

ALPINE COUNTY MONITORING WELL INSTALLATION PROGRAM

1.01 GEOLOGIC RECORDS AND DOCUMENTATION

A. Boring Logs

1. Prepare and complete a borehole log for each boring drilled. Provide the log scale at 1 inch equals 10 feet. Keep copies current and complete of all well logs in the field at each well site and make available at all times for inspection by the District. All borehole logs shall be complete and include at a minimum:
 - a. Depth (in feet);
 - b. Sample Interval(s);
 - c. Predominant Grain Size;
 - d. Soil Moisture;
 - e. Sample Interval Photo Log;
 - f. Depth of any observed fractures, weathered zones or any abnormalities;
 - g. USCS Classification; and
 - h. Lithologic Description.
2. Borehole log headers shall include at a minimum the following:
 - a. Project Name and Site Description (Geographic).
 - b. Boring/well identification number.
 - c. Name of drilling firm, make and model of drilling equipment and drilling method used.
 - d. Drilling Dates (Start & Finish)
 - e. Reference Elevation(s) for all depth measurements
 - f. Nominal hole diameter and total depth of boring.
 - g. Depth to water and date/time measured during drilling and prior to well installation.

B. Installation Diagram

1. Installation diagrams shall include as a minimum the following:
 - a. Project Name and Site Description (Geographic).
 - b. Well identification number.
 - c. Name of drilling firm, and name and signature of person preparing the diagram.
 - d. Date of well installation
 - e. Description of material from which the well is constructed including well casing and screen, centralizers (if used), diameter and schedule of casing and screen, filter pack brand name and gradation, bentonite seal brand name and size, grout type (including mix ratios) and type of well cover (stand up or flush-to-grade).
 - f. Nominal hole diameter and total depth of well.
 - g. Depth to top and bottom of well screen; filter pack and annular seals.
 - h. Type, slot size and manufacturer of well screen.
 - i. Static water level upon completion of the well prior to and after well development.

ALPINE COUNTY MONITORING WELL INSTALLATION PROGRAM

C. Well Development Records

1. Prepare and complete a well development record for each monitoring well developed in accordance with Section 3.01 J.
2. Well development records shall include as a minimum the following:
 - a. Name and job title of individual developing well.
 - b. Well identification number, total well depth, and date of development.
 - c. Method used for development, including size, type and make of equipment, bailer and/or pump used during development.
 - d. Volume and physical character of water removed, to include changes during development in clarity, color, sediment and odor.
 - e. Date/Time record of readings of pH, specific conductance and temperature taken, before, during and after development.
 - f. Date/Time record showing total depth of well and static water level from top of casing in the well prior to development, immediately after surging/pumping development and 24 hours after development.

D. Well Abandonment Records

1. Prepare and complete a test hole/well abandonment record for each test hole/monitoring well destroyed in accordance with Section 3.01 L.
2. Abandonment records shall include as a minimum the following:
 - a. Name of the project and site.
 - b. Boring/well identification number.
 - c. Well/boring location, depth and diameter.
 - d. Date of destruction/abandonment.
 - e. Description and total quantity of grout used in the well destruction/abandonment procedure and the intervals in which sealing materials were placed.
 - f. Casing and other well construction materials left in the borehole by depth, description and composition.
 - g. Reason for destruction/abandonment of monitoring well/test hole.