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May 31, 2005

Norman Shopay
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Geology and Corrective Action Branch
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Berkeley, California 94710

Subject: Performance Monitoring Report for April 2005 and Quarterly Performance Evaluation, February through April 2005
Interim Measures Performance Monitoring Program for Floodplain Area
PG&E Topock Compressor Station, Needles, California

Dear Mr. Shopay:

Enclosed is the performance monitoring report for the Interim Measures Performance Monitoring Program for the Topock project. This performance monitoring report documents the monthly performance monitoring results for April 2005 and describes operational and monitoring information for IM No. 2 for the quarterly period from February 1 through April 30, 2005.

In a letter dated February 14, 2005, Department of Toxic Substances Control (DTSC) established criteria for evaluating the performance of the Interim Measures. This report was prepared in conformance with DTSC's Enclosure A requirements of the February 14, 2005 letter.

Please contact me at (805) 546-5243 if you have any questions or if you need additional information.

Sincerely,

Terri Herson
for Yvonne Meeks

Enclosure
cc: CWG Members

Performance Monitoring Report for April 2005 and Quarterly Performance Evaluation, February through April 2005

Interim Measures Performance Monitoring Program for Floodplain Area

Prepared for

California Department of Toxic Substances Control

on behalf of

Pacific Gas and Electric Company

May 31, 2005

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Interim Measures Performance Monitoring Program for Floodplain Area

PG&E Topock Compressor Station Needles, California

Prepared for

Pacific Gas and Electric Company

May 31, 2005

This report was prepared under the supervision of a California Certified Engineering Geologist

Paul Bertucci, C.E.G. No. 1977
Project Hydrogeologist

1.0 Introduction

Pacific Gas and Electric Company (PG&E) is implementing Interim Measure (IM) No. 2 at the Topock Compressor Station near Needles, California, as described in the *Final Interim Measures Work Plan No. 2* prepared by CH2M HILL on March 2, 2004 and *Addenda to Interim Measures Work Plan No. 2,* prepared by CH2M HILL on March 1, 2004. This Quarterly performance monitoring report describes operational and monitoring information for IM No. 2 for the period from February 1 through April 30, 2005.

In a letter dated February 14, 2005, DTSC established criteria for evaluating the performance of the Interim Measures. In Enclosure A, Section II, DTSC defines the performance standard that "PG&E shall establish and maintain a net landward hydraulic gradient, both horizontally and vertically, that ensures that hexavalent chromium concentrations at or greater than 20 micrograms per liter (ug/L) in the floodplain are contained for removal and treatment."

In Enclosure A, Section VI of the letter, DTSC directed PG&E to provide monthly, quarterly, and annual reports that evaluate the performance of the IM against this performance standard. Monthly reports shall be submitted no later than 15 days after the subject month and should demonstrate achievement of the performance standard through potentiometric surface contour maps, hydraulic gradient calculations, and isoconcentration contours and concentration trends in floodplain wells for hexavalent chromium. Quarterly reports shall be submitted no later than 30 days after the quarter and should demonstrate achievement of the performance standard using the same evidence provided in the monthly reports as well as a capture zone analysis for the floodplain area. Annual reports, covering the reporting period February 1 thru January 31 of the following year, shall be submitted on March 15th each year. These reports shall demonstrate achievement of the performance standard using the same evidence provided in the monthly and quarterly reports as well as an annual capture zone analysis for the floodplain area. Figure 1-1 shows the locations of well pairs used for hydraulic gradient calculations and wells used for performance monitoring.

The *Performance Monitoring Plan for Interim Measures in the Floodplain Area*, submitted to DTSC on April 15, 2005, defines monitoring and reporting requirements for 2005 based on action items in the February 14, 2005 letter. This quarterly report has been prepared in compliance with those requirements, although the outline of this report has been revised to more clearly present evidence that the IM performance standard has been achieved for the quarter. The next quarterly report will be submitted on August 30, 2005. The next monthly report will be submitted on June 15, 2005.

1.1 Report Organization

The quarterly report presents documentation for the following, in support of performance evaluation:

- Documentation of monthly performance monitoring results for April 2005 and status of the extraction and treatment system (Section 2).

- Evaluation of quarterly performance data including the extraction system, chromium distribution and trends in the floodplain area, hydraulic gradients and river levels during the period of February through April 2005 (Section 3).
- Conclusions (Section 4).

2.0 Performance Monitoring Report for April 2005

2.1 Introduction

Figure 1-1 shows the wells used for performance monitoring. The wells are defined as follows:

- **Floodplain Wells**: MW-27 cluster (3), MW-28 cluster (2), MW-29, MW-30 cluster (2), MW-32 cluster (2), MW-33 cluster (4), MW-34 cluster (3), MW-36 cluster (6), MW-39 cluster (6), MW-42 cluster (3), and MW-43 cluster (3).
- **Intermediate Wells**: MW-19, MW-20 cluster (3), MW-26, MW-31 cluster (2), MW-35 cluster (2), TW-2S, TW-2D.
- **Interior Wells**: MW-10, MW-25.

In addition, two extraction wells, TW-2S and TW-2D are located on the MW-20 bench. Installation on an additional extraction well, PE-1 (located east of the MW-20 bench), was completed on March 3, 2005. The IM2 extraction and treatment system is also located on the MW-20 bench.

The unconsolidated alluvial fan and fluvial deposits (Alluvial Aquifer) have been separated into three zones to present chemical and hydraulic data. The three zones, the Upper, Middle and Lower zone of the Alluvial Aquifer, are defined based on grouping wells screened at common elevations and do not represent distinct hydrogeologic units. Even though the zones are not hydraulically separated, this definition of the zones is a useful construct for discussion of the gradational changes in water quality that are observed with depth in many parts of the alluvial aquifer. The three-zone concept is also useful to examine lateral gradients while minimizing complications of vertical gradients and observing the influence of pumping or injection from partially penetrating wells.

2.2 Extraction System Operations

On May 21, 2004, the United States Bureau of Land Management approved the PG&E work plan to modify the existing operations to batch treat the water onsite. The modifications were started on June 9, 2004 and completed on July 15, 2004. Start-up and testing of the batch plant began on July 19, 2004.

Treatment is completed in three steps: (1) chromium reduction by reaction with ferrous chloride to reduce the hexavalent chromium to the less soluble trivalent form, (2) iron oxidation to precipitate out excess iron and reduced chromium, and (3) clarification to remove the precipitated solids from the water. Treated water from the clarifier is transferred

to holding tanks for off-site disposal. Precipitated solids are periodically pumped from the clarifier into a container (phase separator) for off-site disposal.

Pumping data for the period April 1, 2005 through April 30, 2005 are shown in Table 2-1. An average pumping rate of approximately 69.0 gallons per minute (gpm) from TW-2D was maintained throughout April 2005. A total of 2,986,200 gallons of groundwater were extracted and batch treated during April 2005. Small daily fluctuations (i.e., 1 to 2 gpm) in recorded pumping rates and volumes were observed due to daily fluctuations in water levels, potential intermittent changes in power supply from the generator(s), and inherent limitations in flow meter accuracy (typically 1 to 2 percent). On April 3rd, the system was shutdown for a short amount of time (under 2 hours) for mechanical issues. On April 18th, the system was shut down (under 2 hours) due to a failure in the tank. No other changes in pumping rates were recorded during the monthly period.

The batch treated water was manifested as a RCRA non-hazardous waste and transported to United States Filter Corporation in Los Angeles, California for additional treatment and disposal. Solids accumulated in the clarifier were disposed as a hazardous waste at the Waste Management, Kettleman Hills Facility.

TABLE 2-1
Pumping Rate and Extracted Volume for IM System through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Extraction Well	April 2005 Period[3]		Quarterly Period[4]		Project To Date
	Average Pumping Rate[5] (gpm)	Volume Pumped (gal)	Average Pumping Rate[5] (gpm)	Volume Pumped (gal)	Cumulative Volume Pumped (gal)
TW-2S[1]	0	0	0	0	486,358
TW-2D	69.0	2,986,200	71.6	9,152,930	25,583,310
MW-20 wells[2]	0	0	1.6	301,897	1,527,724
Total	69.0	2,986,200	73.2	9,454,777	27,597,392
			Total Volume Pumped (ac-ft)		84.7

gpm: gallons per minute.
gal: gallons.
ac-ft: acre-feet.

[1]Pumping from TW-2S was temporarily terminated on June 11, 2004.
[2]Well MW-20-130 restarted on February 21, 2005 and shut down on March 16, 2005. Cumulative volume pumped includes the volume pumped from all MW-20 wells (MW-20-70, -100, and -130).
[3]Pumping results during the monthly period are based on readings collected between March31, 2005 at 1:00 pm and April 30, 2005 at 2:40 pm (30.1 days).
[4]Pumping results during the quarterly period are based on readings collected between January 31, 2005 at 8:20 pm and April 30, 2005 at 2:40 pm (88.8 days).
[5]The "Average Pumping Rate" is the overall average during the reporting period, including system downtime based on flow meter totalizer readings.

A spill of clarifier sludge occurred on Sunday, April 10, 2005 during transfer of the sludge from the clarifier to a phase separator. The transfer of sludge from the clarifier to the phase separator was stopped after the operator observed the spillage onto an underlying drip pad

and the ground surface in the vicinity of the phase separator. However, groundwater pumping activities continued with no effect on the extraction system. Spill cleanup activities were completed within 1 hour after the spill. Confirmation soil samples were collected within 2 work days of DTSC approval of the confirmation sampling work plan. A confirmation sampling report was submitted to DTSC on April 29, 2005. The report presented the results of confirmation sampling following initial cleanup activities, and plan for additional soil removal and confirmation sampling.

Daily inspections include tank inspections, flow measurements, site security, and desert tortoise sitings. Daily logs with documentation of inspections are maintained on site. Trace precipitation was observed on April 23 and 28, 2005. No net April rainfall for the area was measured at the Needles, California airport.

Two grab samples were collected from TW-2D and MW-20-130 in conjunction with system operations during April 2005. Table 2-2 is a summary of analytical results from TW-2D and MW-20-130 during the quarter February through April 2005.

2.3 Chromium Sampling Results

Table A-1 presents the groundwater sampling results for Cr(VI), Cr(T), ORP, specific conductance, and groundwater elevation for selected wells in the floodplain area during April 2005 and the previous five months. Table A-2 presents the results for the same analytes for all other wells included in the PMP during April 2005 and the previous five months. Figure 2-1 presents the Cr(VI) results distribution for April 2005 in plan view of the wells in the Upper, Middle and Lower zone of the Alluvial Aquifer. Figure 2-1 also shows the approximate outline of Cr(VI) in groundwater greater than 50 ppb (the California drinking water standard for total chromium) and 20 ppb based on the April 2005 results. Figure 2-2 presents Cr(VI) results in April 2005 vertically along the floodplain cross-section A. Hexavalent chromium concentration trend graphs and hydrographs for key floodplain wells are presented in Figures A-1 (MW-33-90), A-2 (MW-34-100), and A-3 (MW-36-100).

2.4 Hydraulic Gradient Results

Water levels were recorded at intervals of 30 minutes with pressure transducers in multiple wells and two river monitoring stations (I-3 and RRB). The data are typically continuous with only short interruptions for sampling or maintenance. The floodplain, intermediate and basin wells monitored are listed above.

Hydraulic data are summarized and groundwater elevations contoured by zone of the Alluvial Aquifer on the following figures:

- Figure 2-4 – Upper zone of Alluvial Aquifer
- Figure 2-5 – Middle zone of Alluvial Aquifer
- Figure 2-6 – Lower zone of Alluvial Aquifer

The average and the minimum and maximum daily average groundwater/river elevations have been calculated from the transducer data for the April reporting period (April 1 to 30, 2005). These values are shown on Figures 2-4, 2-5, and 2-6. The groundwater elevations for

all zones of the Alluvial Aquifer indicate landward hydraulic gradients along the floodplain. A strong landward hydraulic gradient was observed throughout all three vertical zones in the floodplain aquifer. To the west of the pumping area, the regional hydraulic gradient in the upper zone is easterly and consistent with regional gradients outside of the floodplain area. Landward gradients during April were steeper than usual due to the recent rise of the river levels and the continuation of an approximately 70 gpm pumping rate.

Hydrographs for all wells with transducers are provided as Appendix B; the Colorado River elevation at I-3 is shown on all hydrographs. Reported groundwater elevations (or hydraulic heads) are adjusted for temperature and for salinity differences between wells (i.e., adjusted to a common freshwater equivalent).

Table 2-3 summarizes the estimated and actual dam discharges and river elevations since April 2004. The actual Davis Dam April 2005 average discharge (16,306 cubic feet per second [cfs]) was slightly less than the U.S. Bureau of Reclamation (USBR) projected discharge for the April reporting period (16,700 cfs). However, it should be noted that the actual Colorado River elevation at I-3 (monthly average) was higher (0.2 feet) than the USBR predicted elevation for the April reporting period.

Gradients were measured between all well pairs (MW-20-130/MW-34-80, MW-20-130/MW-42-65, and MW-31-135/MW-33-150) during April 2005. As shown in Table 2-4, the average gradients in these well pairs were landward at magnitudes that were generally between 2 and 4 times greater than the target value of 0.0010 (0.0038, 0.0041, and 0.0023, respectively).

2.5 Status of Operation and Monitoring

Reporting of Interim Measures activities will continue as described in the *Performance Monitoring Plan for Interim Measures in the Floodplain Area*. The next status report will be a monthly performance monitoring report submitted on June 15th, 2005 and will cover activities from May 1 to May 31, 2005.

Full-time pumping from TW-2D will continue in May 2005. A short-term shutdown (up to 8 hours) to install a larger well pump preparation for IM No. 3 system commissioning is scheduled for early June. Based on the current IM No. 3 schedule, it is anticipated that the temporary shutdown will occur between June 8th and June 15th.

Based on current USBR projections, it is anticipated that the I-3 river level in May 2005 will be the same or slightly increased relative to April 2005. Future adjustments in pump rates from TW-2D will be proposed based on expected river levels, observed groundwater gradients, potential system modifications, and other relevant factors.

3.0 Quarterly Performance Evaluation for February Through April 2005

3.1 Extraction System Operations

Pumping data for the period of February 1, 2005 through April 30, 2005 are shown in Table 2-1 (see Section 2.2). The system ran at approximately 69 gpm from February 1 through February 21st, when DTSC directed PG&E to increase pumping rates to the maximum available. The pumping rate was increased to approximately 88 gpm (79 gpm from TW-2D and 9 gpm from MW-20-120) and was maintained at this rate from February 21st through March 16th. On March 16th, due to the rising river level and the increased releases from Davis Dam, PG&E (under direction of DTSC) stopped pumping from MW-20-130, and decreased the pumping rate at TW-2D to 70 gpm.

A total of 9,454,777 gallons of groundwater were extracted and batch treated during the first quarter of 2005. The quarterly average pumping rate, including system downtime, was 73.2 gpm.

3.2 Cr(VI) Distribution and Trends in Floodplain Area

Figure 3-1 presents the average Cr(VI) results from February through April 2005 for floodplain wells in the Upper, Middle, and Lower zones of the Alluvial Aquifer. Average groundwater Cr(VI) concentration contours of 50 ppb and 20 ppb are depicted along with the number of sampling events that occurred at each well.

Figure 3-2 presents the floodplain cross-section A with average Cr(VI) concentrations from February through April 2005. Average groundwater Cr(VI) concentration contours of 5000 ppb, 50 ppb and 20 ppb are shown along with the number of sampling events that occurred at each well. During this quarterly period February through April 2005, the Cr(VI) plume has not approached the Colorado River. The most easterly portion of the plume lies in the Lower aquifer zone at least 80 feet below the bottom of the river.

Hexavalent chromium concentration trend graphs and hydrographs for floodplain wells with Cr(VI) concentrations above the reporting limit are presented in Figures A-1 through A-10. Seven out of the ten groundwater wells with detections (MW-36-90, MW-36-100, MW-39-50, MW-39-60, MW-39-70, MW-39-80, and MW-39-100) showed declining Cr(VI) concentrations during the quarterly period February through April 2005.

3.3 Other Water Quality Data for Floodplain Wells

A field parameter meter and flow-through cell were used to measure water quality parameters that include oxidation-reduction potential, dissolved oxygen, and specific conductance during well purging and groundwater sampling (CH2M HILL 2004a). The

field water quality data measured during April 2005 and prior five months are included as Appendix A, Tables A-1 and A-2.

Table A-1 also presents the groundwater elevations collected during April 2005 and the previous five months. Due to the density differences in groundwater caused by salinity variations, the groundwater elevations measured in the wells have been adjusted, or normalized, to a freshwater standard.

Table C-1 (Appendix C) presents the results of the IM performance monitoring analyses wells in the floodplain area during quarterly monitoring from March 2004 through March 2005. The stable isotopes ^{18}O and deuterium can often be used to distinguish water sources and assess groundwater/surface water mixing and evaporation effects. In the case of the Topock site, there are distinct isotopic signatures of river water and groundwater in the interior wells (e.g., MW-20 wells, MW-25). Figure 1-1 shows the locations of the groundwater wells sampled for the performance monitoring parameters.

For the majority of the floodplain wells, the performance monitoring parameters exhibit minor variations in concentrations over the period of March 2004 through March 2005. However, the concentrations of TDS, chloride, sulfate, and calcium measured in wells MW-20-100, MW-25, MW-26, MW-31-60, MW-32-35 showed decreases compared to historical values (Table C-1). Well MW-27-20 showed increases in TDS, chloride, sulfate, calcium, magnesium, sodium and alkalinity concentrations. Further assessment of the performance monitoring wells will be conducted as additional monitoring data are collected.

3.4 Hydraulic Gradients and River Levels During Quarterly Period

Average monthly groundwater and river elevations, contour maps of groundwater elevations, and hydraulic gradients between key monitoring wells are reported each month in the PMR reports. The groundwater contour maps for the Upper zone (UA), Middle zone (MA) and Lower zone (LA) for February, March and April 2005 are also provided in this report as follows:

- February 2005: Appendix B, Figures B-2D through B-2F
- March 2005: Appendix B, Figures B-2A through B-2C
- April 2005: Figures 2-3 through 2-5 in Section 2 of this report

A review of the groundwater level contours on these figures shows that all floodplain wells with detectable chromium were within the capture zone of the pumping well(s) during every month of this quarter. That is, the inferred flowpath from each plume well is oriented towards the extraction well.

Average quarterly groundwater elevations (February through April, inclusive) for the Lower aquifer zone are presented and contoured in plan view on Figure 3-3. The average quarterly groundwater elevations are also presented and contoured in cross section on Figure 3-4 (location of cross section shown on Figure 1-1). A landward hydraulic gradient is observed in the Lower aquifer zone similar to each of the monthly contour plots submitted in the PMRs.

Hydraulic gradients are calculated each month between the following well/gradient pairs:

- MW-31-135 and MW-33-150 (northern gradient pair)
- MW-20-130 and MW-34-80 (central gradient pair)
- MW-20-130 and MW-42-65 (southern gradient pair)

The hydraulic gradients between key monitoring wells in February, March and April are summarized in Table 3-1 and Figure 3-5. The mean landward hydraulic gradients were greater than 0.001 feet/foot for all gradient pairs during all periods monitored in this quarterly reporting period. Figure 3-5 also shows the pumping rate and river level throughout the quarterly period.

The gradients were not determined for the southern and northern gradient pair for February because a well in each gradient pair was not installed until early March. In addition, the gradient calculations for the central gradient pair for February and March excluded data from February 20 to March 16 while MW-20-130 was used as an extraction well.

3.5 Projected River Levels during the Next Quarter

Colorado River stage near the Topock Compressor Station, measured at the I-3 location, is directly influenced by releases from Davis Dam and to a lesser degree Lake Havasu elevations, both of which are controlled by the USBR. Total releases from Davis Dam follow a predictable annual cycle, with largest monthly releases typically in early spring (April and May) and smallest monthly releases in winter (December and January). Superimposed on this annual cycle, 24-hour releases often fluctuate on a diurnal cycle. Releases within a given 24-hour period often fluctuate over a wider range of flows than that of monthly average flows over an entire year.

The corresponding river stage at I-3 fluctuates in a similar pattern. The monthly average stage at I-3 typically peaks in the early summer and reaches its low point in the winter. Following Davis Dam releases, river stage also fluctuates on a diurnal cycle, though greatly attenuated. The magnitude of the daily river stage fluctuations is less than the magnitude of the monthly average river stage fluctuations over a typical year.

Figure 3-6 shows river stage measured at I-3 superimposed on the projected I-3 river levels based on actual Davis Dam discharge and Lake Havasu levels. This graph shows that the formula used to calculate I-3 levels provides a very good estimate of the actual levels at I-3 over a wide range of river levels. The future projections shown on this graph are based on Bureau of Reclamation long range projections of Davis Dam release and Lake Havasu level. Because water demand is based on climatic factors, there is more uncertainty in these projections at longer times in the future.

4.0 Conclusions

4.1 Summary of IM Performance Monitoring for Quarterly Period

Although the water level data from two of the gradient well pairs were not available during February and early March, it appears from the groundwater contour maps that the minimum landward gradient target of 0.001 ft/ft was met during each of the three months of this quarter. The landward gradients during late March and throughout April were at least twice the required minimum magnitude in all well pairs (Table 3-1). The pumping was sufficient to meet the minimum gradient targets during each of the three months of the first quarter.

Continuous pumping occurred during this quarter, ranging from approximately 70 to about 90 gpm (Figure 3-5). A total of 9,454,777 gallons of groundwater were extracted and batch treated during the first quarter of 2005. The quarterly average pumping rate, including system downtime, was 73.2 gpm.

Concentrations of hexavalent chromium well TW-2D declined slightly from 6,280 µg/L in December to 5,800 µg/L in March (Table A-2). Specific conductance also showed a slight decline over this period. This is probably due to an increased proportion of shallower, fresher water being drawn into the well as landward gradients become steeper in the fluvial aquifer.

Hexavalent chromium was detected in a newly installed sentry well (MW-34-100) in February 2005. The chromium concentration in this well has shown a slightly increasing trend since it was drilled in February (Table A-1, Figure A-2). This increasing trend is in contrast to nearly all other floodplain wells which show decreasing or stable trends. The duration of monitoring at MW-34-100 has been relatively brief compared to other wells. It should be noted that landward gradients have been present at MW-34-100 since it was installed. The increasing trend in chromium concentration at this well is therefore not an indication of chromium migration toward the river. The aquifer materials in the screened interval of MW-34-100 contain a higher fraction of fine silt and clay than the materials in other nearby wells MW-34-80 and MW-36-100. Groundwater moves slower in zones of finer grained aquifer material. This may result in chromium concentrations in MW-34-100 being slower to respond to pumping than wells in other, more permeable zones of the aquifer.

The Cr(VI) concentration in MW-33-90 continues to be stable while the concentrations in the MW-36 and MW-39 well clusters show steady decreases during the February through April 2005 quarterly period.

Tables

TABLE 2-2
Analytical Results for Extraction Wells, February 2005 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well ID	Sample Date		Dissolved Total Chromium mg/L	Hexavalent Chromium mg/L	Total Dissolved Solids mg/L
TW-02D	09-Feb-05		5.91 ^	5.87	5450
TW-02D	23-Feb-05		5.68 ^ [1]	6.09	5330
TW-02D	02-Mar-05		5.44 ^ [1]	---	5880 J
TW-02D	09-Mar-05		5.54 ^ [1]	5.82 J	4560 J
TW-02D	06-Apr-05		5.70 ^ [1]	5.44	6140
TW-02D	19-Apr-05		5.77 ^ [1]	5.47	6580
MW-20-130	23-Feb-05		9.55 ^ [1]	10.2	7470
MW-20-130	02-Mar-05		8.62 ^ [1]	---	5270 J
MW-20-130	09-Mar-05	FD	8.17	8.81	6200
MW-20-130	09-Mar-05		8.90	8.73	5520

Notes:

[1] Samples field filtered. All other dissolved total chromium is lab filtered.
^ Groundwater samples from IM extraction wells are analyzed by certified laboratory for operational monitoring purpose. Analytical data is reviewed for quality control but does not undergo full data validation; results flagged ^.

mg/L = concentration in milligrams per liter (mg/L)
FD = field duplicate sample
J = concentration or reporting limit estimated by laboratory or data validation.
(---) = data not collected.

TABLE 2-3

Predicted and Actual Monthly Average Davis Dam Discharge and Colorado River Elevation at I-3

Interim Measures Performance Monitoring

PG&E Topock Compressor Station

Month	Davis Dam Release			Colorado River Elevation at I-3		
	Projected (cfs)	Actual (cfs)	Difference (cfs)	Predicted (ft AMSL)	Actual (ft AMSL)	Difference (feet)
April 2004	17,400	17,354	-46	456.4	456.2	-0.2
May 2004	17,100	16,788	-312	456.3	456.3	-0.1
June 2004	15,800	16,869	1,069	455.8	456.6	0.7
July 2004	14,000	14,951	951	455.2	455.9	0.7
August 2004	12,100	12,000	-100	454.5	454.9	0.4
September 2004	11,200	10,979	-221	454.2	454.6	0.4
October 2004	8,600	7,538	-1,062	453.2	453.5	0.3
November 2004	9,500	8,075	-1,425	453.6	453.4	-0.2
December 2004	6,200	8,090	1,890	452.4	453.3	0.9
January 2005	8,800	4,900	-3,900	453.4	452.4	-1.0
February 2005	8,000	4,820	-3,180	453.1	452.6	-0.5
March 2005	15,600	7,110	-8,490	455.8	452.9	-2.9
April 2005	16,700	16,306	-394	455.9	456.1	0.2
May 2005	16,700	---	---	456.2	---	---

Notes:

Projected Davis Dam Releases, updated monthly, are reported by the US Department of Interior, Bureau of Reclamation at http://www.usbr.gov/lc/region/g4000/24mo.pdf; listed projections for April through July are from April 2004, and the remainder were from the beginning of each respective month, except May 2005, which is from April 2005

Colorado River levels at I-3 are predicted from a linear regression between historical dam releases and measured river levels at I-3 (updated monthly).

cfs = cubic feet per second; ft AMSL = feet above mean sea level

TABLE 2-4
Average Hydraulic Gradients Measured at Well Pairs, April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well Pair	Mean Landward Hydraulic Gradient (feet/foot)	Measurement Dates 2005
Northern Gradient Pair		
MW-31-135 / MW-33-150	0.0023	Apr-1 through Apr-30
Central Gradient Pair		
MW-20-130 / MW-34-80	0.0038	Apr-1 through Apr-30
Southern Gradient Pair		
MW-20-130 / MW-42-65	0.0041	Apr-1 through Apr-30

Notes:

1. For IM pumping, the target landward gradient for the selected well pairs is 0.001 feet/foot
2. Refer to Figure 1-1 for location of well pairs

TABLE 3-1
Average Hydraulic Gradients Measured at Well Pairs, February through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well Pair	Reporting Period	Mean Landward Hydraulic Gradient (feet/foot)	Measurement Interval
Northern Gradient Pair			
MW-31-135 / MW-33-150	March	0.0022	Mar-4 through Mar-31
	April	0.0023	Apr-1 through Apr-30
Central Gradient Pair			
MW-20-130 / MW-34-80	February	0.0018	Feb-1 through Feb-20
	March	0.0031	Mar-17 through Mar-31
	April	0.0038	Apr-1 through Apr-30
Southern Gradient Pair			
MW-20-130 / MW-42-65	March	0.0035	Mar-17 through Mar-31
	April	0.0041	Apr-1 through Apr-30

Notes:

1. For IM pumping, the target landward gradient for the selected well pairs is 0.001 feet/foot
2. Refer to Figure 1-1 for location of well pairs
3. Hydraulic gradients are reported for the monitoring periods where pressure transducer data were collected.
   Well MW-20-130 was used for groundwater extraction from Feb. 20 to March 16 (data during this period not used in mean calculation).
   Transducers were installed in wells MW-42-65 and MW-33-150 on March 1 and March 4, respectively.

Figures

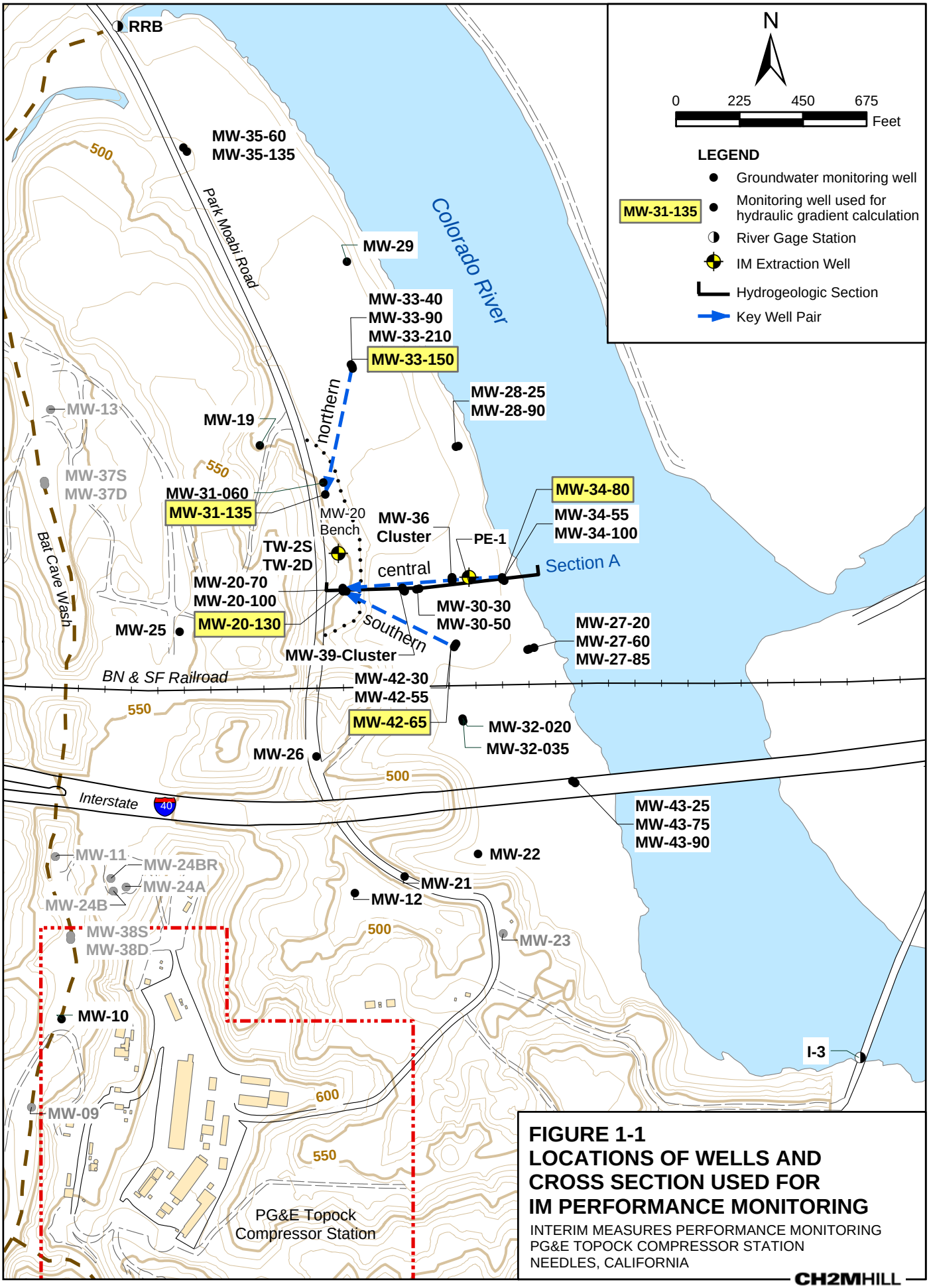
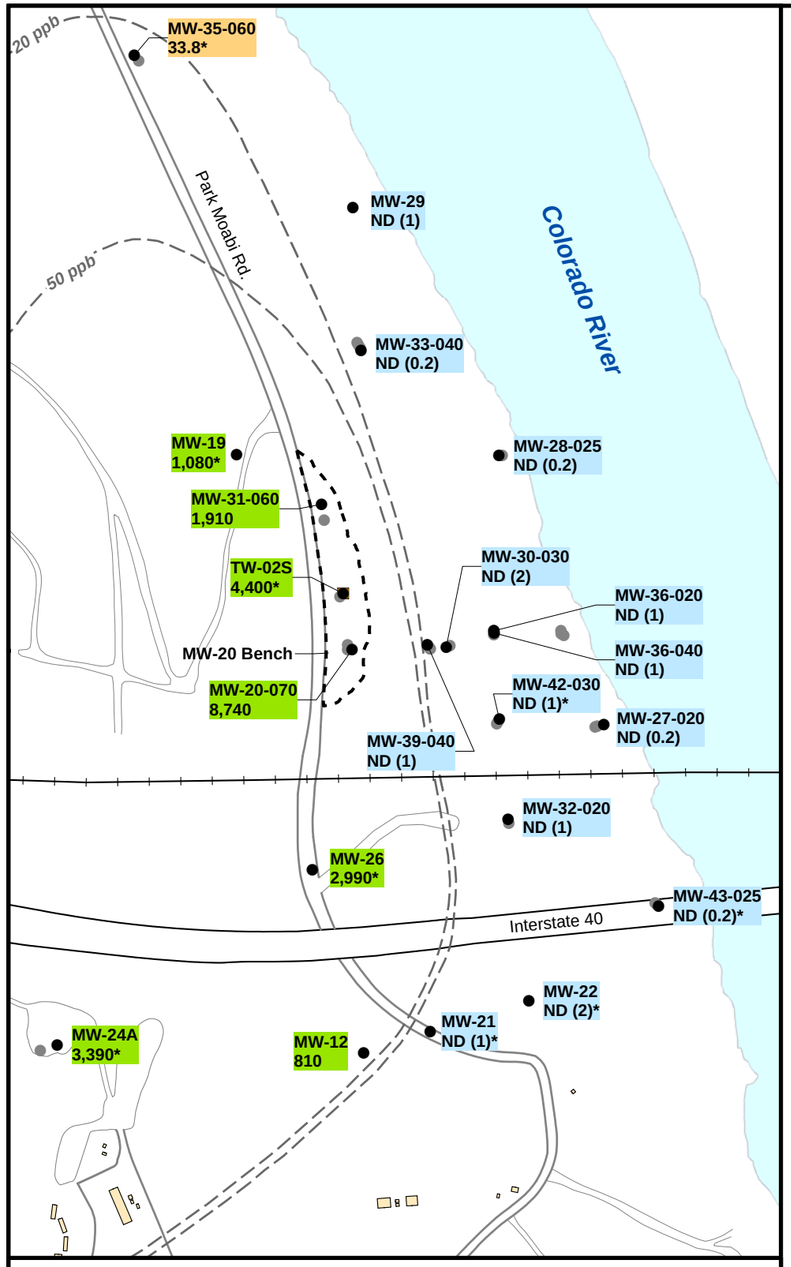


