*** Hagiwara's analysis method:**

As shown in Fig. A, this method considers the ground to be a two layered structure, with velocity in the upper layer V_1 and velocity in the lower layer, V_2. T_{AP} is travel time of refracted wave from shot point A, received at P; T_{BP} is travel time of the refracted wave from B to P; and T_{AB} is travel time of the refracted wave from A'to B (The white circles in the figure represent travel times of refracted waves received at P. The X marks represent travel times of direct waves–those waves received at P that are propagated in the first layer only.) Here, T_{AP}, T_{BP} and T_{AB} are quantities obtainable through direct observation. The quantity t_0, where

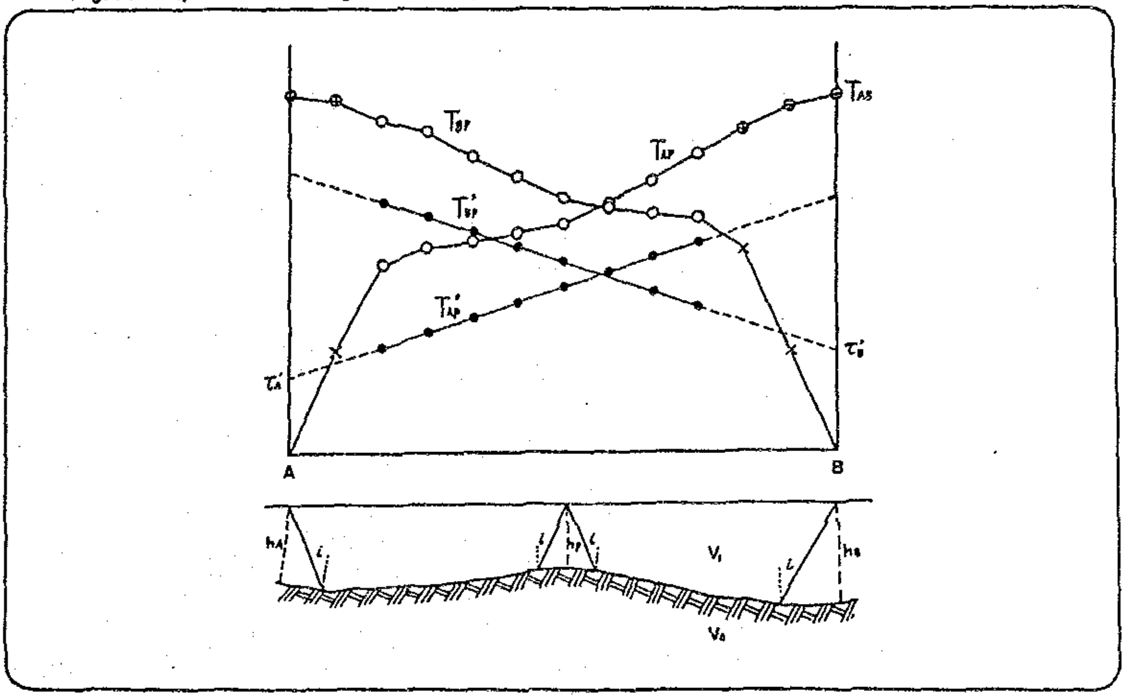
$$t_0 = T_{AP} + T_{BP} - T_{AB} \tag{a}$$

is called zero travel time. The quantities T_{AP}' and T_{BP}', where

$$\left.\begin{aligned} T_{AP}' &= T_{AP} - t_0/2 = (T_{AP} - T_{BP} + T_{AB})/2 \\ T_{BP}' &= T_{BP} - t_0/2 = (T_{BP} - T_{AP} + T_{AB})/2 \end{aligned}\right\} \quad \text{(b)}$$

are called velocity travel time (the black circles in the figure indicate velocity travel time). The curve that successively joins the velocity travel times determined for each receiving point is called the velocity travel time curve. Theoretically, this is a straight line, and its slope indicates velocity V_2 of the lower layer. Velocity V_1 of the upper layer is determined from the travel time of the direct wave mentioned above.

Fig. A Explanation of Hagiwara's analysis method



If we designate the length of a perpendicular line drawn from receiving point P to the surface of the lower layer (depth of the lower layer) h_P,

$$h_P = \frac{V_1(T_{AP} + T_{BP} - T_{AB})}{2\cos i} \quad (c)$$

where $\sin i = V_1/V_2$, meaning that h_P may be determined.

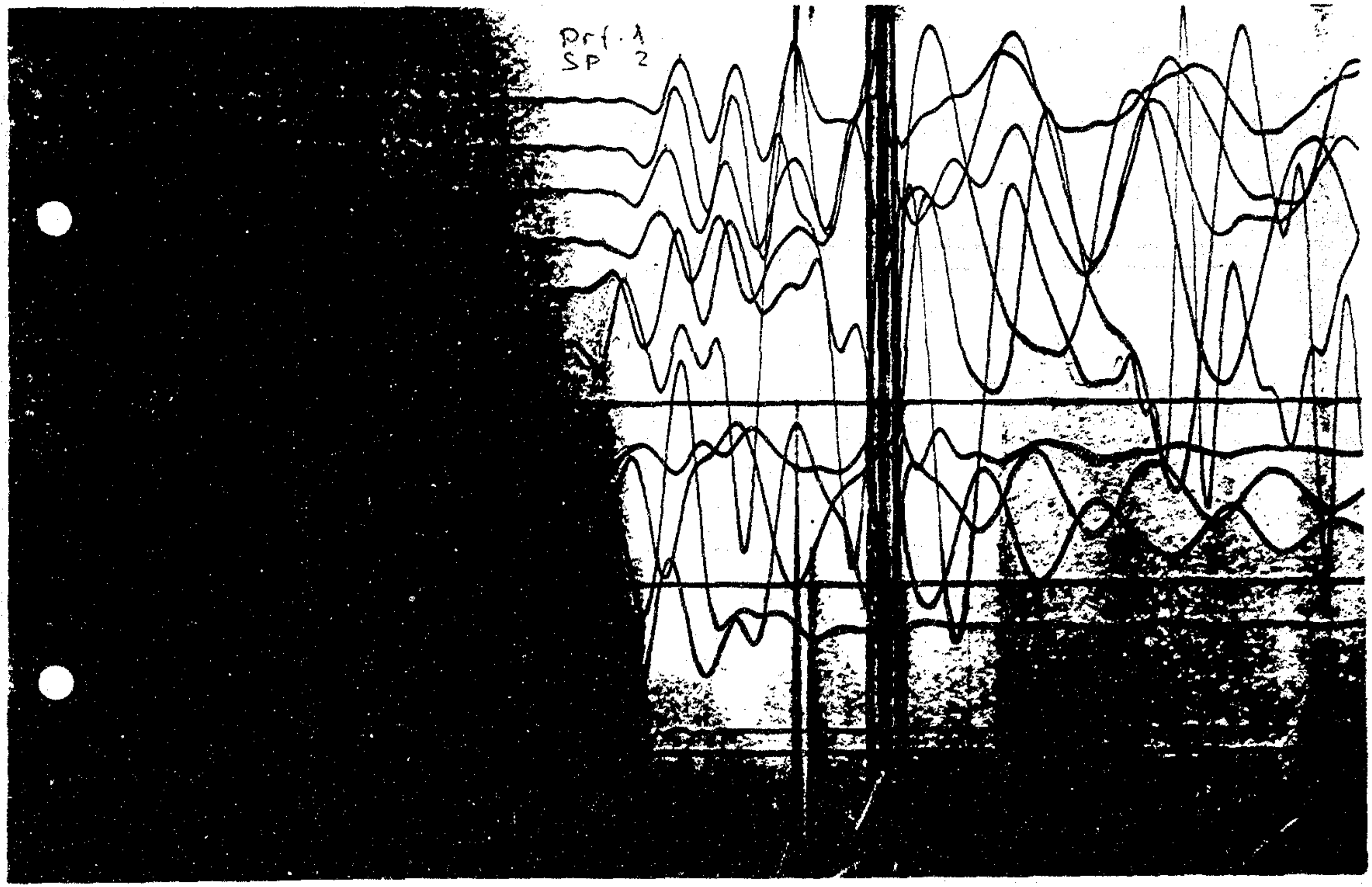
We have seen that where T_{AP} and T_{BP} are both known for the receiving point, depth of the lower layer can be determined using Formula (c). However, for the points marked ⊕ in the figure, only one of the values, T_{AP} or T_{BP} is known. For these receiving points, Formula (b) is substituted into Formula (c), giving us:

$$\left.\begin{aligned} h_P &= \frac{V_1(T_{AP} - T_{AP}')}{\cos i} \\ h_P &= \frac{V_1(T_{BP} - T_{BP}')}{\cos i} \end{aligned}\right\}$$

Here, the values T_{AP}' or T_{BP}' extend the velocity travel time curve. The values at P read off from this extended curve may be used.

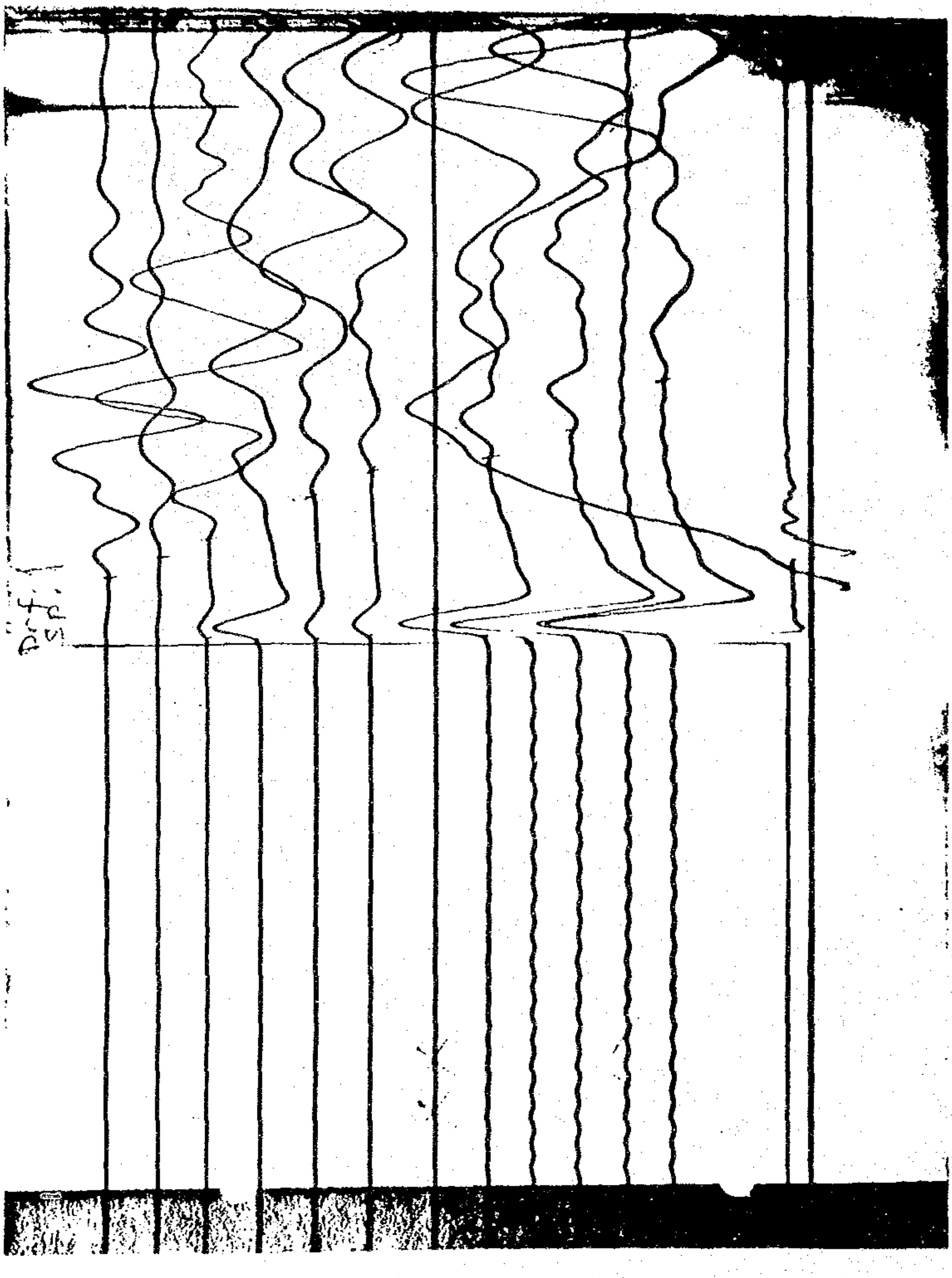
Also, if we designate the value of the point where velocity travel time curve T_{AP}' intersects the vertical axis at shot point A as τ_A' and the point where T_{BP}' intersects the vertical axis at shot point B as τ_B', the following formulas are obtained:

$$\left.\begin{aligned} h_A &= \frac{V_1\tau_A'}{\cos i} \\ h_B &= \frac{V_1\tau_B'}{\cos i} \end{aligned}\right\} \quad (d)$$



