







**LEGEND:**

- Groundwater Monitoring Well
- Agricultural Supply Well
- Domestic Supply Well
- Other Supply Well
- Groundwater Extraction Well (Active)
- Multuse Well, or Inactive
- Extraction/Injection Well
- Freewater Injection Well
- PG&E-Owned Property
- PG&E Compressor Station
- County Parcel
- Approximate Limit of Saturated Alluvium Upper Aquifer
- Approximate Location of Lockhart Fault
- Fault Trace is Inferred, and There is No Surface Expression (Stamos et al. 2001)
- Bedrock Exposed at Ground Surface

**Abbreviations:**

- µg/L: Micrograms per Liter
- Cr(VI): Hexavalent Chromium
- Cr(T): Total Dissolved Chromium
- ISZ: In Situ Reactive Zone
- 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
- 3.1 to 10 µg/L
- 50 to 100 µg/L
- 10 to 50 µg/L
- 3.1 to 10 µg/L
- Less than 3.1 µg/L or ND

**NOTES:**

- Chromium results are shown for Site-wide Groundwater Monitoring Program and domestic wells sampled in the Third Quarter (July through September) 2016 monitoring period. For wells sampled multiple times during the reporting period, the most recent results are shown.
- The concentration contours are based on Third 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 disputed 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 areas southwest of the Lockhart Fault and on or east of Duce Road. Monitoring wells sampled southwest of Lockhart Fault and east of Duce 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 October 28, 2016 Third Quarter 2016 Monitoring Report for the In Situ Reactive Zone and Northwest Freewater Injection Project (Arcadis 2016). Selected plumes from that program are shown here for comparison.
- 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 contouring on the eastern side of the plume reflect a revised interpretation of monitoring data and do not indicate plume expansion.

**WORK CITED:**

Stamos, 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.

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

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

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