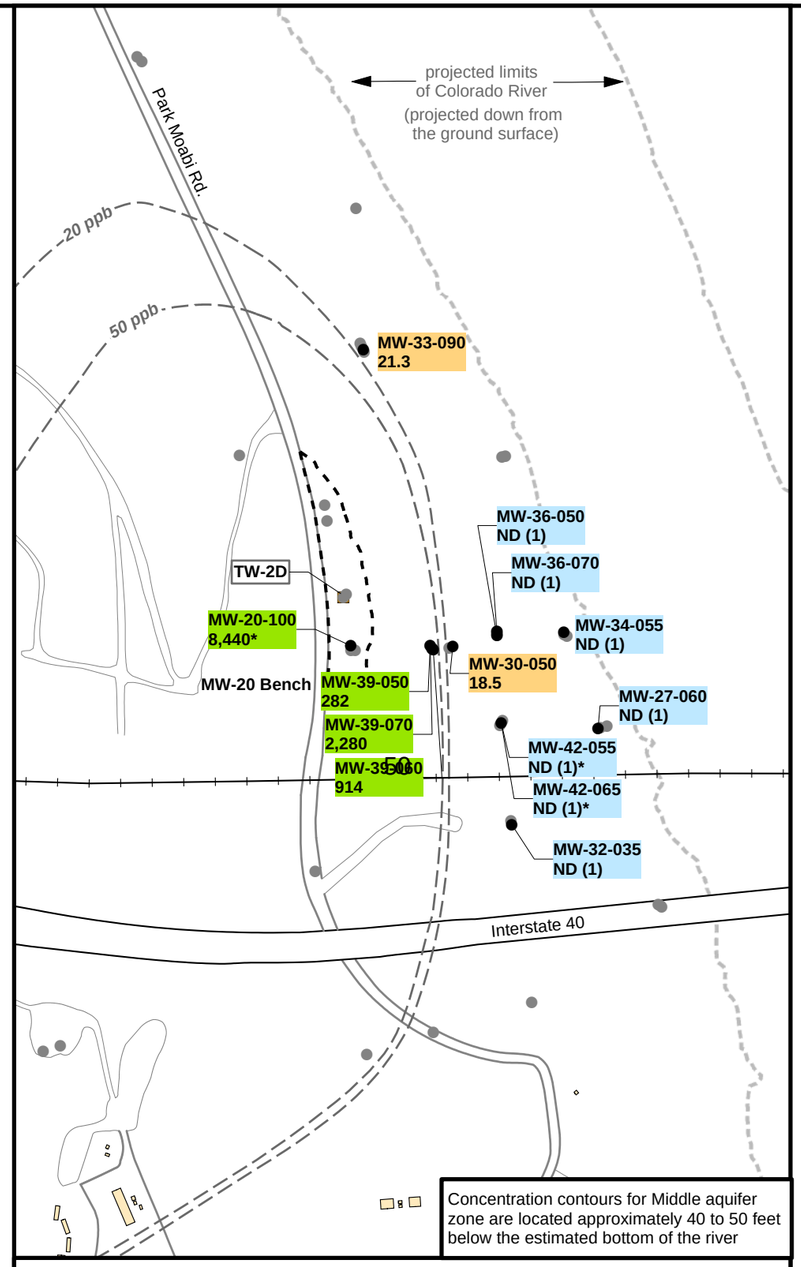
FIGURE 1-1
LOCATIONS OF WELLS AND CROSS SECTION USED FOR IM PERFORMANCE MONITORING

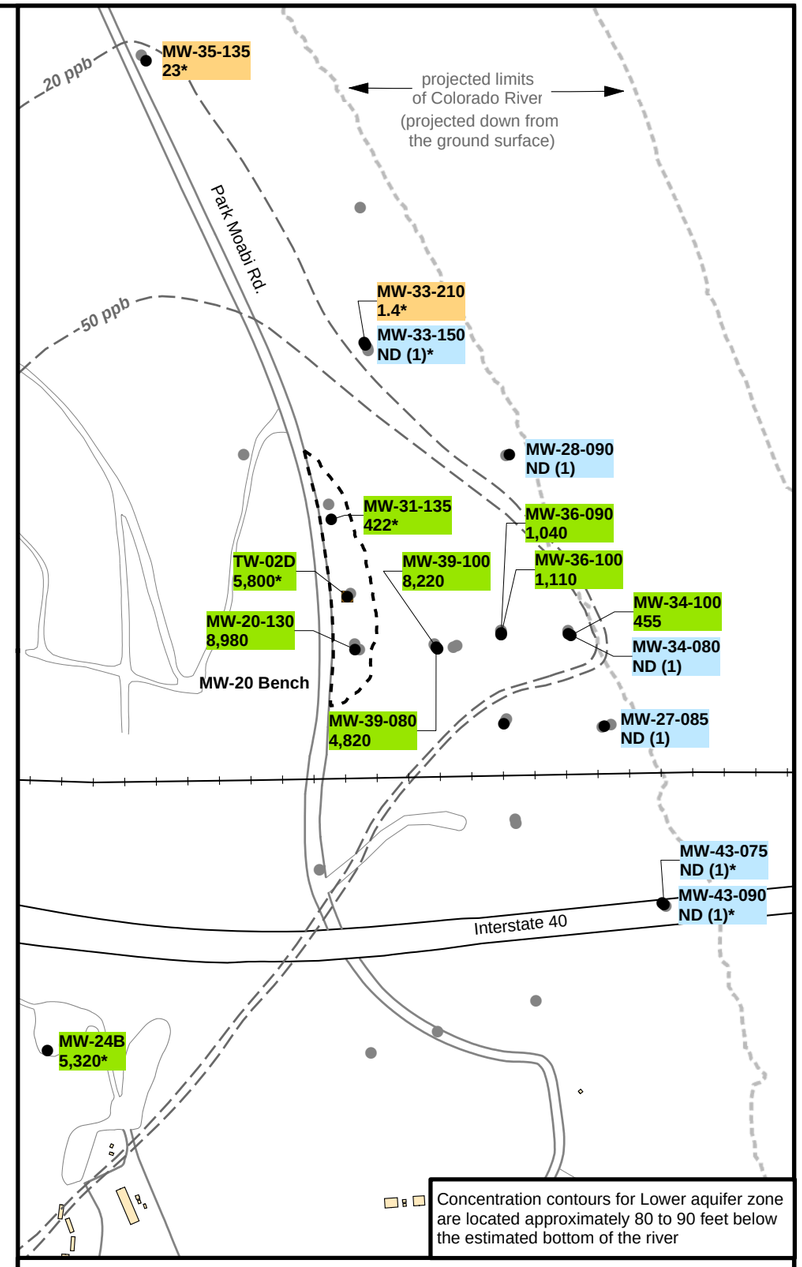
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

SFO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\PMP_WELLS_SECTIONS_8X11.MXD
PMP_WELLS_SECTIONS_8X11.PDF 5/31/2005 18:01:25







ND (1) Not detected at listed reporting limit (ppb)

41 Less than 50 ppb

3,810 Greater than 50 ppb

50 Inferred Cr(VI) concentration contour

See Figure 2-2 for depths of Alluvial Aquifer zones

Notes:
Results marked * are from March 2005 sampling events.

Hexavalent Chromium Concentrations in Groundwater
April 2005 Sampling Events

Concentrations in micrograms per liter (µg/L)
equivalent to parts per billon (ppb)
ND = not detected at listed reporting limit.

N

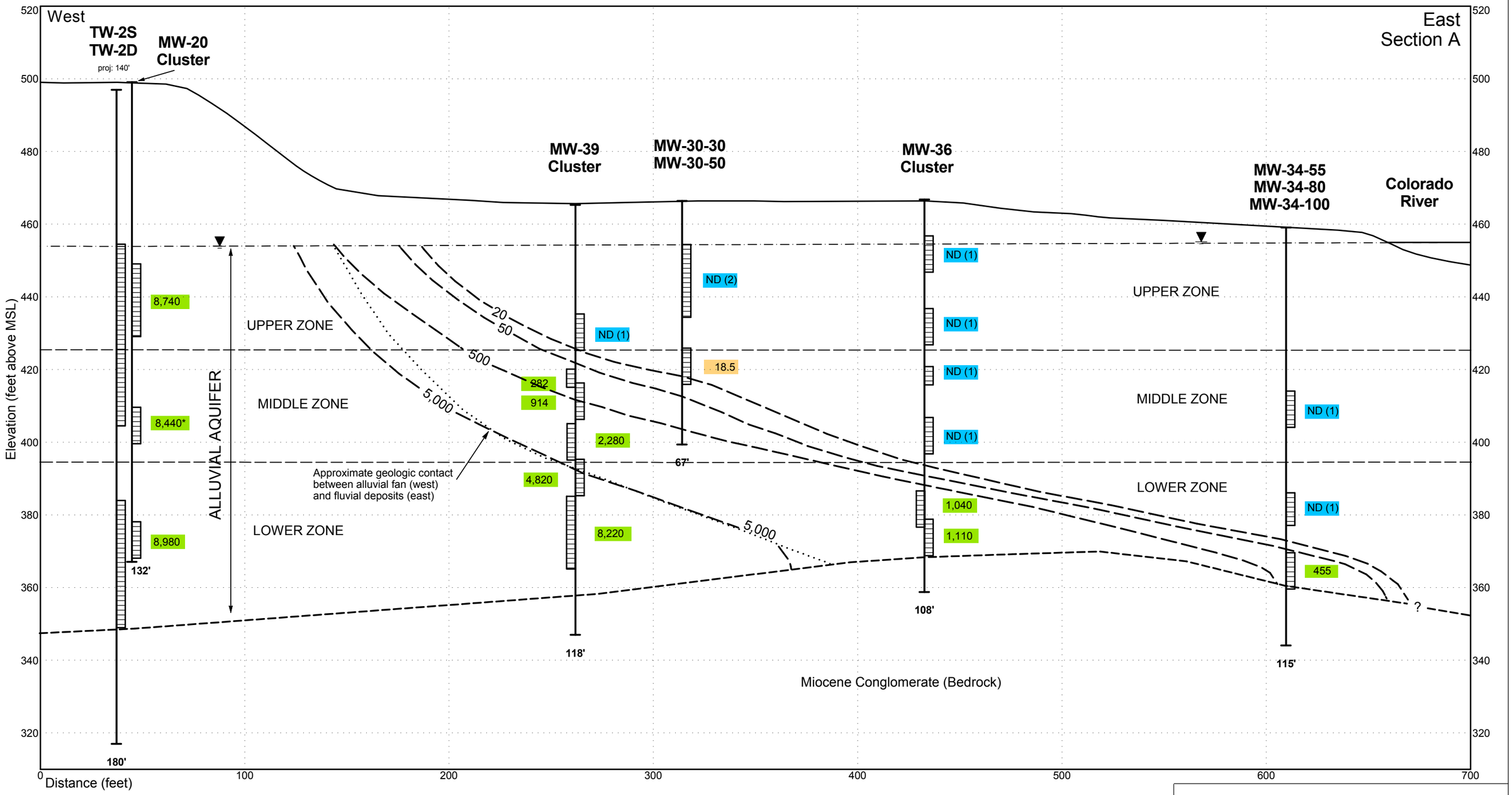
0 400 800 Feet

1 inch equals 400 feet

FIGURE 2-1
CR(VI) CONCENTRATIONS IN ALLUVIAL AQUIFER, APRIL 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



water level

well screen — 3,420

boring depth (feet) — 103

— — 50 — —
Inferred Hexavalent Chromium Contour

Hexavalent Chromium concentration in micrograms per liter (ug/L) / parts per billion (ppb)

Hexavalent Chromium Results [Cr(VI)], April 2005 Sampling Events

ND (1)	Not detected at listed reporting limit (ppb)
42	Less than 50 ppb
3,810	Greater than 50 ppb

Notes:
Results listed are from April 2005 sampling events.
Results marked * are from March 2005 sampling events.

FIGURE 2-2
CR(VI) CONCENTRATIONS
FLOODPLAIN CROSS-SECTION A
APRIL 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

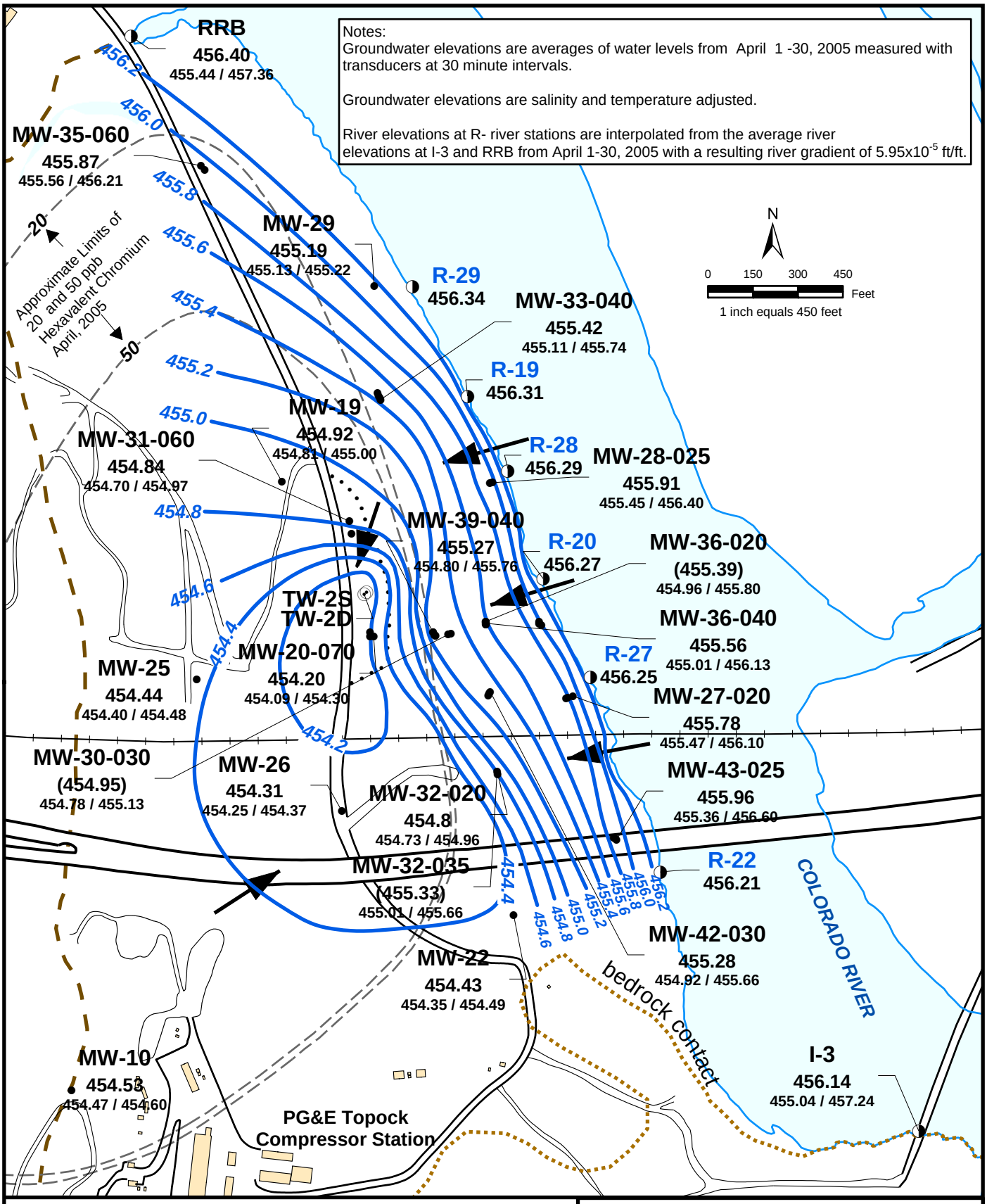


FIGURE 2-3
AVERAGE GROUNDWATER UPPER ZONE AND RIVER ELEVATIONS, APRIL, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

SFO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\GW\IM_AVERAGE_GROUNDWATER_UA_APRIL1_30_05.MXD
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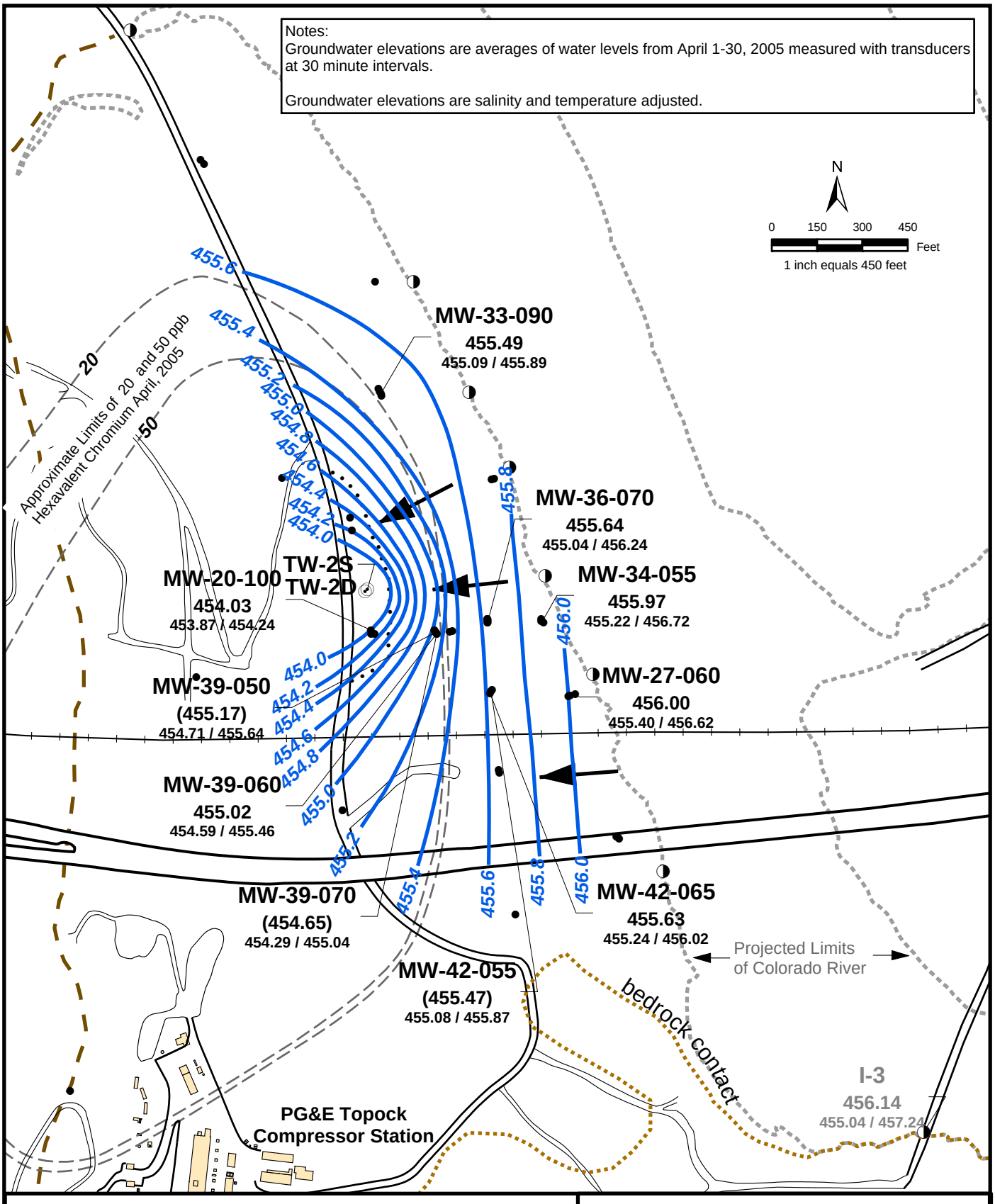

FIGURE 2-4
AVERAGE GROUNDWATER MIDDLE ZONE AND RIVER ELEVATIONS APRIL, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

SFO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\GW\IM_AVERAGE_GROUNDWATER_MA_APRIL1_30_05.MXD
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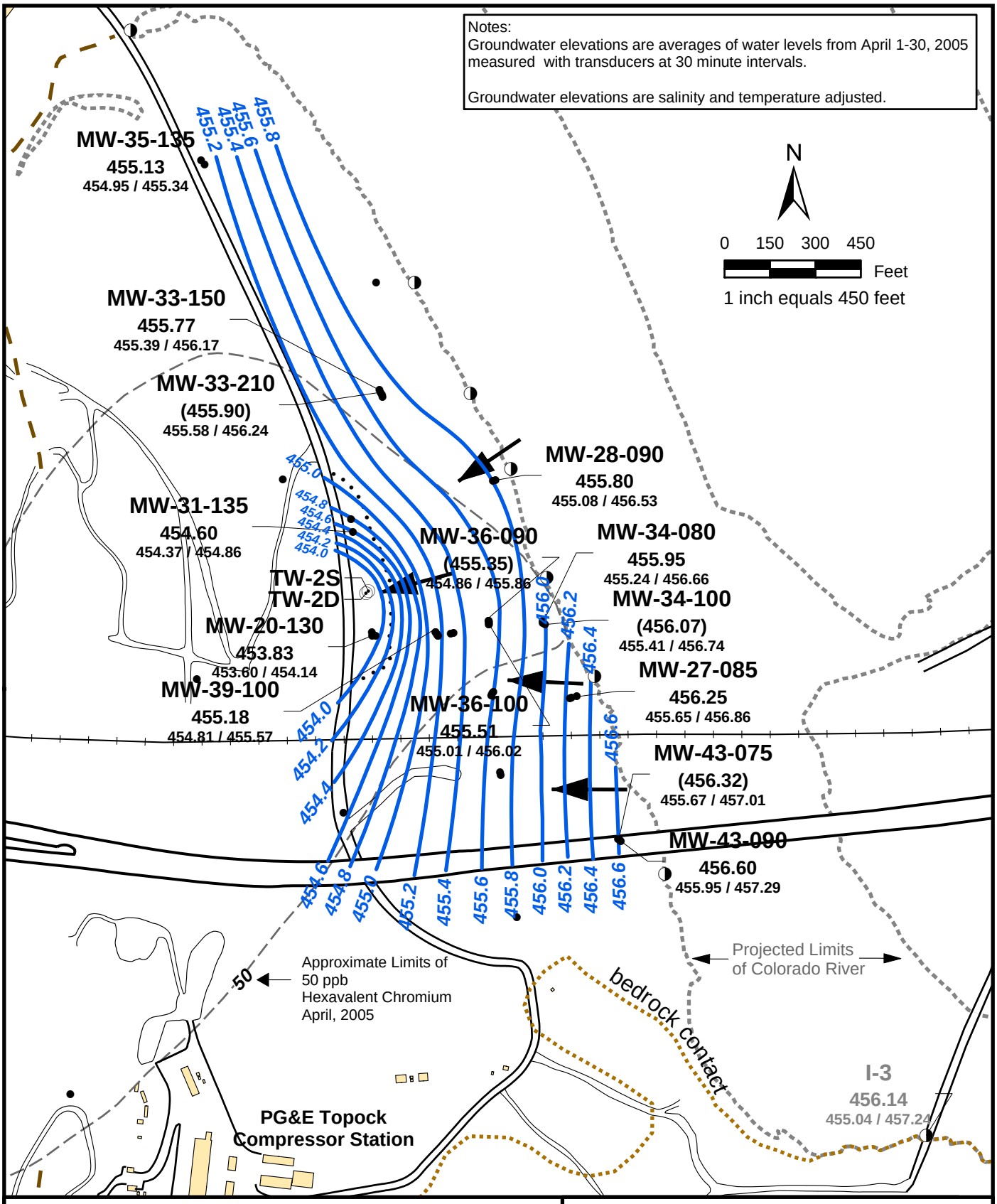


FIGURE 2-5
AVERAGE GROUNDWATER LOWER ZONE AND RIVER ELEVATIONS APRIL, 2005
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

SFO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\GW\IM_AVERAGE_GROUNDWATER_LA_APRIL1_30_05.MXD
IM_AVERAGE_GROUNDWATER_LA_APRIL1_30_05.PDF 5/5/2005 13:15:23

West

East

TW-2S
TW-2D
proj: 140'

MW-20-070
MW-20-100
MW-20-130

MW-39-040
MW-39-050
MW-39-060
MW-39-070
MW-39-080
MW-39-100

MW-30-30*
MW-30-50

MW-36-020
MW-36-040
MW-36-050
MW-36-070
MW-36-090*
MW-36-100

MW-34-55
MW-34-80
MW-34-100

Colorado River

R-20
456.27

Alluvial Aquifer

454.2
454.20
454.09 / 454.30

454.0
454.03
453.87 / 454.24

453.8
453.83
453.60 / 454.14

454.4
454.6
454.8
455.0
455.2

455.27
454.80 / 455.76

455.17
454.71 / 455.64

455.02
454.59 / 455.46

454.65
454.29 / 455.04

454.74
454.37 / 455.13

455.18
454.81 / 455.57

454.95
454.78 / 455.13

455.36
454.85 / 455.88

455.39
454.96 / 455.80

455.4
455.56
455.01 / 456.13

455.6
455.60
455.02 / 456.19

455.64
455.04 / 456.24

455.35
454.86 / 455.86

455.51
455.01 / 456.02

Alluvial Aquifer

455.8

456.0

456.2

455.97
455.22 / 456.72

455.95
455.24 / 456.66

456.07
455.41 / 456.74

180
131
118
67
108
115'

Miocene Conglomerate (Bedrock)

Elevation (feet MSL)

520
500
480
460
440
420
400
380
360
340
320

0
50
100
150
200
250
300
350
400
450
500
550
600
650

Distance (feet)

Notes:
Results show average ground water elevations for April 1-30, 2005.
Ground water elevations adjusted for salinity and temperature.

*Wells MW-30-30, and MW-36-090 excluded from contouring.

Average river elevation interpolated between I-3 and RRB using mean gradients from April 1-30, 2005
Data subject to review.

Legend:

MW-30-30
water level
well screen
453.66
453.40/453.94
boring depth (feet)
103

453.5
Groundwater elevation contour

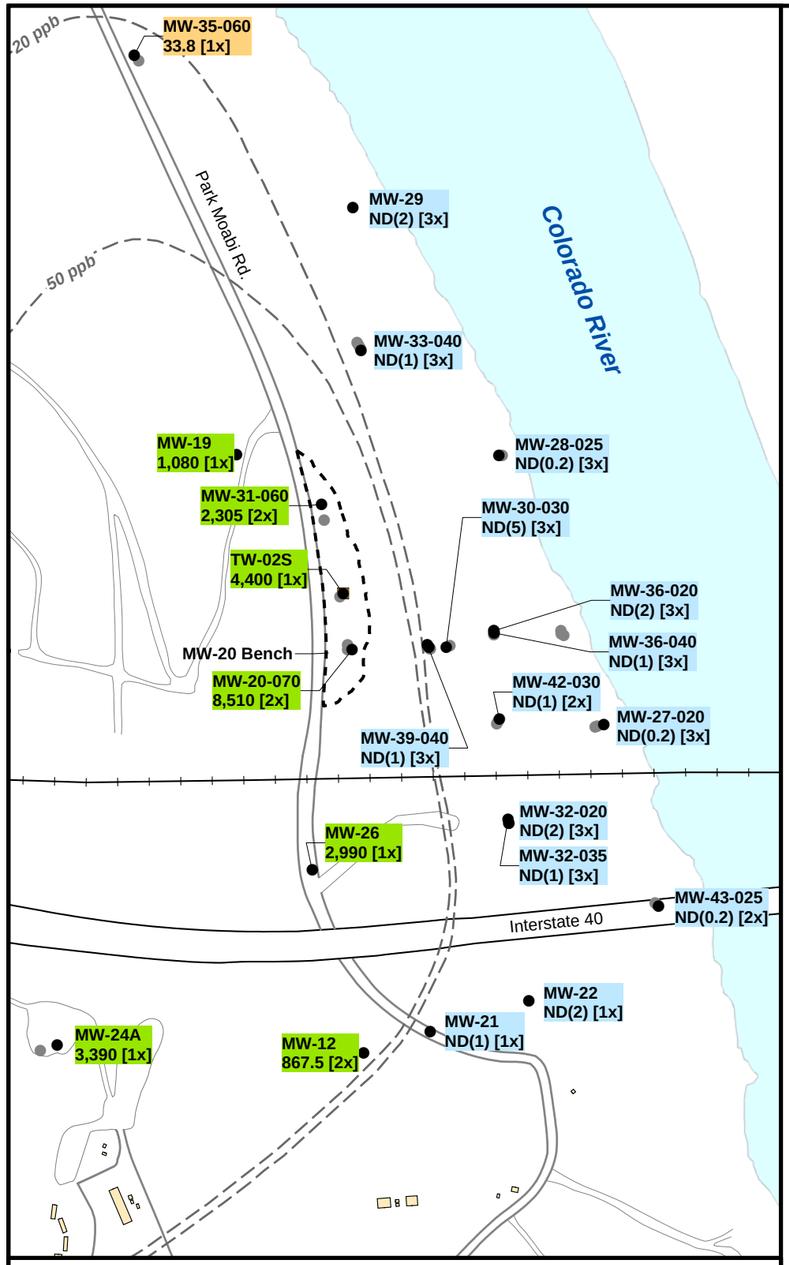
453.5
Inferred groundwater elevation contour

Average groundwater elevation
Minimum / Maximum groundwater elevation

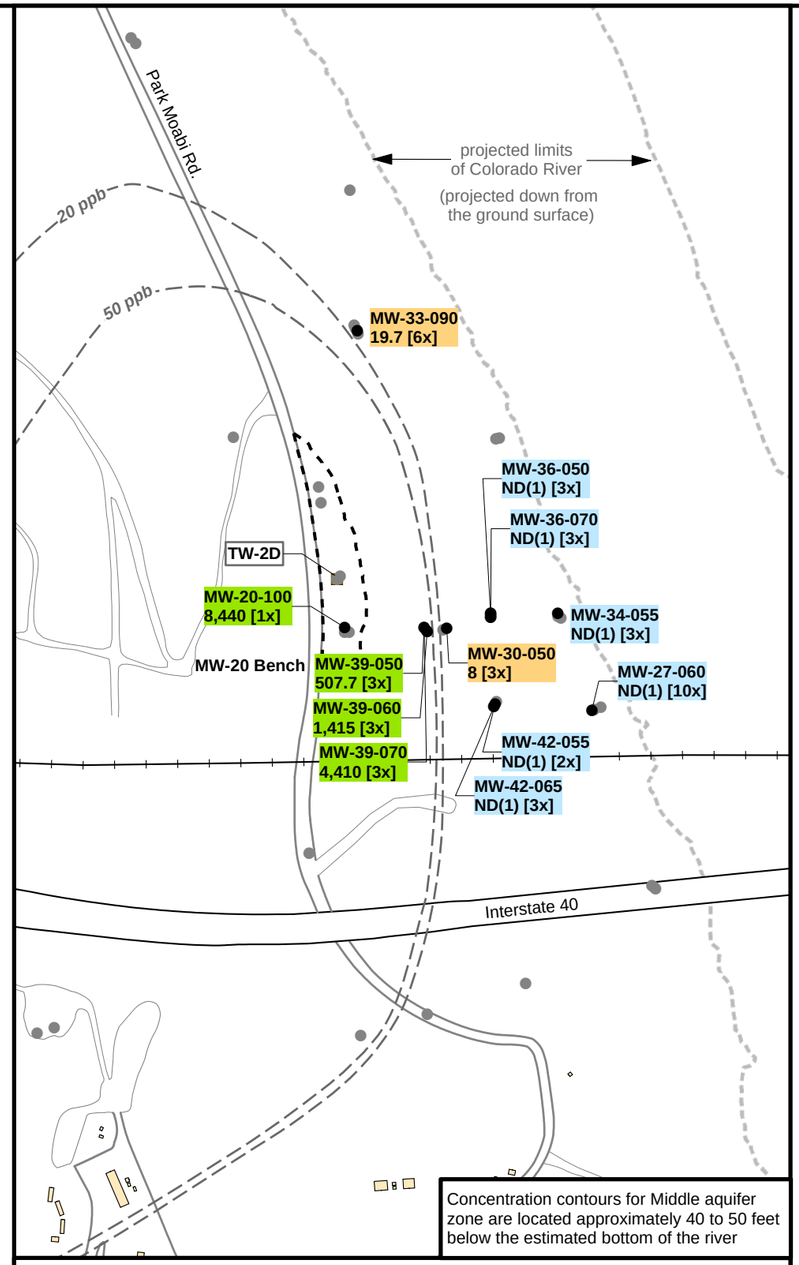
FIGURE 2-6
AVERAGE GROUNDWATER ELEVATIONS, FLOODPLAIN CROSS-SECTION A
APRIL, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

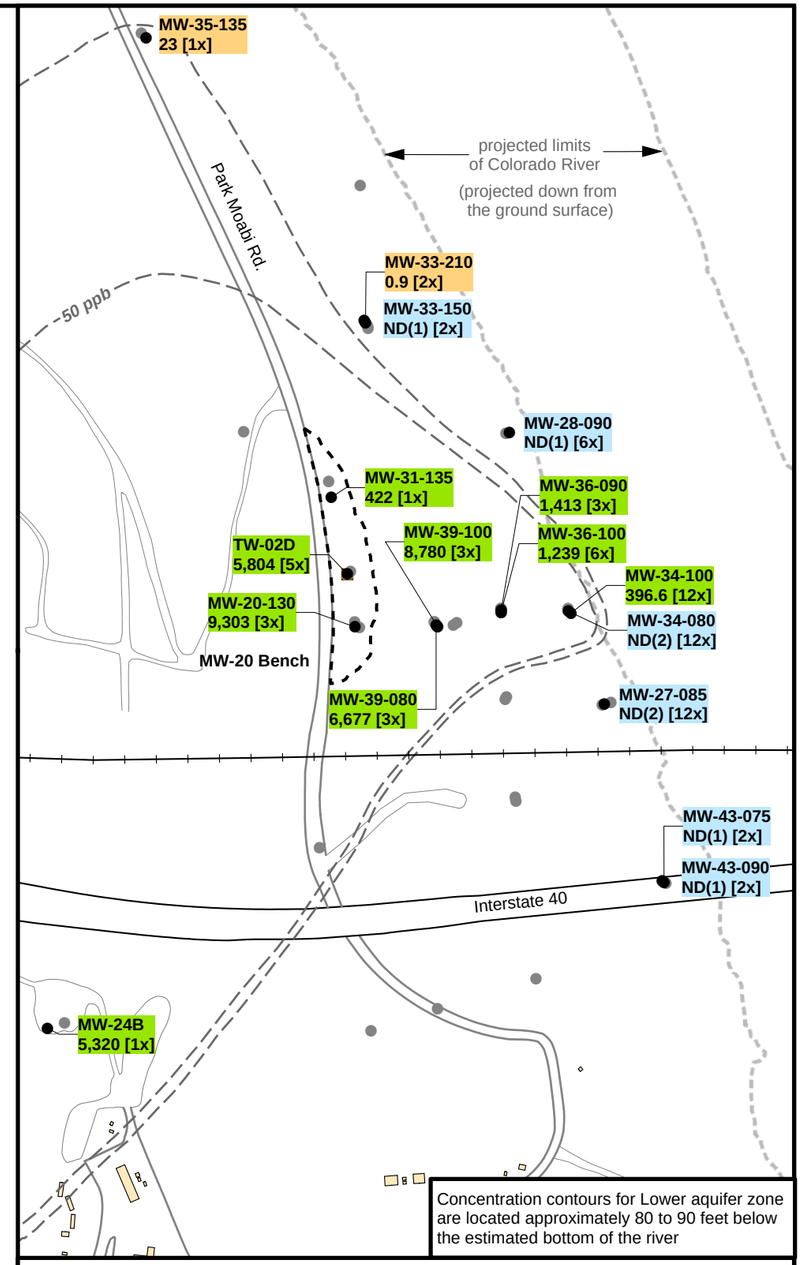
CH2MHILL



UPPER ZONE ALLUVIAL AQUIFER



MIDDLE ZONE ALLUVIAL AQUIFER



LOWER ZONE ALLUVIAL AQUIFER

ND (1) Not detected at listed reporting limit (ppb)

41 Less than 50 ppb

3,810 Greater than 50 ppb

— 50 — - Inferred Cr(VI) concentration contour

See Figure 3-2 for depths of Alluvial Aquifer Zones

Notes:
Results marked * are from March 2005 sampling events.