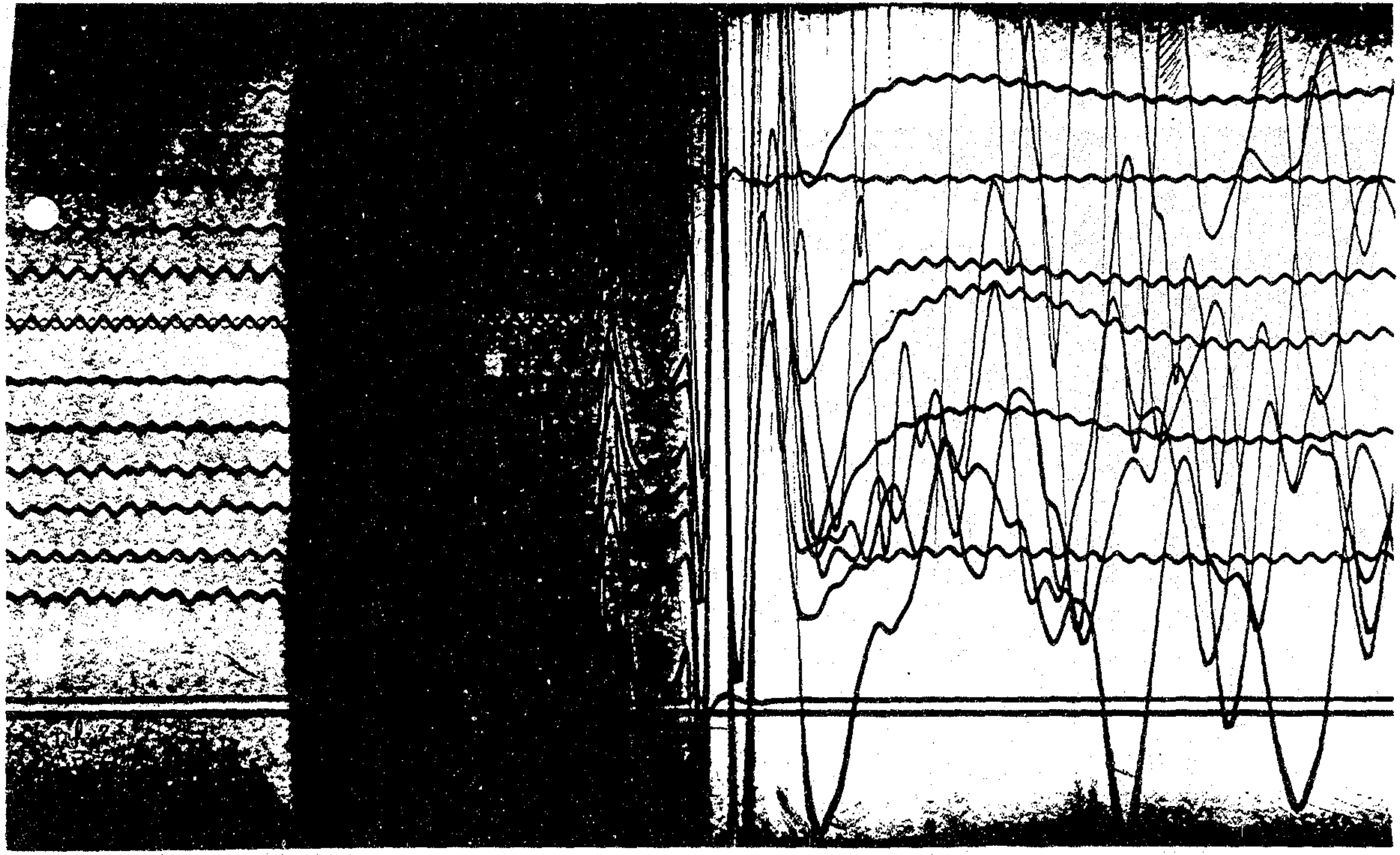
Seismic Prospecting Record

PS-1 Line Shot Point No. I



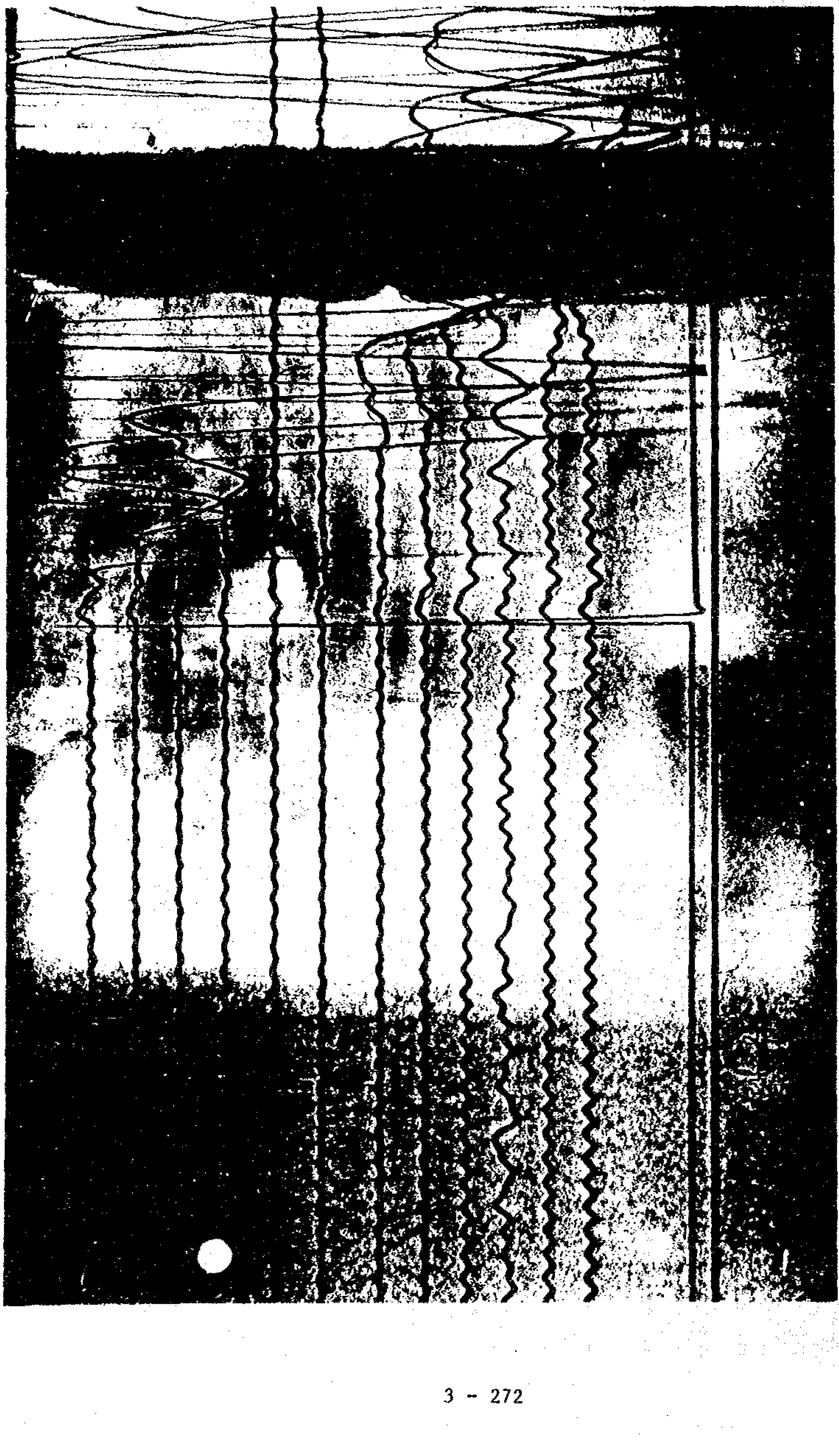
Seismic Prospecting Record

PS-1 Line   Shot Point No. II



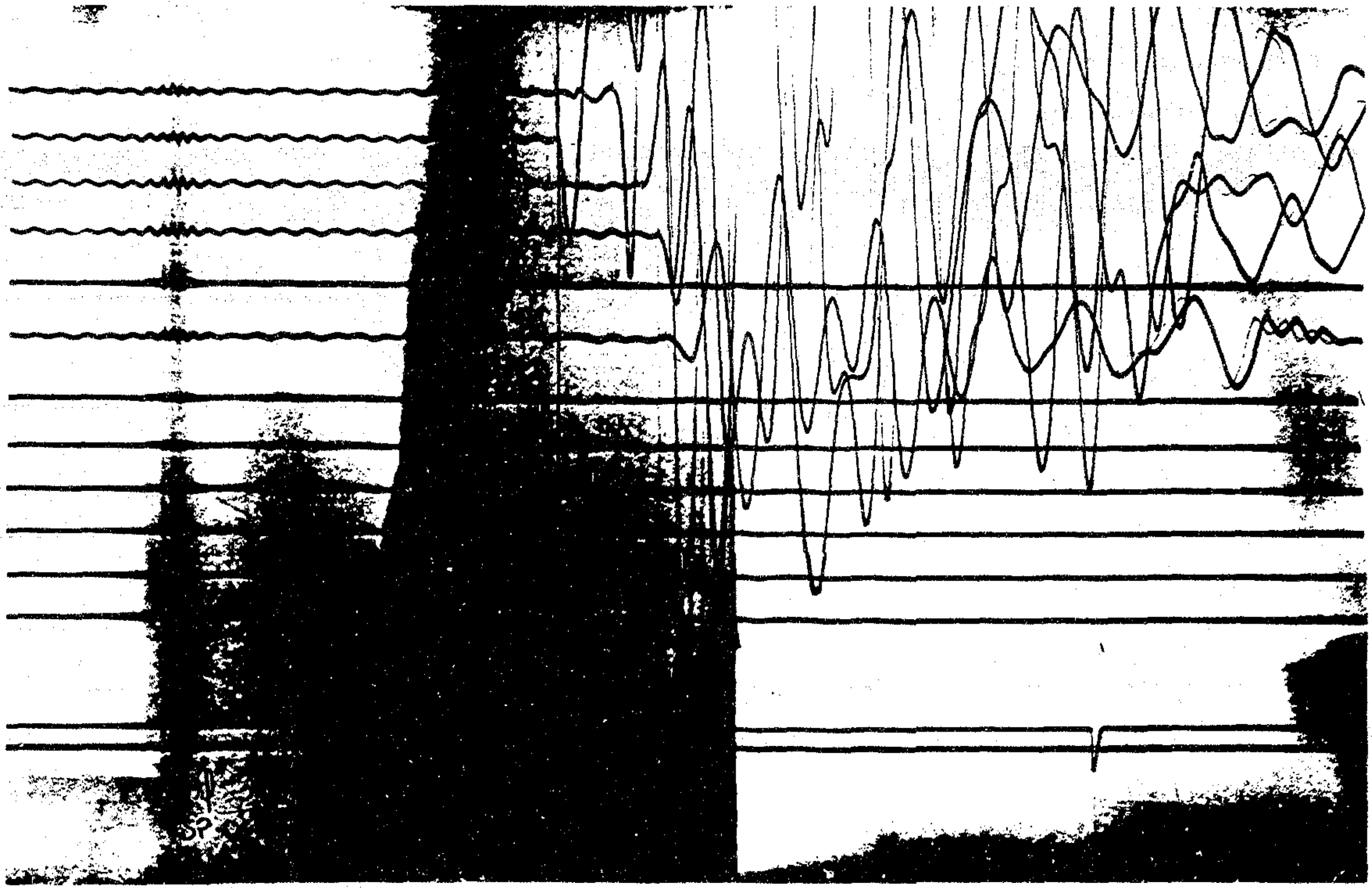
Seismic Prospecting Record

PS-2 Line　Shot Point No. I



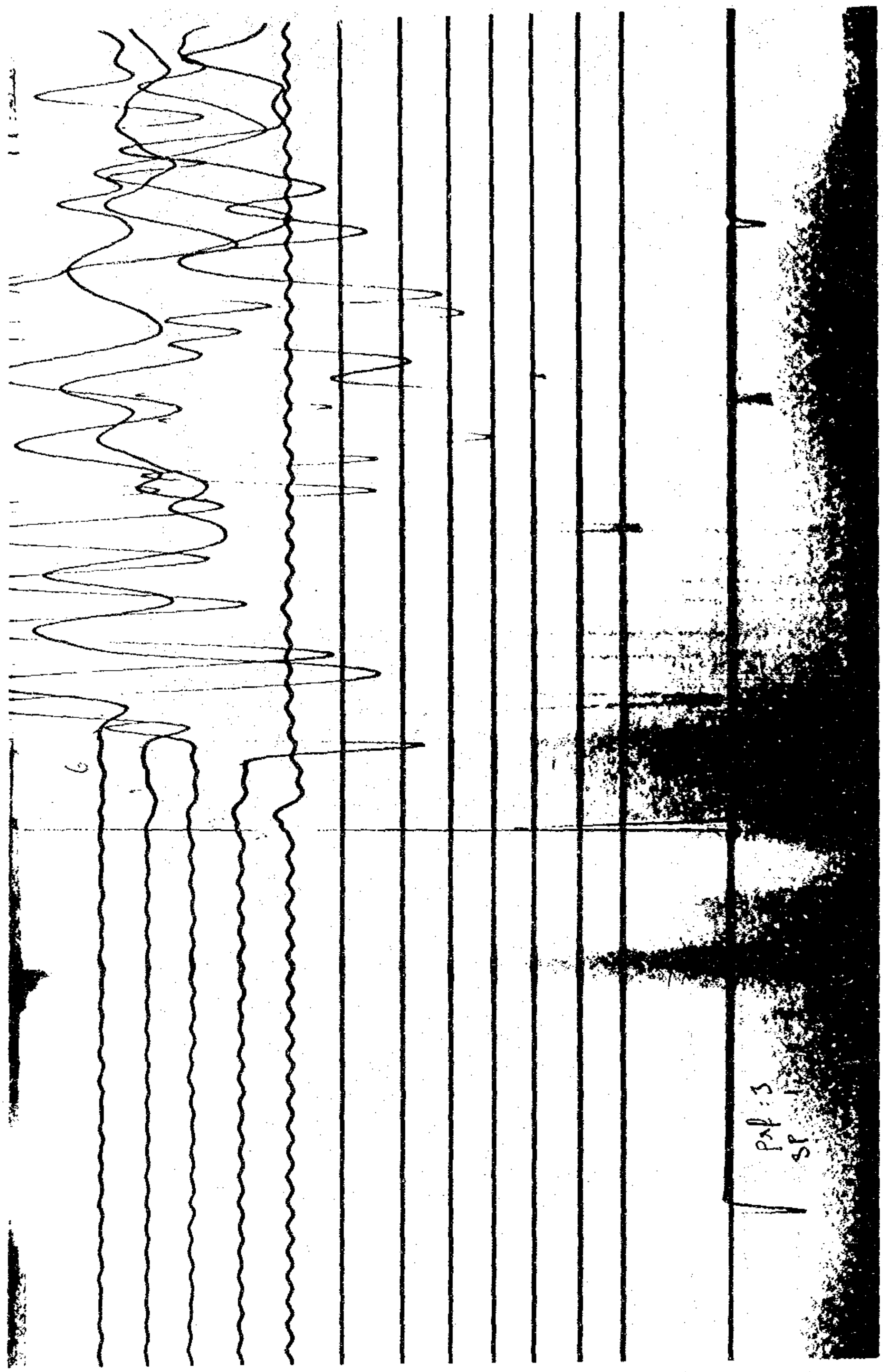
Seismic Prospecting Record

PS-2 Line Shot Point No. II



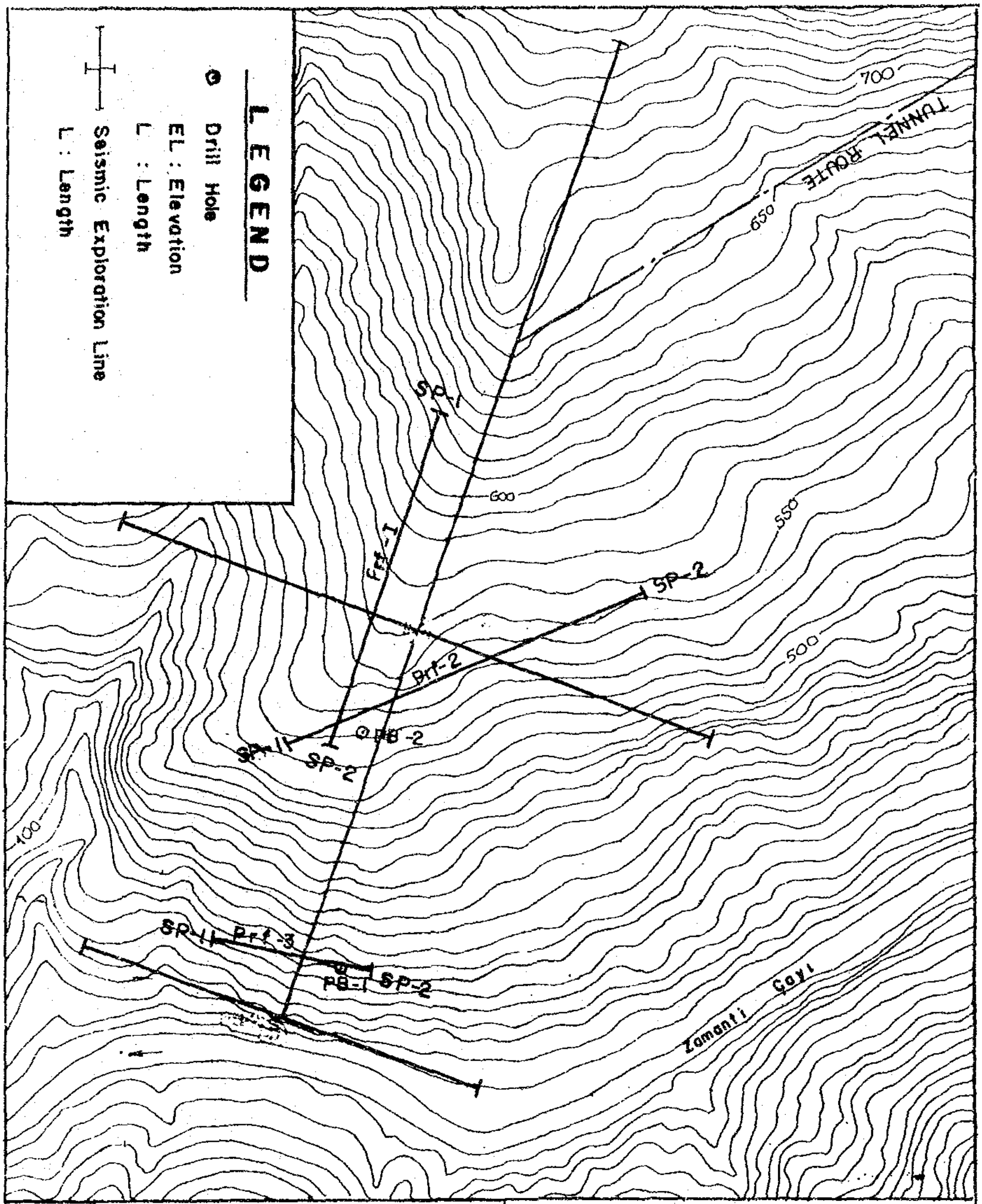
Seismic Prospecting Record

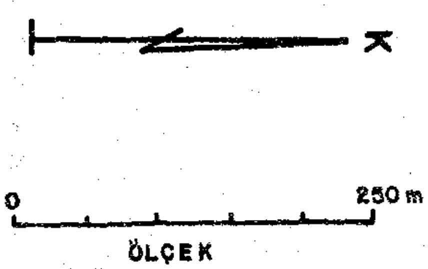
PS-3 Line   Shot Point No. I



Seismic Prospecting Record

PS-3 Line Shot Point No. II



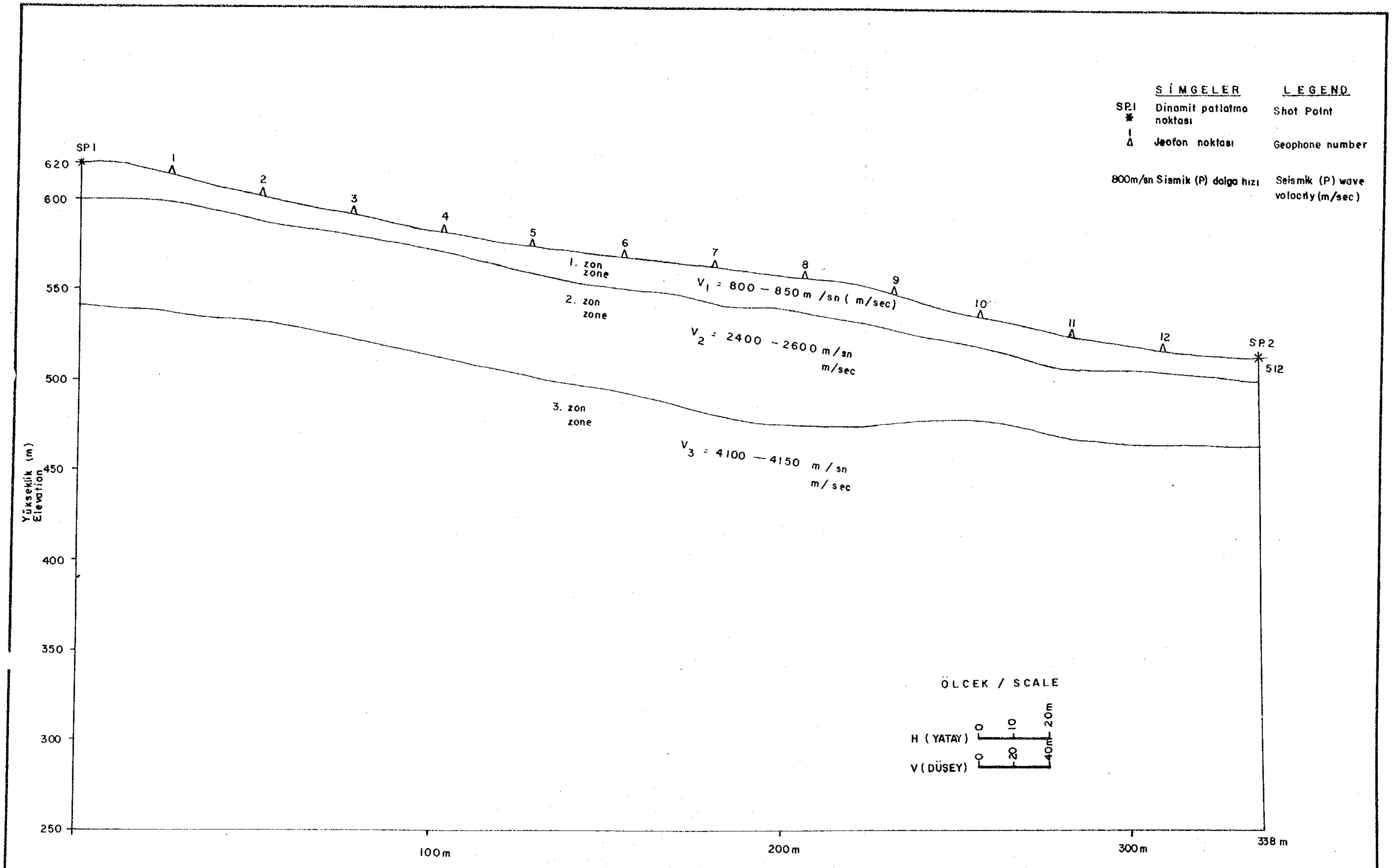


DEVLET SU İŞLERİ GENEL MÜDÜRLÜĞÜ
JEOTEKNİK HİZMETLER VE YERALTISULARI
DAİRESİ BAŞKANLIĞI
A N K A R A

LOCATION OF GEOLOGICAL INVESTIGATION WORKS

PENSTOCK AND POWERHOUSE-PLANE

