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June 13, 2008

Mr. Aaron Yue
Project Manager
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Subject: Groundwater and Surface Water Monitoring Report, First Quarter 2008
PG&E Topock Compressor Station, Needles, California

Dear Mr. Yue:

Enclosed is the Groundwater and Surface Water Monitoring Report, First Quarter 2008 for the Pacific Gas And Electric Company (PG&E) Topock Compressor Station. This report provides results for the quarterly monitoring event conducted from March 10 through March 14, 2008, at 54 groundwater monitoring wells as well as results from monthly sampling events performed in January and February 2008. This report also presents results for the shoreline and in-channel Colorado River sampling conducted during January, February and April.

In addition, this report presents a summary of water level data collected at MW-23 and surrounding wells during the first quarter 2008.

If you have any questions on the groundwater and surface water monitoring report, please call me at (805) 234-2257.

Sincerely,

A handwritten signature in blue ink that reads 'Yvonne Meeks'.

Enclosure

cc: Chris Guerre/DTSC
Karen Baker/DTSC
Susan Young/SLC

Groundwater and Surface Water Monitoring Report, First Quarter 2008, PG&E Topock Compressor Station, Needles, California

PREPARED FOR: California Department of Toxic Substances Control
ON BEHALF OF: Pacific Gas and Electric Company
PREPARED BY: CH2M HILL Inc.
DATE: June 13, 2008

This technical memorandum (TM) presents the results of the first quarter 2008 groundwater and surface water monitoring activities conducted at the Pacific Gas and Electric Company (PG&E) Topock Compressor Station near Needles, California. The monitoring activities are conducted as part of PG&E's Groundwater and Surface Water Monitoring Program (GMP) for the Topock site.

Figure 1¹ shows the locations and sampling frequencies of the monitoring wells in the GMP as of March 2008, the location of the PG&E Topock Compressor Station, and other site features. The GMP schedule includes 100 groundwater monitoring wells, two groundwater extraction wells, and ten shoreline and nine in-channel Colorado River surface water sampling locations. For background and description of the current groundwater and surface water sampling, analyses, and monitoring program, refer to PG&E's *Groundwater and Surface Water Monitoring Report, Fourth Quarter 2007 and Annual Summary, PG&E Topock Compressor Station*, dated March 28, 2008.

Monitoring Summary

The following monitoring activities were conducted during first quarter 2008 (January through March) and are addressed in this TM:

- The first quarter GMP monitoring event, which also served as the semi-annual sampling event, was conducted from March 10 through March 14, 2008, and included sampling 54 groundwater monitoring wells for some of the site constituents of potential concern (COPC): hexavalent chromium [Cr(VI)], total chromium [Cr(T)], specific conductance, and field pH. During this GMP event, 13 selected wells were also sampled for California Code of Regulations (CCR) Title 22 metals analyses. Monitoring wells (MW-) 11, MW-24A, MW-24B, MW-38D, and MW-38S are being monitored as part of the uplands in situ pilot study; therefore, they were not included in the GMP sampling.
- Quarterly river sampling was conducted from April 1 through April 3, 2008, at ten shoreline and nine in-channel surface water locations. Samples were analyzed for

¹ Figures can be found at the end of this TM.

Cr(VI), Cr(T), specific conductance, and pH. Monthly river sampling events were also conducted on January 15, 17, and 24 and February 12 through 14 during low water months for the Colorado River. Samples were analyzed for Cr(VI) and Cr(T).

- Monthly groundwater sampling events were conducted from January 14 through 16 and February 13 through 14, and included sampling five monitoring wells (MW-34-80, MW-34-100, MW-44-115, MW-44-125, and MW-46-175) for Cr(VI) and Cr(T). Monitoring well MW-47-55 was also sampled during the February monthly sampling event per the California Department of Toxic Substances Control's (DTSC) request because the December 2007 Cr(VI) concentration in this well (152 micrograms per liter [µg/L]) was above the preliminary statistical control limit established in the draft *Interim Measure Performance Monitoring Contingency Plan*. The February 2008 Cr(VI) result for MW-47-55 was 37.2 µg/L, which is consistent with recent historical values.
- At DTSC's request, several samples were collected from MW-23 in January 2008. Over the course of two days, the well was purged and sampled four times. The data from this effort are shown in Table 1².

During the August 2, 2007, Technical Workgroup meeting, DTSC requested long-term transducer monitoring at MW-23 and the surrounding area. The groundwater elevation data from MW-23 and adjacent monitoring wells surrounding MW-23 are presented as Attachment 1 to this report.

During the first quarter monitoring event, three full casing volumes of water was purged from MW-23, which typically purges dry after 2 wells casing volumes (25 to 30 gallons), and must be allowed to recharge for 24 hours before samples can be collected. A sample was collected directly after the purge on March 10, 2008, in accordance with project standard operating procedures (SOP). An additional sample was collected the following day (March 11, 2008) after the well had recharged to obtain a sample that was directly comparable with typical samples collected from this wells. Results from both samples are shown in Table 1.

Monitoring Activities and Results

The groundwater and surface water monitoring data presented in Tables 1 through 3 include the results from the first quarter 2008. Data from the 2007 Annual Monitoring Period is included as Attachment 2.

GMP Groundwater Monitoring

Figure 1 shows the locations of the GMP monitoring wells sampled during the reporting period. The analytical results for Cr(VI), Cr(T), specific conductance, and field pH in groundwater samples collected from GMP wells during October 2007 through March 2008 are presented in Table 1. Groundwater sampling forms and chain-of-custody forms are included in Attachment 3.

Figures 2 through 4 present the March 2008 Cr(VI) results for wells monitoring the upper, middle, and lower depth intervals of the alluvial aquifer, respectively. Overall, the first

² Tables can be found at the end of this TM.

quarter 2008 chromium results are in the range of concentrations observed during the prior 2007 sampling events. In the first quarter 2008, the maximum detected Cr(VI) concentration was 13,300 µg/L at MW-20-130. Most wells exhibit either stable or decreasing concentrations of Cr(VI) and Cr(T). Refer to PG&E's *Topock Quarterly Performance Monitoring Report and Evaluation, February through April 2008*, dated May 30, 2008, for the recent concentration trends observed in wells in the area of active interim measure pumping. A review and discussion of the 2008 groundwater sampling results and concentration trends will be included in the annual GMP report.

GMP Surface Water Monitoring

Figure 1 shows the locations of the shoreline and in-channel surface water monitoring stations. Table 2 presents the sampling results of chromium and other analytes from surface water monitoring events (including in-channel locations and shoreline stations) performed from January through April 2008. The Cr(VI) sampling results for the shoreline surface water samples collected during the first quarter 2008 are shown on Figure 2. Cr(VI) and Cr(T) were not detected in any of the water samples collected at the ten shoreline and nine in-channel surface water stations during the first quarter 2008.

Title 22 Metals Groundwater Analyses

Table 3 presents the CCR Title 22 metals results for the GMP monitoring wells sampled in March 2008. In addition to Cr(T), the trace metals detected during the March 2008 groundwater sampling were arsenic, copper, lead, molybdenum, selenium, silver, vanadium, and zinc. Excluding Cr(T), arsenic (wells MW-12, MW-24A, MW-32-35, and MW-43-25), and selenium (wells MW-24A and TW-1), the dissolved concentrations of the trace metals detected during the March 2008 sampling are below their respective California drinking water standards.

Data Validation and Completeness

The laboratory analytical data from GMP sampling during the first quarter 2008 were independently reviewed by project chemists to assess data quality and to identify deviations from analytical requirements. The completeness objectives were met for all method and analyte combinations. No significant analytical deficiencies were identified in the first quarter 2008 monitoring data. Additional detail is provided in the data validation reports, which are kept in the project file and are available upon request.

Schedule for Second Quarter 2008 GMP Activities

The following GMP activities are scheduled for the second quarter 2008 monitoring period:

- The April and June monthly groundwater sampling events (five wells) were conducted on April 1 through 3 and June 4 and 5, 2008.
- Quarterly surface water sampling at ten shoreline and nine in-channel locations will be conducted on June 17 and June 18, 2008.

- The second quarter groundwater monitoring event was conducted during the week of May 5, 2008 (30 wells).

The results of the quarterly groundwater and surface water monitoring events and the monthly sampling events will be reported in the Second Quarter 2008 GMP Monitoring Report, which will be submitted approximately 12 weeks after the June 2008 sampling event.

Certification

This report was prepared by CH2M HILL under the supervision of the professional whose seal and signature appears herein in accordance with currently accepted professional practices. No warranty, expressed or implied, is made.



Serena Lee
Professional Geologist, PG No. 8259



Report Reviewed by:



Jay Piper
CH2M HILL Project Manager

Tables

TABLE 1
Groundwater COPC Sampling Results, January through March 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-10	03/11/2008	478	473	2,990	7.53
MW-12	03/10/2008	2,760	2,860	5,270	8.44
MW-18	03/11/2008	30.2	27.7	1,230	7.57
	03/11/2008 FD	30.0	27.2	1,320	---
MW-20-70	03/12/2008	2,580	2,260	2,880	7.53
MW-20-100	03/12/2008	9,690	7,910	3,420	7.39
MW-20-130	03/12/2008	13,300	11,300	12,200	7.42
MW-21	03/11/2008	ND (1.0)	1.80	12,900	7.10
MW-22	03/11/2008	ND (1.0)	ND (1.0)	27,200	6.66
MW-23	01/21/2008	ND (1.0)	3.40	---	---
	01/22/2008	2.10	36.5	---	---
	01/23/2008	34.3	40.0	---	---
	03/10/2008	ND (20)	24.3	15,700	---
	03/11/2008	43.7	39.6	---	7.52
MW-24BR	03/11/2008	7.10	7.46	14,000	8.46
MW-26	03/12/2008	2,980	2,560	3,570	7.50
	03/12/2008 FD	2,720	2,640	3,570	---
MW-27-85	03/10/2008	ND (1.0)	ND (1.0)	15,900	7.26
MW-28-90	03/13/2008	ND (0.2)	ND (1.0)	7,420	7.15
MW-29	03/12/2008	ND (1.0)	ND (1.0)	3,840	6.84
MW-32-20	03/10/2008	ND (2.1)	ND (1.0)	38,800	6.65
MW-33-40	03/12/2008	ND (0.2)	ND (1.0)	5,380	7.76
MW-33-90	03/12/2008	23.7	22.5	10,300	7.22
MW-33-150	03/12/2008	7.87	8.06	16,300	7.29
MW-33-210	03/12/2008	11.7	11.5	18,900	7.13
MW-34-80	01/16/2008	ND (1.0)	ND (1.0)	---	7.27
	01/16/2008 FD	ND (1.0)	1.20	---	---
	02/13/2008	ND (0.2)	ND (1.0)	---	7.26
	03/12/2008	ND (0.2)	10.9	8,590	7.07
MW-34-100	01/16/2008	564	648	---	7.69
	02/13/2008	492	560	---	7.68
	03/12/2008	358	338	17,100	7.45
MW-35-60	03/11/2008	35.8	35.4	6,450	7.36
MW-36-90	03/11/2008	0.71	1.46	2,880	7.42
	03/11/2008 FD	0.703	1.24	2,780	---
MW-36-100	03/11/2008	146	145	14,200	6.72
MW-37D	03/13/2008	695	742	14,800	7.72
MW-39-80	03/14/2008	34.8	28.6	12,600	6.95
MW-39-100	03/14/2008	1,150	1,290	19,900	6.67
MW-40D	03/13/2008	115	108	15,300	7.49
MW-41D	03/12/2008	2.08	2.98	20,800	7.65

TABLE 1

Groundwater COPC Sampling Results, January through March 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-41S	03/12/2008	19.1	18.3	4,820	7.78
MW-42-55	03/11/2008	ND (1.0)	ND (1.0)	15,400	6.71
MW-42-65	03/11/2008	ND (1.0)	ND (1.0)	17,200	6.72
MW-44-70	03/11/2008	ND (0.2)	ND (1.0)	4,490	7.07
MW-44-115	01/14/2008	746	652	---	7.64
	02/14/2008	744	668	---	7.59
	02/14/2008 FD	735	706	---	---
	03/11/2008	742	596	14,000	7.47
MW-44-125	01/14/2008	338	344	---	7.82
	02/14/2008	326	324	---	7.61
	03/14/2008	338	291	12,000	7.63
MW-46-175	01/14/2008	51.5	133	---	8.21
	02/13/2008	125	136	---	8.39
	03/13/2008	99.8	92.8	16,400	8.09
MW-46-205	03/13/2008	5.21	5.20	20,100	8.17
MW-47-55	02/14/2008	37.1	39.0	---	7.43
	02/14/2008 FD	37.2	39.4	---	---
	03/14/2008	53.7	46.1	3,570	7.52
	03/14/2008 FD	48.4	42.6	3,590	---
MW-47-115	03/14/2008	18.0	16.5	12,400	7.59
MW-48	03/11/2008	ND (2.3)	2.93	18,800	7.21
MW-49-135	03/13/2008	ND (1.0)	1.43	13,400	7.64
MW-49-275	03/13/2008	ND (1.0)	1.27	23,400	7.84
MW-49-365	03/13/2008	ND (1.0)	ND (1.0)	35,700	7.79
MW-50-095	03/12/2008	150	160	4,680	7.77
	03/12/2008 FD	148	160	5,020	---
MW-50-200	03/12/2008	10,900	11,800	20,500	7.51
MW-51	03/11/2008	4,940	4,590	12,300	7.39
MW-52D	03/13/2008	ND (1.0)	ND (1.0)	20,800	7.76
MW-52M	03/13/2008	ND (1.0)	ND (1.0)	16,400	7.60
MW-52S	03/13/2008	ND (1.0)	ND (1.0)	11,000	7.37
MW-53D	03/13/2008	ND (1.0)	ND (1.0)	25,500	8.55
MW-53M	03/13/2008	ND (1.0)	ND (1.0)	17,400	8.37
PE-1	01/03/2008	48.4	56.9	6,590	7.63 J ^
	02/06/2008	42.8	44.1	6,510	7.54 J ^
	03/05/2008	39.5	40.8	6,380	7.60 J ^
PGE-7BR	03/12/2008	ND (1.0)	1.02	17,300	9.24
TW-3D	01/03/2008	1,830	2,210	8,390	7.37 J ^
	02/06/2008	1,760	1,600	8,490	7.31 J ^
	03/05/2008	1,810	1,740	8,320	7.36 J ^
TW-4	03/14/2008	27.4	28.4	19,900	7.65

TABLE 1
Groundwater COPC Sampling Results, January through March 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

Notes:

µg/L micrograms per liter
 µS/cm microSiemens per centimeter
 ND not detected at listed reporting limit
 J concentration or reporting limit estimated by laboratory or data validation
 (---) not collected or not available
 FD field duplicate sample
 ^ Analytical pH results, Method SM4500-HB

Hexavalent chromium analytical methods: SM3500 (reporting limit 10 µg/L), EPA 218.6 (reporting limit 0.2 µg/L for undiluted samples).