Average Hexavalent Chromium [Cr (VI)] Concentrations
February - April 2005 Sampling Events
Concentrations in micrograms per liter (µg/L) equivalent to parts per billon (ppb).
Brackets indicate number of sampling events during the quarterly reporting period.

N

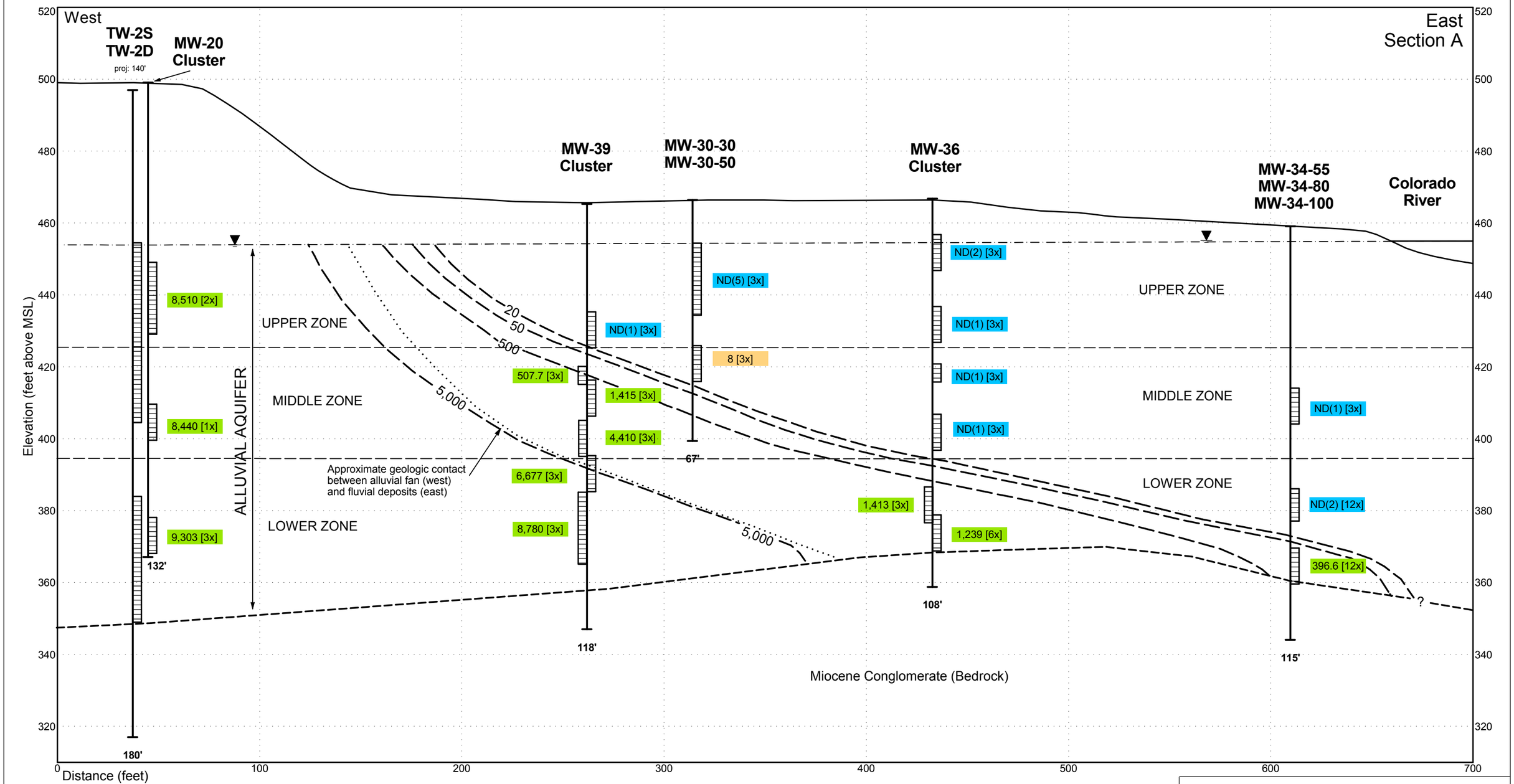
0 400 800 Feet

1 inch equals 400 feet

FIGURE 3-1
AVERAGE CR(VI) CONCENTRATIONS IN ALLUVIAL AQUIFER, FEBRUARY - APRIL 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



water level

well screen

boring depth (feet)

10.1 [7x]

103

50
Inferred Cr(VI) Contour

Quarterly average Cr(VI) concentration in micrograms per liter (ug/L), equivalent to parts per billion (ppb). Brackets indicate number of sampling events during the quarterly reporting period.

Average Hexavalent Chromium [Cr(VI)] Concentrations, February - April 2005 Sampling Events

ND(5)	Not detected at listed reporting limit (ppb)
10.1	Less than 50 ppb
1,257	Greater than 50 ppb

FIGURE 3-2
AVERAGE CR(VI) CONCENTRATIONS
FLOODPLAIN CROSS-SECTION A
FEBRUARY-APRIL 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

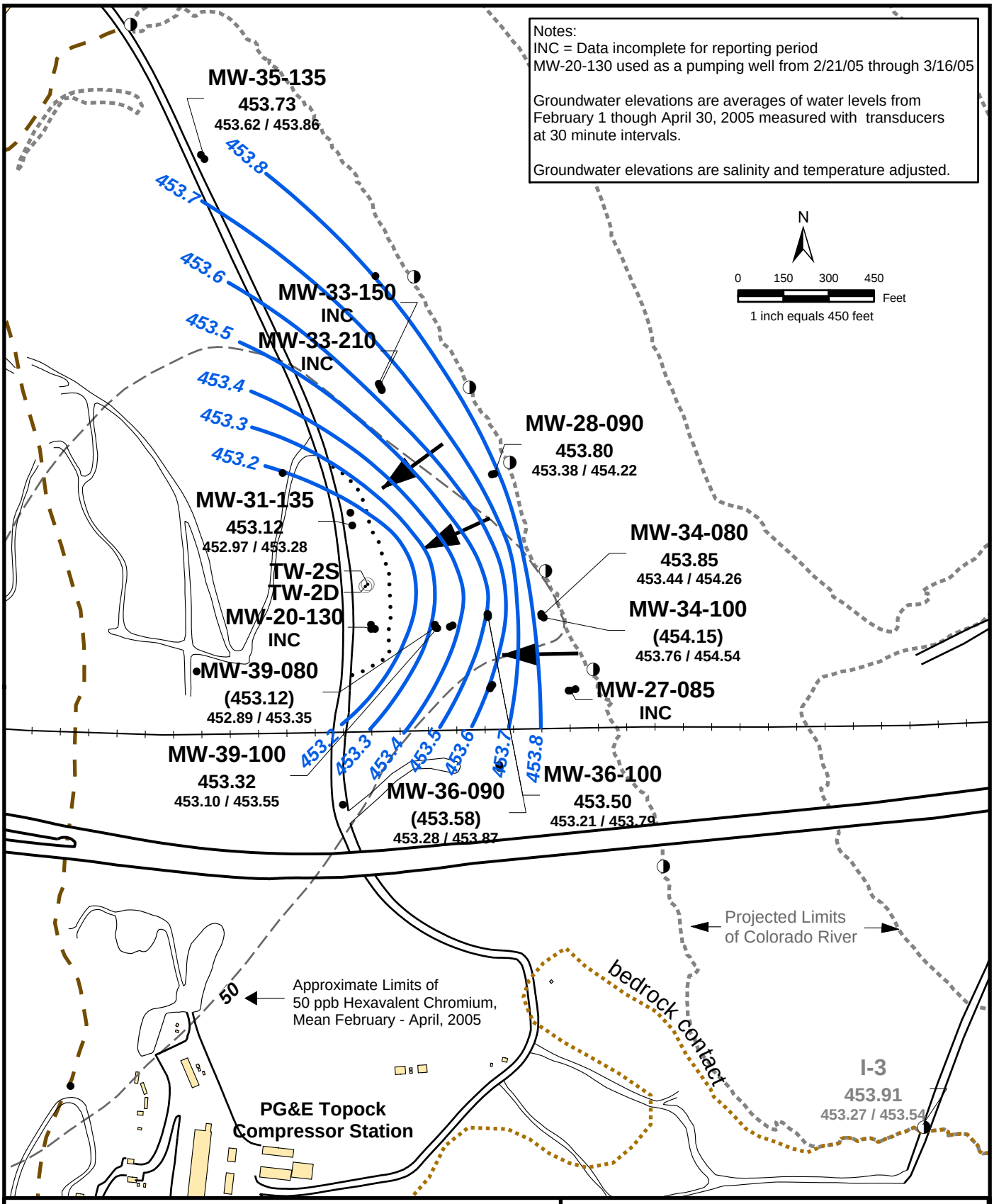


FIGURE 3-3
AVERAGE GROUNDWATER LOWER ZONE AND RIVER ELEVATIONS FEBRUARY THROUGH APRIL, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

SFO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\GW\IM_AVERAGE_GROUNDWATER_LA_FEB1_APRIL30_05.MXD
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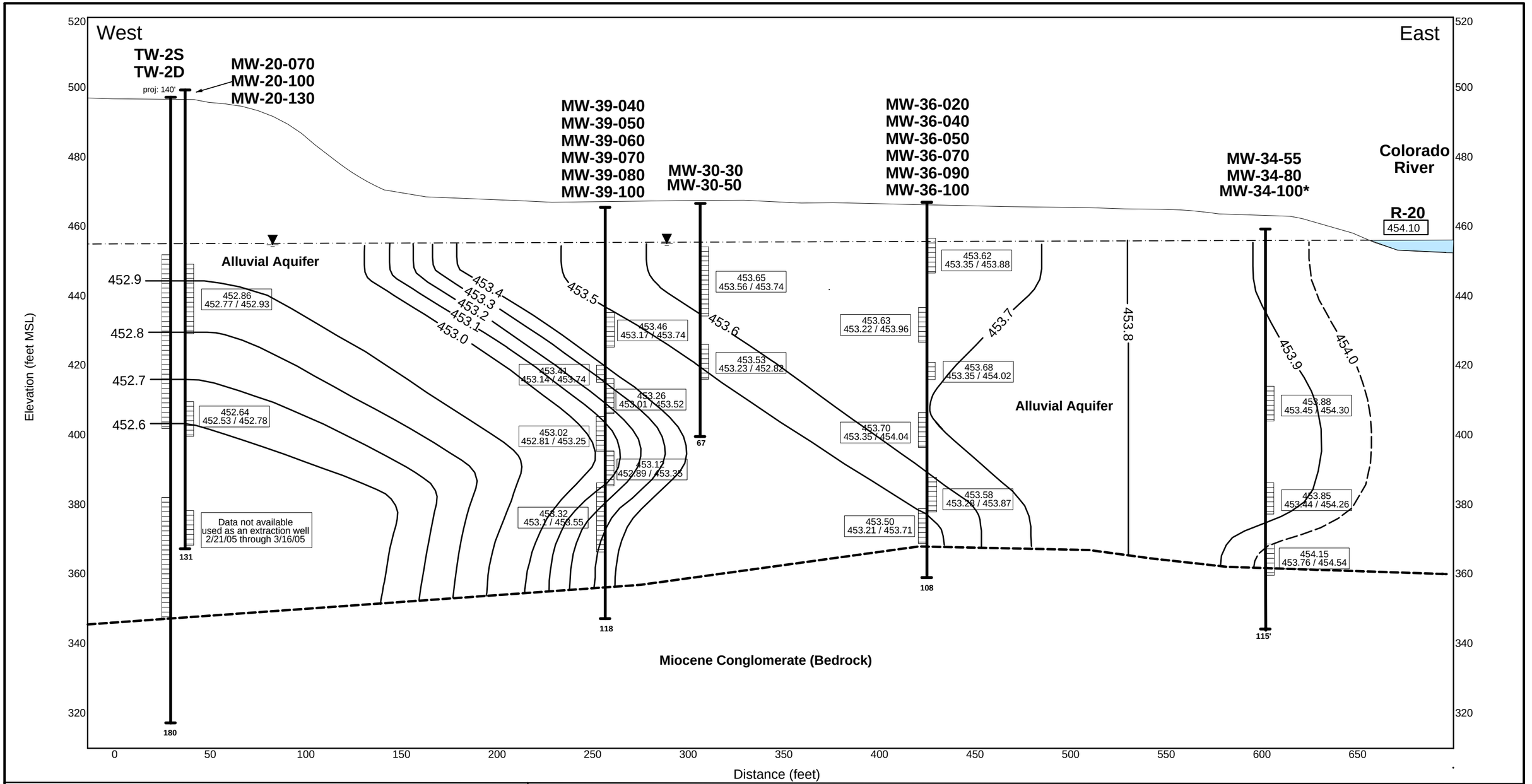


Notes:
Results show average ground water elevations for
February 1st though April 30, 2005.
Ground water elevations adjusted for salinity and temperature.

*MW-34-100 transducer installed 2/8/05.
Data posted is the mean from 2/8/05 through 4/30/05

Average river elevation interpolated between I-3 and RRB
using mean gradients from October through December, 2004.
RRB was dry during low river stages until late March, 2005.
Data subject to review.

Legend:

MW-30-30
water level
well screen
453.66
453.40/453.94
boring depth (feet)
103

453.5
Groundwater elevation contour

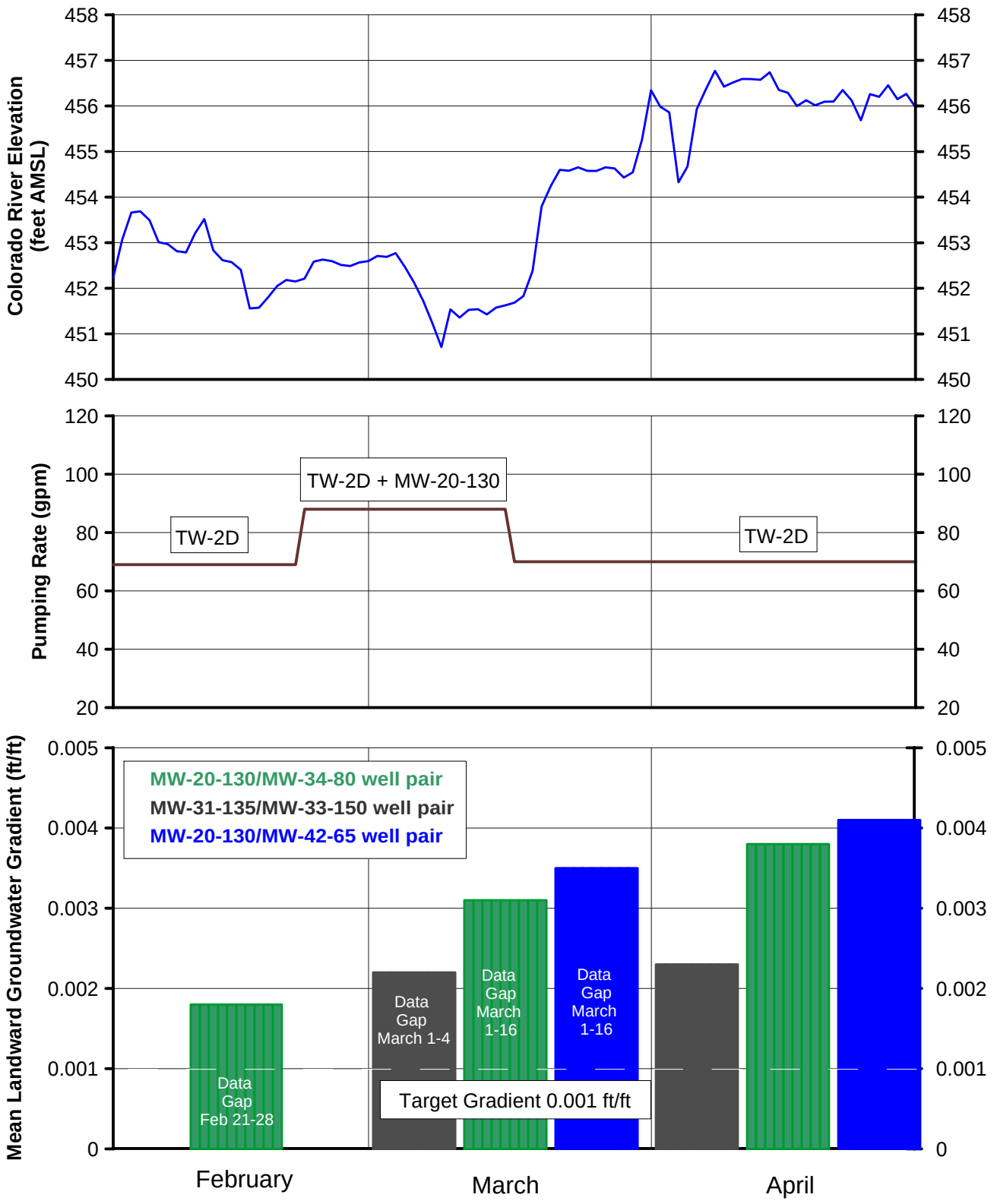
453.5
Inferred groundwater elevation contour

Average groundwater elevation
Minimum / Maximum groundwater elevation

FIGURE 3-4
AVERAGE GROUNDWATER ELEVATIONS, FLOODPLAIN CROSS-SECTION A, FEBRUARY THROUGH APRIL 2005

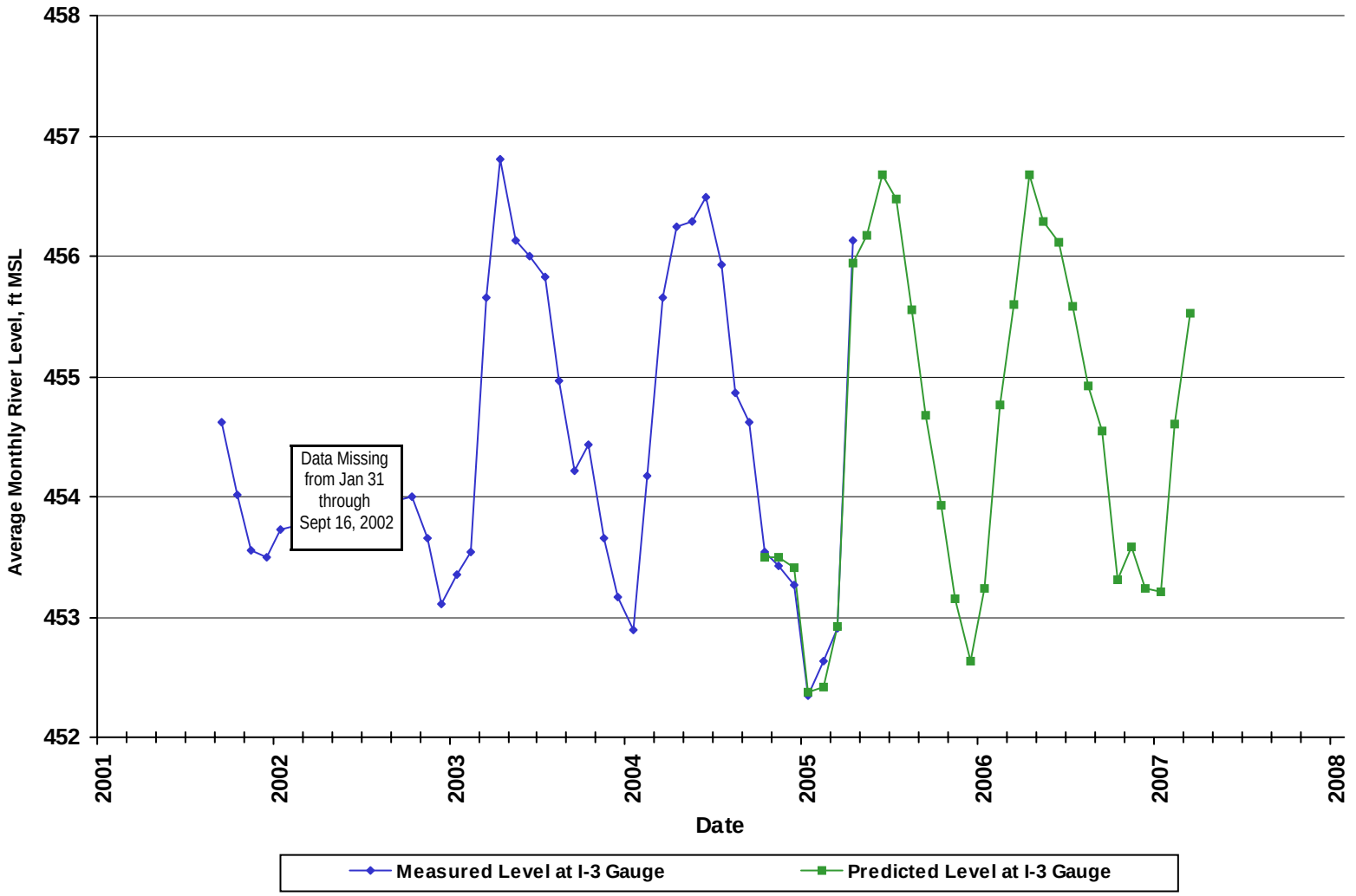
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



Note:
For IM pumping, the target landward gradient for well pairs is 0.001 feet/foot (ft/ft).
Data unavailable from 2/21/05 through 3/16/05 due to use of MW-20-130 as an extration well.
Transducers were installed in MW-31-135, and MW-42-65 on 3/1/05 and 3/4/05 respectivley.

FIGURE 3-5
COMPARISON OF RIVER ELEVATION, PUMPING RATE, AND MEASURED HYDRAULIC GRADIENTS, FEBRUARY THROUGH APRIL, 2005
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

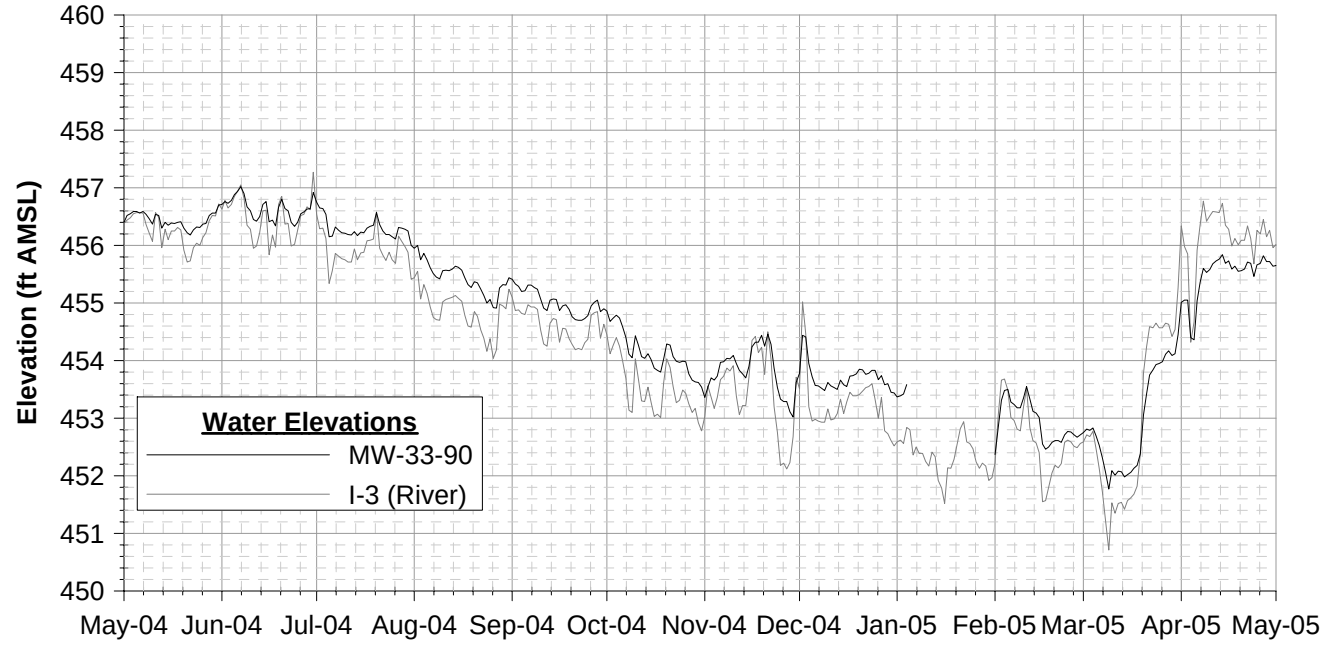


Projected river level is calculated based on monthly averages of Davis Dam release and stage in Lake Havasu.
Data Through April 30, 2005

FIGURE 3-6
PAST AND PREDICTED FUTURE RIVER LEVELS AT TOPOCK COMPRESSOR STATION
INTERIM MEASURES PERFORMANCE MONITORING
PG&E COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

Appendix A
Chromium Sampling Results for Monitoring Wells in Floodplain Area



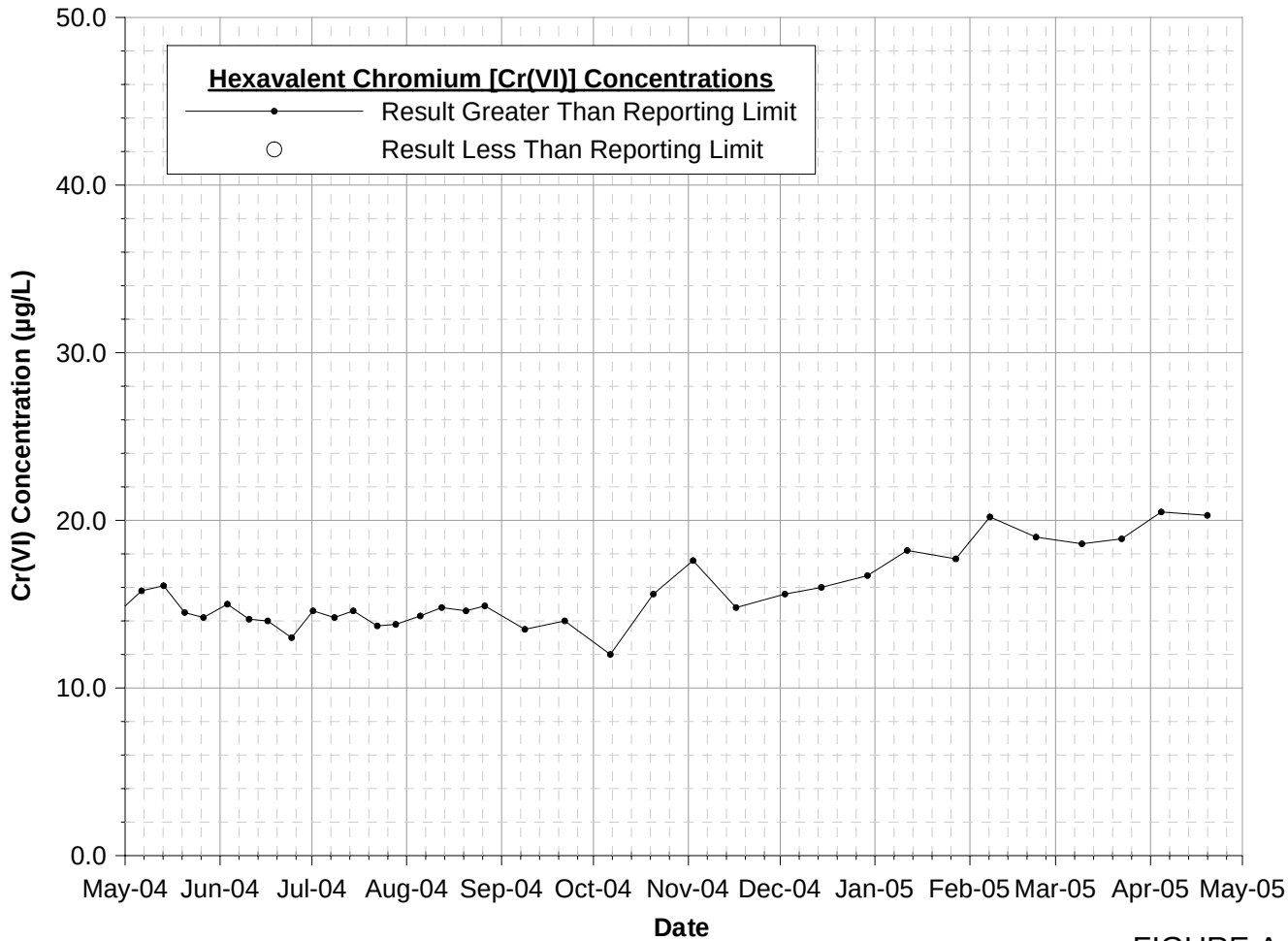


FIGURE A-1
MW-33-90 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 19, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

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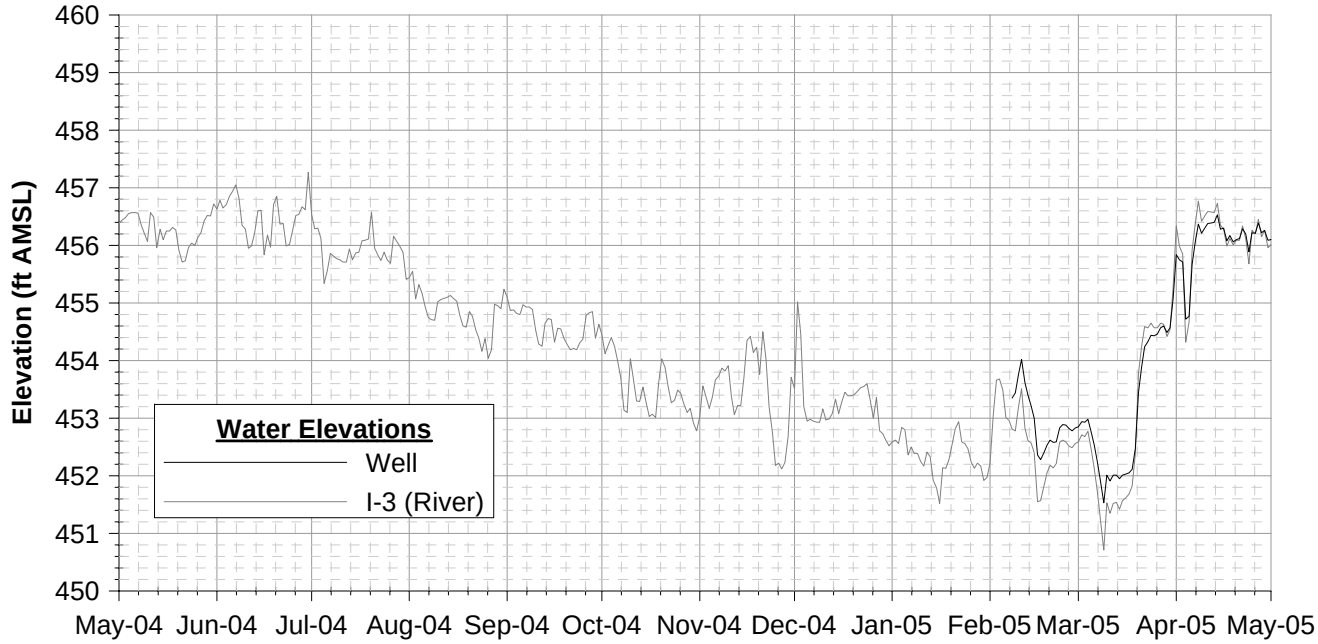

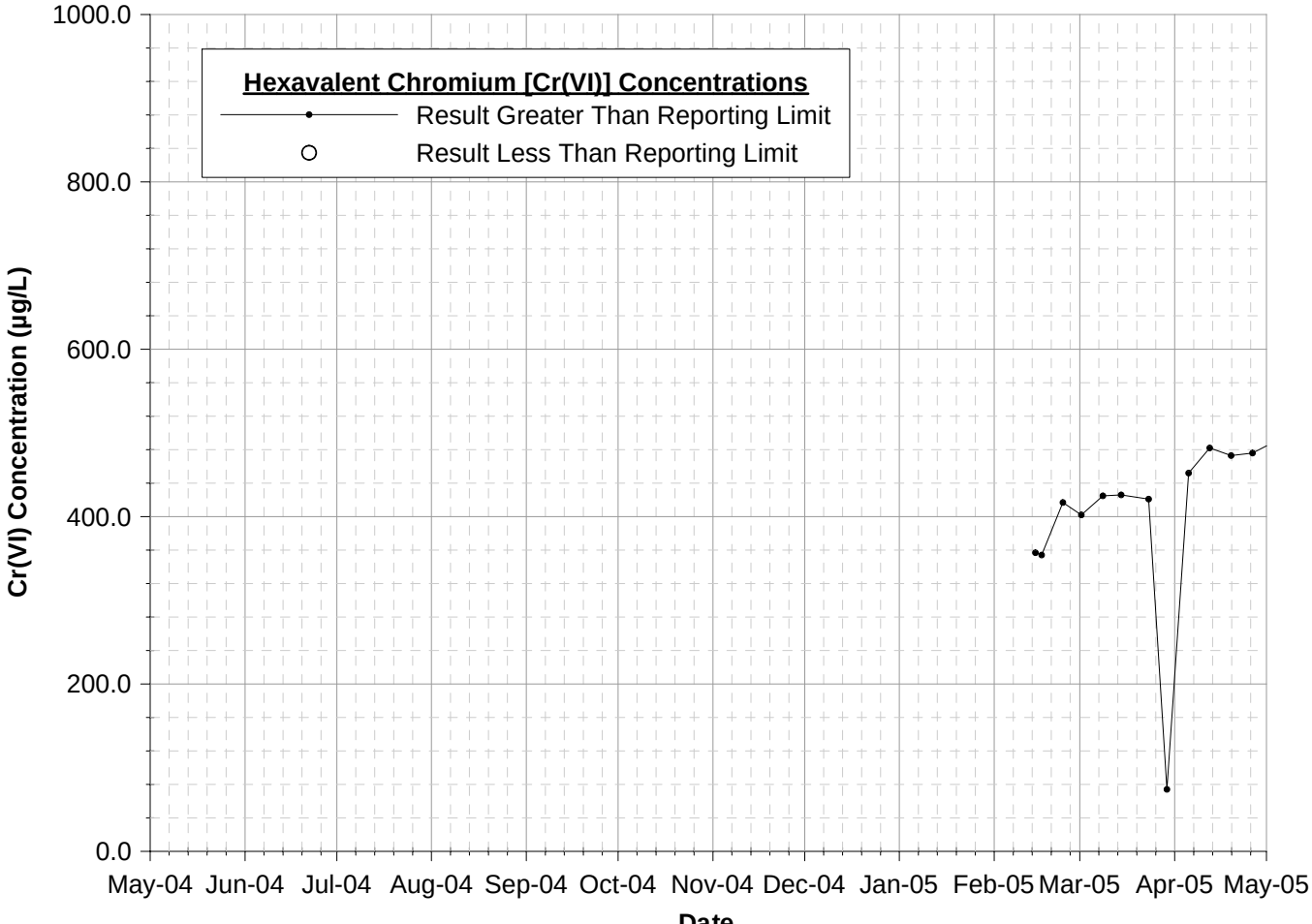

FIGURE A-2
MW-34-100 HEXAVALENT CHROMIUM
CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 26, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Data subject to review.