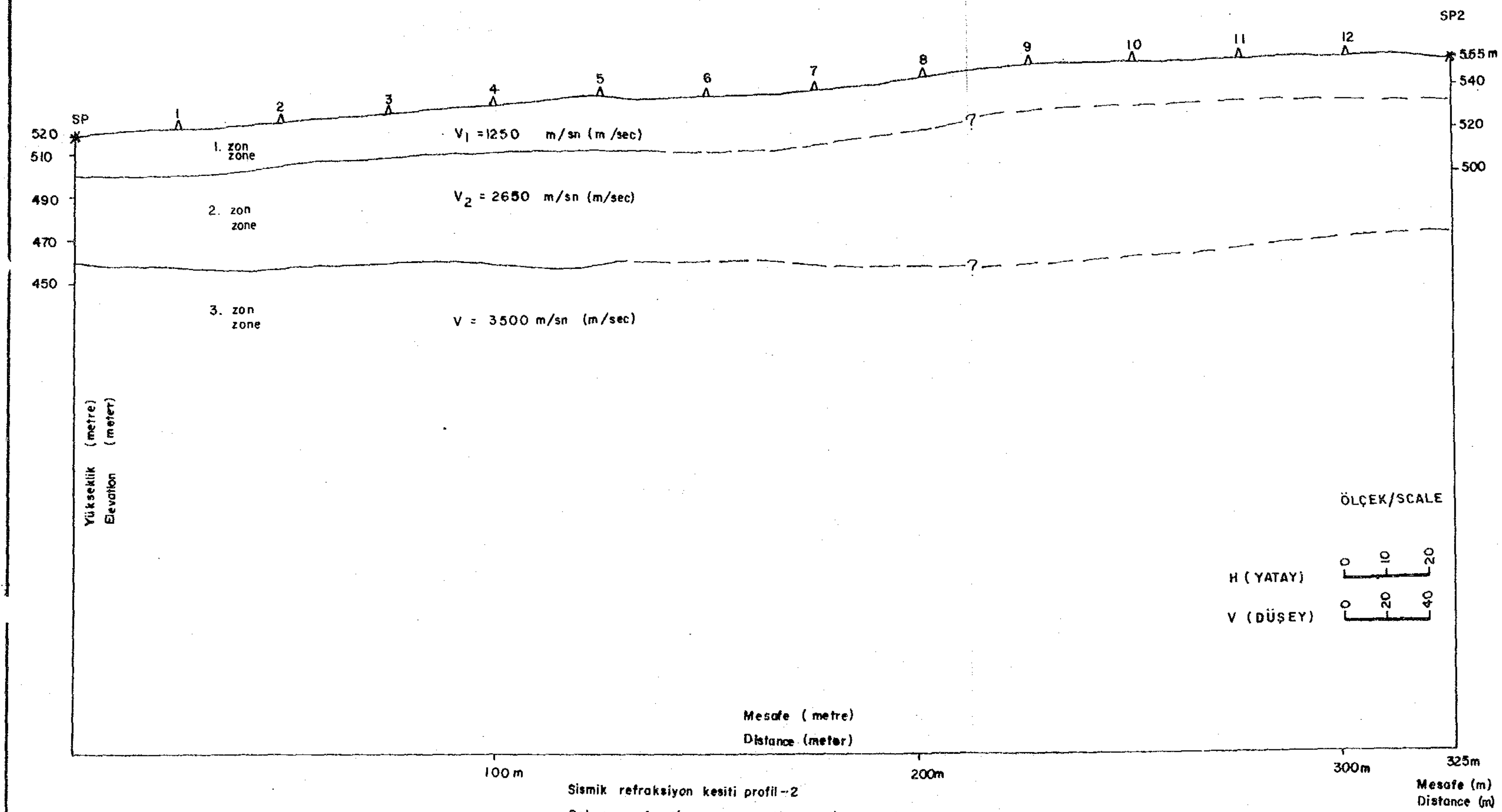
YAPAN : Ö.L UZUN	KONTROL :	TASDİK OLUNUR
ÇİZEN : S.KBULUT	TASVİP :	
ÖLÇEK :	ARŞİV NO. :	Tarih / /



Sismik refreksiyon kesiti profil–I

Seismic refraction cross section profile–I

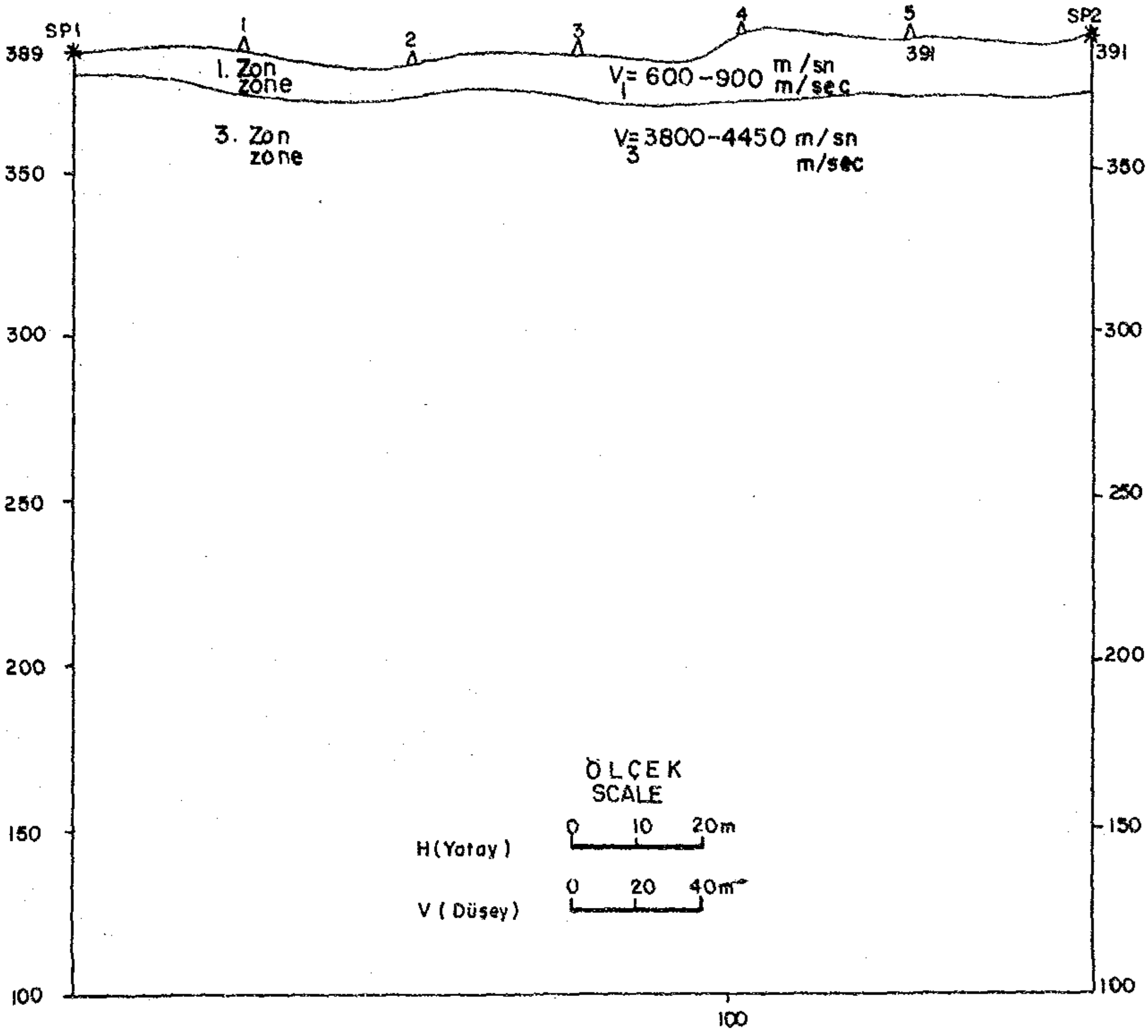
C. KAPTAN
Ö. L. UZUN



Sismik refraksiyon kesiti profil-2

Seismic refraction cross section profile-2

C. KAPTAN
Ö.L. UZUN



Sismik refraksiyon kesiti profil — 3
Selsmic refraction cross section profile—3

DEVLET SU İŞLERİ GENEL MÜDÜRLÜĞÜ JEOTEKNİK HİZMETLER VE YERALTISULARI DAİRESİ BAŞKANLIĞI A N K A R A		
GÖKTAŞ BARAJI SİSMİK REFRAKSIYON KESİTİ		
YAPAN :C.KAPTAN	KONTROL :	TASDİK OLUNUR
ÇİZEN :N.TUĞ	TASVİP :	
ÖLÇEK :	ARŞİV NO. :	Tarih / /

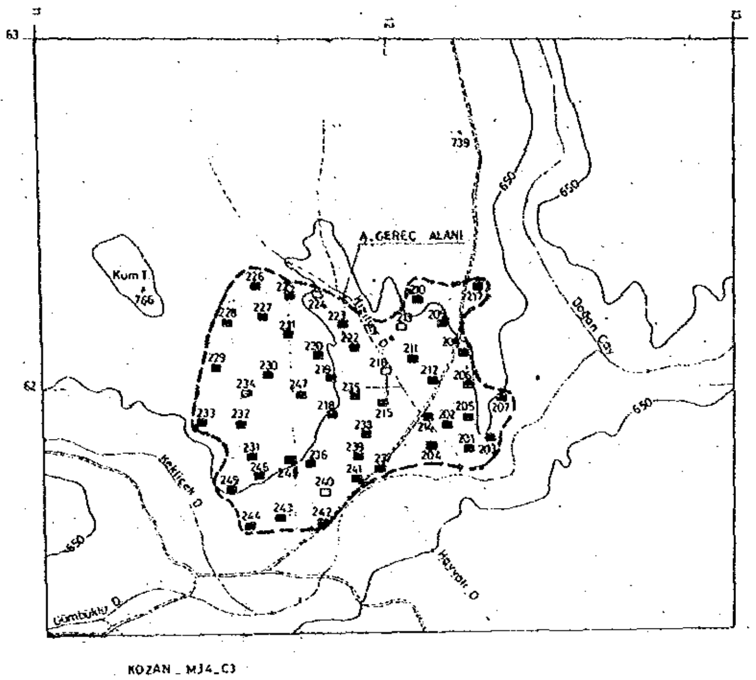
Result of Laboratory Test for Core Material(1/2)

