

The 3.1/3.2 µg/L contour is shown as "-.-.-" where inferred and cannot be fully delineated by Fourth Quarter 2016 monitoring data.

6.2/7.2  
MW-193S3  
2.1/2.8

MW-162S1  
3.9/4  
MW-162S2  
ND/ND

MW-162S3  
0.42/ND

MW-161S1  
3.3/4  
MW-161S2  
3.1/4  
MW-161S3  
0.84/1.4

MW-174S1  
3.3/3.6  
MW-174S2  
2.3/2.8  
MW-174S3  
2.5/2.9

MW-212S1  
3.2/3.3  
MW-212S2  
2.9/2.9

MW-130S1  
3.7/3.8  
MW-130S2  
3.8/3.9

MW-131S1  
2.6/2.6

MW-133S1  
7.8/8  
MW-133S2  
0.59/1.3

MW-154S1  
8.7/8.9  
MW-154S2  
1.9/2.4

MW-136S1  
3.9/4.2  
MW-136S2  
ND/ND

MW-135S1  
3.7/4.5  
MW-135S2  
2.5/3

MW-137S1  
4.7/5.1  
MW-137S2  
4.6/4.9  
MW-137S3  
4.7/5.1

MW-200S1  
0.94/1.1  
MW-200S2  
ND/ND  
MW-200S3  
0.51/ND

MW-139S1  
4.1/4.5  
MW-139S2  
1.2/1.6

MW-140S1  
4.0/4.0  
MW-140S2  
3.9/3.9  
MW-140S3  
3.4/3.3

MW-175S1  
3.1/3.2  
MW-175S2  
3/3.5  
MW-175D  
2.6/3.6

MW-204S1  
3.2/3.3  
MW-204S2  
3.9/4  
MW-204D  
0.46/ND

MW-142S1  