CH2MHILL

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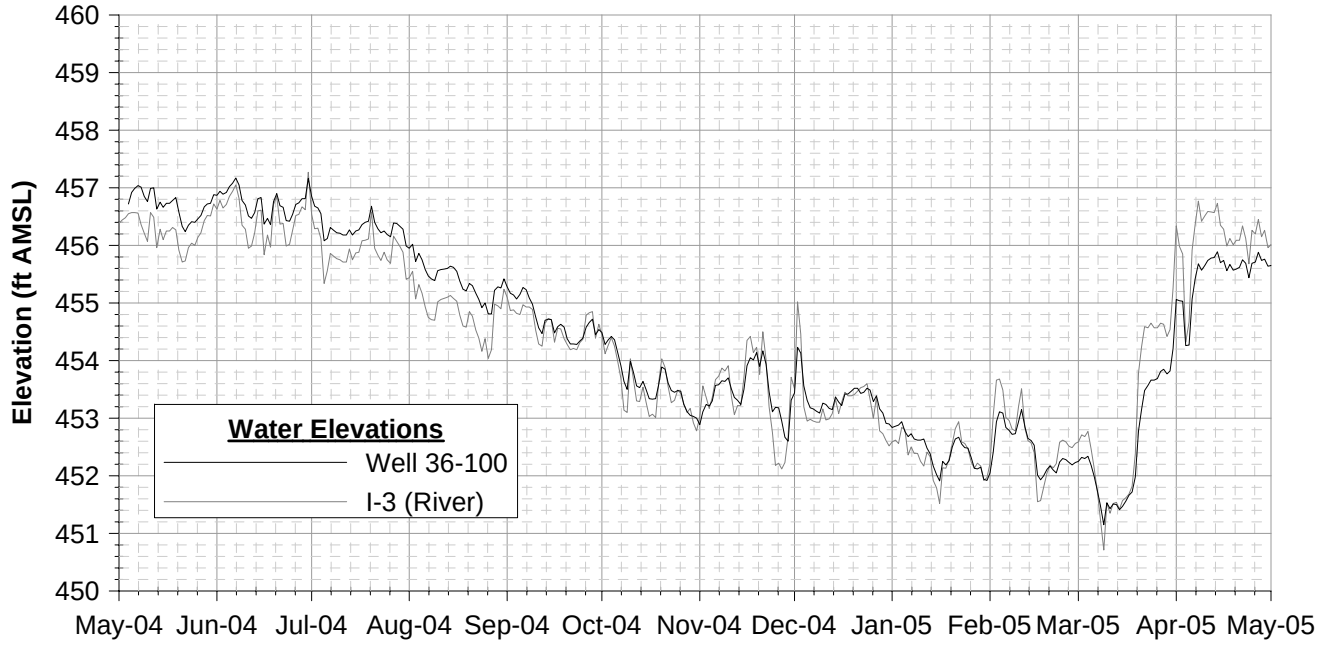

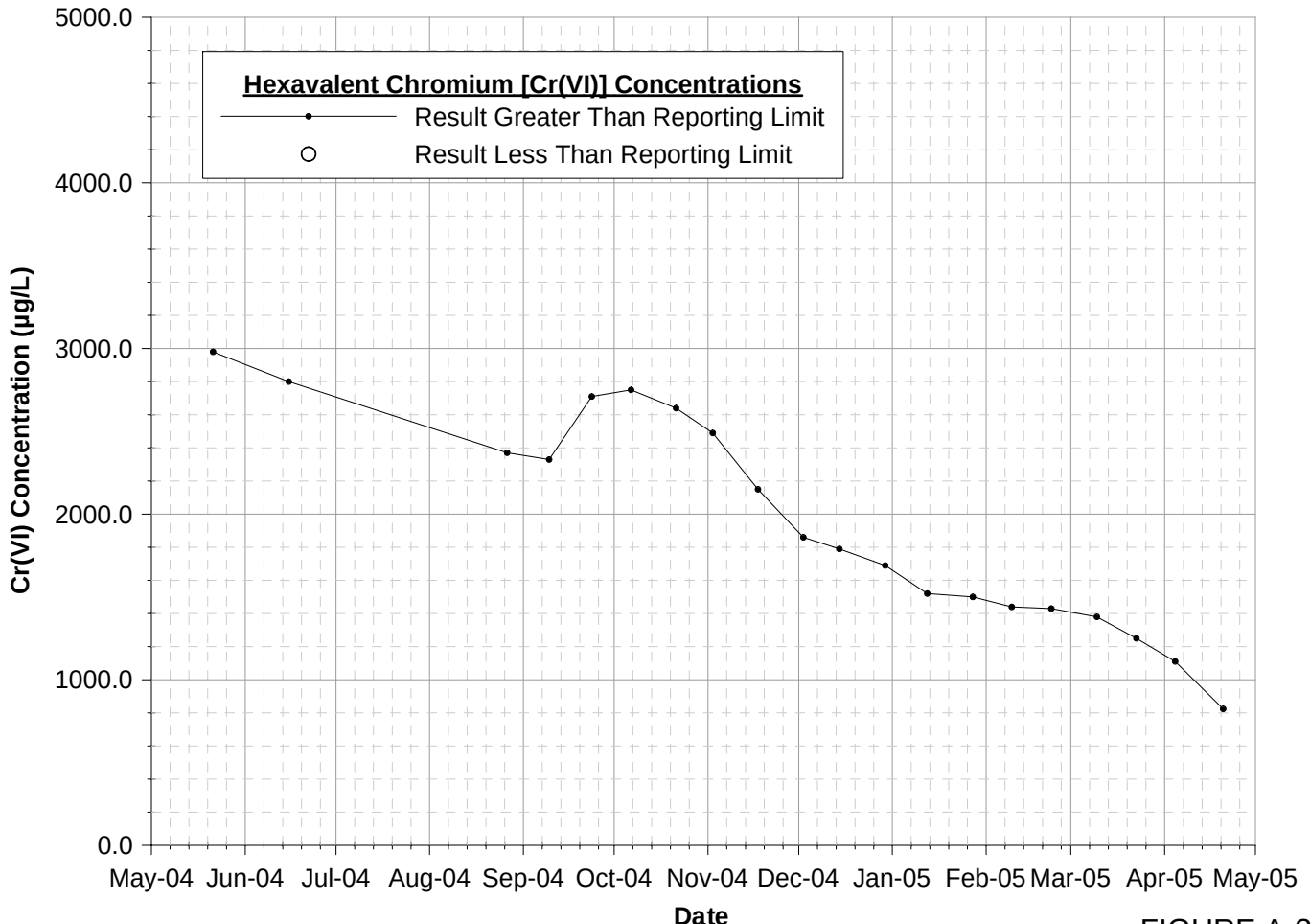

FIGURE A-3
MW-36-100 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 20, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

CH2MHILL

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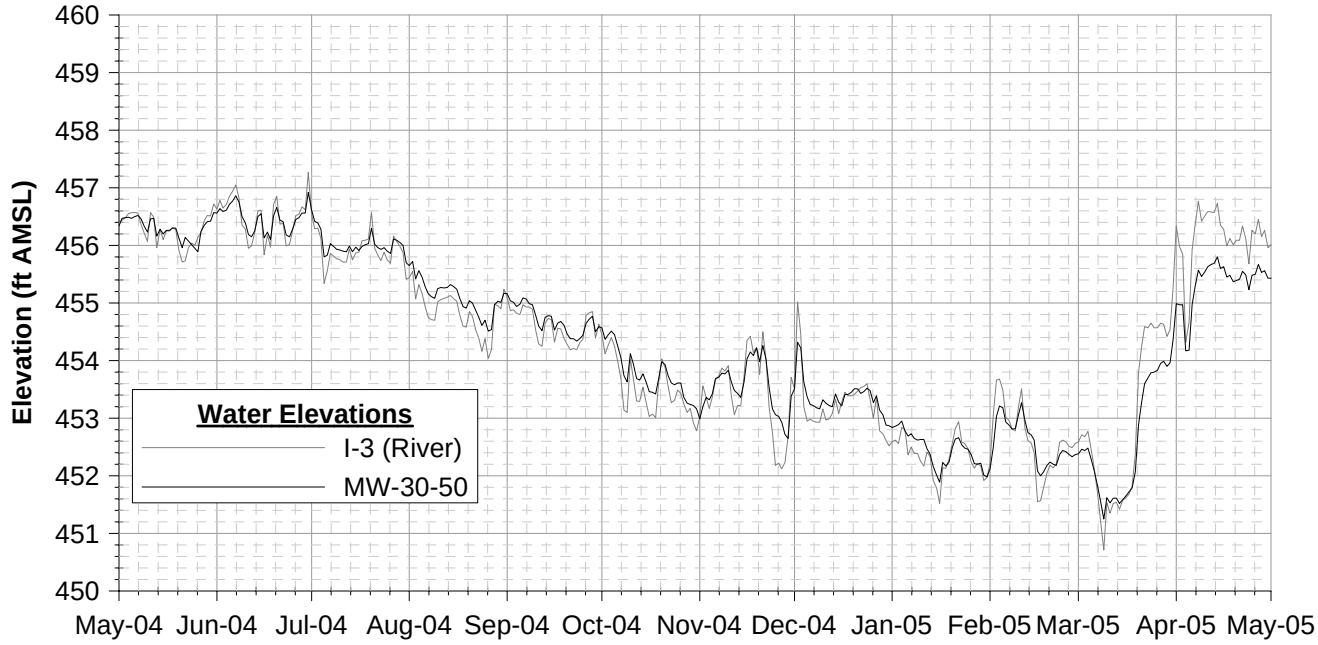

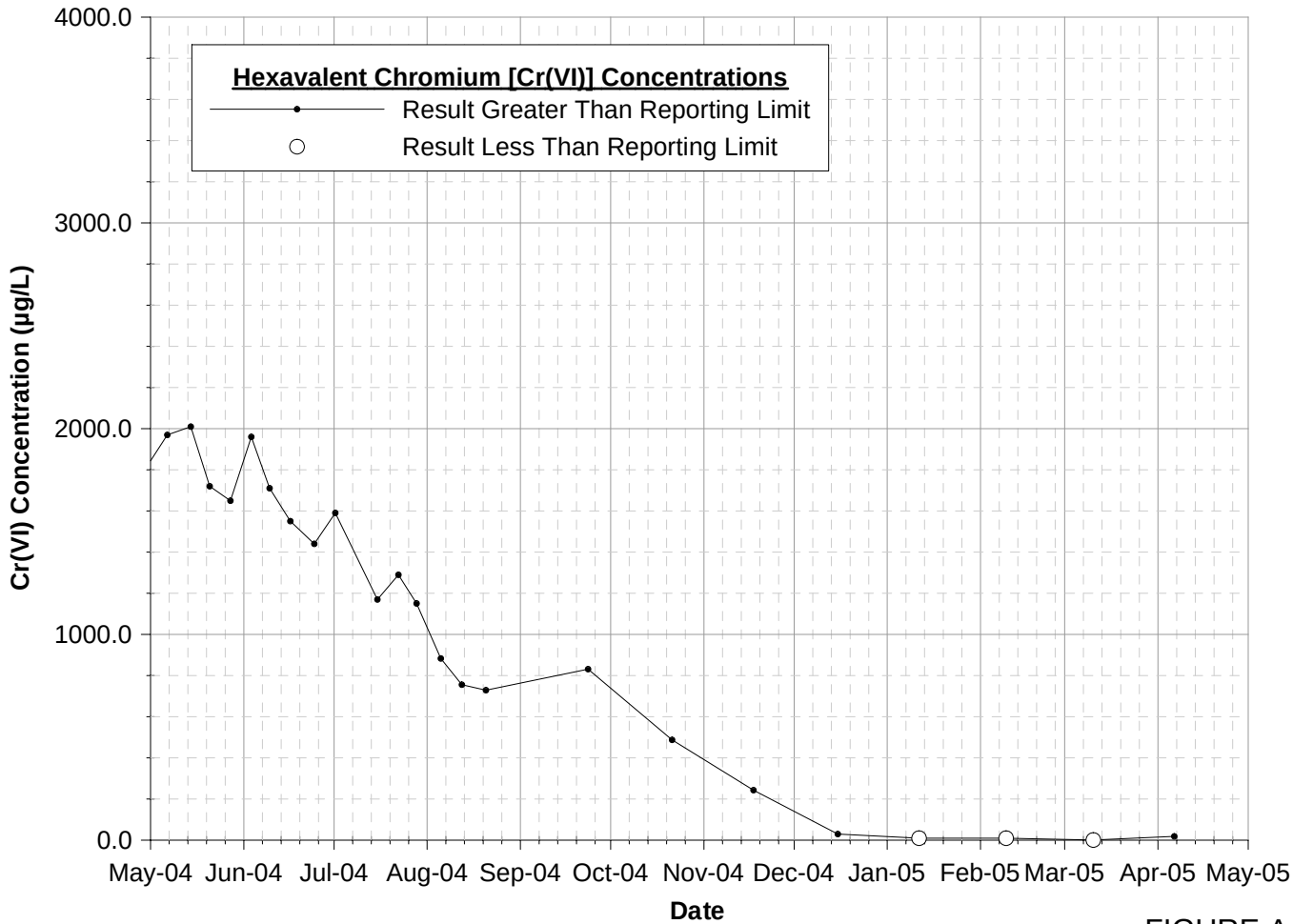

FIGURE A-4
MW-30-50 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 6, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

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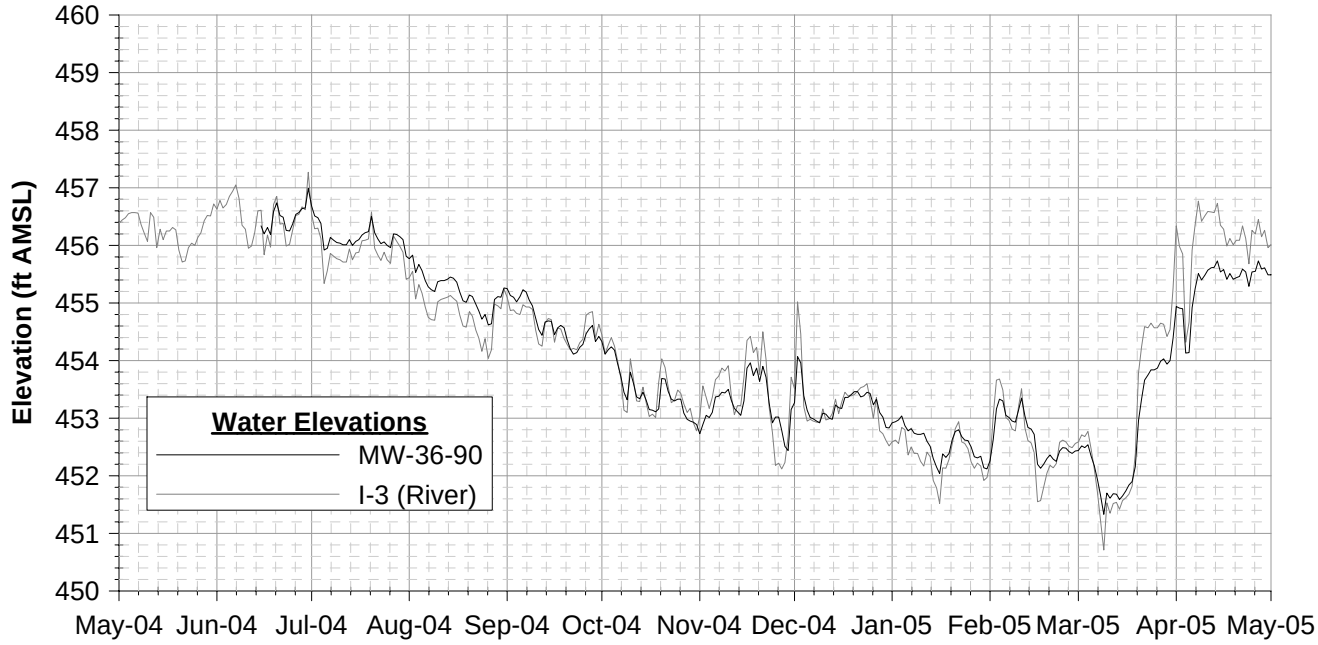

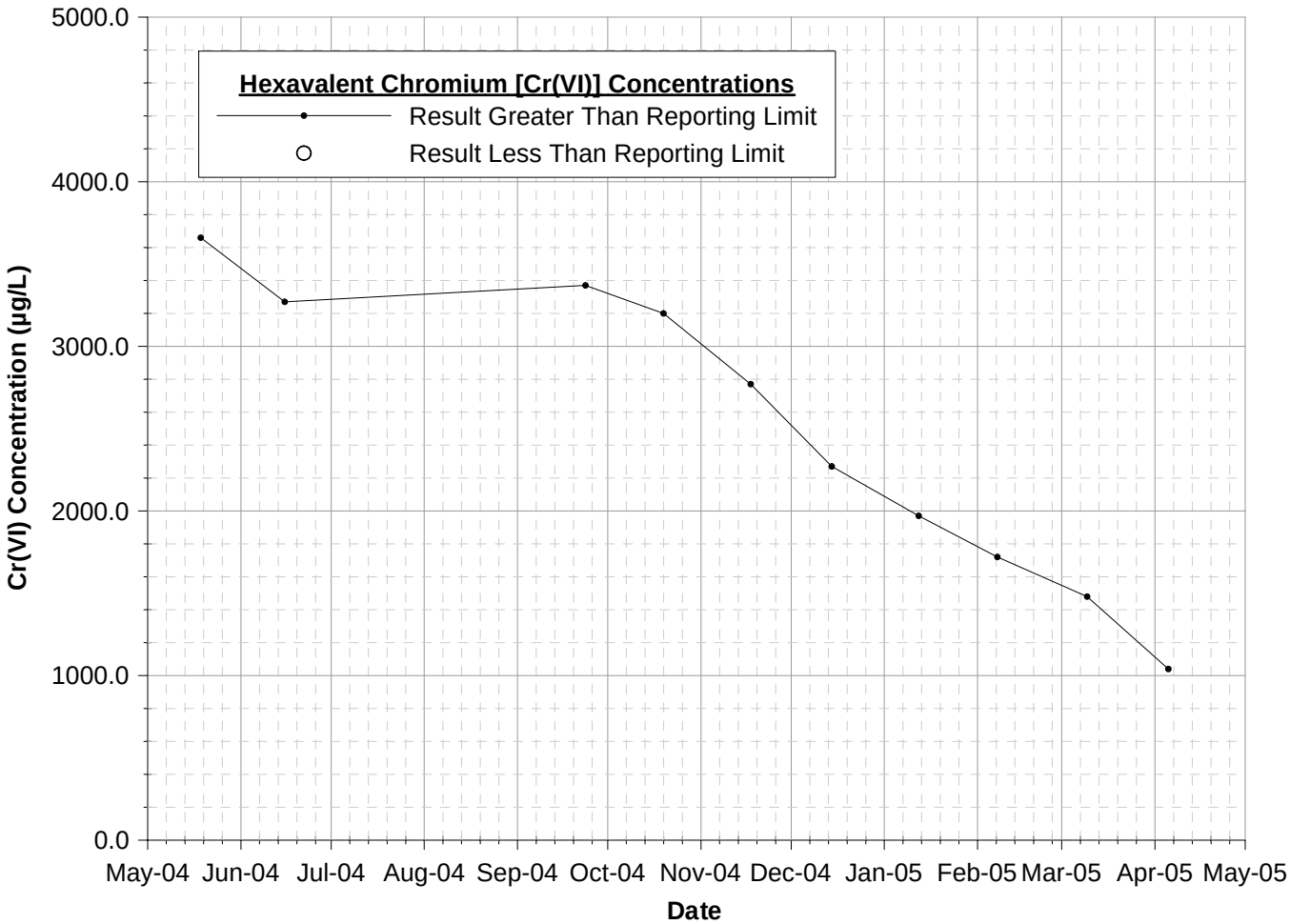

FIGURE A-5
MW-36-90 HEXAVALENT CHROMIUM
CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 5, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

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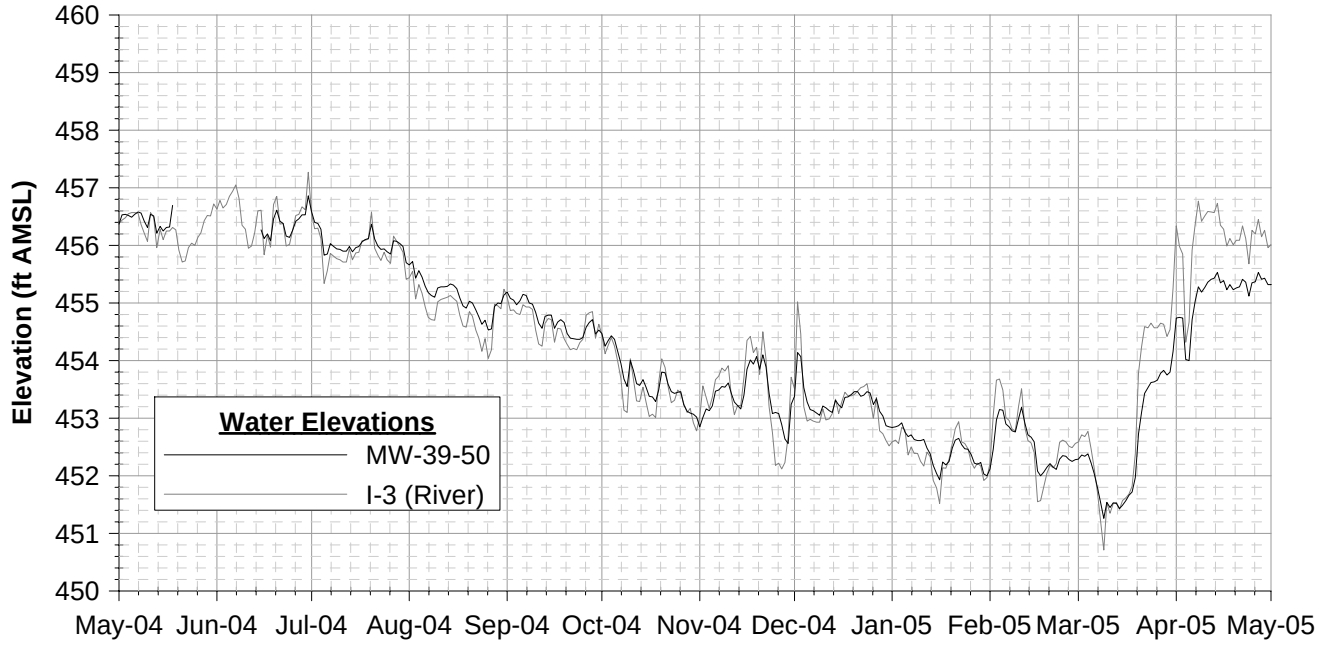

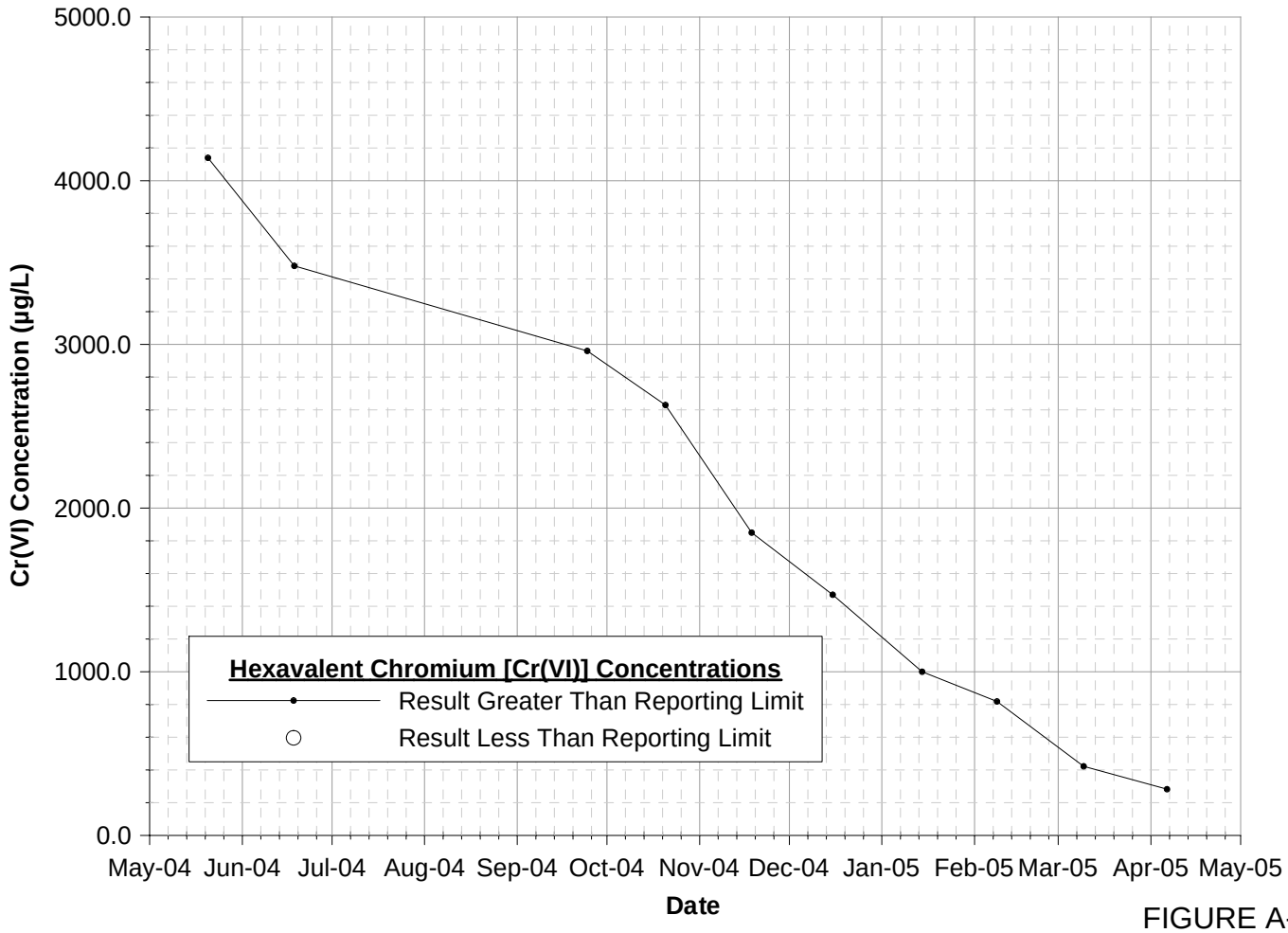

FIGURE A-6
MW-39-50 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 6, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

CH2MHILL

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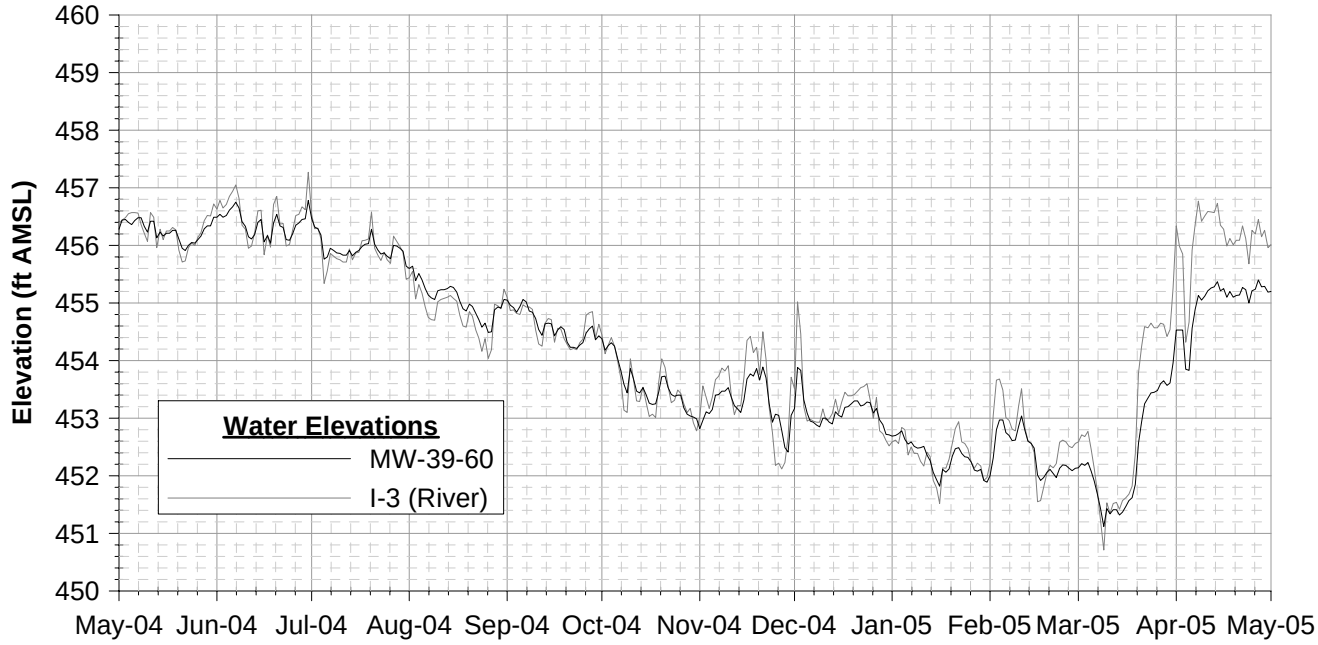

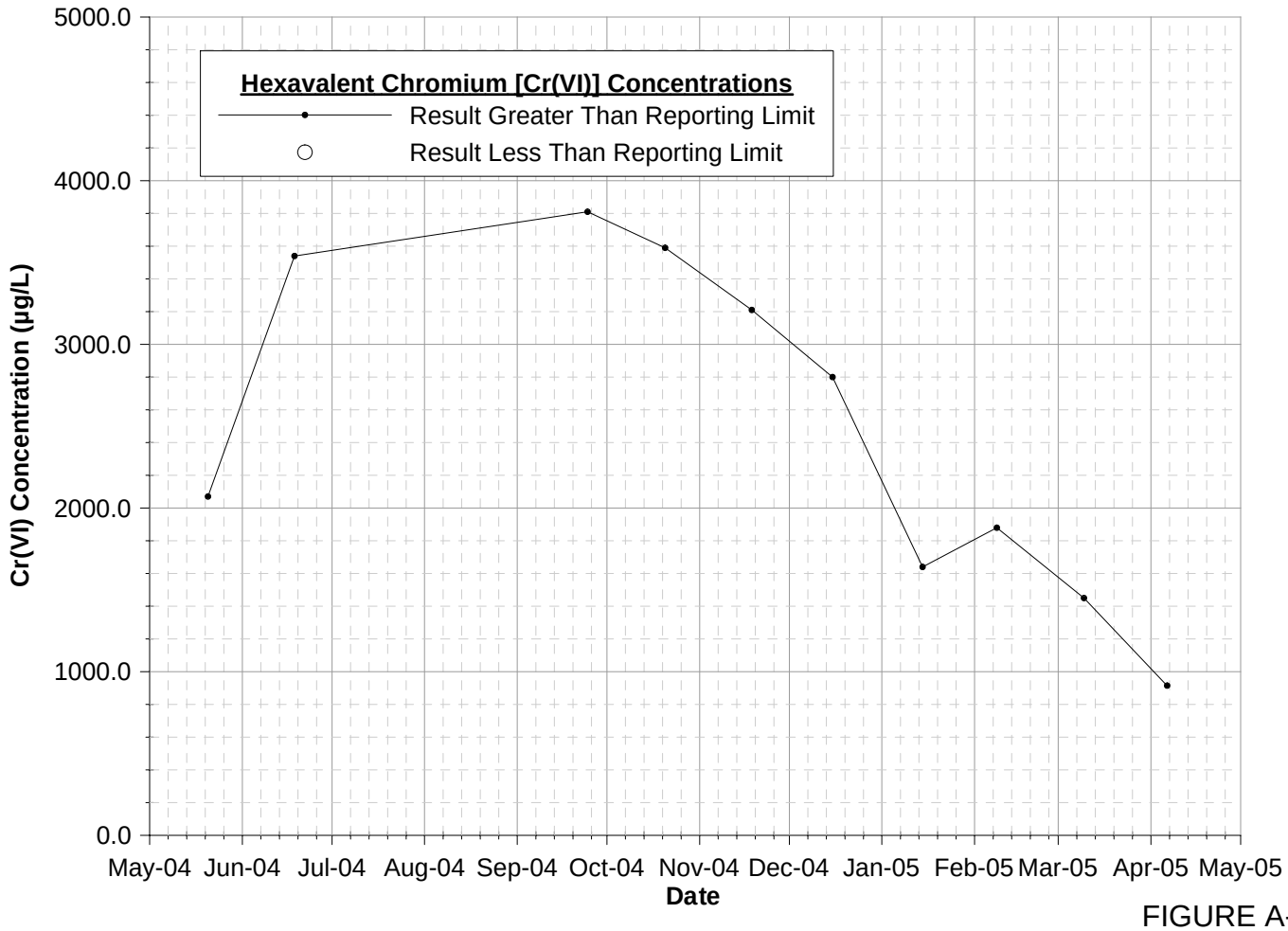

FIGURE A-7
MW-39-60 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 6, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method. Prior to the Feb. 17-20, 2004 sampling method comparison test, all samples from floodplain wells were collected using low-flow purging method.
3. Data subject to review.

