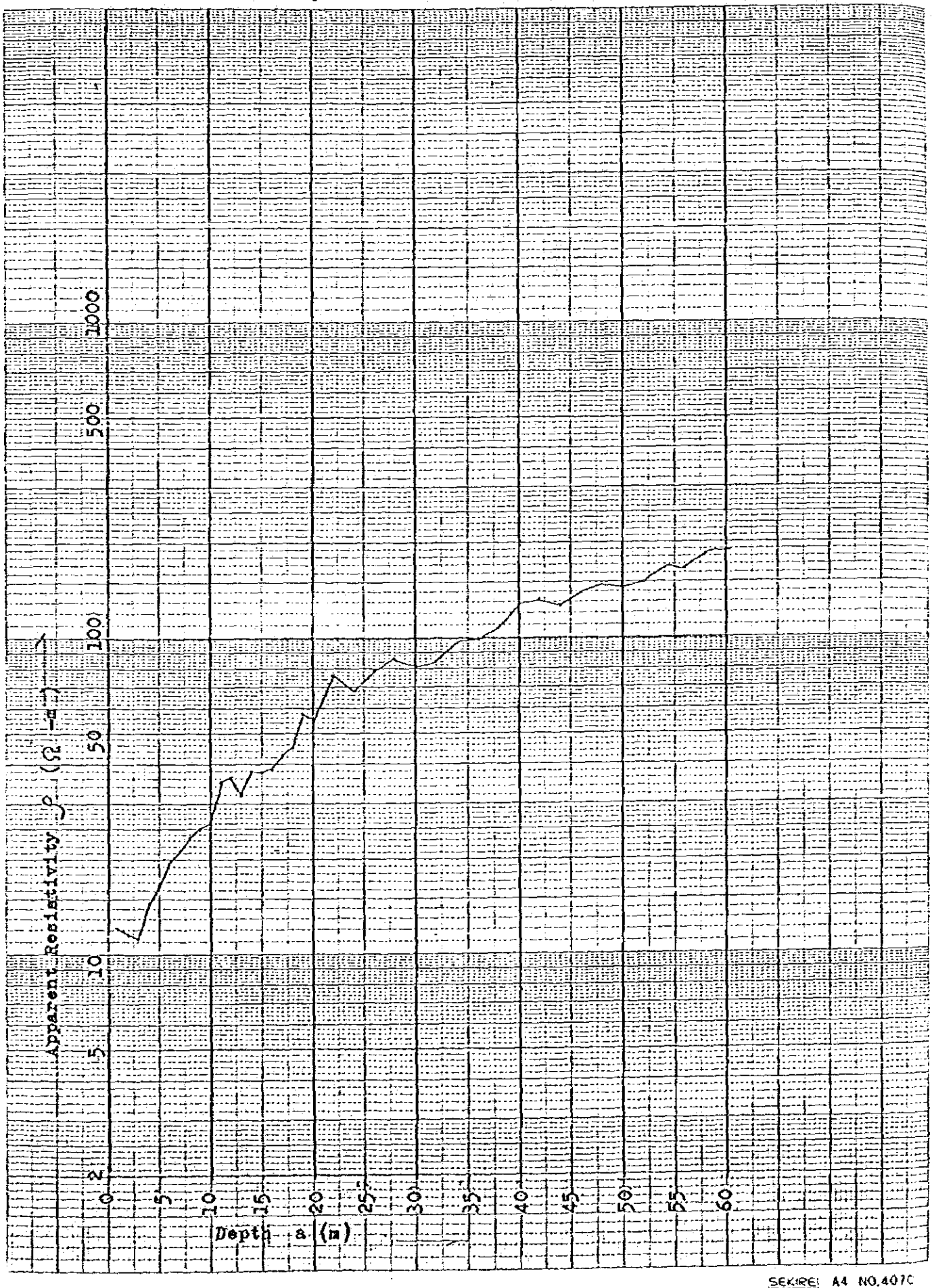


SEKIREI A4 NO.407C

ρ - a Curve (E - 5)

