TABLE 18.--ENGINEERING INDEX TEST DATA

Soil name, report number, horizon, and depth in inches	Classification		Grain-size distribution 1/									Liquid limit 2/	Plasticity index 2/	Specific gravity	Shrinkage		
			Percentage passing sieve--						Percentage smaller than--								
	AASHTO	Unified	3/4 inch	3/8 inch	No. 4	No. 10	No. 40	No. 200	.05 mm	.005 mm	.002 mm				Limit	Linear	Ratio
												Pct		G/cc	Pct	Pct	Pct
Arroyada clay: 3/ (S74TX-479-001)																	
Ag2---------- 8-25	A-7-6(53)	CH	100	100	100	100	100	98	91	69	58	71	47	2.69	12.0	22.2	1.95
Cknz---------32-72	A-7-6(51)	CH	100	100	100	100	100	98	90	59	48	65	47	2.68	14.0	20.3	1.92
Copita sandy clay loam: 4/ (S74TX-479-002)																	
A---------- 0-14	A-6 (06)	CL	100	99	99	98	98	61	51	30	25	30	14	2.66	16.0	7.6	1.80
Bk----------14-28	A-6 (10)	CL	100	100	99	99	99	82	73	40	31	32	17	2.69	15.0	8.7	1.86
Crk----------38-60	A-6 (04)	CL	100	100	100	100	100	58	45	20	15	33	11	2.72	22.0	5.7	1.69
Moglia clay loam: 5/ (S74TX-479-003)																	
A---------- 0-12	A-7-6(16)	CL	100	96	93	92	91	63	54	37	32	46	29	2.67	15.0	14.2	1.87
Bknz---------20-30	A-7-6(19)	CL	100	99	99	98	98	71	65	35	26	49	28	2.72	20.0	12.6	1.70
2Cknz--------30-45	A-7-6(31)	CH	100	100	100	99	98	78	72	51	42	58	40	2.79	16.0	18.0	1.90
Montell clay: 6/ (S74TX-479-005)																	
Anz----------10-28	A-7-6(35)	CH	100	100	99	98	97	79	74	57	48	63	43	2.69	13.0	20.1	1.95
Cnz----------38-50	A-7-6(42)	CH	100	99	98	98	97	82	77	57	50	67	49	2.70	13.0	22.0	2.01
Viboras clay: 7/ (S74TX-479-006)																	
Bnz---------- 8-26	A-7-6(36)	CH	100	100	100	100	99	84	79	52	40	61	41	2.77	12.0	20.1	1.98
Crnz---------35-72	A-7-6(24)	CL	100	100	100	100	99	94	78	33	23	42	25	2.76	16.0	12.3	1.89

1/ For materials larger than 3/8 inch, square mesh wire sieves were used that are slightly larger than equivalent round mesh sieves, but these differences do not seriously affect the data.

2/ Liquid limit and plasticity index values were determined by the AASHTO-89 method, except that soil was added to the water.

3/ Arroyada clay: from the Webb County marker on Texas Highway 44, 4.3 miles west on Texas Highway 44 to Pintas-Adami Road, 5.0 miles north on Pintas-Adami Road, 0.75 mile west on pipeline road, 50 feet south of road.

4/ Copita sandy clay loam: from the intersection of Farm to Market Roads 3338 and 1472 northwest of Laredo, 18 miles northwest on Farm to Market Road 3338 and Las Tiendas Road, 50 feet south of road.

5/ Moglia clay loam: from the intersection of Interstate Highway 35 and U.S. Highway 59 in Laredo, 18.5 miles east on U.S. 59, 50 feet south of fence.

6/ Montell clay: from the intersection of Interstate Highway 35 and U.S. Highway 59 in Laredo, 36.4 miles east on U.S. 59, 50 feet south of fence.

7/ Viboras clay: from the intersection of Interstate Highway 35 and Del Mar Boulevard in Laredo, 17.2 miles east on Del Mar Boulevard and San Ignacio Road, 100 feet southeast of road.

TABLE 19.--CLASSIFICATION OF THE SOILS

Soil name	Family or higher taxonomic class
Aguilares----------	Fine-loamy, mixed, hyperthermic Ustollic Calciorthids
Arroyada----------	Fine, montmorillonitic, hyperthermic Udorthentic Pellusterts
Brundage----------	Fine-loamy, mixed, hyperthermic Ustollic Natrargids
Brystal----------	Fine-loamy, mixed, hyperthermic Aridic Paleustalfs
Catarina----------	Fine, montmorillonitic, hyperthermic Typic Torrerts
Comitas----------	Loamy, mixed, hyperthermic Arenic Aridic Paleustalfs
Copita----------	Fine-loamy, mixed, hyperthermic Ustollic Calciorthids
Cuevitas----------	Loamy, mixed, hyperthermic, shallow Ustollic Paleorthids
Delfina----------	Fine-loamy, mixed, hyperthermic Aquic Paleustalfs
Delmita----------	Fine-loamy, mixed, hyperthermic Petrocalcic Paleustalfs
Dilley----------	Loamy, mixed, hyperthermic, shallow Ustalfic Haplargids
Duval----------	Fine-loamy, mixed, hyperthermic Aridic Haplustalfs
Hebbronville----------	Coarse-loamy, mixed, hyperthermic Aridic Haplustalfs
Jimenez----------	Loamy-skeletal, mixed, hyperthermic, shallow Petrocalcic Calciustolls
Lagloria----------	Coarse-silty, mixed, hyperthermic Fluventic Ustochrepts
Laredo----------	Fine-silty, mixed, hyperthermic Fluventic Haplustolls
Maverick----------	Fine, montmorillonitic, hyperthermic Ustollic Camborthids
Moglia----------	Fine-loamy, mixed, hyperthermic Ustollic Calciorthids
Montell----------	Fine, montmorillonitic, hyperthermic Entic Pellusterts
Nido----------	Loamy, mixed (calcareous), hyperthermic, shallow Ustic Torriorthents
Nido Variant----------	Loamy, mixed, hyperthermic Lithic Torriorthents
Nueces----------	Loamy, mixed, hyperthermic Aquic Arenic Paleustalfs
Palafox----------	Fine-silty, mixed, hyperthermic Ustollic Calciorthids
Quemado----------	Loamy-skeletal, mixed, hyperthermic, shallow Petrocalcic Ustalfic Paleargids
Randado----------	Loamy, mixed, hyperthermic, shallow Petrocalcic Ustollic Paleargids
Rio Grande----------	Coarse-silty, mixed (calcareous), hyperthermic Typic Ustifluvents
Tela----------	Fine-loamy, mixed, hyperthermic Typic Argiustolls
Torriorthents----------	Loamy-skeletal, hyperthermic Torriorthents
Verick----------	Loamy, mixed, hyperthermic, shallow Ustollic Haplargids
Viboras----------	Fine, mixed, hyperthermic Ustertic Camborthids
Zapata----------	Loamy, mixed, hyperthermic, shallow Ustollic Paleorthids

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