Item / Sample No.	Grading				Atterberg limits (%)			Soil classification	Specific gravity	(Optimum moisture content) Compaction Test		Triaxial Shear strength		Coefficient of Permeability
	Silt-clay under 0.074mm	Sand	gravel over 5mm	Max grain size (mm)	LL	PL	PI		Gs (t/m³)	ρd max (g/cm³)	ωopt (%)	C (kgf/cm²)	φ (°)	K (cm/sec)
A-201	10	32	58	50	31.8	21.3	10.5	GP-GC	2.74	1.80	19.3	1.05	20	6.4×10^{-7}
A-202	44.5	43.5	12	25	44.8	35.4	11.4	SM	2.69	1.58	19.6	–	–	–
A-203	23	55	22	38	38.4	27.2	11.2	SM	2.65	1.80	10.2	–	–	–
A-204	22	56.5	21.5	38	34.0	24.9	9.1	SM	2.78	1.75	17.0	–	–	–
A-205	25.5	37.5	38	50	49.4	29.2	20.2	SM-SC	2.51	1.54	24.0	1.6	20	7.1×10^{-7}
A-206	29	62	9	20	35.9	28.0	7.9	SM	2.66	1.68	20.3	–	–	–
A-207	24	37	39	38	44.2	28.1	16.1	SM	2.66	1.87	20.1	–	–	–
A-208	30	54	16	38	36.6	26.1	10.5	SM	2.68	1.66	20.0	1.3	20	4.5×10^{-6}
A-209	28	59	13	38	–	–	–	SM	2.76	1.64	20.5	–	–	–
A-210	38	52	10	38	37.4	26.0	11.4	SM	2.77	1.62	22.4	–	–	–
A-211	32	55	13	38	33.1	25.5	7.6	SM	2.71	1.72	18.9	–	–	–
A-212	48	46	6	19	40.6	28.3	12.3	SM	2.71	1.61	23.8	1.2	20	–
A-214	26	60.5	13.5	38	–	–	–	SM	2.76	1.67	20.0	–	–	–
A-215	64	33	3	30	52.4	26.7	25.7	CH-MH	2.73	1.57	23.0	2.0	13	8.6×10^{-7}
A-217	18	58	24	38	32.3	25.3	7.0	SM	2.77	1.85	15.0	–	–	–
A-218	22	30	48	53	55.5	28.6	26.9	GC	2.65	1.62	20.4	1.25	12	–
A-219	57	39	4	19	45.1	30.0	15.1	ML	2.84	1.52	27.0	–	–	–
A-220	40	46	14	52	41.5	30.4	11.1	SM	2.87	1.55	22.2	–	–	–
A-221	54	25	21	50	58.0	39.9	18.1	MH	2.64	1.36	30.2	–	–	–
A-222	80	19	1	19	51.4	30.8	20.6	MH	2.55	1.43	27.0	1.7	24	5.9×10^{-7}
A-223	69	27	4	15	49.8	31.7	18.1	ML	2.70	1.48	25.0	1.7	21	3.3×10^{-7}
A-225	46	54	–	5	45.0	24.2	20.8	SC	2.67	1.59	23.0	–	–	–
A-226	57	43	–	15	45.8	26.1	19.7	CL-ML	2.59	1.6	21	1.15	21	–
A-227	53	45	2	15	41.6	26.5	15.1	ML	2.64	1.57	22	–	–	–
A-228	20	33	47	78	38.1	26.5	11.6	GM	2.71	1.62	20	–	–	–
A-229	36	62.5	1.5	9.5	48.1	26.2	21.9	SC	2.67	1.61	23	1.10	18	2.4×10^{-7}
A-230	53	26	21	38	49.2	24.9	24.3	CL	2.71	1.61	22	–	–	–
A-231	58	21	21	19	61.9	35.6	26.3	MH	2.74	1.42	25	–	–	–
A-232	38	34	28	38	45.3	29.0	16.3	GM-SM	2.71	1.50	27	–	–	–
A-233	44	33.5	22.5	38	49.4	27.2	22.2	SC	2.66	1.66	18	2.0	16	–
A-234	57	41	2	9.5	45.7	28.8	16.9	ML	2.67	1.53	23	–	–	–
A-235	86.5	9.5	4	19	77.0	26.8	50.2	CH	2.71	1.46	25	–	–	–
A-236	82	17	1	15	82.3	29.0	53.3	CH	2.66	1.38	28	1.85	10	4.2×10^{-7}
A-237	68	26.5	5.5	38	37.2	23.9	13.3	CL-ML	2.64	1.65	19	–	–	–

Result of Laboratory Test for Core Material(2/2)

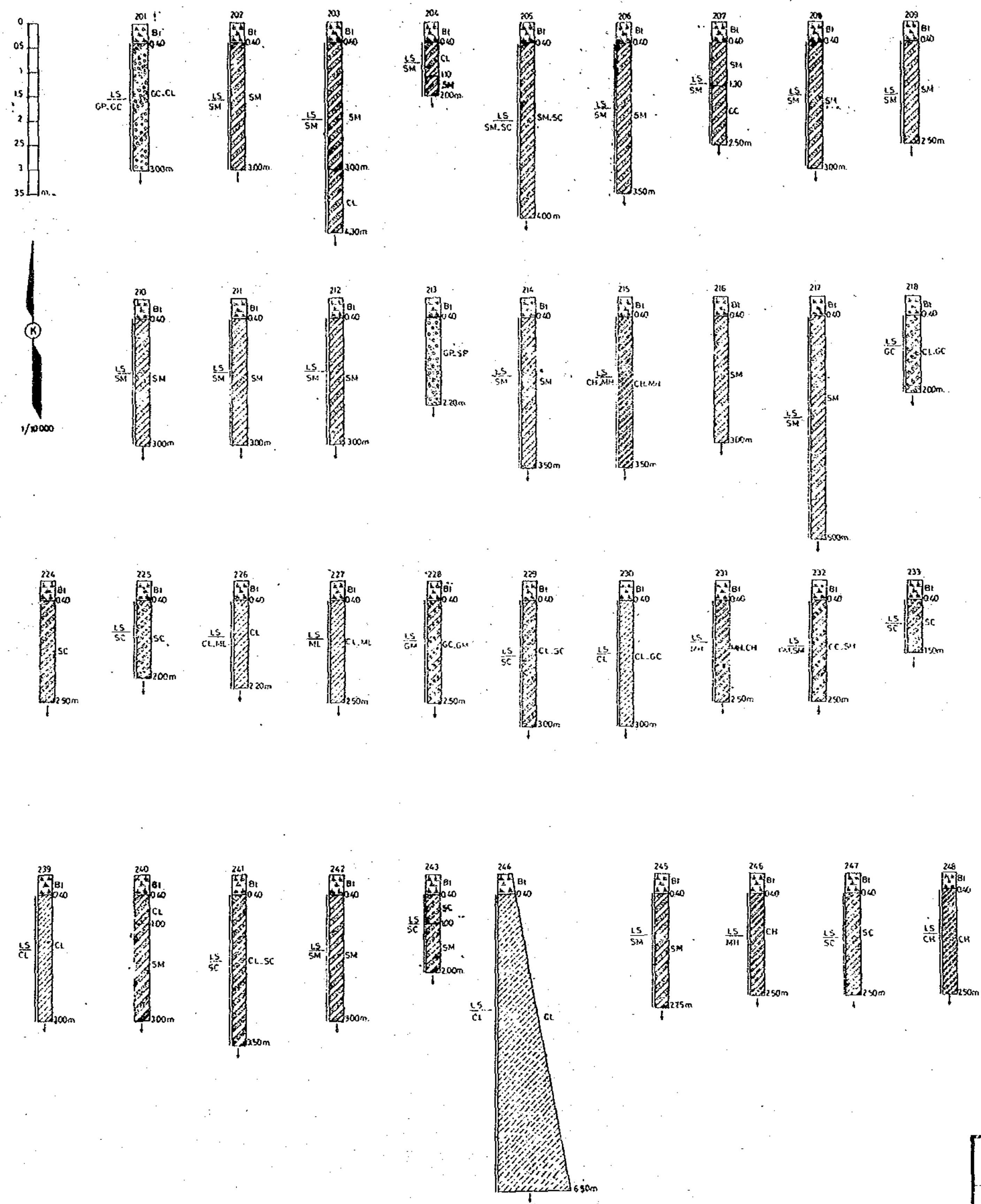
Item / Sample No.	Grading				Atterberg limits (%)			Soil classification	Specific gravity	(Optimum moisture content) Compaction Test		Triaxial Shear strength		Coefficient of Permeability
	Silt-clay under 0.074mm	Sand	gravel over 5mm	Max grain size (mm)	LL	PL	PI		Gs (t/m³)	ρd max (g/cm³)	ωopt (%)	C (kgf/cm²)	φ (°)	K (cm/sec)
A－238	21	25	54	50	60.8	30.2	30.6	GC	2.75	1.63	21	－	－	－
A－239	62	26	12	38	44.8	25.9	22.9	CL	2.63	1.64	18	2.35	19	2.1×10^{-7}
A－241	47	52	1	9.5	34.8	19.7	15.1	SC	2.71	1.69	18	－	－	－
A－242	47	44.5	8.5	19	51.0	29.2	21.8	SM	2.66	1.63	18	－	－	－
A－243	42	32	26	38	32.2	17.3	14.9	SC	2.72	1.83	14	1.37	15	－
A－244	65	28.5	6.5	28	42.0	24.1	17.9	CL	2.73	1.67	20	－	－	－
A－245	16.5	42	41.5	50	－	－	－	SM	2.79	1.84	15	0.9	23	－
A－246	53	37	10	19	51.3	30.6	20.7	MH	2.64	1.51	24	－	－	－
A－247	29	43.5	27.5	38	49.0	24.0	25.0	SC	2.75	1.70	20	－	－	－
A－248	67	12.5	20.5	38	75.2	30.1	45.1	CH	2.74	1.40	29	－	－	－
B－301	56.5	31	12.5	38	58.2	30.8	27.4	ML	2.68	1.58	22.5	－	－	－
B－302	38	51	11	38	45.4	25.1	20.3	SC	2.73	1.66	20.5	－	－	－
B－303	53	30	17	38	61.3	29.9	31.4	CH－MH	2.73	1.49	25.8	－	－	－
B－304	30	56	14	9.5	49.2	25.3	23.9	SC	2.71	1.63	19.0	－	－	－
B－305	55	22	23	38	45.0	26.4	19.6	SC－SM	2.71	1.64	19.7	1.5	20	－
B－306	44	39	17	38	60.0	29.8	30.2	CH	2.74	1.53	25.3	－	－	－
B－307	65	13	22	38	80.8	29.5	51.3	CH	2.66	1.45	28.2	1.55	8	－
B－308	54	36	10	19	38.3	23.2	15.1	CL	2.68	1.73	18.9	－	－	－
B－309	51	11	38	75	78.8	30.8	48.0	CH	2.79	1.49	26.8	－	－	－
B－310	43	52	5	9.5	56.0	30.7	25.3	SM	2.69	1.52	26.1	－	－	－
B－311	29	24	47	53	64.4	34.1	30.3	GM	2.74	1.71	19.0	2.15	17	2.9×10^{-7}
B－312	34	34	32	38	46.0	25.6	20.4	SC	2.73	1.60	22.3	－	－	－
B－313	51	25	24	52	50.2	22.1	28.1	CH	2.73	1.61	22.4	－	－	－
B－314	42	30	28	19	49.3	24.9	24.4	SC	2.70	1.71	18.0	－	－	－
B－315	87	8	5	38	67.2	32.3	34.9	CH－MH	2.69	1.51	24.5	2.1	15	2.3×10^{-7}
B－316	90.5	8.5	1	19	66.1	24.6	41.5	CH	2.70	1.52	23.2	－	－	－
B－317	92	7	1	15	69.8	29.1	40.7	CH	2.59	1.56	20.6	2.4	17	－
B－318	53.5	16.5	30	38	50.7	27.1	23.6	CH－MH	2.75	1.66	16.0	－	－	－
B－319	36	44	20	19	49.5	26.3	23.3	SC	2.67	1.59	22.8	－	－	－
B－320	52	38.5	9.5	19	56.7	30.2	26.5	CH－MH	2.69	1.52	25.4	－	－	－
B－321	40	18	42	50	51.8	21.9	29.9	GC	2.68	1.59	23.0	－	－	－

A. GEREÇ ALANI



KOZAN _ MJ4_C3

ÖLÇEK: 1/25000'likten 1/10000'liğe pantograf ile büyütülmüştür.



SİMGELER

Bt	Bitgisel toprak
SM	Siltli kum, kötü dereceli kum, silt karışımları.
GC	Killi çakıl, kötü dereceli çakıl, kum, kil karışımları.
ML	İnorganik silt ve çok ince kum az plastik.
MH	İnorganik silt, kumlu silt. Elastik Siltler.
SC	Killi kum, kötü dereceli kum_kil karışımları.
GM	Siltli çakıl, kötü dereceli çakıl_kum, silt karışımları.
CL	İnorganik kil; çakıllı, kumlu kil; siltli kil; az_orta plastik.
CH	İnorganik kil: çok plastik (yağlı killer)
GP,GC	Kötü dereceli çakıl_killi çakıl karışımları.
SM.SC	Killi kum, siltli kum, kötü dereceli kum, silt_kil karışımı,
GP.SP	Kötü dereceli çakıl, kum karışımları.
CH.MH	Killi çakıl ile inorganik silt, kumlu silt, elastik siltler.
CL.ML	İnorganik kil ile siltli, ince kumlu az_orta plastik, kil karışımları.
GM.SM	Siltli çakıl ile kötü dereceli kum_silt karışımları.
□	Gereç araştırma kuyusu (örnek alınmamış)
■	Gereç araştırma kuyusu (örnek alınmış)
	Gereç kuyusu kesiti. (örnek alınmamış)
	Gereç kuyusu kesiti. Gereç devam ediyor. (örnek alınmış)
	Yarma kesiti (örnek alınmış)
	Gereç alanı sınırı.