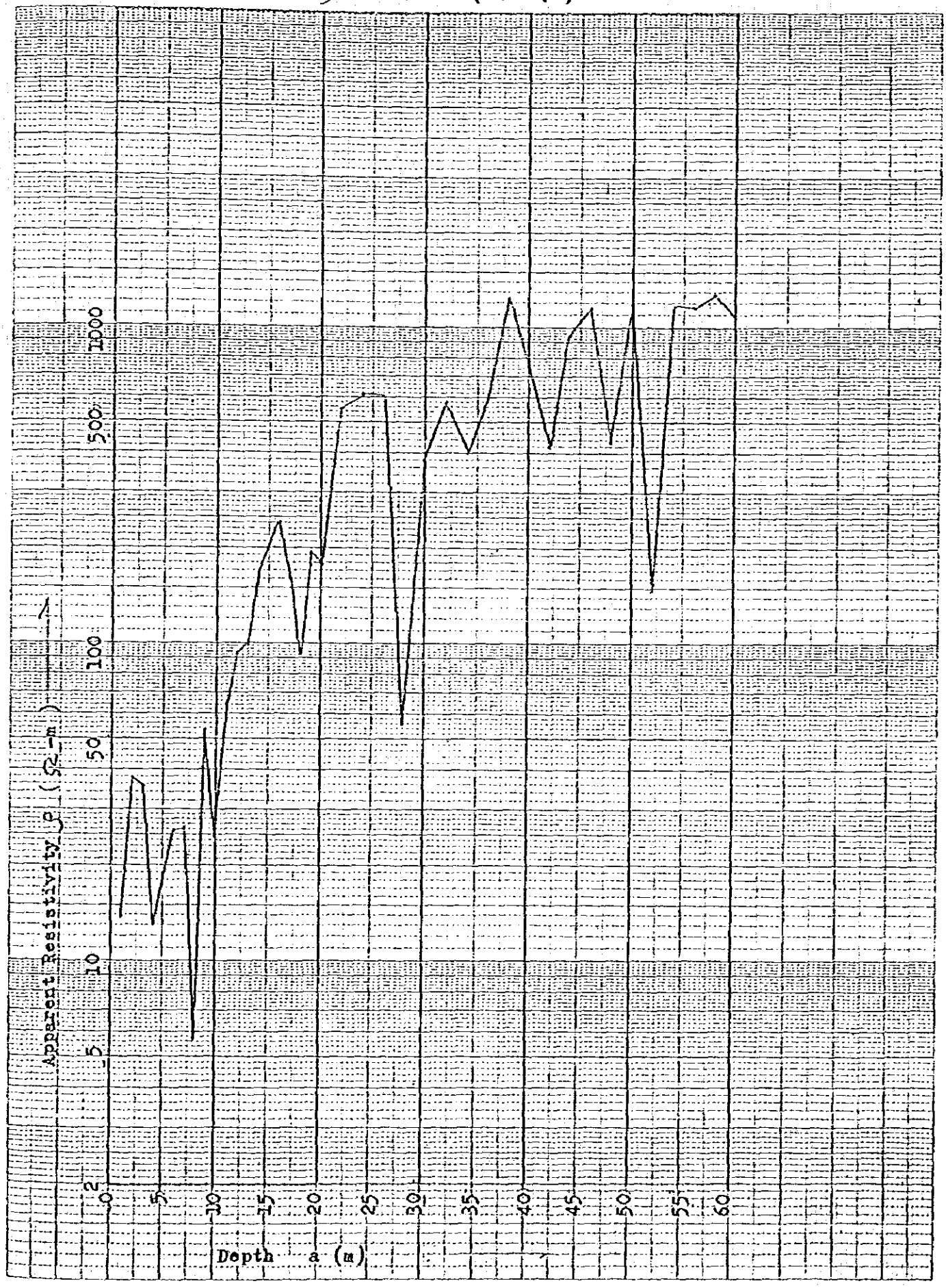


ρ - a Curve (E - 6)

