



Pacific Gas and
Electric Company®

Yvonne J. Meeks
Site Remediation - Portfolio Manager
Environmental Affairs

6588 Ontario Road
San Luis Obispo, CA 93405

Mailing Address
4325 South Higuera Street
San Luis Obispo, CA 93401

805.546.5243
Internal: 664.5243
Fax: 805.546.5232
Internet: YJM1@pge.com

June 15, 2005

Norman Shopay
Project Manager
California Department of Toxic Substances Control
Geology and Corrective Action Branch
700 Heinz Avenue
Berkeley, California 94710

Subject: Performance Monitoring Report for May 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 May 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,

Yvonne Meeks

Enclosure
cc: CWG Members

Performance Monitoring Report for May 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

June 15, 2005

CH2MHILL
155 Grand Ave. Ste. 1000
Oakland, CA 94612

Performance Monitoring Report for May 2005

Interim Measures Performance Monitoring Program for Floodplain Area

PG&E Topock Compressor Station Needles, California

Prepared for
Pacific Gas and Electric Company

June 15, 2005

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

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



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Acronyms and Abbreviations

cfs	cubic feet per second
Cr(T)	total chromium
Cr(VI)	hexavalent chromium
DTSC	Department of Toxic of Substances Control
gpm	gallons per minute
IM	Interim Measure
PG&E	Pacific Gas and Electric Company
PMP	Performance Monitoring Program
ppb	parts per billion
USBR	United States Bureau of Reclamation

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 monthly Performance Monitoring Report describes operational and monitoring information for IM No. 2 for the period from May 1 through May 31, 2005.

In a letter dated February 14, 2005, the Department of Toxic Substances Control (DTSC) established the criteria for evaluating the performance of the IMs in the floodplain area of the site. As defined by DTSC, the performance standard for this IM is to "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 [$\mu\text{g}/\text{L}$] in the floodplain are contained for removal and treatment" (Enclosure A, DTSC February 14, 2005 letter). The DTSC directive also defined the monitoring and reporting requirements for the IMs.

A draft *Performance Monitoring Plan for Interim Measures in the Floodplain Area* was submitted to DTSC on April 15, 2005, referred to herein as the Performance Monitoring Plan. The site monitoring, data evaluation, reporting, and response actions required under the February 2005 DTSC directive are collectively referred to as the IM Performance Monitoring Program (PMP) for the floodplain area. This monthly report has been prepared in compliance with DTSC's requirements and documents the monitoring activities and performance evaluation of the IM hydraulic containment system. The next monthly report for the June 2005 period will be submitted on July 15, 2005.

Figure 1-1 shows the locations of wells used for the IM extraction, performance monitoring, and hydraulic gradient calculations. The wells are defined as:

- **Floodplain Wells:** MW-22, 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-12, MW-19, MW-20 cluster (3), MW-21, MW-26, MW-31 cluster (2), MW-35 cluster (2), and TW-2S, TW-2D.
- **Interior Wells:** MW-10 and MW-25.

The IM-2 extraction and treatment system is also located on the MW-20 bench. In March 2005, an additional extraction well, designated PE-1 was installed on the floodplain approximately 450 feet east of extraction well TW-2D. Also in March 2005, PG&E submitted a request for DTSC and BLM approval to design and install piping, well vaults, and power supply for the new extraction well and facilities. Construction of the pipeline facilities will be completed following design approval.

The wells screened in the unconsolidated alluvial fan and fluvial deposits, which comprise the Alluvial Aquifer, have been separated into three depth 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 hydrostratigraphic units or separate aquifer zones. Even though the zones are not hydraulically separated, the subdivision of the aquifer into three depth zones is an appropriate construct for presenting and evaluating groundwater quality data in the floodplain. The three-zone concept is also useful for presenting and evaluating lateral gradients while minimizing effects of vertical gradients and observing the influence of pumping from partially penetrating wells.

2.0 Extraction System Operations

On May 21, 2004, the United States Bureau of Land Management approved the IM No. 2 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. Startup 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 [Cr(VI)] 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 offsite disposal. Precipitated solids are periodically pumped from the clarifier into a container (phase separator) for offsite disposal.

Pumping data for the period May 1 through May 31, 2005 are shown in Table 2-1. An average pumping rate of approximately 67.9 gallons per minute (gpm) from TW-2D was maintained throughout May 2005. A total of 3,070,416 gallons of groundwater was extracted and batch treated during May 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). A DTSC-approved shutdown of TW-2D occurred on May 18, 2005 for 2 hours to install the new concrete well vault as part of IM No. 3 construction activities. Intermittent shutdowns (typically less than 10 minutes) were also required to switch power supply between onsite generators (2 to 3 times per month). No other shutdowns occurred during this reporting period.

The batch treated water was manifested as a RCRA non-hazardous waste and transported to the United States Filter Corporation facility 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 May 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Extraction Well	May 2005 Period^b		Project To Date
	Average Pumping Rate^c (gpm)	Volume Pumped (gal)	Cumulative Volume Pumped (gal)
TW-2S ^a	0	0	486,358
TW-2D	67.9	3,070,419	28,653,729
Total	67.9	3,070,419	29,140,087
Volume Pumped from MW-20 Cluster			1,527,724
Total Volume Pumped (gal)			30,667,811
Total Volume Pumped (ac-ft)			94.1

ac-ft: acre-feet.

^a Pumping from TW-2S was temporarily terminated on June 11, 2004.

^b Pumping results during the monthly period from April 30, 2005 at 2:40 pm and May 31, 2005 at 11:59 pm (31.4 days). The end of the month reading is estimated from June 3, 2005 totalizer reading. Access to TW-2D gauges from May 17 until the end of the month was restricted due to the open excavation around TW-2D as part of IM No. 3 construction. The area was restored and daily readings resumed in June 2005.

^c 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. Initial cleanup efforts were completed in April 2005. Confirmation soil samples results indicate that potentially-affected soil may still be present around the phase separator area where the spill originated (about a 15-foot by 30-foot area. PG&E collected a set of background soil samples across the MW-20 bench on May 25, 2005 to better define that amount cleanup necessary around the phase separator container area. It is anticipated that the additional soil removal will be completed in June 2005.

Daily inspections include tank inspections, flow measurements, site security, and desert tortoise sitings. Daily logs with documentation of inspections are maintained on site. No precipitation was observed or measured in May 2005 at the Needles, California airport.

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

3.0 Chromium Sampling Results

The groundwater monitoring wells in the floodplain area are sampled for Cr(VI), total chromium [Cr(T)], and field water quality parameters under monthly, biweekly, and weekly schedules, in accordance with the approved groundwater monitoring plan and DTSC directives. Table A-1 (Appendix A) presents the groundwater sampling results for Cr(VI), Cr(T), groundwater elevation and selected field water quality parameters for monitoring wells in the floodplain area during May 2005 and the previous five months. Table A-2 presents the groundwater sampling data for the other wells monitored in the PMP area during the evaluation period.

Figure 3-1 presents the Cr(VI) results distribution for May 2005 in plan view for the groundwater wells monitoring the Upper, Middle, and Lower aquifer zones in the floodplain area. The May 2005 Cr(VI) sampling results maps also shows the approximate outline of Cr(VI) in groundwater greater than 50 parts per billion (ppb) (the California drinking water standard for total chromium) and 20 ppb. The Cr(VI) sampling results from the May 2005 monthly sampling event are shown on Figure 3-2, a vertical cross-section in the floodplain (see Figure 1-1 for cross-section location). For the PMP evaluation, Cr(VI) concentration trend graphs and hydrographs for key floodplain monitoring wells are presented in Appendix A, Figures A-1 (well MW-33-90), A-2 (MW-34-100), and A-3 (MW-36-100).

4.0 Hydraulic Gradient Results

During the reporting period, water levels were recorded at intervals of 30 minutes with pressure transducers in 48 wells and two river monitoring stations (I-3 and RRB). The data are typically continuous with only short interruptions for sampling or maintenance. The location of the wells monitored are shown on Figure 1-1 and listed in Section 1.0.

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

- Figure 4-1 – Upper Zone of Alluvial Aquifer
- Figure 4-2 – Middle Zone of Alluvial Aquifer
- Figure 4-3 – Lower Zone of Alluvial Aquifer

The average and the minimum and maximum daily average groundwater and river elevations have been calculated from the pressure transducer data for the May reporting period (May 1 to 31, 2005) and are summarized in Appendix B, Table B-1. Reported groundwater elevations (or hydraulic heads) are adjusted for temperature and for salinity differences between wells (i.e., adjusted to a common freshwater equivalent), as described in the Performance Monitoring Plan. Groundwater elevation hydrographs (for May 2005) for all wells with transducers are included in Appendix B. The Colorado River elevation (I-3 gage station) during May 2005 is also shown on the hydrographs.

The May 2005 groundwater gradient maps for the Upper, Middle, and Lower zones are shown on Figures 4-1, 4-2, and 4-3, respectively. The groundwater elevations for all zones of the Alluvial Aquifer indicate strongly landward hydraulic gradients along the floodplain. To the west of the pumping area, the hydraulic gradient in the Upper Zone is easterly and consistent with the regional gradient outside of the floodplain area. The landward gradients measured during May 2005 were steeper than usual due to a combination of: the spring conditions during which the river levels are higher than in other seasons and the continuation of an approximately 70 gpm IM extraction rate. The average monthly groundwater elevations are also presented and contoured in cross-section on Figure 4-4 (location of cross-section shown on Figure 1-1).

Table 4-1 summarizes the estimated and actual dam discharges and river elevations since April 2004. The actual Davis Dam May 2005 average discharge (15,579 cubic feet per second [cfs]) was slightly less than the United States Bureau of Reclamation (USBR) projected discharge for the May reporting period (16,000 cfs). The actual Colorado River elevation at I-3 (monthly average) was within 0.1 foot of that calculated using the multiple regression method with USBR projections for the May reporting period.

Gradients were measured between the three designated well pairs (MW-20-130/MW-34-80, MW-20-130/MW-42-65, and MW-31-135/MW-33-150) during May 2005. As shown in Table 4-2, the average gradients in the three well pairs were landward at magnitudes that were generally between 2 and 3.5 times greater than the target value of 0.0010 feet per foot (0.0033, 0.0034, and 0.0020, respectively). Hydraulic gradient data from well MW-20-130

were not available for the period May 27-31 due to a battery failure in the MW-20-130 datalogger.

5.0 Status of Operation and Monitoring

Monitoring and reporting of the IM activities will continue as described in the Performance Monitoring Plan. The next status report will be a monthly performance monitoring report submitted on July 15, 2005 and will cover activities from June 1 through June 30, 2005.

Full-time pumping from extraction well TW-2D will continue in June 2005 except for a short-term shutdown (up to 8 hours) to install a larger well pump in preparation for IM No. 3 system commissioning. Based on the current IM No. 3 schedule, it is anticipated that the temporary shutdown will occur approximately June 22-23, 2005. Consultation with DTSC and the federal agencies on the design and alignment of the piping to extraction well PE-1 is ongoing (field activities are to commence after receiving agency approval).

Based on current USBR projections, it is anticipated that the Colorado River level at I-3 in June 2005 will be the same or slightly increased relative to May 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.

Tables

TABLE 2-2

Analytical Results for Extraction Wells, March 2005 through May 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	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
TW-02D	05-May-05	5.49 ^	---	6470
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 4-1

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	15,579	-1,121	456.2	456.3	0.1
June 2005	16,600	---	---	456.4	---	---

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 June 2005, which is from May 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

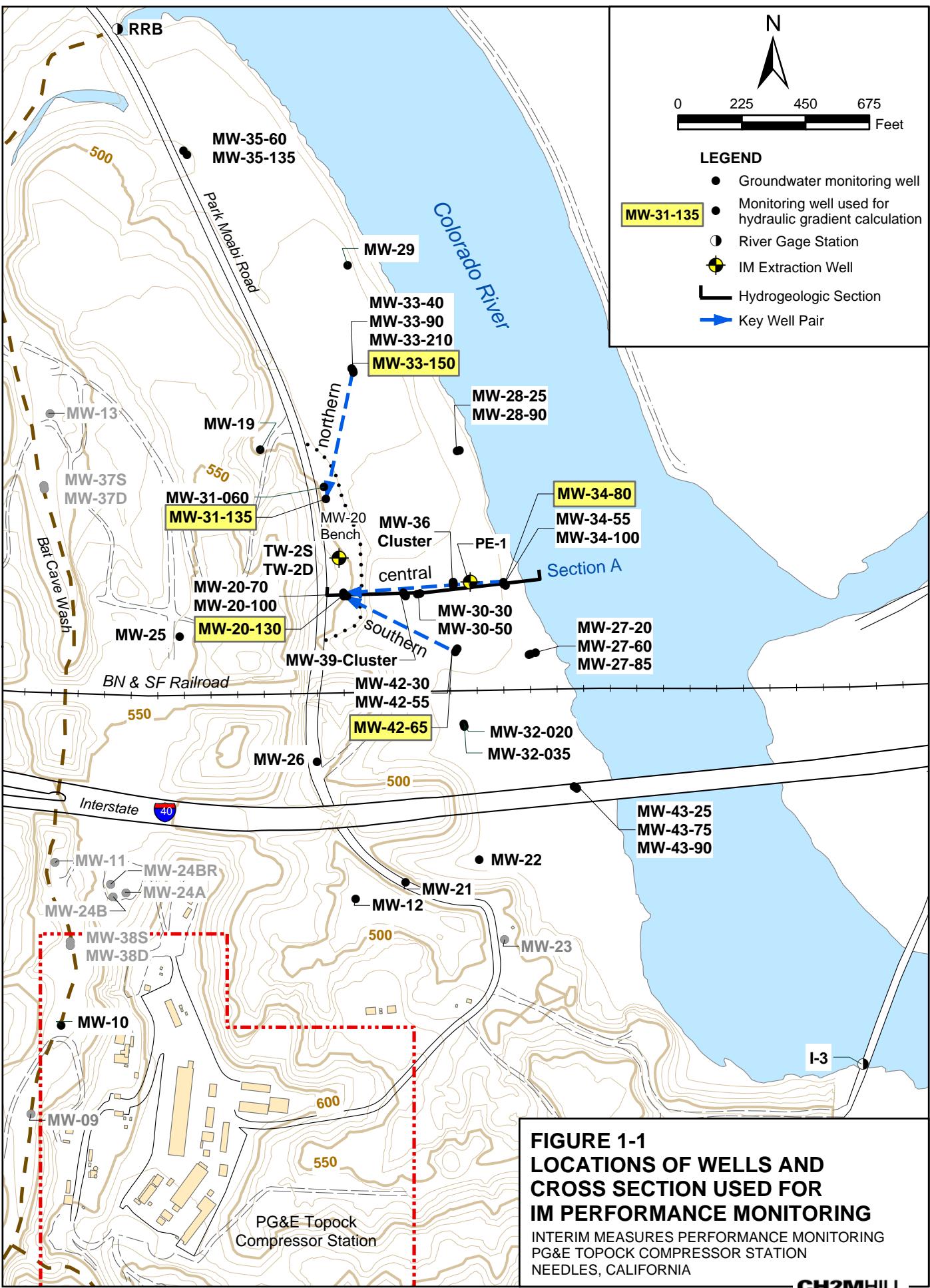
TABLE 4-2
 Average Hydraulic Gradients Measured at Well Pairs, May 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

