TABLE 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1961-90 at Mexia, Texas)

Month	Temperature						Precipitation				
				2 years in 10 will have--				2 years in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temperature higher than--	Minimum temperature lower than--	Average number of growing degree days*	Average	Less than--	More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January	56.2	33.4	44.8	80	12	68	2.50	0.89	.85	4	0.3
February	60.9	37.0	49.0	83	16	101	3.05	1.57	4.34	5	0.7
March	69.5	45.5	57.5	87	24	264	3.40	1.59	4.96	4	0.1
April	77.5	54.3	65.9	92	35	475	3.62	1.42	5.47	4	0.0
May	83.7	61.4	72.5	95	47	681	4.82	1.88	7.28	6	0.0
June	90.7	68.1	79.4	101	55	872	3.48	0.85	5.57	4	0.0
July	95.3	71.4	83.3	105	61	1,027	1.89	0.66	2.91	3	0.0
August	96.4	70.6	83.5	106	60	1,031	2.34	0.51	3.77	3	0.0
September	89.5	65.0	77.3	103	46	809	4.65	2.04	6.87	5	0.0
October	80.1	54.3	67.2	96	36	532	4.05	1.52	6.16	4	0.0
November	68.8	45.0	56.9	87	25	247	3.38	1.64	4.89	4	0.0
December	59.4	36.0	47.7	80	14	89	3.22	1.31	4.83	4	0.1
Yearly:											
Average	77.3	53.5	65.4	---	---	---	---	---	---	---	---
Extreme	---	---	---	107	8	---	---	---	---	---	---
Total--	---	---	---	---	---	6,196	40.40	32.21	47.62	50	1.3

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minumum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

TABLE 2.--FREEZE DATES IN SPRING AND FALL

(Recorded in the period 1961-90 at Mexia, Texas)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	March 5	March 15	March 29
2 years in 10 later than--	February 25	March 8	March 23
5 years in 10 later than--	February 8	February 23	March 9
First freezing temperature in fall:			
1 yr in 10 earlier than--	November 25	November 10	October 30
2 yr in 10 earlier than--	December 2	November 18	November 7
5 yr in 10 earlier than--	December 16	December 4	November 22

TABLE 3.--GROWING SEASON

(Recorded in the period 1961-90 at Mexia, Texas)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	279	258	223
8 years in 10	289	267	235
5 years in 10	309	285	257
2 years in 10	329	303	279
1 year in 10	340	313	291

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
AxA	Axtell fine sandy loam, 0 to 1 percent slopes	3,189	0.5
AxB	Axtell fine sandy loam, 1 to 3 percent slopes	14,204	2.4
BnA	Branyon clay, 0 to 2 percent slopes	1,957	0.3
BuA	Burleson clay, 0 to 2 percent slopes	6,270	1.0
CrA	Crockett loam, 0 to 1 percent slopes	3,928	0.7
CrB	Crockett loam, 1 to 3 percent slopes	51,009	8.5
CrC2	Crockett loam, 2 to 5 percent slopes, eroded	34,216	5.7
EgB	Edge fine sandy loam, 1 to 5 percent slopes	22,307	3.7
EgC2	Edge fine sandy loam, 2 to 5 percent slopes, eroded	17,824	3.0
EgD	Edge fine sandy loam, 5 to 12 percent slopes	10,460	1.8
EhC3	Edge-Gullied land complex, 3 to 8 percent slopes	832	0.1
EsC2	Ellis clay, 3 to 5 percent slopes, eroded	12,571	2.1
EsE2	Ellis clay, 5 to 15 percent slopes, eroded	1,248	0.2
FeD2	Ferris clay, 5 to 15 percent slopes, eroded	9,690	1.6
FhC2	Ferris-Heiden complex, 2 to 5 pecent slopes, eroded	38,298	6.4
GfB	Gasil loamy fine sand, 1 to 5 percent slopes	28,577	4.8
GsA	Groesbeck loamy fine sand, 0 to 2 percent slopes	3,975	0.7
GsC	Groesbeck loamy fine sand, 2 to 5 percent slopes	955	0.2
HeB	Heiden clay, 1 to 3 percent slopes	17,362	2.9
HoB	Houston Black clay, 1 to 3 percent slopes	33,122	5.5
Kc	Kaufman clay, occasionally flooded	647	0.1
Kd	Kaufman clay, frequently flooded	10,337	1.7
LaE2	Lamar clay loam, 5 to 15 percent slopes, eroded	1,356	0.2
LrB	Lavender-Rock outcrop complex, 1 to 5 percent slopes	4,853	0.8
LsB	Leson clay, 1 to 3 percent slopes	3,620	0.6
LuA	Lufkin fine sandy loam, 0 to 1 percent slopes	2,819	0.5
LxA	Lufkin-Rader complex, 0 to 1 percent slopes	3,636	0.6
MaA	Mabank fine sandy loam, 0 to 2 percent slopes	17,177	2.9
Na	Nahatche loam, frequently flooded	4,714	0.8
NoB	Normangee clay loam, 1 to 3 percent slopes	9,952	1.7
NrD2	Normangee gravelly clay loam, 3 to 8 percent slopes, eroded	3,790	0.6
OgB	Oglesby clay, 1 to 3 percent slopes	585	0.1
Ot	Oletha clay, frequently flooded	3,235	0.5
PaC	Padina loamy fine sand, 1 to 5 percent slopes	16,823	2.8
PaE	Padina loamy fine sand, 5 to 12 percent slopes	2,557	0.4
PeB	Personville loamy fine sand, 1 to 5 percent slopes	4,067	0.7
Pr	Pits, quarries	927	0.2
Ps	Pits, sand	398	0.1
RaA	Rader fine sandy loam, 0 to 2 percent slopes	16,130	2.7
RoA	Robco loamy fine sand, 0 to 2 percent slopes	2,927	0.5
SaB	Silawa fine sandy loam, 1 to 3 percent slopes	1,710	0.3
SaD	Silawa fine sandy loam, 5 to 12 percent slopes	4,252	0.7
SsB	Silstid loamy fine sand, 1 to 3 percent slopes	21,660	3.6
SsD	Silstid loamy fine sand, 3 to 8 percent slopes	8,904	1.5
StA	Styx loamy fine sand, 0 to 2 percent slopes	2,773	0.5
TaA	Tabor fine sandy loam, 0 to 2 percent slopes	23,771	4.0
Tc	Tinn clay, occasionally flooded	2,049	0.3
To	Tinn clay, frequently flooded	9,921	1.7
Uh	Uhland fine sandy loam, frequently flooded	7,965	1.3
Wa	Whitesboro loam, occasionally flooded	2,095	0.4
Wf	Whitesboro loam, frequently flooded	24,926	4.2
WnA	Wilson clay loam, 0 to 2 percent slopes	45,169	7.6
WxA	Wilson-Bremond complex, 0 to 2 percent slopes	7,071	1.2
WW	Water (less than 40 acres in size)	342	0.1
W	Water areas more than 40 acres in size	11,936	2.0
	Total	597,088	100.0

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE

(Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Soil name and map symbol	Land capability	Grain sorghum	Wheat	Corn	Cotton lint	Improved bermuda-grass	Common bermuda-grass	Bahiagrass
		Bu	Bu	Bu	Lbs	AUM*	AUM*	AUM*
AxA---------- Axtell	IIIs	45	35	50	250	5.0	---	4.0
AxB---------- Axtell	IIIe	40	35	50	250	5.0	---	4.0
BnA---------- Branyon	IIe	90	45	100	550	7.5	---	---
BuA---------- Burleson	IIe	90	40	80	450	6.0	4.0	5.0
CrA---------- Crockett	IIIs	60	35	45	300	6.5	4.0	---
CrB---------- Crockett	IIIe	55	35	45	300	6.5	4.0	---
CrC2---------- Crockett	IVe	45	20	35	200	5.0	3.5	---
EgB---------- Edge	IVe	35	25	35	---	5.5	4.0	4.0
EgC2---------- Edge	IVe	25	20	30	---	5.0	3.5	---
EgD---------- Edge	VIe	---	---	---	---	4.0	3.0	---
EhC3**:								
Edge----------	VIe	---	---	---	---	4.0	3.0	---
Gullied land---	VIIe	---	---	---	---	---	---	---
EsC2---------- Ellis	IVe	25	15	50	100	5.0	4.0	---
EsE2---------- Ellis	VIe	---	---	---	---	3.5	---	---
FeD2---------- Ferris	VIe	---	---	---	---	4.0	---	---
FhC2:								
Ferris---------	IVe	35	15	40	100	5.0	---	---
Heiden---------	IIIe	45	25	50	350	6.0	---	---
GfB---------- Gasil	IIIe	45	25	---	200	6.0	5.0	5.0
GsA, GsC-------- Groesbeck	IIIe	35	---	50	200	5.5	---	---
HeB---------- Heiden	IIe	90	45	90	450	7.0	---	---

See footnote at end of table.

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Land capability	Grain sorghum	Wheat	Corn	Cotton lint	Improved bermuda-grass	Common bermuda-grass	Bahiagrass
		Bu	Bu	Bu	Lbs	AUM*	AUM*	AUM*
HoB---------- Houston Black	IIe	100	45	100	550	7.0	5.0	---
Kc---------- Kaufman	IIw	100	40	65	500	5.0	---	---
Kd---------- Kaufman	Vw	---	---	---	---	4.0	---	---
LaE2---------- Lamar	VIe	---	---	---	---	4.0	---	---
LrB**:								
Lavender-------	IIIe	---	---	---	---	---	---	---
Rock outcrop---	VIIIs	---	---	---	---	---	---	---
LsB---------- Leson	IIe	80	35	55	450	7.0	---	---
LuA---------- Lufkin	IIIw	45	---	---	200	5.0	4.0	---
LxA:								
Lufkin---------	IIIw	45	---	---	200	5.0	4.0	---
Rader----------	IIw	70	30	65	---	8.0	6.5	---
MaA---------- Mabank	IIIe	55	---	50	300	6.0	---	---
Na---------- Nahatche	Vw	---	---	---	---	9.0	5.0	5.0
NoB---------- Normangee	IIIe	50	30	50	300	8.0	---	---
NrD2---------- Normangee	VIe	---	30	---	---	5.0	---	---
OgB---------- Oglesby	IVs	---	30	---	---	3.0	---	---
Ot---------- Oletha	Vw	---	---	---	---	7.0	5.0	---
PaC---------- Padina	IIIe	---	---	---	---	7.0	---	---
PaE---------- Padina	VIe	---	---	---	---	5.0	---	---
PeB---------- Personville	IIIe	45	---	50	300	5.5	---	---
Pr**---------- Pits, quarries	VIIIs	---	---	---	---	---	---	---
Ps**---------- Pits, sand	VIIIs	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Land capability	Grain sorghum	Wheat	Corn	Cotton lint	Improved bermuda-grass	Common bermuda-grass	Bahiagrass
		Bu	Bu	Bu	Lbs	AUM*	AUM*	AUM*
RaA---------- Rader	IIIe	70	30	60	200	7.5	6.0	---
RoA---------- Robco	IIe	---	---	65	---	6.5	---	---
SaB---------- Silawa	IIe	55	---	80	350	7.0	---	---
SaD---------- Silawa	VIe	---	---	---	---	4.0	---	---
SsB---------- Silstid	IIIs	40	---	---	---	7.0	---	---
SsD---------- Silstid	IIIe	30	---	---	---	7.0	---	---
StA---------- Styx	IIIs	65	---	65	300	7.5	---	---
TaA---------- Tabor	IIIe	---	---	---	---	7.0	---	5.0
Tc---------- Tinn	IIw	90	35	90	500	8.0	---	---
To---------- Tinn	Vw	---	---	---	---	8.0	---	---
Uh---------- Uhland	Vw	---	---	---	---	8.0	7.0	---
Wa---------- Whitesboro	IIw	75	35	---	500	8.0	6.5	---
Wf---------- Whitesboro	Vw	---	---	---	---	8.0	6.5	---
WnA---------- Wilson	IIIe	45	30	55	300	6.0	---	---
WxA:								
Wilson---------	IIIe	45	30	55	300	6.0	---	---
Bremond--------	IIIe	70	40	70	400	6.0	3.5	---

* Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

** See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 6.--RANGELAND PRODUCTIVITY

(Only the soils that support rangeland vegetation suitable for grazing are listed)

Soil name and map symbol	Range site	Potential annual production for kind of growing season		
		Favorable	Average	Unfavorable
		Lb/acre	Lb/acre	Lb/acre
AxA, AxB Axtell	Claypan Savannah	5,000	3,500	2,500
BnA Branyon	Blackland	7,000	5,500	3,500
BuA Burleson	Blackland	7,000	5,500	4,000
CrA, CrB, CrC2 Crockett	Claypan Prairie	6,000	5,000	3,000
EgB, EgC2, EgD Edge	Claypan Savannah	5,000	3,500	2,500
EhC3*:				
Edge	Claypan Savannah	5,000	3,500	2,500
Gullied land.				
EsC2, EsE2 Ellis	Eroded Blackland	4,500	4,000	2,000
FeD2 Ferris	Eroded Blackland	7,000	5,000	4,000
FhC2*:				
Ferris	Eroded Blackland	7,000	5,500	4,000
Heiden	Blackland	7,000	5,000	3,500
GfB Gasil	Sandy Loam	5,500	4,000	3,500
GsA, GsC Groesbeck	Sandy Loam	6,000	5,000	3,000
HoB Heiden	Blackland	7,000	6,000	3,500
HoB Houston Black	Blackland	7,000	6,000	3,500
Kc, Kd Kaufman	Clayey Bottomland	7,500	6,000	4,000
LaE2 Lamar	Clay Loam	6,000	4,500	3,000
LrB*:				
Lavender	Sandy Loam	5,500	4,500	2,500
Rock outcrop.				
LsB Leson	Blackland	8,500	6,000	5,000

See footnote at end of table.

TABLE 6.--RANGELAND PRODUCTIVITY--Continued

Soil name and map symbol	Range site	Potential annual production for kind of growing season		
		Favorable	Average	Unfavorable
		Lb/acre	Lb/acre	Lb/acre
LuA Lufkin	Claypan Savannah	5,000	4,000	2,500
LxA*:				
Lufkin	Claypan Savannah	5,000	4,000	2,500
Rader	Sandy Loam	6,000	4,500	3,500
MaA Mabank	Claypan Prairie	6,000	5,000	3,000
Na Nahatche	Loamy Bottomland	5,500	5,300	3,000
NoB, NrD2 Normangee	Claypan Prairie	5,500	4,000	3,000
OgB Oglesby	Shallow Clay	5,000	4,500	2,500
Ot Oletha	Clayey Bottomland	8,000	6,000	4,000
PaC, PaE Padina	Deep Sand	4,500	3,500	2,250
PeB Personville	Sandy Loam	5,500	4,500	2,500
RaA Rader	Sandy Loam	6,000	4,500	3,500
RoA Robco	Sandy	3,600	3,300	2,600
SaB, SaD Silawa	Sandy Loam	5,500	4,500	2,500
SsB, SsD Silstid	Sandy	4,500	4,000	2,000
StA Styx	Sandy	5,500	4,300	3,000
TaA Tabor	Sandy Loam	6,500	5,500	3,500
Tc, To Tinn	Clayey Bottomland	7,000	6,000	4,000
Uh Uhland	Loamy	7,500	6,500	4,000
Wa, Wf Whitesboro	Loamy Bottomland	9,000	8,000	6,500
WnA Wilson	Claypan Prairie	6,000	4,500	3,000

See footnote at end of table.