4.4/4.6  
MW-142S2  
3/3.1  
MW-142S3  
2.7/3.4

MW-113S1  
2.9/2.9  
MW-113S2  
2.5/2.6  
MW-113D  
ND/ND

MW-111S1  
2.4/2.5  
MW-111S2  
2.3/2.6  
MW-111D  
ND/ND

MW-175S  
1.8/2.4  
MW-156S  
0.83/1.3

MW-123S1  
1.9/2.3  
MW-123S2  
1.8/2.2

MW-172S1  
2.9/3  
MW-172S2  
0.64/1.2

MW-126S1  
2.4/2.6  
MW-126S2  
1.4/1.7

MW-171S  
2.4/2.5  
MW-171D1  
ND/ND  
MW-171D2  
ND/ND

MW-89S  
2.4/2.5  
MW-89D  
0.81/ND

MW-83S  
1.9/2.1  
MW-83D  
0.72/1

Blanca Rd  
Petra Rd  
Pueblo Rd  
Serra Rd

Manacor Rd

Hinkley Rd

Salinas Rd

Holstead Rd

Roy Rd

Holstead Rd

Fossil Bed Rd

American Way

Burnt Tree Rd

Mountain View Rd

Orchard St

Sonoma St

Tindall Rd

22-21  
1.9/2.1

22-93  
2.6/3.0

22-44  
1.7/1.9

22-65  
ND/ND

22-62  
0.52/ND

22-80  
ND/ND

22-81  
0.65/ND

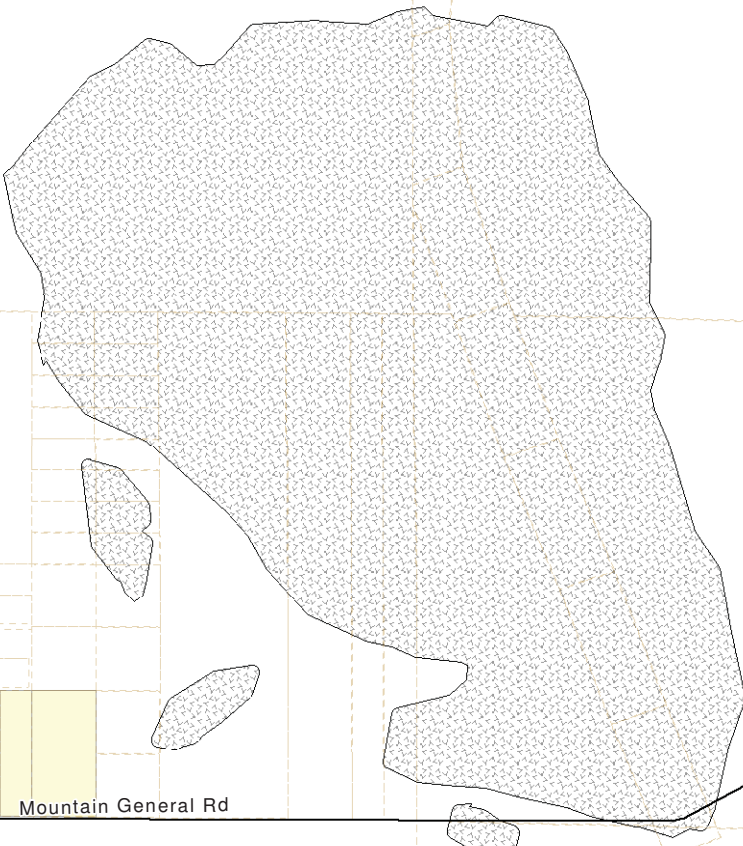
22-75

DW-03

Mountain General Rd

Burnt Tree Rd

Coon Canyon Rd



Mountain General Rd

Coon Canyon Rd

Coon Canyon Rd