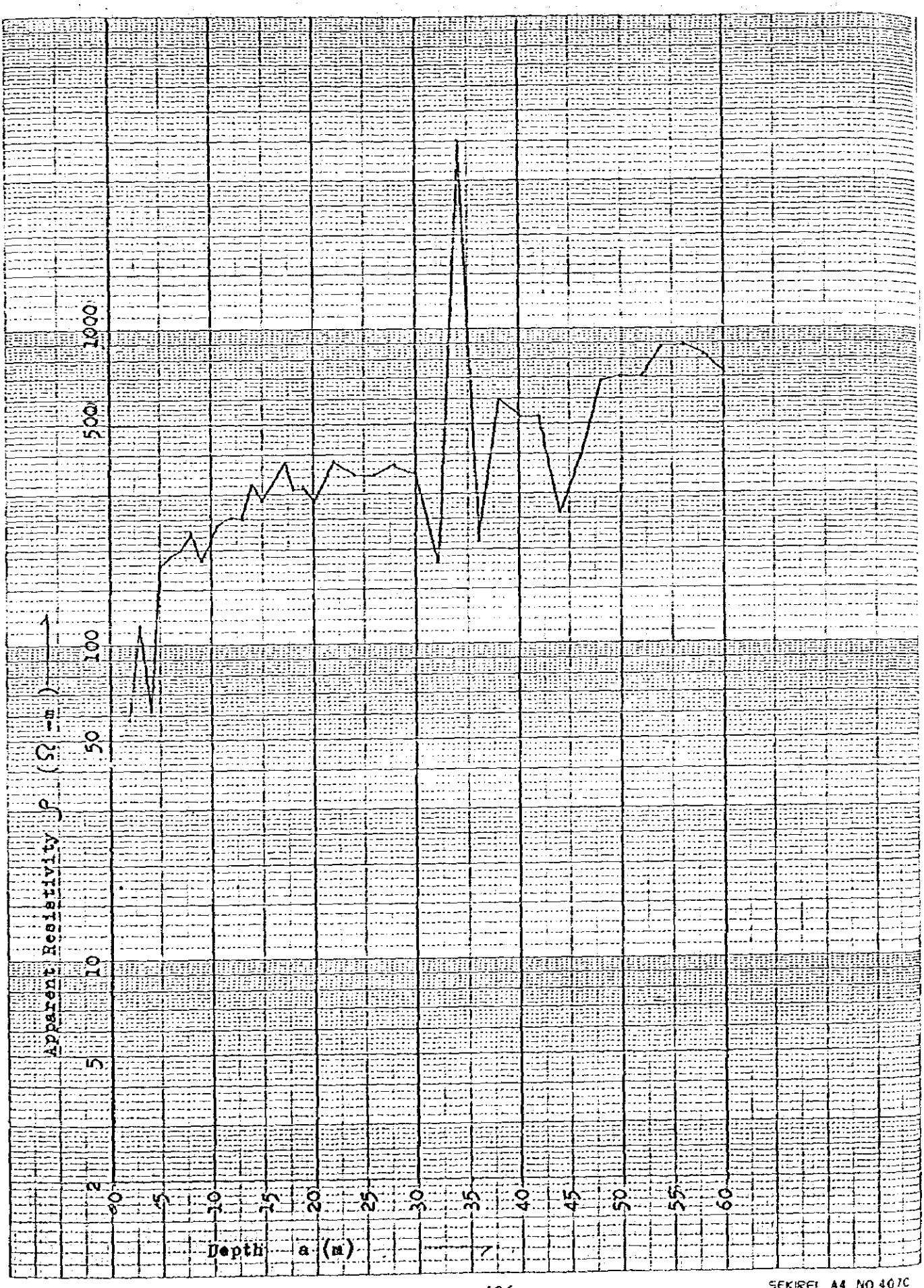


SEKIREI A4 NO.407C

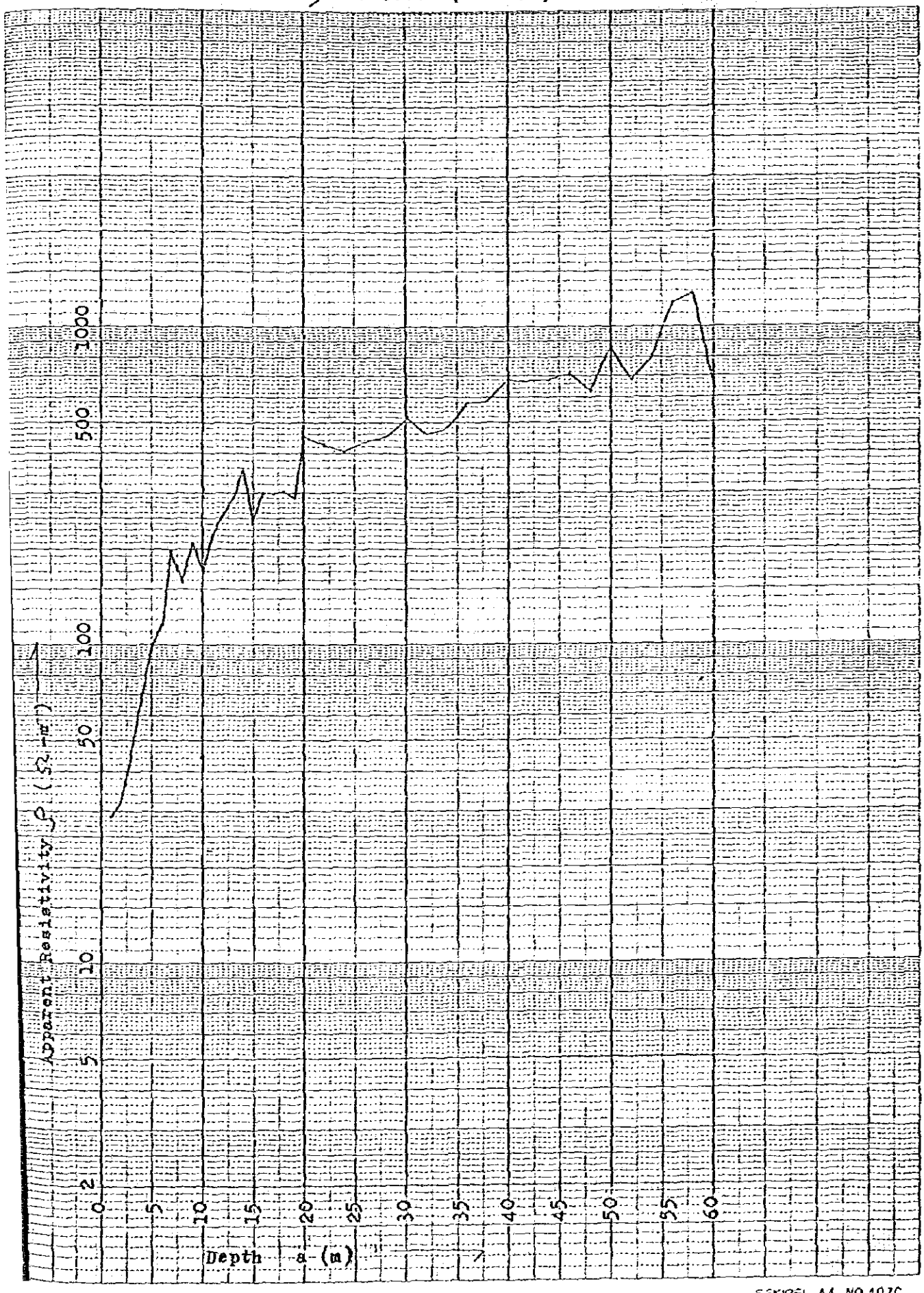
ρ - a Curve (E - 7)



ρ - a Curve (E - 8)