TABLE 6.--RANGELAND PRODUCTIVITY--Continued

Soil name and map symbol	Range site	Potential annual production for kind of growing season		
		Favorable	Average	Unfavorable
		Lb/acre	Lb/acre	Lb/acre
WxA*:				
Wilson	Claypan Prairie	6,000	4,500	3,000
WxA*:				
Bremond	Claypan Prairie	5,000	4,500	2,500

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 7.--RECREATIONAL DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
AxA---------- Axtell	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slowly.	Severe: erodes easily.	Moderate: droughty.
AxB---------- Axtell	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Severe: erodes easily.	Moderate: droughty.
BnA---------- Branyon	Moderate: percs slowly, too clayey.	Moderate: too clayey, percs slowly.	Moderate: small stones, too clayey.	Moderate: too clayey.	Severe: too clayey.
BuA---------- Burleson	Moderate: percs slowly, too clayey.	Moderate: too clayey, percs slowly.	Moderate: too clayey.	Moderate: too clayey.	Severe: too clayey.
CrA---------- Crockett	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slowly.	Severe: erodes easily.	Moderate: droughty.
CrB, CrC2---------- Crockett	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Severe: erodes easily.	Moderate: droughty.
EgB, EgC2---------- Edge	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Severe: erodes easily.	Slight.
EgD---------- Edge	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Severe: erodes easily.	Moderate: slope.
EhC3*:					
Edge----------	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Severe: erodes easily.	Slight.
Gullied land---------	---	---	---	---	---
EsC2---------- Ellis	Moderate: percs slowly, too clayey.	Moderate: too clayey, percs slowly.	Moderate: slope, too clayey, percs slowly.	Moderate: too clayey.	Severe: too clayey.
EsE2---------- Ellis	Moderate: slope, percs slowly, too clayey.	Moderate: slope, too clayey, percs slowly.	Severe: slope.	Moderate: too clayey.	Severe: too clayey.
FeD2---------- Ferris	Moderate: slope, percs slowly.	Moderate: slope, too clayey.	Moderate: too clayey, percs slowly.	Moderate: too clayey.	Severe: too clayey.
FhC2*:					
Ferris----------	Moderate: percs slowly.	Moderate: too clayey.	Moderate: too clayey, percs slowly.	Moderate: too clayey.	Severe: too clayey.

See footnote at end of table.

TABLE 7.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
FhC2*:					
Heiden	Moderate: percs slowly.	Moderate: too clayey.	Moderate: slope, too clayey.	Moderate: too clayey.	Severe: too clayey.
GfB Gasil	Slight	Slight	Moderate: slope.	Slight	Moderate: droughty.
GsA Groesbeck	Slight	Slight	Slight	Slight	Moderate: droughty, depth to rock.
GsC Groesbeck	Slight	Slight	Moderate: slope, depth to rock.	Slight	Moderate: droughty, depth to rock.
HeB Heiden	Moderate: percs slowly.	Moderate: too clayey.	Moderate: slope, too clayey.	Moderate: too clayey.	Severe: too clayey.
HoB Houston Black	Moderate: percs slowly, too clayey.	Moderate: too clayey, percs slowly.	Moderate: slope, too clayey.	Moderate: too clayey.	Severe: too clayey.
Kc Kaufman	Severe: flooding, percs slowly, too clayey.	Severe: too clayey, percs slowly.	Severe: too clayey, percs slowly.	Severe: too clayey.	Severe: too clayey.
Kd Kaufman	Severe: flooding, percs slowly, too clayey.	Severe: too clayey, percs slowly.	Severe: too clayey, flooding, percs slowly.	Severe: too clayey.	Severe: flooding, too clayey.
LaE2 Lamar	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Moderate: slope.
LrB*:					
Lavender	Slight	Slight	Moderate: slope, depth to rock.	Slight	Moderate: droughty, depth to rock.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight	Severe: depth to rock.
LsB Leson	Moderate: percs slowly, too clayey.	Moderate: too clayey, percs slowly.	Moderate: slope, too clayey, percs slowly.	Moderate: too clayey.	Severe: too clayey.
LuA Lufkin	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slowly.	Slight	Moderate: droughty.
LxA*:					
Lufkin	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slowly.	Slight	Moderate: droughty.
Rader	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Slight	Slight.

See footnote at end of table.

TABLE 7.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
MaA---------- Mabank	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slowly.	Slight----------	Moderate: droughty.
Na---------- Nahatche	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness.	Severe: wetness, flooding.
NoB---------- Normangee	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight----------	Slight.
NrD2---------- Normangee	Moderate: small stones, percs slowly.	Moderate: small stones, percs slowly.	Severe: small stones.	Slight----------	Moderate: small stones.
OgB---------- Oglesby	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Moderate: too clayey.	Severe: depth to rock, too clayey.
Ot---------- Oletha	Severe: flooding.	Moderate: flooding, too clayey, percs slowly.	Severe: flooding.	Moderate: too clayey, flooding.	Severe: flooding, too clayey.
PaC---------- Padina	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.	Moderate: droughty.
PaE---------- Padina	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.	Moderate: droughty, slope.
PeB---------- Personville	Slight----------	Slight----------	Moderate: slope.	Slight----------	Moderate: droughty.
Pr*---------- Pits, quarries	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
Ps*---------- Pits, sand	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
RaA---------- Rader	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Slight----------	Slight.
RoA---------- Robco	Moderate: wetness, too sandy.	Moderate: wetness, too sandy.	Moderate: slope, small stones, too sandy.	Moderate: wetness, too sandy.	Moderate: wetness, droughty.
SaB---------- Silawa	Slight----------	Slight----------	Moderate: slope.	Slight----------	Slight.
SaD---------- Silawa	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight----------	Moderate: slope.

See footnote at end of table.

TABLE 7.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
SsB, SsD Silstid	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, small stones.	Moderate: too sandy.	Moderate: droughty.
StA Styx	Moderate: too sandy.	Moderate: too sandy.	Moderate: too sandy.	Moderate: too sandy.	Moderate: droughty.
TaA Tabor	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: small stones, percs slowly.	Slight	Moderate: droughty.
Tc Tinn	Severe: flooding.	Moderate: too clayey, percs slowly.	Moderate: too clayey, flooding, percs slowly.	Moderate: too clayey.	Severe: too clayey.
To Tinn	Severe: flooding.	Moderate: flooding, too clayey, percs slowly.	Severe: flooding.	Moderate: too clayey, flooding.	Severe: flooding, too clayey.
Uh Uhland	Severe: flooding.	Moderate: flooding, wetness.	Severe: flooding.	Moderate: flooding.	Severe: flooding.
Wa Whitesboro	Severe: flooding.	Slight	Moderate: flooding.	Slight	Moderate: flooding.
Wf Whitesboro	Severe: flooding.	Moderate: flooding.	Severe: flooding.	Moderate: flooding.	Severe: flooding.
WnA Wilson	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slowly.	Slight	Slight.
WxA*:					
Wilson	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slolwy.	Slight	Slight.
Bremond	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: percs slowly.	Slight	Slight.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 8.--WILDLIFE HABITAT

(See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Potential for habitat elements				Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Shrubs	Openland wildlife	Woodland wildlife	Rangeland wildlife
AxA, AxB Axtell	Fair	Fair	Good	Good	Fair	Good	Good.
BnA Branyon	Good	Good	Poor	Fair	Fair	---	Fair.
BuA Burleson	Good	Good	Poor	Poor	Fair	---	Poor.
CrA, CrB, CrC2 Crockett	Fair	Good	Good	Good	Good	---	Good.
EgB Edge	Fair	Fair	Good	Good	Fair	Good	Good.
EgC2 Edge	Fair	Fair	Good	Good	Fair	Good	Good.
EgD Edge	Poor	Fair	Good	Good	Fair	Good	Good.
EhC3*:							
Edge	Poor	Fair	Good	Good	Fair	Good	Good.
Gullied land	Poor	Fair	Poor	Poor	Poor	---	Poor.
EsC2 Ellis	Fair	Good	Fair	Fair	Fair	---	Fair.
EsE2 Ellis	Poor	Fair	Fair	Fair	Fair	---	Fair.
FeD2 Ferris	Poor	Fair	Fair	Fair	Fair	---	Fair.
FhC2*:							
Ferris	Fair	Good	Fair	Fair	Fair	---	Fair.
Heiden	Fair	Good	Fair	Fair	Fair	---	Fair.
GfB Gasil	Fair	Good	Good	Good	Good	---	Good.
GsA, GsC Groesbeck	Fair	Good	Good	Good	Good	Good	Good.
HeB Heiden	Good	Good	Fair	Fair	Good	---	Fair.
HoB Houston Black	Good	Good	Poor	Fair	Fair	---	Fair.
Kc Kaufman	Fair	Fair	Poor	Fair	Fair	Good	---

See footnote at end of table.

TABLE 8.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements				Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Shrubs	Openland wildlife	Woodland wildlife	Rangeland wildlife
Kd: Kaufman	Poor	Poor	Fair	Fair	Poor	Good	---
LaE2: Lamar	Poor	Fair	Fair	Fair	Fair	---	Fair.
LrB*:							
Lavender	Fair	Fair	Good	Good	Fair	Good	Good.
Rock outcrop	---	---	---	---	---	---	---
LsB: Leson	Good	Good	Poor	Poor	Fair	---	Poor.
LuA: Lufkin	Fair	Good	Fair	---	Fair	Good	---
LxA*:							
Lufkin	Fair	Good	Fair	---	Fair	Good	---
Rader	Fair	Good	Good	Good	Good	---	Good.
MaA: Mabank	Fair	Good	Good	Fair	Good	---	Fair.
Na: Nahatche	Fair	Fair	Fair	---	Fair	Good	---
NoB, NrD2: Normangee	Fair	Fair	Fair	Fair	Fair	---	Fair.
OgB: Oglesby	Fair	Fair	Fair	Fair	Fair	---	Fair.
Ot: Oletha	Poor	Fair	Fair	---	Fair	Fair	---
PaC: Padina	Fair	Good	Fair	Fair	Fair	---	Fair.
PaE: Padina	Poor	Fair	Fair	Fair	Fair	---	Fair.
PeB: Personville	Fair	Fair	Good	Good	Fair	Good	Good.
Pr*: Pits, quarries	Very poor	Very poor	Very poor	Very poor	Very poor	---	Very poor.
Ps*: Pits, sand	Very poor	Very poor	Very poor	Very poor	Very poor	---	Very poor.
RaA: Rader	Fair	Good	Good	Good	Good	---	Good.
RoA: Robco	Fair	Fair	Good	Good	Fair	---	Good.
SaB: Silawa	Good	Good	Good	Good	Good	---	Good.

See footnote at end of table.

TABLE 8.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements				Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Shrubs	Openland wildlife	Woodland wildlife	Rangeland wildlife
SaD Silawa	Fair	Good	Good	Good	Good	---	Good.
SsB, SsD Silstid	Poor	Poor	Fair	Good	Poor	Poor	Fair.
StA Styx	Fair	Fair	Good	Good	Fair	---	Good.
TaA Tabor	Fair	Good	Good	Good	Good	---	Good.
Tc Tinn	Fair	Fair	Fair	---	Fair	Good	---
To Tinn	Poor	Fair	Fair	---	Fair	Fair	---
Uh Uhland	Poor	Fair	Fair	Good	Fair	---	Fair.
Wa Whitesboro	Good	Good	Good	Fair	Good	---	Fair.
Wf Whitesboro	Very poor	Poor	Fair	Fair	Poor	---	Fair.
WnA Wilson	Fair	Fair	Good	Fair	Fair	---	Fair.
WxA*:							
Wilson	Fair	Fair	Good	Fair	Fair	---	Fair.
Bremond	Fair	Good	Good	Good	Good	---	Good.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 9.--BUILDING SITE DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
AxA, AxB: Axtell	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: droughty.
BnA: Branyon	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
BuA: Burleson	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
CrA, CrB, CrC2: Crockett	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: droughty.
EgB, EgC2: Edge	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
EgD: Edge	Moderate: too clayey, slope.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength.	Moderate: slope.
EhC3*:						
Edge	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
Gullied land	---	---	---	---	---	---
EsC2: Ellis	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
EsE2: Ellis	Moderate: too clayey, slope.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength.	Severe: too clayey.
FeD2: Ferris	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength.	Severe: too clayey.
FhC2*:						
Ferris	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
Heiden	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
GfB: Gasil	Slight	Slight	Slight	Slight	Slight	Moderate: droughty.

See footnote at end of table.

TABLE 9.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
GsA, GsC---------- Groesbeck	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: depth to rock.	Moderate: depth to rock.	Moderate: droughty, depth to rock.
HeB---------- Heiden	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
HoB---------- Houston Black	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
Kc---------- Kaufman	Severe: cutbanks cave.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Severe: too clayey.
Kd---------- Kaufman	Severe: cutbanks cave.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Severe: flooding, too clayey.
LaE2---------- Lamar	Moderate: slope.	Moderate: shrink-swell, slope.	Moderate: slope, shrink-swell.	Severe: slope.	Severe: low strength.	Moderate: slope.
LrB*:						
Lavender---------	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: depth to rock.	Moderate: depth to rock.	Moderate: droughty, depth to rock.
Rock outcrop-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
LsB---------- Leson	Severe: cutbanks cave.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Severe: too clayey.
LuA---------- Lufkin	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: droughty.
LxA*:						
Lufkin----------	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: droughty.
Rader----------	Severe: wetness.	Moderate: wetness.	Severe: wetness, shrink-swell.	Moderate: wetness.	Moderate: wetness.	Slight.
MaA---------- Mabank	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: droughty.

See footnote at end of table.