Thompson Rd

SEE FOOTNOTE 3

30E-01  
1.8/1.8  
BGS-48  
0.16/ND

MW-166S1  
ND/ND  
MW-166S2  
ND/ND  
MW-197S1  
0.66/ND  
MW-197S2  
ND/ND  
MW-197S3  
ND/ND

MW-207S1  
7.1/6.4  
MW-207S2  
3.1/3.3

MW-138S1  
4.8/5  
MW-138S2  
4.5/4.7

MW-141S1  
3.4/3.4  
MW-141S2  
4/4.1  
MW-141D  
0.21/ND

MW-219S1  
4.2/4.6  
MW-219S2  
1.4/1.5

MW-104S1  
3.2/3.6  
MW-104S2  
2.9/3.1  
MW-104D  
ND/ND

MW-106S  
3.1/3.5  
MW-106D  
ND/ND

MW-124S2  
2  
MW-124D  
2/ND

MW-117S1  
65/ND  
MW-117S2  
1.2/1.2  
MW-117D  
ND/ND

MW-85S  
1.6/1.9  
MW-85D  
ND/ND  
MW-127S1  
3/3.1  
MW-127S2  
1.8

MW-70S  
1.6/2.1  
MW-70D  
0.41/ND

MW-69S  
1.3/1.1  
MW-69D  
1.6/2.6

MW-68S  
2.1/1.9  
MW-68D  
2.9/2.6

MW-105S  
2.7/3.6  
MW-105D  
ND/ND

MW-128S1  
7.7/9  
MW-128S2  
3.1/3.6  
MW-128S3  
1.7/2

MW-84S  
1.7/1.9  
MW-84D  
0.19/ND

EX-32  
0.77/1.4  
MW-206S  
2.3/3.1

MW-71S  
0.95/1.7  
MW-71D  
2/2.4

MW-72S  
4.8/4.9  
EX-31  
5.7/6.1

MW-107S  