GEREÇ ALANLARI ÖZELLİKLERİNİ GÖSTERİR ÇİZELGE

A _ GEREÇ ALANI

YAPIYA IRAKLIĞI (m)	29500 _ 30000
YOL DURUMU	Var. Onarılması gerekir.
AÇILAN KUYU VE YARMA SAYISI	47 Kuyu, 1 Yarma
ORTALAMA SIYIRMA (cm)	0.40
ÖNERİLEN KAZI DERİNLİĞİ (m)	3
GEREÇ NİCELİĞİ (m^3)	1×10^6

DEVLET SU İŞLERİ GENEL MÜDÜRLÜĞÜ
VI. BÖLGE MÜDÜRLÜĞÜ
PLANLAMA ŞUBE MÜDÜRLÜĞÜ
ADANA

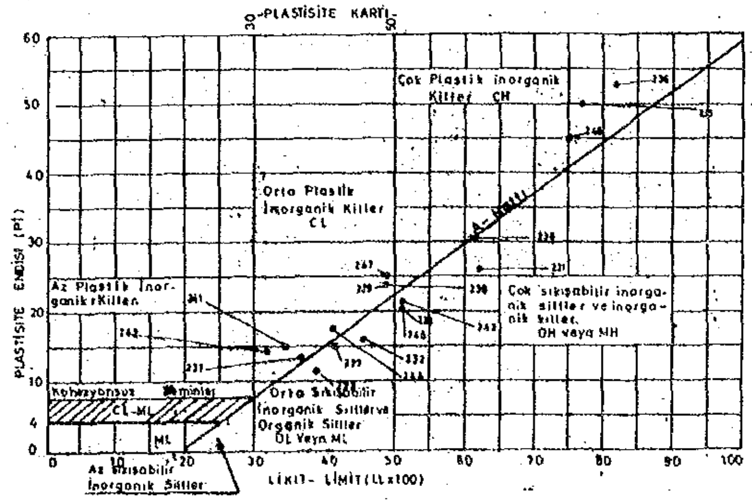
GÖKTAŞ BARAJI ve HES PROJESİ

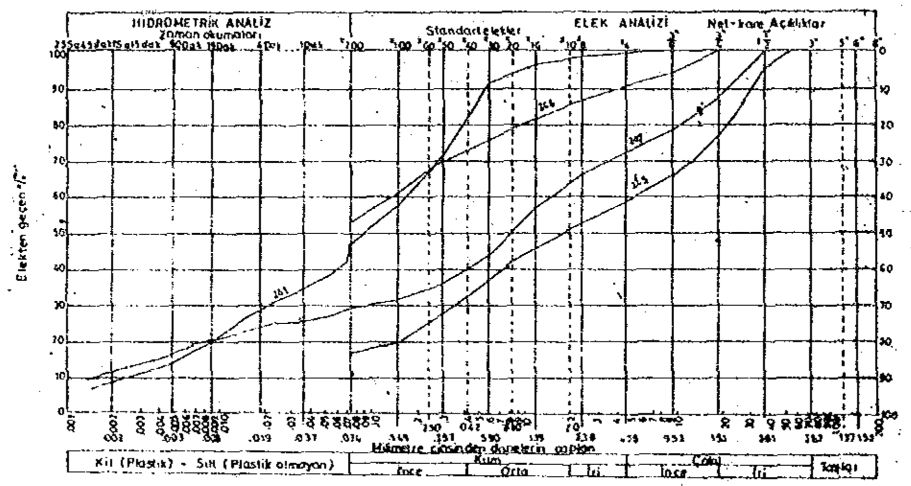
A _ GEÇİRİMSİZ GEREÇ ALANI HARİTASI KUYU KESİTLERİ ve LABARATUVAR SONUÇLARI

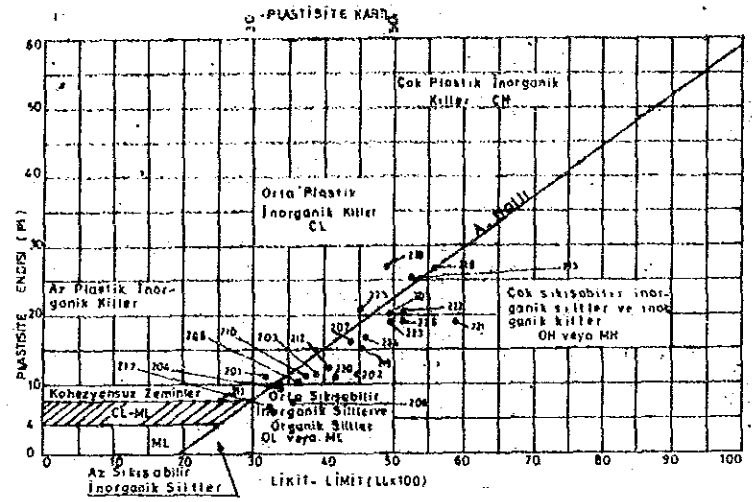
YAPAN: Y. KARAOĞULLARINDAN	DENETİM: CABBAR YÖRGEN	ONAYLANIR
ÇİZEN: BEKİR S. UĞUR	ONAMA: HASAN MERT	
TARİH: 1988	PAFTA NO: 1	
ÖLÇEK: 1/10000 ve 1/50	ARŞİV NO:	

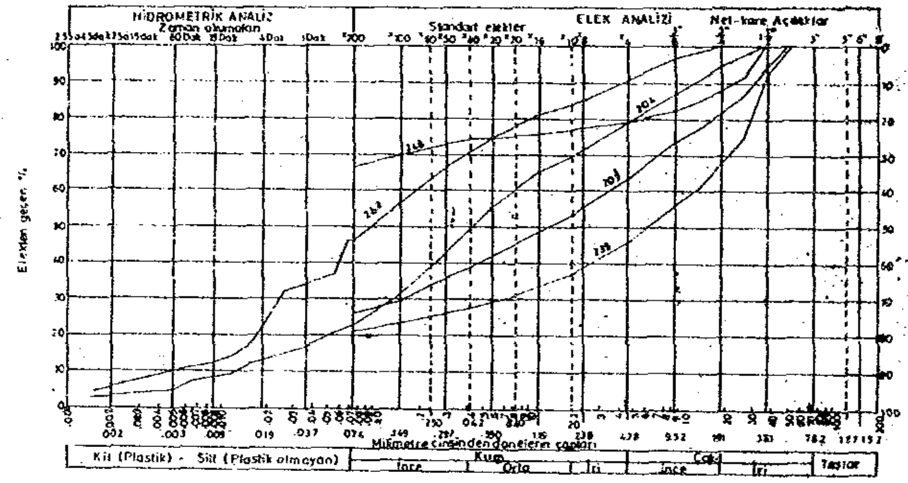
GEÇİRİMSİZ GEREÇ TANIMLAMA VE MÜHENDİSLİK DENEY SONUÇLARI

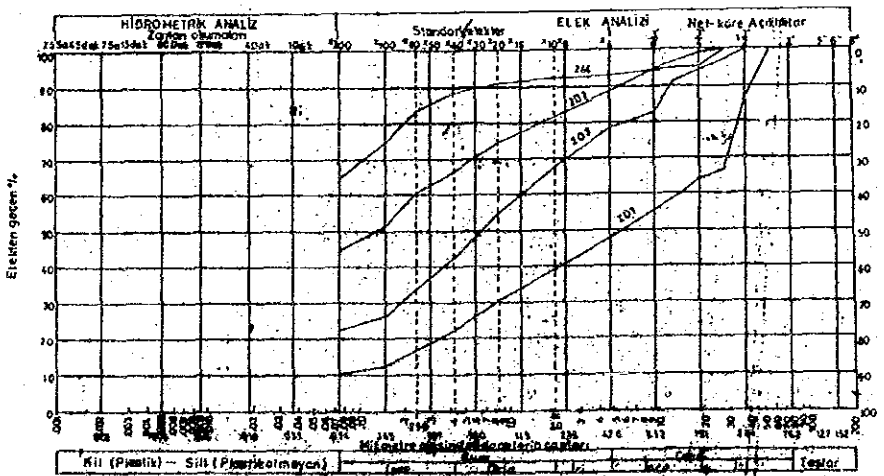
Kuyu No	Kuyu Derinliği (m)	Özgül Ağırlık (gr/cm^3)	Sıkıştırma γK max (gr/cm^3)	Sıkıştırma W_{opt} (%)	Kıvam Limitleri LL	Kıvam Limitleri PL	Kıvam Limitleri PI	Dane Boyut Yüzdesi Kil (%)	Dane Boyut Yüzdesi Kum (%)	Dane Boyut Yüzdesi Çakıl (%)	Maksimum sıkılıkta ve optimum su içeriğinde $\gamma kmax$ (t/m^3)	m. opt (%)	Dayanım C (kg/cm^2)	Dayanım $\phi°$	Dayanım qu (kg/cm^2)	Geçirgenlik k cm/s	Boşluk Oranı e min	Grup Simgesi
A 201		2.742	1.880	19.30	31.8	21.3	10.5	10	32	58	1.80	19	1.05	20		6.4×10^{-7}		GP.GC
202		2.693	1.582	19.60	44.8	33.4	11.4	44.5	43.5	12	1.58	19						SM
203		2.659	1.804	10.23	38.4	27.2	11.2	23	55	22	1.80	10						SM
204		2.768	1.754	17.00	34.0	24.9	9.1	22	56.5	21.5	1.75	17				–		SM
205		2.615	1.540	24.00	49.4	29.2	20.2	26.5	37.5	36	1.54	24	1.6	20				SM-SC
206		2.666	1.680	20.30	35.9	28.0	7.9	29	62	9	1.69	20						SM
207		2.652	1.670	20.10	44.2	28.1	16.1	24	37	3.9	1.67	20						SM
208		2.689	1.660	20.000	36.6	26.1	10.5	30	54	1.6	1.66	20	1.3	20		4.5×10^{-6}		SM
209		2.764	1.681	20.50	X	X	X	28	59	1.3	1.68	20						SM
210		2.731	1.622	22.40	37.4	26.0	11.4	38	52	10	1.62	22						SM
211		2.717	1.722	18.90	33.1	25.5	7.6	32	55	13	1.72	18						SM
212		2.710	1.618	23.80	40.6	28.3	12.3	48	46	6	1.61	23	1.26	20				SM
214		2.760	1.670	20.00	X	X	X	26	60.5	13.5	1.67	20						SM
215		2.739	1.573	23.00	52.4	26.7	25.7	64	33	3	1.57	23	2.0	13		8.6×10^{-7}		CH-MH
217		2.774	1.650	15.00	32.3	25.3	7.0	18	58	24	1.65	15						SM
218		2.654	1.627	20.40	55.5	28.6	26.9	22	30	48	1.62	20	1.25	12				GC
219		2.642	1.520	27.00	45.1	30.0	15.1	57	39	4	1.52	27						ML
220		2.676	1.556	22.28	41.5	30.4	11.1	40	46	14	1.55	22						SM
221		2.642	1.383	30.20	58.0	39.9	18.1	54	25	21	1.38	30						MH
222		2.553	1.430	27.00	51.4	30.8	20.6	80	19	1	1.43	27	1.7	24		5.9×10^{-7}		MH
223		2.704	1.480	25.00	49.8	31.7	18.1	69	27	4	1.48	27	1.7	21		3.3×10^{-7}		ML
225		2.671	1.591	23.00	45.0	24.2	20.8	46	54	4	1.59	23						SC
226		2.598	1.600	21.00	45.8	26.1	19.7	57	43	-	1.60	21	1.15	24				CL-ML
227		2.649	1.570	22.60	41.6	26.5	15.1	53	45	2	1.57	22						ML
228		2.714	1.627	20.50	38.1	26.5	11.6	20	33	47	1.62	20						GM
229		2.675	1.616	23.20	48.1	26.2	21.9	36	62.5	1.5	1.61	23	1.10	18		2.1×10^{-7}		SC
230		2.717	1.612	22.20	49.2	24.9	24.3	53	26	21	1.61	22						CL
231		2.748	1.426	25.80	61.9	35.6	26.3	58	21	21	1.42	25						MH
232		2.719	1.503	27.56	45.3	29.0	16.3	38	34	28	1.50	27						GM-SM
233		2.667	1.665	18.00	49.4	27.2	22.2	44	33.5	22.5	1.66	18	2.0	16				SC
234		2.672	1.538	23.00	45.7	28.8	16.9	57	41	2	1.53	23						ML
235		2.713	1.466	25.60	77.0	26.8	50.2	86.5	9.5	4	1.46	25						CH
236		2.565	1.388	28.40	82.3	29.0	53.3	82	17	1	1.38	28	1.85	10		4.2×10^{-7}		CH
237		2.648	1.656	19.40	37.2	23.9	13.3	68	26.5	3.5	1.65	19						CL-ML
238		2.755	1.635	21.40	60.8	30.2	30.6	21	25	54	1.63	21						GC
239		2.658	1.644	18.70	48.8	25.9	22.9	62	26	1.2	1.64	18	2.35	19		2.1×10^{-7}		CL
241		2.717	1.692	18.60	34.8	19.7	15.1	47	52	1	1.69	18						SC
242		2.664	1.638	18.60	51.0	28.2	21.8	47	44.5	8.5	1.63	18						SM
243		2.728	1.836	16.80	32.2	17.3	14.9	42	32	26	1.83	16	1.37	15				SC
244		2.739	1.670	20.40	42.0	24.1	17.9	65	28.5	6.5	1.67	20						CL
245		2.797	1.843	15.50	X	X	X	16.5	42	41.5	1.84	15	0.9	23				SM
246		2.669	1.510	24.20	51.3	30.6	20.7	53	37	10	1.51	24						MH
247		2.753	1.708	20.30	49.0	24.0	25.0	39	43.5	27.5	1.70	20						SC
248		2.740	1.400	29.80	75.2	30.1	45.1	67	12.5	20.5	1.40	29						CH









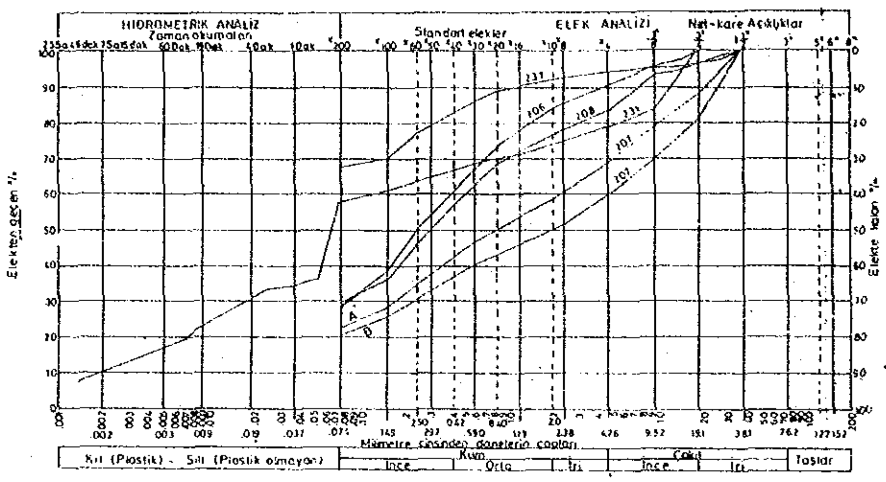


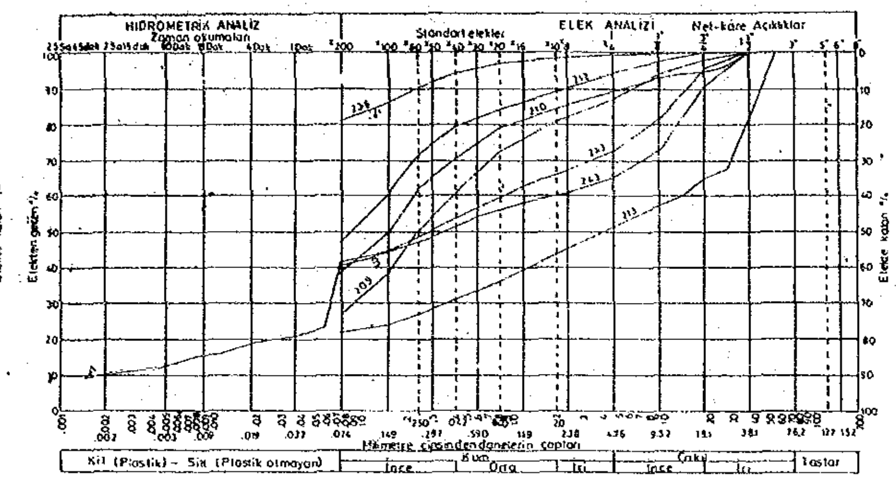
DEVLET SU İŞLERİ GENEL MÜDÜRLÜĞÜ
VI. BÖLGE MÜDÜRLÜĞÜ
PLANLAMA ŞUBE MÜDÜRLÜĞÜ
A D A N A