TABLE 9.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Na---------- Nahatche	Severe: wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: low strength, wetness, flooding.	Severe: wetness, flooding.
NoB---------- Normangee	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
NrD2---------- Normangee	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: small stones.
OgB---------- Oglesby	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: depth to rock, too clayey.
Ot---------- Oletha	Moderate: wetness, flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: low strength, flooding.	Severe: flooding, too clayey.
PaC---------- Padina	Severe: cutbanks cave.	Slight---------	Slight---------	Slight---------	Slight---------	Moderate: droughty.
PaE---------- Padina	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
PeB---------- Personville	Moderate: depth to rock.	Slight---------	Moderate: depth to rock.	Slight---------	Slight---------	Moderate: droughty.
Pr*---------- Pits, quarries	---	---	---	---	---	---
Ps*---------- Pits, sand	---	---	---	---	---	---
RaA---------- Rader	Severe: wetness.	Moderate: wetness.	Severe: wetness, shrink-swell.	Moderate: wetness.	Moderate: wetness.	Slight.
RoA---------- Robco	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness, shrink-swell.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness, droughty.
SaB---------- Silawa	Severe: cutbanks cave.	Slight---------	Slight---------	Slight---------	Slight---------	Slight.
SaD---------- Silawa	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: slope.
SsB---------- Silstid	Severe: cutbanks cave.	Slight---------	Slight---------	Slight---------	Slight---------	Moderate: droughty.
SsD---------- Silstid	Severe: cutbanks cave.	Slight---------	Slight---------	Moderate: slope.	Slight---------	Moderate: droughty.

See footnote at end of table.

TABLE 9.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
StA---------- Styx	Severe: cutbanks cave.	Slight---------	Moderate: wetness.	Slight---------	Slight---------	Moderate: droughty.
TaA---------- Tabor	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: droughty.
Tc---------- Tinn	Severe: cutbanks cave.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Severe: too clayey.
To---------- Tinn	Severe: cutbanks cave.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Severe: flooding, too clayey.
Uh---------- Uhland	Severe: wetness.	Severe: flooding.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding.	Severe: flooding.
Wa---------- Whitesboro	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: low strength, flooding.	Moderate: flooding.
Wf---------- Whitesboro	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: low strength, flooding.	Severe: flooding.
WnA---------- Wilson	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
WxA*:						
Wilson----------	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
Bremond----------	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 10.--SANITARY FACILITIES

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "good," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
AxA: Axtell	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
AxB: Axtell	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
BnA: Branyon	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
BuA: Burleson	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
CrA: Crockett	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
CrB, CrC2: Crockett	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
EgB, EgC2: Edge	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
EgD: Edge	Severe: percs slowly.	Severe: slope.	Severe: too clayey.	Moderate: slope.	Poor: too clayey, hard to pack.
EhC3*:					
Edge	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
Gullied land	---	---	---	---	---
EsC2: Ellis	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
EsE2: Ellis	Severe: percs slowly.	Severe: slope.	Severe: too clayey.	Moderate: slope.	Poor: too clayey, hard to pack.
FeD2: Ferris	Severe: percs slowly.	Severe: slope.	Severe: too clayey.	Moderate: slope.	Poor: too clayey, hard to pack.

See footnote at end of table.

TABLE 10.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
FhC2*:					
Ferris	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
Heiden	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
GfB Gasil	Moderate: percs slowly.	Severe: seepage.	Slight	Slight	Good.
GsA, GsC Groesbeck	Severe: depth to rock.	Severe: seepage, depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
HeB Heiden	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
HoB Houston Black	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
Kc, Kd Kaufman	Severe: flooding, percs slowly.	Slight	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
LaE2 Lamar	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, slope.
LrB*:					
Lavender	Severe: depth to rock.	Severe: seepage, depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
LsB Leson	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
LuA Lufkin	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
LxA*:					
Lufkin	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
Rader	Severe: wetness, percs slowly.	Severe: seepage.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.

See footnote at end of table.

TABLE 10.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
MaA: Mabank	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
Na: Nahatche	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.
NoB, NrD2: Normangee	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
OgB: Oglesby	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Ot: Oletha	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Fair: wetness.
PaC: Padina	Severe: poor filter.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
PaE: Padina	Severe: poor filter.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
PoB: Personville	Moderate: depth to rock, percs slowly.	Severe: seepage.	Severe: depth to rock.	Moderate: depth to rock.	Poor: thin layer.
Pr*: Pits, quarries	---	---	---	---	---
Ps*: Pits, sand	---	---	---	---	---
RaA: Rader	Severe: wetness, percs slowly.	Severe: seepage.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.
RoA: Robco	Severe: wetness, percs slowly, poor filter.	Severe: seepage.	Severe: wetness.	Severe: seepage.	Poor: thin layer.
SaB: Silawa	Moderate: percs slowly.	Severe: seepage.	Severe: seepage.	Severe: seepage.	Fair: too clayey, thin layer.
SaD: Silawa	Moderate: percs slowly, slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Fair: too clayey, slope, thin layer.
SsB, SsD: Silstid	Severe: poor filter.	Severe: seepage.	Moderate: too sandy.	Severe: seepage.	Poor: seepage.

See footnote at end of table.

TABLE 10.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
StA: Styx	Severe: wetness.	Severe: seepage.	Moderate: wetness, too clayey.	Severe: seepage.	Good.
TaA: Tabor	Severe: percs slowly.	Moderate: seepage.	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
Tc, To: Tinn	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
Uh: Uhland	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding.	Fair: wetness.
Wa, Wf: Whitesboro	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Fair: too clayey.
WnA: Wilson	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
WxA*:					
Wilson	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.
Bremond	Severe: percs slowly.	Slight	Severe: too clayey.	Slight	Poor: too clayey, hard to pack.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 11.--CONSTRUCTION MATERIALS

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "good," "fair," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
AxA, AxB: Axtell	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
BnA: Branyon	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
BuA: Burleson	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
CrA, CrB, CrC2: Crockett	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
EgB, EgC2, EgD: Edge	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
EhC3*:				
Edge	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Gullied land	---	Improbable: excess fines.	Improbable: excess fines.	---
EsC2, EsE2: Ellis	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
FeD2: Ferris	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
FhC2*:				
Ferris	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Heiden	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
GfB: Gasil	Good	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
GsA, GsC: Groesbeck	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Fair: depth to rock, too sandy, small stones.
HeB: Heiden	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.

See footnote at end of table.

TABLE 11.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
HoB: Houston Black	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Kc, Kd: Kaufman	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
LaE2: Lamar	Fair: low strength, shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, slope.
LrB*:				
Lavender	Poor: depth to rock.	Improbable: excess fines, thin layer.	Improbable: excess fines, thin layer.	Fair: depth to rock, too clayey, small stones.
Rock outcrop	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock.
LsB: Leson	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
LuA: Lufkin	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
LxA*:				
Lufkin	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Rader	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: thin layer.
MaA: Mabank	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Na: Nahatche	Poor: low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
NoB, NrD2: Normangee	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
OgB: Oglesby	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey.
Ot: Oletha	Fair: shrink-swell, low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.

See footnote at end of table.

TABLE 11.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
PaC, PaE: Padina	Good	Probable	Improbable: too sandy.	Poor: too sandy.
PeB: Personville	Fair: depth to rock, thin layer.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
Pr*: Pits, quarries	---	---	---	---
Ps*: Pits, sand	---	---	---	---
RaA: Rader	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: thin layer.
RoA: Robco	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too sandy, small stones.
SaB, SaD: Silawa	Good	Probable	Probable	Fair: too clayey, small stones, area reclaim.
SsB, SsD: Silstid	Good	Improbable: thin layer.	Improbable: too sandy.	Fair: too sandy, small stones.
StA: Styx	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
TaA: Tabor	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Tc, To: Tinn	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Uh: Uhland	Fair: thin layer, wetness.	Improbable: excess fines.	Improbable: excess fines.	Good.
Wa, Wf: Whitesboro	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Good.
WnA: Wilson	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
WxA*:				
Wilson	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Bremond	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 12.--WATER MANAGEMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not evaluated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes and levees	Features affecting-- Irrigation	Terraces and diversions	Grassed waterways
AxA, AxB Axtell	Slight	Severe: hard to pack.	Droughty, soil blowing.	Erodes easily, percs slowly.	Erodes easily, droughty.
BnA Branyon	Slight	Severe: hard to pack.	Slow intake, percs slowly.	Percs slowly	Percs slowly.
BuA Burleson	Slight	Severe: hard to pack.	Slow intake, percs slowly.	Percs slowly	Percs slowly.
CrA, CrB Crockett	Slight	Severe: hard to pack.	Droughty, percs slowly.	Erodes easily, percs slowly.	Erodes easily, droughty.
CrC2 Crockett	Slight	Severe: hard to pack.	Slope, droughty, percs slowly.	Erodes easily, percs slowly.	Erodes easily, droughty.
EgB, EgC2 Edge	Slight	Severe: hard to pack.	Slope, soil blowing, percs slowly.	Erodes easily, soil blowing.	Erodes easily, percs slowly.
EgD Edge	Slight	Severe: hard to pack.	Slope, soil blowing, percs slowly.	Slope, erodes easily, soil blowing.	Slope, erodes easily, percs slowly.
EhC3*:					
Edge	Slight	Severe: hard to pack.	Slope, soil blowing, percs slowly.	Erodes easily, soil blowing.	Erodes easily, percs slowly.
Gullied land	---	---	---	---	---
EsC2 Ellis	Slight	Severe: hard to pack.	Slope, slow intake, percs slowly.	Percs slowly	Percs slowly.
EsE2 Ellis	Slight	Severe: hard to pack.	Slope, slow intake, percs slowly.	Slope, percs slowly.	Slope, percs slowly.
FeD2 Ferris	Slight	Severe: hard to pack.	Slope, slow intake, percs slowly.	Slope, percs slowly.	Slope, percs slowly.
FhC2*:					
Ferris	Slight	Severe: hard to pack.	Slope, slow intake, percs slowly.	Percs slowly	Percs slowly.
Heiden	Slight	Severe: hard to pack.	Slope, slow intake, percs slowly.	Percs slowly	Percs slowly.

See footnote at end of table.

TABLE 12.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes and levees	Features affecting-- Irrigation	Terraces and diversions	Grassed waterways
GfB Gasil	Moderate: seepage.	Severe: piping.	Slope, droughty, soil blowing.	Soil blowing	Droughty.
GsA Groesbeck	Moderate: seepage, depth to rock.	Severe: thin layer.	Droughty, fast intake.	Depth to rock, soil blowing.	Droughty, depth to rock.
GsC Groesbeck	Moderate: seepage, depth to rock, slope.	Severe: thin layer.	Slope, droughty, fast intake.	Depth to rock, soil blowing.	Droughty, depth to rock.
HeB Heiden	Slight	Severe: hard to pack.	Slow intake, percs slowly.	Percs slowly	Percs slowly.
HoB Houston Black	Slight	Severe: hard to pack.	Slow intake, percs slowly.	Percs slowly	Percs slowly.
Kc, Kd Kaufman	Slight	Severe: hard to pack,	Wetness, slow intake, percs slowly.	Wetness, percs slowly.	Percs slowly.
LaE2 Lamar	Severe: slope.	Severe: piping.	Slope	Slope	Slope.
LrB*:					
Lavender	Moderate: seepage, depth to rock, slope.	Severe: thin layer.	Slope, droughty, fast intake.	Depth to rock, soil blowing.	Droughty, depth to rock.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock.	Slope, depth to rock.	Depth to rock	Depth to rock.
LsB Leson	Slight	Severe: hard to pack.	Slow intake, percs slowly.	Percs slowly	Percs slowly.
LuA Lufkin	Slight	Severe: hard to pack.	Droughty, soil blowing, percs slowly.	Erodes easily, soil blowing, percs slowly.	Erodes easily, droughty, percs slowly.
LxA*:					
Lufkin	Slight	Severe: hard to pack.	Droughty, soil blowing, percs slowly.	Erodes easily, soil blowing, percs slowly.	Erodes easily, droughty, percs slowly.
Rader	Slight	Moderate: hard to pack, wetness.	Wetness, soil blowing.	Erodes easily, wetness, soil blowing.	Erodes easily, percs slowly.
MaA Mabank	Slight	Severe: hard to pack.	Droughty, soil blowing, percs slowly.	Erodes easily, soil blowing, percs slowly.	Erodes easily, droughty, percs slowly.
Na Nahatche	Moderate: seepage.	Severe: wetness.	Wetness, flooding.	Wetness	Wetness.
NoB Normangee	Slight	Severe: hard to pack.	Percs slowly, erodes easily.	Erodes easily, percs slowly.	Erodes easily, percs slowly.

See footnote at end of table.

TABLE 12.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes and levees	Features affecting-- Irrigation	Terraces and diversions	Grassed waterways
NrD2 Normangee	Slight	Severe: hard to pack.	Slope, percs slowly.	Percs slowly	Percs slowly.
OgB Oglesby	Severe: depth to rock.	Severe: hard to pack.	Slow intake, percs slowly, depth to rock.	Depth to rock, percs slowly.	Depth to rock, percs slowly.
Ot Oletha	Moderate: seepage.	Moderate: piping, wetness.	Wetness, slow intake, percs slowly.	Wetness	Percs slowly.
PaC Padina	Severe: seepage.	Severe: seepage, piping.	Slope, droughty, fast intake.	Too sandy, soil blowing.	Droughty.
PaE Padina	Severe: seepage.	Severe: seepage, piping.	Slope, droughty, fast intake.	Slope, too sandy, soil blowing.	Slope, droughty.
PeB Personville	Moderate: seepage, depth to rock, slope.	Severe: thin layer.	Slope, droughty, fast intake.	Soil blowing	Droughty.
Pr* Pits, quarries	---	---	---	---	---
Ps* Pits, sand	---	---	---	---	---
RaA Rader	Slight	Moderate: hard to pack, wetness.	Wetness, soil blowing.	Erodes easily, wetness, soil blowing.	Erodes easily, percs slowly.
RoA Robco	Severe: seepage.	Moderate: wetness.	Wetness	Erodes easily, wetness, percs slowly.	Erodes easily, droughty, percs slowly.
SaB Silawa	Severe: seepage.	Severe: thin layer.	Soil blowing	Soil blowing	Favorable.
SaD Silawa	Severe: seepage.	Severe: thin layer.	Slope, soil blowing.	Slope, soil blowing.	Slope.
SsB Silstid	Moderate: seepage.	Severe: seepage, piping.	Droughty, fast intake.	Soil blowing	Droughty.
SsD Silstid	Moderate: seepage.	Severe: seepage, piping.	Slope, droughty, fast intake.	Soil blowing	Droughty.
StA Styx	Severe: seepage.	Moderate: piping.	Droughty, fast intake.	Soil blowing	Droughty.
TaA Tabor	Slight	Moderate: hard to pack.	Droughty, soil blowing.	Erodes easily, soil blowing, percs slowly.	Erodes easily, droughty, percs slowly.

See footnote at end of table.