2.4/2.8  
MW-107D  
0.24/ND

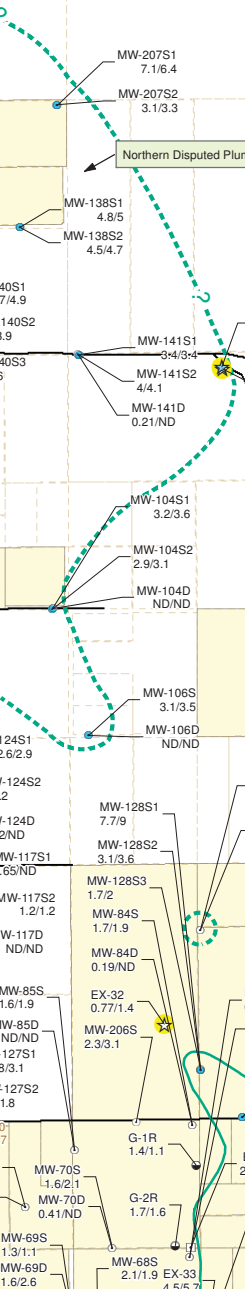
MW-94S  
6.1/6.9  
MW-94D  
3.8/4.5

MW-97S  
7/8

MW-55A  
1.8/2  
MW-79S  
5.7/6.5  
MW-79D  
ND/ND  
MW-80S  
1.2/1.3

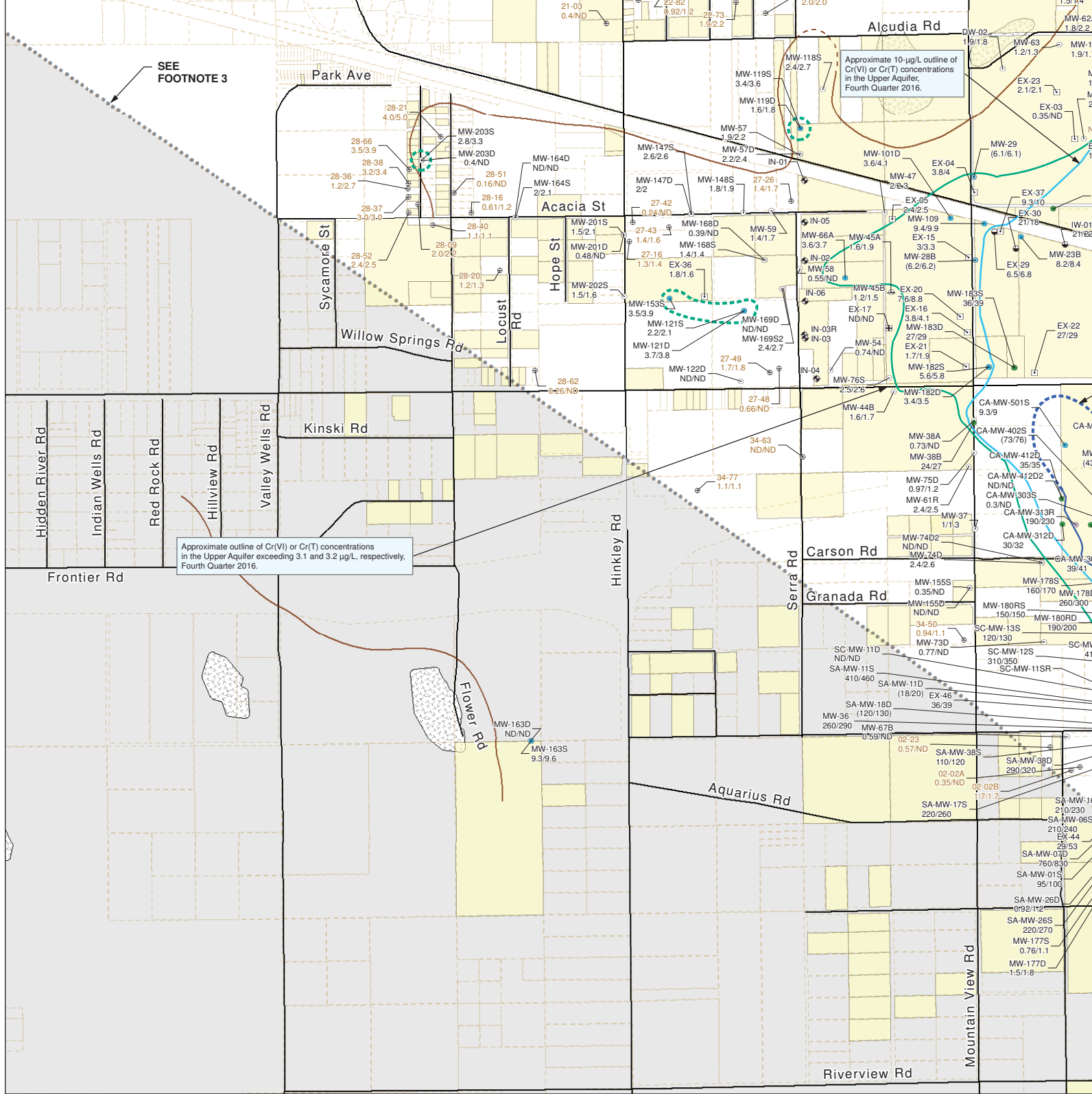
G-1R  
1.4/1.1  
G-2R  
1.7/1.6

EX-33  
4.5/5.7



Northern Disputed Plume Area





**LEGEND:**

- Groundwater Monitoring Well
- Agricultural Supply Well
- ⊕ Domestic Supply Well
- Other Supply Well
- Groundwater Extraction Well (Active)
- ⊕ Multiuse 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 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  
 CAO Cleanup and Abatement Order  
 Cr(VI) Hexavalent Chromium  
 Cr(T) Total Dissolved 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
- 10 to 50 µg/L
- 3.1 to 10 µg/L
- Less than 3.1 µg/L or ND

**Groundwater Cr(VI) Concentrations in Monitoring Wells:**

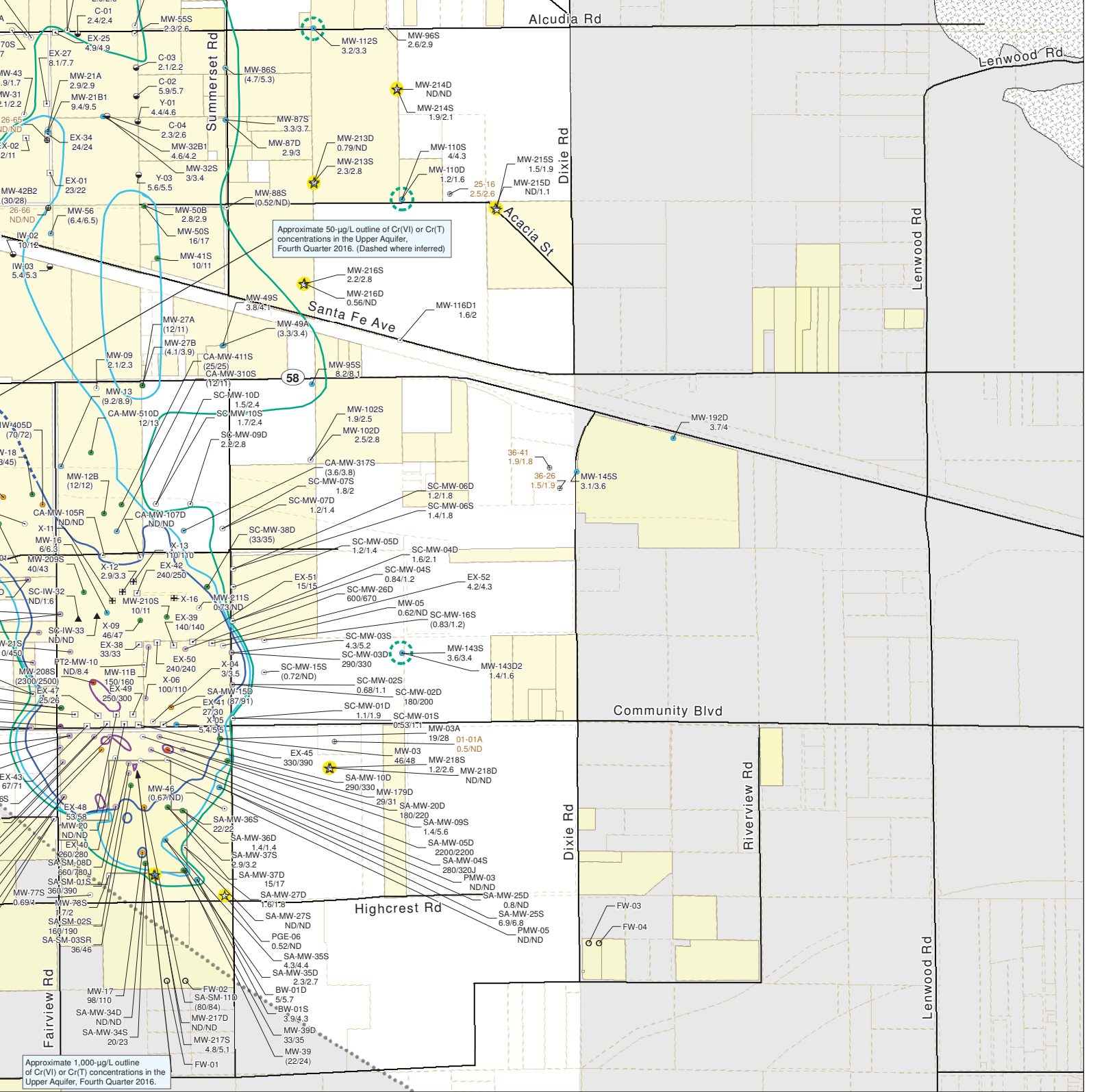
- ★ Less than 3.1 µg/L or ND
- ★ 3.1 to 10 µg/L