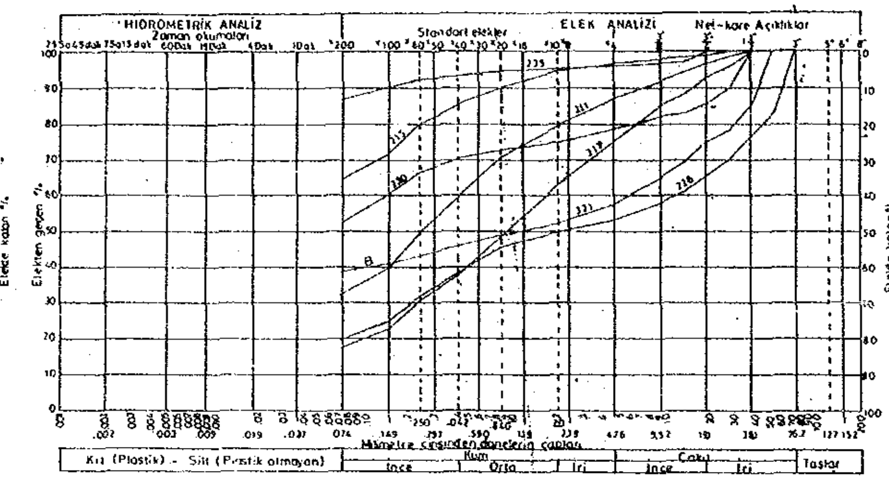
GÖKTAŞ BARAJI ve HES. PROJESİ

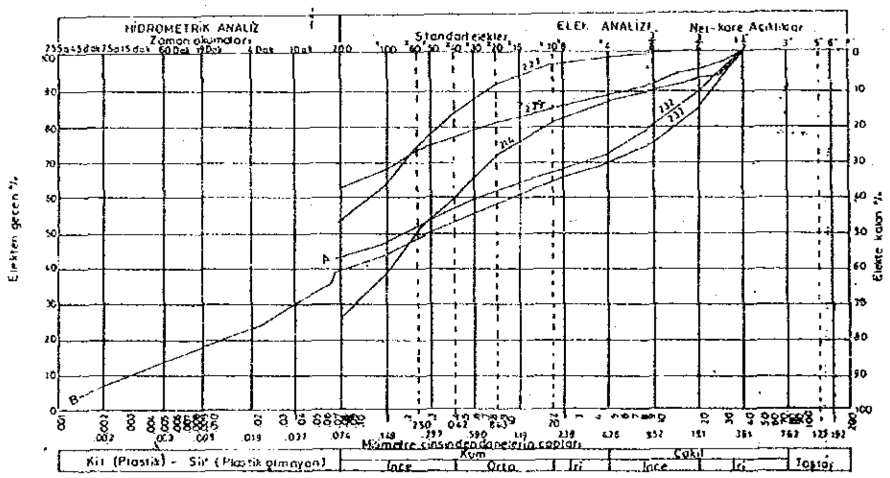
A-GEÇİRİMSİZ GEREÇ ALANI LABORATUVAR SONUÇLARI

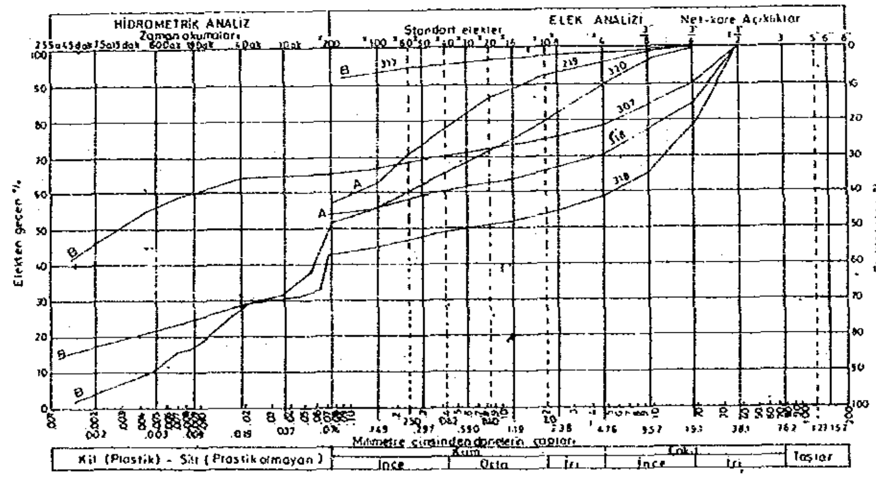
YAPAN: Y.KARAOĞULLARINDAN	DENETLEYEN:	ONAYLAYAN
ÇİZEN: Emine TOKSÖZ	ONAYLAYAN: Hasan	
TARİH: 1980	PAFTA NO: 7	
ÖLÇEK: —	ARŞİV NO:	

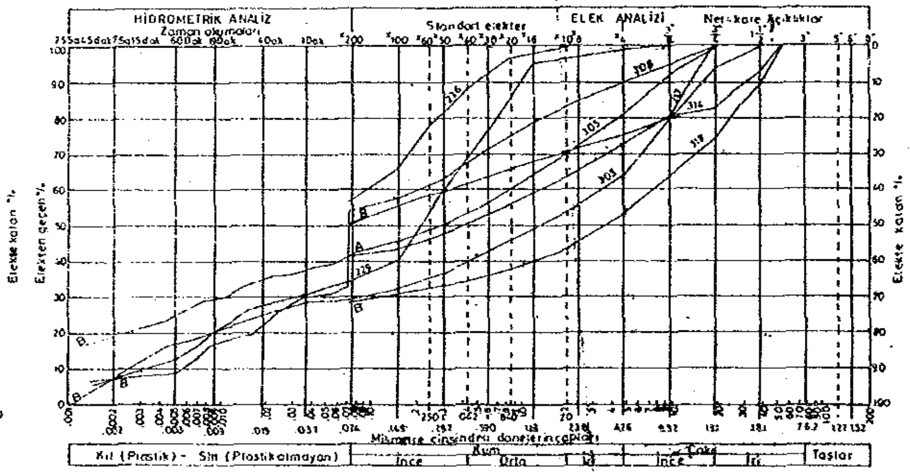


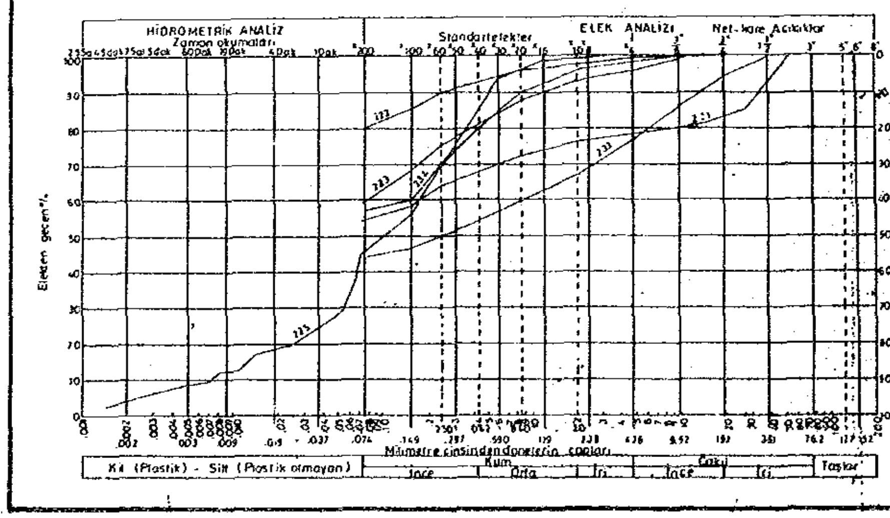


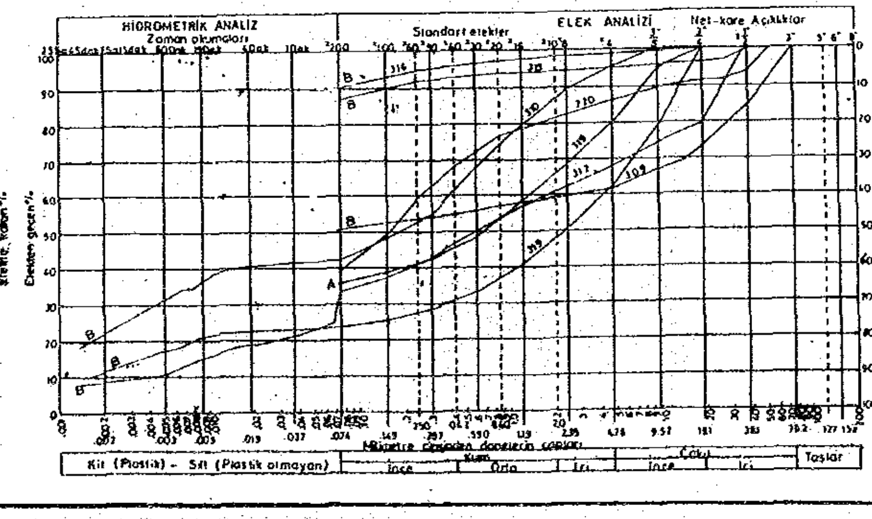












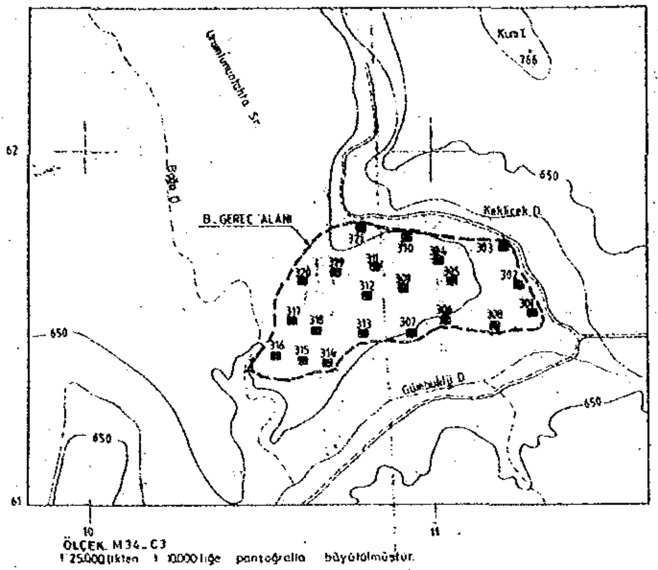
DEVLET SU İŞLERİ GENEL MÜDÜRLÜĞÜ
VI. BÖLGE MÜDÜRLÜĞÜ
PLANLAMA ŞUBE MÜDÜRLÜĞÜ
ADANA

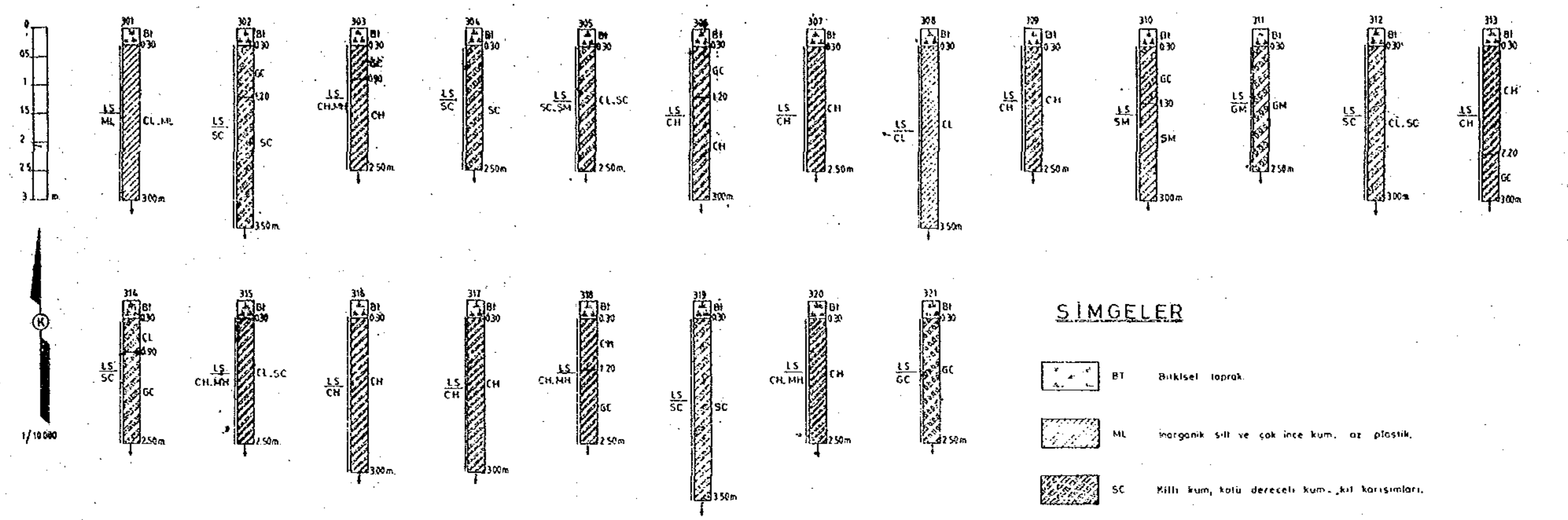
GÖKTAŞ BARAJI ve HES. PROJESİ

A-B GEÇİRİMSİZ GEREÇ ALANLARI ELEK ANALİZLERİ

YAPAN: Y.KARAOĞLU	DENETİM: Cabbar YÖRDEM	ONAYLANMIŞ
ÇİZEN: Emine TOKSÖZ	ONAMA: Hakan MERT	
TARİH: 1988	PAFTA NO: 7	
ÖLÇEK: –	ARŞİV NO:	

B GEREÇ ALANI



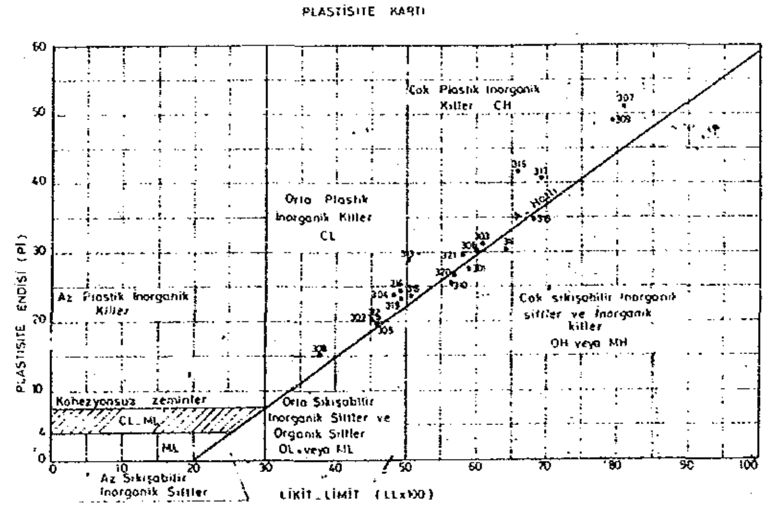


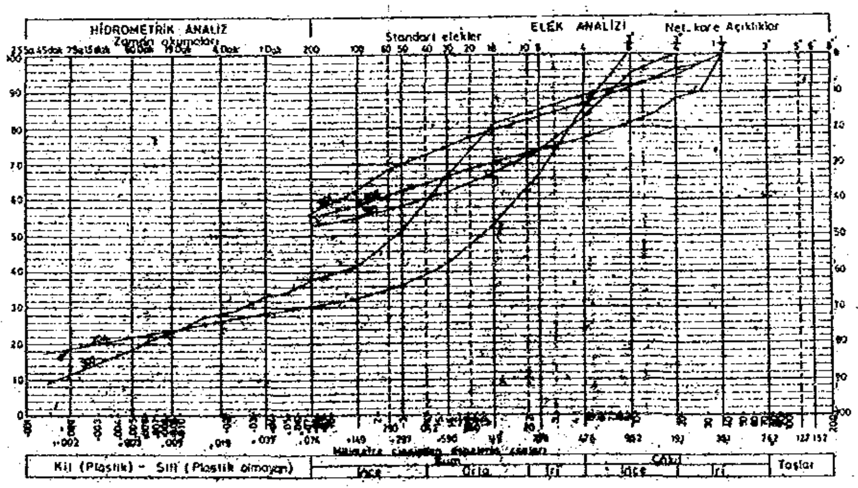
GEÇİRİMSİZ GEREÇ TANIMLAMA ve MÜHENDİSLİK DENEY SONUÇLARI