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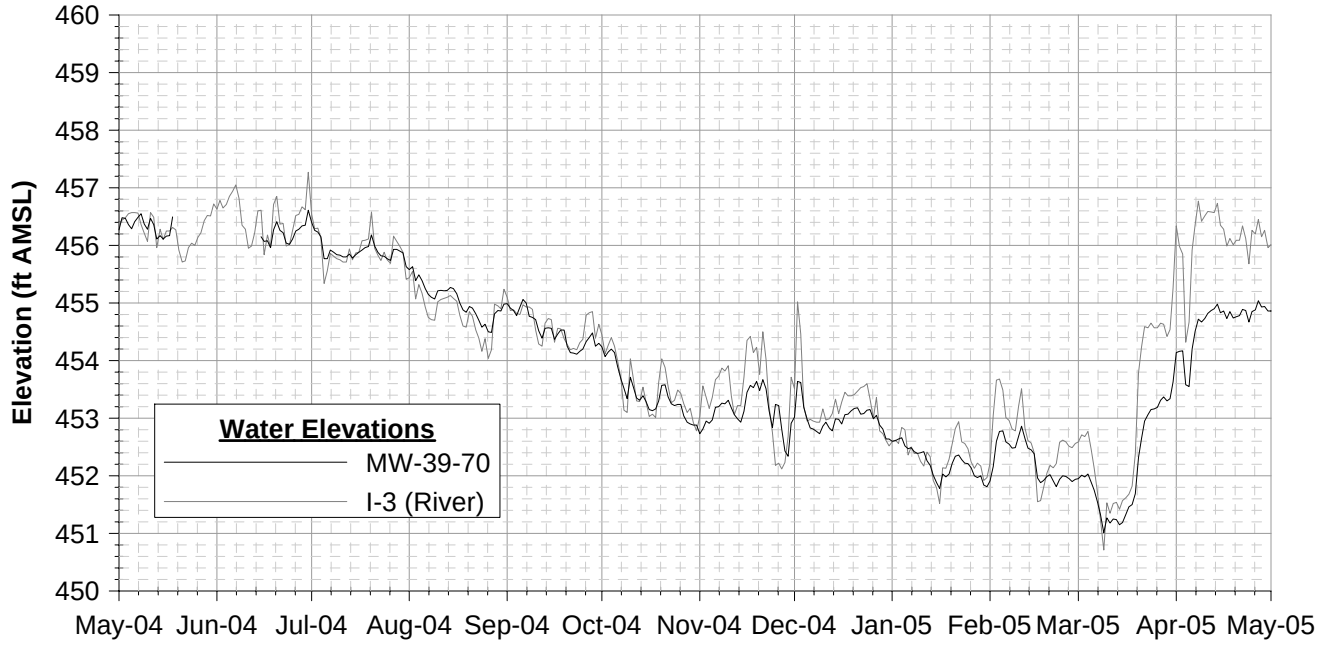

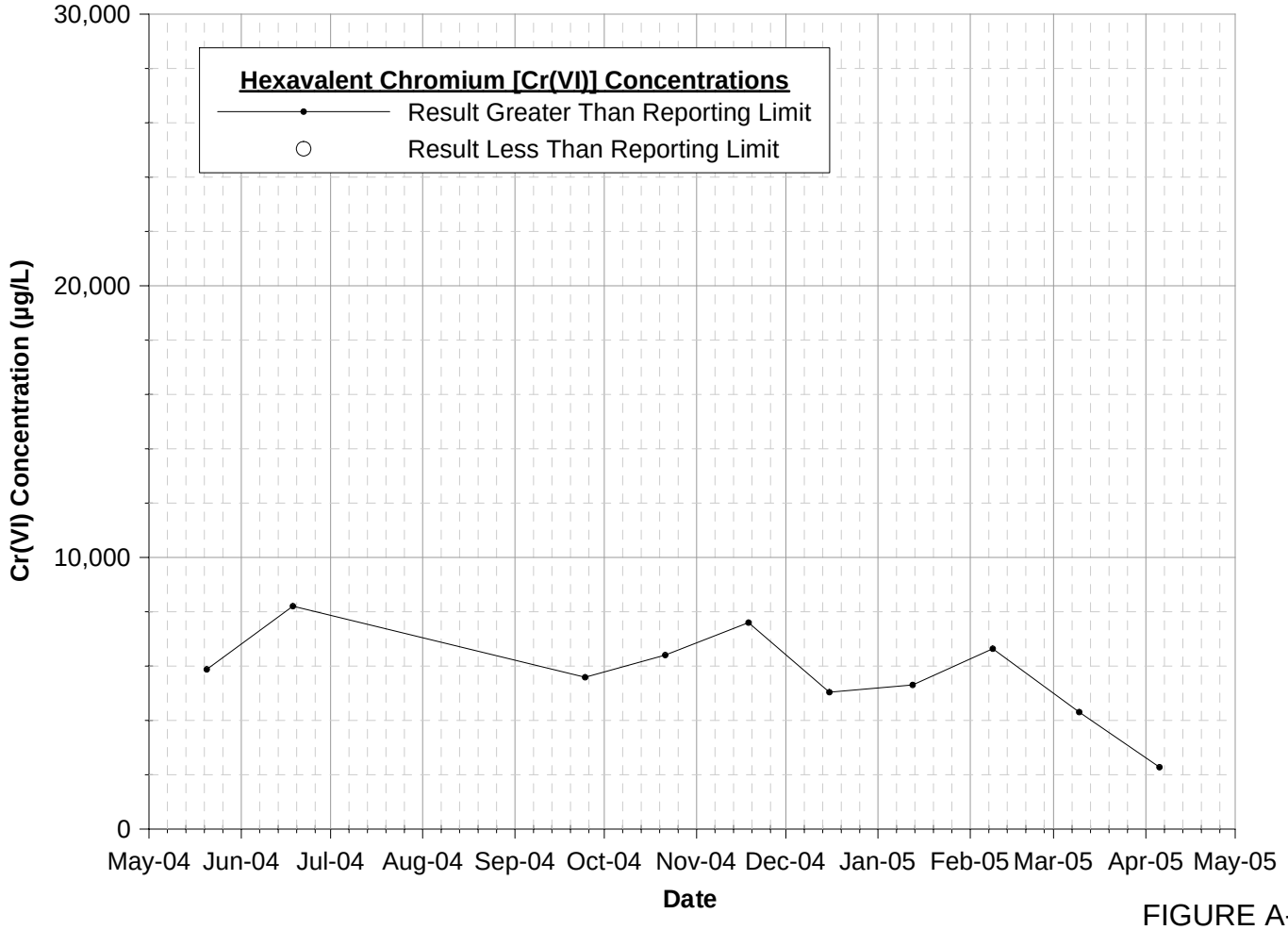

FIGURE A-8
MW-39-70 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 5, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

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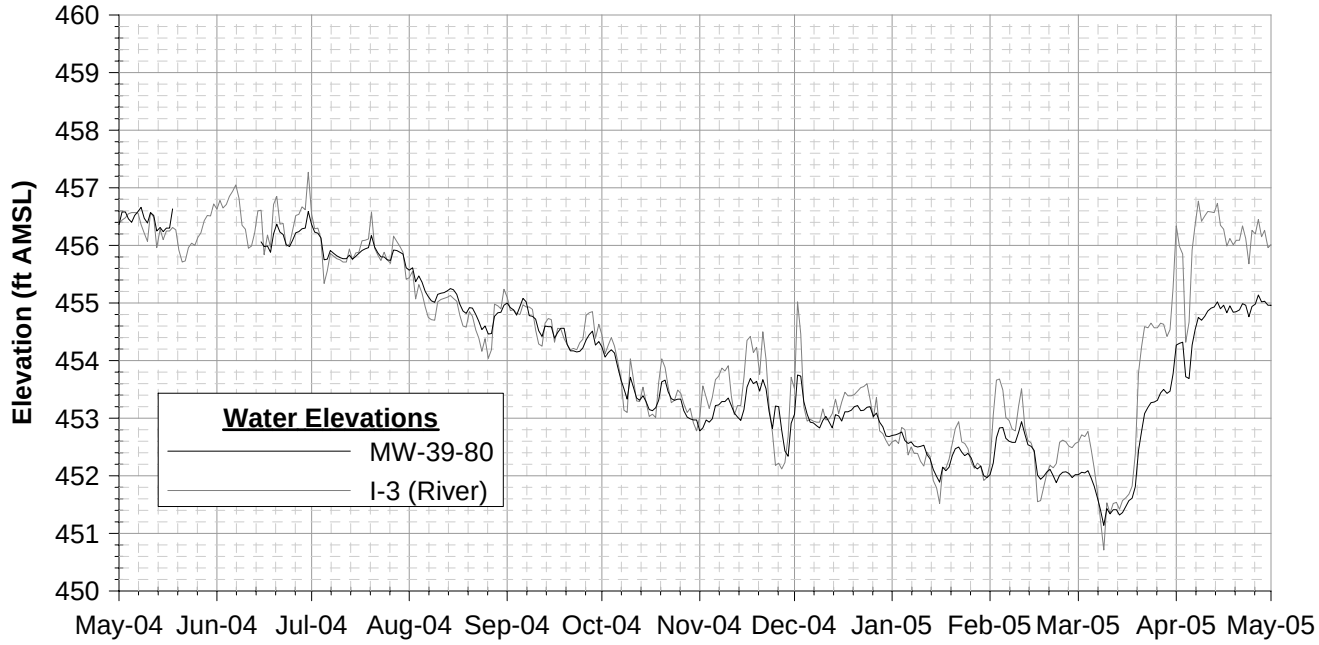

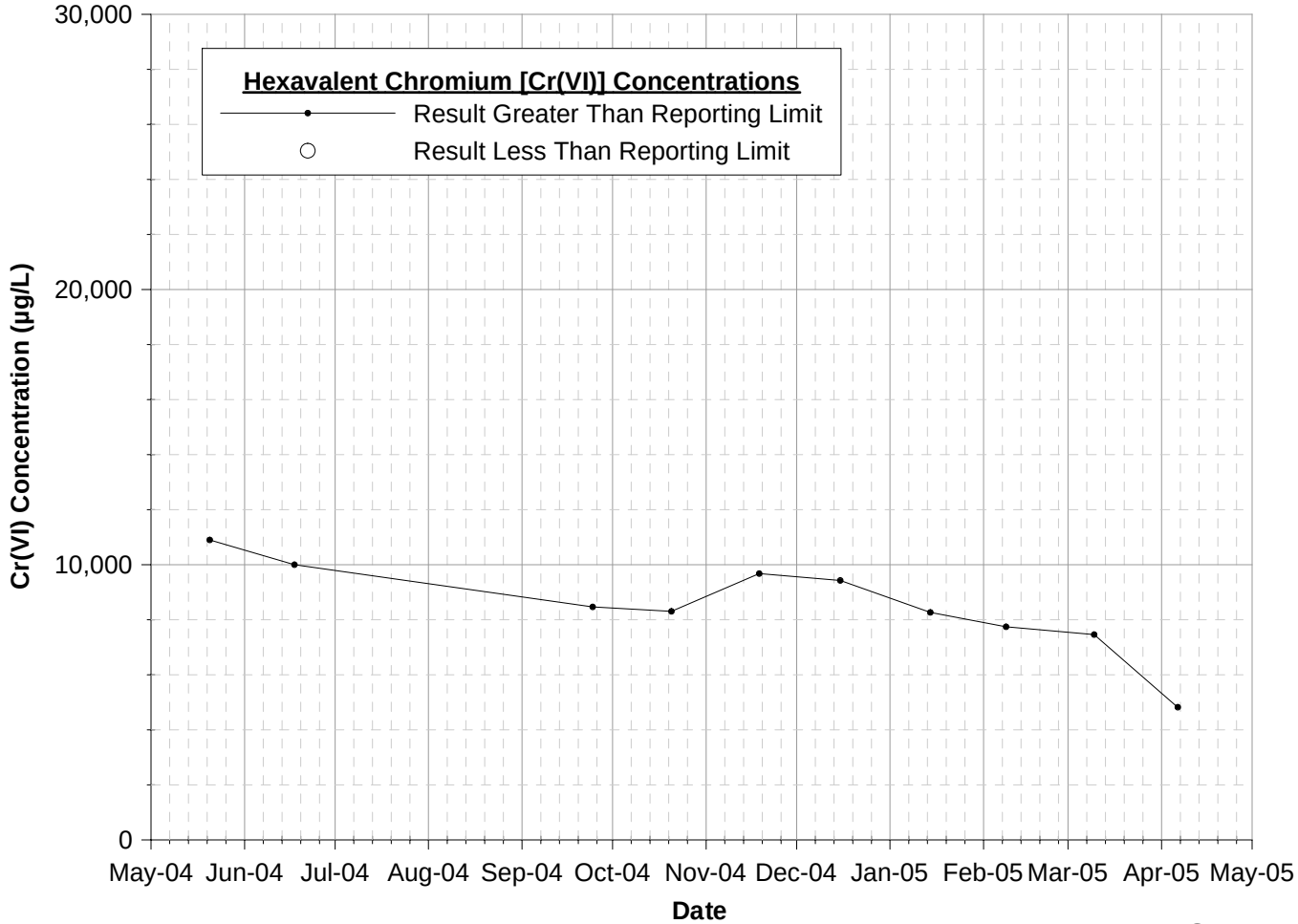

FIGURE A-9
MW-39-80 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 6, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

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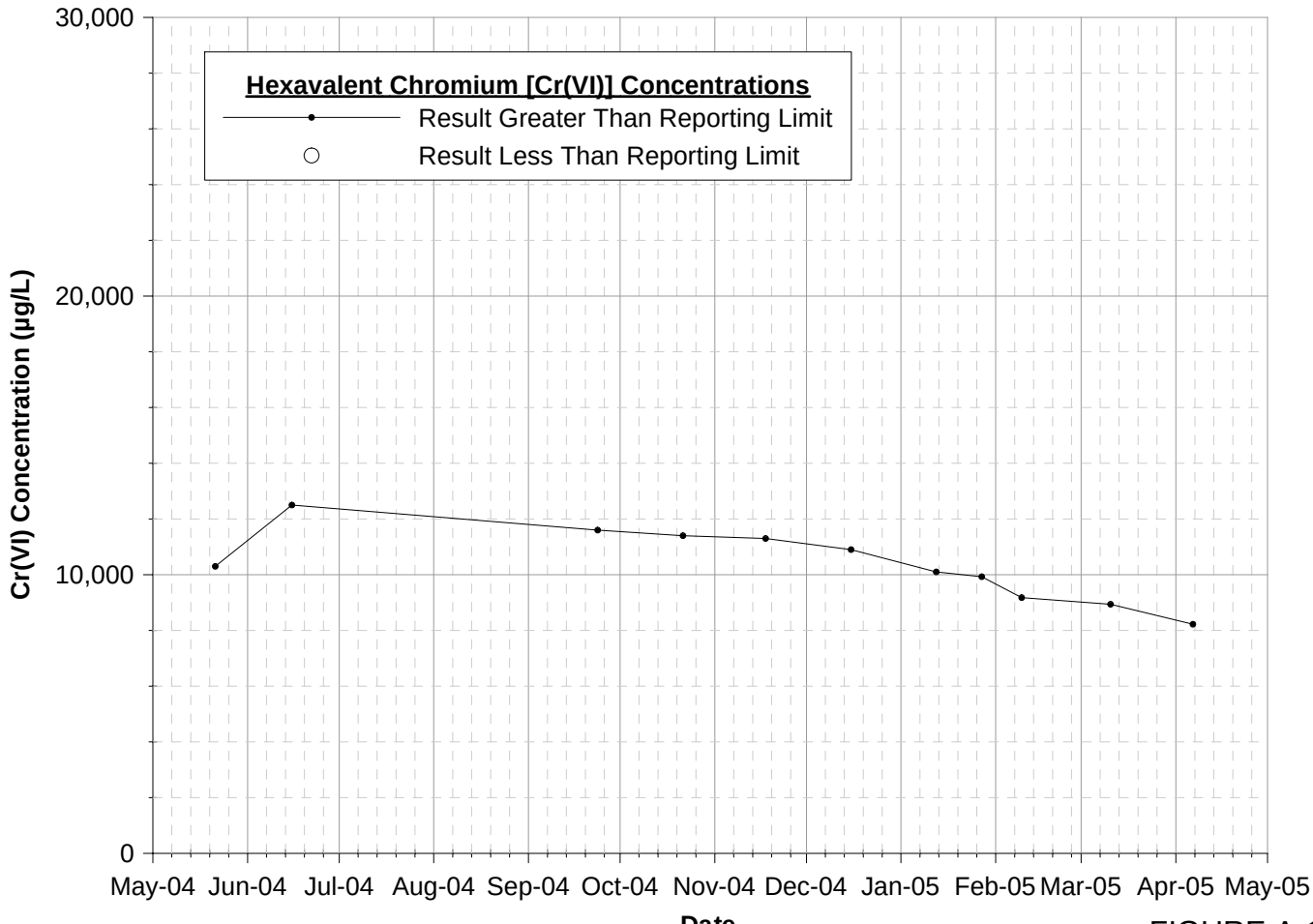

FIGURE A-10
MW-39-100 HEXAVALENT CHROMIUM CONCENTRATION & HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results though April 6, 2005 in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Beginning March 2004, groundwater samples from floodplain wells in the groundwater monitoring program are collected using the well-volume sampling method.
3. Data subject to review.

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TABLE A-1
Groundwater Sampling Results for Floodplain Monitoring Wells, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Upper Zone Wells								
MW-27-020	15-Nov-04	ND (0.2) R	ND (1.0)	-177	6.0	1,220	453.5	453.2
	02-Dec-04	ND (0.2)	---	-179	6.4	1,030	454.0	454.9
	15-Dec-04	ND (0.2)	ND (1.0)	-186	7.4	1,320	453.4	452.6
	10-Jan-05	ND (0.2)	ND (1.0)	-178	0.2	3,140	452.6	452.1
	09-Feb-05	ND (0.2)	ND (1.0)	-198	0.1	3,500	453.0	452.8
	08-Mar-05	ND (0.2)	ND (1.0)	-178	0.0	2,180	451.9	451.3
	04-Apr-05	ND (0.2)	ND (1.0)	-194	0.0	2,580	454.7	453.8
MW-28-025	15-Nov-04	ND (0.2) R	ND (1.0)	-33	5.0	1,570	453.6	453.3
	02-Dec-04	ND (0.2)	---	-170	5.6	1,260	454.3	455.1
	14-Dec-04	ND (0.2)	ND (1.0)	-43	---	---	453.4	452.7
	11-Jan-05	ND (0.2)	ND (1.0)	-115	7.2	1,560	452.7	452.1
	08-Feb-05	ND (0.2)	ND (1.0)	---	---	---	---	452.7
	10-Mar-05	ND (0.2)	ND (1.0)	60	5.6	1,400	451.9	451.8
	04-Apr-05	ND (0.2)	ND (1.0)	-108	0.1	1,590	454.9	454.4
MW-29	15-Nov-04	ND (0.2) R	ND (1.0)	-184	---	5,510	453.9	453.6
	02-Dec-04	ND (0.2)	---	-208	5.6	6,420	453.9	454.9
	14-Dec-04	ND (0.2) J	ND (1.0)	---	---	---	453.7	453.0
	11-Jan-05	ND (1.0)	ND (1.0)	-147	6.4	1,700	453.4	452.2
	07-Feb-05	ND (1.0)	3.00	-150	0.5	20,100	453.3	452.8
	09-Mar-05	ND (2.0)	ND (1.0)	-127	1.7	32,900	452.8	450.6
	06-Apr-05	ND (1.0)	ND (1.0)	-128	2.0	22,700	454.5	455.5
MW-30-030	16-Nov-04	ND (5.0)	ND (1.0)	-121	3.3	58,600	454.1	454.3
	15-Dec-04	ND (5.0)	ND (1.0)	-116	4.4	---	453.7	453.1
	11-Jan-05	ND (5.0)	ND (1.0)	-118	4.6	---	453.4	452.1
	09-Feb-05	ND (5.0)	ND (1.0)	-121	0.2	59,700	453.1	452.5
	10-Mar-05	ND (5.0)	ND (1.0)	-84	4.1	65,900	452.7	451.7
	06-Apr-05	ND (2.0)	ND (1.0)	-143	0.3	38,000	454.4	455.2
MW-32-020	15-Nov-04	ND (1.0) R	ND (1.0)	-147	4.5	28,400	453.4	453.1
	02-Dec-04	ND (1.0)	---	-145	4.9	24,700	453.6	455.0
	14-Dec-04	ND (1.0) J	ND (1.0)	-161	2.1	28,500	453.3	452.7
	10-Jan-05	ND (1.0)	ND (1.0)	-157	0.1	26,900	453.0	452.1
	07-Feb-05	ND (1.0)	ND (1.0)	-155	0.0	25,900	453.0	452.6
	09-Mar-05	ND (2.0)	ND (1.0)	-161	0.0	29,900	452.3	450.5
	04-Apr-05	ND (1.0)	ND (1.0)	-178	0.0	26,000	453.9	453.8
MW-32-035	15-Nov-04	ND (1.0) R	ND (1.0)	-170	---	7,500	453.4	453.0
	02-Dec-04	ND (1.0)	---	-159	5.6	7,700	454.0	455.1
	15-Dec-04	ND (1.0)	ND (1.0)	-169	6.0	---	453.4	453.5
	10-Jan-05	ND (1.0)	ND (1.0)	-176	0.1	7,510	452.8	452.1
	07-Feb-05	ND (1.0)	ND (1.0)	-175	0.5	10,000	452.9	452.6
	09-Mar-05	ND (1.0)	ND (1.0)	-183	0.1	12,400	451.6	450.5
	04-Apr-05	ND (1.0)	ND (1.0)	-197	0.1	9,800	454.2	453.9
MW-33-040	16-Nov-04	ND (1.0)	ND (1.0)	-69	4.7	15,700	454.3	454.6
	15-Dec-04	ND (0.2) J	ND (1.0)	-110	6.5	9,000	453.7	452.7

Refer to table footnotes for data qualifier explanation.

TABLE A-1
Groundwater Sampling Results for Floodplain Monitoring Wells, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Upper Zone Wells								
MW-33-040	11-Jan-05	ND (1.0)	ND (1.0)	-174	6.2	8,600	453.1	452.2
	07-Feb-05	ND (1.0)	ND (1.0)	-162	0.6	7,540	453.3	452.7
	09-Mar-05	ND (1.0)	ND (1.0)	-125	3.3	7,050	451.9	450.6
	04-Apr-05	ND (0.2)	ND (1.0)	-160	0.7	9,900	454.4	454.1
MW-36-020	17-Nov-04	ND (1.0)	6.50 J	-152	4.2	22,800	454.2	454.6
	17-Nov-04 FD	ND (1.0)	ND (1.0) J	FD	FD	FD	FD	FD
	14-Dec-04	ND (2.0) J	ND (1.0)	-151	6.0	29,500 †	453.4	452.8
	11-Jan-05	ND (2.0)	ND (1.0)	-112	0.9	38,900	452.7	452.1
	07-Feb-05	ND (1.0)	1.40	-62	6.2	31,400	452.9	452.6
	09-Mar-05	ND (2.0)	ND (1.0)	-88	7.6	22,600	451.3	450.6
	05-Apr-05	ND (1.0)	ND (1.0)	-92	5.3	20,000	---	454.0
MW-36-040	17-Nov-04	ND (1.0)	ND (1.0)	-166	4.3	14,400	454.2	454.5
	14-Dec-04	ND (1.0)	ND (1.0)	-168	0.1	---	453.5	453.4
	12-Jan-05	ND (0.2)	ND (1.0)	-191	0.3	8,500	452.5	452.4
	07-Feb-05	ND (1.0)	ND (1.0)	-151	6.6	11,300	452.8	452.6
	08-Mar-05	ND (1.0)	ND (1.0)	-194	5.5	9,000	451.7	451.2
	05-Apr-05	ND (1.0)	ND (1.0)	-162	5.3	11,200	---	454.0
MW-39-040	17-Nov-04	ND (0.2)	1.40	-181	4.2	6,800	453.9	454.0
	15-Dec-04	ND (0.2)	ND (1.0)	-173	0.5	---	453.2	452.8
	12-Jan-05	ND (1.0)	2.60	-180	0.4	4,180	452.5	452.2
	08-Feb-05	ND (0.2)	ND (1.0)	-160	5.4	7,390	452.7	452.4
	09-Mar-05	ND (1.0)	ND (1.0)	-177	5.0	8,290	451.3	450.6
	05-Apr-05	ND (1.0)	ND (1.0)	-179	5.4	6,200	---	454.5
MW-42-030	23-Feb-05	ND (1.0)	ND (1.0)	-175	1.5	12,600	452.4	452.6
	16-Mar-05	ND (1.0)	ND (1.0)	-136	1.2	17,800	451.8	451.7
MW-43-025	07-Mar-05	ND (0.2)	ND (1.0)	-161	6.1	1,690	451.9	451.7
	15-Mar-05	ND (0.2)	ND (1.0)	-177	4.6	1,660	451.8	451.8
Middle Zone Wells								
MW-27-060	23-Feb-05	ND (1.0)	ND (1.0)	-151	1.3	15,200	452.7	452.6
	23-Feb-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	01-Mar-05	ND (1.0)	ND (1.0) J	-143	5.1	13,400	452.8	452.6
	08-Mar-05	ND (1.0)	ND (1.0)	-144	1.1	18,000	451.9	451.4
	14-Mar-05	ND (1.0)	ND (1.0)	-158	0.8	20,300	---	451.5
	23-Mar-05	ND (1.0)	ND (1.0)	-124	1.7	12,700	454.2	454.4
	29-Mar-05	ND (1.0)	ND (1.0)	-154	0.3	16,800	454.3	454.1
	05-Apr-05	ND (1.0)	ND (1.0)	-157	0.1	16,700	454.3	454.0
	12-Apr-05	ND (1.0)	ND (1.0)	-146	0.2	13,800	456.6	456.7
	19-Apr-05	ND (1.0)	ND (1.0)	---	---	---	456.3	456.3
	26-Apr-05	ND (1.0)	ND (1.0)	-111	7.0	22,100	456.6	456.2
MW-30-050	17-Nov-04	243	257	-87	5.2	10,000	454.0	454.1
	15-Dec-04	29.4	33.9	-115	5.8	10,300	453.5	452.9
	15-Dec-04 FD	26.2	36.5	FD	FD	FD	FD	FD

Refer to table footnotes for data qualifier explanation.

TABLE A-1
Groundwater Sampling Results for Floodplain Monitoring Wells, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Middle Zone Wells								
MW-30-050	11-Jan-05	ND (10)	ND (1.0)	-215	6.4	13,600	452.7	452.2
	11-Jan-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	09-Feb-05	ND (10)	1.60 J	-155	0.0	13,300	452.7	452.5
	09-Feb-05 FD	ND (1.0)	11.2 J	FD	FD	FD	FD	FD
	10-Mar-05	ND (1.0)	ND (1.0)	-230	4.7	9,000	451.7	451.7
	06-Apr-05	18.5	15.5	-252	0.5	14,000	454.8	455.4
	06-Apr-05 FD	17.1 J	13.0	FD	FD	FD	FD	FD
MW-33-090	02-Nov-04	17.6	18.2	-185	3.2	8,860	453.4	453.2
	02-Nov-04 FD	17.4	16.8	FD	FD	FD	FD	FD
	16-Nov-04	14.8	12.7	-93	3.9	11,400	454.1	453.6
	02-Dec-04	15.6	13.1	-199	5.5	7,730	454.4	454.9
	14-Dec-04	16.0	14.8	---	---	---	453.7	453.5
	29-Dec-04	16.7	13.7	-115	0.5	15,000	453.4	452.4
	11-Jan-05	18.2	14.8	-113	---	8,840	453.1	452.2
	27-Jan-05	17.7	14.4	-138	0.7	10,100	452.8	452.5
	07-Feb-05	20.2	14.9	-75	0.5	9,320	453.2	452.6
	22-Feb-05	19.0	18.3	10	5.2	8,930	452.6	452.2
	09-Mar-05	18.6	18.2	-101	0.7	---	451.8	450.5
	22-Mar-05	18.9	19.2	-92	4.7	14,600	453.7	454.2
	04-Apr-05	21.3	17.2	-98	0.3	13,300	454.4	454.1
	19-Apr-05	20.3	17.9	---	4.0	8,830	455.5	455.3
	19-Apr-05 FD	20.0	18.2	FD	FD	FD	FD	FD
MW-34-055	16-Nov-04	ND (1.0)	ND (1.0)	-88	3.9	9,600	454.3	454.0
	15-Dec-04	ND (0.2) J	ND (1.0)	-94	6.3	9,000	453.6	453.3
	12-Jan-05	ND (1.0)	ND (1.0)	-101	6.4	12,100	452.6	452.5
	09-Feb-05	ND (1.0)	ND (1.0)	-112	0.0	12,600	453.0	452.7
	10-Mar-05	ND (1.0)	ND (1.0)	-191	5.1	9,000	451.7	451.4
	05-Apr-05	ND (1.0)	ND (1.0)	-110	0.7	12,400	454.1	454.0
MW-36-050	17-Nov-04	ND (1.0)	ND (1.0)	-147	4.5	10,700	454.2	454.2
	14-Dec-04	ND (0.2) J	ND (1.0)	-151	0.3	---	453.6	453.5
	12-Jan-05	ND (1.0)	ND (1.0)	-163	0.2	5,630	452.6	452.4
	07-Feb-05	ND (1.0)	ND (1.0)	-131	5.6	11,000	452.8	452.6
	08-Mar-05	ND (1.0)	ND (1.0)	-168	5.5	8,800	451.7	451.1
	05-Apr-05	ND (1.0)	ND (1.0)	-129	5.6	9,320	---	454.1
MW-36-070	17-Nov-04	ND (1.0)	ND (1.0)	-126	4.3	11,700	454.2	454.0
	14-Dec-04	ND (0.2) J	ND (1.0)	-131	6.5	9,200	453.4	452.7
	11-Jan-05	ND (1.0)	ND (1.0)	-130	0.3	12,100	452.8	452.2
	07-Feb-05	ND (0.21)	1.20	-60	7.2	18,500	453.0	452.7
	08-Mar-05	ND (1.0)	ND (1.0)	-115	5.2	11,300	451.7	451.2
	05-Apr-05	ND (1.0)	ND (1.0)	-48	5.6	9,990	---	454.0
MW-39-050	18-Nov-04	1850	1720	12	---	11,800	454.2	454.5
	15-Dec-04	1470	1480	18	3.0	---	453.2	452.9
	14-Jan-05	1000	1020	77	0.8	11,900	452.2	452.0

Refer to table footnotes for data qualifier explanation.

TABLE A-1
Groundwater Sampling Results for Floodplain Monitoring Wells, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Middle Zone Wells								
MW-39-050	08-Feb-05	819	800	76	5.3	14,500	452.7	452.6
	09-Mar-05	422	372	11	5.0	14,400	451.3	450.5
	06-Apr-05	282 J	237	81	4.4	12,400	454.8	455.8
MW-39-060	18-Nov-04	3210	3130	31	6.3	8,690	453.7	454.2
	15-Dec-04	2800	2650	29	0.3	---	453.6	453.0
	14-Jan-05	1640	2880	95	---	10,500	452.1	451.6
	08-Feb-05	1880	1650	106	5.2	12,900	452.7	452.7
	09-Mar-05	1450	1300	65	4.9	15,200	451.1	450.5
	06-Apr-05	914	1080	84	4.3	12,600	---	455.5
	06-Apr-05 FD	914	907	FD	FD	FD	FD	FD
MW-39-070	18-Nov-04	7600	6390	45	6.5	9,450	453.7	453.8
	15-Dec-04	5040	5860	11	0.4	---	452.9	452.5
	12-Jan-05	5310	4860	53	0.9	8,000	452.3	452.3
	08-Feb-05	6640	6800	89	5.5	11,400	452.4	452.4
	09-Mar-05	4310	4010 J	71	5.3	13,800	451.0	450.5
	09-Mar-05 FD	4340	5310 J	FD	FD	FD	FD	FD
	05-Apr-05	2280	2080	61	5.8	11,500	---	454.4
MW-42-055	23-Feb-05	ND (1.0)	ND (1.0)	-188	0.9	13,600	452.5	452.6
	16-Mar-05	ND (1.0)	ND (1.0)	-191	0.5	17,100	451.9	451.7
MW-42-065	14-Feb-05	ND (1.0)	ND (1.0)	-201	0.3	22,200	453.1	452.1
	24-Feb-05	ND (1.0)	ND (2.8) J	-119	5.0	20,500	452.8	452.6
	16-Mar-05	ND (1.0)	ND (1.0)	-126	0.6	21,400	452.0	451.5
Lower Zone Wells								
MW-27-085	14-Feb-05	ND (1.0)	ND (1.0)	-519	0.1	26,700	453.8	452.6
	16-Feb-05	ND (2.0)	ND (1.0)	-491	5.2	23,400	452.5	451.6
	23-Feb-05	ND (2.0)	ND (1.0)	-235	1.1	17,700	452.9	452.6
	01-Mar-05	ND (1.0)	ND (1.0) J	-155	4.9	18,600	452.9	452.6
	08-Mar-05	ND (2.0)	ND (1.0)	-152	0.2	22,000	452.1	451.4
	14-Mar-05	ND (1.0)	ND (1.0)	-153	0.9	27,000	452.2	451.6
	23-Mar-05	ND (1.0)	ND (1.0)	-145	1.0	16,100	454.3	454.3
	29-Mar-05	ND (1.0)	ND (1.0)	-167	0.5	19,700	454.5	454.2
	05-Apr-05	ND (1.0)	ND (1.0)	-134	2.0	19,700	454.5	454.0
	12-Apr-05	ND (1.0)	ND (1.0)	-134	0.1	16,900	456.6	456.6
	19-Apr-05	ND (1.0)	ND (1.0)	---	---	---	456.5	456.5
	26-Apr-05	ND (1.0)	ND (1.0)	-138	5.7	18,100	456.1	456.0
MW-28-090	02-Nov-04	ND (1.0)	ND (1.0)	-160	4.6	10,200	453.0	453.6
	15-Nov-04	ND (0.2) R	ND (1.0)	-143	5.0	11,000	453.4	453.1
	02-Dec-04	ND (1.0)	ND (1.0)	-201	5.8	9,120	454.7	455.0
	13-Dec-04	ND (0.2) J	ND (1.0)	-137	---	9,000	453.3	452.9
	29-Dec-04	ND (1.0)	ND (1.0)	-175	0.3	15,900	453.3	452.9
	11-Jan-05	ND (1.0)	ND (1.0)	-193	7.1	14,200	452.8	452.1
	27-Jan-05	ND (1.0)	5.10	-203	0.1	12,100	452.3	451.8

Refer to table footnotes for data qualifier explanation.