TABLE 12.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes and levees	Features affecting-- Irrigation	Terraces and diversions	Grassed waterways
Tc, To Tinn	Slight	Severe: hard to pack.	Slow intake, percs slowly, flooding.	Percs slowly	Percs slowly.
Uh Uhland	Moderate: seepage.	Severe: piping.	Wetness, soil blowing, erodes easily.	Erodes easily, wetness, soil blowing.	Erodes easily.
Wa. Wf Whitesboro	Moderate: seepage.	Moderate: piping.	Flooding	Favorable	Favorable.
WnA Wilson	Slight	Severe: hard to pack.	Percs slowly.	Erodes easily, percs slowly.	Erodes easily, percs slowly.
WxA*:					
Wilson	Slight	Severe: hard to pack.	Percs slowly.	Erodes easily, percs slowly.	Erodes easily, percs slowly.
Bremond	Slight	Moderate: hard to pack.	Percs slowly, erodes easily.	Erodes easily, percs slowly.	Erodes easily, percs slowly.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 13.--ENGINEERING INDEX PROPERTIES

(The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated)

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
AxA---------- Axtell	0-9	Fine sandy loam	SM, ML, SC-SM, CL-ML	A-2-4, A-4	0	90-100	80-100	75-100	28-75	16-31	NP-7
	9-32	Clay loam, clay	CL, CH	A-7-6	0-2	95-100	95-100	85-100	70-98	41-65	25-42
	32-60	Clay loam, clay	CL, CH	A-7-6	0-2	95-100	95-100	85-100	70-98	41-65	25-42
	60-80	Sandy clay loam, clay loam, clay.	CL, CH	A-6, A-7-6	0-2	95-100	95-100	75-100	50-95	35-63	20-45
AxB---------- Axtell	0-8	Fine sandy loam	SM, ML, SC-SM, CL-ML	A-2-4, A-4	0	90-100	80-100	75-100	28-75	16-31	NP-7
	8-21	Clay loam, clay	CL, CH	A-7-6	0-2	95-100	95-100	85-100	70-98	41-65	25-42
	21-53	Clay loam, clay	CL, CH	A-7-6	0-2	95-100	95-100	85-100	70-98	41-65	25-42
	53-80	Sandy clay loam, clay loam, clay.	CL, CH	A-6, A-7-6	0-2	95-100	95-100	75-100	50-95	35-63	20-45
BnA---------- Branyon	0-6	Clay----------	CH	A-7-6	0	95-100	85-100	80-100	75-100	54-80	35-55
	6-62	Clay, silty clay	CH	A-7-6	0	95-100	85-100	80-100	75-100	54-80	35-55
	62-80	Clay, silty clay	CH	A-7	0	90-100	85-100	80-100	75-100	54-80	38-60
BuA---------- Burleson	0-18	Clay----------	CH, CL	A-7-6	0-2	90-100	90-100	90-99	67-97	56-75	33-49
	18-42	Clay, silty clay	CH	A-7-6	0-1	90-100	90-100	90-99	80-99	56-75	34-54
	42-80	Clay, silty clay	CH	A-7-6	0-2	90-100	80-100	75-99	67-98	51-75	34-54
CrA---------- Crockett	0-6	Loam----------	SM, ML, CL, SC	A-4, A-6	0-2	98-100	94-100	89-100	40-96	15-35	3-15
	6-12	Clay, clay loam, sandy clay.	CH, CL	A-7, A-6	0	89-100	75-100	75-100	60-98	35-59	23-42
	12-40	Clay, clay loam, sandy clay.	CH, CL	A-7, A-6	0	89-100	75-100	75-100	65-98	35-59	23-42
	40-56	Clay loam, sandy clay loam, clay.	CL, CH	A-6, A-7	0-5	90-100	85-100	75-100	50-90	30-60	15-40
	56-80	Stratified loam to clay.	CH, CL	A-7	0-5	90-100	90-100	90-100	70-99	45-71	27-52
CrB---------- Crockett	0-5	Loam----------	SM, ML, CL, SC	A-4, A-6	0-2	98-100	94-100	89-100	40-96	15-35	3-15
	5-16	Clay, clay loam, sandy clay.	CH, CL	A-7, A-6	0	89-100	75-100	75-100	60-98	35-59	23-42
	16-47	Clay, clay loam, sandy clay.	CH, CL	A-7, A-6	0	89-100	75-100	75-100	65-98	35-59	23-42
	47-54	Clay loam, sandy clay loam, clay.	CL, CH	A-6, A-7	0-5	90-100	85-100	75-100	50-90	30-60	15-40
	54-80	Stratified loam to clay.	CH, CL	A-7	0-5	90-100	90-100	90-100	70-99	45-71	27-52
CrC2---------- Crockett	0-3	Loam----------	SM, ML, CL, SC	A-4, A-6	0-2	98-100	94-100	89-100	40-96	15-35	3-15
	3-13	Clay, clay loam, sandy clay.	CH, CL	A-7, A-6	0	89-100	75-100	75-100	60-98	35-59	23-42
	13-33	Clay, clay loam, sandy clay.	CH, CL	A-7, A-6	0	89-100	75-100	75-100	65-98	35-59	23-42
	33-45	Clay loam, sandy clay loam, clay.	CL, CH	A-6, A-7	0-5	90-100	85-100	75-100	50-90	30-60	15-40
	45-80	Stratified loam to clay.	CH, CL	A-7	0-5	90-100	90-100	90-100	70-99	45-71	27-52

See footnote at end of table.

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
EgB---------- Edge	0-9	Fine sandy loam	ML, SM	A-4	0	98-100	85-100	65-100	40-75	16-30	NP-7
	9-26	Sandy clay, clay	CH, CL	A-7-6	0	98-100	85-100	70-90	45-85	48-65	29-42
	26-38	Clay loam, sandy clay.	CL	A-6, A-7-6	0	98-100	85-100	75-90	45-75	30-49	14-30
	38-51	Fine sandy loam, sandy clay loam, clay loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-7-6	0	95-100	85-100	72-100	48-78	18-45	4-25
	51-80	Stratified fine sandy loam to clay.	SC, CL, CH	A-2-6, A-2-7, A-6	0	95-100	90-100	72-100	29-80	25-51	11-34
EgC2---------- Edge	0-3	Fine sandy loam	ML, SM	A-4	0	98-100	85-100	65-100	40-75	16-30	NP-7
	3-13	Sandy clay, clay	CH, CL	A-7-6	0	98-100	85-100	70-90	45-85	48-65	29-42
	13-31	Clay loam, sandy clay.	CL	A-6, A-7-6	0	98-100	85-100	75-90	45-75	30-49	14-30
	31-60	Fine sandy loam, sandy clay loam, clay loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-7-6	0	95-100	85-100	72-100	48-78	18-45	4-25
	60-80	Stratified fine sandy loam to clay.	SC, CL, CH	A-2-6, A-2-7, A-6	0	95-100	90-100	72-100	29-80	25-51	11-34
EgD---------- Edge	0-9	Fine sandy loam	ML, SM	A-4	0	98-100	85-100	65-100	40-75	16-30	NP-7
	9-25	Sandy clay, clay	CH, CL	A-7-6	0	98-100	85-100	70-90	45-85	48-65	29-42
	25-49	Clay loam, sandy clay.	CL	A-6, A-7-6	0	98-100	85-100	75-90	45-75	30-49	14-30
	49-53	Fine sandy loam, sandy clay loam, clay loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-7-6	0	95-100	85-100	72-100	48-78	18-45	4-25
	53-80	Stratified fine sandy loam to clay.	SC, CL, CH	A-2-6, A-2-7, A-6	0	95-100	90-100	72-100	29-80	25-51	11-34
EhC3*:											
Edge----------	0-3	Fine sandy loam	ML, SM	A-4	0	98-100	85-100	65-100	40-75	16-30	NP-7
	3-25	Sandy clay, clay	CH, CL	A-7-6	0	98-100	85-100	70-90	45-85	48-65	29-42
	25-32	Clay loam, sandy clay.	CL	A-6, A-7-6	0	98-100	85-100	75-90	45-75	30-49	14-30
	32-42	Fine sandy loam, sandy clay loam, clay loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-7-6	0	95-100	85-100	72-100	48-78	18-45	4-25
	42-80	Stratified fine sandy loam to clay.	SC, CL, CH	A-2-6, A-2-7, A-6	0	95-100	90-100	72-100	29-80	25-51	11-34
Gullied land----	0-80	Variable---------	---	---	---	---	---	---	---	---	---
EsC2---------- Ellis	0-6	Clay----------	CH	A-7-6	0-5	95-100	95-100	95-100	75-95	51-75	30-50
	6-40	Clay----------	CH	A-7-6	0-5	95-100	95-100	95-100	75-95	51-75	30-50
	40-80	Clay----------	CH	A-7-6	0-5	95-100	95-100	90-100	75-95	51-75	30-50
EsE2---------- Ellis	0-6	Clay----------	CH	A-7-6	0-5	95-100	95-100	95-100	75-95	51-75	30-50
	6-37	Clay----------	CH	A-7-6	0-5	95-100	95-100	95-100	75-95	51-75	30-50
	37-80	Clay----------	CH	A-7-6	0-5	95-100	95-100	90-100	75-95	51-75	30-50
FeD2---------- Ferris	0-4	Clay----------	CH	A-7-6	0	92-100	92-100	75-100	75-100	51-76	35-55
	4-45	Clay, silty clay	CH	A-7-6	0	92-100	92-100	75-100	72-100	51-78	35-56
	45-80	Clay----------	CH	A-7-6	0	92-100	92-100	85-100	75-100	61-100	42-75

See footnote at end of table.

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
FhC2*:											
Ferris	0-4	Clay	CH	A-7-6	0	92-100	92-100	75-100	75-100	51-76	35-55
	4-43	Clay, silty clay	CH	A-7-6	0	92-100	92-100	75-100	72-100	51-78	35-56
	43-80	Clay	CH	A-7-6	0	92-100	92-100	85-100	75-100	61-100	42-75
Heiden	0-20	Clay	CH	A-7-6	0	95-100	90-100	80-100	75-99	51-80	32-55
	20-35	Clay, silty clay	CH	A-7-6	0	95-100	90-100	80-100	75-99	51-80	32-55
	35-60	Clay, silty clay	CH, CL	A-7-6	0	95-100	90-100	75-100	70-90	49-80	32-55
	60-80	Clay	CH, CL	A-7-6	0	92-100	92-100	85-100	70-90	49-80	32-55
GfB Gasil	0-16	Loamy fine sand	SM, SC-SM	A-2-4, A-4	0	95-100	95-100	65-100	15-40	16-20	NP-4
	16-80	Sandy clay loam, loam, fine sandy loam.	CL, SC, CL-ML, SC-SM	A-6, A-4	0	95-100	95-100	85-100	36-71	22-40	7-20
GsA Groesbeck	0-15	Loamy fine sand	SM, SC-SM	A-2-4, A-4	0	100	95-100	85-100	20-40	16-25	NP-4
	15-29	Fine sandy loam, sandy clay loam.	SC, CL	A-6	0	100	95-100	85-100	40-65	25-35	10-18
	29-32	Fine sandy loam, sandy clay loam, loam.	SC, CL	A-6	0	100	90-100	60-85	37-65	25-35	10-18
	32-80	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
GsC Groesbeck	0-16	Loamy fine sand	SM, SC-SM	A-2-4, A-4	0	100	95-100	85-100	20-40	16-25	NP-4
	16-26	Fine sandy loam, sandy clay loam.	SC, CL	A-6	0	100	95-100	85-100	40-65	25-35	10-18
	26-30	Fine sandy loam, sandy clay loam, loam.	SC, CL	A-6	0	100	90-100	60-85	37-65	25-35	10-18
	30-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
HeB Heiden	0-18	Clay	CH	A-7-6	0	95-100	90-100	80-100	75-99	51-80	32-55
	18-56	Clay, silty clay	CH	A-7-6	0	95-100	90-100	80-100	75-99	51-80	32-55
	56-65	Clay, silty clay	CH, CL	A-7-6	0	95-100	90-100	75-100	70-90	49-80	32-55
	65-80	Clay	CH, CL	A-7-6	0	92-100	92-100	85-100	70-90	49-80	32-55
HoB Houston Black	0-21	Clay	CH	A-7-6	0	97-100	96-100	94-100	88-98	58-90	34-60
	21-56	Clay, silty clay	CH	A-7-6	0	98-100	98-100	92-100	88-97	58-98	37-72
	56-80	Clay, silty clay	CH	A-7-6	0	94-100	93-100	87-100	84-99	51-99	32-78
Kc Kaufman	0-5	Clay	CH	A-7-6, A-7-5	0	100	100	90-100	80-100	56-96	33-62
	5-45	Clay	CH	A-7-6, A-7-5	0	100	100	95-100	90-100	65-102	45-71
	45-80	Clay	CH	A-7-6, A-7-5	0	100	100	95-100	85-100	64-102	45-71
Kd Kaufman	0-6	Clay	CH	A-7-5, A-7-6	0	100	100	90-100	80-100	56-96	35-60
	6-40	Clay	CH	A-7-5	0	100	100	95-100	90-100	65-100	35-65
	40-80	Clay	CH	A-7-5, A-7-6	0	100	100	95-100	85-100	65-100	35-65

See footnote at end of table.

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
LaE2---------- Lamar	0-3	Clay loam--------	CL, CL-ML	A-6, A-4, A-7-6	0	95-100	95-100	85-100	70-100	20-49	5-31
	3-27	Clay loam, loam, silty clay loam.	CL, CL-ML	A-6, A-4, A-7-6	0	95-100	95-100	85-100	70-100	20-49	5-31
	27-80	Clay loam, loam, silty clay loam.	CL, CL-ML	A-6, A-4, A-7-6	0	95-100	95-100	85-100	70-100	20-49	5-31
LrB*:											
Lavender--------	0-7	Loamy fine sand	SM	A-2-4	0	100	90-100	85-100	15-35	15-25	NP-4
	7-13	Loamy fine sand, fine sandy loam.	SM, SC-SM	A-2-4, A-4	0	100	90-100	85-100	20-40	15-25	NP-7
	13-31	Fine sandy loam, sandy clay loam.	SC, CL	A-6	0	100	90-100	85-100	40-60	25-35	10-18
	31-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop----	0-80	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
LsB---------- Leson	0-6	Clay----------	CH	A-7-6	0	98-100	98-100	95-100	85-100	60-90	35-60
	6-33	Clay, silty clay	CH	A-7-6	0	98-100	98-100	95-100	90-100	65-96	45-70
	33-57	Clay, silty clay	CH	A-7-6	0	98-100	95-100	90-100	85-100	65-96	45-70
	57-80	Clay----------	CH	A-7-6	0	98-100	95-100	90-100	80-100	75-96	55-70
LuA---------- Lufkin	0-10	Fine sandy loam	SM, CL, ML, SC	A-4	0-5	90-100	80-100	80-100	40-85	15-30	NP-10
	10-66	Clay, clay loam, silty clay loam.	CH, CL	A-7-6	0	90-100	90-100	90-100	65-95	45-67	30-45
	66-80	Loam, clay loam, sandy clay loam.	CH, CL, SC	A-7	0	85-100	85-100	80-100	48-90	40-86	25-55
LxA*:											
Lufkin----------	0-7	Fine sandy loam	SM, CL, ML, SC	A-4	0-5	90-100	80-100	80-100	40-85	15-30	NP-10
	7-60	Clay, clay loam, silty clay loam.	CH, CL	A-7-6	0	90-100	90-100	90-100	65-95	45-67	30-45
	60-80	Loam, clay loam, sandy clay loam.	CH, CL, SC	A-7	0	85-100	85-100	80-100	48-90	40-86	25-55
Rader----------	0-6	Fine sandy loam	ML, CL-ML, SM, SC	A-4, A-2	0	98-100	98-100	90-100	34-75	18-28	3-10
	6-18	Fine sandy loam, very fine sandy loam, loam.	ML, CL-ML, SM, SC	A-2, A-4	0	98-100	95-100	90-100	34-75	18-28	3-10
	18-27	Loam, sandy clay loam, clay loam.	SC, CL	A-6	0	95-100	95-100	90-100	36-75	26-40	11-22
	27-40	Clay loam, sandy clay, clay.	CL, CH	A-6, A-7	0	95-100	95-100	90-100	51-90	36-60	18-38
	40-80	Sandy clay loam, sandy clay, clay.	SC, CL, CH	A-6, A-7	0	95-100	95-100	90-100	36-75	25-52	11-36
MaA---------- Mabank	0-6	Fine sandy loam	CL, CL-ML, SC-SM, SC	A-4, A-6	0	95-100	95-100	80-98	40-70	19-32	4-15
	6-37	Clay, clay loam	CH, CL	A-7, A-6	0	95-100	95-100	95-100	60-85	38-55	22-37
	37-80	Clay, clay loam	CH, CL	A-7, A-6	0	95-100	95-100	95-100	60-85	38-55	22-37

See footnote at end of table.

