

TABLE 5.—Engineering

Soil	Suitability of soil for—			Limitations to disposal of sewage effluent	Soil features affecting—		
	Road subgrade	Road fill	Topsoil		Highway location	Farm ponds	
						Reservoir area	Embankment
Alluvial land (Al)-----	Fair-----	Fair-----	Poor-----	Severe-----	Susceptibility to flooding.	Rapid permeability.	Fair stability; rapid permeability.
Dev soils (Ds)-----	Poor-----	Fair-----	Poor-----	Severe-----	Susceptibility to flooding; gravelly and stony material.	Very gravelly material; rapid permeability.	Poorly graded material.
Ector-Rock outcrop complex (Et).	Fair-----	Fair-----	Poor-----	Severe-----	Limestone bedrock near surface; stony material; steep slopes.	Very stony material; very shallow over limestone.	Very stony material; very shallow over hard limestone.
Ector soils (Ec)-----	Good-----	Good-----	Poor-----	Severe-----	Limestone bedrock near surface; stony soil; steep slopes.	Very stony material; very shallow over hard limestone.	Very stony material; very shallow over hard limestone.
Frio clay loam (Fr)-----	Fair-----	Fair-----	Good-----	Slight-----	Susceptibility to flooding.	Moderate permeability; excessive seepage.	Fair stability-----
Gila loam (Gm)-----	Fair-----	Fair-----	Fair-----	Slight-----	No unfavorable features.	Rapid permeability.	Rapid permeability; fair stability.
Glendale clay loam (Gc).	Poor to fair.	Fair-----	Good-----	Slight-----	No unfavorable features.	Moderate permeability.	Fair stability; moderate permeability.
Ingram stony clay (In).	Poor to fair.	Poor to fair.	Poor-----	Severe-----	Steep slopes; stoniness; high shrink-swell potential; hard bedrock.	Shallow over hard limestone; very stony over basalt.	High shrink-swell potential; very stony material.
Kavett-Tarrant stony clays (Kc).	Poor-----	Fair-----	Poor-----	Severe-----	Stoniness; hard limestone near surface.	Shallow over hard limestone.	Fair stability-----
Kimbrough-Ector association (Ke).	Good-----	Good-----	Poor-----	Severe-----	Very shallow over caliche or limestone.	Very shallow over caliche or limestone.	Good stability; moderate permeability.
Kimbrough soils (Kh)---	Good-----	Good-----	Poor-----	Severe-----	Very shallow over caliche.	Very shallow over caliche; moderate permeability.	Good stability; moderate permeability.
Jimenez-Zapata association (Jm).	Good-----	Good-----	Poor-----	Severe-----	Very shallow over caliche; steep slopes; very gravelly material.	Moderate permeability; excessive seepage.	Poorly graded material; moderate permeability.

See footnotes at end of table.

*interpretations of the soils*

Soil features affecting—Continued					Remarks
Irrigation		Land leveling	Field and diversion terraces	Waterways	
Sprinkler system	Surface system				
Rapid permeability; moderate water-holding capacity; susceptibility to flooding; saline spots.	Rapid permeability; susceptibility to flooding.	Susceptibility to flooding.	Low flood plain; susceptibility to flooding.	Susceptibility to flooding.	
Gravelly and stony material; susceptibility to flooding.	Susceptibility to flooding; very gravelly and stony material.	Gravelly and stony material; susceptibility to flooding.	Gravelly and stony material; susceptibility to flooding.	Susceptibility to flooding; stony material.	
Stony material; very shallow over hard limestone.	Stony material; very shallow over hard limestone; steep slopes.	Very shallow over hard limestone; stony soil; steep slopes.	Very shallow over hard limestone; steep slopes.	Very shallow over hard limestone.	Source of limestone; possible source of rock asphalt at a depth in rock stratum.
Stony material; very shallow over hard limestone.	Stony material; very shallow over hard limestone; steep slopes.	Very shallow over hard limestone; stony material; steep slopes.	Very shallow over hard limestone; steep slopes; hard limestone bedrock.	Very shallow over hard limestone.	Source of limestone.
Moderate permeability; high water-holding capacity.	Rapid intake rate; requires light application of water.	No unfavorable features.	No unfavorable features.	Slightly susceptible to erosion.	
Rapid permeability; moderately good water-holding capacity.	Rapid rate of intake; requires light application of water.	No unfavorable features.	No unfavorable features.	No unfavorable features.	
Fair intake rate and water-holding capacity.	No unfavorable features.	No unfavorable features.	No unfavorable features.	No unfavorable features.	
Slow intake rate; fair water-holding capacity.	Steep slopes-----	Steep slopes; shallow soil; stoniness.	Stoniness; steep slopes.	Stoniness-----	Possible source of traprock.
Slow permeability---	Slow permeability---	Shallow over hard limestone; stoniness; steep slopes.	Stoniness; shallow over hard limestone.	Stoniness; shallow over hard limestone.	Source of limestone.
Very shallow over caliche or limestone; low water-holding capacity.	Very shallow over caliche or limestone; gravelly material; low water-holding capacity.	Very shallow over caliche or limestone.	Very shallow over caliche or limestone.	Very shallow over caliche or limestone.	Possible source of limestone chalk or caliche.
Very shallow over caliche; gravelly material.	Very shallow over caliche; gravelly material; low water-holding capacity.	Very shallow over caliche.	Very shallow over caliche.	Very shallow over caliche.	Source of caliche.
Very shallow over caliche; very gravelly material; steep slopes.	Very shallow over caliche; very gravelly material; steep slopes.	Very shallow over caliche; steep slopes.	Very shallow over caliche; very gravelly material; steep slopes.	Very shallow over caliche; gravelly material; steep.	Source of caliche and gravel.