TABLE A-1
Groundwater Sampling Results for Floodplain Monitoring Wells, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Lower Zone Wells								
MW-28-090	08-Feb-05	ND (1.0)	ND (1.0)	-181	0.0	9,430	453.0	452.7
	22-Feb-05	ND (1.0)	ND (1.0)	-54	5.8	9,300	452.3	452.1
	07-Mar-05	ND (1.0)	ND (1.0)	-190	0.1	12,300	451.8	451.6
	22-Mar-05	ND (1.0)	ND (1.0)	-203	0.2	12,200	453.9	454.2
	04-Apr-05	ND (1.0)	ND (1.0)	-172	0.4	12,600	454.4	454.3
	20-Apr-05	ND (1.0)	ND (1.0)	-93	3.9	9,990	456.4	456.7
MW-33-150	02-Mar-05	ND (1.0)	ND (1.0)	-120	4.6	15,900	453.4	452.7
	02-Mar-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	16-Mar-05	ND (1.0)	ND (1.0)	-175	1.6	21,600	452.9	452.0
MW-33-210	24-Feb-05	ND (1.0)	ND (2.1) J	-116	4.9	22,200	453.7	452.7
	16-Mar-05	1.40	ND (1.0)	-103	0.6	25,300	453.0	451.9
MW-34-080	02-Nov-04	ND (1.0)	ND (1.0)	-219	3.4	13,700	453.2	453.4
	17-Nov-04	ND (1.0)	ND (1.0)	-209	6.0	12,700	454.6	454.4
	17-Nov-04 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	02-Dec-04	ND (1.0)	ND (1.0)	-238	5.7	10,400	454.6	455.1
	13-Dec-04	ND (1.0)	ND (1.0)	-174	6.1	12,700	453.1	452.6
	29-Dec-04	ND (1.0)	ND (1.0)	-99	0.2	19,600	453.1	452.6
	12-Jan-05	ND (1.0)	ND (1.0)	-181	6.2	17,300	452.6	452.4
	27-Jan-05	ND (1.0)	ND (1.0)	-134	0.1	14,800	452.3	452.1
	08-Feb-05	ND (1.0)	ND (1.0)	-162	0.0	15,500	452.9	452.3
	16-Feb-05	ND (2.0)	ND (1.0)	-224	5.1	18,000	452.1	451.5
	22-Feb-05	ND (1.0)	ND (1.0)	-95	5.8	14,100	452.4	452.3
	01-Mar-05	ND (1.0)	ND (1.0) J	-127	5.1	13,300	452.7	452.5
	08-Mar-05	ND (1.0) J	ND (1.0)	-84	0.0	17,600	451.4	451.2
	15-Mar-05	ND (1.0)	ND (1.0)	-121	0.6	15,200	---	452.0
	22-Mar-05	ND (1.0)	ND (1.0)	-83	0.2	15,200	453.8	454.3
	29-Mar-05	ND (1.0)	ND (1.0)	-214	0.0	16,800	454.2	454.4
	05-Apr-05	ND (1.0)	ND (1.0)	-207	0.0	17,200	454.2	454.1
	12-Apr-05	ND (1.0)	ND (1.0)	-86	0.1	14,200	455.9	455.7
	19-Apr-05	ND (1.0)	ND (1.0)	4	5.1	13,800	456.1	455.7
	26-Apr-05	ND (1.0)	ND (1.0)	-94	3.5	13,700	455.7	455.1
MW-34-100	14-Feb-05	357	328	-246	0.2	25,000	453.3	452.3
	16-Feb-05	354	294	-159	5.3	20,400	452.4	451.5
	23-Feb-05	417	391	-35	1.4	18,000	452.8	452.6
	01-Mar-05	402	374	-86	5.0	15,700	452.8	452.6
	01-Mar-05 FD	411	332	FD	FD	FD	FD	FD
	08-Mar-05	425 J	490	-60	0.4	19,900	452.0	451.3
	14-Mar-05	426	474	-55	0.7	23,700	452.0	451.3
	23-Mar-05	421	548	-98	0.8	14,600	454.2	454.2
	29-Mar-05	73.9 J	110	-96	0.5	18,100	454.5	454.3
	29-Mar-05 FD	56.7 J	106	FD	FD	FD	FD	FD
	05-Apr-05	452	488	-115	0.3	20,000	454.6	454.4
	05-Apr-05 FD	455	454	FD	FD	FD	FD	FD

Refer to table footnotes for data qualifier explanation.

TABLE A-1
Groundwater Sampling Results for Floodplain Monitoring Wells, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Lower Zone Wells								
MW-34-100	12-Apr-05	482	502	-61	0.2	15,500	456.4	456.2
	12-Apr-05 FD	499	562	FD	FD	FD	FD	FD
	19-Apr-05	473	599	8	6.0	16,200	456.2	455.9
	26-Apr-05	476	573	-45	4.1	21,000	456.1	455.5
	26-Apr-05 FD	480	602	FD	FD	FD	FD	FD
MW-36-090	17-Nov-04	2770	2700	-27	4.1	---	453.9	454.0
	14-Dec-04	2270	2130	-8	1.1	---	453.7	453.0
	14-Dec-04 FD	2270	2180	FD	FD	FD	FD	FD
	12-Jan-05	1970	1780	-137	0.2	11,900	452.6	452.5
	12-Jan-05 FD	1860	1800	FD	FD	FD	FD	FD
	07-Feb-05	1720	1610	51	5.4	19,300	452.9	452.6
	09-Mar-05	1480	1380	49	5.1	18,100	451.5	450.6
	05-Apr-05	1040	946	64	5.3	15,100	---	454.0
MW-36-100	02-Nov-04	2490	2240	-36	3.6	16,300	453.0	453.0
	17-Nov-04	2150	2270	-16	5.8	15,400	453.9	454.0
	02-Dec-04	1860	1620	-67	5.5	14,000	454.2	454.9
	02-Dec-04 FD	1750	1570	FD	FD	FD	FD	FD
	14-Dec-04	1790	1810	---	---	---	453.3	453.2
	29-Dec-04	1690	1580	-40	0.2	---	452.9	452.3
	29-Dec-04 FD	1720	1530	FD	FD	FD	FD	FD
	12-Jan-05	1520 ~	1470 ~	-9	6.1	22,300	452.5	452.3
	12-Jan-05 FD	1550	1510	FD	FD	FD	FD	FD
	27-Jan-05	1500	1420	-33	0.2	19,300	452.1	451.7
	27-Jan-05 FD	1420	1490	FD	FD	FD	FD	FD
	09-Feb-05	1440	1420	-12	0.0	20,900	452.6	452.6
	22-Feb-05	1430	1230	55	5.2	18,700	452.0	452.2
	22-Feb-05 FD	1390	1250	FD	FD	FD	FD	FD
	09-Mar-05	1380	1200	-20	0.3	22,600	451.1	450.5
	22-Mar-05	1250	1180	-16	0.2	19,900	453.4	454.2
	22-Mar-05 FD	1230	1160	FD	FD	FD	FD	FD
	04-Apr-05	1110	981	-20	0.1	19,600	454.1	454.0
	20-Apr-05	825	844	2	3.1	17,500	455.9	456.5
MW-39-080	18-Nov-04	9680	8850	90	6.5	13,600	453.5	453.5
	15-Dec-04	9430	8320	66	1.6	---	453.6	453.0
	14-Jan-05	8270	11200	163	0.5	11,600	452.2	452.0
	08-Feb-05	7750	8220	99	5.8	14,900	452.6	452.7
	08-Feb-05 FD	7890	7750	FD	FD	FD	FD	FD
	09-Mar-05	7460	7240	82	5.0	16,800	451.1	450.5
	06-Apr-05	4820	4570	88	4.7	13,800	---	455.7
MW-39-100	17-Nov-04	11300	11100	57	6.4	14,200	453.8	454.0
	17-Nov-04 FD	11300	12700	FD	FD	FD	FD	FD
	15-Dec-04	10900	11000	24	6.2	---	454.1	452.5
	12-Jan-05	10100 ~	9820 ~	63	6.2	20,200	452.4	452.3

Refer to table footnotes for data qualifier explanation.

TABLE A-1
Groundwater Sampling Results for Floodplain Monitoring Wells, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Lower Zone Wells								
MW-39-100	27-Jan-05	9930	10200	45	2.1	20,200	452.3	452.3
	09-Feb-05	9180	9480	33	2.2	22,000	452.5	452.4
	09-Feb-05 FD	9260	9710	FD	FD	FD	FD	FD
	10-Mar-05	8940	8160	28	5.1	24,500	451.5	451.2
	06-Apr-05	8220	8230	54	1.5	---	454.5	455.1
MW-43-075	07-Mar-05	ND (1.0)	ND (1.0)	-150	5.6	15,200	452.2	451.7
	15-Mar-05	ND (1.0)	ND (1.0)	-178	0.5	14,900	452.7	451.8
MW-43-090	07-Mar-05	ND (1.0)	ND (1.0)	-185	0.2	21,500	452.5	451.7
	15-Mar-05	ND (1.0)	ND (1.0)	-153	0.5	22,000	452.3	451.6
	15-Mar-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD

NOTES:

ND = not detected at listed reporting limit (RL)
FD = field duplicate
J = concentration or RL estimated by laboratory or data validation
T = data from the downhole transducers to fill groundwater elevation data gaps at some locations
MSL = mean sea level
(---) = data not collected, available, or field instrumentation malfunctioned
µg/L= micrograms per liter
mV = oxidation-reduction potential (ORP)
µS/cm = microSiemens per centimeter

The RLs for certain hexavalent chromium results from Method 7199 analyses have been elevated above the standard RL of 0.2 µg/L due to required sample dilution to accommodate matrix interferences.

Groundwater and river elevations in feet above mean sea level (MSL) rounded to 0.1 foot. River elevations from presssure transducer record at I-3.

Refer to table footnotes for data qualifier explanation.

TABLE A-2
Groundwater Sampling Results for Other Monitoring Wells in PMP Area, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well ID	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters		
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm
Upper Zone Wells						
MW-12	10-Mar-05	925	945	34.0	7.04	---
	10-Mar-05 FD	925	912	FD	FD	FD
	06-Apr-05	810	871	56.0	6.34	---
	06-Apr-05 FD	810	868	FD	FD	FD
MW-19	17-Dec-04	796	786	13.0	6.33	---
	07-Mar-05	1080	1010	100	6.67	2200
MW-20-070	16-Dec-04	7800	7840	150	---	3440
	10-Mar-05	8280	8630	151	8.77	3240
	07-Apr-05	8740	9020	92.0	6.63	---
MW-21	17-Dec-04	ND (0.2) J	ND (1.0)	-97	4.71	9460
	08-Mar-05	ND (1.0)	ND (1.0)	-86	6.00	8890
MW-22	16-Dec-04	ND (1.0) J	7.00	-113	---	34300
	10-Mar-05	ND (2.0)	ND (1.0)	-150	4.74	46300
MW-24A	17-Dec-04	---	2890	118	2.35	3400
	11-Jan-05	3040	---	111	1.43	4700
	07-Mar-05	3390	3180	49.0	3.09	3460
	07-Mar-05 FD	3360	3290	FD	FD	FD
MW-26	16-Dec-04	3790	3800	55.0	9.52	4000
	08-Mar-05	2990	3160	123	10.0	3450
	08-Mar-05 FD	2990	3050	FD	FD	FD
MW-31-060	16-Nov-04	2920	3250	85.0	7.23	2890
	16-Dec-04	2910	2680	5.00	6.12	3240
	09-Mar-05	2700	2590	192	6.87	2860
	07-Apr-05	1910	2030	102	5.25	---
MW-35-060	13-Dec-04	26.8	27.0	-53	1.08	7010
	15-Mar-05	33.8	37.5	-18	2.22	6510
TW-02S	16-Dec-04	5080	5490	155	7.96	3540
	11-Mar-05	4400	4240	90.0	4.83	---
Middle Zone Wells						
MW-20-100	16-Dec-04	8130	7910	126	---	4770
	10-Mar-05	8440	7770	110	0.40	7100
Lower Zone Wells						
MW-20-130	27-Jan-05	8600	9400	38.0	1.81	---
	09-Mar-05	8730	8900	126	0.02	12800
	09-Mar-05 FD	8810	8170	FD	FD	FD
	07-Apr-05	8980	8870	99.0	4.89	11000
MW-24B	17-Dec-04	---	4470	104	1.01	---
	17-Dec-04 FD	4790	4420	FD	FD	FD
	11-Jan-05	5260	---	105	1.02	14000
	07-Mar-05	5320	4950	-2.0	1.70	14300
MW-31-135	14-Dec-04	410 J	407	-23	6.15	13700
	10-Mar-05	ND (0.2)	403	42.0	1.49	12500
MW-35-135	13-Dec-04	ND (0.2)	ND (1.0)	-75	0.12	9790
	13-Dec-04 FD	15.7 J	14.1	FD	FD	FD

TABLE A-2
Groundwater Sampling Results for Other Monitoring Wells in PMP Area, November 2004 through April 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

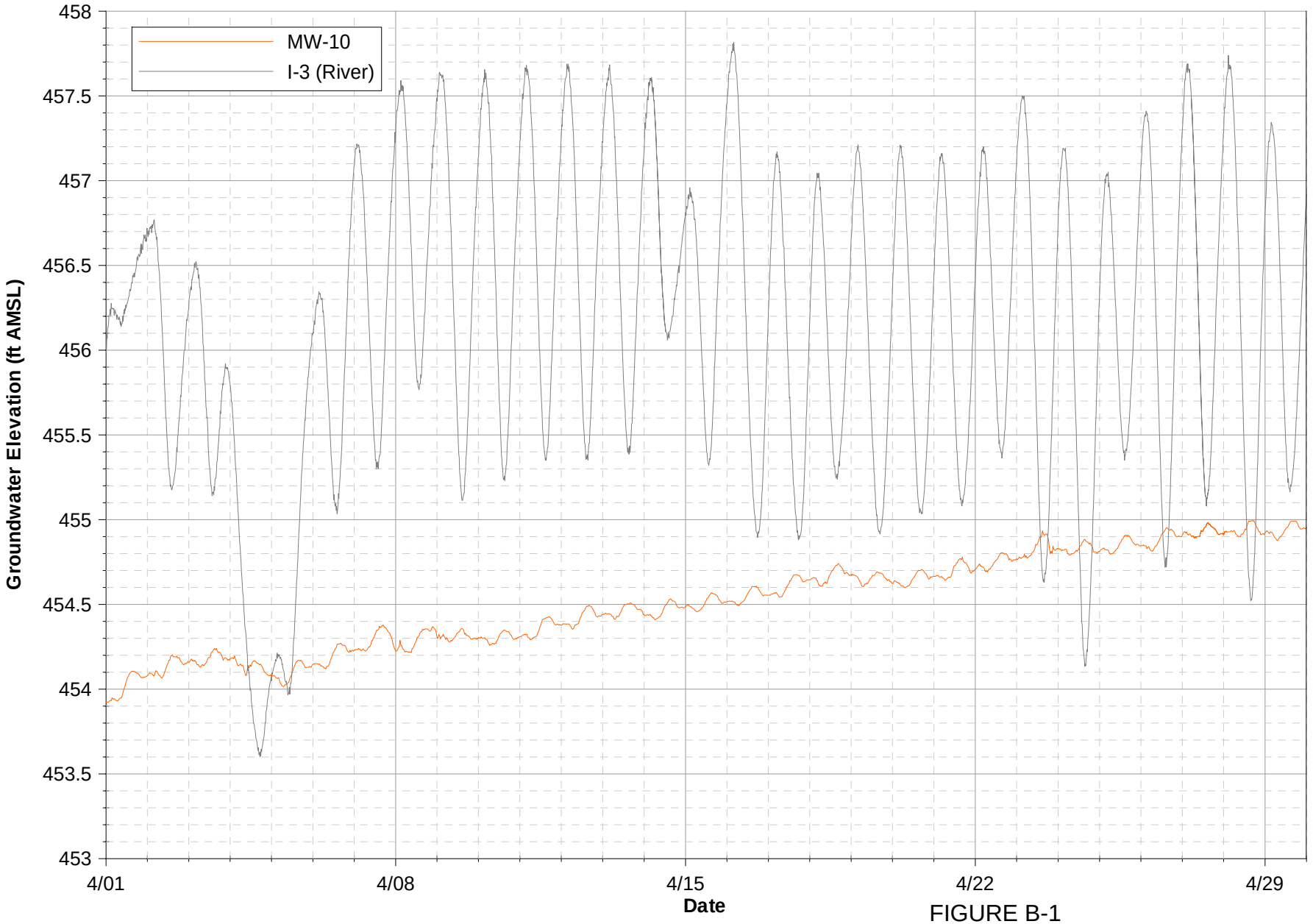
Well ID	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters		
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm
MW-35-135	15-Mar-05	23.0	21.4	-108	2.11	9960
TW-02D	16-Dec-04	6280	6570	143	7.10	9620
	09-Mar-05	5800	5620	---	---	9400

NOTES:

Analytical results are validated.
ND = not detected at listed reporting limit (RL)
FD = field duplicate
J = concentration or RL estimated by laboratory or data validation
(---) = data not collected, available, or field instrumentation malfunctioned
µg/L= micrograms per liter
mg/L = milligrams per liter
mV = oxidation-reduction potential (ORP)
µS/cm = microSiemens per centimeter

PMP = Interim Measure Performance Monitoring Program

Appendix B
Hydrographs and Hydraulic Gradient Maps for Reporting Period



Note: Data subject to review.

FIGURE B-1
MW-10 HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

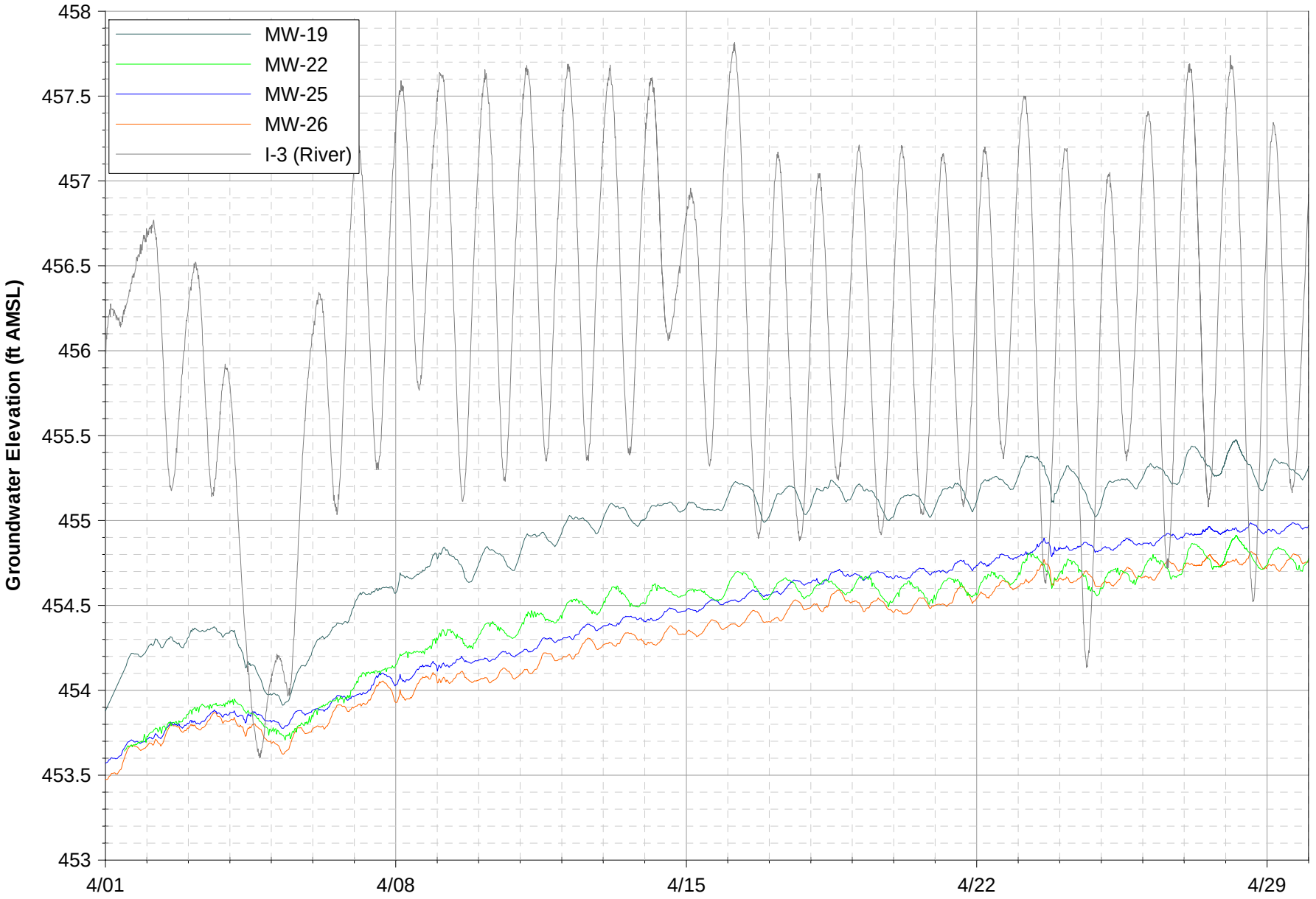


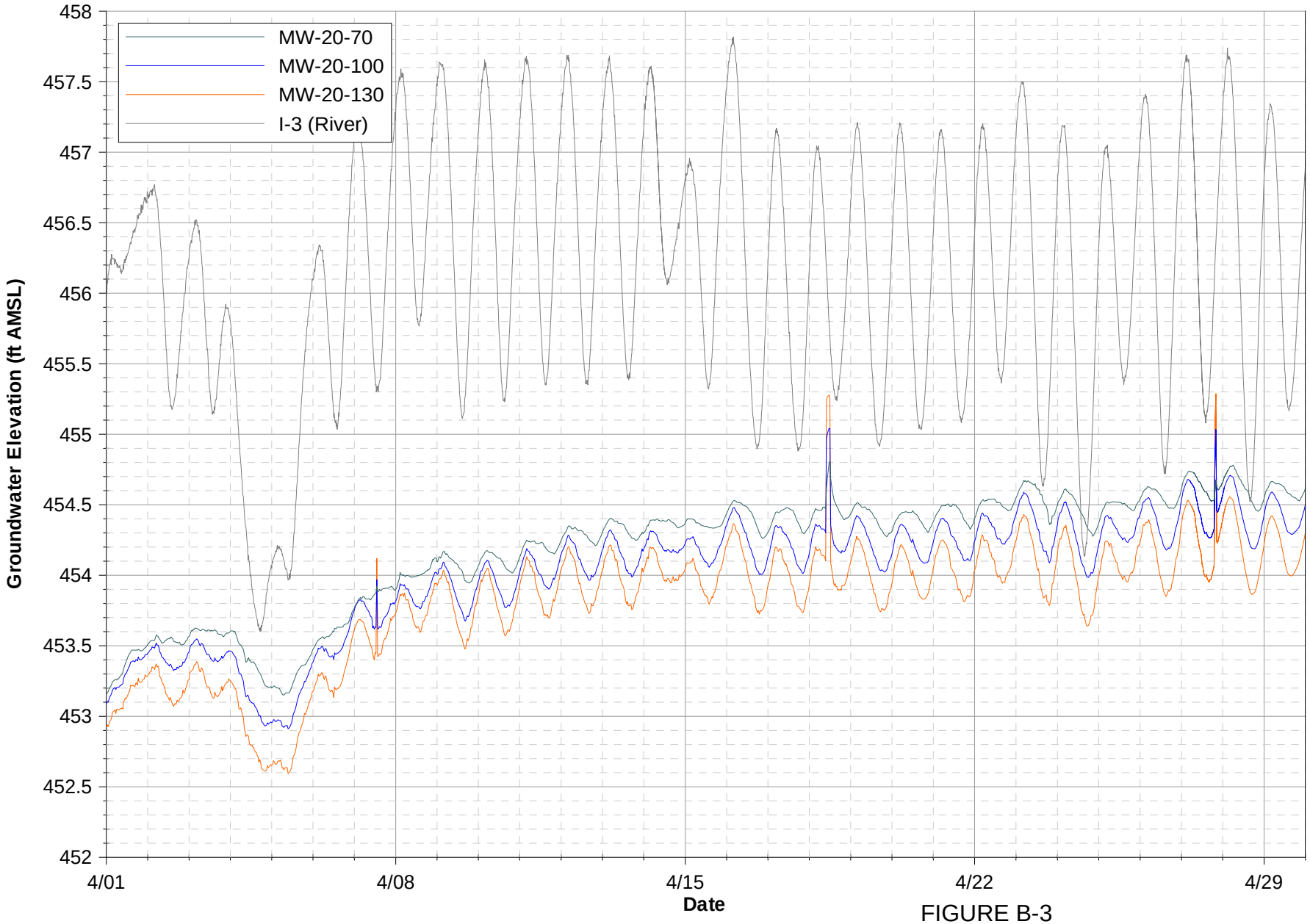
FIGURE B-2

MW-19, MW-22, MW-25, AND MW-26 HYDROGRAPHS

INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

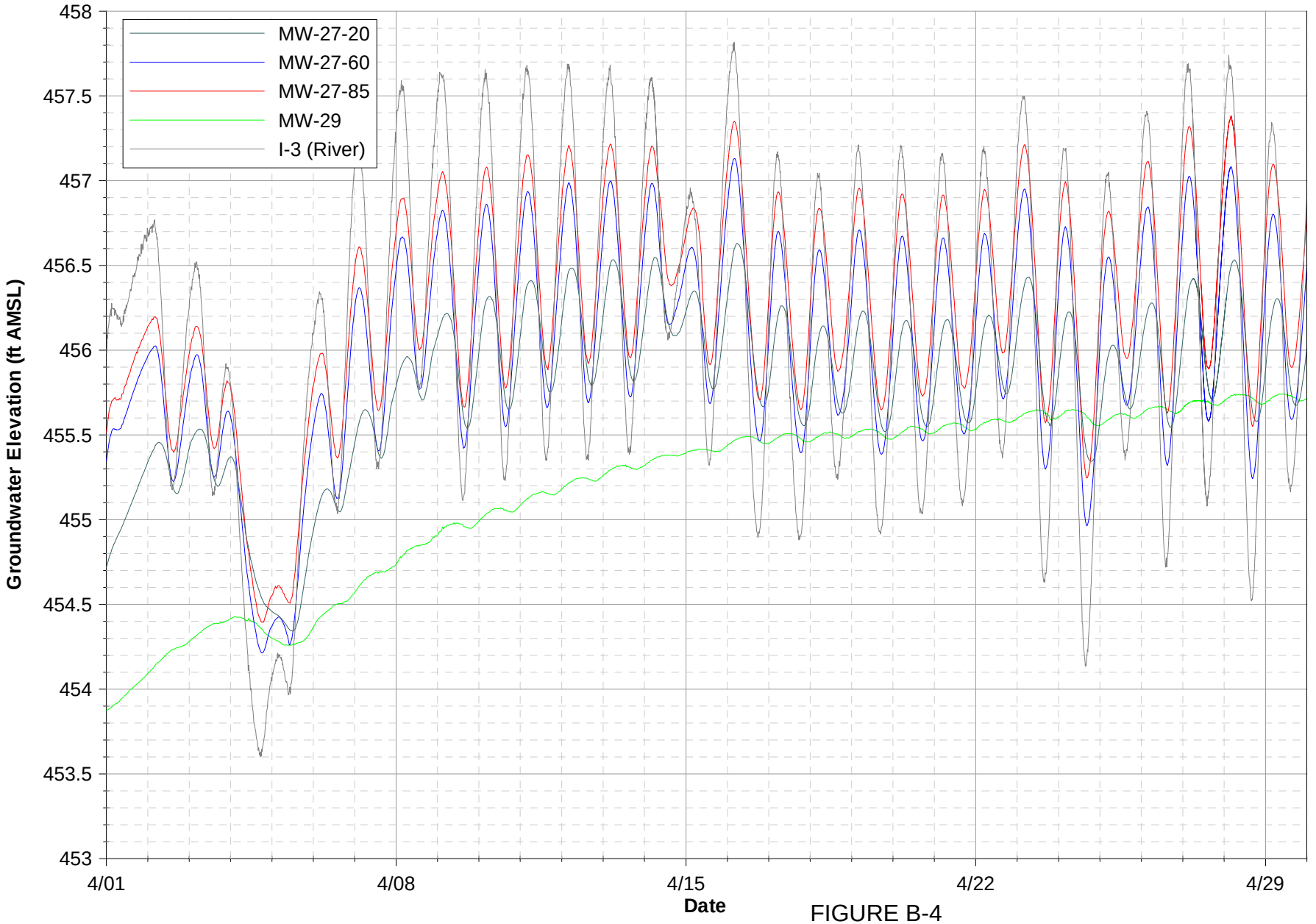
CH2MHILL



Note: Data subject to review.

FIGURE B-3
MW-20 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

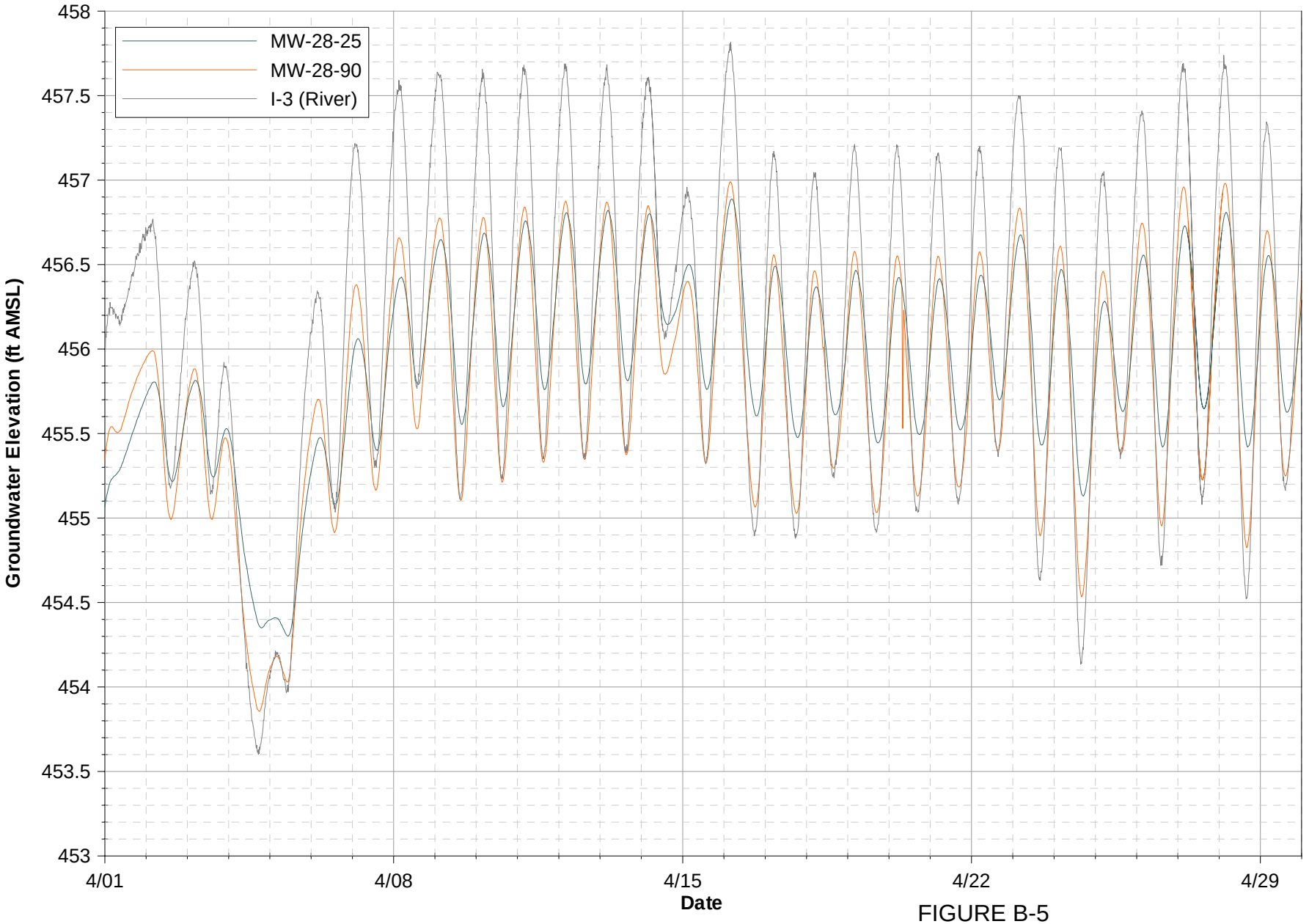
CH2MHILL



Note: Data subject to review.

FIGURE B-4
MW-27 CLUSTER AND MW-29 HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

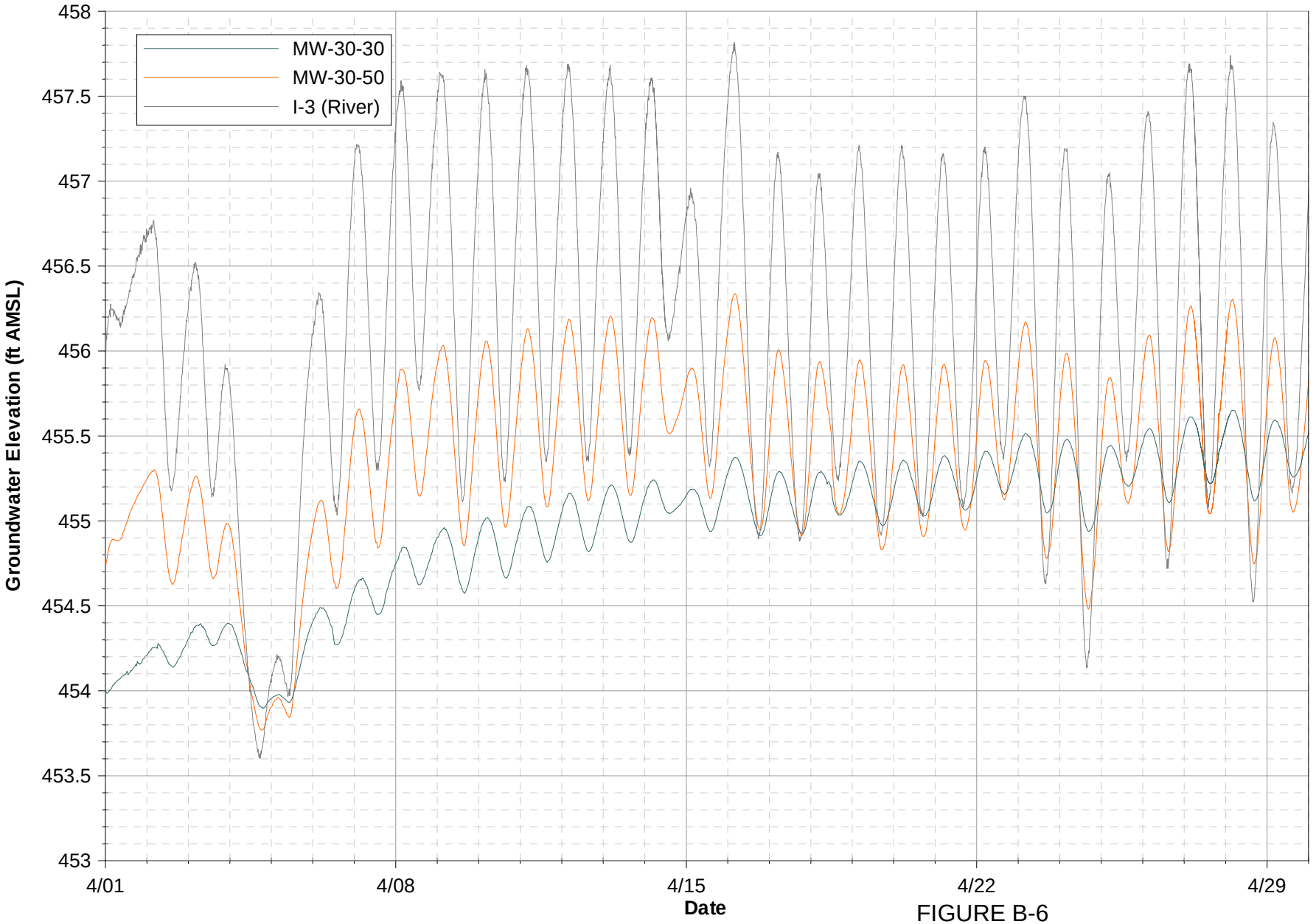
CH2MHILL



Note: Data subject to review.