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
Na---------- Nahatche	0-15	Loam----------	CL	A-6, A-7, A-4	0	100	100	90-100	54-92	25-47	8-25
	15-60	Loam, clay loam, sandy clay loam.	CL	A-6, A-4	0	100	100	85-100	60-90	25-40	8-20
	60-80	Stratified loam to silty clay loam.	CL	A-6, A-7	0	100	100	90-100	60-90	30-45	11-25
NoB---------- Normangee	0-6	Clay loam--------	CL	A-6, A-7	0	98-100	96-100	90-100	65-95	30-48	11-27
	6-51	Clay, clay loam	CL, CH	A-7	0	98-100	98-100	90-100	65-96	44-80	22-58
	51-80	Stratified shale and clay.	CL, CH	A-7	0	95-100	90-100	90-100	65-90	41-60	20-35
NrD2---------- Normangee	0-3	Gravelly clay loam.	CL, SC, GC	A-6, A-7	0-2	65-80	60-75	50-75	40-65	30-48	11-25
	3-43	Clay, clay loam	CL, CH	A-7	0	98-100	98-100	90-100	65-96	44-80	22-58
	43-80	Stratified shale and clay.	CL, CH	A-7	0	95-100	90-100	90-100	65-90	41-60	20-35
OgB---------- Oglesby	0-18	Clay----------	CH	A-7-6	0-5	90-100	90-100	85-100	75-100	55-75	30-45
	18-24	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Ot---------- Oletha	0-6	Silty clay-------	CH	A-7-6, A-7-5	0	100	100	90-100	80-90	52-80	30-46
	6-16	Loam, clay loam, silt loam.	CL,ML	A-6, A-7-6	0	100	100	85-100	65-85	26-47	12-30
	16-25	Sandy clay loam, clay loam.	CL	A-6, A-7-6	0	100	96-100	85-100	60-85	34-43	14-21.
	25-33	Loam, sandy clay loam, clay loam.	CL	A-6, A-7-6	0	100	96-100	80-100	55-85	34-43	14-21
	33-44	Loam, sandy clay loam, clay loam.	CL	A-6, A-7-6	0	100	96-100	85-100	55-75	34-43	14-21
	44-80	Fine sandy loam, sandy clay loam.	SC, CL	A-6	0	100	96-100	85-100	45-70	25-35	14-23
PaC---------- Padina	0-4	Loamy fine sand	SM, SC-SM	A-2-4	0	100	95-100	85-100	15-35	16-25	NP-5
	4-47	Fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3	0	100	95-100	85-100	8-28	16-25	NP-5
	47-80	Sandy clay loam, fine sandy loam.	SC, CL	A-2, A-4, A-6, A-7	0	90-100	90-100	90-100	25-65	22-42	8-22
PaE---------- Padina	0-11	Loamy fine sand	SM, SC-SM	A-2-4	0	100	95-100	85-100	15-35	16-25	NP-5
	11-46	Fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3	0	100	95-100	85-100	8-28	16-25	NP-5
	46-80	Sandy clay loam, fine sandy loam.	SC, CL	A-2, A-4, A-6, A-7	0	90-100	90-100	90-100	25-65	22-42	8-22
PeB---------- Personville	0-18	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4	0	100	90-100	85-100	10-35	16-25	NP-4
	18-47	Sandy clay loam, fine sandy loam.	SC, CL	A-6, A-2-4, A-2-6	0	100	90-100	85-100	30-55	25-35	8-18
	47-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Pr*---------- Pits, quarries	0-80	Variable---------	---	---	---	---	---	---	---	---	---
Ps*---------- Pits, sand	0-80	Variable---------	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
RaA---------- Rader	0-12	Fine sandy loam	ML, CL-ML, SM, SC	A-4, A-2	0	98-100	98-100	90-100	34-75	18-28	3-10
	12-19	Fine sandy loam, very fine sandy loam, loam.	ML, CL-ML, SM, SC	A-2, A-4	0	98-100	95-100	90-100	34-75	18-28	3-10
	19-25	Loam, sandy clay loam, clay loam.	SC, CL	A-6	0	95-100	95-100	90-100	36-75	26-40	11-22
	25-63	Clay loam, sandy clay, clay.	CL, CH	A-6, A-7	0	95-100	95-100	90-100	51-90	36-60	18-38
	63-80	Sandy clay loam, sandy clay, clay.	SC, CL, CH	A-6, A-7	0	95-100	95-100	90-100	36-75	25-52	11-36
RoA---------- Robco	0-16	Loamy fine sand	SM, SP-SM	A-2-4, A-3	0	80-100	80-100	65-95	8-35	16-25	NP-3
	16-25	Loamy fine sand, fine sand.	SM, SP-SM	A-2-4, A-3	0	80-100	80-100	65-95	8-35	16-25	NP-3
	25-27	Sandy clay loam, loam, clay loam.	SC, CL	A-6, A-4	0	98-100	98-100	80-100	36-75	26-40	8-22
	27-60	Clay loam, sandy clay loam.	CL	A-6, A-7	0	98-100	98-100	80-100	50-80	36-50	16-28
	60-80	Sandy clay loam, clay loam, clay.	CL, SC	A-6, A-7	0	98-100	98-100	80-100	40-95	32-50	13-28
SaB---------- Silawa	0-7	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	95-100	95-100	70-100	40-60	16-26	NP-7
	7-44	Sandy clay loam, fine sandy loam, clay loam.	CL, SC	A-4, A-6	0	85-100	85-100	80-100	35-65	25-40	8-18
	44-58	Fine sandy loam, gravelly fine sandy loam, sandy clay loam.	CL, CL-ML, SC, SC-SM	A-4, A-6, A-2-4, A-2-6	0-2	70-100	70-100	38-100	18-60	21-34	4-14
	58-80	Loamy fine sand, gravelly loamy fine sand, fine sandy loam.	SM, SC-SM, SP-SM, GM	A-2-4, A-4, A-1-B	0-2	51-100	51-100	38-100	12-40	16-26	NP-7
SaD---------- Silawa	0-5	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	95-100	95-100	70-100	40-60	16-26	NP-7
	5-35	Sandy clay loam, fine sandy loam, clay loam.	CL, SC	A-4, A-6	0	85-100	85-100	80-100	35-65	25-40	8-18
	35-41	Fine sandy loam, gravelly fine sandy loam, sandy clay loam.	CL, CL-ML, SC, SC-SM	A-4, A-6, A-2-4, A-2-6	0-2	70-100	70-100	38-100	18-60	21-34	4-14
	41-80	Loamy fine sand, gravelly loamy fine sand, fine sandy loam.	SM, SC-SM, SP-SM, GM	A-2-4, A-4, A-1-B	0-2	51-100	51-100	38-100	12-40	16-26	NP-7

See footnote at end of table.

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
SsB---------- Silstid	0-5	Loamy fine sand	SM, SP-SM	A-2-4, A-3	0-1	90-100	85-100	80-100	9-25	16-25	NP-3
	5-27	Fine sand, loamy fine sand.	SM, SP-SM	A-2, A-3	0-1	90-100	85-100	80-100	9-25	16-25	NP-3
	27-60	Sandy clay loam, loam, fine sandy loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-2-4, A-2-6	0-1	90-100	85-100	75-100	30-55	20-43	4-26
	60-80	Sandy clay loam, loam, fine sandy loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-2-4, A-2-6	0-1	90-100	80-100	70-100	22-55	20-43	4-25
SsD---------- Silstid	0-8	Loamy fine sand	SM, SP-SM	A-2-4, A-3	0-1	90-100	85-100	80-100	9-25	16-25	NP-3
	8-24	Fine sand, loamy fine sand.	SM, SP-SM	A-2, A-3	0-1	90-100	85-100	80-100	9-25	16-25	NP-3
	24-52	Sandy clay loam, loam, fine sandy loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-2-4, A-2-6	0-1	90-100	85-100	75-100	30-55	20-43	4-26
	52-80	Sandy clay loam, loam, fine sandy loam.	SC, CL, SC-SM, CL-ML	A-4, A-6, A-2-4, A-2-6	0-1	90-100	80-100	70-100	22-55	20-43	4-25
StA---------- Styx	0-15	Loamy fine sand	SM, SC-SM	A-2-4, A-4	0	100	100	70-100	15-40	16-25	NP-4
	15-27	Fine sand, loamy fine sand.	SM, SC-SM	A-2-4, A-4	0	100	100	70-100	15-40	16-25	NP-4
	27-80	Sandy clay loam, clay loam.	SC, CL	A-6, A-4	0	100	100	80-100	36-70	20-40	8-20
TaA---------- Tabor	0-12	Fine sandy loam	ML, SM, CL-ML, SC-SM	A-4, A-2-4	0	85-100	75-100	70-100	30-55	15-25	NP-7
	12-55	Clay----------	CH, CL	A-7	0	95-100	90-100	85-100	55-90	45-65	25-40
	55-80	Sandy clay loam, clay loam, clay.	CH, CL, SC	A-7, A-6	0	95-100	90-100	75-100	40-90	35-60	15-35
Tc---------- Tinn	0-12	Clay----------	CH, CL	A-7	0	95-100	95-100	85-100	80-100	45-75	25-54
	12-60	Clay, silty clay	CH	A-7	0	95-100	90-100	80-100	80-100	55-75	35-54
	60-80	Clay, silty clay	CH	A-7	0	95-100	90-100	80-100	80-100	55-75	35-54
To---------- Tinn	0-18	Clay----------	CH, CL	A-7	0	95-100	95-100	85-100	80-100	45-75	25-54
	18-60	Clay, silty clay	CH	A-7	0	95-100	90-100	80-100	80-100	55-75	35-54
	60-80	Clay, silty clay	CH	A-7	0	95-100	90-100	80-100	80-100	55-75	35-54
Uh---------- Uhland	0-7	Fine sandy loam	CL, SC, ML, SM	A-4, A-6	0	97-100	97-100	80-100	36-70	22-35	3-13
	7-80	Fine sandy loam, loam.	CL, SC, ML, SM	A-4, A-6	0	97-100	95-100	80-100	36-78	18-36	3-18
Wa---------- Whitesboro	0-26	Loam----------	CL, CL-ML	A-4, A-6	0	100	98-100	85-100	60-85	25-36	6-17
	26-55	Loam, clay loam, sandy clay loam.	CL	A-6, A-7-6	0	100	98-100	85-100	65-91	30-47	11-27
	55-80	Loam, clay loam, sandy clay loam.	CL	A-6, A-7-6	0	100	98-100	85-100	60-85	30-47	11-27
Wf---------- Whitesboro	0-26	Loam----------	CL, CL-ML	A-4, A-6	0	100	98-100	85-100	60-85	25-36	6-17
	26-58	Loam, clay loam, sandy clay loam.	CL	A-6, A-7-6	0	100	98-100	85-100	65-91	30-47	11-27
	58-80	Loam, clay loam, sandy clay loam.	CL	A-6, A-7-6	0	100	98-100	85-100	60-85	30-47	11-27

See footnote at end of table.