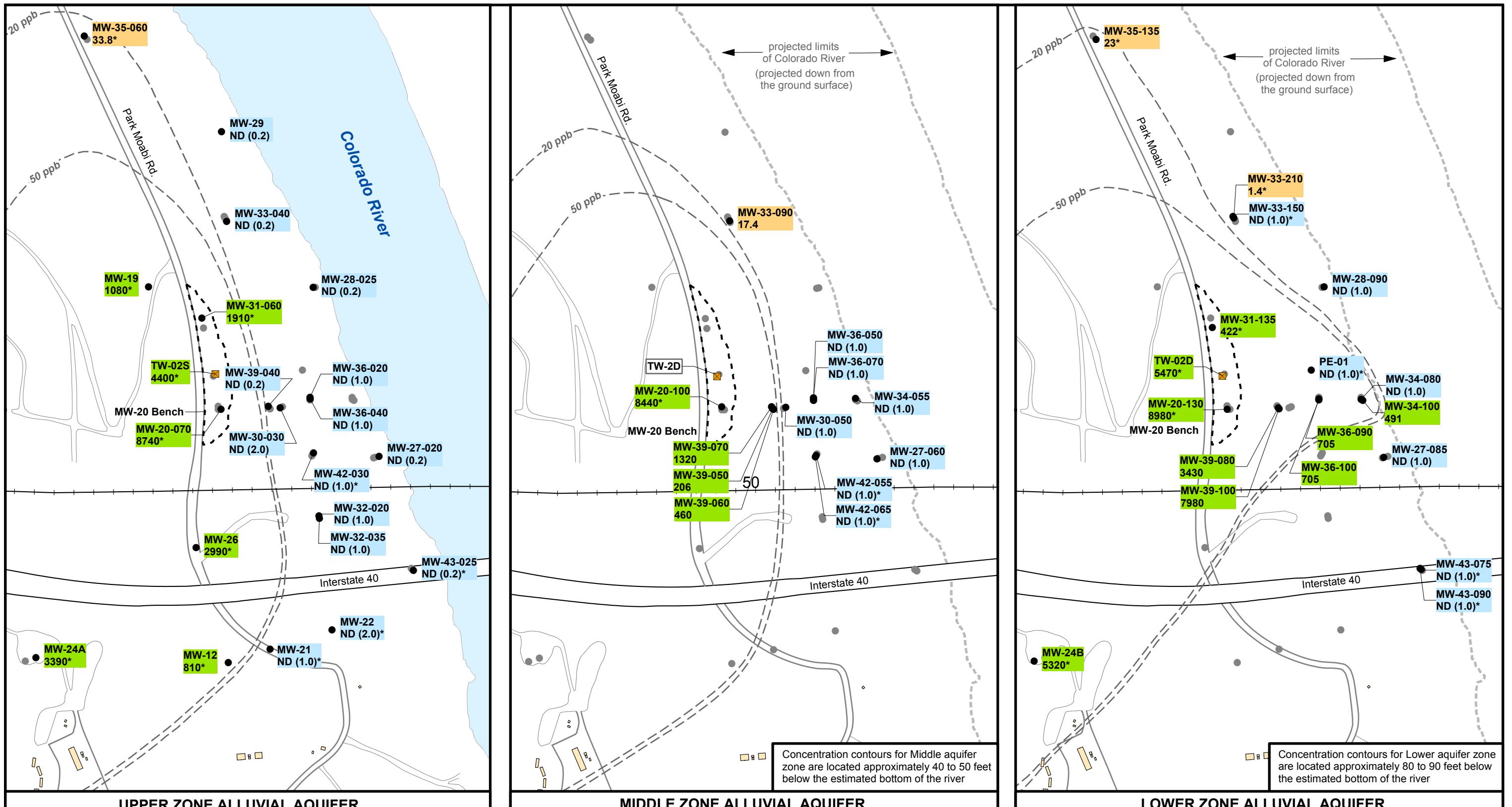
Well Pair	Mean Landward Hydraulic Gradient (feet/foot)	Measurement Dates 2005
Northern Gradient Pair		
MW-31-135 / MW-33-150	0.0020	May-1 through May-31
Central Gradient Pair		
MW-20-130 / MW-34-80	0.0033	May-1 through May-27
Southern Gradient Pair		
MW-20-130 / MW-42-65	0.0034	May-1 through May-27

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. MW-20-130 data unavailable from 5/27/05 through 5/31/05

Figures





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

41 Less than 50 ppb

3,810 Greater than 50 ppb

— · — Inferred Cr(VI) concentration contour

See Figure 3-2 for depths of Alluvial Aquifer zones

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

Hexavalent Chromium Concentrations in Groundwater May 2005 Sampling Events

Concentrations in micrograms per liter ($\mu\text{g/L}$)
equivalent to parts per billion (ppb)
ND = not detected at listed reporting limit.

**FIGURE 3-1
CR(VI) CONCENTRATIONS
IN ALLUVIAL AQUIFER, MAY 2005**

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

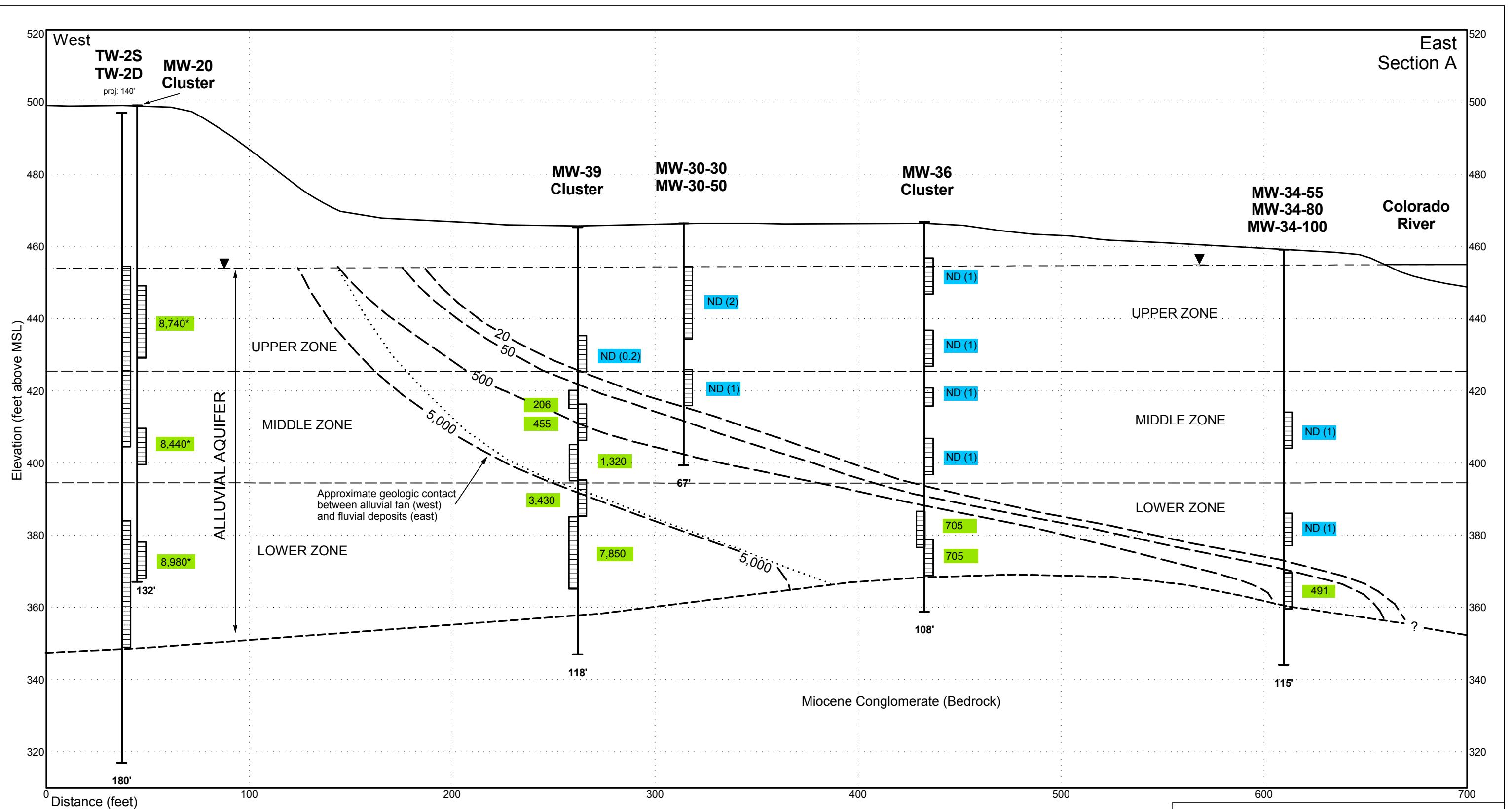
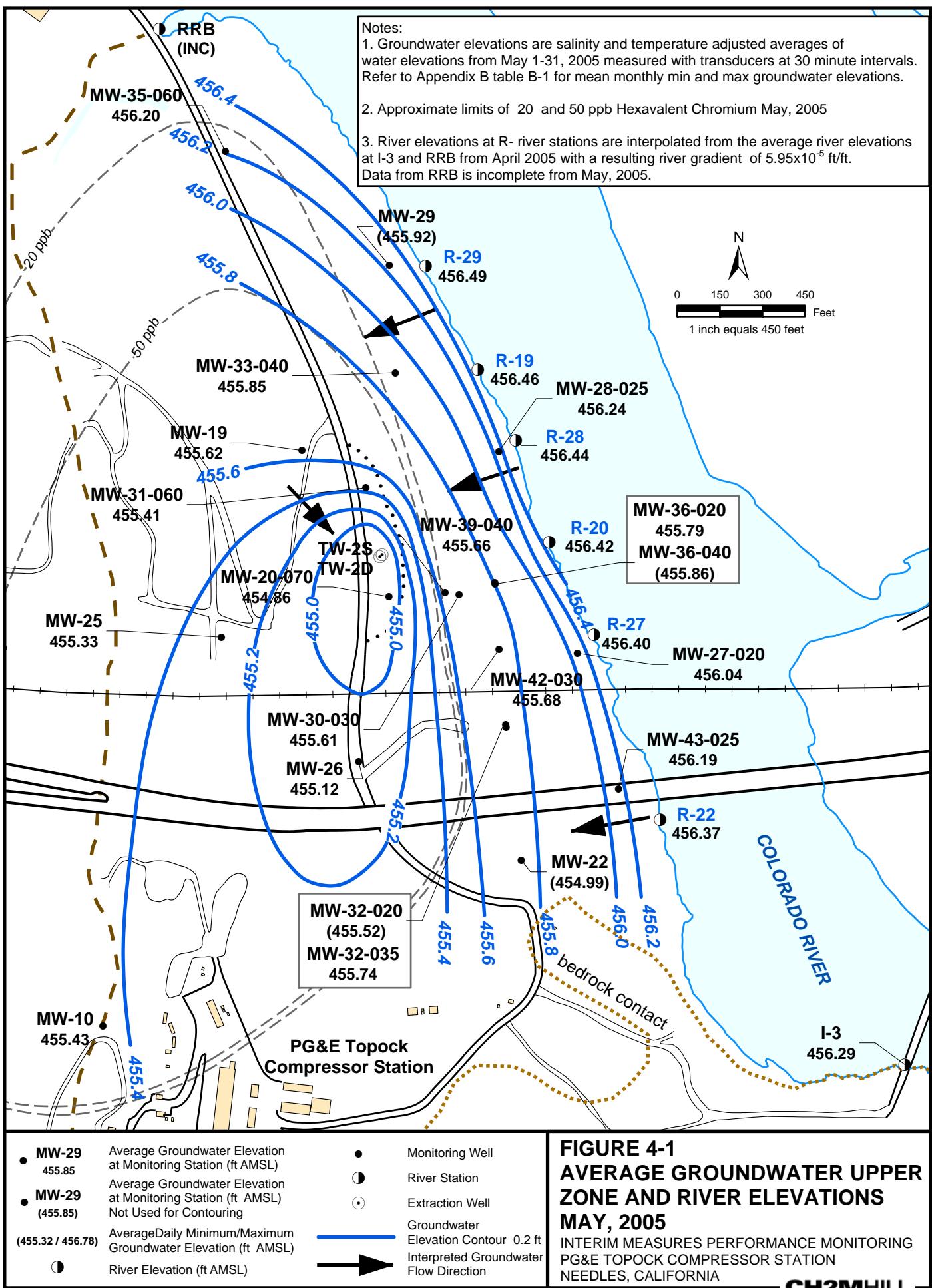
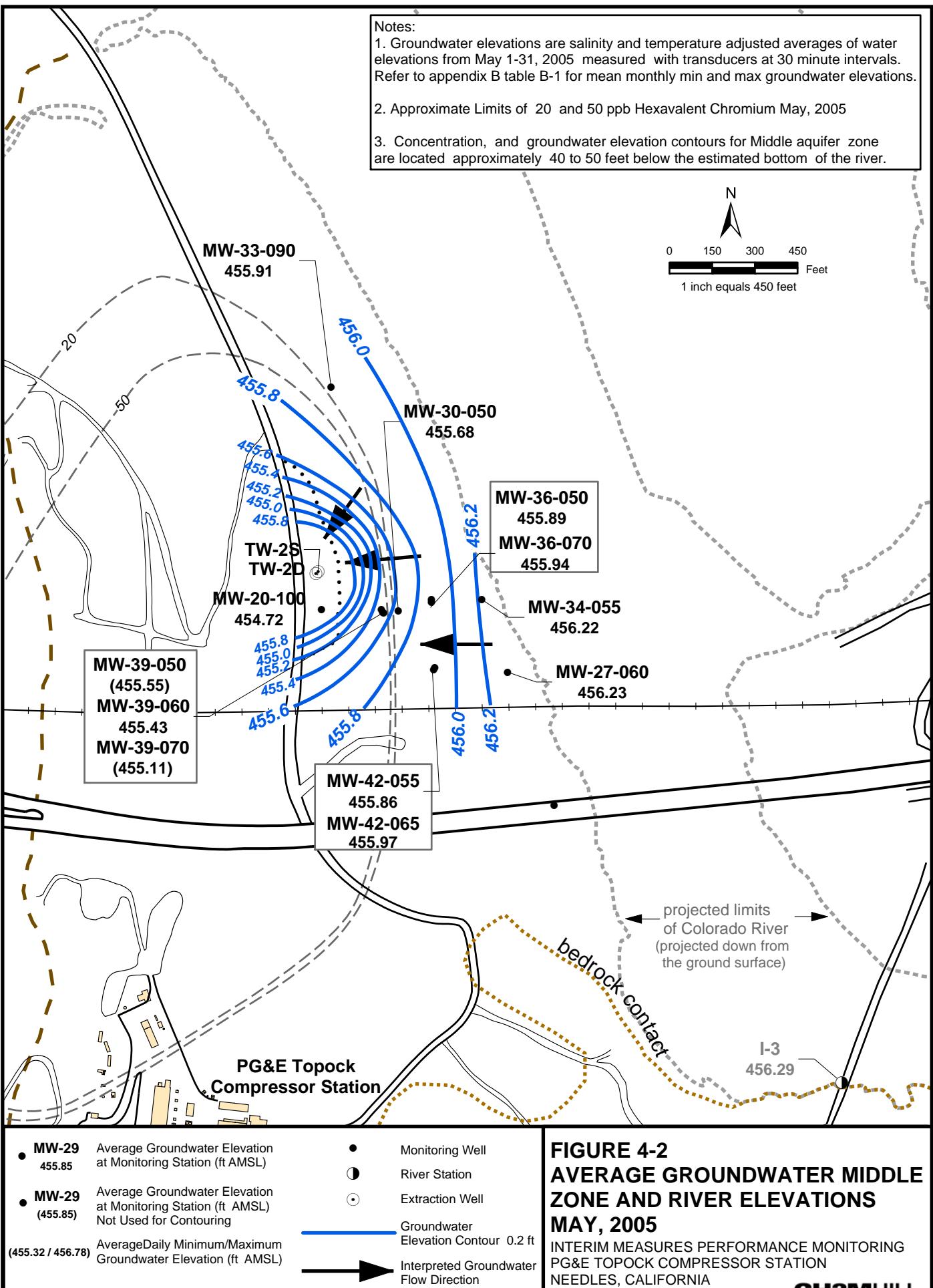
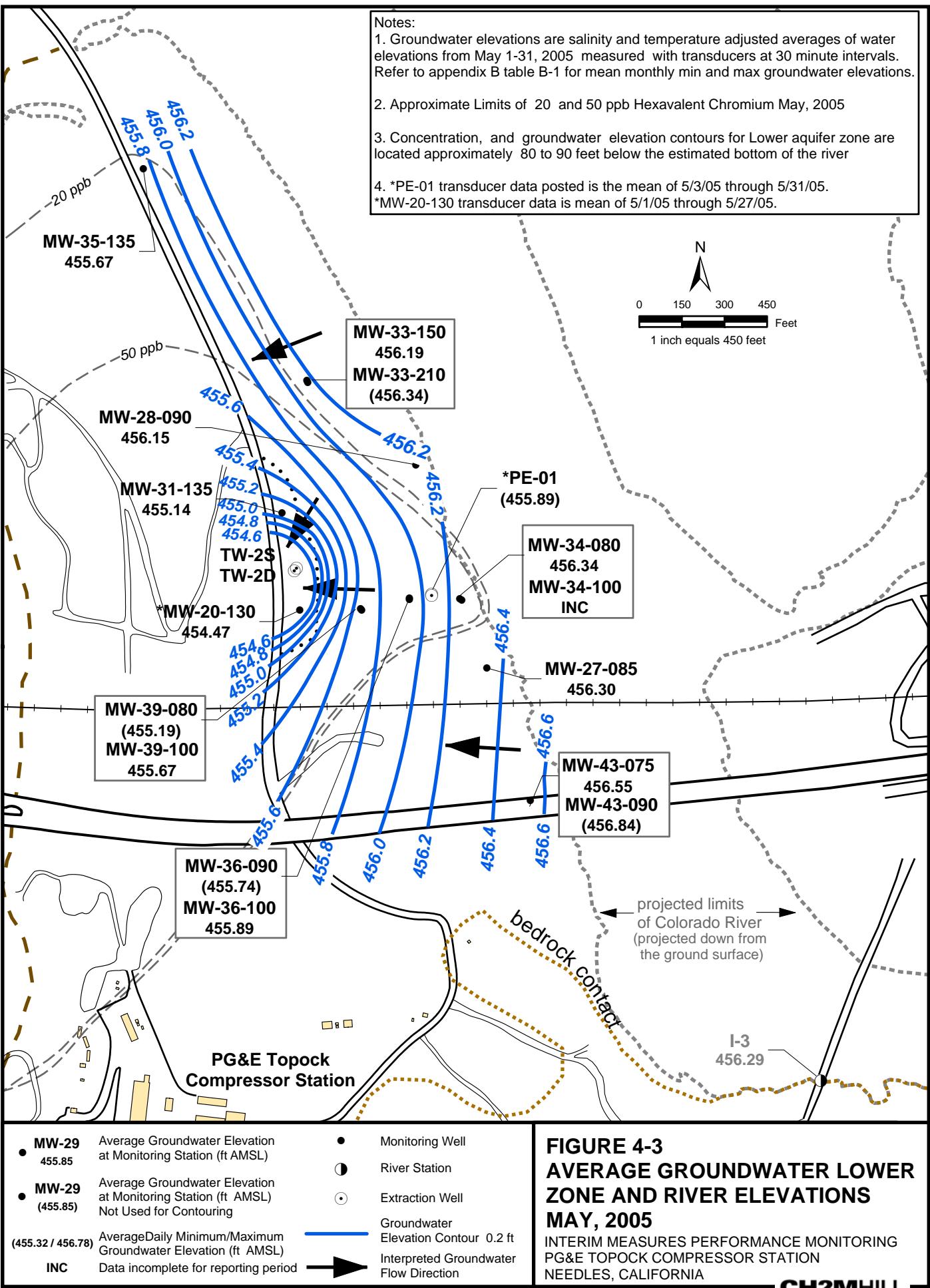