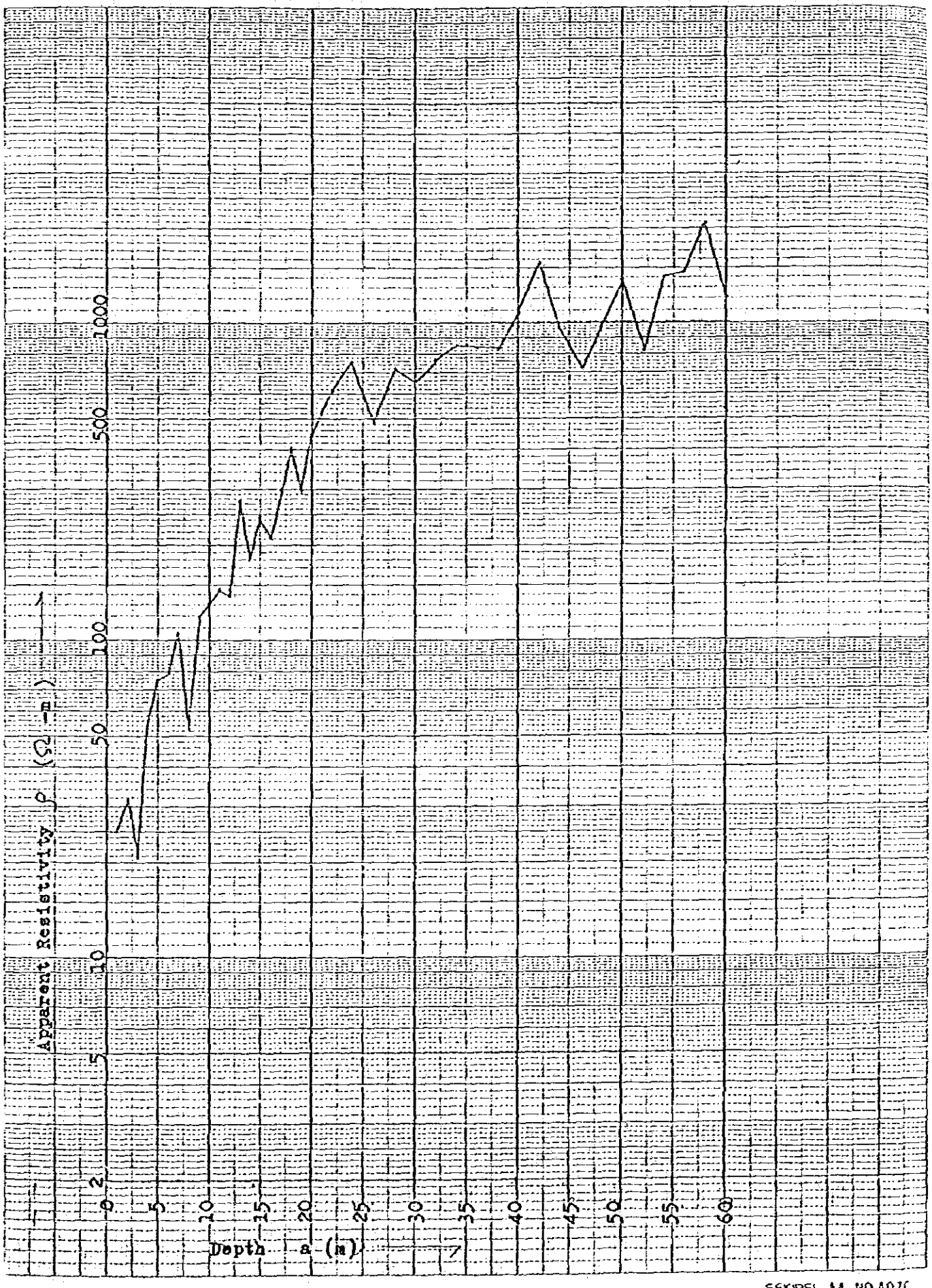


ρ - a Curve (E - 9)