Other analytical methods: dissolved total chromium (Methods SW 6020A), specific conductance (EPA 120.1).

Wells TW-3D and PE-1 are active extraction wells for the IM hydraulic containment system.

TABLE 2
Surface Water COPC Sampling Results, January through April 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Lab pH
In-channel Locations					
C-CON-S	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-CON-M	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-CON-D	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-CON-S	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-CON-M	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-CON-D	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-CON-S	04/02/2008	ND (0.2)	ND (1.0)	997	8.32 J
C-CON-M	04/02/2008	ND (0.2)	ND (1.0)	994	8.34 J
C-CON-D	04/01/2008	ND (0.2)	ND (1.0)	994	8.39 J
C-I-3-S	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-I-3-M	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-I-3-D	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-I-3-S	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-I-3-M	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-I-3-D	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-I-3-S	04/01/2008	ND (0.2)	ND (1.0)	987	8.32 J
C-I-3-M	04/01/2008	ND (0.2)	ND (1.0)	988	8.27 J
C-I-3-D	04/01/2008	ND (0.2)	ND (1.0)	984	8.40 J
C-MAR-S	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-MAR-D	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-MAR-S	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-MAR-D	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-MAR-S	04/02/2008	ND (0.2)	ND (1.0)	1000	8.23 J
C-MAR-M	04/02/2008	ND (0.2)	ND (1.0)	1000	8.14 J
C-MAR-D	04/01/2008	ND (0.2)	ND (1.0)	1010	8.05 J
C-NR1-S	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR1-M	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR1-D	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR1-S	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR1-M	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR1-D	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR1-S	04/02/2008	ND (0.2)	ND (1.0)	995	8.25 J
C-NR1-M	04/02/2008	ND (0.2)	ND (1.0)	999	8.33 J
C-NR1-D	04/01/2008	ND (0.2)	ND (1.0)	983	8.42 J
C-NR3-S	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR3-M	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR3-D	01/17/2008	ND (0.2)	ND (1.0)	---	---

TABLE 2
Surface Water COPC Sampling Results, January through April 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Lab pH
C-NR3-S	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR3-M	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR3-D	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR3-S	04/02/2008	ND (0.2)	ND (1.0)	998	8.29 J
C-NR3-M	04/02/2008	ND (0.2)	ND (1.0)	995	8.27 J
C-NR3-D	04/01/2008	ND (0.2)	ND (1.0)	991	8.38 J
C-NR4-S	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR4-M	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR4-D	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-NR4-S	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR4-M	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR4-D	02/13/2008	ND (0.2)	ND (1.0)	---	---
C-NR4-S	04/02/2008	ND (0.2)	ND (1.0)	987	8.31 J
C-NR4-M	04/02/2008	ND (0.2)	ND (1.0)	1010	8.30 J
C-NR4-D	04/01/2008	ND (0.2)	ND (1.0)	985	8.40 J
C-R22-S	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-R22-M	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-R22-D	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-R22-S	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-R22-M	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-R22-D	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-R22-S	04/02/2008	ND (0.2)	ND (1.0)	995	8.38 J
C-R22-M	04/02/2008	ND (0.2)	ND (1.0)	992	8.25 J
C-R22-D	04/01/2008	ND (0.2)	ND (1.0)	991	8.42 J
C-R27-S	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-R27-M	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-R27-D	01/17/2008	ND (0.2)	ND (1.0)	---	---
C-R27-S	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-R27-M	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-R27-D	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-R27-S	04/02/2008	ND (0.2)	ND (1.0)	996	8.32 J
C-R27-M	04/02/2008	ND (0.2)	ND (1.0)	999	8.38 J
C-R27-D	04/01/2008	ND (0.2)	ND (1.0)	987	8.41 J
C-TAZ-S	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-TAZ-M	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-TAZ-D	01/16/2008	ND (0.2)	ND (1.0)	---	---
C-TAZ-S	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-TAZ-M	02/12/2008	ND (0.2)	ND (1.0)	---	---

TABLE 2
Surface Water COPC Sampling Results, January through April 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Lab pH
C-TAZ-D	02/12/2008	ND (0.2)	ND (1.0)	---	---
C-TAZ-S	04/01/2008	ND (0.2)	ND (1.0)	986	8.34 J
C-TAZ-M	04/01/2008	ND (0.2)	ND (1.0)	982	8.36 J
C-TAZ-D	04/01/2008	ND (0.2)	ND (1.0)	988	8.38 J
Shoreline Samples					
CON	01/17/2008	ND (0.2)	ND (1.0)	---	---
CON	02/12/2008	ND (0.2)	ND (1.0)	---	---
CON	04/02/2008	ND (0.2)	ND (1.0)	997	8.33 J
I-3	01/16/2008	ND (0.2)	ND (1.0)	---	---
I-3	02/12/2008	ND (0.2)	ND (1.0)	---	---
I-3	04/02/2008	ND (0.2)	ND (1.0)	990	8.42 J
NR-1	01/17/2008	ND (0.2)	ND (1.0)	---	---
NR-1	02/13/2008	ND (0.2)	ND (1.0)	---	---
NR-1	04/02/2008	ND (0.2)	ND (1.0)	993	8.31 J
NR-2	01/17/2008	ND (0.2)	ND (1.0)	---	---
NR-2	02/13/2008	ND (0.2)	ND (1.0)	---	---
NR-2	04/02/2008	ND (0.2)	ND (1.0)	992	8.30 J
NR-3	01/17/2008	ND (0.2)	ND (1.0)	---	---
NR-3	02/13/2008	ND (0.2)	ND (1.0)	---	---
NR-3	04/02/2008	ND (0.2)	ND (1.0)	1010	8.28 J
R-22	01/16/2008	ND (0.2)	ND (1.0)	---	---
R-22	02/12/2008	ND (0.2)	ND (1.0)	---	---
R-22	04/02/2008	ND (0.2)	ND (1.0)	1000	8.41 J
R-23	01/24/2008	ND (0.2)	ND (1.0)	---	---
R-23	02/14/2008	ND (0.2)	ND (1.0)	---	---
R-23	04/03/2008	ND (0.2)	ND (1.0)	1030	7.69 J
R-27	01/16/2008	ND (0.2)	ND (1.0)	---	---
R-27	02/12/2008	ND (0.2)	ND (1.0)	---	---
R-27	04/02/2008	ND (0.2)	ND (1.0)	983	8.36 J
R-28	01/16/2008	ND (0.2)	ND (1.0)	---	---
R-28	02/12/2008	ND (0.2)	ND (1.0)	---	---
R-28	04/02/2008	ND (0.2)	ND (1.0)	998	8.32 J
RRB	01/16/2008	ND (0.2)	ND (1.0)	---	---
RRB	02/12/2008	ND (0.2)	ND (1.0)	---	---
RRB	04/02/2008	ND (0.2)	ND (1.0)	1000	8.27 J

TABLE 2
Surface Water COPC Sampling Results, January through April 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

Notes:

µg/L micrograms per liter
ND not detected at listed reporting limit
J concentration or reporting limit estimated by laboratory or data validation
(---) data not collected or not available

Hexavalent chromium analytical method EPA 218.6 (reporting limit 0.2 µg/L for undiluted samples).

Other analytical methods: dissolved total chromium (Method SW 6020A), specific conductance (EPA 120.1), pH (EPA 150.1).

The first quarter river monitoring event was performed in April 2008 to coincide with drilling activities on the river floodplain.

TABLE 3
Title 22 Metals Results, January through March 2008
PG&E Topock Groundwater and Surface Water Monitoring Program

California MCL:		6	10 ^	1,000	4	5	NE	50	1,000*	15*	2	NE	100	50	100*	2	NE	5,000*
Well ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
MW-10	03/11/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	473	ND (10)	ND (2.0)	ND (0.2)	68.3	ND (20)	5.17	ND (5.0)	ND (1.0)	29.8	ND (20)
MW-12	03/10/2008	ND (3.0)	66.1	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	2,860	ND (10)	ND (2.0)	ND (0.2)	19.6	ND (20)	6.59	ND (5.0)	ND (1.0)	26.3	22.1
MW-21	03/11/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	1.80	ND (10)	ND (2.0)	ND (0.2)	39.6	ND (20)	38.0	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
MW-22	03/11/2008	ND (3.0)	5.51	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	ND (1.0)	22.6	ND (2.0)	ND (0.2)	36.4	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
MW-23	03/10/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	24.3	ND (10)	ND (2.0)	ND (0.2)	6.01	ND (20)	5.44	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
	03/11/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	39.6	ND (10)	4.26	ND (0.2)	ND (5.0)	ND (20)	6.14	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
MW-24A	03/12/2008	ND (3.0)	10.8	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	2,000	ND (10)	ND (2.0)	ND (0.2)	29.6	ND (20)	50.7	ND (5.0)	ND (1.0)	7.18	ND (20)
MW-26 FD	03/12/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	2,560	ND (10)	ND (2.0)	ND (0.2)	28.8	ND (20)	14.8	ND (5.0)	ND (1.0)	6.14	21.3
	03/12/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	2,640	ND (10)	ND (2.0)	ND (0.2)	27.7	ND (20)	13.3	ND (5.0)	ND (1.0)	5.88	ND (20)
MW-32-35	03/10/2008	ND (3.0)	23.1	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	ND (1.0)	ND (10)	ND (2.0)	ND (0.2)	13.8	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
MW-43-25	03/10/2008	ND (3.0)	18.9	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	ND (1.0)	ND (10)	ND (2.0)	ND (0.2)	10.5	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
MW-44-115	03/11/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	596	ND (10)	ND (2.0)	ND (0.2)	85.6	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	6.54	ND (20)
MW-48	03/11/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	2.93	ND (10)	ND (2.0)	ND (0.2)	14.3	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	7.52	ND (20)
MW-50-200	03/12/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	11,800	ND (10)	ND (2.0)	ND (0.2)	40.4	ND (20)	6.21	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
MW-51	03/11/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	4,590	ND (10)	ND (2.0)	ND (0.2)	33.6	ND (20)	11.5	ND (5.0)	ND (1.0)	ND (5.0)	ND (20)
TW-1	03/11/2008	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	2,450	ND (10)	ND (2.0)	ND (0.2)	13.4	ND (20)	55.3	12.2	ND (1.0)	7.35	88.1

Notes:
ND not detected at listed reporting limit
FD field duplicate sample
^ U.S. Environmental Protection Agency (USEPA) MCL as of January 23, 2006
NE not established
* Secondary EPA MCL

The USEPA MCL for arsenic has been lowered to 10 ug/L as of January 2006. The California MCL of 50 ug/L is currently under review as of the writing of this monitoring report. California Division of Drinking Water and Environmental Management is proceeding the regulatory and adoption process.