**NOTES:**

- Chromium results are shown for Site-wide Groundwater Monitoring Program and domestic wells sampled in the reporting period, the most recent results are shown.
- The concentration contours are based on Fourth Quarter 2016 chromium results for the groundwater monitoring Figures 5-1 and 5-2. Results for domestic wells (brown-colored labels) were not used for chromium plume 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, monitoring wells sampled southwest of Lockhart Fault and on or east of Dixie Road. Monitoring wells sampled southwest of Lockhart Fault and on or east of Dixie Road.
- Chromium plume contours in the general area south of Highway 58, were developed using a larger set of monitoring wells from the In Situ Reactive Zone and Northwest Freshwater Injection Projects (Arcadis 2017). Select wells from that set are shown in this map.
- Chromium contours were changed on the eastern side of the plume during the Third Quarter of 2016. These changes to the plume contours on the eastern side of the plume reflect a revised interpretation of monitoring well data.

**WORKS CITED:**

Arcadis. 2017. Fourth Quarter 2016 Monitoring Report for the In Situ Reactive Zone and Northwest Freshwater Injection Projects. Lahontan Regional Water Quality Control Board, Lahontan Region Order No. R6V-2008-0014 (Waste Discharge Order).  
 Stamos, C.L., P. Martin, T. Nishikawa, and B.F. Cox. 2001. *Simulation of Ground-Water Flow in the Mojave River Basin*. Prepared in cooperation with the Mojave Water Agency.  
 Water Board. 2015. Cleanup and Abatement Order No. R6V-2015-0068 Requiring Pacific Gas and Electric Company to Remediate Chromium in Groundwater in the Lahontan Region.



Approximate 50-µg/L outline of Cr(VI) or Cr(T) concentrations in the Upper Aquifer, Fourth Quarter 2016. (Dashed where inferred)

Approximate 1,000-µg/L outline of Cr(VI) or Cr(T) concentrations in the Upper Aquifer, Fourth Quarter 2016.

the Fourth Quarter (October through December) 2016 monitoring period. For wells sampled multiple times during  
 ing and extraction wells that are completed in the shallow zone and deep zone of the Upper Aquifer as noted on  
 monitoring, except for those in the northern disputed plume areas, pursuant to the Lahontan Regional Water Quality  
 mber 4, 2015, groundwater monitoring wells are not used for chromium contouring if they are located in the areas southwest  
 east of Dixie Road were sampled in support of United States Geological Survey background chromium investigations.  
 monitoring data which is presented in the the January 30, 2017 Fourth Quarter 2016 Monitoring Report for  
 program are shown here for reference.  
 changes were made based on discussions with the Water Board, requirements in the Order and professional judgement.  
 itoring data and do not indicate plume expansion.

Injection Projects, Pacific Gas and Electric Company, Hinkley Compressor Station, Hinkley, California,  
 Requirements Identification No. 6B369107001, January 30.  
 er Basin, California. U.S. Geological Survey Water-Resources Investigations Report 01-4002, Version 3.  
 mpany 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 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  
 HINKLEY, CALIFORNIA