Kuyu No	Kuyu Derinliği (m)	Özgül ağırlık kg/cm3	Sıkıştırma: γK max (gr/cm3)	Sıkıştırma: Wopt (%)	Kıvam Limitleri: LL	Kıvam Limitleri: PL	Kıvam Limitleri: PI	Dane Boyut Yüzdesi: Kil (%)	Dane Boyut Yüzdesi: Kum (%)	Dane Boyut Yüzdesi: Çakıl (%)	Maksimum sıklıkta ve optimum su içeriğinde: γkmax (t/m3)	Eopt (%)	Dayanım: C kg/cm²	Dayanım: φ°	Dayanım: qu kg/cm²	Geçirgenlik k cm/s	Boşluk Oranı e min	Grup Simgesi
B																		
301		2.686	1.583	22.50	58.2	30.8	27.4	56.5	31	12.5	1.58	22						ML
302		2.734	1.664	20.50	45.4	25.1	20.3	38	51	11	1.66	20						SC
303		2.736	1.495	25.80	61.3	29.9	31.4	53	30	17	1.49	25						CH.MH
304		2.712	1.635	19.00	49.2	25.3	23.9	30	56	14	1.63	19						SC
305		2.713	1.647	19.70	46.0	26.4	19.6	55	22	23	1.64	19	1.5	20				SC.SM
306		2.744	1.530	25.30	60.0	29.8	30.2	44	39	17	1.53	25						CH
307		2.662	1.454	28.20	80.8	29.5	51.3	65	13	22	1.45	28	1.85	6				CH
308		2.684	1.730	18.90	38.3	23.2	15.1	54	36	10	1.73	18						CL
309		2.791	1.492	26.80	78.8	30.8	48.0	51	11	38	1.49	26						CH
310		2.697	1.522	26.10	56.0	30.7	25.3	43	52	5	1.52	26						SM
311		2.745	1.710	19.00	64.4	34.1	30.3	29	24	47	1.71	19	2.15	17		2.9×10^{7}		GM
312		2.737	1.604	22.30	46.0	25.6	20.4	34	34	32	1.60	22						SC
313		2.735	1.610	22.40	50.2	22.1	28.1	51	25	24	1.61	22						CH
314		2.709	1.715	18.00	49.3	24.9	24.4	42	30	28	1.71	18						SC
315		2.699	1.510	24.50	67.2	32.3	34.9	87	8	5	1.51	24	21	15		2.3×10^{-7}		CH.MH
316		2.705	1.528	23.20	66.1	24.6	41.5	90.5	8.5	1	1.52	23						CH
317		2.598	1.565	20.60	69.8	29.1	40.7	92	7	1	1.56	20	24	17				CH
318		2.756	1.667	16.00	50.7	22.1	28.6	53.5	16.5	30	1.66	16						CH.MH
319		2.673	1.598	22.80	49.6	26.3	23.3	36	44	20	1.59	22						SC
320		2.697	1.522	25.40	56.7	30.2	26.5	52	38.5	9.5	1.5	25						CH.MH
321		2.687	1.590	23.00	57.8	27.9	29.9	40	18	42	1.59	23						GC

B_GEREÇ ALANLARI ÖZELLİKLERİNİ GÖSTERİR ÇİZELGE

YAPIYA IRAKLIĞI (m)	30000-31000
YOL DURUMU	Yol Onarılması gerekir
AÇILAN KUYU ve YARMA SAYISI	21 kuyu
ORTALAMA SIYIRMA (cm)	0.40
ÖNERİLEN KAZI DERİNLİĞİ (m)	3.5
GEREÇ NİCELİĞİ (m³)	1.5×10^{6}





SİMGELER

- BT — Bitkisel toprak.
- ML — İnorganik silt ve çok ince kum, az plastik.
- SC — Killi kum, kötü dereceli kum_kil karışımları.
- CH — İnorganik kil, çok plastik (yağlı killer)
- CL — İnorganik kil, çakıllı, kumlu kil, siltli kil, az orta plastik.
- SM — Siltli kum, kötü dereceli kum_silt karışımları.
- GM — Siltli çakıl, kötü dereceli çakıl_kum_silt karışımları.
- GC — Killi çakıl, kötü dereceli çakıl_kum_kil karışımları.
- CH.MH — Killi çakıl ile inorganik silt, kumlu silt, elastik siltler.
- SC.SM — Killi kum, siltli kum, kötü dereceli kum, silt.kil karışımı.
- Gereç araştırma kuyusu (örnek alınmamış)
- Gereç araştırma kuyusu (örnek alınmış)
- Gereç kuyusu kesiti (örnek alınmış) gereç devam ediyor.
- Gereç kuyusu kesiti (örnek alınmamış).
- Gereç alanı sınırı

DEVLET SU İŞLERİ GENEL MÜDÜRLÜĞÜ
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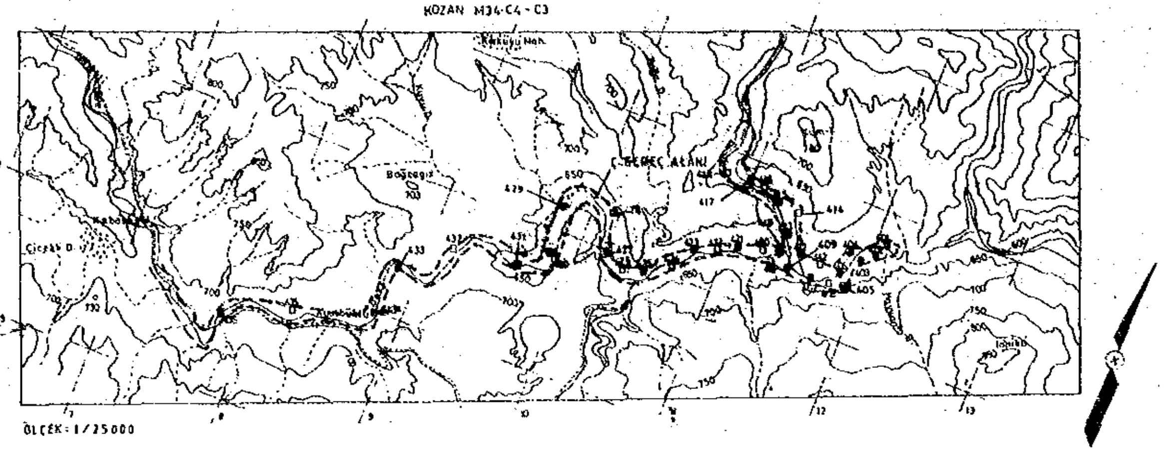
ADANA

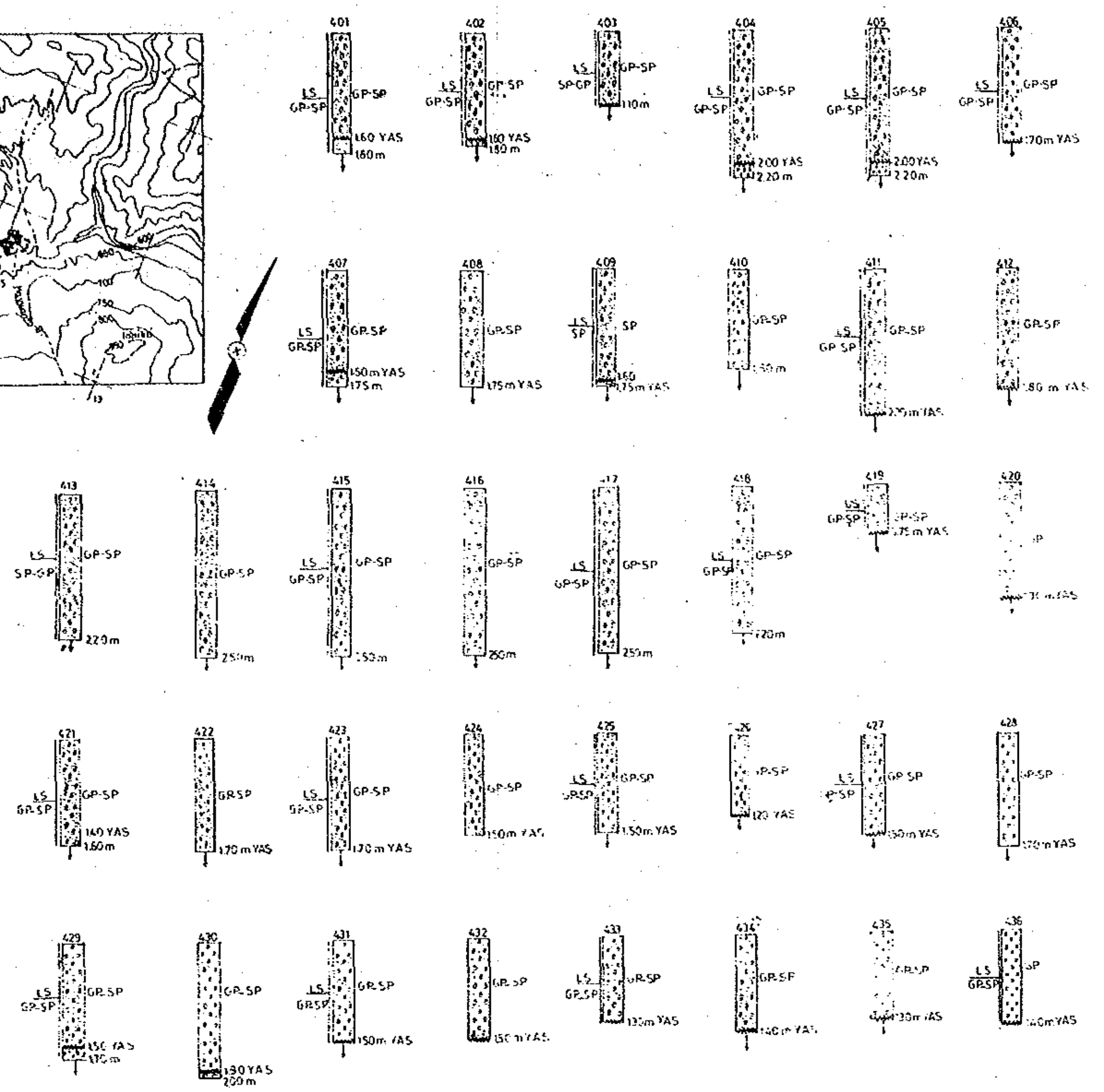
GÖKTAŞ BARAJI ve HES PROJESİ

B_ GEÇİRİMSİZ GEREÇ ALANI HARİTASI
KUYU KESİTLERİ ve LABARATUVAR SONUÇLARI

YAPAN: Y. KARAOĞULLARINDAN	DENETİM: CABBAR YÜCEL
ÇİZEN: BEKİR SITKI UĞUR	ONAMA: HAKAN
TARİH: 1988	PAFTA NO: 4
ÖLÇEK: 1/10000 ve 1/50	ARŞİV NO:



C-GEREÇ ALANI



SİMGELER

GP-SP Kötü dereceli çakıl-kum karışımları.

SP-GP Kötü dereceli kum-çakıl karışımları.

SP Kötü derecelenmiş kumlar, çakıllı kumlar: İnce daneleri az veya hiç olmayan gereçler.

GP Kötü derecelenmiş çakıl, kum çakıl karışımları: İnce daneleri az veya hiç olmayan gereçler.

Gereç araştırma kuyusu (Örnek alınmıştır) Haritada

Gereç araştırma kuyusu (Örnek alınmamıştır)

Gereç kuyusu kesiti (Örnek alınmamış)

Gereç kuyusu kesiti (Örnek alınmış)

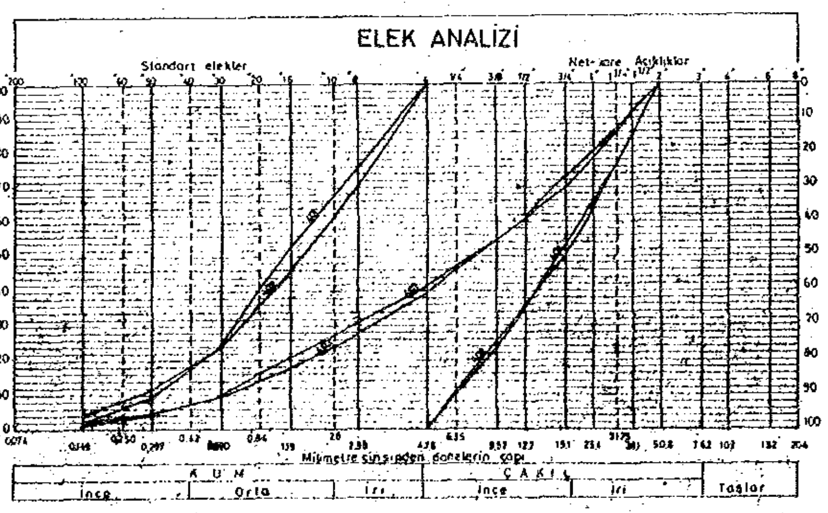
YAS Yeraltı su düzeyi.

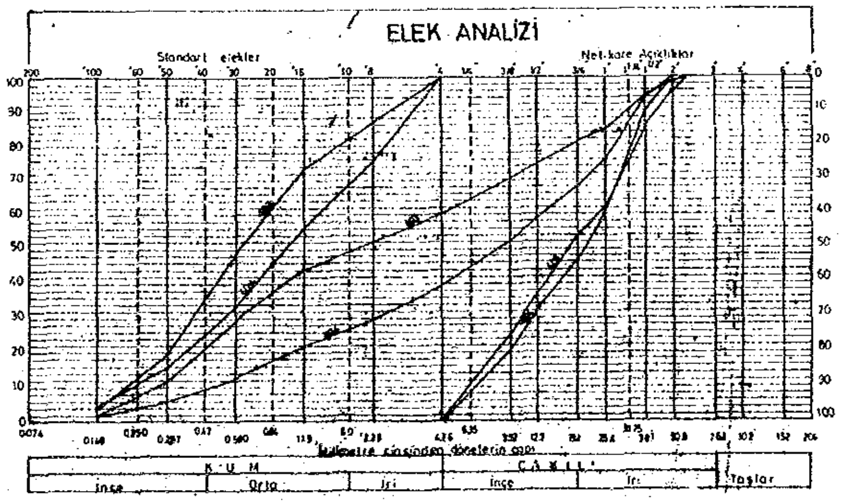
Gereç devam ediyor

Gereç alanı sınırı.