FIGURE B-5
MW-28 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

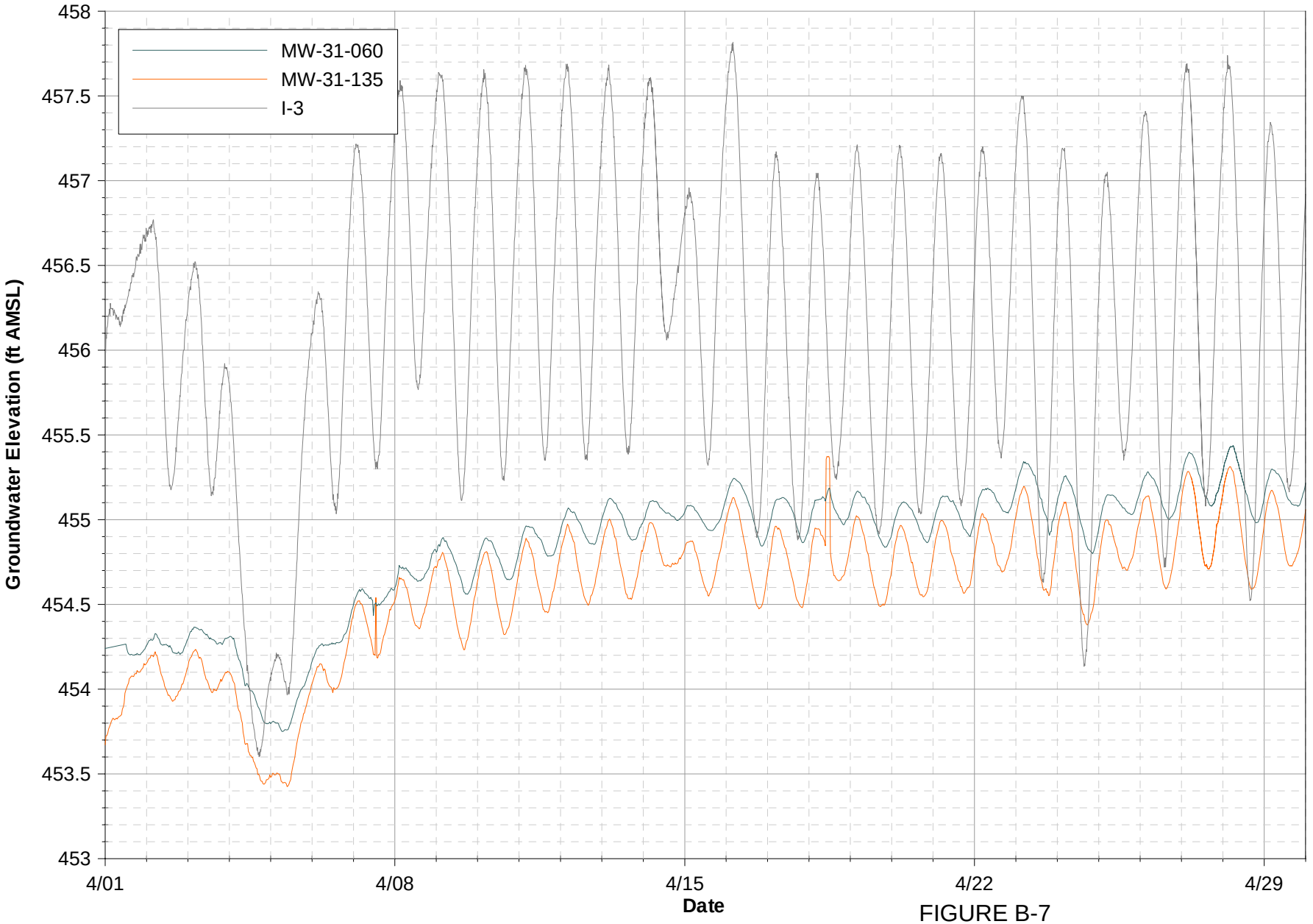
CH2MHILL



Note: Data subject to review.

FIGURE B-6
MW-30 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



Note: Data subject to review.

FIGURE B-7
MW-31 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

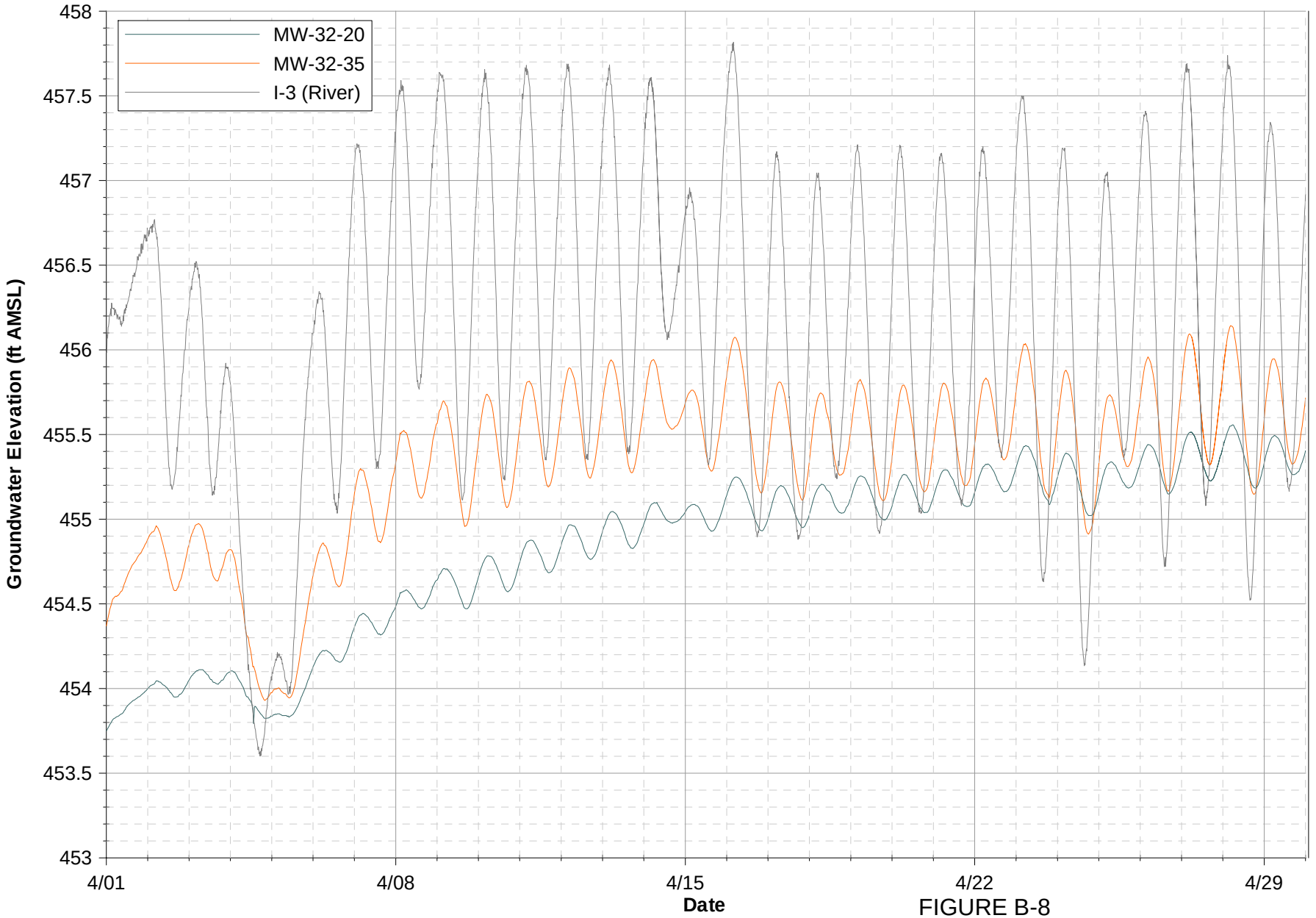
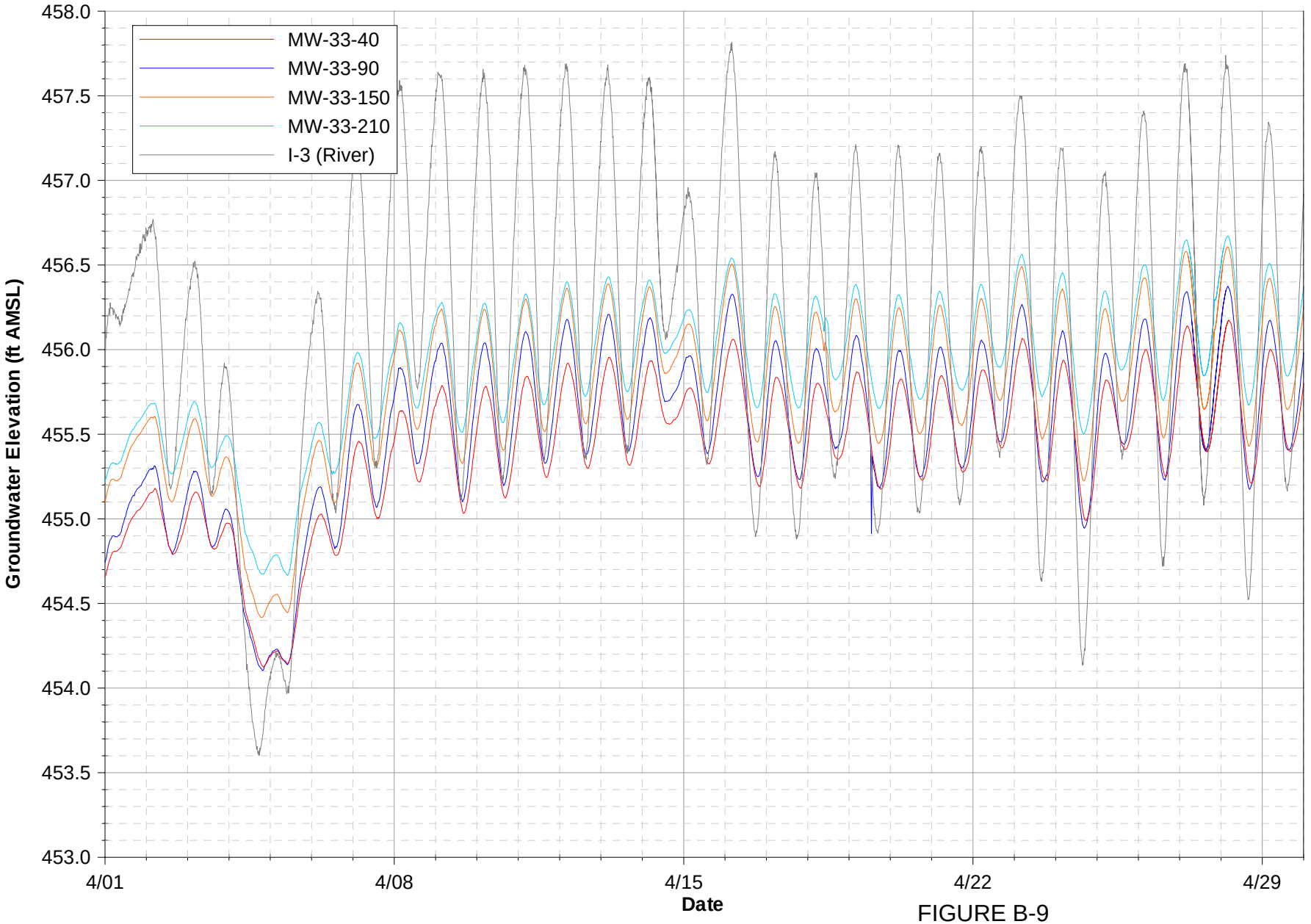


FIGURE B-8
MW-32 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

CH2MHILL



Note: Data subject to review.

FIGURE B-9
MW-33 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

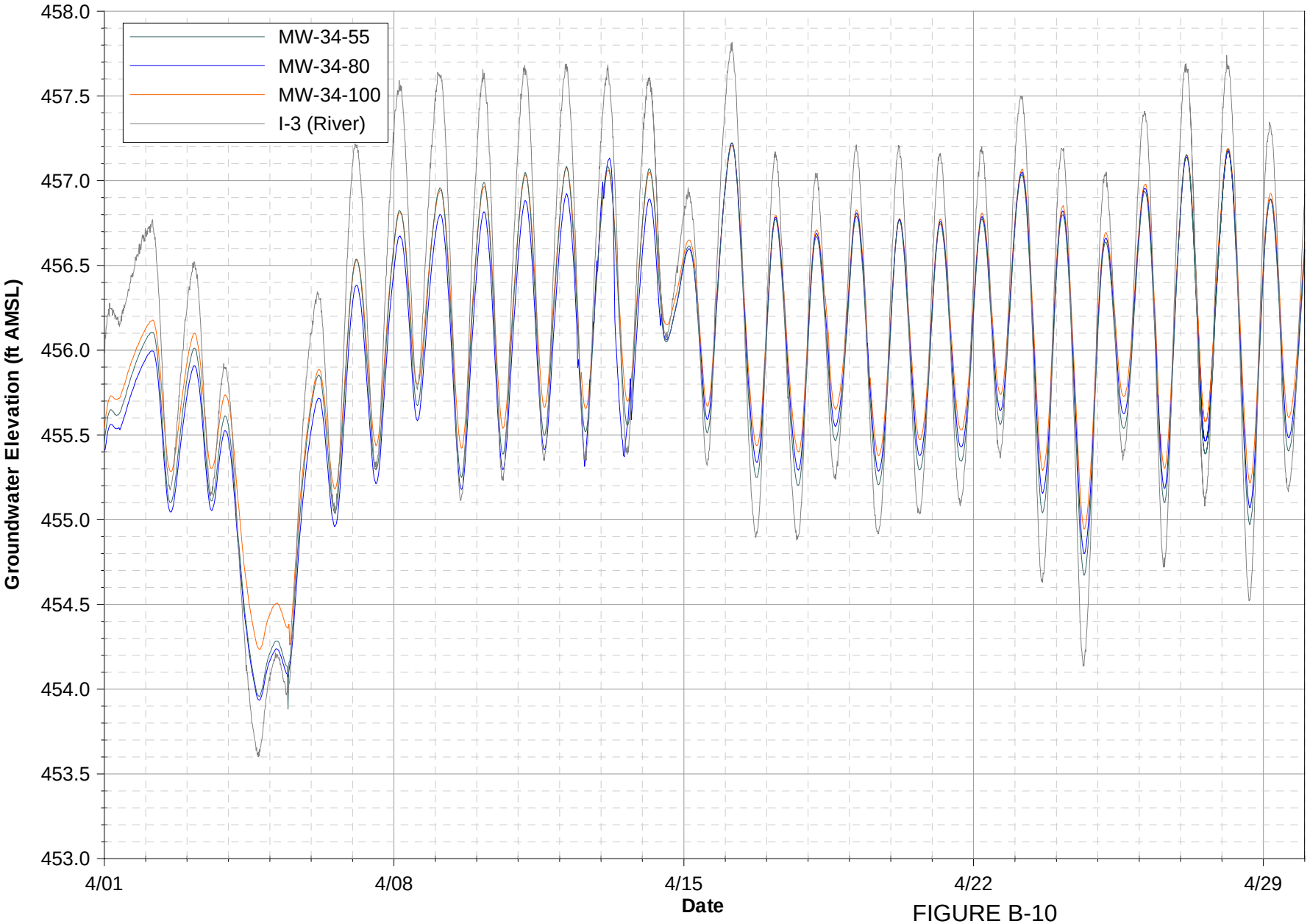


FIGURE B-10
MW-34 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

CH2MHILL

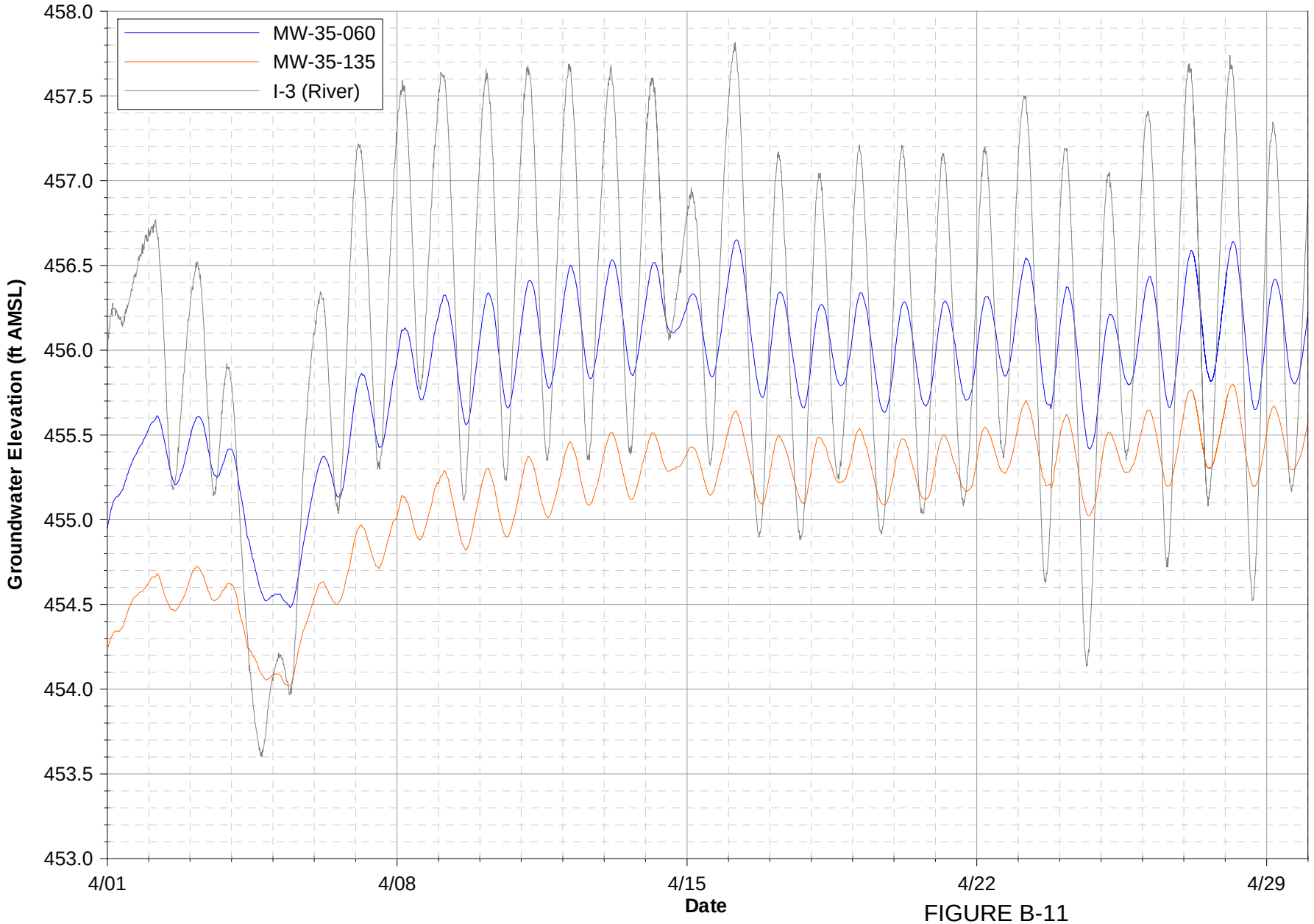
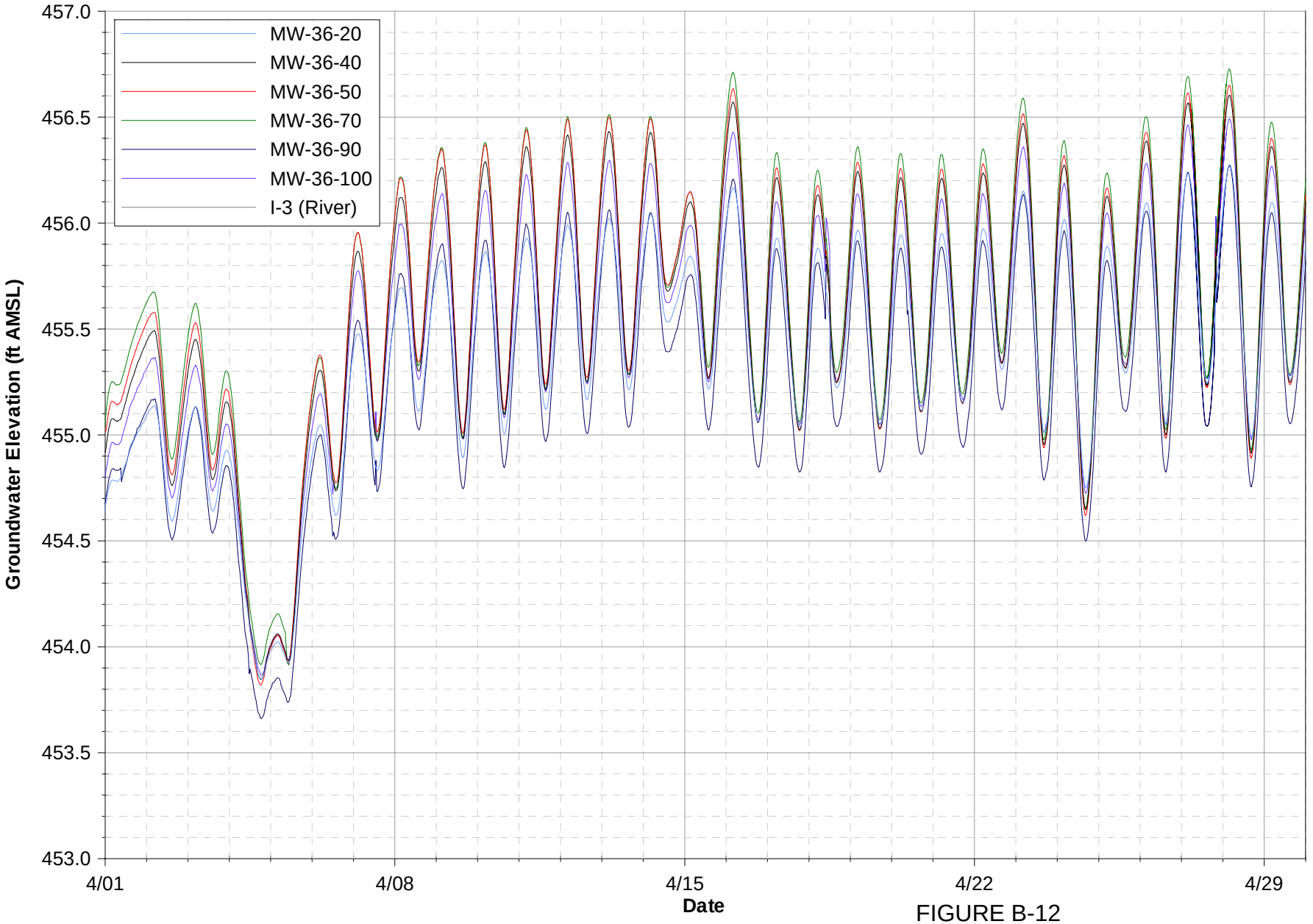


FIGURE B-11
MW-35 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

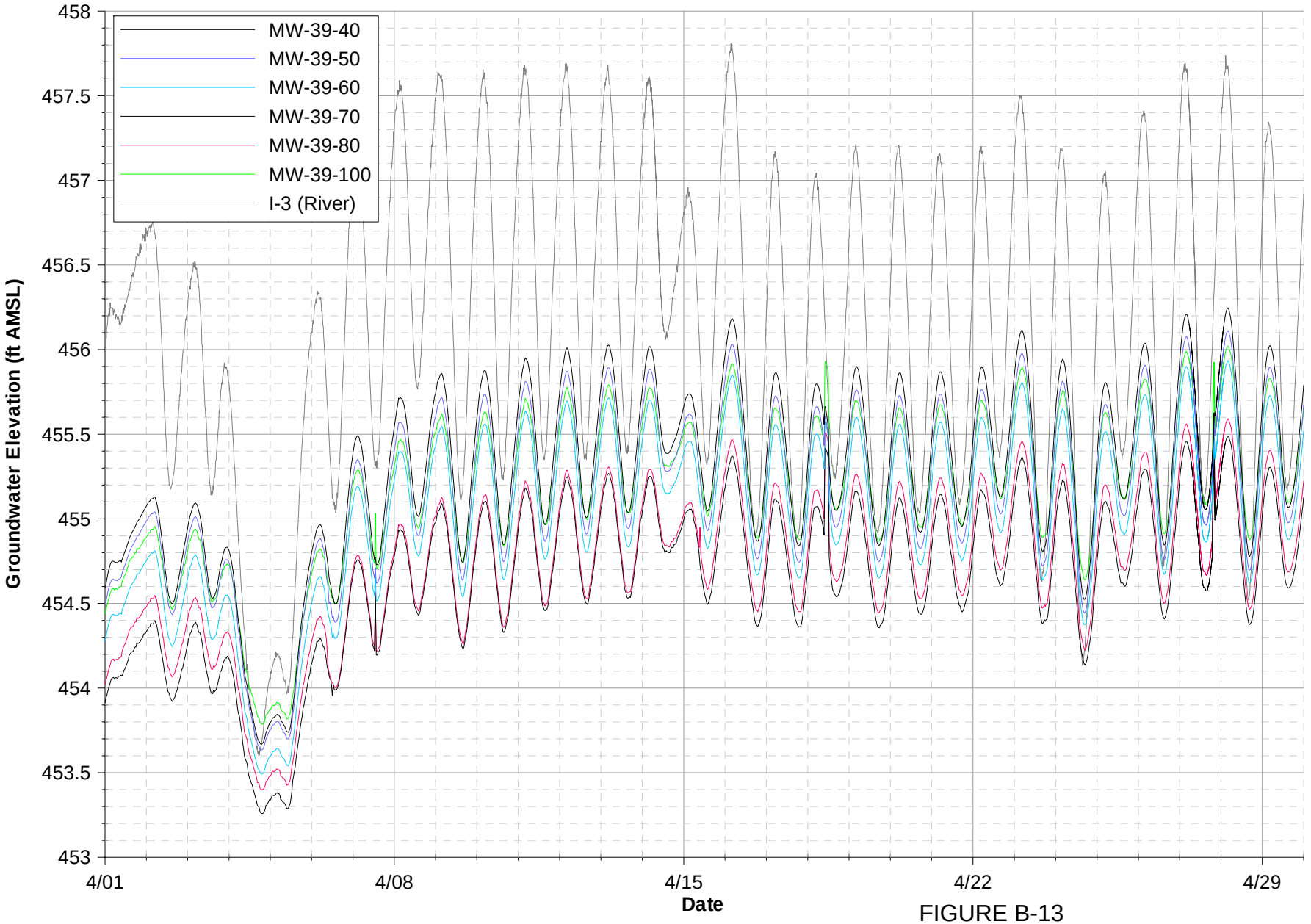
CH2MHILL



Note: Data subject to review.

FIGURE B-12
MW-36 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



Note: Data subject to review.