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
WnA---------- Wilson	0-7	Clay loam--------	CL	A-6, A-7-6	0	95-100	85-100	80-100	60-96	38-49	20-30
	7-56	Silty clay, clay, clay loam.	CL, CH	A-7-6	0	90-100	80-100	80-100	65-96	43-56	26-37
	56-80	Silty clay, clay, silty clay loam.	CL, CH	A-7-6, A-6	0	95-100	90-100	85-100	70-96	38-65	24-48
WxA*:											
Wilson----------	0-8	Clay loam--------	CL	A-6	0	95-100	85-100	80-100	60-96	26-38	11-20
	8-45	Silty clay, clay, clay loam.	CL, CH	A-7-6	0	90-100	80-100	80-100	65-96	43-56	26-37
	45-80	Silty clay, clay, silty clay loam.	CL, CH	A-7-6, A-6	0	95-100	90-100	85-100	70-96	38-65	24-48
Bremond---------	0-6	Fine sandy loam	CL, CL-ML, SC, SM	A-4, A-6	0-2	98-100	95-100	89-100	40-95	16-35	3-15
	6-14	Clay----------	CH, CL	A-7	0-2	98-100	95-100	85-100	65-98	41-59	23-40
	14-46	Clay loam, clay	CH, CL	A-7	0-2	98-100	95-100	85-100	65-98	41-59	23-40
	46-80	Sandy clay loam, clay loam, clay.	CH, CL	A-7, A-6	0-2	90-100	85-100	75-100	53-98	35-59	20-40

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

(The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated)

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
AxA---------- Axtell	0-9	7-18	1.40-1.60	0.6-2.0	0.11-0.15	5.1-6.5	<2	Low--------	0.43	5	3	.5-1
	9-32	35-55	1.35-1.60	<0.06	0.07-0.16	4.5-7.3	<2	High-------	0.37			
	32-60	27-50	1.50-1.70	<0.06	0.07-0.16	6.6-8.4	<2	High-------	0.37			
	60-80	25-50	1.50-1.70	0.2-0.6	0.07-0.12	5.6-8.4	<2	High-------	0.37			
AxB---------- Axtell	0-8	7-18	1.40-1.60	0.6-2.0	0.11-0.15	5.1-6.5	<2	Low--------	0.43	5	3	.5-1
	8-21	35-55	1.35-1.60	<0.06	0.07-0.16	4.5-5.5	<2	High-------	0.37			
	21-53	27-50	1.50-1.70	<0.06	0.07-0.16	6.6-8.4	<2	High-------	0.37			
	53-80	25-50	1.50-1.70	0.2-0.6	0.07-0.12	5.6-8.4	<2	High-------	0.37			
BnA---------- Branyon	0-6	40-60	1.15-1.45	<0.06	0.12-0.18	7.4-8.4	<2	Very high	0.32	5	4	2-4
	6-62	40-60	1.20-1.45	<0.06	0.12-0.18	7.4-8.4	<4	Very high	0.32			
	62-80	40-60	1.20-1.35	<0.06	0.12-0.18	7.9-8.4	<4	Very high	0.32			
BuA---------- Burleson	0-18	40-60	1.35-1.50	<0.06	0.12-0.18	5.6-8.4	<2	Very high	0.32	5	4	1-3
	18-42	40-60	1.40-1.55	<0.06	0.12-0.18	5.6-8.4	<4	Very high	0.32			
	42-80	35-60	1.40-1.55	<0.06	0.12-0.18	7.4-8.4	<4	Very high	0.32			
CrA---------- Crockett	0-6	5-20	1.50-1.60	0.6-2.0	0.11-0.20	5.6-7.8	<2	Low--------	0.43	4-3	5	.5-2
	6-12	40-55	1.35-1.60	<0.06	0.08-0.14	5.6-7.3	<4	High-------	0.32			
	12-40	35-55	1.40-1.65	<0.06	0.08-0.14	6.1-8.4	<4	High-------	0.32			
	40-56	20-50	1.50-1.70	<0.06	0.11-0.15	6.1-8.4	<4	Moderate	0.32			
	56-80	30-60	1.50-1.70	<0.06	0.11-0.15	6.1-8.4	<4	High-------	0.32			
CrB---------- Crockett	0-5	5-20	1.50-1.60	0.6-2.0	0.11-0.20	5.6-7.8	<2	Low--------	0.43	4-3	5	.5-2
	5-16	40-55	1.35-1.60	<0.06	0.08-0.14	5.6-7.3	<4	High-------	0.32			
	16-47	35-55	1.40-1.65	<0.06	0.08-0.14	6.1-8.4	<4	High-------	0.32			
	47-54	20-50	1.50-1.70	<0.06	0.11-0.15	6.1-8.4	<4	Moderate	0.32			
	54-80	30-60	1.50-1.70	<0.06	0.11-0.15	6.1-8.4	<4	High-------	0.32			
CrC2---------- Crockett	0-3	5-20	1.50-1.60	0.6-2.0	0.11-0.20	5.6-7.8	<2	Low--------	0.43	4-3	5	.5-2
	3-13	40-55	1.35-1.60	<0.06	0.08-0.14	5.6-7.3	<4	High-------	0.32			
	13-33	35-55	1.40-1.65	<0.06	0.08-0.14	6.1-8.4	<4	High-------	0.32			
	33-45	20-50	1.50-1.70	<0.06	0.11-0.15	6.1-8.4	<4	Moderate	0.32			
	45-80	30-60	1.50-1.70	<0.06	0.11-0.15	6.1-8.4	<4	High-------	0.32			
EgB---------- Edge	0-9	5-12	1.25-1.55	0.6-2.0	0.14-0.18	4.5-7.3	<2	Low--------	0.43	4	3	.5-1
	9-26	40-55	1.36-1.55	<0.06	0.11-0.19	4.5-6.5	<2	High-------	0.32			
	26-38	27-45	1.45-1.65	0.06-0.2	0.10-0.16	4.5-6.5	<2	Moderate	0.32			
	38-51	10-40	1.40-1.69	0.2-0.6	0.10-0.16	4.5-7.8	<2	Moderate	0.37			
	51-80	10-45	1.50-1.75	0.06-0.2	0.11-0.18	5.1-8.4	<2	Moderate	0.37			
EgC2---------- Edge	0-3	5-12	1.25-1.55	0.6-2.0	0.14-0.18	4.5-7.3	<2	Low--------	0.43	4	3	.5-1
	3-13	40-55	1.36-1.55	<0.06	0.11-0.19	4.5-6.5	<2	High-------	0.32			
	13-31	27-45	1.45-1.65	0.06-0.2	0.10-0.16	4.5-6.5	<2	Moderate	0.32			
	31-60	10-40	1.40-1.69	0.2-0.6	0.10-0.16	4.5-7.8	<2	Moderate	0.37			
	60-80	10-45	1.50-1.75	0.06-0.2	0.11-0.18	5.1-8.4	<2	Moderate	0.37			
EgD---------- Edge	0-9	5-12	1.25-1.55	0.6-2.0	0.14-0.18	4.5-7.3	<2	Low--------	0.43	4	3	.5-1
	9-25	40-55	1.36-1.55	<0.06	0.11-0.19	4.5-6.5	<2	High-------	0.32			
	25-49	27-45	1.45-1.65	0.06-0.2	0.10-0.16	4.5-6.5	<2	Moderate	0.32			
	49-53	10-40	1.40-1.69	0.2-0.6	0.10-0.16	4.5-7.8	<2	Moderate	0.37			
	53-80	10-45	1.50-1.75	0.06-0.2	0.11-0.18	5.1-8.4	<2	Moderate	0.37			

See footnote at end of table.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
EhC3*:												
Edge	0-3	5-12	1.25-1.55	0.6-2.0	0.14-0.18	4.5-7.3	<2	Low	0.43	4	3	.5-1
	3-25	40-55	1.36-1.55	<0.06	0.11-0.19	4.5-6.5	<2	High	0.32			
	25-32	27-45	1.45-1.65	0.06-0.2	0.10-0.16	4.5-6.5	<2	Moderate	0.32			
	32-42	10-40	1.40-1.69	0.2-0.6	0.10-0.16	4.5-7.8	<2	Moderate	0.37			
	42-80	10-45	1.50-1.75	0.06-0.2	0.11-0.18	5.1-8.4	<2	Moderate	0.37			
Gullied land	---	---	---	---	---	---	---	---	---	---	---	---
EsC2 Ellis	0-6	40-50	1.35-1.55	<0.06	0.12-0.18	6.1-8.4	<2	High	0.32	3	4	1-3
	6-40	40-60	1.35-1.55	<0.06	0.12-0.18	6.1-8.4	<2	High	0.32			
	40-80	40-60	1.40-1.65	<0.06	0.10-0.15	6.6-8.4	<2	High	0.32			
EsE2 Ellis	0-6	40-50	1.35-1.55	<0.06	0.12-0.18	6.1-8.4	<2	High	0.32	3	4	1-3
	6-37	40-60	1.35-1.55	<0.06	0.12-0.18	6.1-8.4	<2	High	0.32			
	37-80	40-60	1.40-1.65	<0.06	0.10-0.15	6.6-8.4	<2	High	0.32			
FeD2 Ferris	0-4	40-65	1.40-1.50	<0.06	0.15-0.18	7.9-8.4	<2	Very high	0.32	4-3	4	.5-2
	4-45	40-65	1.40-1.50	<0.06	0.12-0.18	7.9-8.4	<2	Very high	0.32			
	45-80	40-75	1.45-1.65	<0.06	0.11-0.15	7.9-8.4	<2	High	0.32			
FhC2*:												
Ferris	0-4	40-65	1.40-1.50	<0.06	0.15-0.18	7.9-8.4	<2	Very high	0.32	4-3	4	.5-2
	4-43	40-65	1.40-1.50	<0.06	0.12-0.18	7.9-8.4	<2	Very high	0.32			
	43-80	40-75	1.45-1.65	<0.06	0.11-0.15	7.9-8.4	<2	High	0.32			
Heiden	0-20	40-60	1.30-1.50	<0.06	0.15-0.20	7.9-8.4	<2	Very high	0.32	5	4	1-4
	20-35	40-60	1.35-1.55	<0.06	0.14-0.18	7.9-8.4	<2	Very high	0.32			
	35-60	40-60	1.40-1.60	<0.06	0.12-0.18	7.9-8.4	<2	Very high	0.32			
	60-80	40-60	1.45-1.65	<0.06	0.11-0.15	7.9-8.4	<2	Very high	0.32			
GfB Gasil	0-16	5-12	1.50-1.60	6.0-20	0.07-0.11	6.1-7.8	<2	Low	0.20	5	2	.5-1
	16-80	15-35	1.40-1.60	0.6-2.0	0.12-0.19	5.1-6.5	<2	Low	0.32			
GsA Groesbeck	0-15	4-10	1.35-1.45	2.0-6.0	0.07-0.12	6.1-7.3	<2	Low	0.32	2	2	1-3
	15-29	18-25	1.35-1.60	0.6-2.0	0.10-0.15	6.1-7.8	<2	Low	0.28			
	29-32	15-25	1.35-1.65	0.6-2.0	0.10-0.15	7.4-8.4	<2	Low	0.28			
	32-80	---	---	0.2-2.0	---	---	---	---	---			
GsC Groesbeck	0-16	4-10	1.35-1.45	2.0-6.0	0.07-0.12	6.1-7.3	<2	Low	0.32	2	2	1-3
	16-26	18-25	1.35-1.60	0.6-2.0	0.10-0.15	6.1-7.8	<2	Low	0.28			
	26-30	15-25	1.35-1.65	0.6-2.0	0.10-0.15	7.4-8.4	<2	Low	0.28			
	30-60	---	---	0.2-2.0	---	---	---	---	---			
HeB Heiden	0-18	40-60	1.30-1.50	<0.06	0.15-0.20	7.9-8.4	<2	Very high	0.32	5	4	1-4
	18-56	40-60	1.35-1.55	<0.06	0.14-0.18	7.9-8.4	<2	Very high	0.32			
	56-65	40-60	1.40-1.60	<0.06	0.12-0.18	7.9-8.4	<2	Very high	0.32			
	65-80	40-60	1.45-1.65	<0.06	0.11-0.15	7.9-8.4	<2	Very high	0.32			
HoB Houston Black	0-21	50-60	1.20-1.40	<0.06	0.15-0.20	7.4-8.4	<2	Very high	0.32	5	4	1-5
	21-56	50-60	1.25-1.50	<0.06	0.12-0.18	7.4-8.4	<2	Very high	0.32			
	56-80	45-65	1.30-1.55	<0.06	0.10-0.16	7.4-8.4	<4	Very high	0.32			
Kc Kaufman	0-5	50-86	1.20-1.45	<0.06	0.12-0.18	5.6-8.4	<2	Very high	0.32	5	4	1-4
	5-45	60-86	1.25-1.45	<0.06	0.12-0.18	5.6-8.4	<2	Very high	0.32			
	45-80	60-86	1.25-1.45	<0.06	0.12-0.18	5.6-8.4	<2	Very high	0.32			
Kd Kaufman	0-6	50-86	1.20-1.45	<0.06	0.12-0.18	5.6-8.4	<2	Very high	0.32	5	4	1-4
	6-40	60-86	1.25-1.45	<0.06	0.12-0.18	5.6-8.4	<2	Very high	0.32			
	40-80	60-86	1.25-1.45	<0.06	0.12-0.18	5.6-8.4	<2	Very high	0.32			

See footnote at end of table.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
LaE2---------- Lamar	0-3	27-35	1.25-1.40	0.6-2.0	0.12-0.15	6.6-8.4	<2	Moderate	0.32	5	4L	1-3
	3-27	20-35	1.30-1.50	0.6-2.0	0.12-0.15	7.9-8.4	<2	Moderate	0.32			
	27-80	20-35	1.35-1.60	0.6-2.0	0.12-0.15	7.9-8.4	<2	Moderate	0.32			
LrB*:												
Lavender--------	0-7	3-8	1.35-1.45	2.0-6.0	0.07-0.12	5.6-7.3	<2	Low--------	0.32	2	2	.5-2
	7-13	8-12	1.35-1.45	2.0-6.0	0.08-0.13	5.6-7.8	<2	Low--------	0.32			
	13-31	18-34	1.35-1.55	0.6-2.0	0.10-0.15	5.6-7.8	<2	Low--------	0.28			
	31-60	---	---	0.2-2.0	---	---	---	----------	----			
Rock outcrop----	---	---	---	---	---	---	---	----------	----	---	---	---
LsB---------- Leson	0-6	40-60	1.30-1.45	<0.06	0.12-0.18	6.1-8.4	<2	High-------	0.32	5	4	1-4
	6-33	40-60	1.30-1.50	<0.06	0.12-0.18	6.1-8.4	<2	High-------	0.32			
	33-57	40-60	1.35-1.55	<0.06	0.12-0.18	6.6-8.4	<2	High-------	0.32			
	57-80	40-65	1.40-1.65	<0.06	0.12-0.16	7.4-8.4	<4	High-------	0.32			
LuA---------- Lufkin	0-10	5-18	1.35-1.65	0.6-2.0	0.11-0.18	5.1-6.5	<2	Low--------	0.43	5	3	.5-2
	10-66	35-45	1.40-1.60	<0.06	0.12-0.18	4.5-7.8	<4	Very high	0.32			
	66-80	20-40	1.40-1.68	<0.06	0.10-0.14	6.1-8.4	<4	High-------	0.37			
LxA*:												
Lufkin----------	0-7	5-18	1.35-1.65	0.6-2.0	0.11-0.18	5.1-6.5	<2	Low--------	0.43	5	3	.5-2
	7-60	35-45	1.40-1.60	<0.06	0.12-0.18	4.5-7.8	<4	Very high	0.32			
	60-80	20-40	1.40-1.68	<0.06	0.10-0.14	6.1-8.4	<4	High-------	0.37			
Rader----------	0-6	4-15	1.30-1.50	2.0-6.0	0.10-0.18	4.5-6.5	<2	Low--------	0.37	5	3	.5-2
	6-18	4-15	1.35-1.55	2.0-6.0	0.10-0.18	4.5-6.5	<2	Low--------	0.37			
	18-27	18-30	1.40-1.60	0.2-0.6	0.12-0.18	4.5-5.5	<2	Moderate	0.32			
	27-40	35-50	1.45-1.65	<0.06	0.12-0.18	4.5-6.5	<2	High-------	0.32			
	40-80	24-45	1.45-1.65	0.06-0.2	0.12-0.18	4.5-8.4	<4	Moderate	0.32			
MaA---------- Mabank	0-6	10-25	1.50-1.65	0.6-2.0	0.11-0.15	5.6-7.3	<2	Low--------	0.43	5	3	1-2
	6-37	35-50	1.45-1.65	<0.6	0.12-0.18	5.6-8.4	<2	High-------	0.32			
	37-80	35-50	1.45-1.65	<0.6	0.12-0.18	5.6-8.4	2-8	High-------	0.32			
Na---------- Nahatche	0-15	18-27	1.10-1.30	0.6-2.0	0.13-0.20	5.6-7.8	<2	Moderate	0.28	5	6	1-3
	15-60	18-35	1.20-1.50	0.6-2.0	0.12-0.20	5.6-7.8	<2	Moderate	0.28			
	60-80	18-35	1.30-1.60	0.6-2.0	0.12-0.18	5.6-7.8	<2	Moderate	0.28			
NoB---------- Normangee	0-6	27-35	1.50-1.60	0.06-0.2	0.15-0.20	5.6-7.3	<2	Moderate	0.37	4	6	.5-2
	6-51	35-55	1.55-1.65	<0.06	0.12-0.18	5.6-8.4	2-8	High-------	0.32			
	51-80	35-55	1.60-1.70	<0.06	0.12-0.18	6.1-8.4	2-8	High-------	0.32			
NrD2---------- Normangee	0-3	27-35	1.50-1.60	0.06-0.2	0.10-0.14	5.6-7.3	<2	Low--------	0.28	4	8	.5-2
	3-43	35-55	1.55-1.65	<0.06	0.12-0.18	5.6-8.4	2-8	High-------	0.32			
	43-80	35-55	1.60-1.70	<0.06	0.12-0.18	6.1-8.4	2-8	High-------	0.32			
OgB---------- Oglesby	0-18	40-50	1.25-1.45	0.06-0.2	0.13-0.18	6.6-7.8	<2	High-------	0.32	1	4	1-3
	18-24	---	---	0.06-2.0	---	---	---	----------	----			
Ot---------- Oletha	0-6	40-50	1.25-1.45	<0.06	0.14-0.19	5.1-7.3	<2	High-------	0.32	5	4	1-3
	6-16	18-35	1.35-1.60	0.2-0.6	0.15-0.18	4.5-5.5	<2	Moderate	0.32			
	16-25	24-35	1.35-1.60	0.2-2.0	0.15-0.18	6.6-8.4	<2	Moderate	0.32			
	25-33	25-35	1.35-1.60	0.2-2.0	0.15-0.18	6.6-8.4	<2	Moderate	0.32			
	33-44	25-35	1.35-1.60	0.2-2.0	0.15-0.18	6.6-8.4	<2	Moderate	0.32			
	44-80	15-35	1.40-1.60	0.2-2.0	0.15-0.18	6.1-7.8	<2	Moderate	0.32			
PaC---------- Padina	0-4	2-10	1.20-1.50	6.0-20	0.07-0.11	5.6-7.3	<2	Low--------	0.17	5	2	.5-1
	4-47	2-10	1.20-1.50	6.0-20	0.05-0.08	5.6-7.3	<2	Low--------	0.17			
	47-80	18-35	1.40-1.60	0.6-2.0	0.14-0.18	5.1-6.5	<2	Low--------	0.24			

