



**EXPLANATION**

|  |                                |  |   |  |
|--|--------------------------------|--|---|--|
| <p><b>Well symbols</b></p> <ul style="list-style-type: none"> <li>Public supply</li> <li>Industrial</li> <li>Irrigation</li> <li>Domestic or stock</li> <li>Oil or gas test</li> <li>Unused or destroyed</li> <li>Solid circle indicates flowing well</li> <li>Line above well number indicates chemical analysis is in Table 3</li> </ul> | <p><b>Geologic symbols</b></p> | <p><b>QUATERNARY</b></p> <ul style="list-style-type: none"> <li><b>Qal</b><br/>Alluvium<br/>Gravel, sand, and silt. Yields small to moderate quantities of water to a few wells</li> </ul>                           | <p><b>TERTIARY</b></p> <ul style="list-style-type: none"> <li><b>Tw</b><br/>Weches Greensand<br/>Glauconitic sand, sandstone, shale, limestone, and marl. Not known to yield water to wells</li> </ul>  |  |
|  |                                | <p><b>Pleistocene and Recent</b></p> <ul style="list-style-type: none"> <li><b>Tj</b><br/>Jackson Group<br/>Sand, shale, and limy sand. Yields small quantities of water to wells</li> </ul>                         | <p><b>Eocene</b></p> <ul style="list-style-type: none"> <li><b>Tqc</b><br/>Queen City Sand<br/>Sand and lignitic and sandy shale. Yields small to moderate quantities of water to wells</li> </ul>  | <p><b>TERTIARY</b></p> <ul style="list-style-type: none"> <li><b>Tr</b><br/>Reklaw Formation<br/>Shale and Sand. Not known definitely to yield water to wells</li> </ul> |
|  |                                | <p><b>Eocene</b></p> <ul style="list-style-type: none"> <li><b>Ty</b><br/>Yegua Formation<br/>Sand, sandy clay, clay, lignite, bentonite, and peat. Yields small to moderate quantities of water to wells</li> </ul> | <p><b>TERTIARY</b></p> <ul style="list-style-type: none"> <li><b>Tcm</b><br/>Cook Mountain Formation<br/>Shale, marl, sand, limestone, gypsum, and glauconite. Yields small quantities of water to wells tapping the Spiller Sand Member of Stenzel (1940)</li> </ul> |  |
|  |                                | <ul style="list-style-type: none"> <li><b>Ts</b><br/>Sparta Sand<br/>Sand, silty sand, and sandy shale. Yields small to large quantities of water to wells</li> </ul>  |   |  |
|  |                                |  |   | <p><b>Contact</b>, dashed where approximately located, dotted where concealed</p> <p><b>Fault</b>; U, upthrown side; D, downthrown side; dashed where inferred</p>       |

Plate I

**Geologic Map Showing Locations of Wells in Houston County and Adjacent Areas**

U. S. Geological Survey in cooperation with the Texas Water Development Board

Base compiled from topographic maps of the U. S. Geological Survey and county highway maps of the Texas Highway Department

Geology modified from Geologic Map of Texas (Darton and others, 1937); maps supplied by the Humble Oil Company; Stenzel (1938); and field notes