

Attachment A  
Previous Site Investigations  
Mt. Jackson Mercury Mine 13267 Order

**Summary**

State agencies began investigating the Site in March 1980 when concerned citizens brought it to the attention of first the Regional Water Board and California Occupational Safety and Health Administration (CAL-OSHA), and then to the California Department of Health Services (CDHS). The agencies sampled Wilson Creek, vegetation, creek sediments, an onsite well, the tailings piles, soil, pond water, seeps, and sand and gravel from the aggregate operation. CDHS also conducted air monitoring in June 1980. The results of these investigations are summarized in the United States Environmental Protection Agency's (USEPA's) Comprehensive Environmental Response Compensation and Liability Act (CERCLA, a.k.a., Superfund) Site Inspection Memorandum, dated August 30, 1989 (Attachment D).

**March 20, 1980, Regional Water Board Investigation Results**

On March 19, 1980, a resident reported results of total mercury analysis on water samples from Wilson Creek, adjacent to the Site, of 6 µg/L (micrograms per liter). Drinking water standards are 2 µg/L. Consequently, Regional Water Board staff conducted an investigation. The results of the data collected during the investigation indicated that mercury detected in Site soil and surface water could not conclusively be attributed to Site activities.

Below is a summary of investigation findings:

- a. Mercury was found in Wilson Creek, up-gradient of the mine, at up to 0.72 µg/L. Down-gradient of the mine, mercury was found at up to 1.0 µg/L. The seep sampled by the mine contained 3.3 µg/L of mercury. Although average concentrations of total mercury were significantly greater downstream of the mine, mercury occurs in Wilson Creek regardless of the existence of the mine;
- b. The groundwater well samples collected were all less than 1 part per billion (ppb) total mercury. In fact, four of the five samples were less than 0.5 µg/L. All the samples analyzed for dissolved mercury contained less than 0.5 µg/L of mercury (the detection limit); and
- c. Results showed the seep area to be the major contributor to elevated mercury concentrations in Wilson Creek. However, those results pointed to no measureable input of mercury to the surface water of Wilson Creek from the Piombo aggregate operation. In fact, total mercury concentrations in Wilson Creek decreased after the initial input of mercury from the seep area. The most probable cause for that decrease would be settling of particulates contributing to the total mercury concentration and/or dilution from other water sources.

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In 1981, the Regional Water Board requested a Report of Waste Discharge from the Piombo Corporation. The Piombo Corporation did not provide a response, and ceased activities at the Site. Due to the Piombo Corporation's abandonment of the Site and the findings from the March 20, 1980 investigation, the Site's case file became inactive.

August 30, 1989, USEPA CERCLA Site Inspection Prioritization (SIP)

On February 6, 1989, CDHS staff conducted a SIP on behalf of the USEPA to determine the Site's eligibility for placement on the National Priorities List (NPL). Based on the results of the SIP and pursuant to the criteria of the Hazard Ranking System (HRS)<sup>1</sup>, it was determined that the Site would not be eligible for placement on the NPL and no further action under CERCLA would be taken due to the following factors:

- a. Lack of an observed release of contaminants from the Site to the groundwater, surface water, or air; and
- b. An insufficient value for the groundwater and surface water route characteristics;
- c. Surface water and groundwater water onsite is not consumed; and
- d. Mercury is naturally occurring in the Site's bedrock.

March 10, 1994, USEPA CERCLA SIP (Attachment E)

On March 10, 1994, Bechtel Environmental, Inc. staff conducted a SIP on behalf of the USEPA to determine the Site's eligibility for placement on the NPL. Based on the results of the SIP and pursuant to the criteria of the HRS, it was determined that the Site would not be eligible for placement on the NPL and no further action under CERCLA would be taken due to the following factors:

- a. The Site is located in a sparsely populated area so there are few exposure targets;
- b. The Sweetwater Springs and Armstrong Valley Water Districts have never detected mercury in their drinking water wells; and
- c. DTSC and Regional Water Board's Site case files are inactive.

June 3, 2016, Regional Water Board Investigation (Attachment C)

On June 3, 2016, California Department of Conservation staff and North Coast and San Francisco Bay Regional Water Board staff (Staff) met with the Owners to conduct a Site inspection. Staff's inspection objective was to sample areas onsite to identify the extent of

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<sup>1</sup> The HRS considers observed release, route characteristics, waste characteristics, and targets of exposure.

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mercury that might create the potential for pollution in storm water runoff from the Site. As a result of the investigation, Staff recommended the following:

- a. Characterization of mercury concentration in soils that are eroding to the creek;
- b. A characterization of mercury concentration in Wilson Creek during a rain event;
- c. Implementation of both short-term and long-term erosion control to prevent the mine wastes from being discharged to Wilson Creek during storm events; and
- d. Assessment of potential cleanup of mine wastes that have been deposited in the creek.

November 18, 2016, Regional Water Board Groundwater Memo (Attachment F)

On November 18, 2016, Jeremiah Puget, Groundwater Specialist for the Regional Water Board, issued a memo titled "*Groundwater Data for Mercury in Guerneville/Sonoma County*" (Memo). The Memo summarizes available mercury data from public water supply wells, monitoring wells, Groundwater Ambient Monitoring and Assessment (GAMA) special studies, in the GeoTracker/GAMA program database within a five-mile proximity to the Site. The Memo states the following:

- a. Dozens of samples collected downstream and upstream from the Site between 1985 and 2016 showed no detection of mercury;
- b. The closest down-gradient wells are two public water supply wells for Armstrong Redwoods State Park. These wells have been sampled for 16 times between 1985 and 2014 and all mercury results were non-detect.
- c. The only two detections of mercury within the five-mile radius were located upstream of the Site.

February 22, 2017, Cal Water Test Results (Attachment G)

On February 22, 2017, Cal Water, a water utility company that provides drinking water to Guerneville residents, reported in an article on their website<sup>2</sup> that their tests of drinking water wells, which are located downstream of the Site, showed no detectable levels of mercury in the water supply. Cal Water is required by the State Water Resources Control Board's Division of Drinking Water to test for mercury in the drinking water supply every

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<sup>2</sup> The drinking water supply results from Cal Water were also reported in a Press Democrat article, also dated February 22, 2017, titled *Guerneville residents need not fear mercury in their water, tests show*. The article may be accessed here: <http://www.pressdemocrat.com/news/6697912-181/guerneville-residents-need-not-fear>

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three years. Cal Water reported in the February 22, 2017, article that since they began operating in 2000, all water quality test results for mercury have been “non-detect”.