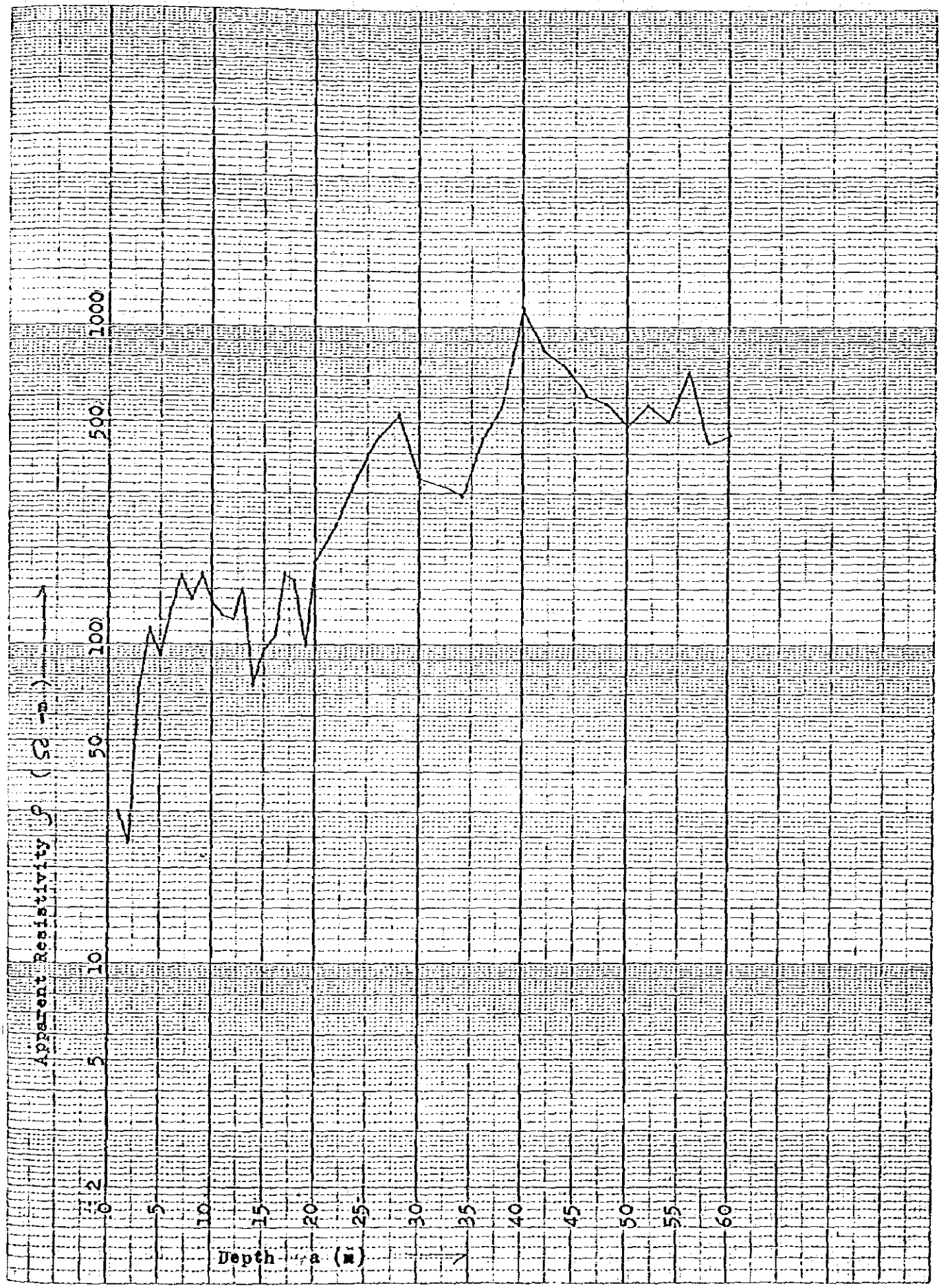


SEKIGEI A4 NO.407C

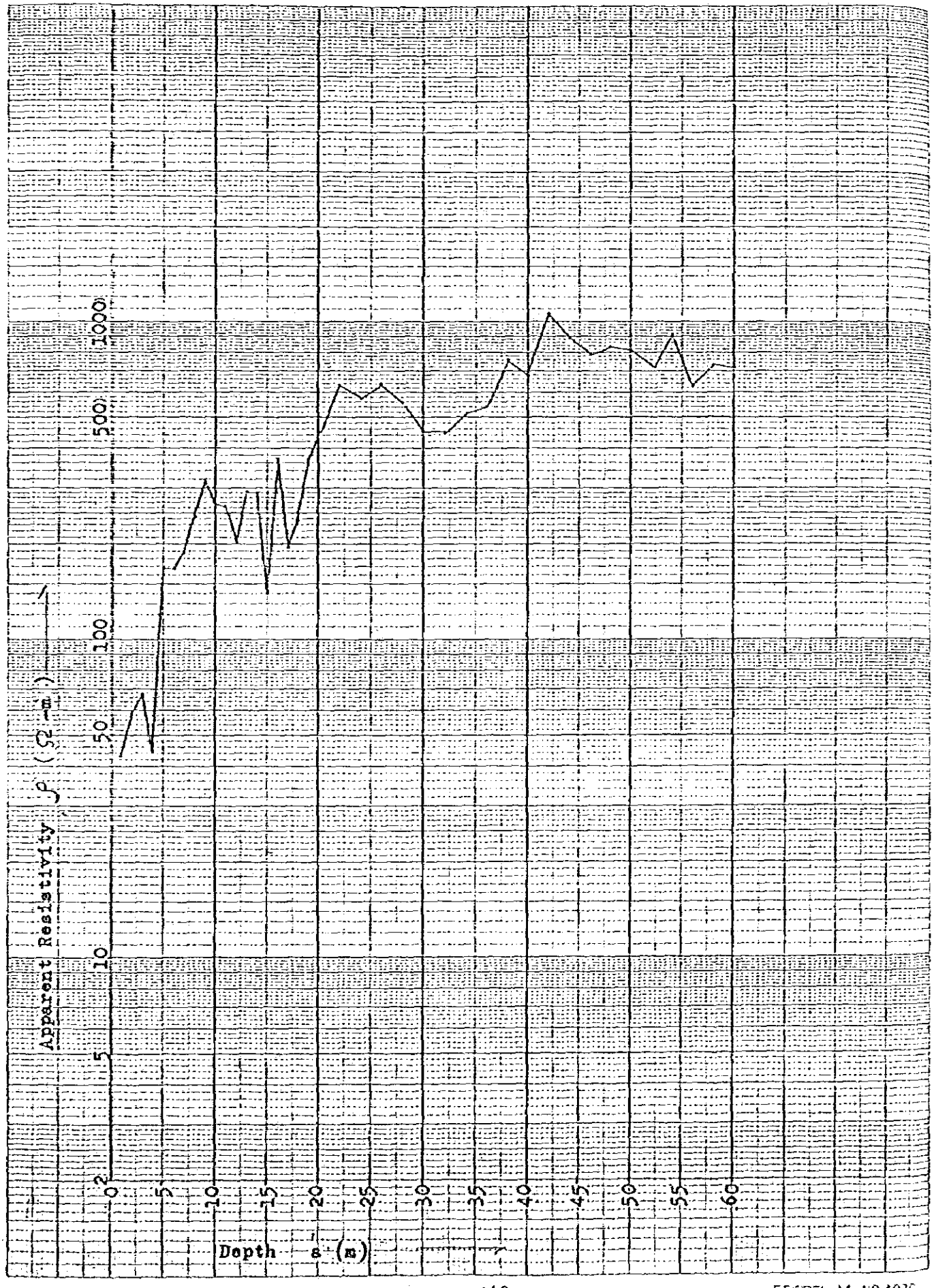
ρ - a Curve (E - 10)



