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Nota di contenuto	1. Geology and environmental site investigation overview -- 1.1 Introduction to geology and environmental site investigation -- 1.2 Site geology -- 1.2.1 Geology basics -- 1.2.2 Geologic formations -- 1.2.3 Rock types and characteristics -- 1.2.4 Soil types and characteristics -- 1.2.5 Groundwater, aquifers, and contamination -- 1.3 Field identification -- 1.3.1 Geologic formations -- 1.3.2 Rock types -- 1.3.3 Soil types -- 1.3.4 Groundwater and aquifers -- 1.4 Special considerations for environmental site investigation -- 1.4.1 Contaminant of concern and contaminant transport -- 1.4.2 Groundwater flow -- 1.4.3 Aquifers and public water supplies -- 1.4.4 Wetlands and tidal zones -- 1.4.5 Political implications -- 2. Site research, in the office -- 2.1 Introduction to site research -- 2.2 Historical information -- 2.2.1 Aerial photography -- 2.2.2 Previous projects -- 2.2.3 Contaminant transport -- 2.3 Topographic maps -- 2.4 Geologic maps and soil maps -- 3. Site investigation, in the field -- 3.1 Introduction to site investigation -- 3.2 Surface investigation -- 3.2.1 Vegetation and topography -- 3.2.2 Outcrops -- 3.2.3 Surface water and existing wells -- 3.2.4 Surface site investigation exercise -- 3.3 Subsurface investigation -- 3.3.1 Health hazard implications for environmental sites -- 3.3.2 Soil borings and sampling -- 3.3.3 Test pits -- 3.3.4 Hand sampling tools -- 3.3.5 Groundwater sampling and monitoring wells -- 3.3.6 Logs and data collection --

4. Soil and site classification -- 4.1 Introduction to soil classification -- 4.1.1 Laboratory testing -- 4.1.2 Soil classification -- 4.1.3 Contaminants of concern -- 4.1.4 Comparison with historical data -- 4.2 Introduction to site classification -- 4.2.1 Site mapping -- 4.2.2 Subsurface mapping -- 4.2.3 Accuracy and reliability -- 4.3 Introduction to dynamic site investigation -- 4.3.1 Initial site investigation -- 4.3.2 Dynamic site investigation -- 4.3.3 Monitoring and modeling -- Bibliography -- Index.

Sommario/riassunto

Environmental site investigation and characterization is a complex process that often includes a large number of variables, a limited number of resources, and not nearly enough time to complete properly. The investigation of a site is, however, potentially the most important part of an environmental project. Site investigation is so important because nearly all other aspects of the project, from financial decisions to engineering designs and construction tasks, are based on the findings of an initial site investigation. How a problem is solved is always determined by what problem solvers know about the problem; in general, the site investigation tells the site investigator everything that needs to be known about a site. The goal of site investigation is to understand the conditions present at a site and to choose a method to record and present the findings for later reference. Economic and political factors often play a large role in the depth and accuracy of environmental site investigations. The amount of time and resources needed to provide a complete and thorough site investigation is often lacking due to one or more economic or political factors. By going step by step through the site investigation process, students and practitioners can see the great importance site investigation lends to the overall success of a project. Additionally, by gaining a thorough understanding of the current state of technology and methodology used for environmental site investigation, readers will better understand how to make their site investigations more efficient and beneficial to a project.