FIGURE B-13
MW-39 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

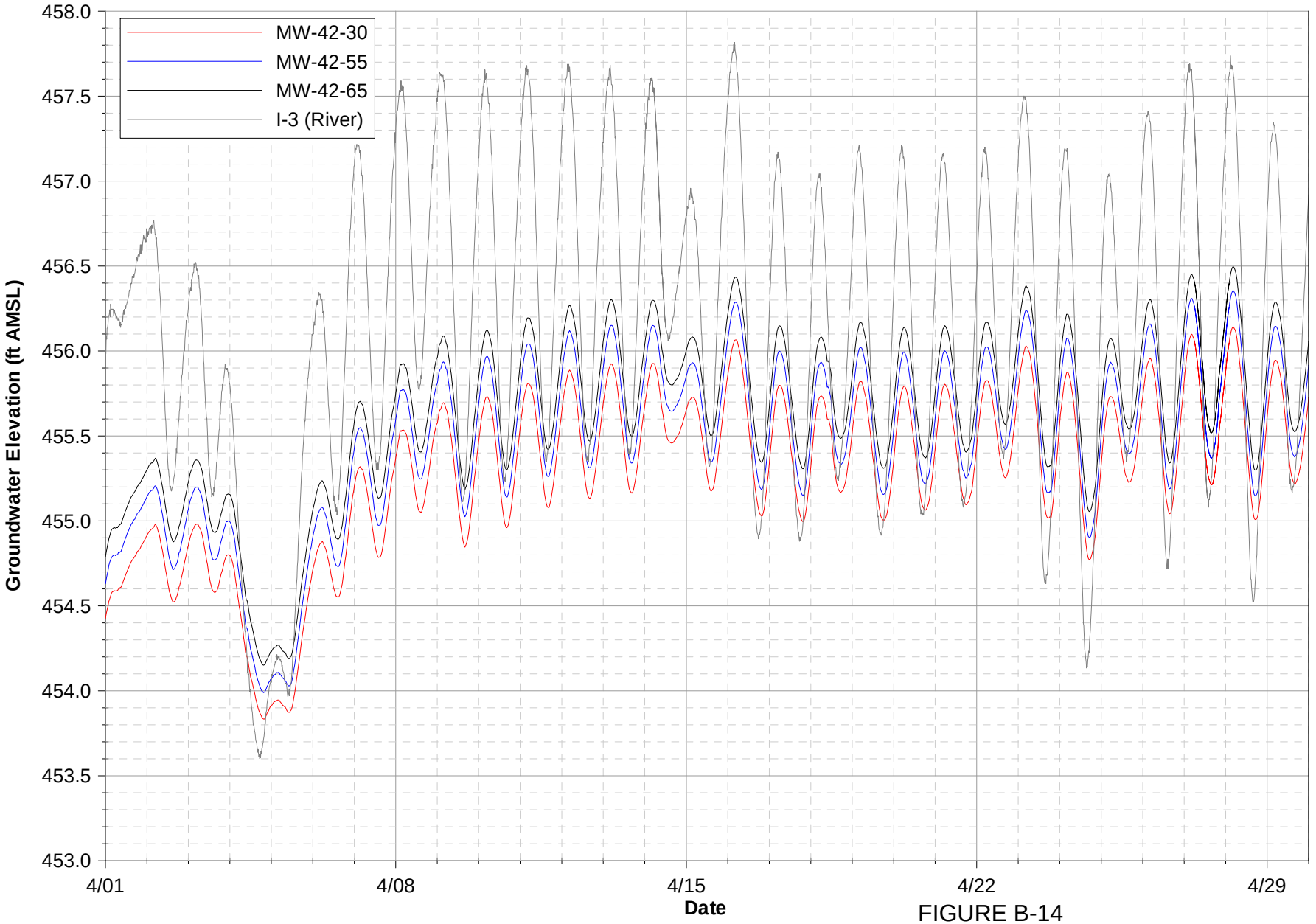


FIGURE B-14
MW-42 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

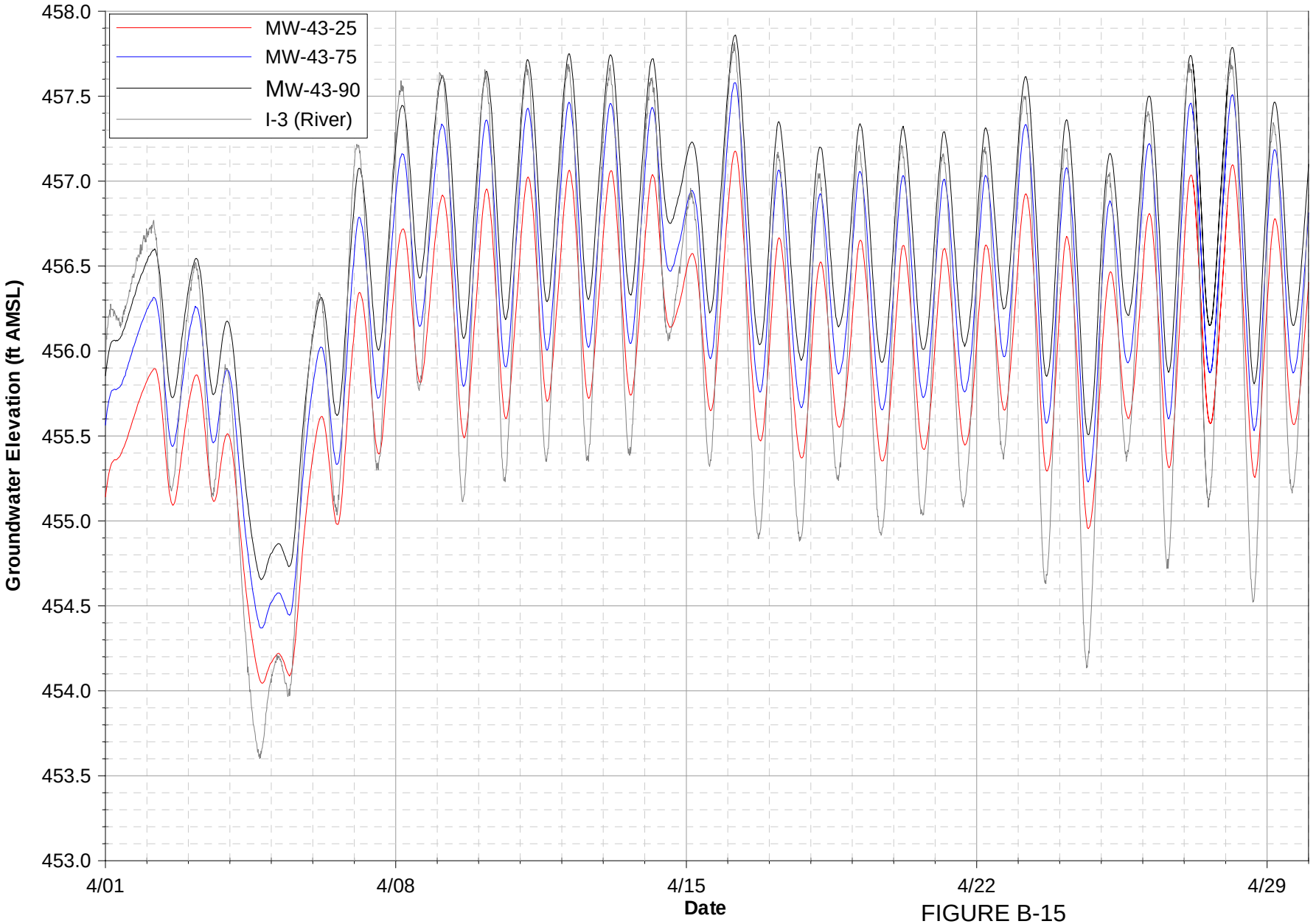


FIGURE B-15
MW-43 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

CH2MHILL

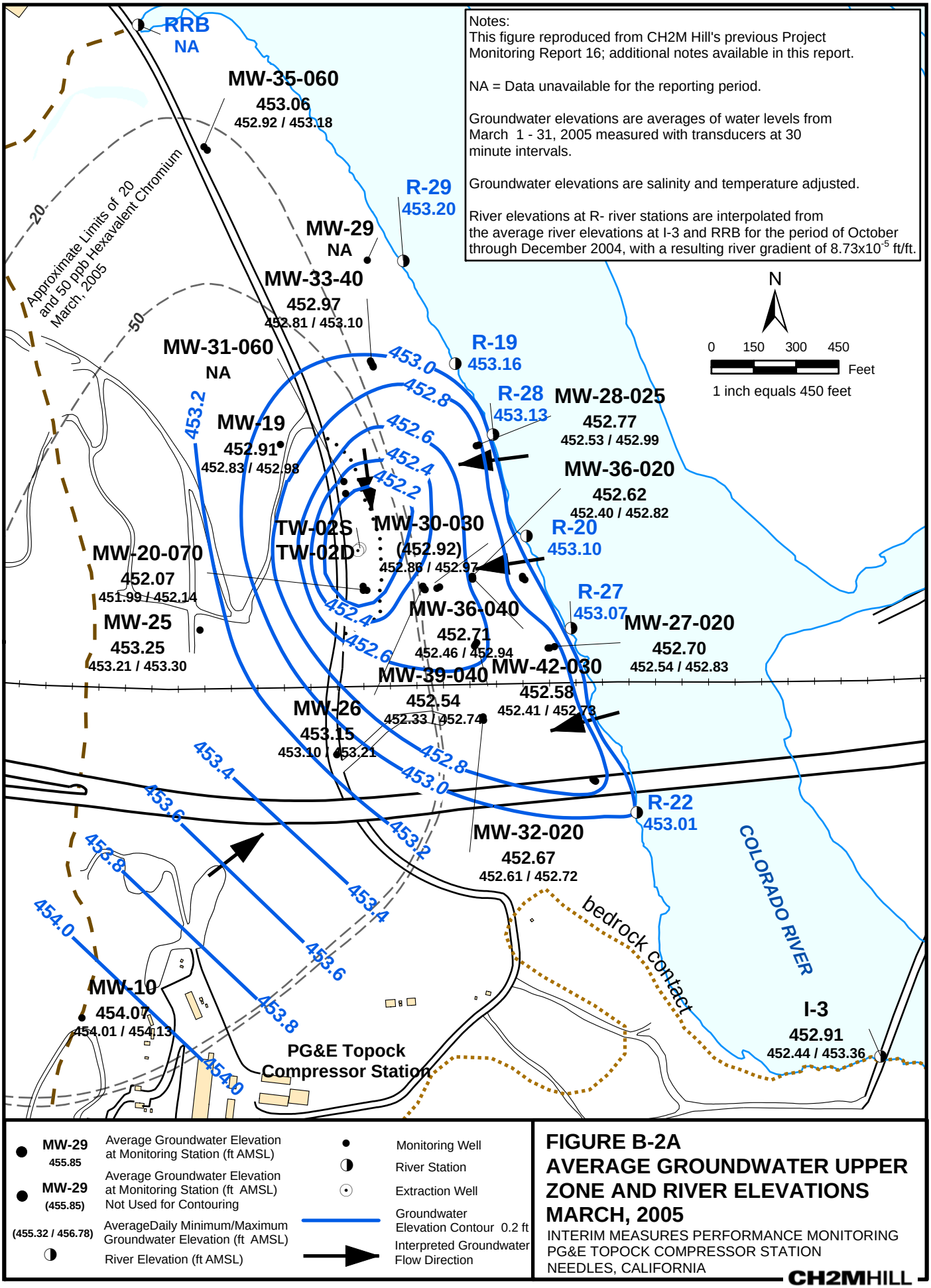


FIGURE B-2A
AVERAGE GROUNDWATER UPPER ZONE AND RIVER ELEVATIONS MARCH, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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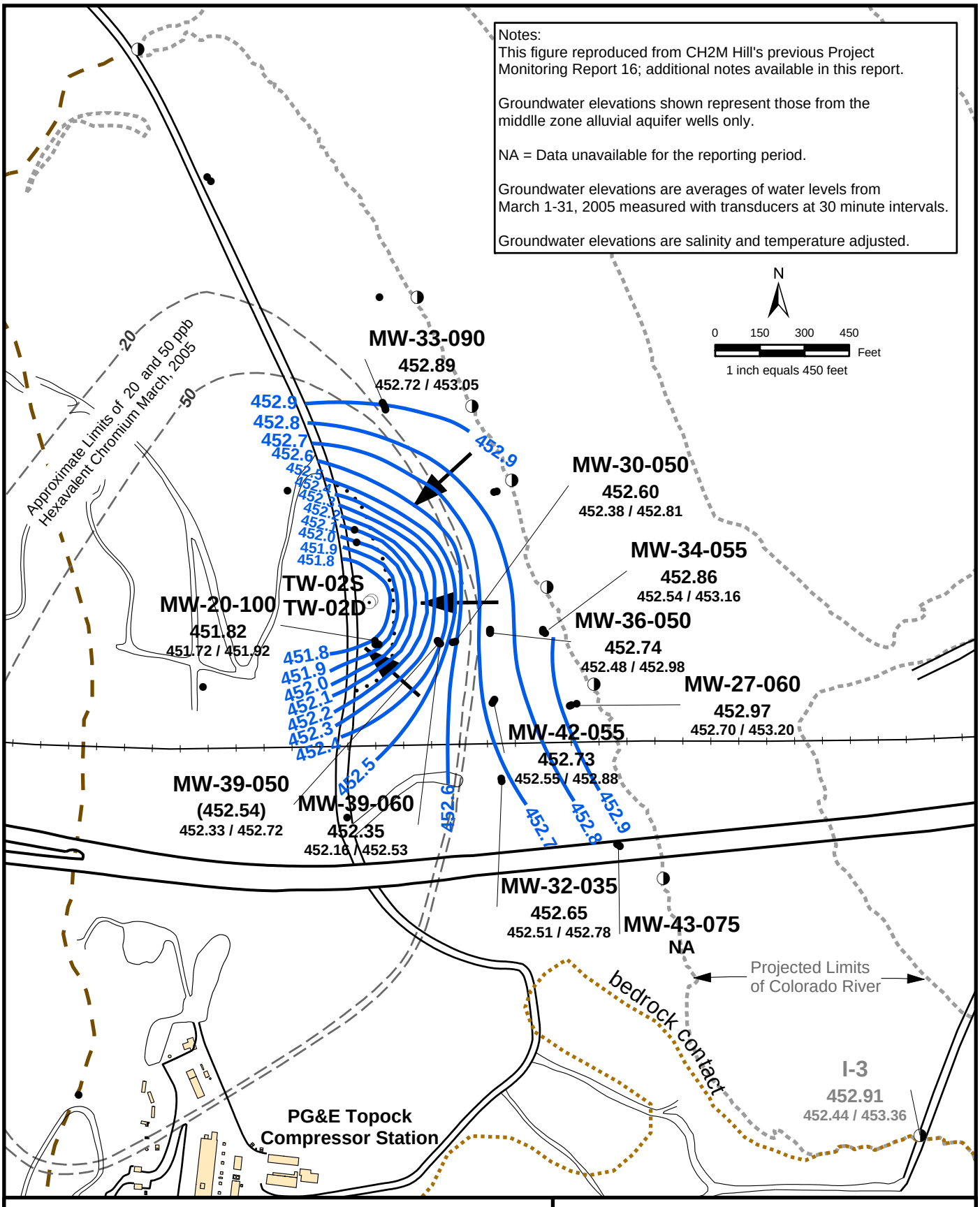

FIGURE B-2B
AVERAGE GROUNDWATER MIDDLE ZONE AND RIVER ELEVATIONS MARCH, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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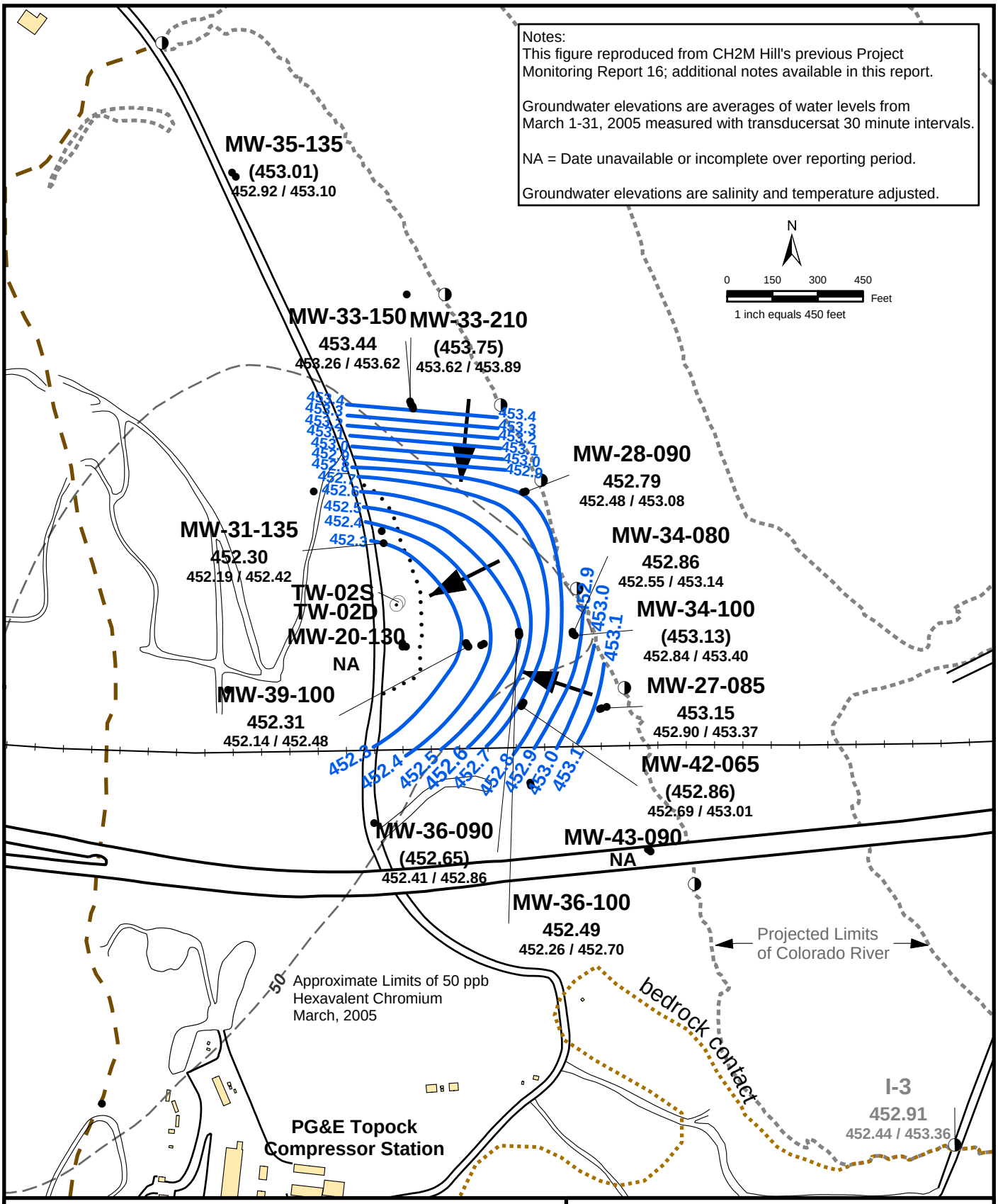

FIGURE B-2C
AVERAGE GROUNDWATER LOWER ZONE AND RIVER ELEVATIONS MARCH 1-31, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

SFO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\GW\IM_AVERAGE_GROUNDWATER_LA_MARCH1_31_05_8X11.MXD
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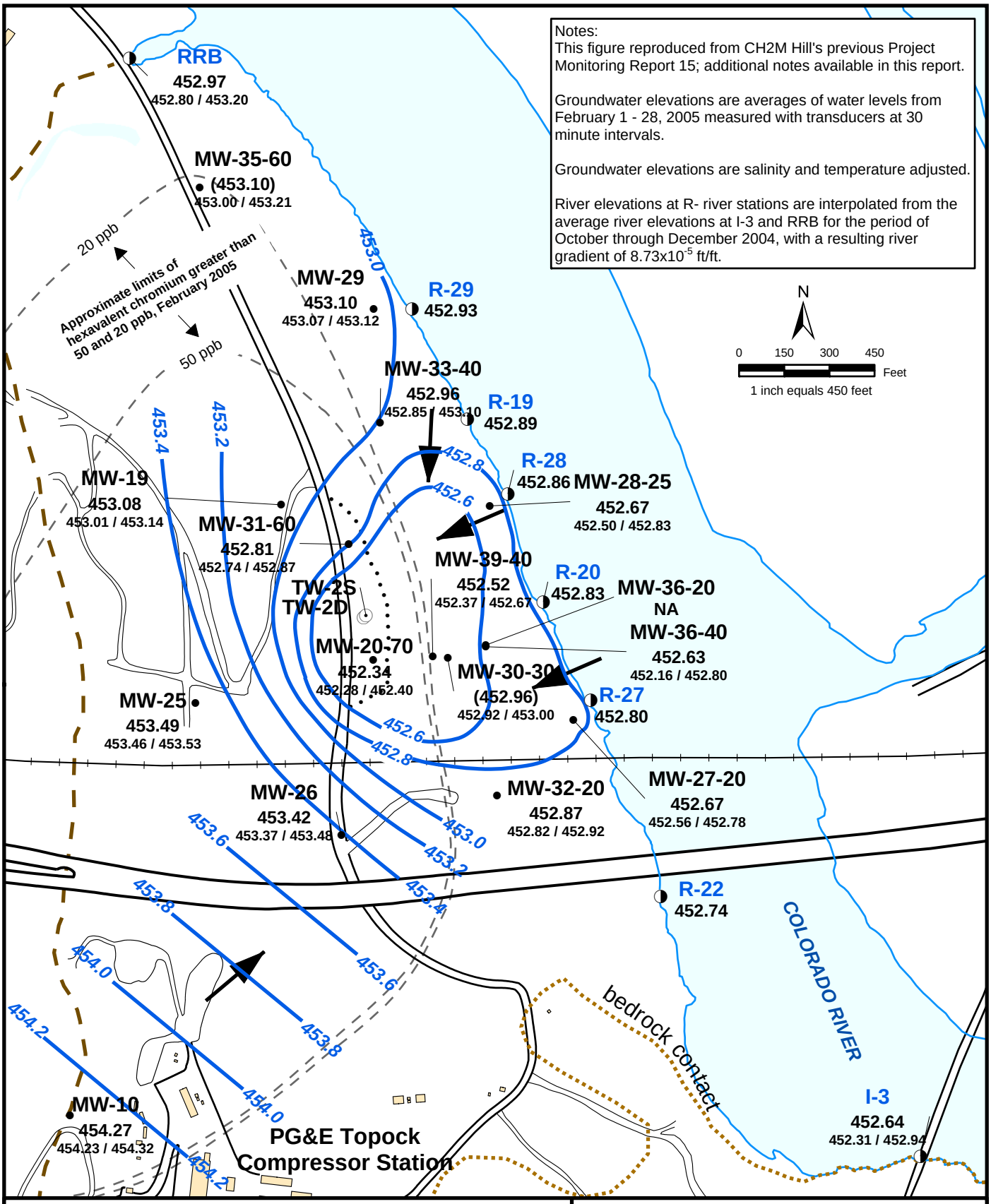

FIGURE B-2D
AVERAGE GROUNDWATER UPPER ZONE AND RIVER ELEVATIONS, FEBRUARY 1-28, 2005

INTERIM MEASURES FIELD PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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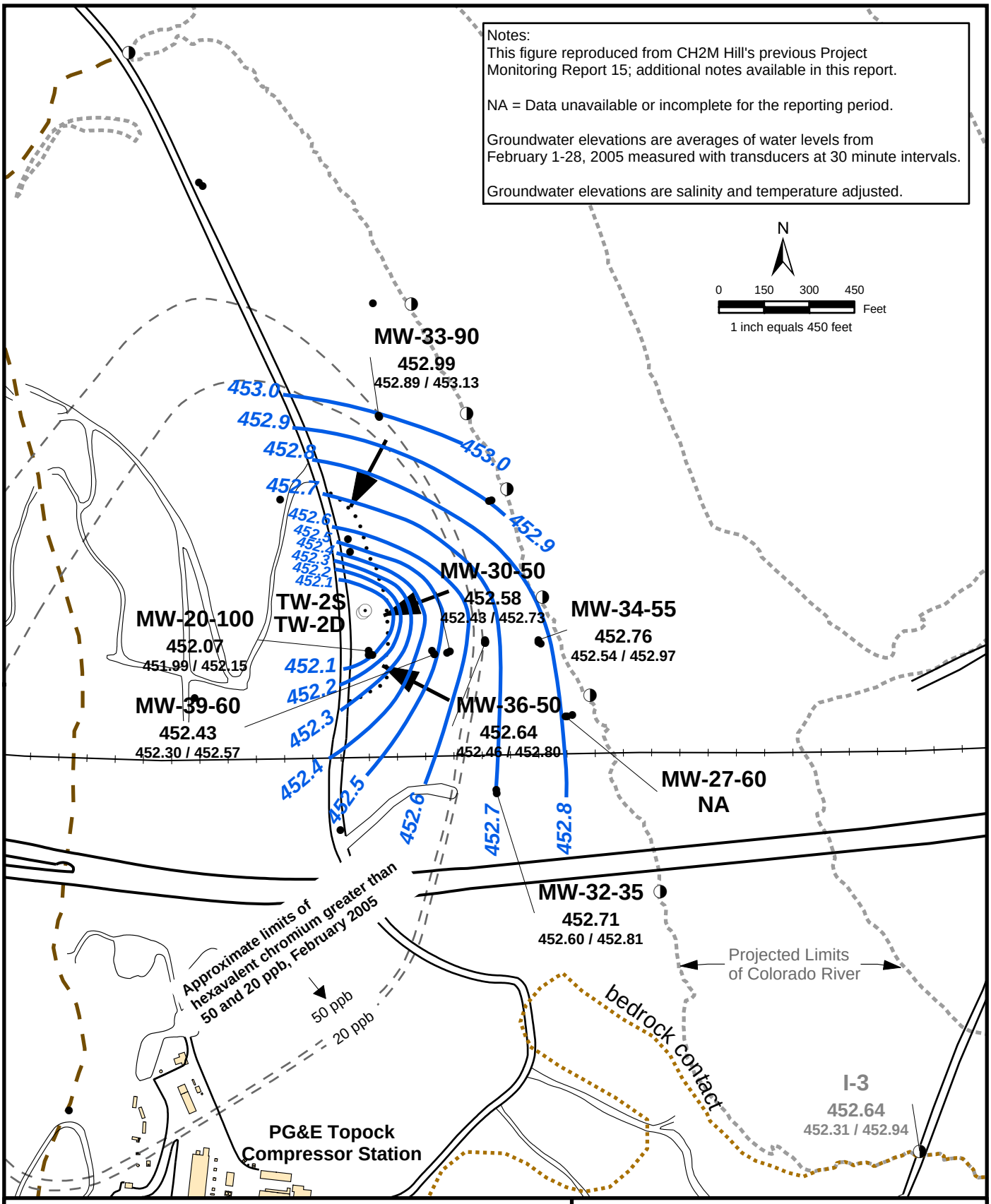

FIGURE B-2E
AVERAGE GROUNDWATER MIDDLE ZONE AND RIVER ELEVATIONS, FEBRUARY, 2005

INTERIM MEASURES FIELD PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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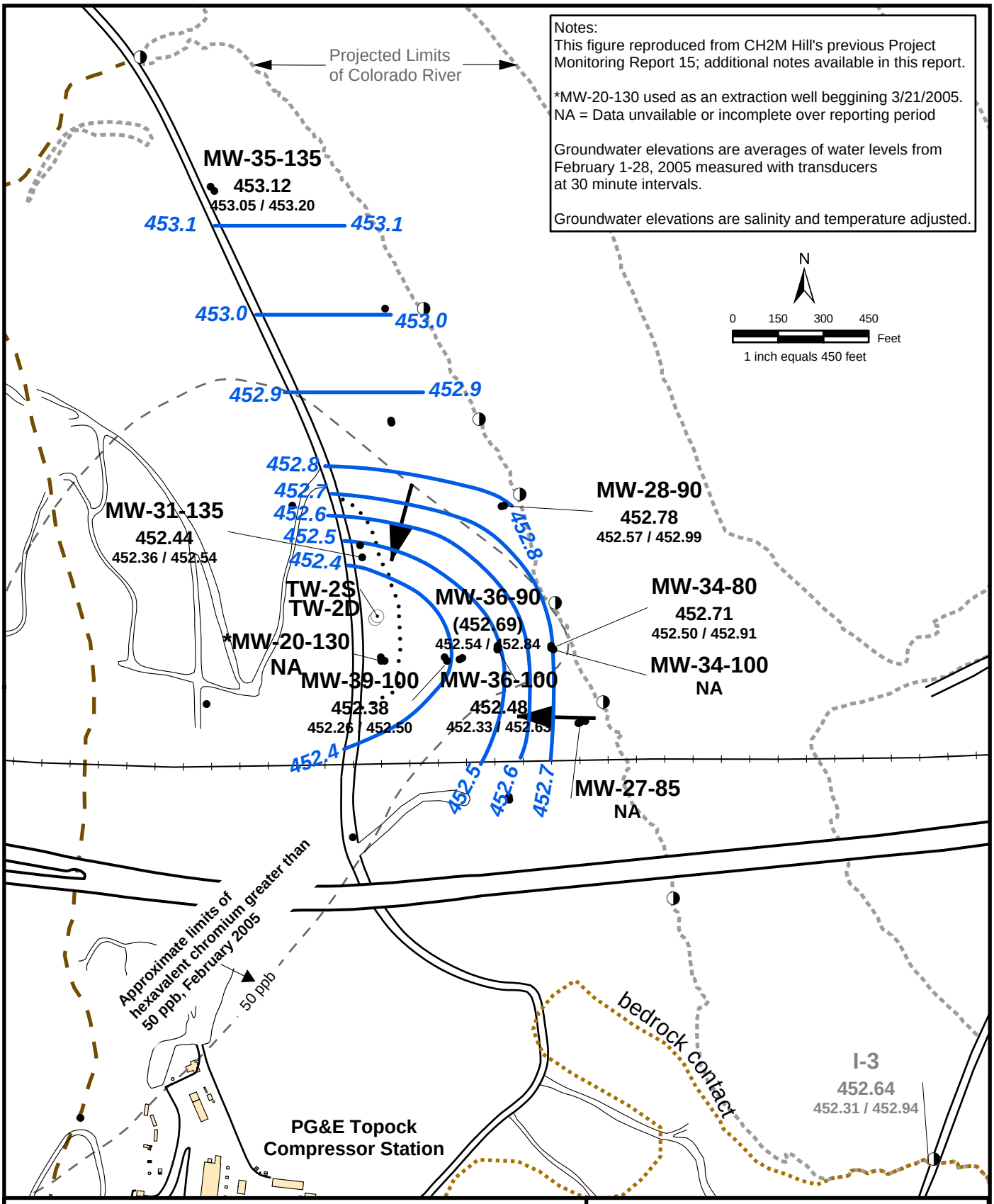

FIGURE B-2F
AVERAGE GROUNDWATER LOWER ZONE AND RIVER ELEVATIONS FERUARY, 2005

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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IM_AVERAGE_GROUNDWATER_LA_FEB1_28_05.PDF 3/15/2005 09:47:28

Appendix C
Chemical Performance Monitoring Analytical Results

TABLE C-1
Chemical Performance Monitoring Results, March 2004 through March 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-20-70	03-Mar-04	2300	-6.5	-39.0	890	440	9.7	0.6	230	52	11	480	0.3	75
	03-Mar-04 FD	2300	-6.5	-53.0	890	440	9.7	0.6	220	51	11	460	0.3	72
	11-May-04	2100	-5.5	-53.0	800	450	10	ND (0.5)	210	48	9.7	490	0.4	76
	24-Sep-04	2200	-6.5	-57.0	824	402	9.7	ND (1)	180	58.5	12	430	0.2	74
	16-Dec-04	2080	-7.3	-60.0	753	374	9.68	0.604	177 J	52.5	9.05	410	0.497	70
	10-Mar-05	1940	-7.1	-59.0	740	378	9.98	ND (1)	198	55.4	9.89	431	0.412	81.7
MW-20-100	03-Mar-04	3400	-4.2	-38.0	1300	740	9.6	0.7	170	20	11	1100	1	82
	11-May-04	3600	-2.7	-37.0	1300	700	9.6	0.5	150	18	10	1100	1	81
	24-Sep-04	3000	-4.8	-44.0	1180	621	8.85	ND (1)	140	23	13	860	0.8	100
	16-Dec-04	2840	-5	-47.0	1050	562	8.5	0.654	152	23.4	16.6	772	0.971	90
	10-Mar-05	2490	-5.2	-49.0	466	511	9.98	ND (1)	133	19.8	8.98	712	0.859	84.2
MW-20-130	03-Mar-04	11000	-6.6	-60.0	6200	960	6.2	ND (2.5)	400	19	35	3500	1.7	45
	11-May-04	8300	-5	-49.0	3300	1000	9.8	ND (0.5)	280	14	26	2500	1.7	62
	24-Sep-04	7800	-4.4	-45.0	7240	2280	9.8	ND (4)	240	15	33	2400	1.9	66
	27-Jan-05	7350	-5.7	-48.0	3790	1140	10.4	3.16	313	16.1	43.5	2260	2.03	66
	09-Mar-05	5520	-5.8	-56.0	3120	1080	10.9	ND (1)	219	12.1	24.7	2250	1.9	68.9
	09-Mar-05 FD	6200	-5.4	-51.0	3080	1080	10.9	ND (1)	231	12.8	25.4	2390	1.99	68.9
MW-25	03-Mar-04	970	-7.7	-56.0	300	220	4.2	ND (0.5)	92	18	7.8	230	0.4	140
	14-May-04	1000	-8.9	-59.0	310	210	4.2	ND (0.5)	89	19	8	230	0.4	130
	09-Jun-04	---	---	---	---	---	---	---	108	17.1	---	---	0.376	---
	22-Sep-04	1000	-7.6	-58.0	296	196	3.93	0.42	81	16.6	7.4	230	ND (0.2)	140
	09-Mar-05	877	-8.4	-62.0	247	169	3.64	ND (0.5)	77.6	16.1	6.24	211	0.441	158
MW-26	03-Mar-04	1900	-6.7	-54.0	770	400	4.6	ND (0.5)	170	40	12	470	0.5	110
	14-May-04	9300	-8.4	-60.0	850	480	5.1	ND (0.5)	190	50	14	490	0.6	110
	22-Sep-04	2300	-6.7	-59.0	821	472	5.65	ND (1)	170	46	13	390	0.4	98
	16-Dec-04	2130	-8.6	-64.0	835	388	5	0.578	176	45.7	17.8	466	0.662	100
	08-Mar-05	1840	-8.8	-70.0	756	370	4.48	ND (0.5)	166	41.6	10.7	439	0.557	98.7
	08-Mar-05 FD	1800	-8.7	-70.0	708	338	4.45	ND (0.5)	166	40.9	11.4	438	0.559	96.1
MW-27-20	03-Mar-04	640	-11.7	-100.0	74	200	ND (0.4)	ND (0.5)	79	26	4	84	ND (0.2)	180
	12-May-04	570	-11.3	-98.0	72	200	ND (0.4)	ND (0.5)	77	25	3.7	87	ND (0.2)	170

TABLE C-1

Chemical Performance Monitoring Results, March 2004 through March 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-27-20	21-Sep-04	670	-12.3	-92.0	77.2	212	ND (0.2)	ND (0.2)	76	26	5	82	ND (0.2)	160
	15-Dec-04	692	-11.9	-101.0	87.2	236	ND (0.5)	ND (0.5)	91.5	32.6	4.61	88.4	ND (0.2)	169
	08-Mar-05	1250	-12	-102.0	190	432	ND (0.5)	ND (0.5)	137	56.6	4.89	195	ND (0.2)	215
MW-28-25	04-Mar-04	1000	-11.3	-95.0	220	290	ND (0.4)	ND (0.5)	120	33	3.8	210	0.2	260
	11-May-04	800	-11.3	-95.0	110	270	ND (0.4)	ND (0.5)	110	29	3.9	120	ND (0.2)	240
	07-Jun-04	890	-12.5	-100.0	150	220	ND (0.4)	---	---	---	---	---	---	---
	20-Sep-04	850 J	-11.7	-89.0	99.1	286	ND (0.4)	ND (0.2)	110	30	4.6	120	ND (0.2)	210
	14-Dec-04	810	-12	-99.0	110	310	ND (0.5)	ND (0.5)	122	35.7	4.78	103	ND (0.2) J	202
	10-Mar-05	880	-12.2	-95.0	112	302	ND (0.5)	ND (0.5)	129	36.3	3.5	122	ND (0.2)	204
MW-30-30	04-Mar-04	36000	-9	-76.0	19000	4100	ND (4)	5.2	1000	1000	50	9600	3.6	570
	12-May-04	30000	-7.8	-71.0	14000	3000	ND (4)	ND (50)	1300	800	47	8300	2.8	610
	23-Sep-04	42000	-9.5	-73.0	22000	4500	ND (200)	ND (100)	900	890	76	11000	4.1	570
	15-Dec-04	45500	-9.5	-79.0	19900	4730	ND (5)	8.14	1300	1400	118	6110	7.84	458
	10-Mar-05	38800	-9.8	-79.0	16000	4270	ND (5)	7.91	1590	1600	95.4	13600	4.97	421
MW-30-50	05-Mar-04	6100	-6.4	-58.0	3000	750	1.2	ND (5)	280	120	16	1600	0.9	280
	05-Mar-04 FD	5900	-6.6	-56.0	2900	730	1.2	ND (5)	290	120	15	1600	0.9	280
	14-May-04	6300	-7.7	-54.0	2700	800	3.5	ND (5)	270	100	15	1700	1.2	180
	14-May-04 FD	6500	-7.5	-54.0	2600	800	3.5	ND (5)	270	110	16	1700	1.1	180
	23-Sep-04	6600	-7.3	-58.0	3330	742	1.58	ND (10)	290	100	18	1800	0.9	240
	23-Sep-04 FD	6800	-6.7	-58.0	3220	694	1.64	ND (10)	310	110	19	1900	0.9	240
	15-Dec-04	6750	-7.9	-63.0	3040	716	ND (0.5)	1.14	378	117	36.5	1720	1.39	249
	15-Dec-04 FD	6690	-7.8	-64.0	2920	725	ND (0.5)	1.13	372	114	37.8	1700	1.43	249
	10-Mar-05	6470 J	-8.3	-68.0	4660	672	ND (0.5)	1.03	335	107	16.5	2040	1.15	324
MW-31-60	03-Mar-04	1700	-8.1	-60.0	750	280	6.2	ND (0.5)	160	22	7.9	420	0.4	72
	14-May-04	1900	-9	-59.0	750	260	5.5	ND (0.5)	150	22	7.5	420	0.4	74
	22-Sep-04	1700	-8	-61.0	691	236	5.45	0.46	130	19	7.9	430	ND (0.2)	79
	16-Dec-04	1640	-8.7	-64.0	691	246	5.36	ND (0.5)	118	18.5	9.67	421	0.44	80
	09-Mar-05	1540	-8.6	-63.0	649	210	4.94	ND (0.5)	108	17.3	5.97	424	0.401	76.6
MW-32-20	04-Mar-04	6200	-8	-64.0	2900	540	ND (0.4)	ND (5)	520	180	13	1500	1.1	570
	12-May-04	5000	-7.1	-70.0	2100	130	ND (0.4)	ND (5)	510	180	16	1100	0.8	600

TABLE C-1
Chemical Performance Monitoring Results, March 2004 through March 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-32-20	20-Sep-04	21000 J	-7.3	-63.0	10200	3800	ND (0.4)	ND (100)	1100	420	45	4900	3	920
	14-Dec-04	16100	-8.2	-66.0	8890	1990	ND (5)	ND (5)	1140	400	46.8	3500	4.22 J	784
	09-Mar-05	12500	-7.2	-65.0	6930	1660	ND (0.5)	3.51	838	302	36.9	4000	2.76	123
MW-32-35	04-Mar-04	4200	-8	-65.0	1900	470	ND (0.4)	ND (5)	340	99	13	1100	1	310
	12-May-04	4500	-6.9	-64.0	1900	460	ND (0.4)	ND (5)	330	94	12	1100	0.9	320
	21-Sep-04	4500	-8.7	-63.0	2150	422	ND (0.2)	ND (10)	320	89	14	990	0.9	310
	15-Dec-04	4120	-8.5	-67.0	1760	524	ND (0.5)	0.89	351	96.3	24.7 J	954	1.28	276
	09-Mar-05	3560	-8.2	-68.0	1770	465	ND (0.5)	0.845	312	85.5	13	944	1.07	260
MW-34-55	04-Mar-04	6700	-9.6	-77.0	3200	850	ND (0.4)	ND (5)	360	97	13	2000	1.2	270
	13-May-04	5700	-10.3	-77.0	2700	770	ND (0.4)	ND (5)	310	77	15	1900	1	270
	08-Jun-04	---	---	---	---	---	---	---	246	68.3	---	---	1.18	---
	22-Sep-04	5800	-11	-82.0	2700	732	ND (0.2)	ND (10)	260	85.2	17	1800	0.9	250
	15-Dec-04	5860	-10.9	-83.0	2390	743	ND (0.5)	0.743	288	69.9	33	1540	1.34	234
	10-Mar-05	6230	-10.8	-82.0	2620	739	ND (0.5)	0.654	366	71.3	29.1	1900	1.19	240
MW-34-80	05-Mar-04	8800	-8.9	-75.0	4700	1000	ND (0.4)	ND (5)	280	24	25	2600	1.7	180
	13-May-04	8800	-10.2	-77.0	3900	1000	ND (4)	ND (5)	390	54	27	2800	1.4	270
	13-May-04 FD	9100	-10.2	-76.0	4000	1000	ND (4)	ND (5)	390	53	27	2700	1.5	280
	08-Jun-04	---	---	---	---	---	---	---	396	56.6	---	---	1.72	---
	23-Sep-04	8900	-9.9	-79.0	4050	997	ND (10)	ND (10)	410	76	32	2800	1.4	290
	23-Sep-04 FD	9900	-9.6	-78.0	4170	998	ND (10)	ND (10)	410	84.3	35	2800	1.5	290
	13-Dec-04	---	---	---	---	---	---	---	455	55	40.4	2220	1.63	---
	08-Mar-05	6940	-10.4	-83.0	4180	1040	ND (0.5)	1.01	439	68.1	28	2750	1.65	304
	15-Mar-05	8980	---	---	3920	ND (5)	ND (1)	---	445	65.7	29.7	2990	---	288
Surface Water Stations														
R-27	03-Mar-04	630	-11.4	-86.0	87	250	ND (0.4)	ND (0.5)	77	28	4.4	94	ND (0.2)	140
	12-May-04	590	-11.4	-96.0	84	240	ND (0.4)	ND (0.5)	74	27	4.8	96	ND (0.2)	140
	22-Sep-04	680	-12.1	-98.0	88.4	237	0.38	ND (0.2)	77	29	4.8	99	ND (0.2)	130
	13-Dec-04	632	-11.4	-95.0	84.4	235	ND (0.5) R	ND (0.5)	79.6	31.4	4.95	86.5	ND (0.2) J	125
	07-Mar-05	669	-12.3	-102.0	92.7	244	ND (0.5)	ND (0.5)	82.8	31.3	4.72	108	ND (0.2)	136
R-28	03-Mar-04	670	-11.3	-90.0	87	250	0.5	ND (0.5)	78	28	4.4	93	ND (0.2)	140

TABLE C-1

Chemical Performance Monitoring Results, March 2004 through March 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Surface Water Stations														
R-28	12-May-04	580	-11.5	-98.0	84	240	ND (0.4)	ND (0.5)	72	26	4.2	92	ND (0.2)	140
	22-Sep-04	680	-12.1	-99.0	104	240	0.38	ND (0.2)	79	30	4.9	99	ND (0.2)	130
	13-Dec-04	652	-11.1	-95.0	84.8	236	ND (0.5) R	ND (0.5)	79.9	31.5	4.93	86	ND (0.2) J	133
	08-Mar-05	651	-12.5	-102.0	90.4	231	ND (12.5)	ND (0.5)	83.7	31.4	5.02	107	ND (0.2)	132

NOTES:

FD = field duplicate sample
ND =parameter not detected at the listed reporting limit.
J = concentration or reporting estimated by laboratory or data validation
(---) = data not collected or available

Results in milligrams per liter (mg/L), except Oxygen-18 and Deuterium, which are expressed as differences from global standards in parts per thousand .

Alkalinity reported as carbonate (CaCO3). Nitrate reported as Nitrogen (N).