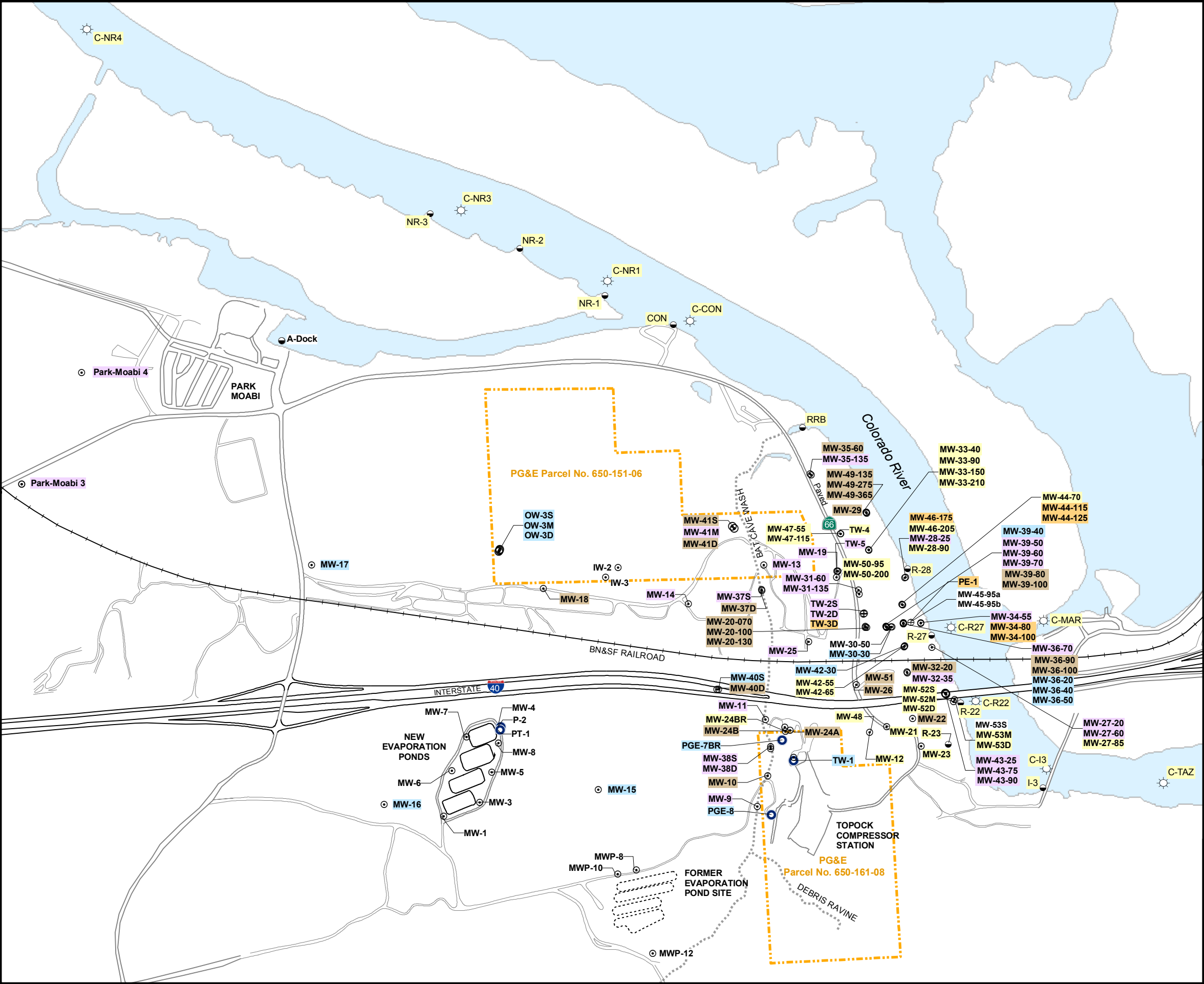
Title 22 metals are the metals listed in California Code of Regulations, Title 22, Section 66261.24(a)(2)(A)
The maximum contaminant levels (MCLs) listed, in micrograms per liter (µg/L), are the California primary drinking water standards, except where noted.

All results are dissolved metals concentrations in µg/L from field-filtered samples.

Metals analyzed by Methods SW6020A, and SW7470A.

Analytes detected above MCL are in bold.

Figures

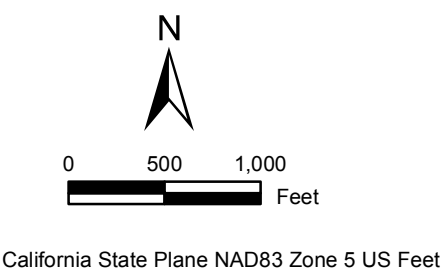


- LEGEND**
- Groundwater Monitoring Well
 - Test Well or Supply Well (Inactive)
 - Extraction Well
 - River Channel Surface Water Monitoring Location
 - Shoreline Surface Water Monitoring Location
 - PG&E Property Boundary

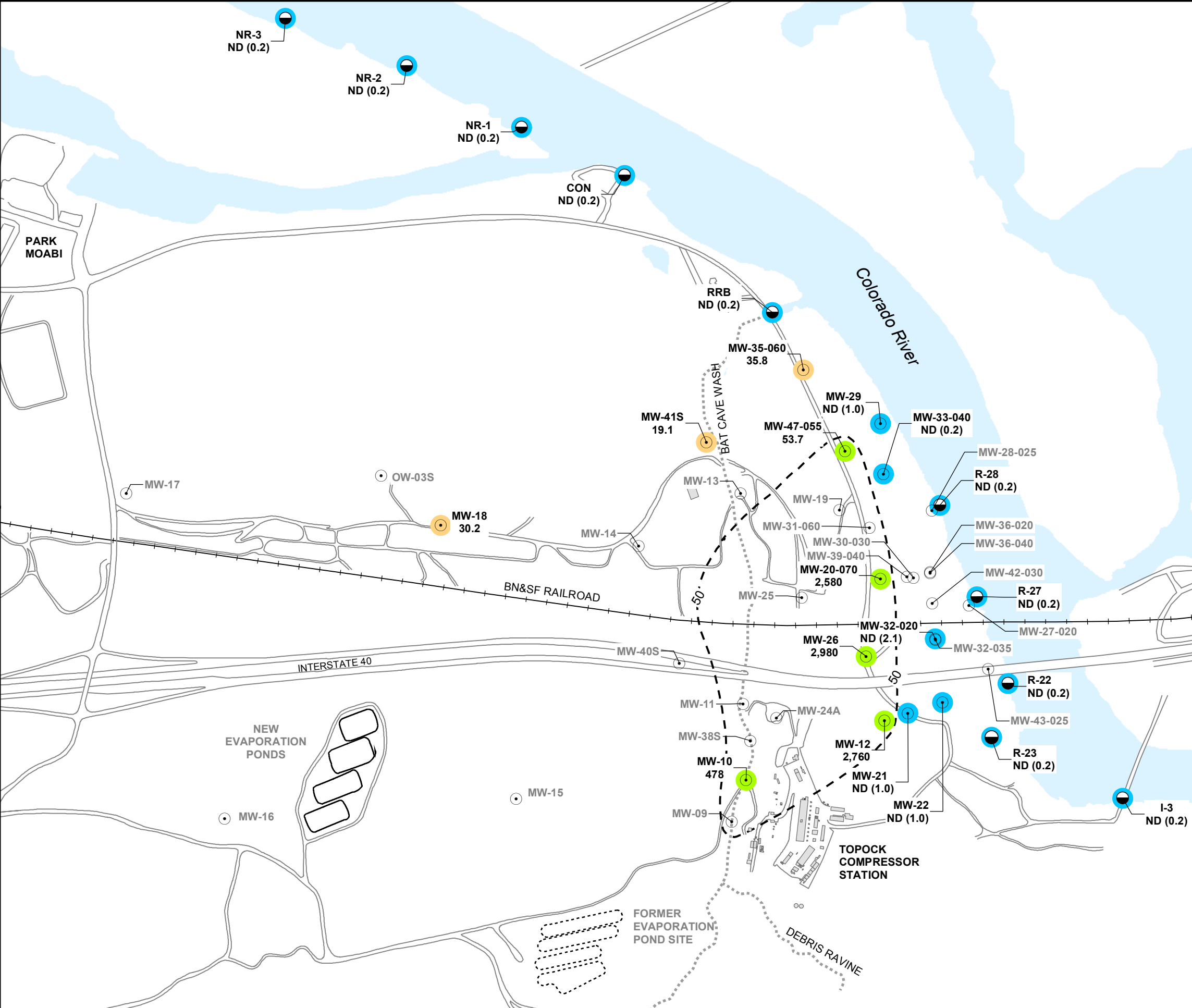
Sampling Frequency for Groundwater and Surface Water Monitoring Program (GMP) - March 2008

- MW-17 Biennial Sampling
- MW-9 Annual Sampling
- MW-22 Semi-Annual Sampling
- MW-12 Quarterly Sampling
- MW-34-100 Monthly Sampling

Note: Shoreline and river channel locations are sampled monthly during periods of low river stage (typically November - January). Otherwise they are sampled quarterly.



**FIGURE 1
MONITORING LOCATIONS AND
SAMPLING FREQUENCY FOR GMP
MARCH 2008**
GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

- Monitoring, Test, or Supply Well
- Shoreline Surface Water Monitoring Location

Results for March 2008 Monitoring Event

6.48 Concentration of hexavalent chromium [Cr(VI)] in micrograms per liter (µg/L)

Results shown are maximum concentrations in primary and duplicate samples from wells completed in **Shallow zone** of Alluvial Aquifer.

ND (0.2) Cr(VI) not detected, at listed reporting limit

**Cr(VI) Concentrations in Water Samples
March 2008 Monitoring Event**

- Not detected at analytical reporting limit
- Concentration between reporting limit and 50 µg/L
- Concentration greater than 50 µg/L

- - - 50 - - -
Approximate outline of monitoring wells with Cr(VI) concentrations >= 50 µg/L (California drinking water standard for Total Chromium)

Note:
See Attachment 2 for additional sampling data and prior results for wells that were not sampled in First Quarter reporting period.

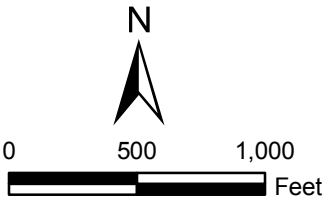
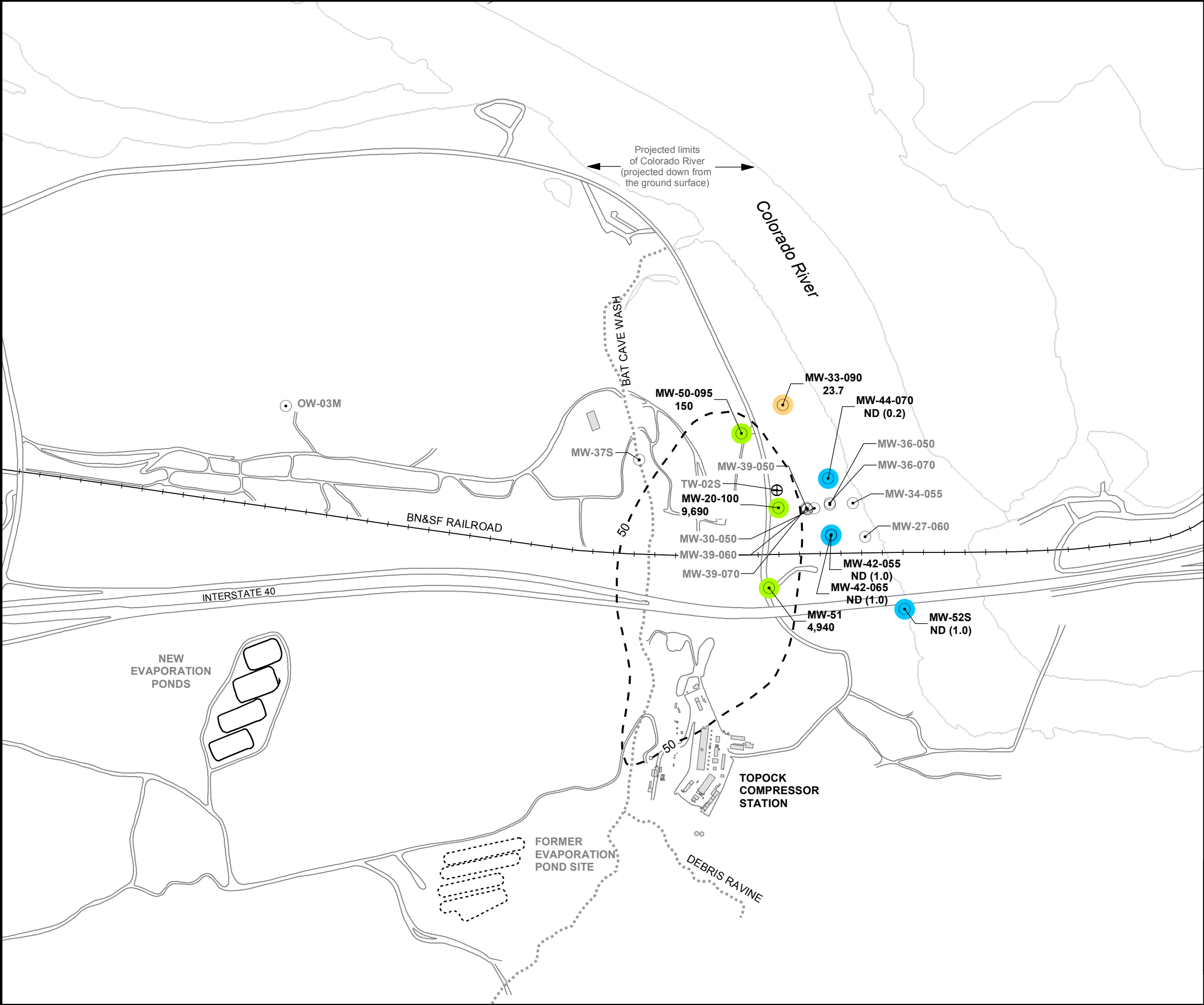


FIGURE 2
Cr(VI) SAMPLING RESULTS
SHALLOW WELLS IN ALLUVIAL AQUIFER
AND SHORELINE SURFACE WELL LOCATIONS
1ST QUARTER 2008 MONITORING
GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPECK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

- Monitoring, Test, or Supply Well
- Extraction Well

Results for March 2008 Monitoring Event

6.48 Concentration of hexavalent chromium [Cr(VI)] in micrograms per liter (µg/L)

Results shown are maximum concentrations in primary and duplicate samples from wells completed in **Mid-Depth zone** of Alluvial Aquifer.