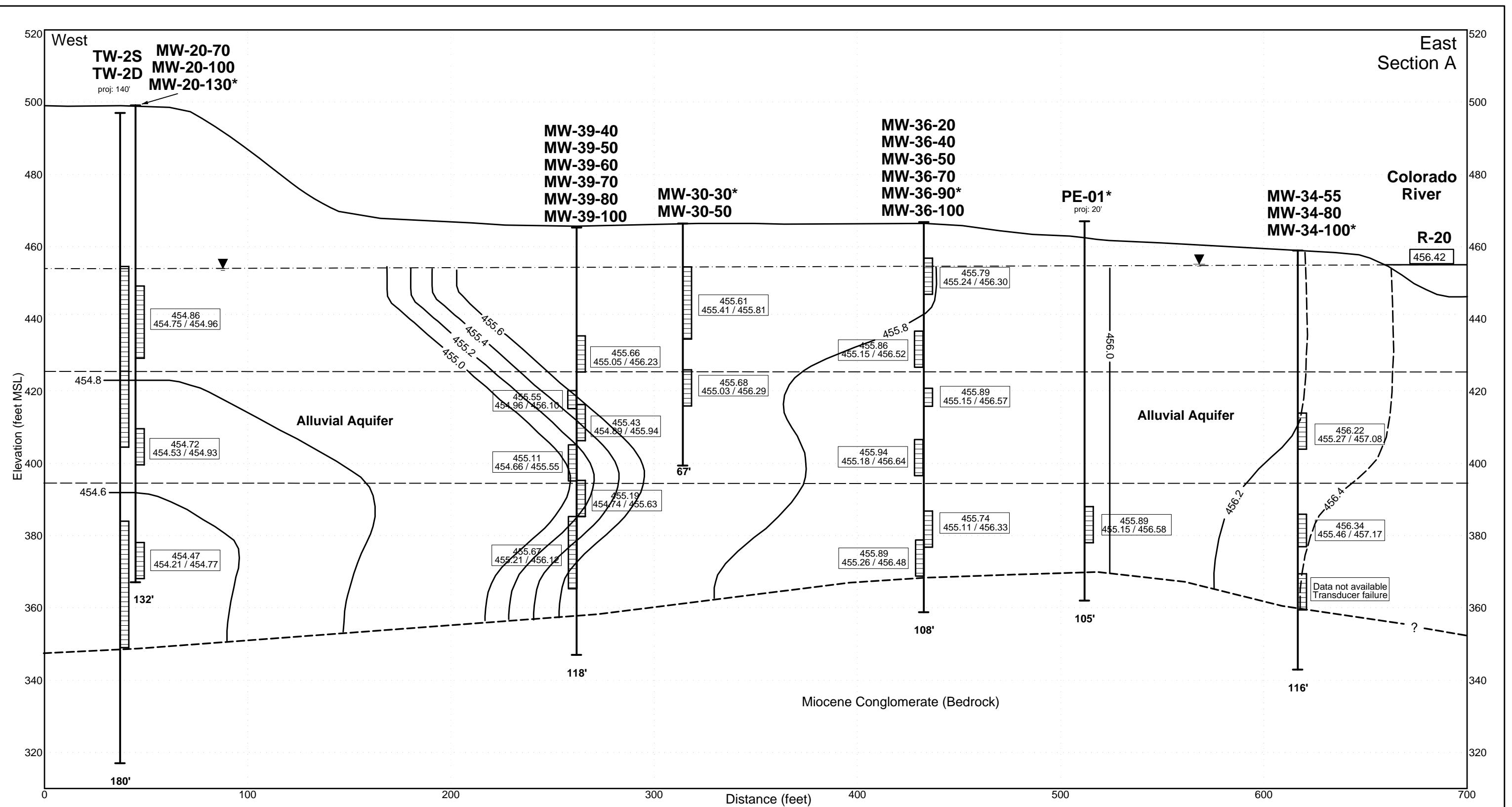
FIGURE 3-2
CR(VI) CONCENTRATIONS
FLOODPLAIN CROSS-SECTION A
MAY 2005

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









Notes:
Results show average ground water elevations for May 1-31, 2005.
Ground water elevations adjusted for salinity and temperature.

*Wells MW-30-30, MW-36-090, and MW-34-100 (data incomplete) excluded from contouring. Means at MW-20-130 (missing data 5/27 through 5/31) and PE-01 (transducer installed 5/3/05), are incomplete for the month.

Average river elevation interpolated between I-3 and RRB using mean gradients from April, 2005. RRB data is incomplete for May. Data subject to review.

Legend:

- MW-30-30**
- water level
- well screen
- boring depth (feet)
- 103
- 453.66
453.40/453.94
- Average groundwater elevation
- Minimum / Maximum groundwater elevation
- 453.5
- Groundwater elevation contour
- 453.5
- Inferred groundwater elevation contour

FIGURE 4-4
AVERAGE GROUNDWATER ELEVATIONS
FLOODPLAIN CROSS-SECTION A
MAY, 2005

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

CH2MHILL

Appendix A

**Chromium Sampling Results for Monitoring
Wells in Floodplain Area**

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, December 2004 through May 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	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
	04-May-05	ND (0.2)	ND (1.0)	-176	0.4	1,280	456.1	455.8
MW-28-025	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)	---	---	---	452.8 T	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
	03-May-05	ND (0.2)	ND (1.0)	-59	0.4	1,280	456.4	456.4
MW-29	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
	05-May-05	ND (0.2)	ND (1.0)	-142	0.1	---	455.9	456.3
MW-30-030	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
	09-May-05	ND (2.0)	ND (1.0)	-131	0.3	47,700	455.4	455.3
MW-32-020	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
	09-May-05	ND (1.0)	ND (1.0)	-121	0.2	20,600	455.4	455.0
MW-32-035	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
	09-May-05	ND (1.0)	ND (1.0)	-164	0.2	13,600	455.5	455.1
MW-33-040	15-Dec-04	ND (0.2) J	ND (1.0)	-110	6.5	9,000	453.7	452.7
	11-Jan-05	ND (1.0)	ND (1.0)	-174	6.2	8,600	453.1	452.2

Refer to table footnotes for data qualifier explanation.

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, December 2004 through May 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	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
	05-May-05	ND (0.2)	ND (1.0)	-90	0.6	5,760	455.8	455.7
MW-36-020	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	453.4 T	454.0
	03-May-05	ND (1.0)	ND (1.0)	-180	3.5	10,200	456.0	456.4
MW-36-040	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	453.9 T	454.0
	05-May-05	ND (1.0)	ND (1.0)	-180	2.7	10,300	455.5	455.5
MW-39-040	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	454.0 T	454.5
	05-May-05	ND (0.2)	ND (1.0)	-179	1.8	6,070	455.7	456.2
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	435.8 T	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
	04-May-05	ND (1.0)	ND (1.0)	-114	0.4	14,400	456.2	456.0
MW-30-050	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
	11-Jan-05	ND (10)	ND (1.0)	-215	6.4	13,600	452.7	452.2

Refer to table footnotes for data qualifier explanation.

ABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, December 2004 through May 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 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD
	09-Feb-05	ND (10)	1.60 J	-155	0.0	13,300	452.7
	09-Feb-05 FD	ND (1.0)	11.2 J	FD	FD	FD	FD
	10-Mar-05	ND (1.0)	ND (1.0)	-230	4.7	9,000	451.7
	06-Apr-05	18.5	15.5	-252	0.5	14,000	454.8
	06-Apr-05 FD	17.1 J	13.0	FD	FD	FD	FD
	09-May-05	ND (1.0)	ND (1.0)	-100	0.3	14,200	455.4
	09-May-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD
MW-33-090	02-Dec-04	15.6	13.1	-199	5.5	7,730	454.4
	14-Dec-04	16.0	14.8	---	---	---	453.7
	29-Dec-04	16.7	13.7	-115	0.5	15,000	453.4
	11-Jan-05	18.2	14.8	-113	---	8,840	453.1
	27-Jan-05	17.7	14.4	-138	0.7	10,100	452.8
	07-Feb-05	20.2	14.9	-75	0.5	9,320	453.2
	22-Feb-05	19.0	18.3	10	5.2	8,930	452.6
	09-Mar-05	18.6	18.2	-101	0.7	---	451.8
	22-Mar-05	18.9	19.2	-92	4.7	14,600	453.7
	04-Apr-05	21.3	17.2	-98	0.3	13,300	454.4
	19-Apr-05	20.3	17.9	---	4.0	8,830	455.5
	19-Apr-05 FD	20.0	18.2	FD	FD	FD	FD
	05-May-05	17.4	16.8	-244	0.3	8,250	455.7
	18-May-05	15.5	16.3	-141	1.6	---	455.8
MW-34-055	15-Dec-04	ND (0.2) J	ND (1.0)	-94	6.3	9,000	453.6
	12-Jan-05	ND (1.0)	ND (1.0)	-101	6.4	12,100	452.6
	09-Feb-05	ND (1.0)	ND (1.0)	-112	0.0	12,600	453.0
	10-Mar-05	ND (1.0)	ND (1.0)	-191	5.1	9,000	451.7
	05-Apr-05	ND (1.0)	ND (1.0)	-110	0.7	12,400	454.1
	05-May-05	ND (1.0)	ND (1.0)	-99	0.1	8,860	455.5
MW-36-050	14-Dec-04	ND (0.2) J	ND (1.0)	-151	0.3	---	453.6
	12-Jan-05	ND (1.0)	ND (1.0)	-163	0.2	5,630	452.6
	07-Feb-05	ND (1.0)	ND (1.0)	-131	5.6	11,000	452.8
	08-Mar-05	ND (1.0)	ND (1.0)	-168	5.5	8,800	451.7
	05-Apr-05	ND (1.0)	ND (1.0)	-129	5.6	9,320	454.0 T
	05-May-05	ND (1.0)	ND (1.0)	-137	2.1	9,330	455.5
MW-36-070	14-Dec-04	ND (0.2) J	ND (1.0)	-131	6.5	9,200	453.4
	11-Jan-05	ND (1.0)	ND (1.0)	-130	0.3	12,100	452.8
	07-Feb-05	ND (0.21)	1.20	-60	7.2	18,500	453.0
	08-Mar-05	ND (1.0)	ND (1.0)	-115	5.2	11,300	451.7
	05-Apr-05	ND (1.0)	ND (1.0)	-48	5.6	9,990	453.9 T
	03-May-05	ND (1.0)	ND (1.0)	-103	0.0	12,300	455.9
MW-39-050	15-Dec-04	1470	1480	18	3.0	---	453.2
	14-Jan-05	1000	1020	77	0.8	11,900	452.2
	08-Feb-05	819	800	76	5.3	14,500	452.7
							452.6

Refer to table footnotes for data qualifier explanation.

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, December 2004 through May 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	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
	03-May-05	206	204	56	0.0	14,300	454.2	455.3
MW-39-060	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
	05-May-05	450	455	43	2.0	14,600	455.4	456.0
	05-May-05 FD	460	509	FD	FD	FD	FD	FD
MW-39-070	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	453.3 T	454.4
	05-May-05	1320	1270	98	1.9	12,500	455.2	456.4
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
	04-May-05	ND (1.0)	ND (1.0)	-128	0.4	18,500	456.5	456.3
	19-May-05	ND (1.0)	ND (1.0)	-131	1.0	19,600	456.5	456.4
MW-28-090	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

Refer to table footnotes for data qualifier explanation.

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, December 2004 through May 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	27-Jan-05	ND (1.0)	5.10	-203	0.1	12,100	452.3	451.8
	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
	03-May-05	ND (1.0)	ND (1.0)	-208	0.4	10,600	456.1	455.7
	19-May-05	ND (1.0)	ND (1.0)	-147	0.8	9,110	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-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	449.4 T	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
	04-May-05	ND (1.0)	ND (1.0)	-241	0.3	15,900	455.9	455.2
	18-May-05	ND (1.0)	ND (1.0)	-138	1.3	16,000	456.3	455.8
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

Refer to table footnotes for data qualifier explanation.

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, December 2004 through May 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	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
	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
	04-May-05	491	530	-98	0.6	18,700	455.7	455.0
	10-May-05	513	492	21	3.0	15,800	456.8	456.9
	10-May-05 FD	501	552	FD	FD	FD	FD	FD
	18-May-05	524	564	50	3.0	19,000	456.4	456.2
	25-May-05	559	478	-93	1.2	18,700	456.6	456.2
MW-36-090	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	453.8 T	454.0
	03-May-05	705	623	55	0.0	17,600	455.5	455.7
MW-36-100	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
	03-May-05	705	679	4	0.4	18,700	455.4	455.2
	18-May-05	617	796 J	12	1.5	34,800	455.3	454.9
	18-May-05 FD	620	624 J	FD	FD	FD	FD	FD
MW-39-080	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

Refer to table footnotes for data qualifier explanation.

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, December 2004 through May 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-39-080	08-Feb-05 FD	7890	7750	FD	FD	FD	FD
	09-Mar-05	7460	7240	82	5.0	16,800	451.1
	06-Apr-05	4820	4570	88	4.7	13,800	454.2 T
	03-May-05	3430	3510	106	0.4	14,900	454.8
MW-39-100	15-Dec-04	10900	11000	24	6.2	---	454.1
	12-Jan-05	10100 ~	9820 ~	63	6.2	20,200	452.4
	27-Jan-05	9930	10200	45	2.1	20,200	452.3
	09-Feb-05	9180	9480	33	2.2	22,000	452.5
	09-Feb-05 FD	9260	9710	FD	FD	FD	FD
	10-Mar-05	8940	8160	28	5.1	24,500	451.5
	06-Apr-05	8220	8230	54	1.5	---	454.5
	09-May-05	7980	8490	159	1.8	20,400	455.5
	09-May-05 FD	7720	8250	FD	FD	FD	FD
MW-43-075	07-Mar-05	ND (1.0)	ND (1.0)	-150	5.6	15,200	452.2
	15-Mar-05	ND (1.0)	ND (1.0)	-178	0.5	14,900	452.7
MW-43-090	07-Mar-05	ND (1.0)	ND (1.0)	-185	0.2	21,500	452.5
	15-Mar-05	ND (1.0)	ND (1.0)	-153	0.5	22,000	452.3
	15-Mar-05 FD	ND (1.0)	ND (1.0)	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 pressure 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, December 2004 through May 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-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	422	403	42.0	1.49	12500
MW-35-135	13-Dec-04	15.6 J	16.0	-75	0.12	9790
	13-Dec-04 FD	15.7 J	14.1	FD	FD	FD
	15-Mar-05	23.0	21.4	-108	2.11	9960

TABLE A-2

Groundwater Sampling Results for Other Monitoring Wells in PMP Area, December 2004 through May 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
TW-02D	16-Dec-04	6280	6570	143	7.10	9620
	09-Mar-05	5800	5620	---	---	9400
	05-May-05	---	5490	---	---	---

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

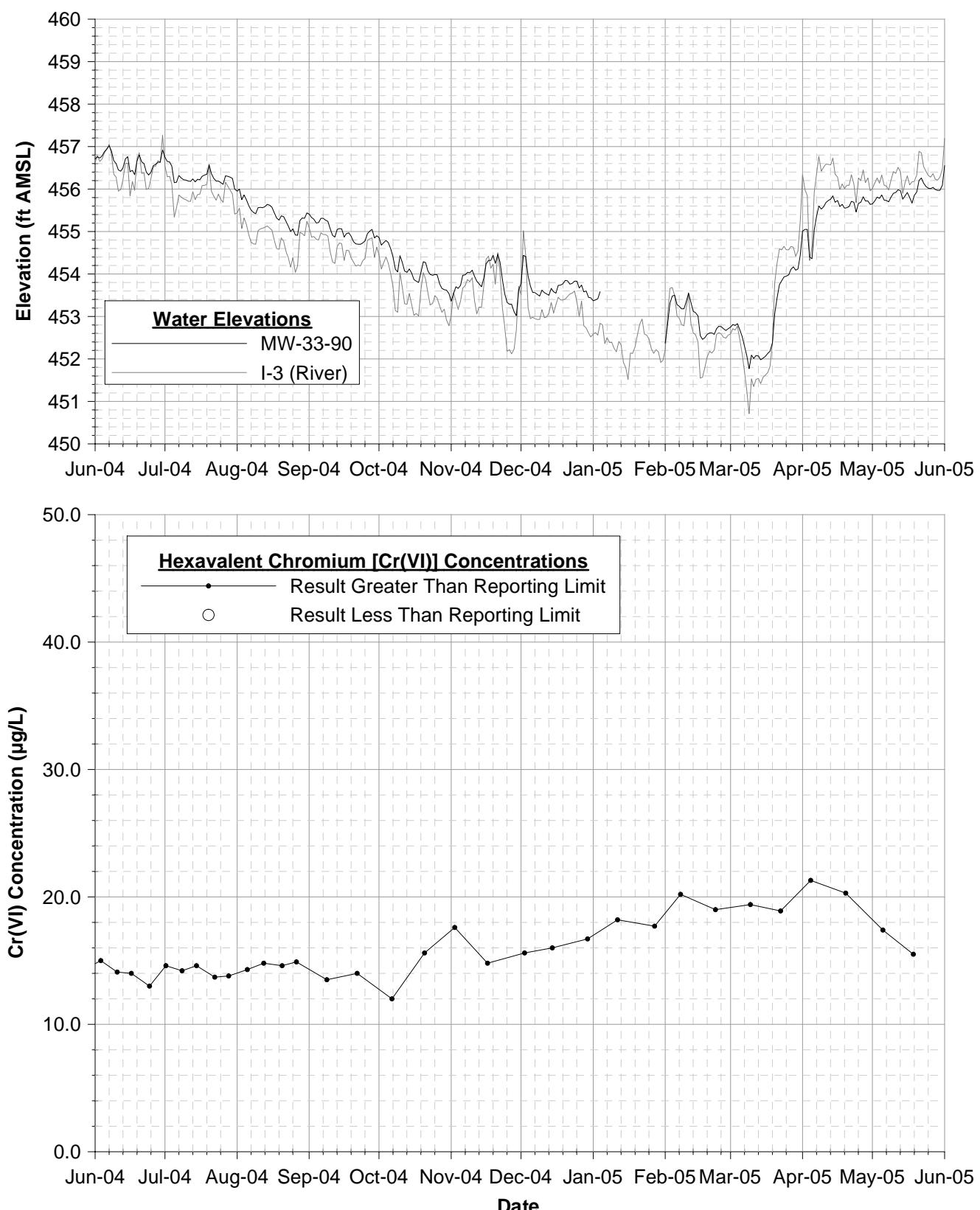


FIGURE A-1
MW-33-90 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 05/18/05
 INTERIM MEASURES PERFORMANCE MONITORING
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

Notes.

1. Chromium results in micrograms per liter ($\mu\text{g/L}$), 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.

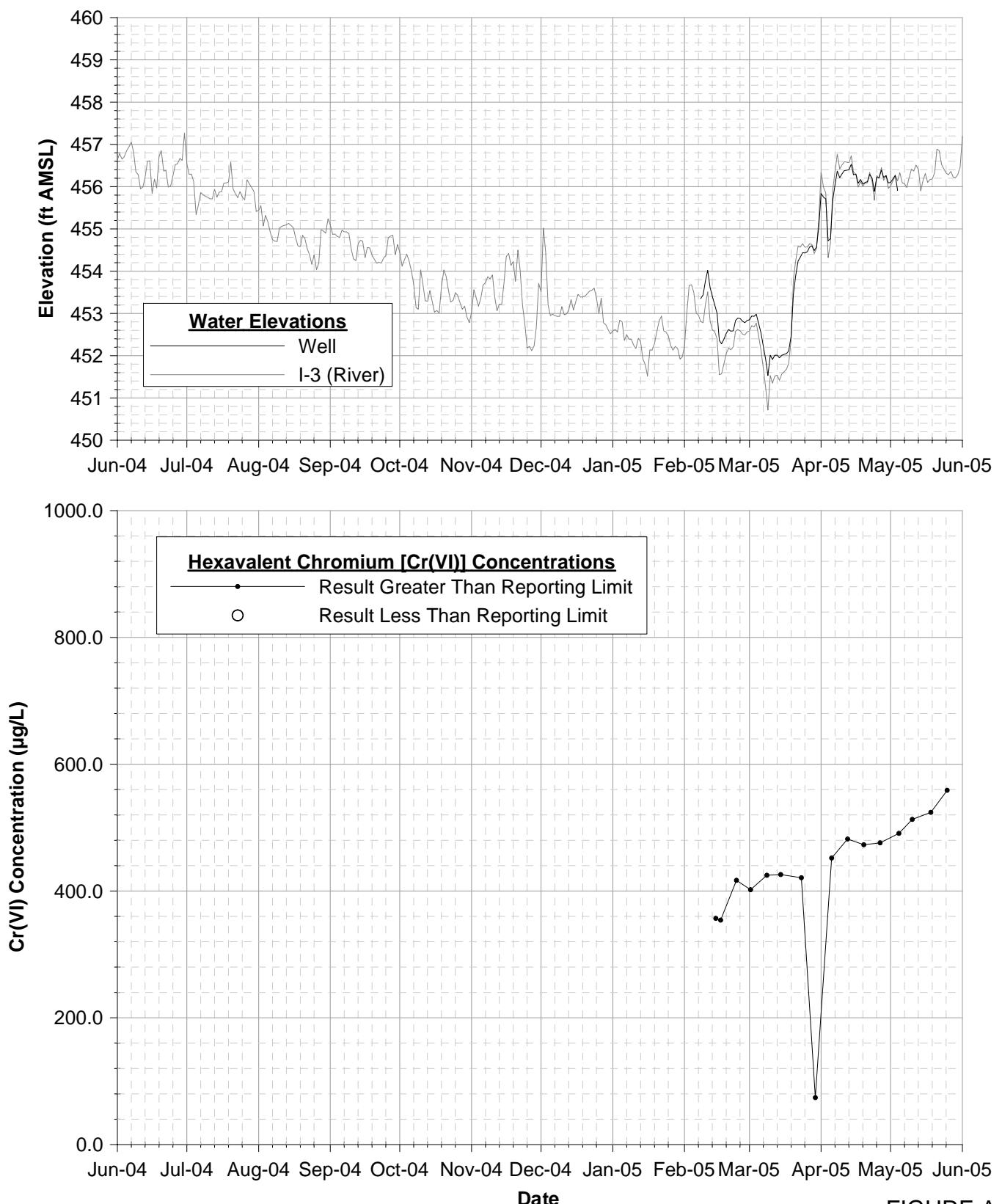


FIGURE A-2
MW-34-100 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 05/25/05
 INTERIM MEASURES PERFORMANCE MONITORING
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

Notes

1. Chromium results in micrograms per liter ($\mu\text{g/L}$), equivalent to parts per billion (ppb).
2. No groundwater elevation data available after May 4 due to transducer malfunction.
3. Data subject to review.