See footnote at end of table.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
PaE---------- Padina	0-11	2-10	1.20-1.50	6.0-20	0.07-0.11	5.6-7.3	<2	Low--------	0.17	5	2	.5-1
	11-46	2-10	1.20-1.50	6.0-20	0.05-0.08	5.6-7.3	<2	Low--------	0.17			
	46-80	18-35	1.40-1.60	0.6-2.0	0.14-0.18	5.1-6.5	<2	Low--------	0.24			
PeB---------- Personville	0-18	3-10	1.35-1.45	2.0-6.0	0.07-0.12	6.1-7.3	<2	Low--------	0.24	3	2	.5-2
	18-47	18-25	1.35-1.55	0.6-2.0	0.10-0.15	5.1-6.5	<2	Low--------	0.17			
	47-60	---	---	0.2-2.0	---	---	---	----------	----			
Pr*---------- Pits, quarries	---	---	---	---	---	---	---	----------	----	---	---	---
Ps*---------- Pits, sand	---	---	---	---	---	---	---	----------	----	---	---	---
RaA---------- Rader	0-12	4-15	1.30-1.50	2.0-6.0	0.10-0.18	4.5-6.5	<2	Low--------	0.37	5	3	.5-2
	12-19	4-15	1.35-1.55	2.0-6.0	0.10-0.18	4.5-6.5	<2	Low--------	0.37			
	19-25	18-30	1.40-1.60	0.2-0.6	0.12-0.18	4.5-5.5	<2	Moderate	0.32			
	25-63	35-50	1.45-1.65	<0.06	0.12-0.18	4.5-6.5	<2	High-------	0.32			
	63-80	24-45	1.45-1.65	0.06-0.2	0.12-0.18	4.5-8.4	<4	Moderate	0.32			
RoA---------- Robco	0-16	2-10	1.40-1.60	6.0-20	0.04-0.10	5.1-6.5	<2	Low--------	0.24	5	2	.5-1
	16-25	2-10	1.40-1.60	6.0-20	0.04-0.10	5.1-6.5	<2	Low--------	0.24			
	25-27	27-35	1.50-1.65	0.2-0.6	0.12-0.18	4.5-6.0	<2	Moderate	0.32			
	27-60	20-35	1.55-1.70	0.06-0.2	0.12-0.18	4.5-6.0	<2	High-------	0.37			
	60-80	25-45	1.55-1.70	0.06-0.2	0.10-0.18	4.5-7.3	<2	Moderate	0.37			
SaB---------- Silawa	0-7	10-20	1.35-1.55	2.0-6.0	0.10-0.15	5.1-6.5	<2	Low--------	0.24	5-4	3	.5-2
	7-44	18-35	1.35-1.60	0.6-2.0	0.12-0.17	4.5-6.0	<2	Low--------	0.32			
	44-58	12-30	1.40-1.65	2.0-6.0	0.08-0.15	4.5-6.0	<2	Low--------	0.32			
	58-80	2-15	1.40-1.70	6.0-20	0.05-0.11	4.5-6.5	<2	Low--------	0.20			
SaD---------- Silawa	0-5	10-20	1.35-1.55	2.0-6.0	0.10-0.15	5.1-6.5	<2	Low--------	0.24	5-4	3	.5-2
	5-35	18-35	1.35-1.60	0.6-2.0	0.12-0.17	4.5-6.0	<2	Low--------	0.32			
	35-41	12-30	1.40-1.65	2.0-6.0	0.08-0.15	4.5-6.0	<2	Low--------	0.32			
	41-80	2-15	1.40-1.70	6.0-20	0.05-0.11	4.5-6.5	<2	Low--------	0.20			
SsB---------- Silstid	0-5	3-12	1.40-1.60	6.0-20	0.05-0.10	5.6-7.3	<2	Low--------	0.17	5	2	.5-1
	5-27	3-12	1.40-1.60	6.0-20	0.05-0.10	5.6-7.3	<2	Low--------	0.17			
	27-60	18-32	1.50-1.70	0.6-2.0	0.10-0.16	5.1-6.5	<2	Low--------	0.24			
	60-80	18-32	1.50-1.70	0.6-2.0	0.10-0.16	5.1-6.5	<2	Low--------	0.24			
SsD---------- Silstid	0-8	3-12	1.40-1.60	6.0-20	0.05-0.10	5.6-7.3	<2	Low--------	0.17	5	2	.5-1
	8-24	3-12	1.40-1.60	6.0-20	0.05-0.10	5.6-7.3	<2	Low--------	0.17			
	24-52	18-32	1.50-1.70	0.6-2.0	0.10-0.16	5.1-6.5	<2	Low--------	0.24			
	52-80	18-32	1.50-1.70	0.6-2.0	0.10-0.16	5.1-6.5	<2	Low--------	0.24			
StA---------- Styx	0-15	3-15	1.40-1.60	2.0-6.0	0.05-0.10	5.1-7.3	<2	Low--------	0.17	5	2	.5-2
	15-27	3-15	1.40-1.60	2.0-6.0	0.05-0.10	5.1-7.3	<2	Low--------	0.17			
	27-80	25-35	1.30-1.65	0.6-2.0	0.12-0.16	4.5-6.5	<2	Low--------	0.24			
TaA---------- Tabor	0-12	8-20	1.50-1.60	0.6-2.0	0.11-0.15	5.1-6.5	<2	Low--------	0.43	5	3	.5-1
	12-55	40-55	1.35-1.55	<0.06	0.09-0.12	4.5-7.3	<2	High-------	0.32			
	55-80	25-45	1.45-1.65	<0.06	0.14-0.18	5.1-8.4	<2	High-------	0.32			
Tc---------- Tinn	0-12	40-60	1.40-1.50	0.06-0.2	0.15-0.20	7.4-8.4	<2	Very high	0.32	5	4	1-4
	12-60	40-60	1.40-1.50	<0.06	0.13-0.18	7.4-8.4	<2	Very high	0.32			
	60-80	40-60	1.40-1.50	<0.06	0.13-0.18	7.4-8.4	<2	Very high	0.32			
To---------- Tinn	0-18	40-60	1.40-1.50	0.06-0.2	0.15-0.20	7.4-8.4	<2	Very high	0.32	5	4	1-4
	18-60	40-60	1.40-1.50	<0.06	0.13-0.18	7.4-8.4	<2	Very high	0.32			
	60-80	40-60	1.40-1.50	<0.06	0.13-0.18	7.4-8.4	<2	Very high	0.32			

See footnote at end of table.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
Uh---------- Uhland	0-7	10-20	1.25-1.40	0.6-2.0	0.10-0.16	5.6-7.8	<2	Low--------	0.37	5	3	.5-2
	7-80	10-18	1.25-1.55	0.6-2.0	0.10-0.16	5.6-7.8	<2	Low--------	0.37			
Wa---------- Whitesboro	0-26	12-20	1.25-1.40	0.6-2.0	0.12-0.18	6.1-7.8	<2	Low--------	0.28	5	5	1-3
	26-55	22-35	1.30-1.45	0.6-2.0	0.13-0.18	6.1-8.4	<2	Moderate	0.28			
	55-80	22-35	1.30-1.55	0.6-2.0	0.13-0.18	6.1-8.4	<2	Moderate	0.28			
Wf---------- Whitesboro	0-26	12-20	1.25-1.40	0.6-2.0	0.12-0.18	6.1-7.8	<2	Low--------	0.28	5	5	1-3
	26-58	22-35	1.30-1.45	0.6-2.0	0.13-0.18	6.1-8.4	<2	Moderate	0.28			
	58-80	22-35	1.30-1.55	0.6-2.0	0.13-0.18	6.1-8.4	<2	Moderate	0.28			
WnA---------- Wilson	0-7	27-35	1.35-1.50	0.2-0.6	0.10-0.17	5.6-7.3	<0	Moderate	0.43	5	6	.5-2
	7-56	35-50	1.50-1.60	<0.06	0.12-0.15	5.6-8.4	<4	High------	0.37			
	56-80	35-60	1.50-1.60	<0.06	0.12-0.15	6.6-8.4	2-8	High------	0.37			
WxA*:												
Wilson----------	0-8	18-27	1.35-1.45	0.2-0.6	0.10-0.17	5.6-7.3	<2	Low--------	0.43	5	5	.5-2
	8-45	35-50	1.50-1.60	<0.06	0.12-0.15	5.6-8.4	<4	High------	0.37			
	45-80	35-60	1.50-1.60	<0.06	0.12-0.15	6.6-8.4	2-8	High------	0.37			
Bremond---------	0-6	10-18	1.45-1.60	0.6-2.0	0.11-0.20	5.1-7.3	<2	Low--------	0.43	5	5	1-2
	6-14	40-50	1.35-1.50	<0.06	0.14-0.18	5.6-7.3	<2	High------	0.32			
	14-46	30-50	1.40-1.65	<0.06	0.15-0.18	6.1-8.4	<2	High------	0.32			
	46-80	27-50	1.40-1.65	<0.06	0.15-0.18	6.6-8.4	2-8	High------	0.32			

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 15.--SOIL AND WATER FEATURES

("Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol < means less than; > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Soil name and map symbol	Hydrologic group	Flooding: Frequency	Flooding: Duration	Flooding: Months	High water table: Depth	High water table: Kind	High water table: Months	Bedrock: Depth	Bedrock: Hardness	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
					Ft			In			
AxA, AxB---------- Axtell	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Moderate.
BnA---------- Branyon	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
BuA---------- Burleson	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Moderate.
CrA, CrB, CrC2---- Crockett	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
EgB, EgC2, EgD---- Edge	D	None--------	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
EhC3*:											
Edge----------	D	None--------	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
Gullied land-----	D	None--------	---	---	>6.0	---	---	>60	---	---------	---
EsC2, EsE2-------- Ellis	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
FeD2---------- Ferris	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
FhC2*:											
Ferris----------	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
Heiden----------	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
GfB---------- Gasil	B	None--------	---	---	>6.0	---	---	>60	---	Low------	Moderate.
GsA, GsC---------- Groesbeck	B	None--------	---	---	>6.0	---	---	20-40	Hard	Moderate	Low.
HeB---------- Heiden	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
HoB---------- Houston Black	D	None--------	---	---	>6.0	---	---	>60	---	High-----	Low.
Kc---------- Kaufman	D	Occasional	Brief-----	Feb-May	>6.0	---	---	>60	---	High-----	Low.
Kd---------- Kaufman	D	Frequent----	Very brief to brief.	Feb-May	>6.0	---	---	>60	---	High-----	Low.
LaE2---------- Lamar	B	None--------	---	---	>6.0	---	---	>60	---	Moderate	Low.
LrB*:											
Lavender----------	B	None--------	---	---	>6.0	---	---	20-40	Hard	Low------	Low.
Rock outcrop-----	D	None--------	---	---	>6.0	---	---	0-2	Hard	---------	---

See footnote at end of table.