ND (0.2) Cr(VI) not detected at listed reporting limit

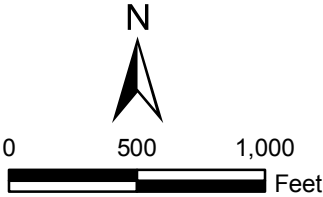
**Cr(VI) Concentrations in Groundwater Samples
March 2008 Monitoring Event**

- Not detected at analytical reporting limit
- Concentration between reporting limit and 50 µg/L
- Concentration greater than 50 µg/L

Approximate outline of monitoring wells with Cr(VI) concentrations ≥ 50 µg/L (California drinking water standard for Total Chromium)

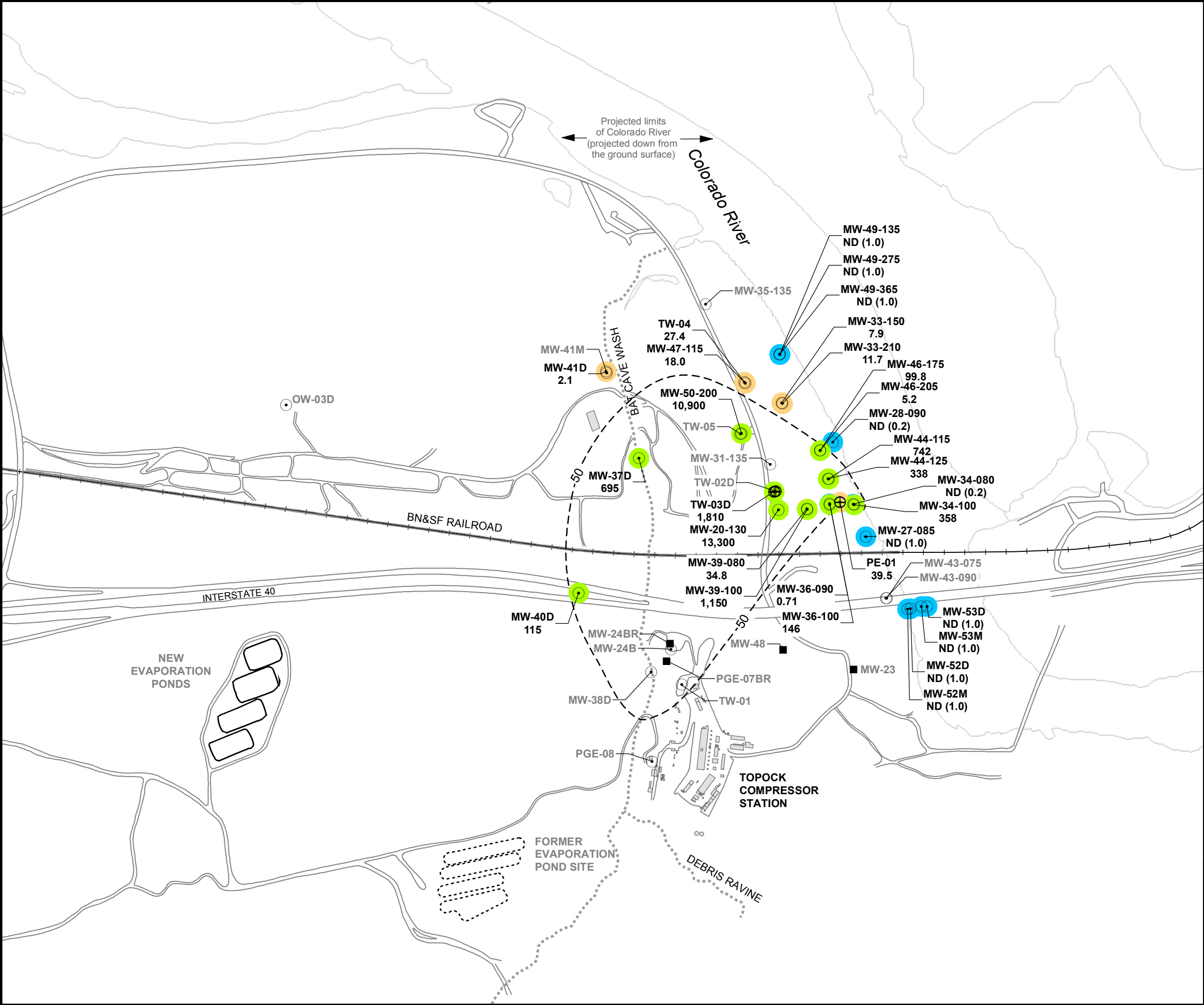
Notes:
See Attachment 2 for additional sampling data and prior results for wells that were not sampled in First Quarter reporting period.

The 50 ug/L Cr(VI) outline for the Mid-Depth zone represents the maximum extent of Cr(VI) in this interval of the aquifer, incorporating sampling results from shallow and deep wells.



**FIGURE 3
Cr(VI) SAMPLING RESULTS
MID-DEPTH WELLS IN ALLUVIAL AQUIFER
1ST QUARTER 2008 MONITORING**

GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

- Monitoring, Test or Supply Well
- Extraction Well
- Bedrock Well

Results for March 2008 Monitoring Event

6.48 Concentration of hexavalent chromium [Cr(VI)] in micrograms per liter (µg/L)

Results shown are maximum concentrations in primary and duplicate samples from wells completed in **Deep zone** of Alluvial Aquifer.

ND (0.2) Cr(VI) not detected at listed reporting limit

Cr(VI) Concentrations in Groundwater Samples
March 2008 Monitoring Event

- Not detected at analytical reporting limit
- Concentration between reporting limit and 50 µg/L
- Concentration greater than 50 µg/L

Approximate outline of monitoring wells with Cr(VI) concentrations >= 50 µg/L (California drinking water standard for Total Chromium)

Notes:
See Attachment 2 for additional sampling data and prior results for wells that were not sampled in First Quarter reporting period.
In March 2008 sampling, Cr(VI) was detected at 43.7 and 7.10 ug/L in groundwater sample from bedrock monitoring wells MW-23 and MW-24BR respectively. Cr(VI) was not detected in samples from bedrock wells MW-48 and PGE-07BR.

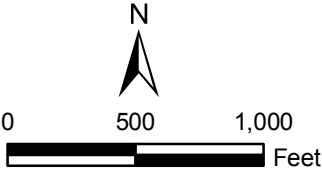


FIGURE 4
Cr(VI) SAMPLING RESULTS
DEEP WELLS IN ALLUVIAL AQUIFER
1ST QUARTER 2008 MONITORING

GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

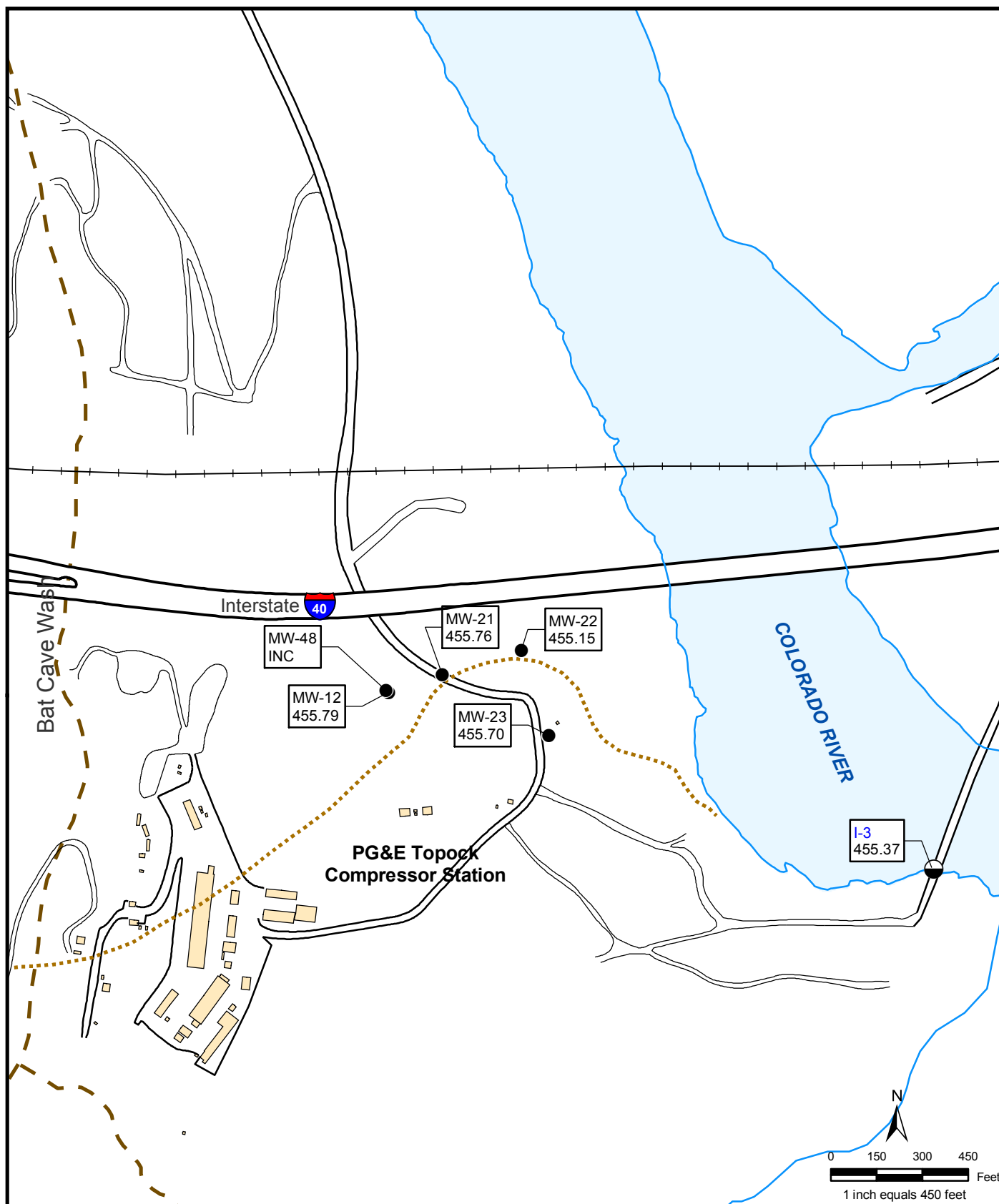
Attachment 1
Water Levels from Selected Wells in the Vicinity
of Bedrock Well MW-23

Water Levels from Selected Wells in the Vicinity of Bedrock Well MW-23

During the August 2, 2007, Technical Workgroup meeting, DTSC requested long-term transducer monitoring at MW-23 and the surrounding area. CH2M HILL is monitoring groundwater levels at wells near MW-23 on a monthly basis through third quarter 2008.

This attachment includes a summary of water level data from selected wells in the vicinity of MW-23. Figures 1 through 7 presents seven maps showing monthly average groundwater elevations for September 2007 through March 2008. Figure 8 presents a hydrograph of water levels along with the river level for the entire period from September 2007 through March 2008. The drawdown in water levels in March 2008 for MW-21, MW-23, and MW-48 are from well purging and recovery.

The average groundwater elevations for well MW-48 are not shown on Figures 1 through 4 because the water levels in this well were affected by several episodes of pumping in conjunction with groundwater sample collection for bedrock aquifer testing during this time period. Historically, water levels in MW-48 require about two weeks to recover after the well is pumped and, therefore, most of the data from MW-48 during this period were not representative of ambient water levels. PG&E will continue water level monitoring in this group of wells as directed by DTSC.



- **MW-22**
455.85
- **I-3**
455.13
- Approximate Bedrock Contact at 455 ft AMSL
- Monitoring Well
- River Station
- INC** Data incomplete or unavailable over reporting period

FIGURE 1
AVERAGE GROUNDWATER ELEVATIONS
AT MW-23 AND ADJACENT WELLS
SEPTEMBER 2007
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

