

SITE REGISTRY REPORT (FINAL)

WATER QUALITY ASSURANCE REVOLVING FUND SITE 56th STREET & EARLL DRIVE Phoenix, Maricopa County, Arizona April 2004

The 56th Street & Earll Drive Water Quality Revolving Fund (WQARF) Registry site (the Site) consists of a contaminated groundwater plume located in the vicinity of the intersection of 56th Street and Earll Drive, Phoenix, Arizona. The Site is bounded to the north by Earll Drive, to the south by McDowell Road, to the east by 56th Street and to the west by 38th Street. The Site was originally investigated as part of the Motorola 52nd Street National Priorities List (NPL) site. However, groundwater data from both sites indicate that the two are separate and distinct plumes. Therefore, the Site was disassociated from the larger Motorola 52nd Street NPL site in 1989.

Arizona Revised Statutes (A.R.S.) § 49-287.01 outline the process for completing Preliminary Investigations and listing sites on the WQARF Registry. Upon completion of the Site's Preliminary Investigation, an Eligibility & Evaluation (E&E) scoring document and a Site Registry Report (SRR) were drafted in November, 2003. In a November 5, 2003 ADEQ letter, copies of the drafts were provided to Motorola, Inc. initiating the statutory 15-day owner/operator comment period. Based on information received from Motorola, Inc., the E&E scoring document and SRR were redrafted in December, 2004. Copies of the drafts were then placed in the public file and the score was published in the *Arizona Republic* on February 3, 2004, to initiate the statutory 30-day public comment period. The public comment period ended on March 4, 2004. Subsequently, all comments received were considered before finalizing the attached E&E scoring document and this final SRR.

Background

A 14-acre industrial facility (the Facility) located at the northwest corner of 56th Street and Earll Drive has been in operation since 1950. From 1950 until 1958, the Facility was used for electronic assembly and semiconductor production. The chemicals used in these processes included solvent degreasers such as trichloroethylene (TCE), and arsenic. From 1959 until 1961, the Facility was used for document storage. Beginning in 1962, electronics manufacturing resumed and included circuit board assembly, and plating and degreasing. In 1962, the Facility was connected to the City of Phoenix sewer system, and industrial waste discharge to the environment was reduced. Discharges that continued after 1962 included overflows to the leach field and the disposal of 55-gallon drums containing mixed solvents in shallow holes. Chemicals used between 1962 and 1974 included TCE and tetrachloroethylene (PCE). From 1950 until approximately 1974, an estimated 19,604 gallons of solvents and 305 pounds of metals were discharged into the environment. These estimates are thought to be overly conservative and are based on pipeline size and other indirect methods. From 1975 until 1982, the Facility manufactured liquid crystal products. In 1982, the Facility was converted into office space.

Groundwater flow at the Site varies, and is currently to the southwest. The depth to groundwater at the Site is approximately 11-18 feet below ground surface (bgs). Bedrock was encountered at 24 feet bgs during the installation of one of the on-site monitor wells.

According to the most recent groundwater analytical data available in the WQARF file (4th quarter 2001), the maximum concentration of TCE groundwater contamination detected at the Site is 960 micrograms per liter ($\mu\text{g/L}$). Please refer to the attached table. The Aquifer Water Quality Standard (AWQS) for TCE is 5.0 $\mu\text{g/L}$. In 1984, TCE was detected in groundwater at a number of Salt River Project wells located northwest

(currently crossgradient) of the Facility. To date, the source of the TCE groundwater contamination in the SRP wells has not been identified.

A risk assessment was performed by the Arizona Department of Health Services (ADHS) in 1994. The risk assessment used groundwater sampling data for the years 1985 to 1993. At the time of the report, groundwater data was available for five private irrigation wells and 37 monitor wells. Of the five private irrigation wells, three of the wells had arsenic concentrations ranging from 8 to 96 µg/L. The AWQS for arsenic is 50 µg/L. The water provided by these wells is not used for human consumption, although the Arizona Department of Water Resources (ADWR) database lists the wells as domestic use wells. The source of the arsenic contamination has not been determined at this time and may be naturally occurring and not related to activities formerly conducted at the Facility.

There are no production wells within the boundaries of the Site. The City of Phoenix obtains most of its drinking water supply from a blended system that uses surface water and groundwater. The private irrigation wells discussed in the risk assessment report may be within the current boundaries of the groundwater plume. Monitor wells appear to be the only wells impacted by this groundwater plume.

The E&E score for this proposed site is 40 out of a possible 120. ADEQ has identified only one social or economic factor associated with the Site, potential future loss of groundwater resources.

Rationale to list the Site on the WQARF Registry

- C Motorola has indicated that they intend to implement an Early Response Action to contain the plume migration.
- C The groundwater plume is ½ mile long and has TCE contamination up to 960 µg/L.
- C Five private irrigation wells are located in the vicinity of the Site that potentially would provide a route for human exposure.
- C The E&E score for the Site is 40 out of a possible 120.

This SRR is based upon information available to date. Site boundaries depicted on the attached Site Boundary Map represent ADEQ's interpretation of data available at the time the map was constructed. The map is intended to provide the public with basic information as to the estimated geographic extent of known contamination as of the date of this SRR. The actual extent of contamination will be investigated and the geographic boundaries for the Site may change in the future as new information becomes available.

An updated SRR and associated Site Boundary Map will not be issued. As new information becomes available, it will be made available for public review through placement in the public file.