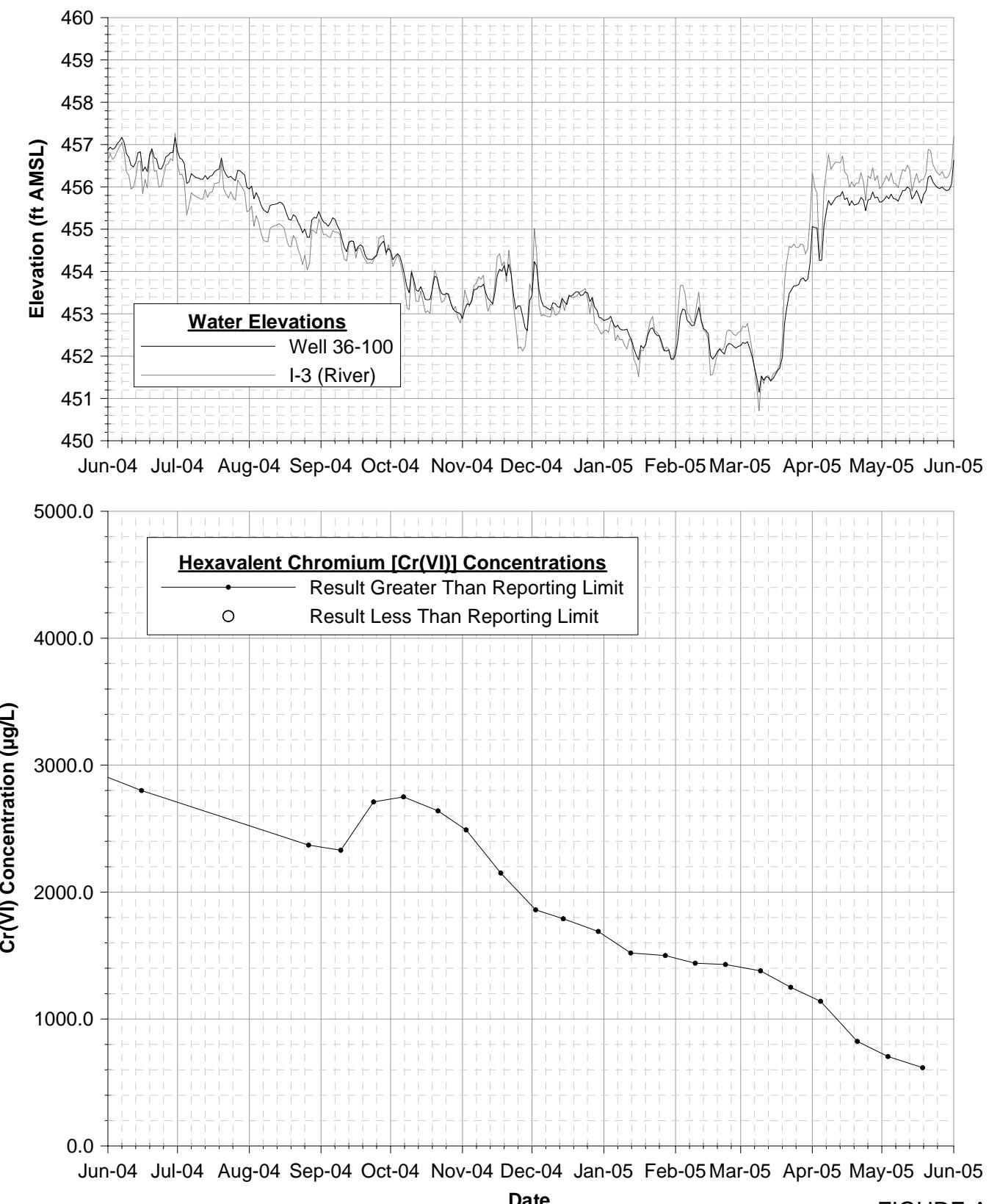


FIGURE A-3
MW-36-100 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 05/18/05

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

Notes

1. Chromium results in micrograms per liter ($\mu\text{g/L}$), 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.

Appendix B
Hydraulic Monitoring Data for Reporting Period

TABLE B-1

Monthly Average, Minimum and Maximum Groundwater Elevations, May 2005

*Interim Measures Performance Monitoring**PG&E Topock Compressor Station*

Well	Average (ft AMSL)	Minimum (ft AMSL)	Maximum (ft AMSL)	Aquifer
I-3	456.29	454.91	457.52	River Station
RRB	INC	INC	INC	River Station
MW-10	455.43	455.37	455.49	Upper zone
MW-19	455.62	455.52	455.69	Upper zone
MW-20-070	454.86	454.75	454.96	Upper zone
MW-22	454.99	454.90	455.08	Upper zone
MW-25	455.33	455.29	455.36	Upper zone
MW-26	455.12	455.07	455.18	Upper zone
MW-27-020	456.04	455.64	456.43	Upper zone
MW-28-025	456.24	455.67	456.77	Upper zone
MW-29	455.92	455.89	455.95	Upper zone
MW-30-030	455.61	455.41	455.81	Upper zone
MW-31-060	455.41	455.25	455.56	Upper zone
MW-32-020	455.52	455.35	455.68	Upper zone
MW-32-035	455.74	455.34	456.14	Upper zone
MW-33-040	455.85	455.46	456.22	Upper zone
MW-35-060	456.20	455.80	456.58	Upper zone
MW-36-020	455.79	455.24	456.30	Upper zone
MW-36-040	455.86	455.15	456.52	Upper zone
MW-39-040	455.66	455.05	456.23	Upper zone
MW-42-030	455.68	455.21	456.12	Upper zone
MW-43-025	456.19	455.44	456.94	Upper zone
MW-20-100	454.72	454.53	454.93	Middle zone
MW-27-060	456.23	455.45	456.95	Middle zone
MW-30-050	455.68	455.03	456.29	Middle zone
MW-33-090	455.91	455.43	456.37	Middle zone
MW-34-055	456.22	455.27	457.08	Middle zone
MW-36-050	455.89	455.15	456.57	Middle zone
MW-36-070	455.94	455.18	456.64	Middle zone
MW-39-050	455.55	454.96	456.10	Middle zone
MW-39-060	455.43	454.89	455.94	Middle zone
MW-39-070	455.11	454.66	455.55	Middle zone
MW-42-055	455.86	455.36	456.34	Middle zone
MW-42-065	455.97	455.47	456.52	Middle zone
MW-20-130	454.47	454.21	454.77	Lower zone
MW-27-085	456.30	455.54	457.02	Lower zone
MW-28-090	456.15	455.24	457.00	Lower zone
MW-31-135	455.14	454.86	455.43	Lower zone
MW-33-150	456.19	455.71	456.66	Lower zone
MW-33-210	456.34	455.95	456.73	Lower zone
MW-34-080	456.34	455.46	457.17	Lower zone
MW-34-100	INC	INC	INC	Lower zone
MW-35-135	455.67	455.44	455.90	Lower zone
MW-36-090	455.74	455.11	456.33	Lower zone
MW-36-100	455.89	455.26	456.48	Lower zone
MW-39-080	455.19	454.74	455.63	Lower zone
MW-39-100	455.67	455.21	456.12	Lower zone
MW-43-075	456.55	455.73	457.36	Lower zone
MW-43-090	456.84	456.02	457.64	Lower zone
PE-01	455.89	455.15	456.58	Lower zone

Notes:

INC = Incomplete or not available for reporting period

Data from PE-01 is the mean of 5/3/05 through 5/31/05 (transducer installed 5/3/05)

Data from MW-20-130 is the mean of 5/1/05 though 5/27/05 (battery failure 5/27/05)

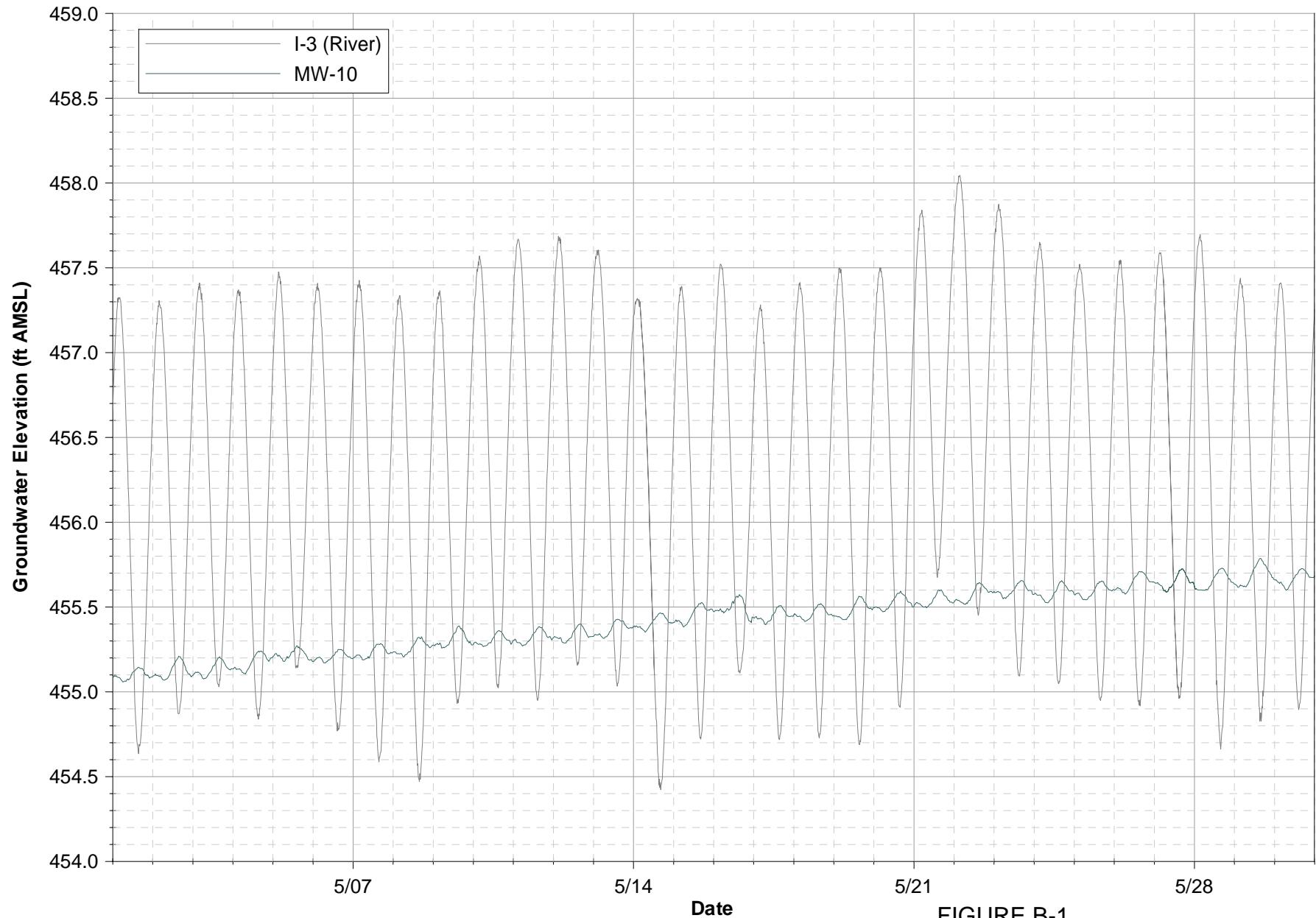
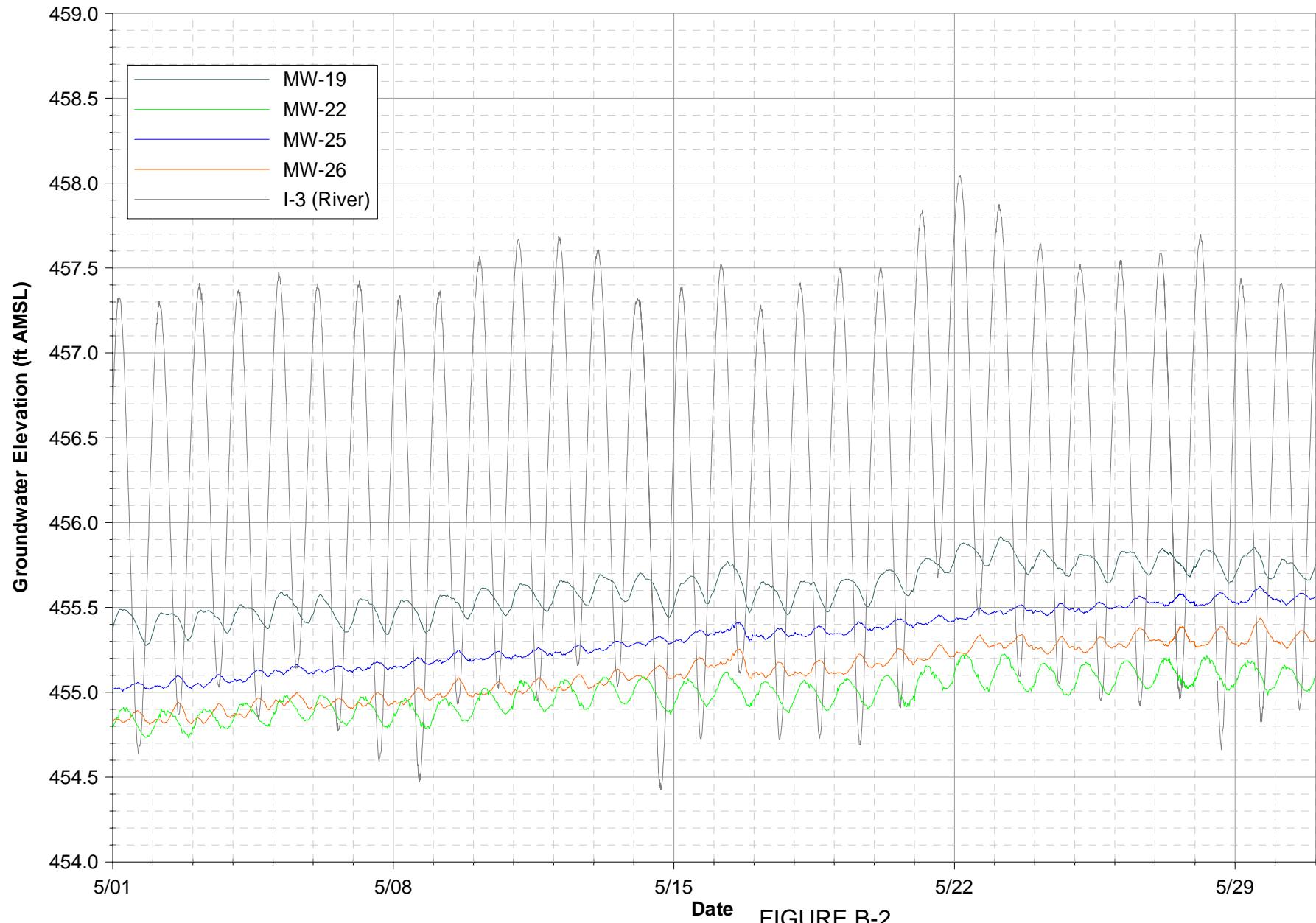