CH2MHILL

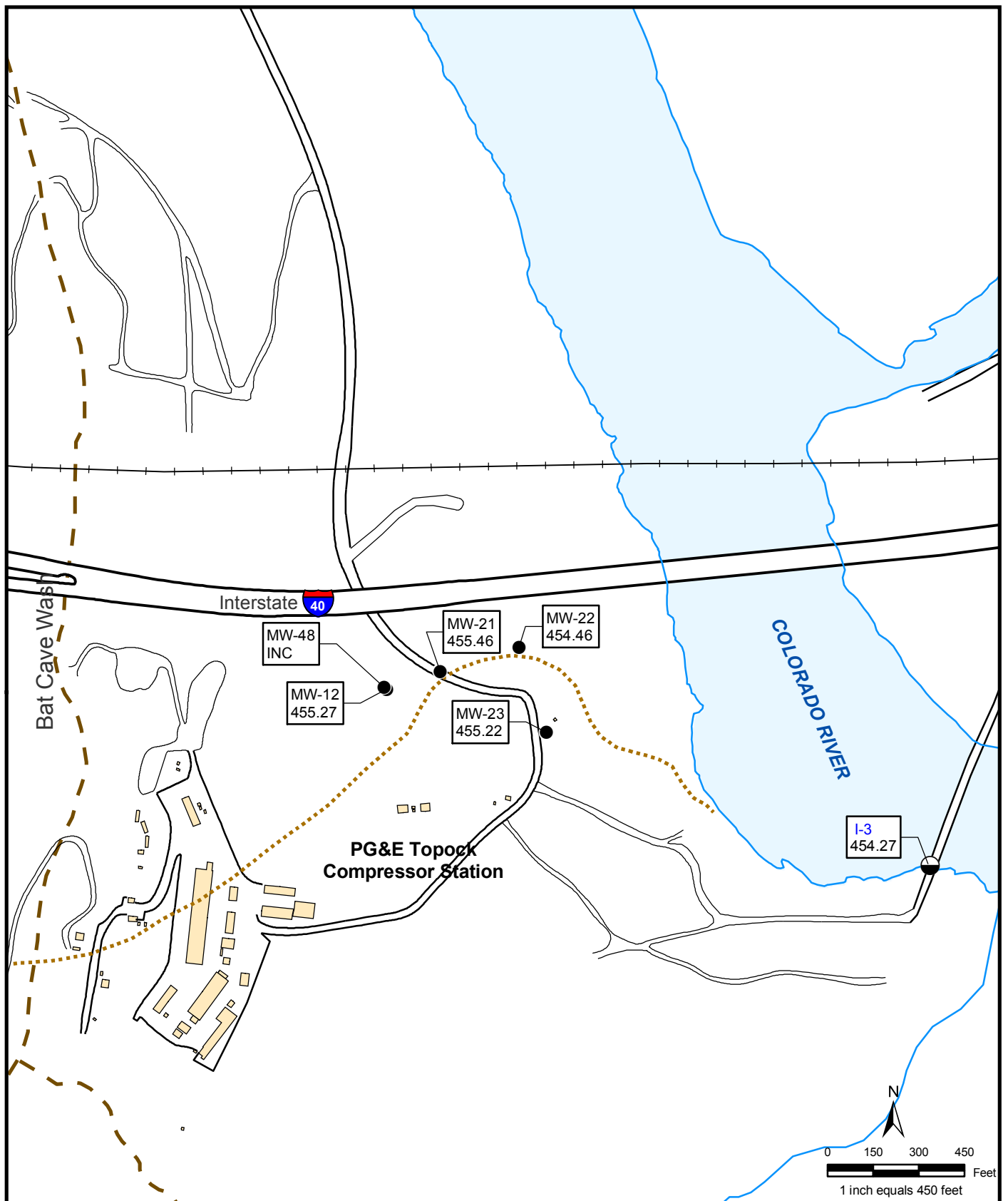
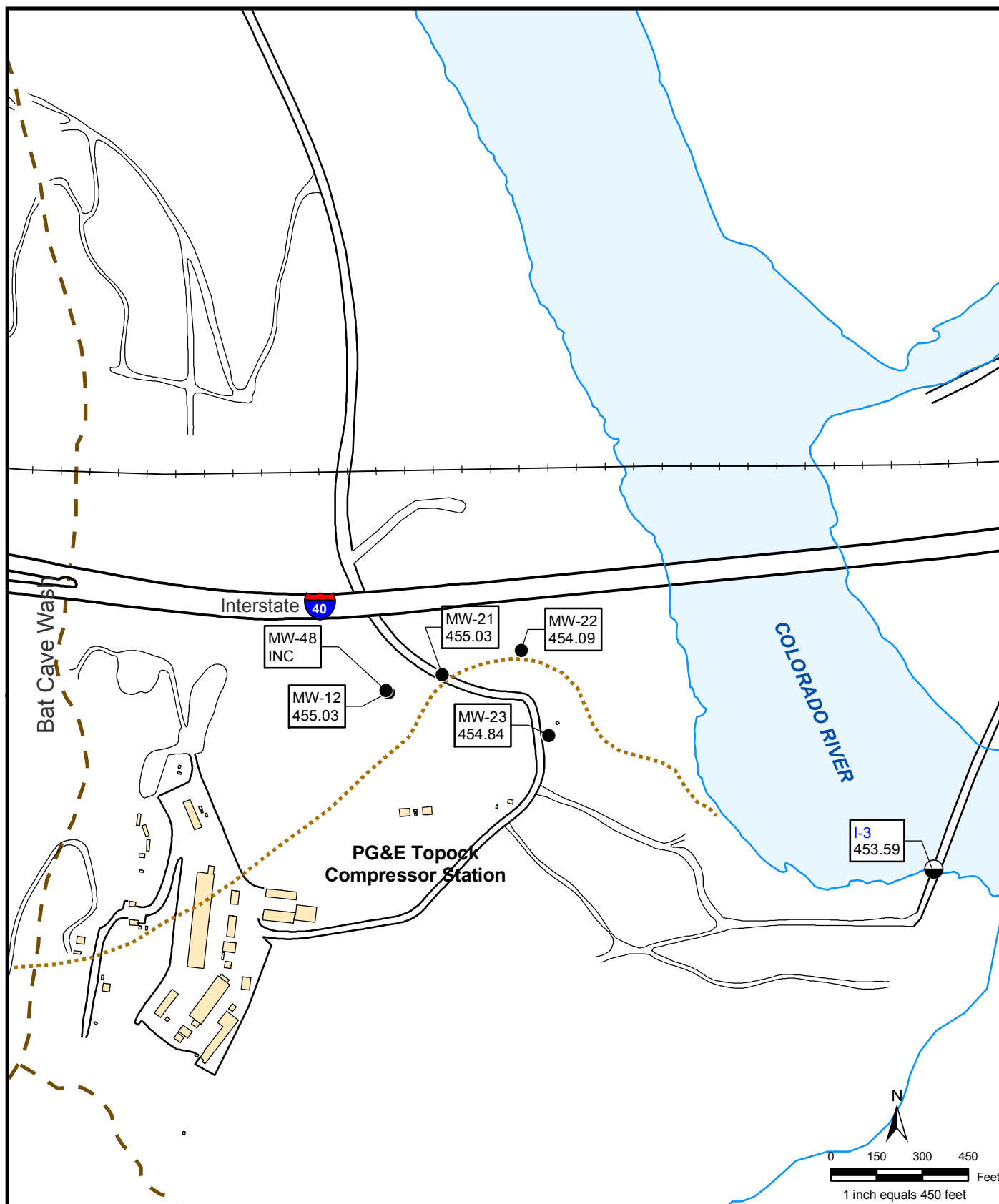


FIGURE 2
AVERAGE GROUNDWATER ELEVATIONS
AT MW-23 AND ADJACENT WELLS
OCTOBER 2007
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

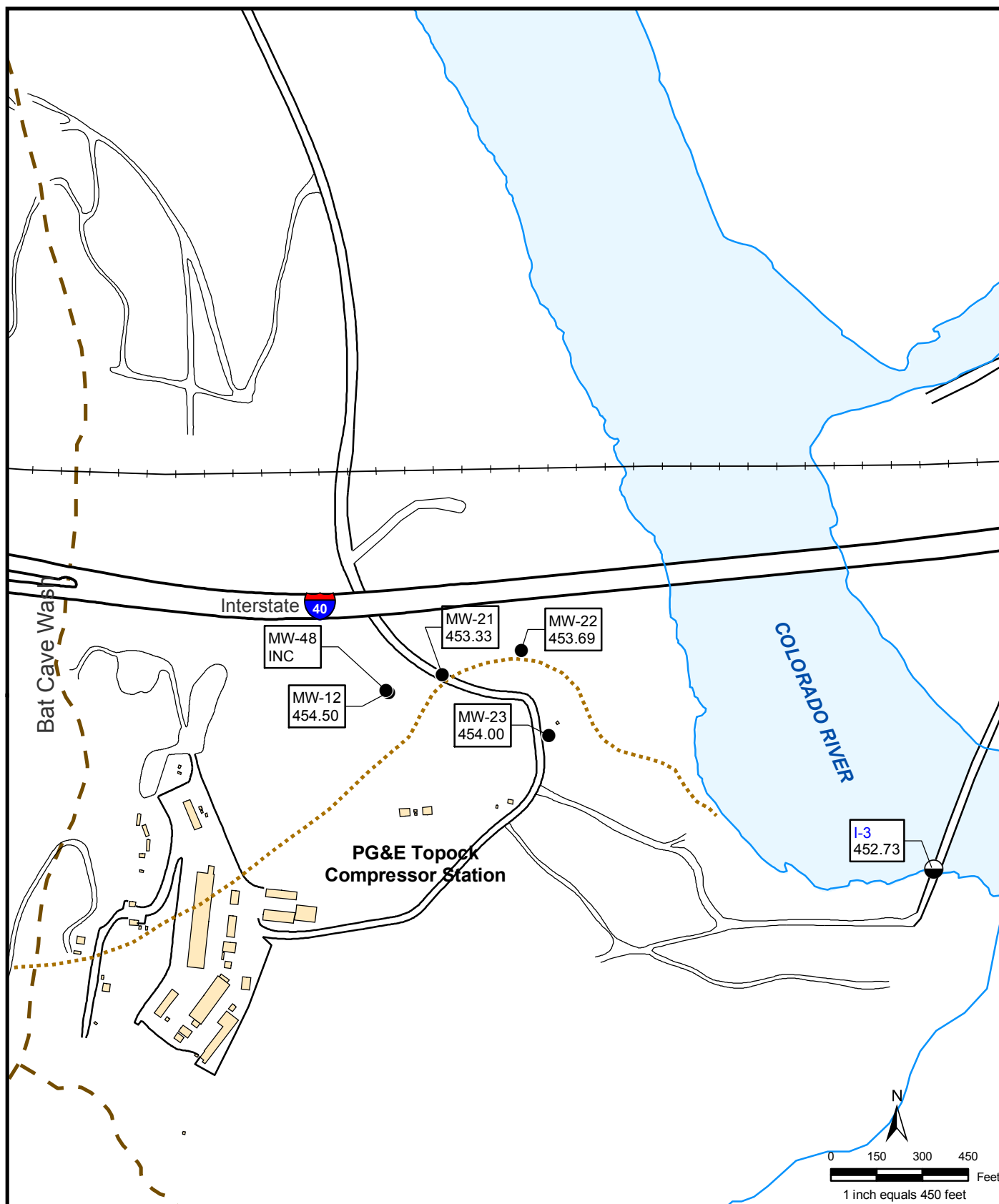
CH2MHILL



- **MW-22** Average Groundwater Elevation at Monitoring Station (ft AMSL)
455.85
- **I-3** River Elevation (ft AMSL)
455.13
- Approximate Bedrock Contact at 455 ft AMSL
- Monitoring Well
- River Station
- INC** Data incomplete or unavailable over reporting period

FIGURE 3
AVERAGE GROUNDWATER ELEVATIONS
AT MW-23 AND ADJACENT WELLS
NOVEMBER 2007
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

CH2MHILL

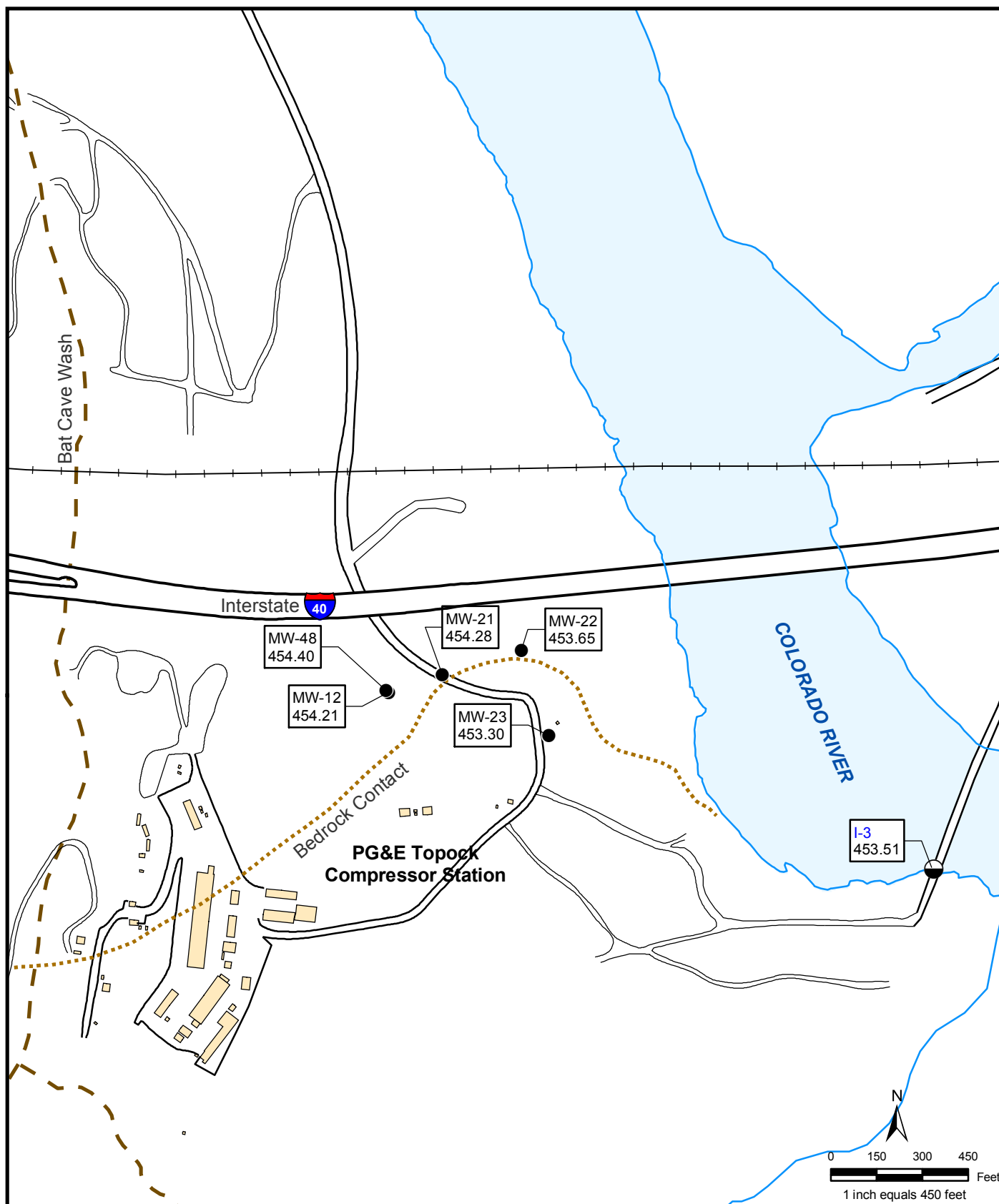


- **MW-22**
455.85
Average Groundwater Elevation
at Monitoring Station (ft AMSL)
- **I-3**
455.13
River Elevation (ft AMSL)
Interpolated Average
-
Approximate Bedrock
Contact at 455 ft AMSL

- Monitoring Well
- River Station
- INC** Data incomplete or unavailable
over reporting period