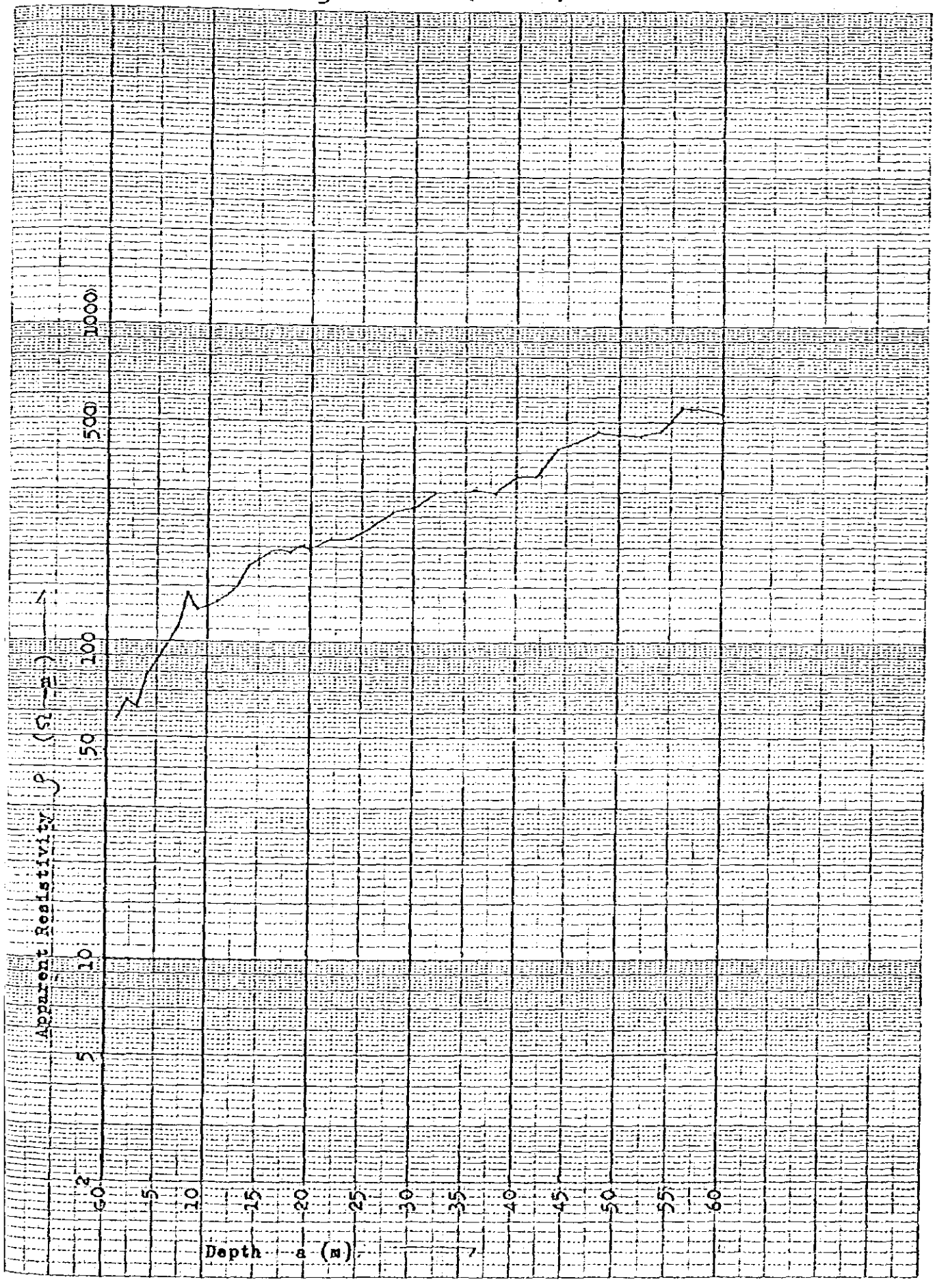
ρ - a Curve (E - 11)



