4.4 JUDGEMENTAL SAMPLE COLLECTION

Judgmental sampling, also called “biased sampling,” “non-statistical sampling,” “purposive sampling,” and “subjective sampling,” is different from “probabilistic or statistical sampling” such as the *Multi-increment* sampling approach encouraged by the HEER Office and described in Section 4.2. The judgmental sampling approach does not provide equal probability that all portions of the DU will be selected for sampling and analysis, and this bias means that reliable estimates of parameters such as the average concentration of contaminant(s) in the DU are impossible to obtain. The data collected in judgmental sampling is only representative of the very specific sample locations used, and cannot be used to infer concentrations outside the specific sample locations or within the entire DU.

As a result of the bias of this sampling approach, its use is limited and relies heavily on how well the sample contamination distribution is known by the sample collector. Typically, this type of sampling would be limited to an easily observable decision unit such as an obvious spill area where the intent of the sample collection and analysis is only to qualitatively confirm COPCs that are known to have been spilled. Even in these cases, a *Multi-increment* sampling approach would be preferred to ensure that the entire spill area was adequately characterized.