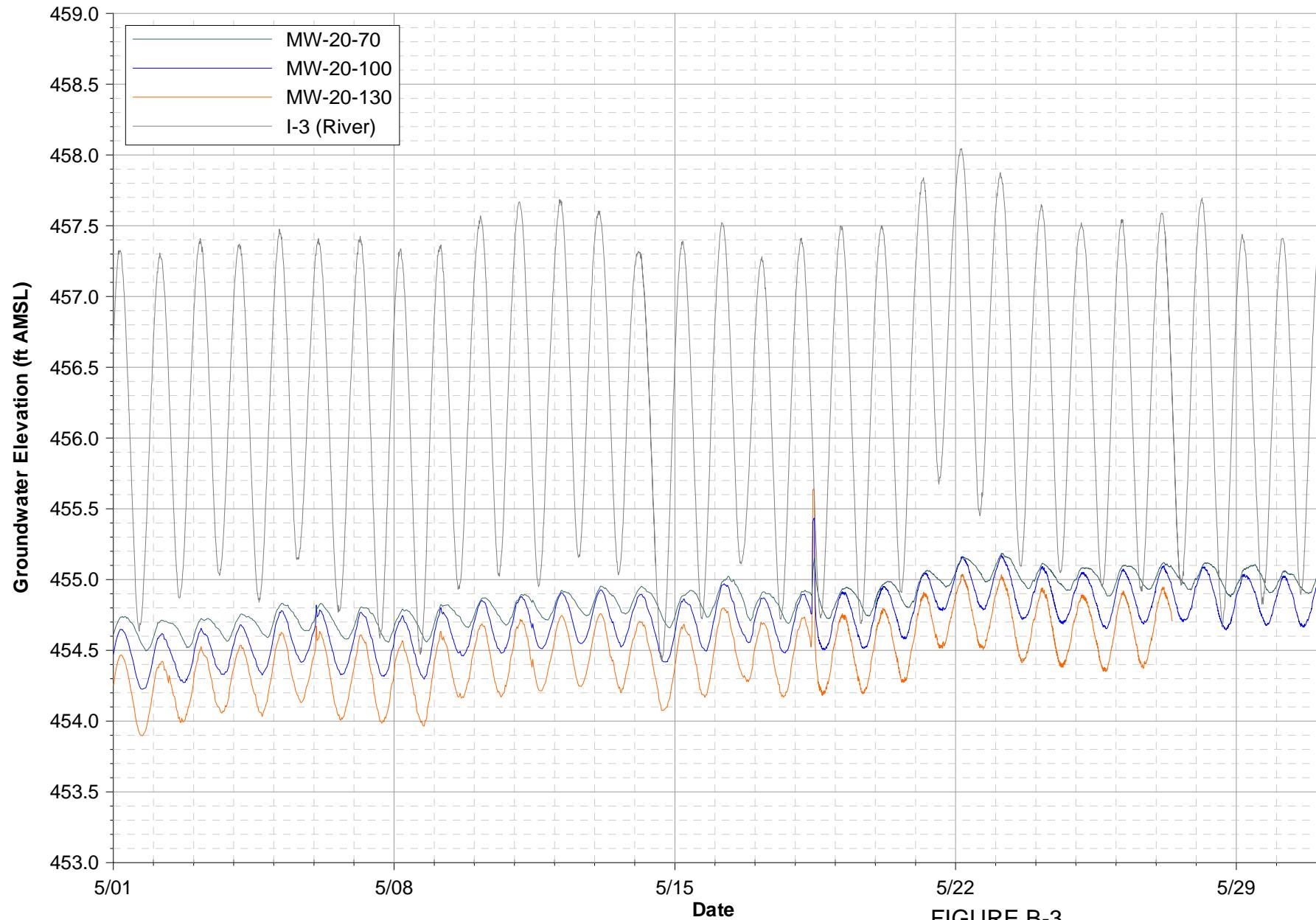
FIGURE B-1
MW-10 HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.



Note: Data subject to review.

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.
MW-20-130 data unavailable 5/27/05 through 5/31/05.

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

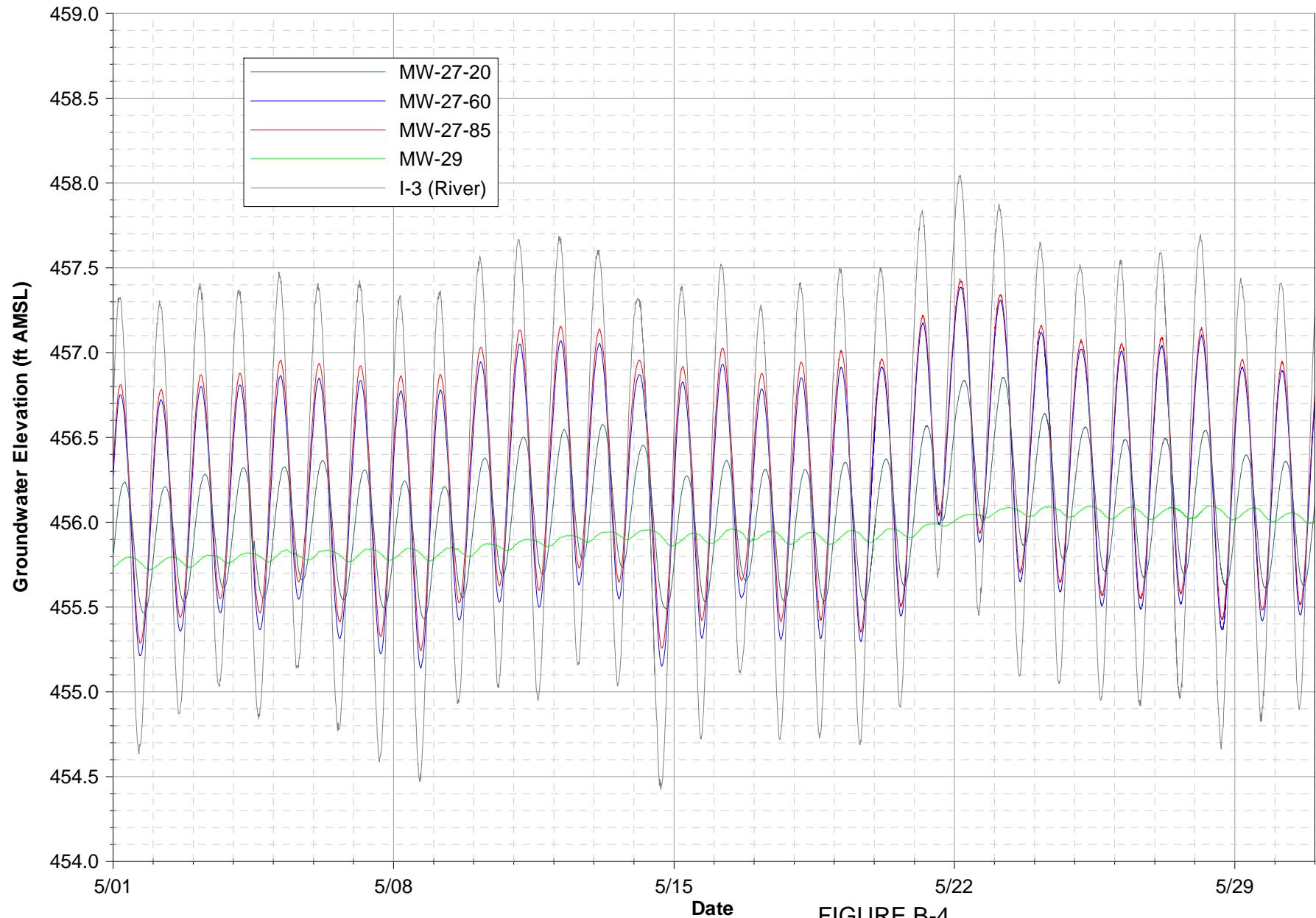
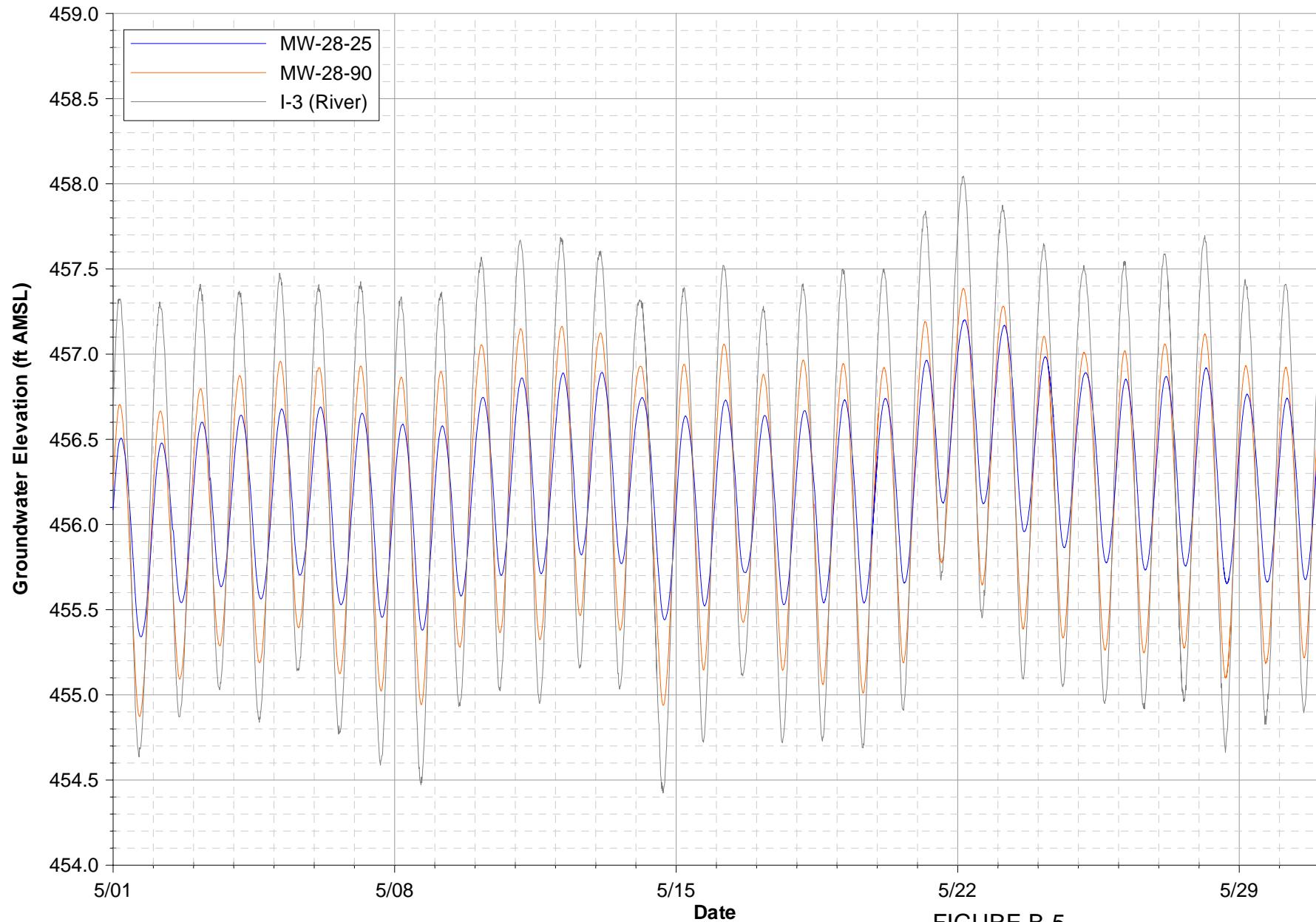


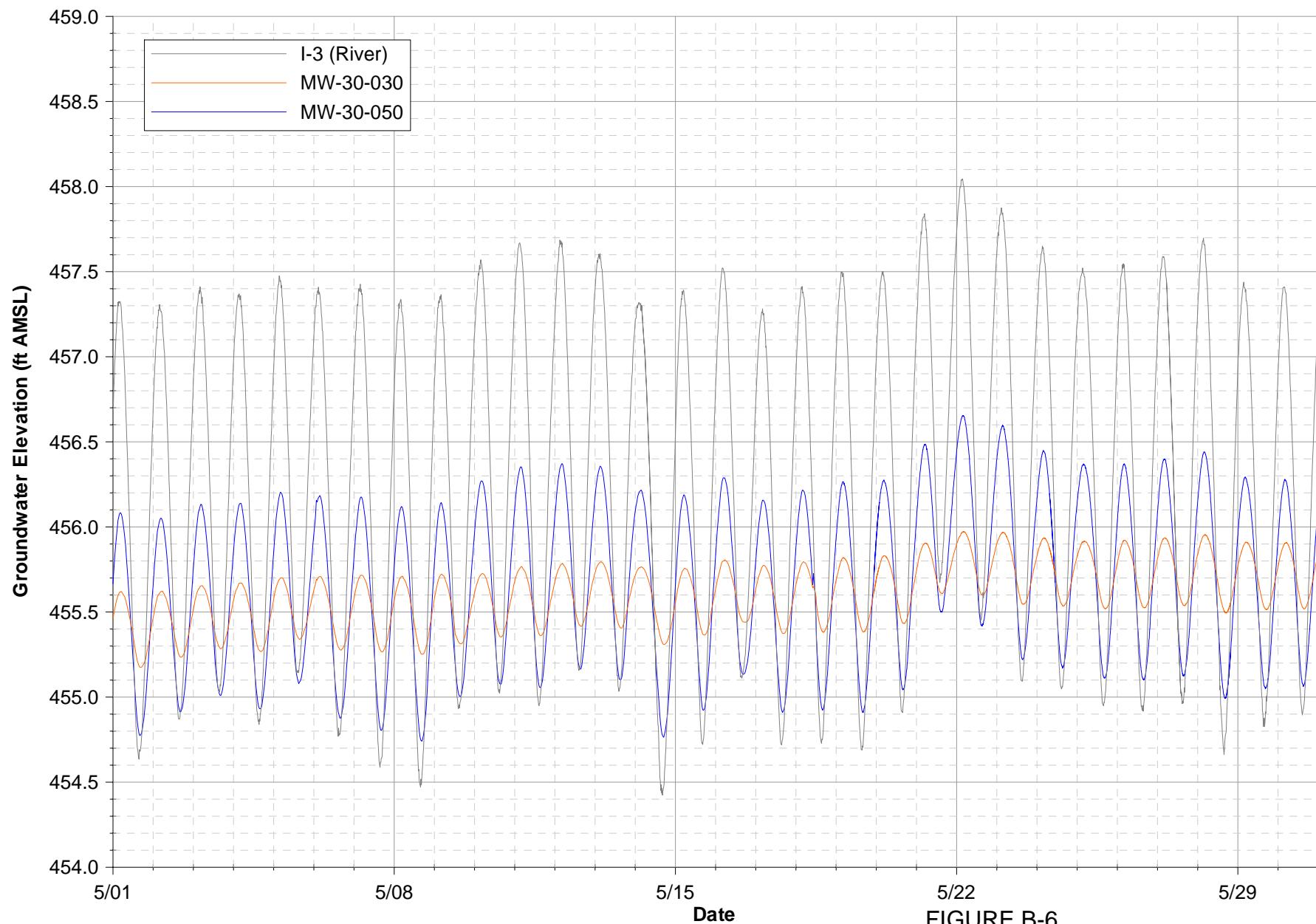
FIGURE B-4
MW-27 CLUSTER AND MW-29 HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

Note: Data subject to review.