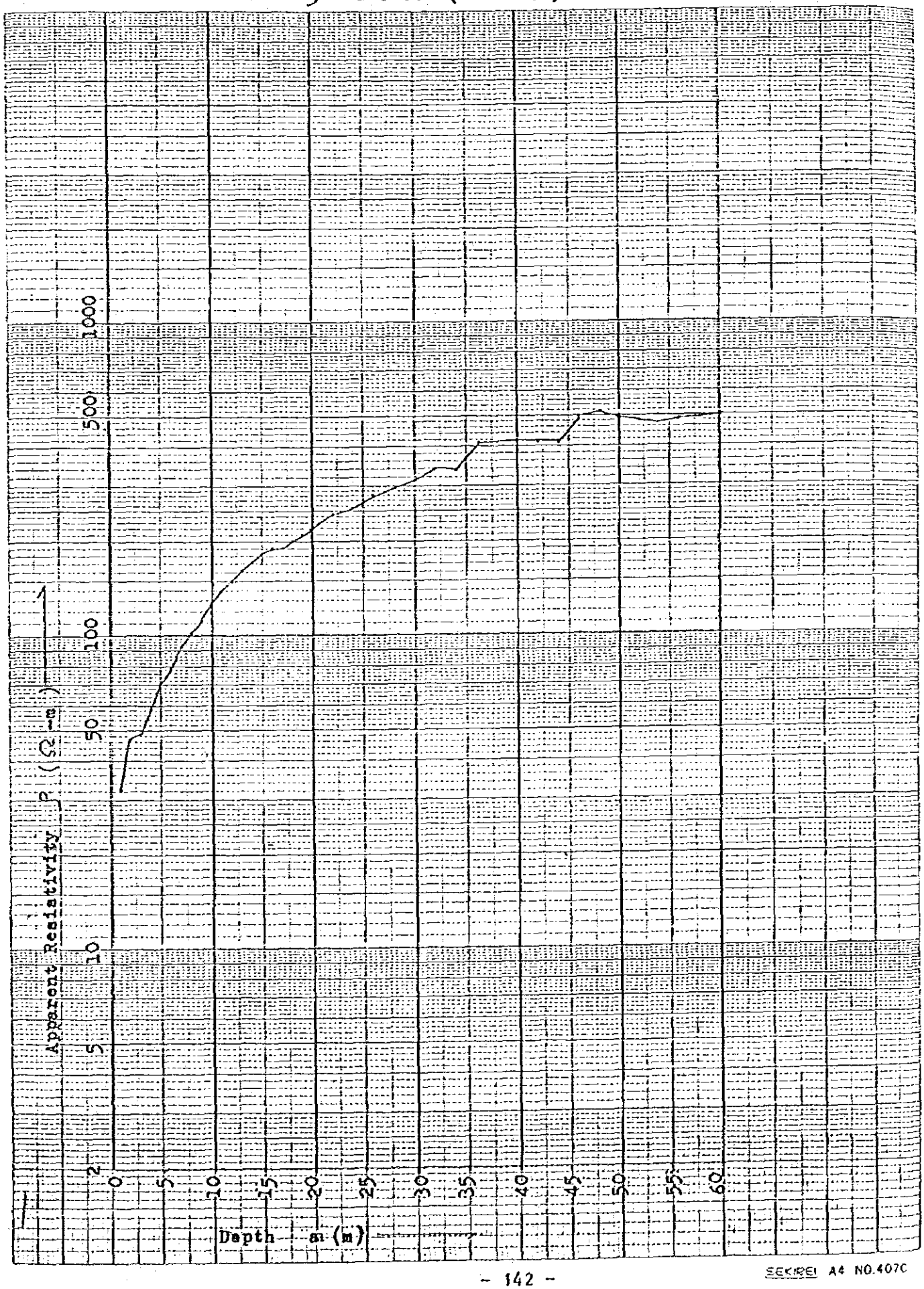
ρ - a Curve (E - 12)



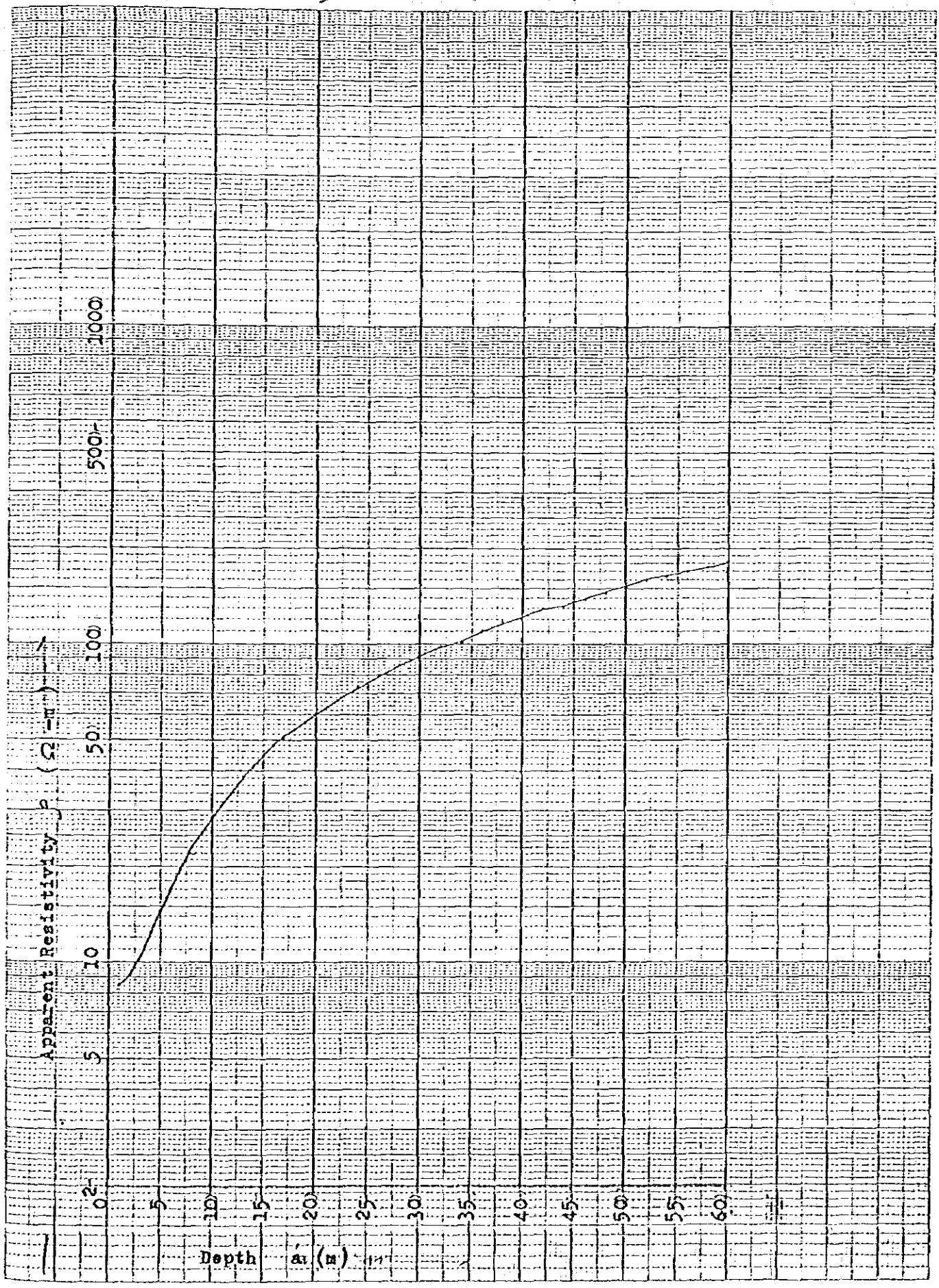
ρ - a Curve (E -13)