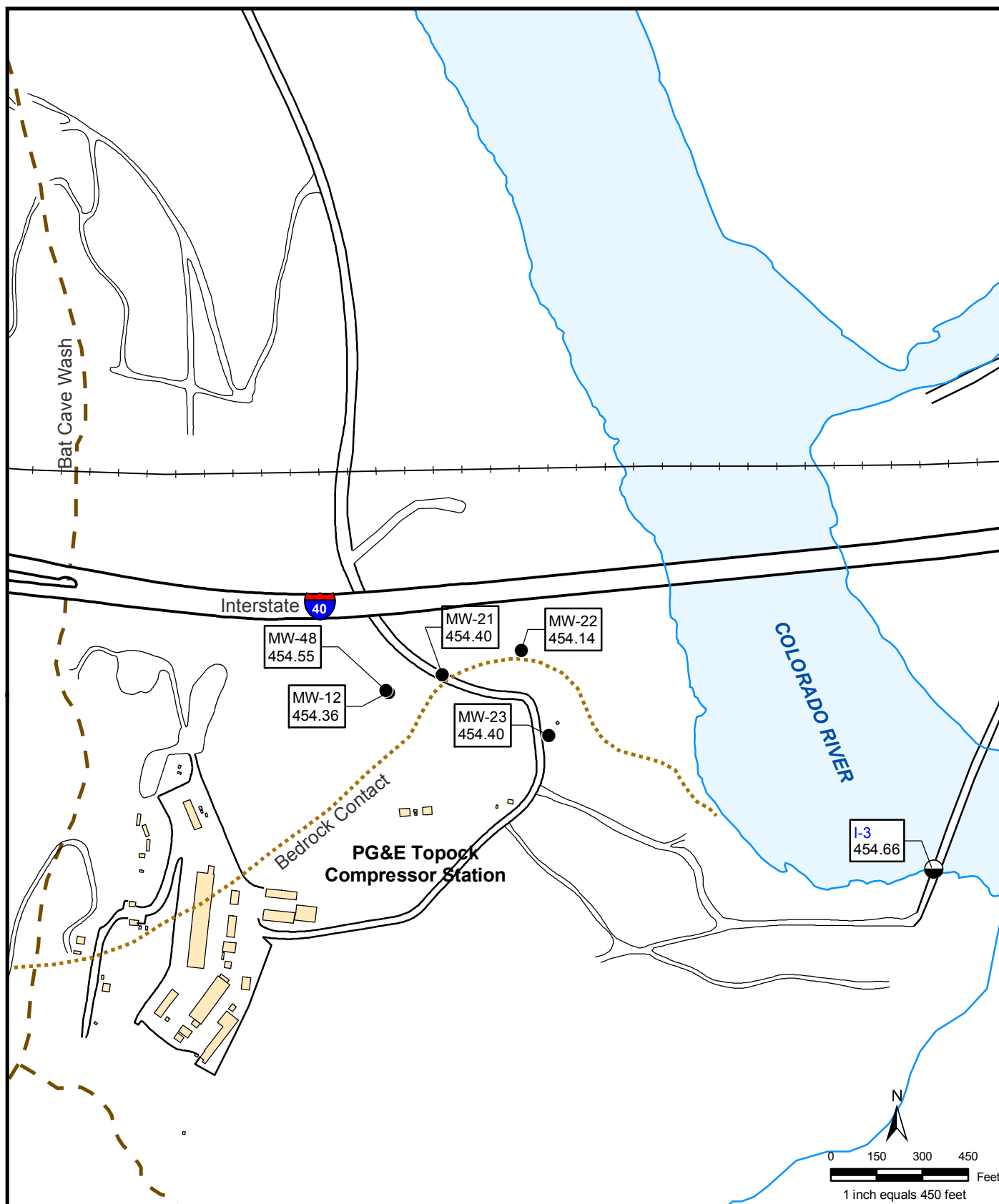
FIGURE 4
AVERAGE GROUNDWATER ELEVATIONS
AT MW-23 AND ADJACENT WELLS
DECEMBER 2007
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

CH2MHILL



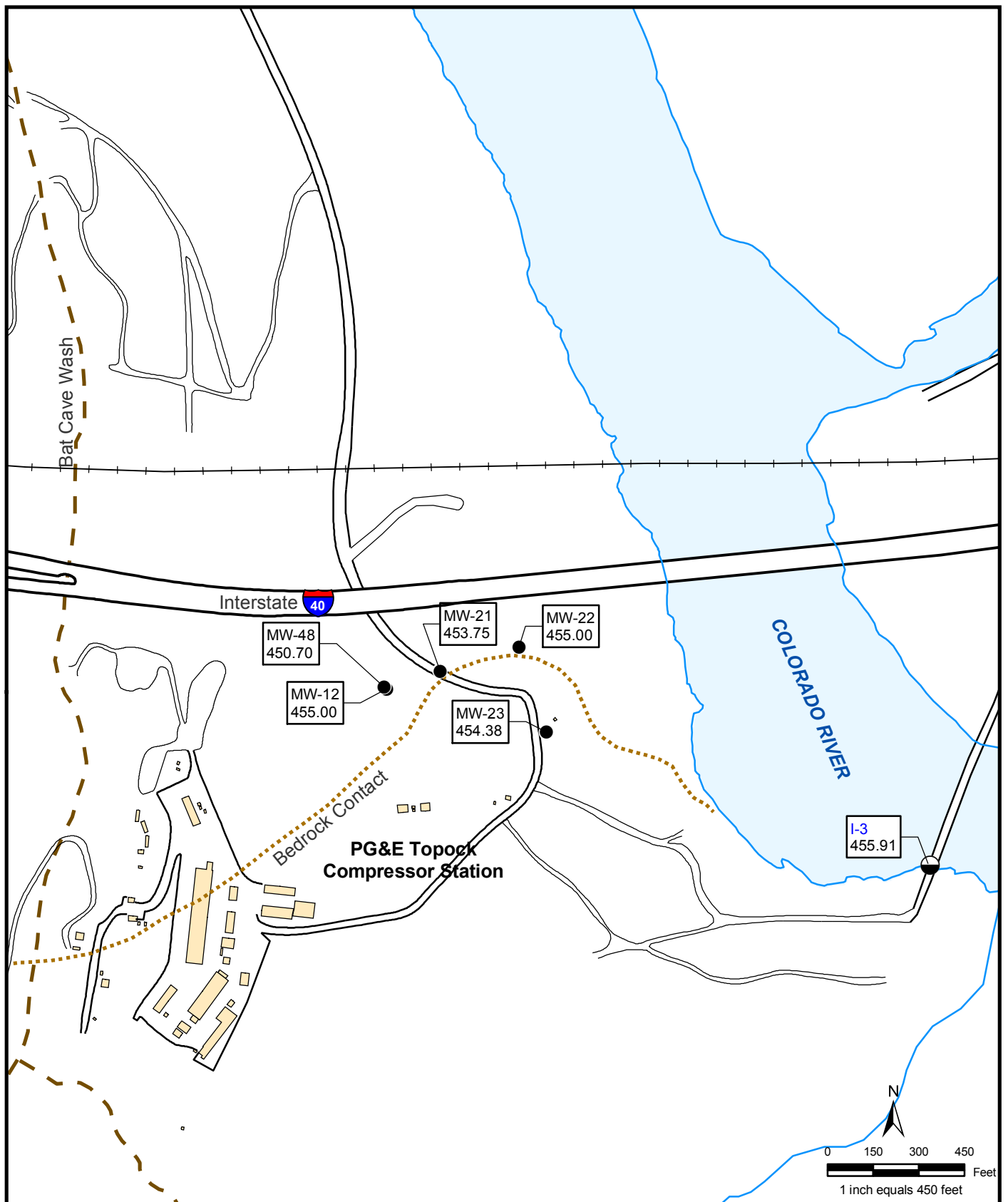
- **MW-22** Average Groundwater Elevation at Monitoring Station (ft AMSL) 453.65
- **I-3** River Elevation (ft AMSL) Interpolated Average 453.51
- **INC** Data incomplete or unavailable over reporting period
- Monitoring Well
- River Station
- Approximate Bedrock Contact at 455 ft AMSL

FIGURE 5
AVERAGE GROUNDWATER ELEVATIONS
AT MW-23 AND ADJACENT WELLS
JANUARY 2008
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



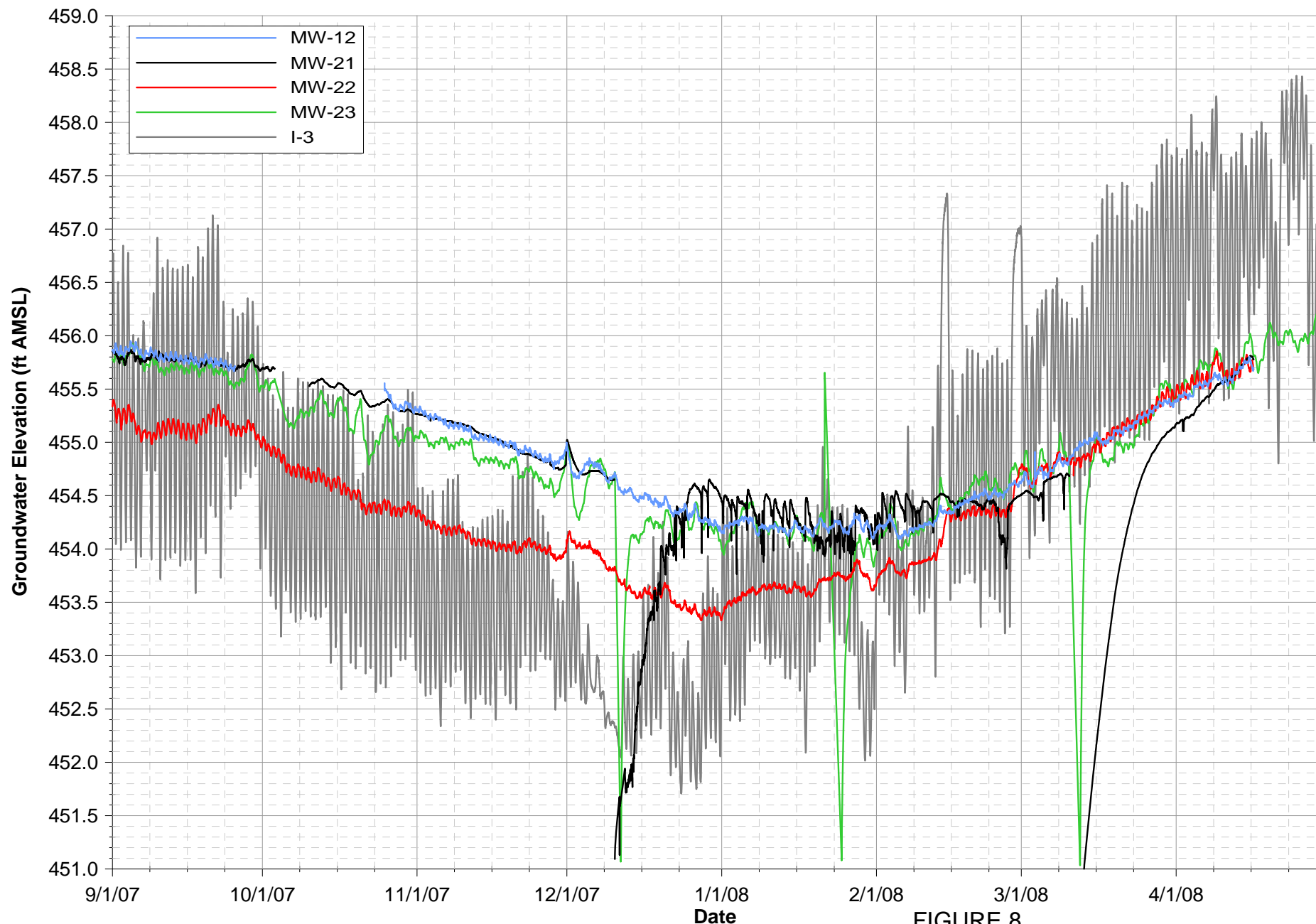
- **MW-22** Average Groundwater Elevation at Monitoring Station (ft AMSL) 454.14
- **I-3** River Elevation (ft AMSL) Interpolated Average 454.66
- **INC** Data incomplete or unavailable over reporting period
- Monitoring Well
- River Station
- Approximate Bedrock Contact at 455 ft AMSL

FIGURE 6
AVERAGE GROUNDWATER ELEVATIONS
AT MW-23 AND ADJACENT WELLS
FEBRUARY 2008
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



- **MW-22** Average Groundwater Elevation at Monitoring Station (ft AMSL) 455.00
- **I-3** River Elevation (ft AMSL) Interpolated Average 455.91
- **INC** Data incomplete or unavailable over reporting period
- Monitoring Well
- River Station
- Approximate Bedrock Contact at 455 ft AMSL

FIGURE 7
AVERAGE GROUNDWATER ELEVATIONS
AT MW-23 AND ADJACENT WELLS
MARCH 2008
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



Notes:
Data subject to review.
Groundwater depressions at MW-21, MW-23,
and MW-48 are due to sampling activities 3/10/08
through 3/14/08.