GEÇİRİMLİ GEREÇ FİZİKİ DENEY SONUÇLARI

Örnek No	Birim Ağırlık (gr/cm³) Kum	Birim Ağırlık (gr/cm³) Çakıl	Özgül Ağırlık (gr/cm³) ve su emme (%) Kum	Özgül Ağırlık (gr/cm³) ve su emme (%) Çakıl	200 No'lu elekten geçen (%) Kum	200 No'lu elekten geçen (%) Çakıl	Kil topakları (%) Kum	Kil topakları (%) Çakıl	Na_2SO_4'dan kaybı (%) Kum	Na_2SO_4'dan kaybı (%) Çakıl	Los Angeles aşınma kaybı 100 devir (%)	Los Angeles aşınma kaybı 500 devir (%)
C 401	1840	1748	2.558 % 5.26	2.728 % 0.93	504	113	320	031	44.8	46.3	6.22	28.6
402	1853	1748	2.547 % 5.49	2.665 % 2.30	599	0.92	5.71	0.76	45.9	31.9	5.80	26.20
403	1705	1800	2.523 % 5.71	2.656 % 2.07	8.13	1.58	7.98	1.25	41.4	42.9	7.20	26.6
404	1831		2.558 % 4.82	2.679 % 2.22	7.20	0.55	[illegible]	0.47	39.4	31.4	7.20	29.50
405	1786	1856	2.584 % 5.69	2.613 % 2.58	7.59	0.61	5.99	0.51	42.9	33.5	5.00	28.00
406	1753		2.555 % 5.26	2.579 % 1.44	7.03	1.52	6.44	1.11	40.2	39.4		
407	1761	1810	2.526 % 5.93	2.637 % 1.85	7.03	1.26	5.92	0.68	45.7	46.3	5.20	28.2
409	1774		2.525 % 4.82	2.525 % 4.82	7.06	1.60	5.98	1.46	44.7	44.4		
411	1855	1807	2.579 % 5.93	2.671 % 1.46	8.87	1.15	5.65	0.90	45.6	42.5	5.76	24.14
413	1808	1782	2.579 % 5.26	2.579 % 4.38	7.14	0.70	5.65	0.22	41.6	32.1	5.9	25.2
415	1855		2.544 % 4.38	2.235 % 1.76	6.50	1.25	6.08	0.82	42.9	39.5	7.50	29.80
417	1839	1832	2.546 % 5.49	2.798 % 1.41	5.19	0.83	4.42	0.12	44.0	40.5	6.24	27.9
418	1825	1829	2.575 % 4.82	2.713 % 1.67	6.83	1.72	6.42	1.47	38.5	28.4	5.00	23.90
419	1754	1758	2.551 % 5.49	2.651 % 2.33	7.29	1.18	5.34	0.71	41.4	42.6	8.80	31.2
421	1749	1844	2.565 % 4.82	2.685 % 1.66	10.37	0.78	8.7	0.62	42.1	37.2	6.30	25.4
423	1777	1749	2.529 % 6.61	2.665 % 2.68	6.64	0.90	5.36	0.80	57.9	38.9	7.92	30.5
425	1874	[illegible]	2.557 % 5.26	2.714 % 4.74	4.95	0.58	3.79	0.23	38.3	40.4		
427	1845		2.594 % 4.82	2.691 % 4.85	4.20	1.50	5.96	0.66	42.4	30.9	6.00	22.80
429	1852	1823	2.609 % 4.17	2.709 % 1.80	10.5	1.25	9.79	1.04	39.2	25.3	6.20	25.5
431	1829	1865	2.589 % 4.6	2.721 % 1.97	9.21	0.96	4.92	0.54	44.9	25.1	7.14	27.4
433	1751	1900	2.590 % 4.6	2.651 % 1.62	9.09	0.69	9.03	0.21	40.5	24.3	9.4	26.0
436	1781	1828	2.584 % 4.82	2.759 % 1.36	9.11	0.26	8.43	0.20	47.1	33.6	6.50	24.90





GEREÇ ALANLARI ÖZELLİKLERİNİ GÖSTERİR ÇİZELGE

	A-GEREÇ ALANI
YAPIYA UZAKLIĞI (m)	30 000 – 32000
YOL DURUMU	Var. Onarılması gerekir.
AÇILAN KUYU VE YARMA SAYISI	36 Kuyu
ORTALAMA SIYIRMA (cm)	—
ÖNERİLEN KAZI DERİNLİĞİ	3
GEREÇ NİCELİĞİ (m³)	2×10^{6}

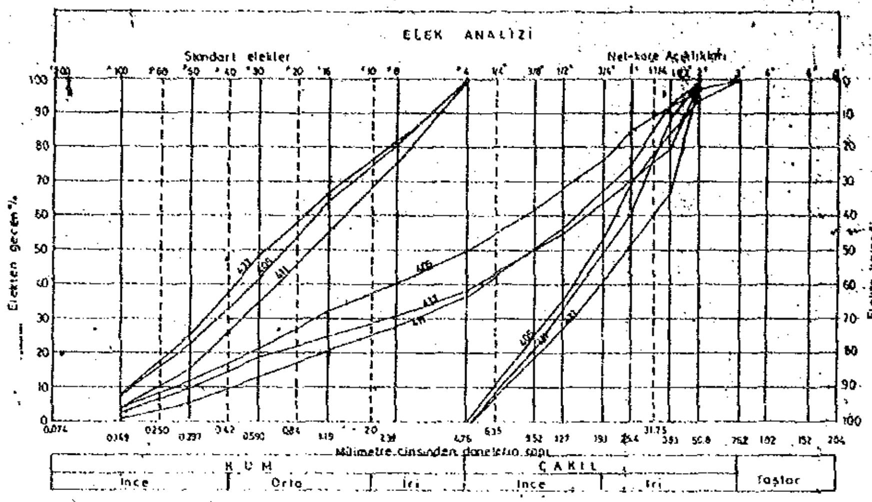
DEVLET SU İŞLERİ GENEL MÜDÜRLÜĞÜ
VI. BÖLGE MÜDÜRLÜĞÜ
PLANLAMA ŞUBE MÜDÜRLÜĞÜ
A D A N A

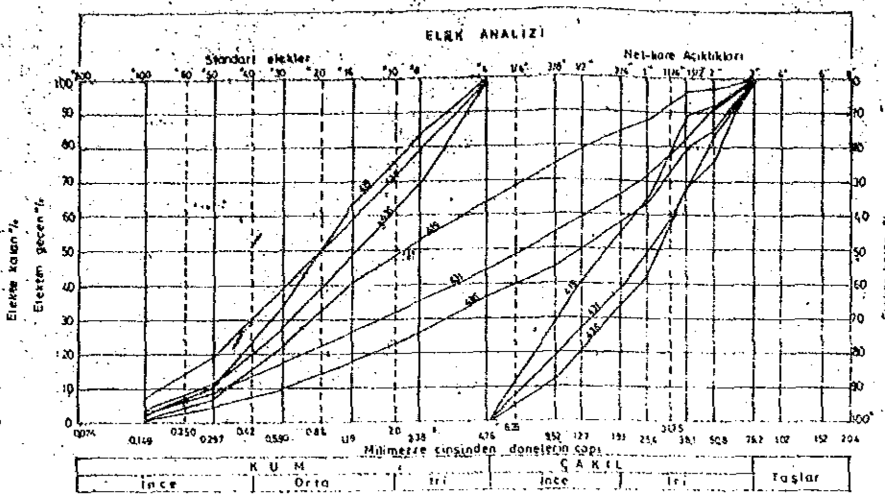
GÖKTAŞ BARAJI VE HES PROJESİ

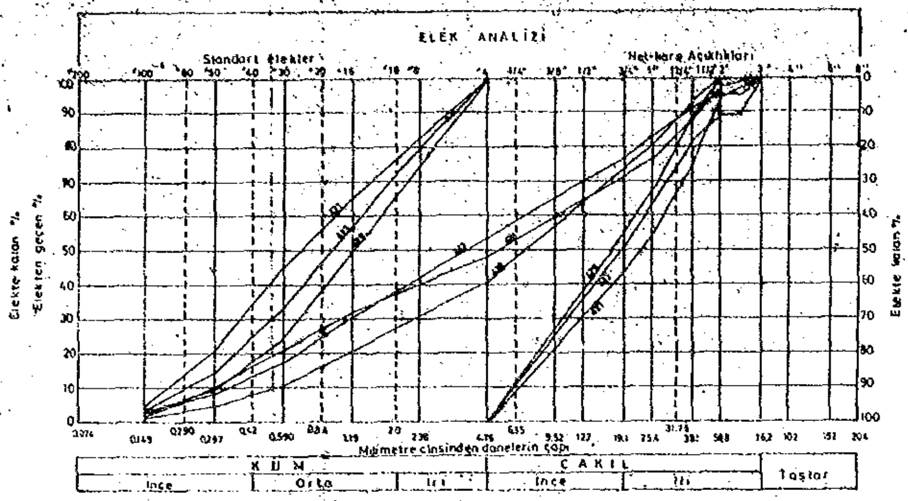
C-GEÇİRİMLİ VE AGREGA GEREÇ ALANI HARİTASI.

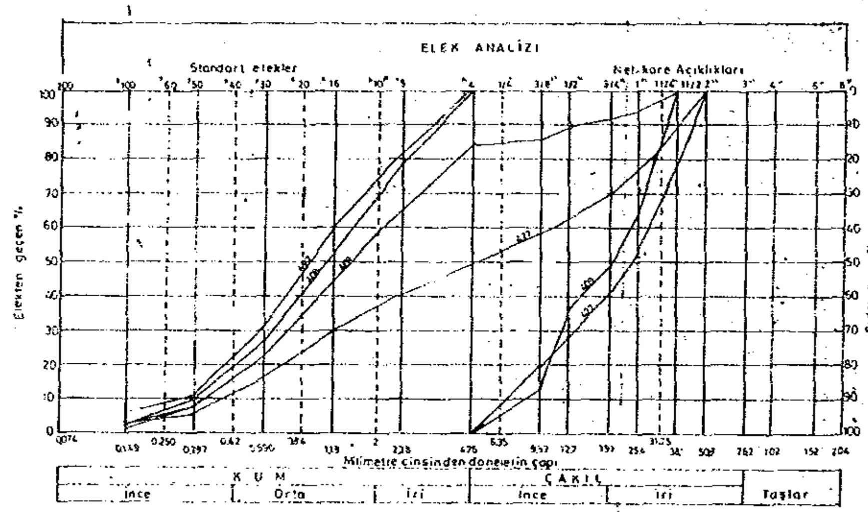
KUYU KESİTLERİ VE LABARATUVAR SONUÇLARI

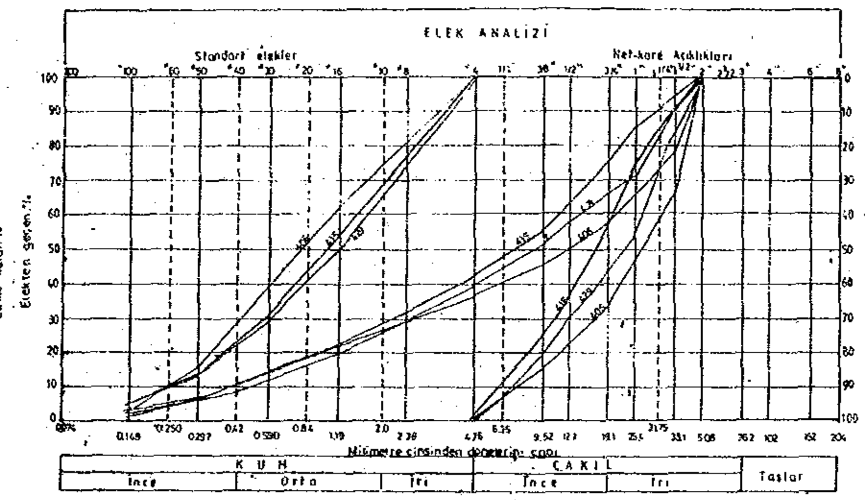
YAPAN: Y. Karagüllüoğlu	DENETİM: CABBAR YÖRDEM	ONAY
ÇİZEN: M. DEĞİRMENCİOĞLU	ONAMA: HASAN İMERT	
TARİH: 1988	PAFTA NO: 5	
ÖLÇEK: 1/25.000 ve 1/50	ARŞİV NO:	

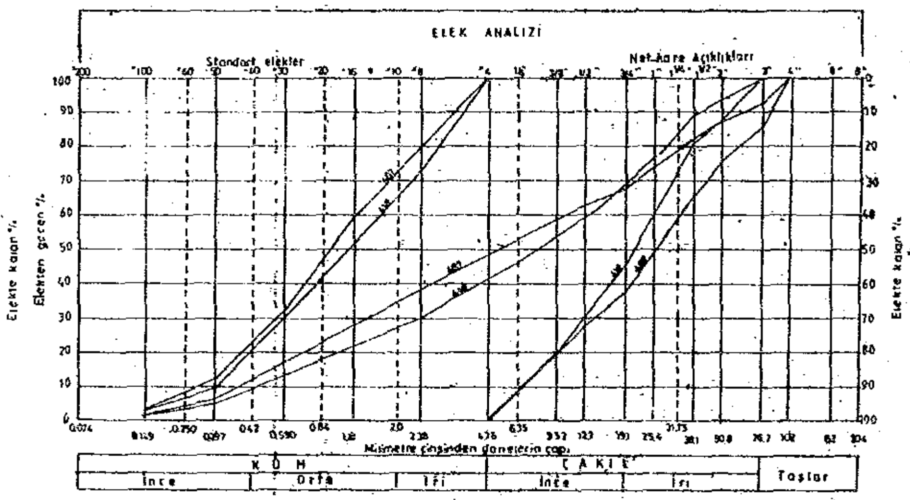


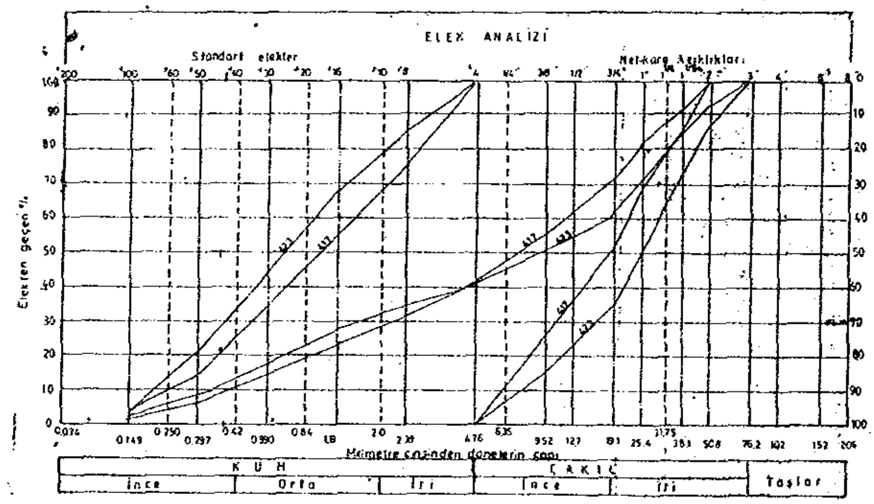












DEVLET SU İŞLER GENEL MÜDÜRLÜĞÜ
VI. BÖLGE MÜDÜRLÜĞÜ
PLANLAMA ŞUBE MÜDÜRLÜĞÜ
ADANA

GÖKTAŞ BARAJI VE HES PROJESİ
C-GEÇİRİMLİ GEREÇ ALANI
LABARATUVAR SONUÇLARI

YAPAN: Y. Karaoğlu [illegible]	DENETİM: CABBAR YÜRDEN	ONAYLAYAN [illegible]
ÇİZEN: M. DEĞİRMENCİOĞLU	ONAMA: HASAN MERT	
TARİH: 198[illegible]	PAFTA NO: 6	
ÖLÇEK:	ARŞİV NO:	