TABLE 15.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding: Frequency	Flooding: Duration	Flooding: Months	High water table: Depth	High water table: Kind	High water table: Months	Bedrock: Depth	Bedrock: Hardness	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
					Ft			In			
LsB---------- Leson	D	None---------	---	---	>6.0	---	---	>60	---	High-----	Low.
LuA---------- Lufkin	D	None---------	---	---	>6.0	---	---	>60	---	High-----	Moderate.
LxA*:											
Lufkin----------	D	None---------	---	---	>6.0	---	---	>60	---	High-----	Moderate.
Rader----------	D	None---------	---	---	2.0-4.0	Perched	Dec-Mar	>60	---	High-----	Moderate.
MaA---------- Mabank	D	None---------	---	---	>6.0	---	---	>60	---	High-----	Moderate.
Na---------- Nahatche	C	Frequent----	Very brief to brief.	Nov-May	0.5-1.5	Apparent	Nov-May	>60	---	High-----	Moderate.
NoB, NrD2--------- Normangee	D	None---------	---	---	>6.0	---	---	>60	---	High-----	Low.
OgB---------- Oglesby	D	None---------	---	---	>6.0	---	---	10-20	Hard	High-----	Low.
Ot---------- Oletha	D	Frequent----	Brief-----	Nov-May	2.5-4.0	Apparent	Nov-May	>60	---	High-----	Moderate.
PaC, PaE---------- Padina	B	None---------	---	---	>6.0	---	---	>60	---	High-----	Moderate.
PeB---------- Personville	B	None---------	---	---	>6.0	---	---	40-60	Hard	Moderate	Moderate.
Pr*---------- Pits, quarries	D	None---------	---	---	---	---	---	0-2	---	---------	---
Ps*---------- Pits, sand	D	None---------	---	---	---	---	---	>60	---	---------	---
RaA---------- Rader	D	None---------	---	---	2.0-4.0	Perched	Dec-Mar	>60	---	High-----	Moderate.
RoA---------- Robco	C	None---------	---	---	1.5-3.5	Perched	Jan-Apr	>60	---	High-----	High.
SaB, SaD---------- Silawa	B	None---------	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
SsB, SsD---------- Silstid	A	None---------	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
StA---------- Styx	B	None---------	---	---	3.5-4.5	Perched	Dec-May	>60	---	Moderate	Moderate.
TaA---------- Tabor	D	None---------	---	---	>6.0	---	---	>60	---	High-----	High.
Tc---------- Tinn	D	Occasional	Brief-----	Feb-May	>6.0	---	---	>60	---	High-----	Low.
To---------- Tinn	D	Frequent----	Brief-----	Feb-May	>6.0	---	---	>60	---	High-----	Low.

See footnote at end of table.

TABLE 15.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding: Frequency	Flooding: Duration	Flooding: Months	High water table: Depth	High water table: Kind	High water table: Months	Bedrock: Depth	Bedrock: Hardness	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
					Ft			In			
Uh Uhland	B	Frequent	Brief	Feb-Jun	2.0-3.5	Perched	Mar-May	>60	---	High	Low.
Wa Whitesboro	C	Occasional	Brief	Sep-May	>6.0	---	---	>60	---	High	Low.
Wf Whitesboro	C	Frequent	Brief	Sep-May	>6.0	---	---	>60	---	High	Low.
WnA Wilson	D	None	---	---	>6.0	---	---	>60	---	High	High.
WxA*:											
Wilson	D	None	---	---	>6.0	---	---	>60	---	High	High.
Bremond	D	None	---	---	>6.0	---	---	>60	---	High	Low.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 16.--PHYSICAL ANALYSES OF SELECTED SOILS[1]

[Dashes indicate data were not available]

Soil name and sample number	Depth	Horizon	Particle-size Distribution (Percentage by Weight): Sand: Very coarse (2-1 mm)	Coarse (1-0.5 mm)	Medium (0.5-0.25 mm)	Fine (0.25-0.1 mm)	Very fine (0.1-0.05 mm)	Total (2-0.05 mm)	Silt (0.05-0.002 mm)	Clay (<0.002 mm)	COLE	Bulk density 1/3 bar	Water content 1/3 bar
	In										Cm/cm	g/cc	Pct (wt)
Groesbeck:[2,3]	0-5	A	0.0	0.1	0.6	53.9	25.3	79.9	14.3	5.8	0.032	1.30	28.0
(S88TX293-002)	5-15	Bt	0.2	0.5	0.5	42.1	18.8	62.1	16.2	21.7	0.051	1.38	25.6
	15-24	Bk1	1.7	1.4	1.6	32.4	16.7	53.8	23.8	22.4	0.019	1.59	16.8
	24-37	Bk2	5.4	5.5	4.3	24.0	12.5	51.7	32.7	15.6	0.006	1.76	11.1
Lavender:[2]	0-7	A	0.0	0.1	0.7	73.1	14.1	88.0	8.5	3.5	0.000	1.41	21.4
(S88TX293-005)	7-13	Bt1	0.0	0.2	0.5	71.8	13.8	86.3	5.6	8.1	0.017	1.39	15.6
	13-22	Bt2	0.1	0.2	0.5	48.3	10.9	60.0	8.3	31.7	0.040	1.37	25.2
	22-31	Bt3	0.2	0.2	0.5	44.0	10.4	55.3	11.0	33.7	0.053	1.32	30.5
Oletha:[2]													
(S88TX293-001)	0-6	A	0.0	0.1	0.3	2.2	2.2	4.8	43.8	51.4	0.103	1.29	37.4
	6-10	Bw1	0.1	0.1	1.1	7.8	14.7	23.8	48.5	27.7	--	--	--
	10-16	Bw2	0.1	0.2	1.3	9.1	17.1	27.8	52.9	19.3	0.039	1.57	22.4
	16-25	Ab	0.2	0.2	0.7	8.2	20.2	29.5	38.4	32.1	0.097	1.40	32.2
	25-33	Byb	0.1	0.1	0.5	10.1	24.4	35.2	33.9	30.9	0.074	1.47	27.3
	33-44	Bgb	0.1	0.3	4.8	18.8	17.6	41.6	35.7	23.6	0.070	1.50	25.8
	44-59	BCgb	0.1	0.4	9.2	34.2	16.5	60.4	24.7	14.1	0.027	1.70	16.7
	59-72	BCb1	0.1	0.4	6.2	29.2	16.9	52.8	19.9	27.3	--	--	--
	72-85	BCb2	0.2	0.2	6.5	36.6	16.0	59.5	20.7	19.8	--	--	--
	85-102	2C	0.1	0.3	26.5	53.0	9.2	89.1	3.9	7.0	--	--	--
Personville:[2]	0-6	Ap	0.4	0.0	1.2	67.1	16.1	85.7	7.7	6.6	0.038	1.09	37.7
(S88TX293-003)	6-18	A	0.1	0.2	0.7	67.4	18.7	87.1	3.9	9.0	0.036	1.25	31.9
	18-28	Bt1	0.1	0.1	0.2	54.6	15.2	70.2	7.1	22.7	0.034	1.32	21.9
	28-37	Bt2	0.1	0.1	0.2	54.9	13.9	69.2	7.9	22.9	0.022	1.35	18.0
	37-47	Bt3	0.1	0.2	0.2	59.3	14.3	74.1	7.0	18.9	0.021	1.37	15.7

[1] Analysis by Soil Characterization Laboratory, Texas Agricultural Experiment Station, College Station, Texas.
[2] Location of pedon sample is the same as that given for the typical pedon in "Soil Series and Their Morphology".
[3] Characteristics of this pedon are highly variable over short horizontal distances which accounts for differences in horizonation from the Official Series Description.

TABLE 17.--CHEMICAL ANALYSES OF SELECTED SOILS[1]
[Dashes indicate data were not available]

Soil name and sample number	Depth	Horizon	Extractable Bases: Ca	Mg	K	NA	CEC (NAOAC)	Base Saturation	pH 1:1 soil:water	Organic carbon[2]	Exchangeable sodium percentage
	In		Meq/100g					Pct		Pct	
Groesbeck:[3,4]											
(S88TX293-002)	0-5	A	6.0	0.7	0.1	0.1	6.4	100	6.6	1.04	1
	5-15	Bt	19.5	1.1	0.1	0.1	17.8	100	7.6	0.69	0
	15-24	Bk1	49.9	1.1	0.1	0.2	17.6	100	8.3	0.64	1
	24-37	Bk2	45.7	0.7	0.1	0.1	10.0	100	8.4	0.44	1
Lavender:[3]	0-7	A	3.2	0.4	0.2	0.0	3.8	100	6.5	0.63	0
(S88TX293-005)	7-13	Bt1	3.4	0.3	0.1	0.0	4.3	88	6.6	0.29	0
	13-22	Bt2	10.7	0.9	0.3	0.1	15.3	78	6.4	0.45	1
	22-31	Bt3	10.5	0.5	0.3	0.1	13.1	87	5.9	0.46	1
Oletha:[3]	0-6	A	19.5	7.6	0.6	1.2	30.4	95	5.6	2.04	3
(S88TX293-001)	6-10	Bw1	9.1	3.8	0.2	1.9	15.8	95	4.9	0.73	8
	10-16	Bw2	6.0	2.5	0.1	2.3	11.0	99	5.1	0.58	14
	16-25	Ab	14.2	6.3	0.3	6.1	20.9	100	7.0	0.50	16
	25-33	Byb	28.9	6.7	0.3	7.0	19.5	100	7.2	0.32	17
	33-44	Bgb	10.2	4.6	0.2	5.2	14.7	100	7.5	0.18	18
	44-59	BCgb	6.3	1.7	0.1	1.7	7.6	100	7.3	0.12	15
	59-72	BCb1	6.8	3.2	0.1	1.3	11.8	97	6.6	0.11	9
	72-85	BCb2	5.0	2.5	0.1	0.6	8.0	100	6.6	0.09	5
	85-102	2C	1.8	0.8	0.0	0.2	2.8	100	6.9	0.06	3
Personville:[3]	0-6	Ap	4.4	0.6	0.5	0.1	4.5	100	7.2	0.99	2
(S88TX293-003)	6-18	A	---	---	---	---	4.4	---	7.2	0.60	---
	18-28	Bt1	10.1	1.1	0.3	0.1	10.5	100	6.5	0.63	1
	28-37	Bt2	9.8	1.2	0.3	0.1	9.9	100	6.5	0.31	1
	37-47	Bt3	9.7	1.1	0.3	0.1	9.6	100	7.0	0.25	1

[1] Analysis by Soil Characterization Laboratory, Texas Agricultural Experiment Station, College Station, Texas.

[2] Multiply organic carbon by 1.72 to obtain percent organic matter.

[3] Location of pedon sample is the same as the pedon given as typical for series in "Soil Series and Their Morphology."

[4] Characteristics of this pedon are highly variable over short horizontal distances which accounts for differences in horizonation from the Official Series Description.

TABLE 18.---ENGINEERING INDEX TEST DATA[1]
[Dashes indicate data were not available]
(NP means nonplastic)

Soil name, report number horizon and depth in inches		Classification: AASHTO	Classification: Unified	Grain-size distribution: Percentage passing sieve-- 3/4 inch	3/8 inch	No. 4	No. 10	No. 40	No. 200	Percentage smaller than-- .05 mm	.005 mm	.002 mm	Liquid limit	Plasticity index
													Pct	
Groesbeck:[2,3]														
(S88TX293-002)														
A	0-5	A-2-4(0)	SM	100	100	100	100	99	34	27	10	9	--	NP
Bt	5-15	A-6(3)	SC	100	100	100	100	99	46	33	24	22	32	13
Bk2	24-37	A-6(1)	SC	85	80	75	69	61	37	32	21	13	28	13
Lavender:[2]														
(S88TX293-005)														
A	0-7	A-2-4(0)	SM	100	100	100	100	99	19	14	6	6	--	NP
Bt2	13-22	A-6(3)	SC	100	100	100	100	99	40	34	32	31	33	17
Bt3	22-31	A-6(5)	SC	100	100	100	100	99	46	41	37	34	35	19
Oletha:[2]														
(S90TX293-001)														
A	0-6	A-7-6(31)	CH	100	100	100	100	100	94	93	65	46	52	30
Bw2	10-16	A-6(8)	CL	100	100	100	100	100	84	77	25	17	26	12
Ab	16-25	A-6(18)	CL	100	100	100	100	100	81	74	36	30	39	24
Bgb	33-44	A-6(12)	CL	100	100	100	100	100	72	68	30	25	32	20
Personville:[2]														
(S88TX293-003)														
Ap	0-6	A-2-4(0)	SM	100	100	100	100	99	16	14	5	3	--	NP
A	6-18	A-2-4(0)	SM	100	100	100	100	99	18	15	5	5	--	NP
Bt1	18-28	A-6(2)	SC	100	100	100	100	100	37	33	30	27	34	17
Bt2	28-37	A-6(2)	SC	100	100	100	100	100	38	33	29	26	33	15
Bt3	37-47	A-2-4(0)	SC	100	100	100	100	99	32	23	21	19	28	8

[1] Analysis by Soil Mechanics Laboratory, Soil Conservation Service, Ft. Worth, Texas.
[2] Location of pedon sample is the same as that given for the typical pedon in "Soil Series and Their Morphology".
[3] Characteristics of this pedon are highly variable over short horizontal distances which accounts for the differences in horizonation from the Official Series Description.

TABLE 19.--CLASSIFICATION OF THE SOILS

Soil name	Family or higher taxonomic class
Axtell	Fine, montmorillonitic, thermic Udertic Paleustalfs
Branyon	Fine, montmorillonitic, thermic Udic Haplusterts
Bremond	Fine, montmorillonitic, thermic Udertic Paleustalfs
Burleson	Fine, montmorillonitic, thermic Udic Haplusterts
Crockett	Fine, montmorillonitic, thermic Udertic Paleustalfs
Edge	Fine, mixed, thermic Udic Paleustalfs
Ellis	Fine, montmorillonitic, thermic Udertic Ustochrepts
Ferris	Fine, montmorillonitic, thermic Chromic Udic Haplusterts
Gasil	Fine-loamy, siliceous, thermic Ultic Paleustalfs
Groesbeck	Fine-loamy, siliceous, thermic Udic Argiustolls
Heiden	Fine, montmorillonitic, thermic Udic Haplusterts
Houston Black	Fine, montmorillonitic, thermic Udic Haplusterts
Kaufman	Very-fine, montmorillonitic, thermic Typic Hapluderts
Lamar	Fine-silty, mixed, thermic Udic Ustochrepts
Lavender	Fine-loamy, siliceous, thermic Udic Haplustalfs
Leson	Fine, montmorillonitic, thermic Udic Haplusterts
Lufkin	Fine, montmorillonitic, thermic Oxyaquic Vertic Paleustalfs
Mabank	Fine, montmorillonitic, thermic Oxyaquic Vertic Paleustalfs
Nahatche	Fine-loamy, siliceous, nonacid, thermic Aeric Fluvaquents
Normangee	Fine, montmorillonitic, thermic Udertic Haplustalfs
Oglesby	Clayey, montmorillonitic, thermic Lithic Haplustolls
Oletha	Fine-loamy, siliceous, nonacid, thermic Aquic Ustochrepts
Padina	Loamy, siliceous, thermic Grossarenic Paleustalfs
Personville	Fine-loamy, siliceous, thermic Udic Haplustalfs
Rader	Fine-loamy, mixed, thermic Aquic Paleustalfs
Robco	Loamy, siliceous, thermic Aquic Arenic Paleustalfs
Silawa	Fine-loamy, siliceous, thermic Ultic Haplustalfs
Silstid	Loamy, siliceous, thermic Arenic Paleustalfs
Styx	Loamy, siliceous, thermic Arenic Paleustalfs
Tabor	Fine, montmorillonitic, thermic Udertic Paleustalfs
Tinn	Fine, montmorillonitic, thermic Typic Hapluderts
Uhland	Coarse-loamy, siliceous, thermic Aquic Ustochrepts
Whitesboro	Fine-loamy, mixed, thermic Cumulic Haplustolls
Wilson	Fine, montmorillonitic, thermic Oxyaquic Vertic Haplustalfs

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