FIGURE 8
MW-23 AND ADJACENT WELLS
HYDROGRAPHS AND RIVER LEVELS
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Attachment 2
Groundwater COPC Sampling Results, January
through December 2007

ATTACHMENT 2

Groundwater COPC Sampling Results, January through December 2007
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-9	10/04/2007	304	304	2,810	7.52 J
MW-10	03/06/2007	1,640	1,700	2,760	7.67
	05/03/2007	1,230	1,440	2,840	7.58 J
	10/02/2007	1,010	1,050	2,700	7.74 J
MW-12	03/06/2007	2,630	2,440	4,820	8.41
	05/03/2007	2,620	2,880	5,220	8.40 J
	10/04/2007	2,830	2,700	5,560	8.41 J
	10/04/2007 FD	2,970	2,800	5,540	8.47 J
	12/13/2007	2,530	2,930	5,170	---
MW-13	03/05/2007	23	25	1,860	7.66
	10/02/2007	22	24	1,860	7.67 J
MW-14	03/12/2007	13	13	1,450	7.75
	10/02/2007	27	31	1,410	7.86 J
MW-15	10/02/2007	12	13	1,450	7.89 J
MW-16	10/02/2007	9	10	1,040	8.12 J
MW-17	10/03/2007	7	7	1,710	---
MW-18	03/12/2007	36	36	1,200	7.69
	03/12/2007 FD	36	34	1,200	7.73
	10/02/2007	28	28	1,250	7.78 J
MW-19	03/06/2007	1,040	1,030	2,240	7.69
	05/02/2007	836	777	2,310	7.70 J
	10/05/2007	1,390	1,510	2,200	7.33 J
MW-20-70	03/14/2007	2,820	2,720	2,850	7.62
	05/03/2007	2,790	3,050	2,750	7.62 J
	10/11/2007	2,400	2,140	2,800	7.66 J
MW-20-100	03/14/2007	9,470	9,270	3,590	7.63
	05/03/2007	10,100	9,820	3,560	7.56 J
	05/03/2007 FD	10,000	10,500	3,590	7.54 J
	10/10/2007	9,000	10,700	3,390	7.61 J
MW-20-130	03/08/2007	12,800	11,900	12,600	7.59
	03/08/2007 FD	14,400	12,100	12,800	7.57
	05/03/2007	13,400	16,200	12,700	7.58 J
	05/03/2007 FD	13,500	14,800	12,800	7.53 J
	10/05/2007	12,200	13,000	11,600	7.55 J
MW-21	03/09/2007	ND (1.0)	ND (1.0) LF	11,100	7.26
	05/01/2007	ND (1.0)	1	12,200	7.23 J
	10/04/2007	ND (5.0)	ND (1.0)	14,100	7.21 J
	12/11/2007	ND (1.0)	ND (1.0)	13,700	---
MW-22	03/08/2007	ND (1.0)	ND (1.0)	27,700	7.02
	10/10/2007	ND (1.0)	ND (1.0)	23,700	6.93 J
MW-23	03/06/2007	1,020	1,020	10,200	7.75
	05/02/2007	13	11	17,100	7.38
	10/04/2007	19	22	15,800	7.50 J
	12/11/2007	40	40	16,400	---

ATTACHMENT 2

Groundwater COPC Sampling Results, January through December 2007
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-24A	03/06/2007	3,540	3,600	3,190	7.69
MW-24B	03/05/2007	5,980	6,100	14,900	7.92
MW-24BR	03/06/2007	ND (1.0)	ND (1.0)	14,200	8.26
	05/03/2007	ND (1.0)	ND (1.0) LF	14,000	8.29 J
	10/04/2007	ND (1.0)	ND (1.0)	13,500	8.72 J
	12/14/2007	ND (1.0)	3	13,000	---
MW-25	03/06/2007	945	951	1,330	7.59
	10/02/2007	895	805	1,190	7.62 J
	10/02/2007 FD	933	884	1,210	7.69 J
MW-26	03/12/2007	3,440	3,540	3,580	7.57
	10/02/2007	3,510	3,740	3,490	7.58 J
MW-27-20	10/02/2007	ND (0.2)	2	1,120	7.73 J
MW-27-60	10/02/2007	ND (0.2)	ND (1.0)	7,400	7.51 J
MW-27-85	01/10/2007	ND (1.0)	4	---	---
	02/06/2007	ND (1.0)	ND (1.0)	---	---
	03/07/2007	ND (0.2)	ND (1.0)	18,100	7.31
	04/03/2007	ND (1.0)	ND (1.0)	---	---
	05/01/2007	ND (1.0)	1	18,500	7.21 J
	06/13/2007	ND (1.0)	ND (1.0)	---	---
	07/11/2007	ND (1.0)	ND (1.0)	---	---
	08/08/2007	ND (1.0)	ND (1.0)	---	---
	08/08/2007 FD	ND (1.0)	ND (1.0)	---	---
	09/05/2007	ND (1.0)	ND (1.0)	---	---
	10/02/2007	ND (1.0)	ND (1.0)	16,300	7.24 J
	12/11/2007	ND (1.0)	ND (1.0)	17,800	---
MW-28-25	10/04/2007	ND (1.0)	ND (1.0)	1,220	7.52 J
MW-28-90	03/08/2007	ND (1.0)	ND (1.0)	7,450	7.56
	05/04/2007	ND (0.2)	ND (1.0)	7,560	7.49 J
	10/04/2007	ND (1.0)	ND (1.0)	7,020	7.42 J
	12/14/2007	ND (0.2)	ND (1.0)	7,290	---
MW-29	10/04/2007	ND (1.0)	ND (1.0)	2,630	7.46 J
MW-30-30	10/08/2007	ND (1.0)	ND (1.0) LF	35,800	7.14 J
MW-31-60	03/12/2007	626	638	2,730	7.69
	10/04/2007	726 J	669	2,840	7.60 J
MW-31-135	03/08/2007	51	55	9,980	7.91
	03/08/2007 FD	52	54	9,970	7.93
	10/01/2007	33	29	9,750	7.91 J
MW-32-20	03/06/2007	ND (2.0)	ND (1.0)	37,200	6.85
	04/30/2007	ND (2.0)	ND (1.0)	27,500	6.86 J
	10/01/2007	ND (2.0)	ND (1.0)	47,700	6.79 J
MW-32-35	03/06/2007	ND (1.0)	ND (1.0)	17,300	7.22
	04/30/2007	ND (1.0)	ND (1.0)	19,400	7.07 J
	10/01/2007	ND (1.0)	1	18,700	7.12 J
MW-33-40	03/06/2007	ND (0.2)	ND (1.0)	4,960	8.31

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Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-33-40	05/02/2007	ND (0.2)	ND (1.0)	4,500	8.38 J
	10/05/2007	ND (0.2)	1	6,260	8.14 J
	12/12/2007	0.40	4	7,890	---
MW-33-90	03/12/2007	17	18	9,750	7.53
	05/02/2007	19	17	9,980	7.56 J
	10/05/2007	18	19	9,540	7.27 J
	12/13/2007	21	23	9,730	---
	12/13/2007 FD	21	21	9,710	---
MW-33-150	03/06/2007	7	7	15,900	7.67
	05/02/2007	7	6	16,000	7.61 J
	10/09/2007	9	8	15,600	7.71 J
	10/09/2007 FD	9	8	15,500	7.70 J
	12/12/2007	9	10	16,700	---
MW-33-210	03/05/2007	11	11	18,900	7.45
	05/02/2007	9	9	18,800	7.46 J
	10/05/2007	12	12	17,500	7.30 J
	12/12/2007	13	14	17,600	---
MW-34-55	10/03/2007	ND (0.2)	ND (1.0)	1,160	---
MW-34-80	01/09/2007	ND (1.0)	3	---	---
	02/05/2007	ND (1.0)	ND (1.0)	---	---
	03/05/2007	ND (1.0)	ND (1.0)	10,000	7.33
	04/02/2007	ND (0.2)	ND (1.0)	---	---
	04/30/2007	ND (1.0)	1	10,000	7.40 J
	06/13/2007	ND (1.0)	ND (1.0)	---	---
	07/11/2007	ND (1.0)	ND (1.0)	---	---
	08/08/2007	ND (1.0)	ND (1.0)	---	---
	09/06/2007	ND (1.0)	ND (1.0)	---	---
	10/03/2007	ND (0.2)	ND (1.0)	8,790	---
	11/12/2007	ND (1.0)	ND (1.0)	---	---
	12/13/2007	ND (1.0)	ND (1.0)	7,750	---
MW-34-100	01/09/2007	797	830	---	---
	01/24/2007	832	817	---	---
	02/05/2007	780	646	---	---
	02/05/2007 FD	764	634	---	---
	02/21/2007	804	895	---	---
	03/07/2007	806	788	16,400	7.76
	03/21/2007	724	642	---	---
	04/02/2007	749	786	---	---
	04/02/2007 FD	720	800	---	---
	04/18/2007	687	641	---	---
	04/30/2007	626	500	16,500	7.60 J
	04/30/2007 FD	632	572	16,300	7.68 J
	05/16/2007	588	573	---	---
	05/30/2007	597	656	---	---
	06/13/2007	609	644	---	---
	06/13/2007 FD	608	633	---	---
	06/27/2007	574	536	---	---

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Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-34-100	07/12/2007		557	520	---	---
	07/12/2007	FD	558	521	---	---
	07/25/2007		560	627	---	---
	08/08/2007		596	670	---	---
	08/22/2007		550	490	---	---
	09/06/2007		551	581	---	---
	09/06/2007	FD	546	516	---	---
	09/19/2007		501	603	---	---
	10/03/2007		521	609 J	16,000	---
	10/03/2007	FD	513	424 J	16,100	---
	11/13/2007		590	598	---	---
	12/13/2007		567	591	16,400	---
	12/13/2007	FD	614	610	15,400	---
MW-35-60	03/08/2007		31	35	6,750	7.53
	03/08/2007	FD	31	33	6,740	7.50
	10/01/2007		25	21	7,160	7.51 J
	10/01/2007	FD	25	21	7,270	7.47 J
MW-35-135	03/08/2007		32	39	9,820	7.76
	05/04/2007		27	26	10,800	7.62 J
	05/04/2007	FD	28	25	10,500	7.65 J
	10/01/2007		32	29	9,150	7.83 J
MW-36-20	10/03/2007		ND (1.0)	ND (1.0)	23,500	---
MW-36-40	10/03/2007		ND (1.0)	ND (1.0)	8,390	---
MW-36-50	10/10/2007		ND (0.2)	2	3,360	7.88 J
MW-36-70	03/07/2007		ND (0.2)	ND (1.0)	2,780	7.93
	05/01/2007		ND (0.2)	ND (1.0)	2,210	8.02 J
	10/09/2007		ND (0.2)	ND (1.0)	1,520	8.29 J
MW-36-90	01/10/2007		6	10	---	---
	02/05/2007		5	5	---	---
	03/07/2007		3	4	7,060	7.54
	04/03/2007		3	3	---	---
	05/02/2007		2	2	6,080	7.54 J
	05/02/2007	FD	2	2	6,170	7.43 J
	06/12/2007		3	3	---	---
	07/12/2007		3	3	---	---
	08/07/2007		3	4	---	---
	09/06/2007		3	4	---	---
	10/09/2007		3	3	3,210	7.84 J
MW-36-100	01/10/2007		571	554	---	---
	02/05/2007		538	474	---	---
	03/08/2007		436	454	14,100	7.33
	04/02/2007		366	378	---	---
	05/02/2007		297	348	13,500	7.25 J
	06/14/2007		181	192	---	---
	07/12/2007		180	219	---	---
	08/07/2007		159 J	187	---	---

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Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-36-100	09/06/2007	157	184	---	---
	10/10/2007	228	196	12,500	7.27 J
MW-37D	03/07/2007	1,420	1,310	14,700	7.84
	05/03/2007	1,350	1,260	14,400	7.56 J
	10/04/2007	834	794	13,600	7.78 J
MW-37S	03/07/2007	8	9	4,640	7.86
	10/04/2007	8	8	4,470	7.89 J
	10/04/2007 FD	8	7	4,530	7.91 J
MW-39-40	03/05/2007	ND (1.0)	ND (1.0)	9,480	7.43
	05/03/2007	ND (1.0) J	ND (1.0)	9,490	7.26 J
	10/08/2007	ND (1.0)	ND (1.0)	10,800	7.18 J
MW-39-50	10/08/2007	ND (0.2)	ND (1.0)	3,660	7.98 J
MW-39-60	10/08/2007	ND (0.2)	ND (1.0)	4,550	7.72 J
MW-39-70	03/05/2007	35	37	8,250	7.31
	05/03/2007	10 R	10	6,920	7.42 J
	06/07/2007	5	4 LF	---	---
	10/08/2007	6	6	5,420	7.56 J
MW-39-80	01/10/2007	302	292	---	---
	02/08/2007	286	247	---	---
	03/05/2007	151	144	13,300	7.10
	04/04/2007	112	126	---	---
	05/03/2007	156	146	12,400	7.27 J
	06/12/2007	84	73	---	---
	07/12/2007	63	56	---	---
	08/08/2007	43	45	---	---
	09/06/2007	65	66	---	---
	10/08/2007	59	48	11,800	7.24 J
MW-39-100	01/10/2007	2,930	2,560	---	---
	02/08/2007	2,880	2,400	---	---
	03/12/2007	2,850	2,770	18,700	7.20
	04/04/2007	3,190	2,990	---	---
	05/03/2007	2,670	2,920	18,600	7.20 J
	06/13/2007	2,530	2,730	---	---
	07/12/2007	2,020	2,430	---	---
	08/07/2007	1,830	1,780	---	---
	09/07/2007	1,660	1,690	---	---
	10/10/2007	1,660	1,840	18,600	7.07 J
MW-40D	03/09/2007	104	92	15,300	7.68
	05/04/2007	78	80	15,300	7.60 J
	10/04/2007	112	104	14,600	7.44 J
MW-40S	10/04/2007	6	7	2,040	7.80 J
MW-41D	03/07/2007	ND (1.0)	ND (1.0)	20,800	7.86
	03/07/2007 FD	ND (1.0)	ND (1.0)	20,700	7.84
	10/03/2007	ND (1.0)	1	20,000	---
MW-41M	03/08/2007	10	12 LF	14,500	7.76

