conductance, and temperature. Locations of these wells are shown in Figure 2-5. Results of the chemical analyses for intermediate and deep monitoring well samples are presented in Tables 2-2 and 2-3, respectively.

2.1.1.3 Water Supply Wells

Water supply wells were sampled during the 1991 field investigation (Figure 2-5). The wells include 601 (replaced and renumbered as 660), 602, 603, 608, 630, 634, 637, 642, and 652. Water supply well 642 was considered to be representative of background concentrations because it was the closest active well to HPIA (ESE, 1988; 1991).

Water supply well samples were analyzed for full TCL parameters and in-field measurements of pH, specific conductance, and temperature. Locations of the water supply wells and monitoring wells are shown in Figure 2-5. Results of the chemical analyses are shown in Table 2-4 and the results of the in-field water quality measurements are presented in the RI document.

2.1.2 ESTABLISH A SET OF CHEMICAL/SITE-SPECIFIC EVALUATION CRITERIA

On February 10, 1992, EPA Region IV, in Atlanta, Georgia, released interim guidance on developing toxicity equivalency factors (TEF) for carcinogenic PAHs (Table 2-5). The TEF is used to convert each PAH concentration to an equivalent concentration of benzo(a)pyrene (BaP). In addition, the guidance document presented a new oral cancer slope factor for BaP (5.8 mg/kg/day), and presented new values for dermal exposures and soil to skin adherence factors. All of the interim values suggested by EPA Region IV have been incorporated into this document, and all appropriate calculations modified accordingly.

Establishing chemical/site-specific evaluation criteria is part of the second step in selecting COCs and involves: 1) examining historical information to identify the types of chemicals reliably associated with site activities; 2) identifying chemicals that are potentially carcinogenic (i.e., benzene) as indicated by their weight-of-evidence (WoE) classification (Tables 2-5A and 2-6); 3) evaluating chemicals for their mobility, persistence, frequency of detection (Tables 2-1 to 2-4), and their bioaccumulation potential in the environment; 4) considering exposure to chemicals through special routes (i.e., some chemicals are highly volatile and may pose significant inhalation risk due to the home use of contaminated water, particularly for showering [EPA, 1989a]); 5) evaluating the treatability of chemicals since some chemicals are more difficult to treat than others during remediation; and 6) identifying chemicals that exceed Applicable or Relevant and Appropriate Requirements (ARARS) (i.e., drinking water standards) (Table 2-7), site-specific, or literature derived background values (Table 2-8).

A list of the inorganic and organic chemicals detected in HPIA intermediate and deep groundwater and surface soil samples is presented in Tables 2-1 through 2-4, as are the minimum and maximum concentrations, and the frequency of detection in each media sampled. The maximum concentration is the highest quantified

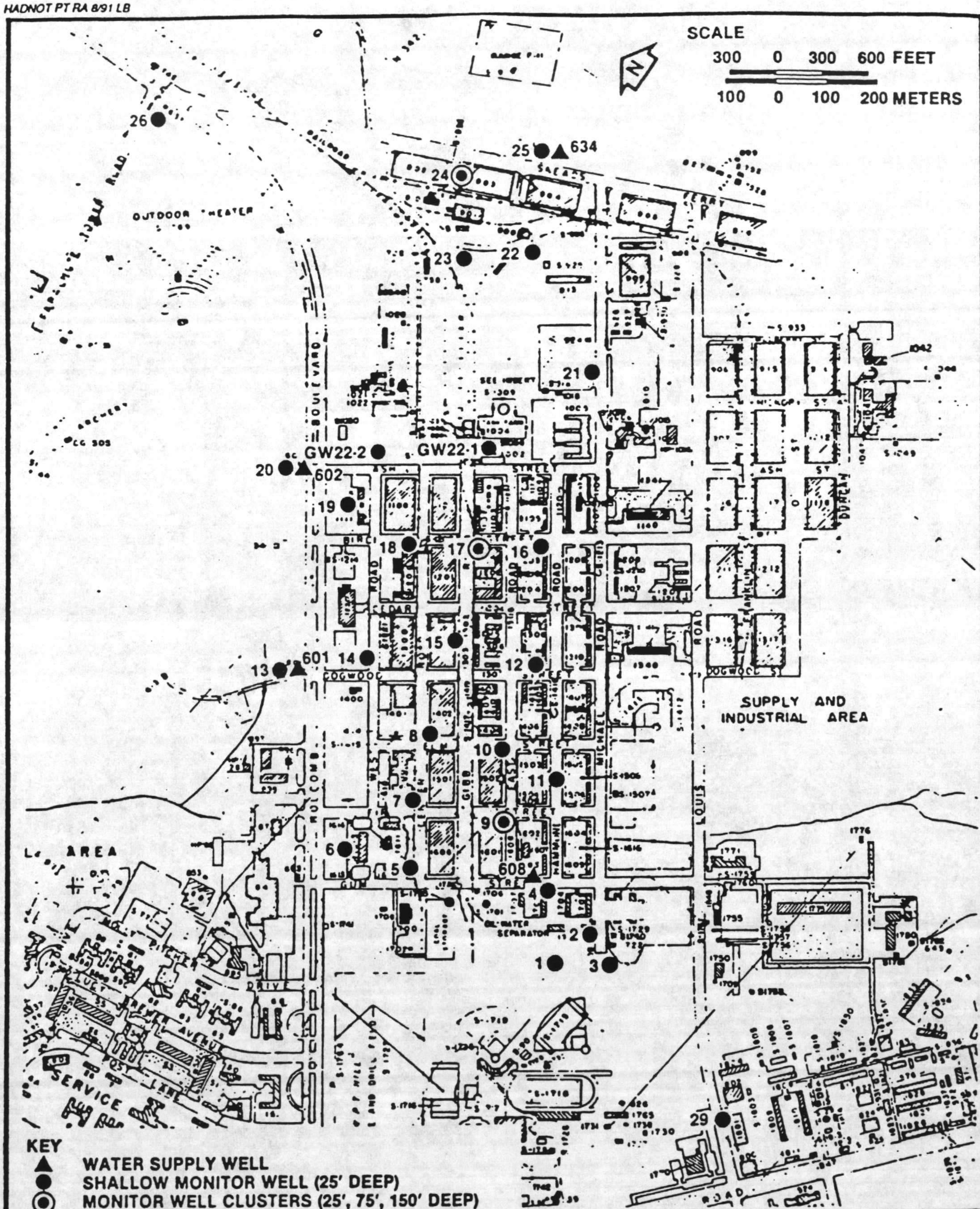

Figure 2-5
MONITORING WELLS AND WATER SUPPLY WELLS AT HADNOT POINT INDUSTRIAL AREA
SOURCE: ESE, 1987.

MARINE CORPS BASE
CAMP LEJEUNE