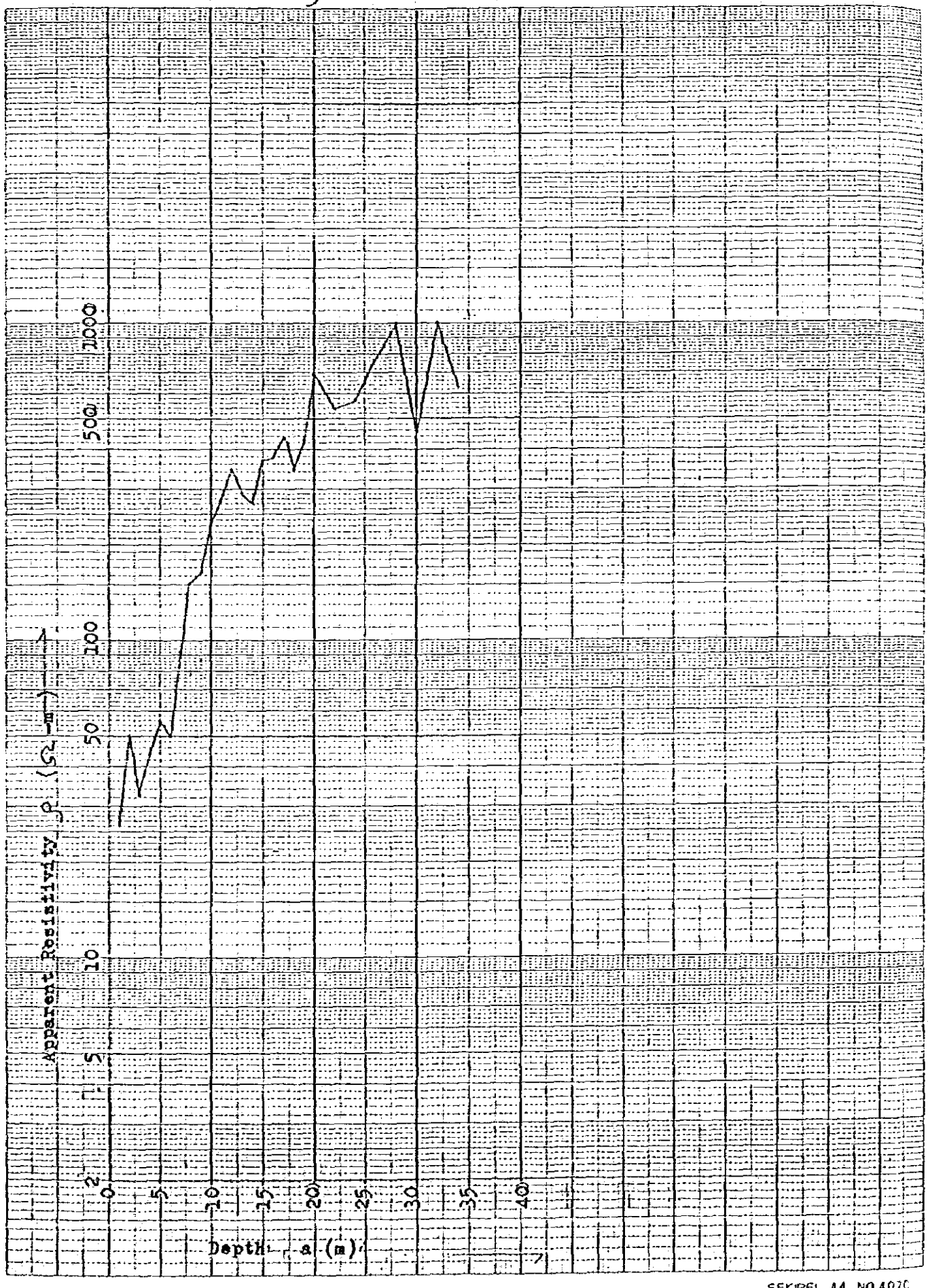
ρ - a Curve (E - 14)



ρ - a Curve (E - 15)



ρ - a Curve (E - 16)



ρ - a Curve (E - 17)