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Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-41M	10/03/2007	11	9	14,100	---
MW-41S	03/08/2007	20	21	4,710	7.96
	10/03/2007	20	18	4,650	---
	10/03/2007 FD	20	18	4,580	---
MW-42-30	03/07/2007	ND (0.2)	ND (1.0)	13,300	7.38
	10/04/2007	ND (1.0)	ND (1.0)	20,600	7.17 J
MW-42-55	03/07/2007	ND (0.2)	ND (1.0)	15,000	7.35
	03/07/2007 FD	ND (0.2)	ND (1.0)	15,200	7.35
	05/01/2007	ND (1.0)	ND (1.0)	15,400	7.33 J
	10/04/2007	ND (1.0)	ND (1.0)	13,900	7.30 J
	12/11/2007	ND (1.0)	ND (1.0)	14,600	---
MW-42-65	03/07/2007	ND (0.2)	ND (1.0)	17,500	7.06
	05/01/2007	ND (1.0)	ND (1.0)	16,300	7.10 J
	10/03/2007	ND (1.0)	ND (1.0)	14,400	---
	12/11/2007	ND (1.0)	ND (1.0)	15,900	---
MW-43-25	03/06/2007	ND (0.2)	ND (1.0)	1,250	7.55
	10/02/2007	ND (1.0)	ND (1.0)	1,210	7.46 J
MW-43-75	03/06/2007	ND (1.0)	ND (1.0)	13,800	7.47
	04/30/2007	ND (1.0)	ND (1.0)	13,600	7.46 J
	10/02/2007	ND (1.0)	ND (1.0)	13,400	7.53 J
MW-43-90	03/06/2007	ND (1.0)	ND (1.0)	19,700	6.99
	04/30/2007	ND (1.0)	ND (1.0)	19,800	6.99 J
	10/02/2007	ND (1.0)	ND (1.0)	18,200	6.93 J
MW-44-70	03/09/2007	ND (1.0)	ND (1.0)	6,320	7.50
	05/03/2007	ND (0.2)	ND (1.0)	5,890	7.38 J
	10/04/2007	ND (0.2)	ND (1.0)	4,790	7.65 J
	12/11/2007	ND (0.2)	ND (1.0)	4,430	---
MW-44-115	01/09/2007	1,140	1,260	---	---
	02/06/2007	1,140	1,020	---	---
	03/09/2007	1,210	1,340 LF	13,000	7.79
	03/09/2007 FD	1,200	1,340	13,000	7.81
	04/02/2007	1,210	1,420	---	---
	05/04/2007	1,080	1,190	13,200	7.81 J
	06/14/2007	1,030	1,110	---	---
	07/10/2007	919	1,060	---	---
	08/06/2007	834	924	---	---
	09/05/2007	872	850	---	---
	10/04/2007	763	866	12,300	7.95 J
	10/04/2007 FD	783	830	12,200	7.83 J
	11/13/2007	766	890	---	---
	11/13/2007 FD	767	884	---	---
	12/11/2007	736	766	13,100	---
MW-44-125	01/09/2007	285	285	---	---
	01/09/2007 FD	284	268	---	---
	02/06/2007	213	190	---	---
	03/09/2007	258	287	12,300	7.85

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Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-44-125	04/03/2007	296	272	---	---
	05/03/2007	254	315	11,700	7.54 J
	05/03/2007 FD	300	309	12,200	7.87 J
	06/14/2007	229	258	---	---
	07/11/2007	252	283	---	---
	08/07/2007	278	251	---	---
	09/04/2007	255	253	---	---
	10/04/2007	314	347	11,900	7.85 J
	11/12/2007	318	330	---	---
	12/11/2007	359	311	13,600	---
MW-45-095a	05/04/2007	169	140	10,100	7.57 J
MW-46-175	01/10/2007	138	133	---	---
	02/08/2007	130	108	---	---
	03/08/2007	153	147	16,200	8.47
	04/03/2007	113	96	---	---
	05/04/2007	86	114	16,100	8.35 J
	06/14/2007	101	109	---	---
	07/13/2007	103	101	---	---
	08/06/2007	94	99	---	---
	09/04/2007	88	95	---	---
	10/05/2007	100	87	15,500	8.45 J
	11/13/2007	104	95	---	---
	12/13/2007	123	128	15,800	---
MW-46-205	03/08/2007	4	5	19,900	8.32
	05/04/2007	4	3	20,400	7.49 J
	10/05/2007	4	5	18,900	8.32 J
	12/14/2007	4	4	19,100	---
MW-47-55	03/06/2007	55	53	3,610	7.70
	05/04/2007	30	32	3,990	7.64 J
	10/04/2007	62	59	3,660	7.79 J
	12/12/2007	152	134	3,720	---
MW-47-115	03/06/2007	11	11	12,500	7.77
	05/04/2007	14	13	12,700	7.68 J
	10/04/2007	12	12	12,200	7.69 J
	12/12/2007	10	11	13,200	---
	12/12/2007 FD	11	11	13,000	---
MW-48	03/07/2007	ND (1.0)	ND (1.0) LF	17,400	7.89
	05/01/2007	ND (1.0)	1	17,900	7.37 J
	10/04/2007	ND (1.0)	ND (1.0)	16,500	7.30 J
	12/14/2007	ND (1.0)	1	16,400	---
MW-49-135	03/09/2007	ND (1.0)	ND (1.0)	13,500	7.67
	05/04/2007	ND (0.2)	ND (1.0)	13,400	7.83 J
	10/10/2007	ND (1.0)	3	12,300	7.81 J
MW-49-275	03/09/2007	ND (1.0)	ND (1.0)	23,700	8.10
	05/04/2007	ND (0.2)	ND (1.0)	23,400	8.05 J
	10/09/2007	ND (1.0)	ND (1.0)	22,200	8.20 J

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Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-49-365	03/09/2007	ND (2.0)	ND (1.0)	36,100	7.98
	05/04/2007	ND (0.2)	ND (1.0)	36,900	7.91 J
	10/09/2007	ND (2.0)	ND (1.0)	34,200	8.08 J
MW-50-095	03/07/2007	274	372	4,770	7.98
	05/02/2007	304	264	4,810	7.87 J
	10/04/2007	217	216	4,660	8.06 J
	12/11/2007	173	163	4,910	---
MW-50-200	03/07/2007	12,300	14,600	20,700	7.92
	04/30/2007	10,900	12,100	20,300	7.83 J
	10/04/2007	9,430	9,780	18,800	7.37 J
	12/11/2007	8,930	9,340	19,400	---
MW-51	03/06/2007	4,690	5,090	10,500	7.56
	05/01/2007	4,670	5,120	11,100	7.52 J
	10/05/2007	4,500	4,340	10,100	7.59 J
MW-52D	03/13/2007	ND (1.0)	ND (1.0)	---	---
	05/01/2007	ND (1.0)	ND (1.0)	---	---
	06/05/2007	ND (1.0)	ND (1.0)	20,700	8.03 J
	07/12/2007	ND (1.0)	ND (1.0)	20,600	7.44 J
	08/08/2007	ND (1.0)	ND (1.0)	20,500	7.96 J
	09/05/2007	ND (1.0)	ND (1.0)	19,200	7.98 J
	10/11/2007	ND (1.0)	ND (1.0)	19,700	8.02 J
	12/17/2007	ND (1.0)	ND (1.0)	19,500	---
MW-52M	03/13/2007	ND (1.0)	ND (1.0)	---	---
	05/01/2007	ND (1.0)	ND (1.0)	---	---
	06/05/2007	ND (1.0)	ND (1.0)	16,100	7.94 J
	07/12/2007	ND (1.0)	ND (1.0)	15,900	7.77 J
	08/08/2007	ND (1.0)	ND (1.0)	16,400	7.94 J
	08/08/2007	FD ND (1.0)	ND (1.0)	16,100	7.86 J
	09/05/2007	ND (1.0)	ND (1.0)	15,100	7.93 J
	10/11/2007	ND (1.0)	ND (1.0)	15,800	8.01 J
	12/17/2007	ND (1.0)	ND (1.0)	15,400	---
MW-52S	03/13/2007	ND (1.0)	ND (1.0)	---	---
	05/01/2007	ND (1.0)	ND (1.0)	---	---
	06/05/2007	ND (1.0)	ND (1.0)	10,600	7.40 J
	07/12/2007	ND (1.0)	ND (1.0)	11,600	7.48 J
	08/08/2007	ND (1.0)	ND (1.0)	11,600	7.65 J
	09/05/2007	ND (1.0)	ND (1.0)	10,800	7.45 J
	10/11/2007	ND (1.0)	ND (1.0)	11,000	7.50 J
	12/17/2007	ND (1.0)	ND (1.0)	10,700	---
MW-53D	04/03/2007	ND (1.0)	ND (1.0)	---	---
	05/02/2007	ND (1.0)	1	---	---
	06/05/2007	ND (1.0)	ND (1.0)	26,100	8.91 J
	06/05/2007	FD ND (1.0)	ND (1.0)	23,100	8.85 J
	07/12/2007	ND (1.0)	ND (1.0)	25,500	8.79 J
	08/08/2007	ND (1.0)	ND (1.0)	25,700	8.98 J
	09/05/2007	ND (1.0)	ND (1.0)	23,500	8.56 J

ATTACHMENT 2

Groundwater COPC Sampling Results, January through December 2007
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-53D	09/05/2007	FD	ND (1.0)	ND (1.0)	24,200	8.67 J
	10/11/2007		ND (2.0)	2 J	24,300	8.79 J
	10/11/2007	FD	ND (1.0)	ND (1.0) J	24,800	8.85 J
	12/17/2007		ND (1.0)	ND (1.0)	24,300	---
MW-53M	04/03/2007		ND (1.0)	ND (1.0)	---	---
	05/01/2007		ND (1.0)	ND (1.0)	---	---
	06/05/2007		ND (1.0)	ND (1.0)	14,400	8.71 J
	07/12/2007		ND (1.0)	ND (1.0)	15,400	8.52 J
	08/08/2007		ND (1.0)	ND (1.0)	16,200	8.50 J
	09/05/2007		ND (1.0)	ND (1.0)	15,500	8.48 J
	10/11/2007		ND (1.0)	ND (1.0)	16,900	8.57 J
	12/17/2007		ND (1.0)	ND (1.0)	16,900	---
OW-3D	03/09/2007		3	3	7,680	8.18
	10/03/2007		4	4	7,710	---
OW-3M	03/09/2007		18	17	5,100	8.07
	10/03/2007		17 J	19	4,980	---
OW-3S	03/09/2007		23	22	1,730	7.71
	10/03/2007		22	22	1,690	---
PE-1	12/06/2006		97	86	10,000	7.48
	01/10/2007		89	103	8,410	7.75
	02/06/2007		81	90	8,390	7.49
	03/07/2007		85	91	8,360	7.52
	06/13/2007		52	48	7,650	7.52 J
	07/11/2007		47	40	7,450	7.55 J
	08/08/2007		51	61	7,290	7.59 J
	09/05/2007		49	49	6,590	7.55 J
	10/03/2007		53	45	6,550	7.53 J
	11/13/2007		50	52	6,450	7.62 J
	12/12/2007		47	55	7,120	7.65 J
PGE-7BR	12/19/2007		ND (1.0)	ND (1.0) LF	---	---
PGE-8	08/11/2007		ND (1.0)	ND (1.0)	18,000	8.46 J
Park Moabi-3	05/02/2007		0.90	1 UF	1,890	7.82 J
	10/04/2007		ND (1.0)	ND (1.0) UF	1,920	7.93 J
Park Moabi-4	05/02/2007		ND (0.2)	ND (1.0) UF	1,530	7.99 J
	10/04/2007		21	24 UF	1,720	8.14 J
	11/13/2007		13	22 UF	1,470	8.01 J
TW-1	10/11/2007		4,610	4,220	6,200	7.54 J
TW-2D	10/04/2007		210	228	7,350	7.40 J
TW-2S	10/04/2007		1,250	1,220	2,380	7.93 J
TW-3D	12/06/2006		2,500	2,090	10,000	7.38
	01/10/2007		2,440	2,580	8,670	7.34
	02/06/2007		2,400	2,310	8,610	7.30
	03/07/2007		2,420	2,500	8,740	7.37
	06/13/2007		2,000	2,350	8,670	7.32 J
	07/11/2007		2,000	2,390	8,750	7.37 J

ATTACHMENT 2

Groundwater COPC Sampling Results, January through December 2007
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
TW-3D	08/08/2007	1,930	1,800	8,660	7.28 J
	09/05/2007	2,260	2,110	7,750	7.28 J
	10/03/2007	2,000	1,860	8,200	7.29 J
	11/13/2007	1,790	1,570	8,080	7.39 J
	12/12/2007	1,800	2,040	8,930	7.44 J
TW-4	03/07/2007	35	31	20,700	7.85
	03/07/2007 FD	36	37	20,800	7.77
	10/03/2007	33	32	19,400	---
	10/03/2007 FD	34	33	19,600	---
	12/12/2007	26	23	19,600	---
TW-5	10/04/2007	7	8	12,200	7.91 J

Notes:

µg/L micrograms per liter

µS/cm microSiemens per centimeter

ND not detected at listed reporting limit

J concentration or reporting limit estimated by laboratory or data validation

R result exceeded analytical criteria for precision and accuracy; should not be used for project decision-making

(---) not collected or not available

FD field duplicate sample

LF lab filtered

UF unfiltered

Hexavalent chromium analysis methods: SW 7196A (reporting limit 10 µg/L) and SW 7199 (reporting limit 0.2 µg/L for undiluted samples).

Other analysis methods: dissolved total chromium (Methods SW 6020A and SW 6010B), specific conductance (SW 9050), pH (SW 9040).

Wells TW-3D and PE-1 are active extraction wells for the IM hydraulic containment system.

Monitoring well MW-39-70 was resampled on June 7, 2007 due to the rejected hexavalent chromium sample collected on May 3, 2007.

The March, April and May 2007 results for slant wells MW-52 and MW-53 are from initial groundwater sampling events.

Attachment 3
Groundwater Sampling and Chain-of-Custody
Forms
