

GROUND WATER

Ground Water Monitoring Studies

Confidential Client – Boulder, Colorado



Monitor well installation

The owner of a large vacant lot had concerns over the potential for ground water contamination generated by a nearby facility. Martin and Wood personnel analyzed the site and the likely source area and developed a monitoring well layout and design to facilitate assessment of the site conditions with a high level of certainty.

The monitor wells were installed and developed and then were periodically measured over a period of months to allow for determination of ground water gradients and flow direction. With this information in hand, and indicating that there could be a potential for contamination from the adjacent site, slug testing was carried out on the monitor wells to develop information on the aquifer characteristics, particularly hydraulic conductivity. A water quality sampling program was then commenced that did detect a small plume of contaminated ground water at the up-gradient edge of the site.

The data derived from the monitoring study was utilized in the development and construction of a ground water flow and contaminant transport model that was used to assist in the design of a remediation program aimed at reducing the impacts on the subject site and limiting the further migration of the contaminant plume.

AMAX Corporation - Henderson Mine

The Amax Corporation required a water supply well to provide water to the transfer facility to be built as part of a massive, high-capacity conveyor system that would move molybdenum ore from the Henderson Mine to the mill facility, a distance of several miles. The conveyor was replacing the older tram-cart system that required operators on board and that was too inefficient to make the most effective use of the mill capacity.

The general site area was particularly problematic with respect to the local geology, consisting of glacial tills, boulders, and heavy gravels.

Martin and Wood designed a monitor and test well system to aid in the definition of the most potentially productive location for the well. A number of wells were constructed and tested and then monitored over several months to determine whether seasonal variation in the water table would be a factor. This was in fact the case, and the data allowed Martin and Wood to define a suitable location. The production well was constructed, completed, and equipped and is now providing a reliable supply to the facility.

Martin and Wood Water Consultants, Inc.

602 Park Point Drive, Suite 275 • Golden, CO 80401 • Phone: (303)526-2600 • Fax: (303)526-2624

