





LEGEND:

- Groundwater Monitoring Well
- Agricultural Supply Well
- Domestic Supply Well
- Other Supply Well
- Groundwater Extraction Well (Active)
- Multifuse Test Well, or Inactive Extraction/Injection Well
- Inactive In Situ Reactive Zone Injection Well
- Freshwater Injection Well
- Monitoring Well installed or Sampled for 2015 CAO (Water Board 2015) Investigation
- PG&E Owned Property
- PG&E Compressor Station
- County Parcel
- Approximate Location of Saturated Alluvium Upper Aquifer
- Approximate Location of Lockhart Fault
- Fault Trace is Inferred, and There is No Surface Expression (Shanos et al. 2001)
- Bedrock Exposed at Ground Surface

Abbreviations:

µg/L: Micrograms per Liter
 CAO: Cleanup and Abatement Order
 Cr(VI): Hexavalent Chromium
 Cr(III): Trivalent Chromium
 J: Estimated Result
 ND: Not Detected
 NS: Not Sampled

Groundwater Cr(VI) Concentrations in Monitoring Wells:

- More than 1,000 µg/L
- 100 to 1,000 µg/L
- 50 to 100 µg/L
- Less than 3.1 µg/L or ND

Groundwater Cr(III) Concentrations in Monitoring Wells:

- 10 to 50 µg/L
- 3.1 to 10 µg/L
- Less than 3.1 µg/L or ND
- 3.1 to 10 µg/L

NOTES:

- Chromium results are shown for Site-wide Groundwater Monitoring Program and domestic wells sampled in the Fourth Quarter (October through December) 2016 monitoring period. For wells sampled multiple times during the reporting period, the most recent results are shown.
- The concentration contours are based on Fourth Quarter 2016 chromium results for the groundwater monitoring and extraction wells that are completed in the shallow zone and deep zone of the Upper Aquifer as noted on Figures 5-1 and 5-2. Results for domestic wells (brown-colored labels) were not used for chromium plume contouring, except for those in the northern dispersed plume areas, pursuant to the Lahontan Regional Water Quality Control Board's Cleanup and Abatement Order dated November 4, 2015.
- Pursuant to the Lahontan Regional Water Quality Control Board's Cleanup and Abatement Order dated November 4, 2015, groundwater monitoring wells are not used for chromium contouring if they are located in the area southwest of the Lockhart Fault and on or east of Dixie Road. Monitoring wells sampled southwest of Lockhart Fault and east of Dixie Road were sampled in support of United States Geological Survey background chromium investigations.
- Chromium plume contours in the general area south of Highway 58, were developed using a larger set of monitoring data which is presented in the January 30, 2017 Fourth Quarter 2016 Monitoring Report for the In-Situ Reactive Zone and Northwest Freshwater Injection Projects (Alcudia 2017). Select wells from that program were used for reference.
- Chromium contours were changed on the eastern side of the plume during the Third Quarter of 2016. These changes were made based on discussions with the Water Board, requirements in the Order and professional judgement. These changes to the plume contours on the eastern side of the plume reflect a revised interpretation of monitoring data and do not indicate plume expansion.

WORKS CITED:

Alcudia, 2017. Fourth Quarter 2016 Monitoring Report for the In-Situ Reactive Zone and Northwest Freshwater Injection Projects, Pacific Gas and Electric Company, Hinkley Compressor Station, Hinkley, California, California Regional Water Quality Control Board, Lahontan Region Order No. RB0910701, January 30.

Shanos, C.L., P. Martin, T. Nishikawa, and B.F. Cox. 2001. Simulation of Ground Water Flow in the Mojave River Basin, California. U.S. Geological Survey Water-Resources Investigations Report 01-4002, Version 3. Prepared in cooperation with the Mojave Water Agency.

Water Board. 2015. Cleanup and Abatement Order No. REV-2015-0068 Requiring Pacific Gas and Electric Company to Cleanup and Abate Waste Discharges of Total and Hexavalent Chromium to the Groundwaters of the Mojave Hydrologic Unit, November 4.

FIGURE 5-5
CHROMIUM RESULTS FOR FOURTH QUARTER 2016
GROUNDWATER MONITORING AND
DOMESTIC WELL SAMPLING AND MAXIMUM
COMPOSITE PLUME OUTLINE IN UPPER AQUIFER

FOURTH QUARTER 2016 GROUNDWATER MONITORING REPORT AND DOMESTIC WELL RESULTS SITE-WIDE GROUNDWATER MONITORING PROGRAM

PACIFIC GAS AND ELECTRIC COMPANY
 HINKLEY COMPRESSOR STATION
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