

SITE REGISTRY REPORT
Vulture Mill Site
NW SW NW Sec 1 T7N, R5W Maricopa County
Wickenburg, Arizona
April 27, 1998

The Vulture Mill Site (the site) is located approximately 1/4 mile east of North Tegner (Highways 89 & 93) approximately 1 mile northwest of the center of the Town of Wickenburg, Arizona. The eastern boundary of the site is approximately 1/4 mile west of the Hassayampa River Channel. The geographic coordinates of the southeast corner of the site are 33° 58' 45.7" North Latitude, 112° 44" 00" West longitude. The site is located in a riparian area associated with the Hassayampa River. The site is on private land and consists of a former gold-ore milling facility and approximately 40 thousand tons of stockpiled mine tailings. Figure 1, attached, outlines the area of soil where lead contamination is above the regulatory threshold of 400 mg/kg (Residential Soil Remediation Level for Lead, effective 12/4/97).

Pathways of concern include soil, groundwater, and surface water. The Arizona Department of Environmental Quality, (ADEQ) has conducted limited investigations to date and confirmed concentrations of lead, a heavy metal, in the tailings above both the residential and non-residential soil remediation levels (SRLs). Tailings are, and have been, transported off the property by wind and surface water erosion into the floodplain of the Hassayampa River. The mechanical transport of the tailings was confirmed by observation and laboratory analysis. However, due to the current vegetation on site, and the solidification of the tailings over time, these transport mechanisms are considered to be minimal based on current information. The primary transport mechanism known to date is the heavy metal leachate migrating into the shallow groundwater aquifer. Leachate is defined as a contaminated liquid resulting when water percolates or trickles through waste materials and collects components of those wastes.

Analyses of the tailings also showed leachable lead values above the Resource Conservation and Recovery Act (RCRA) maximum concentration for toxicity of 5 mg/l. Analysis of limited groundwater samples reveal that lead, chromium and mercury have leached from the tailings and contaminated the shallow groundwater above Aquifer Water Quality Standards. Groundwater contamination has migrated an unknown distance to the southeast in the direction of groundwater flow. Historical sampling has provided evidence that the shallow portion of the aquifer (less than 100 feet) has been impacted by the tailings. A groundwater remedial investigation and feasibility study (RI/FS) to evaluate the horizontal and vertical extent of the groundwater contamination is expected to be completed in the Summer of 1998. To date, there are no data to indicate that the deeper portion of the aquifer (greater than 100 feet deep) has been impacted from the contamination migrating from the tailings. Public supply wells and private wells located from 1/4 to 1 mile down gradient of the site and completed in the deeper aquifer have not been impacted to date. The groundwater surfaces approximately 4-5 miles downstream of the site at the Hassayampa River and becomes perennial flow. Thus, there is a potential for surface water to be impacted.

This site scored 65 using the adopted eligibility and evaluation (E&E) form. This Site Registry Report (SRR) is based upon information available as of the date shown. The SRR is intended as a historical document meeting the public notification requirements of Arizona Revised Statute (A.R.S.) § 49-287.01 (B) and (D). Site boundaries depicted on the attached Site Boundary Map represents ADEQ' s interpretation of data available at the time the maps were 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 the SRR. The actual extent of contamination may be different. Therefore, the geographic boundaries for this 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. Interested persons are encouraged to review current information, and more detailed historical information, located in the public site file at ADEQ Phoenix Office (Site File #E-5680).

REFERENCES

Vulture Mill Site Registry Report
Located Within NW Sec 1 T7N, R5W Maricopa County
Wickenburg, Arizona

1. “Contamination of Water and Soils at the Vulture Mill Site, Wickenburg, AZ March 31 and April 7, 1992”, October 1, 1992. Report prepared by Peter Hyde of the Arizona Department of Environmental Quality.
2. “Engineering Evaluation & Cost Evaluation of Remedial Action Requirements: Vulture Mill Site; Wickenburg, Arizona”, May 23, 1997. Report prepared by Western Technologies, Inc. for the Arizona Department of Environmental Quality.
3. “RI/FS Workplan: Vulture Mill Site”, December 24, 1997. Report prepared by Dames & Moore for the Arizona Department of Environmental Quality.