Note: Data subject to review.

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



Note: Data subject to review.

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

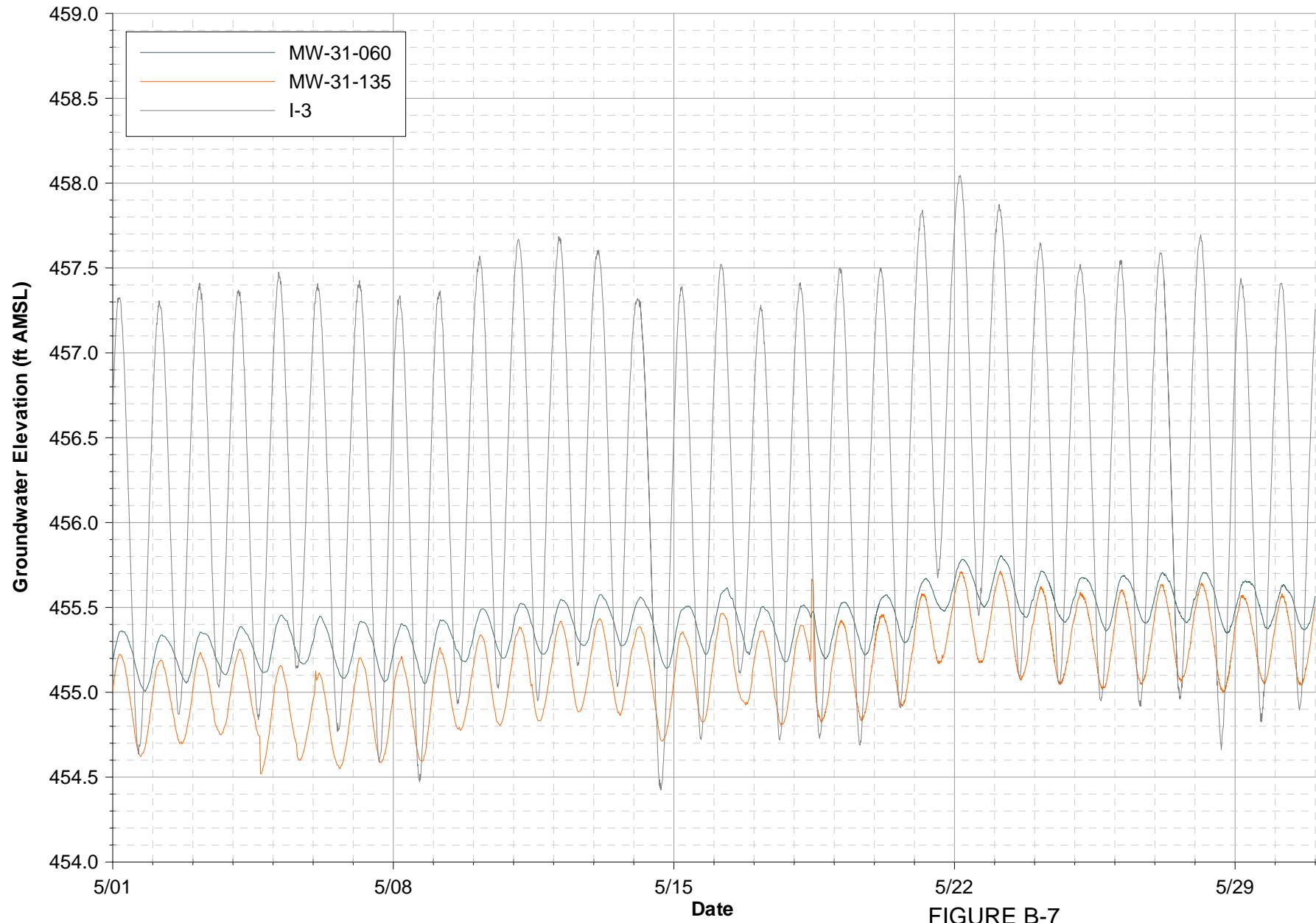
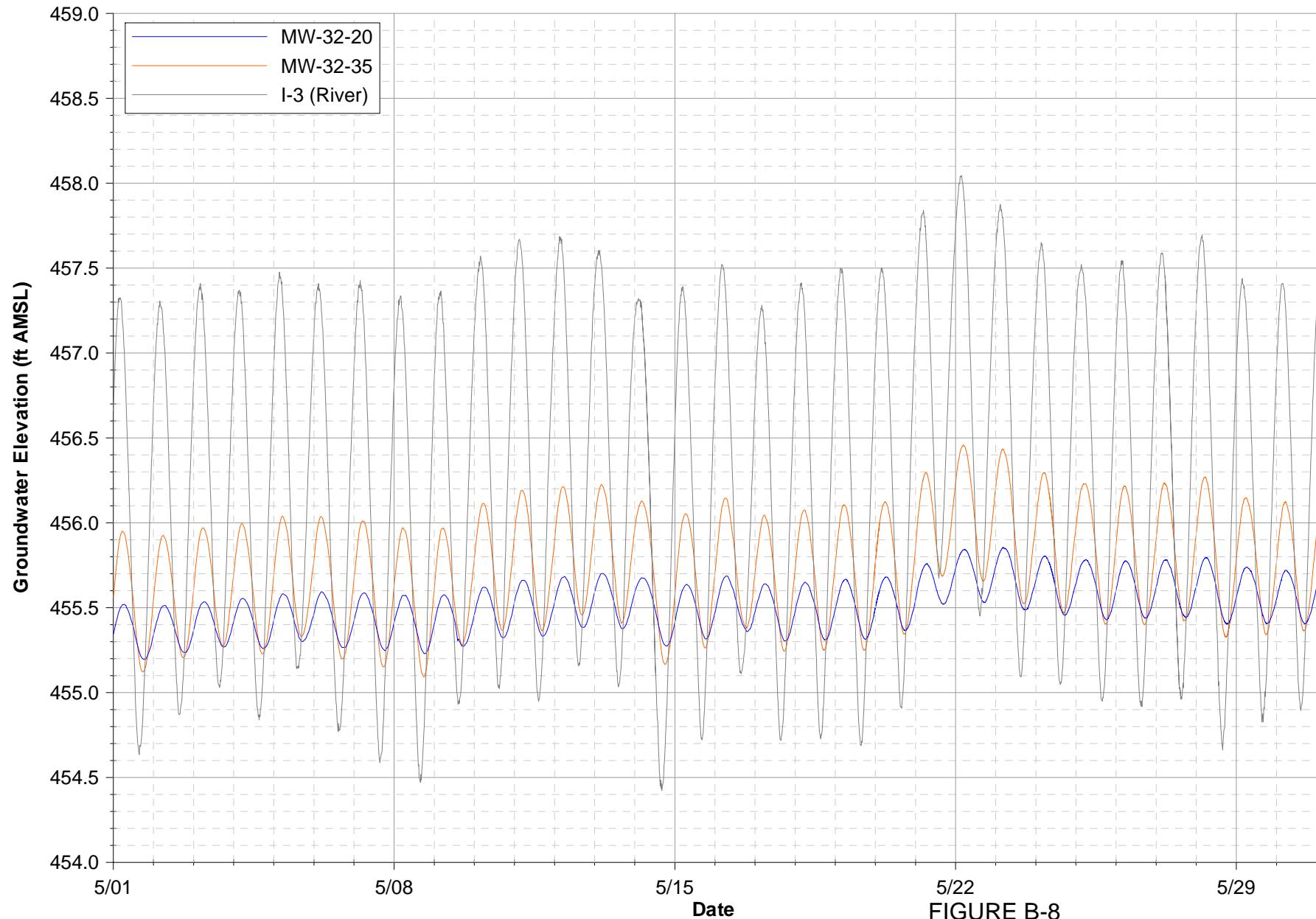


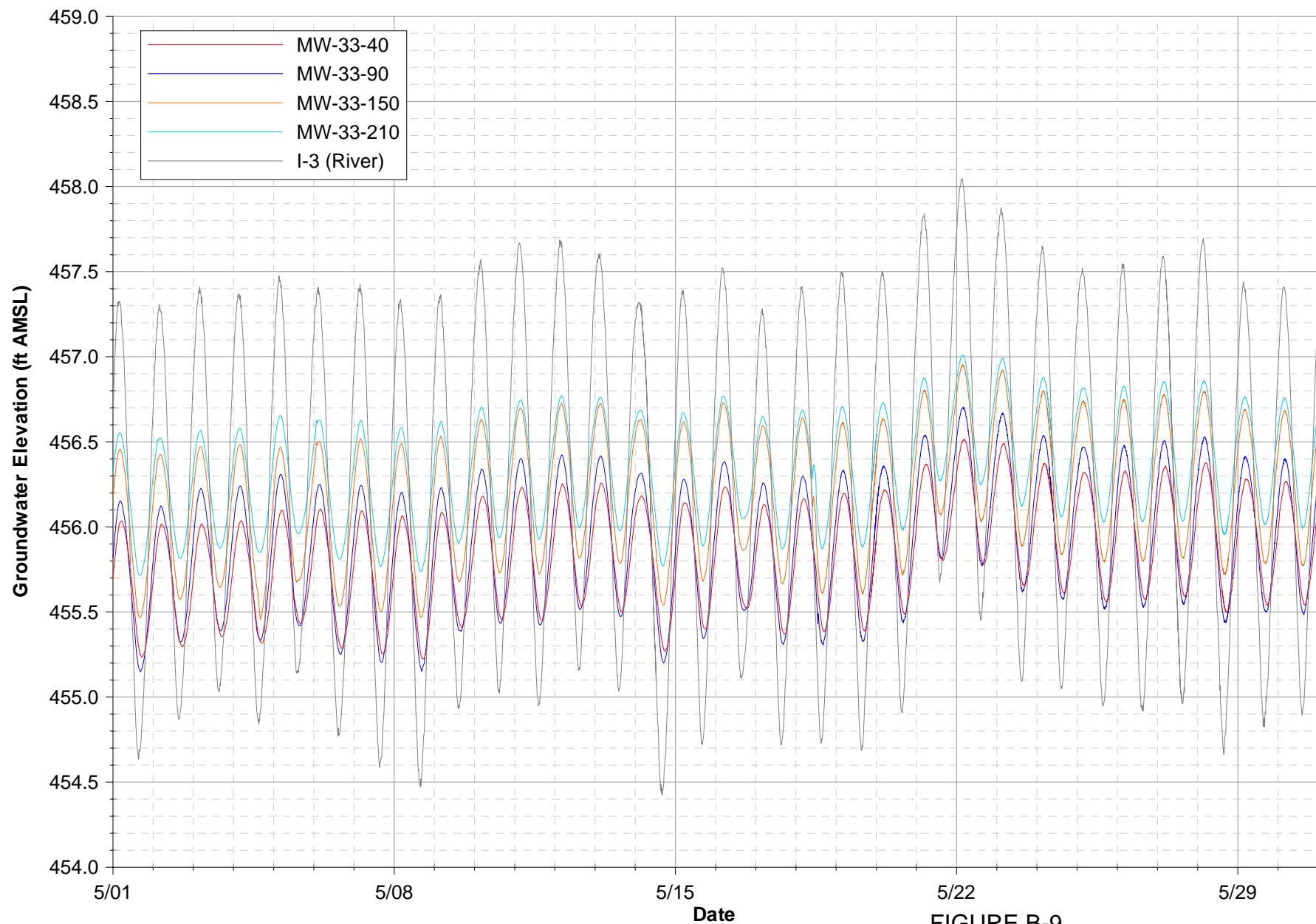
FIGURE B-7
MW-31 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.



