TABLE 7.—*Engineering test data*

[Tests performed by the Texas Highway Department in accordance with standard procedures of the American Association of State Highway and Transportation Officials (AASHTO) (*1*)]

Soil name and location	Parent material	Texas report No.	Depth from surface	Shrinkage: Limit	Shrinkage: Lineal	Shrinkage: Ratio	Mechanical analysis[1]: Percentage passing sieve— 1¾ in	1¼ in	¾ in	⅜ in	¾ in	No. 4 (4.7 mm)	No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.074 mm)	Percentage smaller than— 0.05 mm	0.005 mm	0.002 mm	Liquid limit	Plasticity index	Classification[2]: AASHTO[3]	Unified[4]
			In	*Pct*	*Pct*														*Pct*			
Coy clay loam:																						
3.5 miles south of Floresville on U.S. Highway 181 to unpaved county road, 0.75 mile east on county road; then 75 feet south in cultivated field. (Modal)	Calcareous clays and shaly clays.	639–R	4–10	16	10.5	1.84							100	99	75	59	29	26	37	20	A–6	CL
		640–R	15–30	14	4.6	1.92						100	99	98	79	66	42	36	45	29	A–7–6	CL
		641–R	34–45	13	18.0	2.00						100	99	98	84	72	50	42	53	36	A–7–6	CH
4.25 miles west of Floresville on Texas Highway 97 to Farm Road 1344, 1 mile south on Farm Road 1344; then 150 feet west in cultivated field (Modal)	Calcareous clays and shaly clays.	642–R	4–12	17	10.1	1.82							100	99	78	60	31	27	38	20	A–6	CL
		643–R	16–34	14	18.4	1.95						100	99	99	87	77	50	44	57	39	A–7–6	CH
		644–R	38–50	15	17.7	1.92						100	99	99	85	74	51	44	56	36	A–7–6	CH
Denhawken clay loam (in an area of Elmendorf-Denhawken complex):																						
0.25 mile north of Poth on U.S. Highway 181 to Farm Road 427, 3 miles east on Farm Road 427 to unpaved county road, 0.8 mile northwest on unpaved county road; then 0.12 mile southwest in cultivated field (in a microhigh). (Modal)	Calcareous clays and shaly clays.	604–R	2–6	15	12.2	1.90						100	99	97	93	66	37	32	37	22	A–6	CL
		605–R	17–27	13	14.4	1.95							100	97	93	70	62	39	35	44	A–7–6	CL
		606–R	27–40	12	17.3	2.04							100	97	94	77	68	43	27	50	33	A–7–6	CL or CH
Elmendorf clay loam:																						
0.25 mile north of Poth on U.S. Highway 181 to Farm Road 427, 3 miles east on Farm Road 427 to unpaved county road, 0.8 mile northwest on unpaved county road; then 0.12 mile southwest in cultivated field (in a microlow). (Modal)	Calcareous clays and shaly clays.	601–R	2–10	14	11.8	1.99						100	99	96	92	65	55	29	26	38	21	A–6	CL
		602–R	16–34	13	15.4	1.95			100	99		99	99	97	73	65	41	37	47	19	A–7–6	CL
		603–R	44–54	12	17.2	2.01						100	99	96	92	74	67	42	36	49	22	A–7–6	CL
5 miles south of Stockdale on Texas Highway 123; then 150 feet west in cultivated field (in a microlow). (Modal)	Calcareous clays and shaly clays.	619–R	2–7	16	10.2	1.85						100	98	97	94	64	52	28	25	37	20	A–7–6	CL
		620–R	18–30	12	19.4	2.00						100	99	99	97	78	70	49	42	57	36	A–7–6	CH
		621–R	38–48	11	20.8	2.05						100	99	97	93	77	71	48	43	60	40	A–7–6	CH
Eufaula fine sand:																						
8 miles south of La Vernia, 2 miles east on old Sulfur Springs Road from Bexas County line to Kincaster Cemetery, 1.9 miles south on paved road into Woodvalley development to intersection of Livcook and Bluebonnet Lanes; then 30 feet south and east. (Modal)	Thick sandy materials that have weakly consolidated interbedded sandstone.	631–R	5–45	18	0.0	1.72							100	90	11	9	4	2	20	2	A–2–4	SP–SM
3.25 miles north of intersection of U.S. Highway 181 and Texas Highway 97 in Floresville by way of U.S. Highway 181 to Flores Lane, 3.6 miles east on Flores Lane; then 50 feet south in native range. (Modal)	Thick sandy materials that have weakly consolidated interbedded sandstone.	632–R	7–50	19	0.2	1.62							100	99	14	9	3	2	24	3	A–2–4	SM
Floresville fine sandy loam:																						
7 miles west of intersection of U.S. Highway 181 and Farm Road 541 in Poth by way of Farm Road 541 to DeWees Community, 1 mile north on Farm Road 1344 to county road, 1.25 miles west on county road; then 255 feet north in range. (Modal)	Sandy clay loams that have stratified beds of weakly consolidated sandstone and sandy clays.	610–R	2–8	19	1.7	1.73		100	99	98	95	93	91	89	38	28	14	12	22	3	A–4	SM
		611–R	12–26	15	16.3	1.88				100	99	99	98	97	66	60	48	46	53	32	A–7–6	CH
		612–R	34–42	18	12.8	1.76				100	99	98	96	94	58	49	30	27	47	29	A–7–6	CL
7 miles west of intersection of U.S. Highway 181 and Farm Road 541 in Poth by way of Farm Road 541 to DeWees Community, 1 mile north on Farm Road 1344 to county road, 1.25 miles west on county road; then 50 feet south in pasture. (Modal)	Sandy clay loams that have stratified beds of weakly consolidated sandstone and sandy clays.	607–R	2–8	19	2.3	1.72						100	99	99	98	47	35	14	12	24	4	A–4	SM–SC
		608–R	13–24	17	14.9	1.85						100	99	98	96	66	59	41	40	51	32	A–7–6	CH
		609–R	34–40	18	13.1	1.81						100	98	95	92	60	53	30	28	47	29	A–7–6	CL