TABLE 5.—Engineering interpretations

Soil	Suitability of soil for—			Limitations to disposal of sewage effluent	Soil features affecting—		
	Road subgrade	Road fill	Topsoil		Highway location	Farm ponds	
						Reservoir area	Embankment
Knippa silty clay (Kn)	Poor.....	Poor.....	Fair.....	Severe.....	High shrink-swell potential.	Slow permeability	High plasticity; fair stability.
Limestone rockland (Lr)	Poor.....	Poor.....	Not suitable.	Severe.....	Steep slopes; stony rockland.	Hard limestone.....	Hard limestone <sup>1</sup> .....
Montell clay (Mc)	Poor.....	Poor.....	Fair.....	Severe.....	High shrink-swell potential.	No unfavorable features.	High plasticity; excessive cracking.
Montell clay, low (Mo)	Poor.....	Poor.....	Poor.....	Severe.....	High shrink-swell potential.	Very slow permeability.	Very high plasticity; excessive cracking.
Pintas silty clay loam (Pc)	Poor to fair.	Fair.....	Good.....	Severe.....	Susceptibility to flooding.	Excessive seepage; gravel in substratum.	Fair stability.....
Quemado soils (Qu)	Good.....	Good.....	Poor.....	Severe.....	Very gravelly material; shallow over caliche.	Moderate permeability; excessive seepage.	Poorly graded material; moderate permeability.
Reagan loam (Ra)	Fair to poor.	Fair.....	Fair.....	Slight.....	No unfavorable features.	Moderate permeability.	Fair stability.....
Tarrant-Rock outcrop complex (Tr) Tarrant soils (Ts)	Poor.....	Fair.....	Poor.....	Severe.....	Limestone bedrock near surface; steep slopes; stoniness.	Very shallow over hard limestone.	Very shallow over hard limestone. <sup>1</sup>
Uvalde silty clay loam (Uv)	Poor to fair.	Fair.....	Good.....	Slight.....	No unfavorable features.	Moderate permeability.	Fair stability.....

<sup>1</sup> Small rubble masonry or concrete dams may be installed on limestone base.

of the soils—Continued

Soil features affecting—Continued					Remarks
Irrigation		Land leveling	Field and diversion terraces	Waterways	
Sprinkler system	Surface system				
Slow permeability; high water-holding capacity.	Fine-textured material; slow permeability; high water-holding capacity.	No unfavorable features.	No unfavorable features.	No unfavorable features.	Source of limestone.
Steep slopes; stony rockland.	Steep slopes; stony rockland.	Steep slopes; stony rockland.	Steep slopes; stony rockland.	Steep, stony rockland.	
Very slow permeability.	Slow permeability; high water-holding capacity; few saline spots.	No unfavorable features.	No unfavorable features.	No unfavorable features.	
Very slow permeability; susceptibility to flooding.	Very slow permeability; susceptibility to flooding.	Susceptibility to flooding.	Highly plastic material; undrained depressions.	No unfavorable features.	Fluctuating water table.
Moderate intake rate and water-holding capacity.	Rapid intake rate; requires light application of water; susceptibility to frequent flooding.	Susceptibility to frequent flooding.	Susceptibility to frequent flooding.	Susceptibility to frequent flooding.	
Moderate permeability; shallow over caliche; gravelly material; steep slopes; low water-holding capacity.	Moderate permeability; shallow over caliche; steep slopes	Shallow over caliche; gravelly material.	Shallow over caliche; gravelly material; steep slopes.	Shallow over caliche; gravelly material; steep slopes.	Source of well-graded gravel and caliche.
Moderate permeability; moderate depth and water-holding capacity.	Moderate permeability and water-holding capacity.	Shallow to caliche.	No unfavorable features.	No unfavorable features.	Source of limestone chalk.
Very shallow over hard limestone.	Very shallow over hard limestone; stony material; steep slopes.	Very shallow over hard limestone; stony material; steep slopes.	Very shallow over hard limestone; stony material; steep slopes.	Very shallow over hard limestone; steep slopes.	Source of limestone.
Moderate permeability; high water-holding capacity.	Moderate permeability; high water-holding capacity.	No unfavorable features.	No unfavorable features.	No unfavorable features.	