

# EXHIBIT B

## **Specifications for Two Monitoring Wells and One Exploration Boring at Tempe's Kyrene Water Reclamation Plant**

### **Introduction**

The City of Tempe is planning a groundwater recharge project at its Kyrene Water Reclamation Plant. In support of this project we need to drill two monitoring wells and one exploratory boring at the Kyrene Plant. The City of Tempe's Water Resources Hydrologist will provide drilling oversight.

### **Mobilizations/Demobilization**

This task includes mobilizing and demobilizing all necessary equipment, materials, supplies and personnel to the Kyrene Water Reclamation Plant at 311 West Guadalupe Road in Tempe, Arizona. This task also includes site setup and arranging for a water source.

### **Drilling**

The City prefers that the wells and boring be drilled by either the dual-wall air rotary method or by sonic method.

All three borings should be approximately 10 inches in diameter and drilled to a depth of approximately 170 feet below ground surface. Final depth of each hole and the screened interval of the two monitoring wells will be determined by the City Hydrologist based on lithology.

We do not expect to hit bedrock at this site. The contractor should anticipate drilling through unconsolidated gravel, sand, silt and clay with a water table at about 100 feet below ground surface.

### **Completing the Exploration Boring**

The sole purpose of the exploration boring will be to log lithology and collect samples for grain size analysis. Once completed, the boring will be abandoned as per Arizona Department of Water Resources (ADWR) standards. If the boring is done in a paved area the pavement should be patched.

### **Casing the Wells**

The two wells will be cased with 5-inch, schedule 80, flush joint PVC well casing. The casing will consist of approximately 70 feet of #20 slot perforated casing and 100 feet of blank casing.

### **Completing the Wells**

The contractor will provide and install a filter pack of 10-20 Colorado Silica Sand, or equivalent. The filter pack will be placed by tremie pipe from the bottom of the hole to a depth approximately 10 feet above the top of the well screen. The contractor will provide and install a two foot thick bentonite seal above the filter pack. He will then install a cement grout from the top of the bentonite seal to the land surface. The grout will also be installed by tremie pipe.

### **Well Development**

The Contractor should provide necessary tools to develop the two monitoring wells by swab/airlift, bailing, or other method approved by the City Hydrologist. Development will proceed until the wells produces clear, sediment free, water.

### **Surface Completion**

Depending on location, the well may either be completed as flush mounted water tight vault or with a two to three foot stick up with protective casing and ballards.

### **Site Cleanup**

All drilling should be contained on-site until the wells and exploration boring are complete. Wastes will be disposed of in an appropriate manner. We do not anticipate that the drill cuttings will be contaminated and therefore will not have to be handled as a hazardous waste. The site should be returned to as close to original condition as is reasonable.