TABLE 7.—*Engineering test data*—Continued

Soil name and location	Parent material	Texas report No.	Depth from surface	Shrinkage: Limit	Shrinkage: Lineal	Shrinkage: Ratio	Mechanical analysis[1]: Percentage passing sieve— 1¾ in	1¼ in	¾ in	⅜ in	¾ in	No. 4 (4.7 mm)	No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.074 mm)	Percentage smaller than— 0.05 mm	0.005 mm	0.002 mm	Liquid limit	Plasticity index	Classification[2]: AASHTO[3]	Unified[4]
			In	*Pct*	*Pct*														*Pct*			
Luling clay:																						
5.25 miles south of Stockdale on Texas Highway 123 to Farm Road 1347, 4.6 miles east on Farm Road 1347; then 50 feet southeast in cultivated field. (Modal)	Calcareous clays and shaly clays.	625–R	3–8	11	18.8	2.04						100	99	96	87	82	52	46	53	32	A–7–6	CH
		626–R	15–25	13	19.5	2.00						100	99	96	88	83	57	50	59	37	A–7–6	CH
		627–R	35–45	15	19.5	1.91					100	98	92	74	63	61	43	40	63	40	A–7–6	CH
5.25 miles south of Stockdale on Texas Highway 123 to Farm Road 1347, 4.4 miles east on Farm Road 1347 to county road, 0.75 mile south on county road; then 300 feet east in cultivated field. (Modal)	Calcareous clays and shaly clays.	628–R	4–10	15	16.2	1.95					100	99	98	95	83	73	47	40	51	30	A–7–6	CH
		629–R	26–35	12	21.3	2.01			100	99	99	98	97	94	86	82	58	50	64	41	A–7–6	CH
		630–R	40–58	14	20.1	1.95					100	97	93	83	70	66	46	20	64	40	A–7–6	CH
Miguel fine sandy loam:																						
0.75 mile east of intersection of U.S. Highway 181 and Farm Road 541 in Poth by way of Farm Road 541; then 200 feet southwest in idle cropland. (Modal)	Calcareous sandy clays and clay loams.	595–R	3–10	17	1.8	1.74						100	99	99	36	27	12	10	20	2	A–2–4	SM
		596–R	13–21	13	16.3	1.93			100	99	99	99	98	97	59	53	41	38	50	31	A–7–6	CL or CH
		597–R	42–52	15	15.0	1.90			100	99	99	99	98	96	54	50	35	33	48	32	A–7–6	CL
Wilco loamy fine sand:																						
5.75 miles northwest of intersection of Farm Road 537 and U.S. Highway 181 in Floresville by way of Farm Road 537 to county road, 1.25 miles west on county road; then 200 feet southeast in cultivated field. (Modal)	Sandy clay loams and shaly clays that have stratified beds of weakly consolidated sandstone.	613–R	4–12	18	2.0	1.72				100	99	98	97	96	27	19	5	3	21	4	A–2–4	SM or SM–SC
		614–R	16–25										100	99	63	58	45	43	51	31	A–7–6	CH
		615–R	34–44	17	11.5	1.89				100	99	99	99	99	60	50	32	29	41	25	A–7–6	CL
6 miles northwest of intersection of Farm Road 536 and U.S. Highway 181 in Floresville by way of Farm Road 536; then 225 feet south in idle cropland field. (Modal)	Sandy clay loams and shaly clays that have stratified beds of weakly consolidated sandstone.	616–R	4–14	20	1.3	1.67	100	97	97	97	96	95	95	95	14	10	4	3	23	3	A–2–4	SM
		617–R	16–30	15	14.3	1.87						100	99	99	52	54	48	46	47	28	A–7–6	CL
		618–R	34–44											100	34	34	29	28	31	17	A–2–6	SC

[1] Mechanical analyses according to the AASHTO Designation T 88 (*1*). Results of this procedure frequently may differ somewhat from results that would have been obtained by the soil survey procedure of the Soil Conservation Service (SCS). In the AASHTO procedure, the fine material is analyzed by the hydrometer method and the various grain-sized fractions are calculated on the basis of all the material, including that coarser than 2 millimeters in diameter. In the SCS soil survey procedure, the fine material is analyzed by the pipette method and the material coarser than 2 millimeters in diameter is excluded from calculations of grain-sized fractions. The mechanical analyses used in this table are not suitable for use in naming textural classes for soil.

[2] Unified and AASHTO classification made by SCS personnel.

[3] Based on Standard Specifications for Highway Materials and Methods of Sampling and Testing (Pt. 1, Ed. 8): The Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes, AASHTO Designation M145–49 (*1*).

[4] Unified Soil Classification System (*2*).