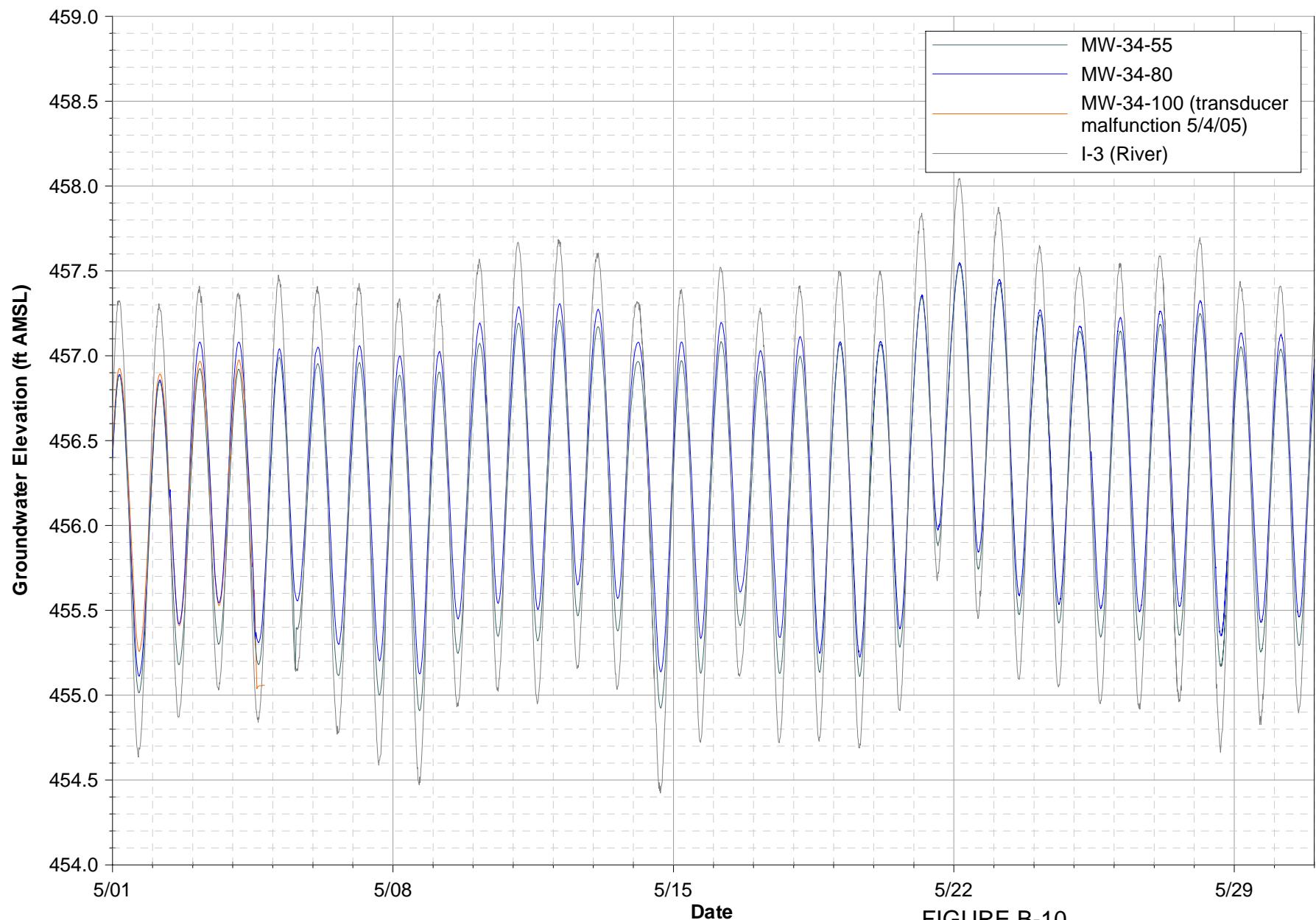
Note: Data subject to review.

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



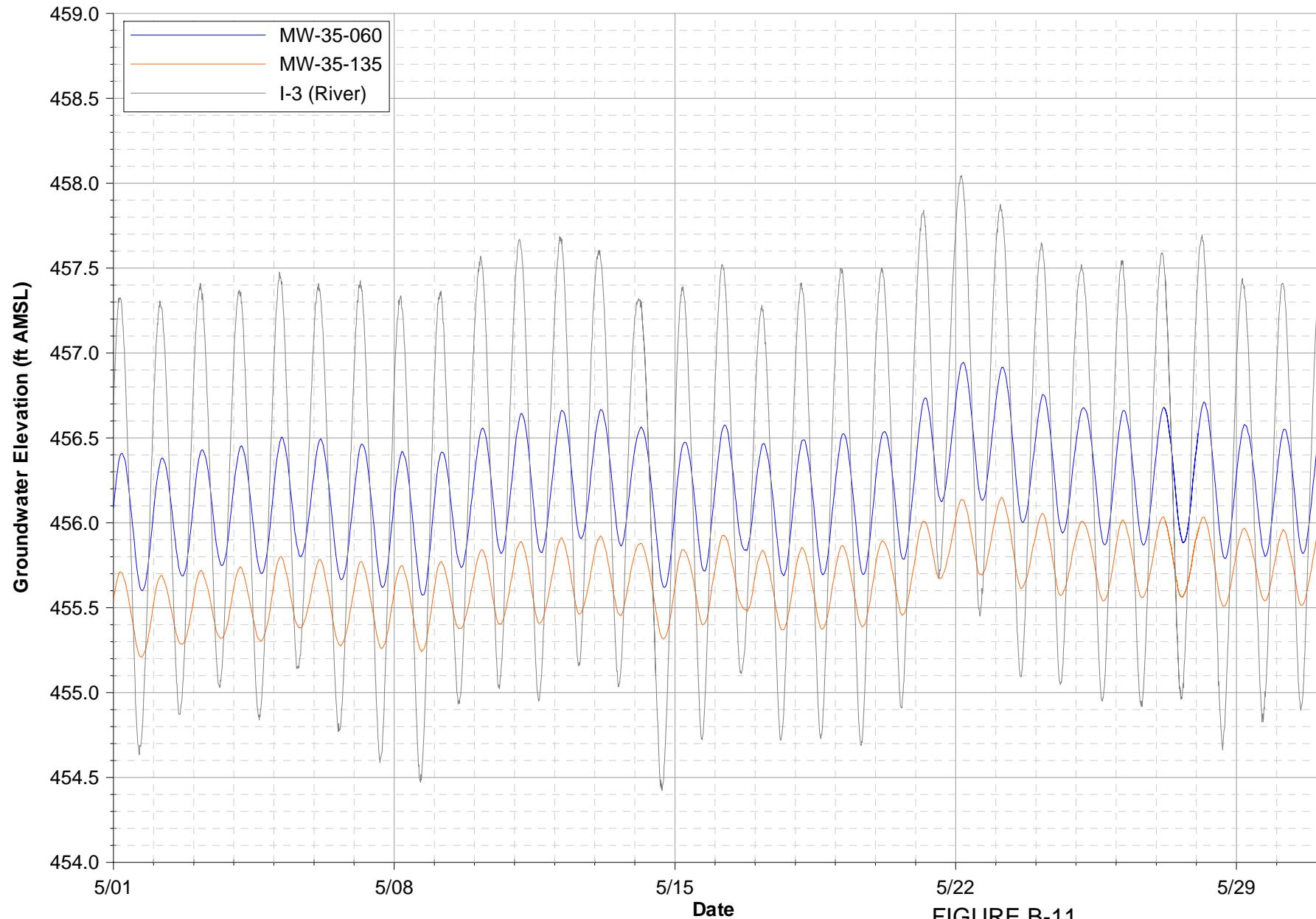
Note: Data subject to review.
MW-33-150, and MW-33-210 are new wells installed in early March, 2005

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



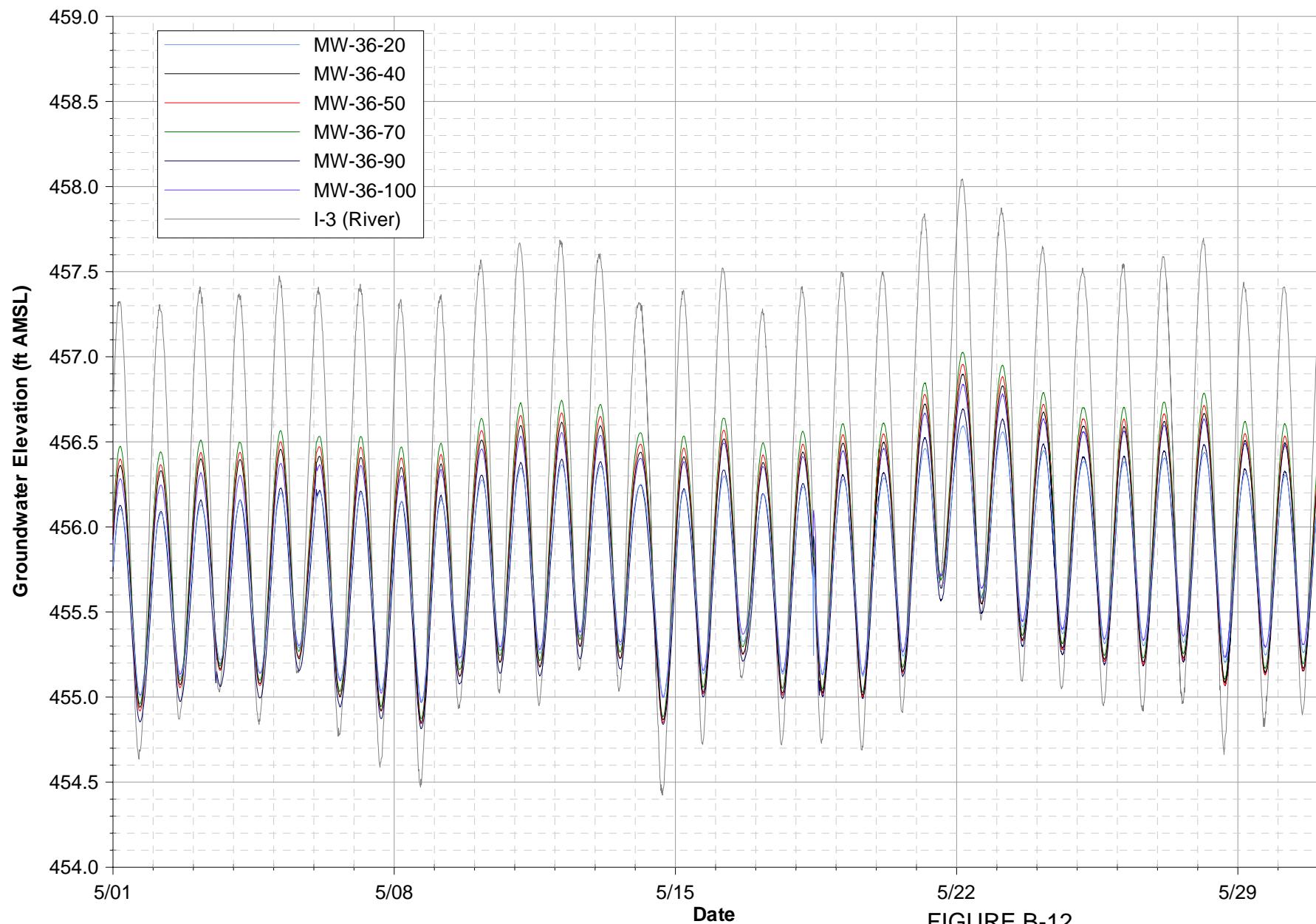
Note: Data subject to review.

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



Note: Data subject to review.

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



Note: Data subject to review.

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

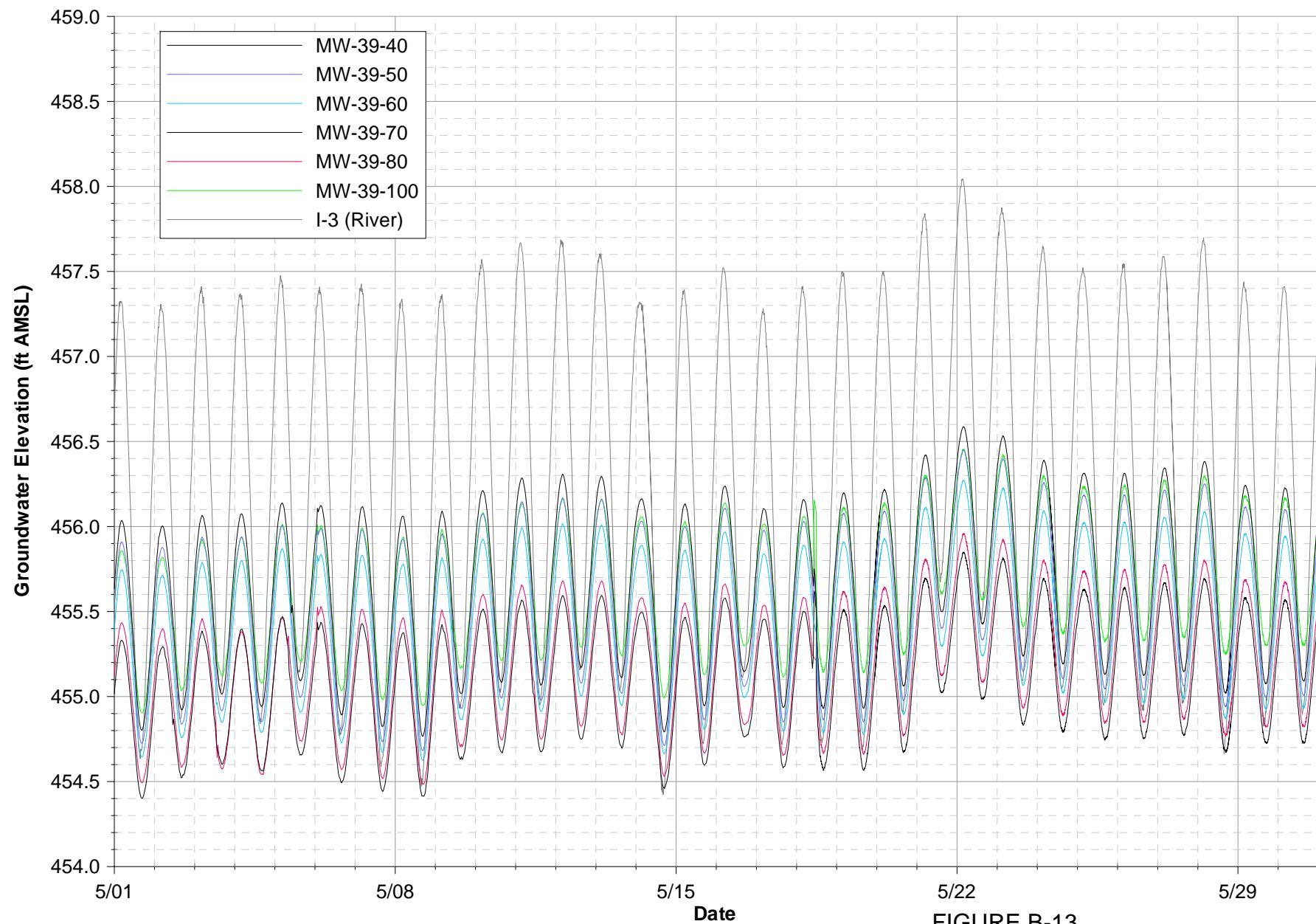
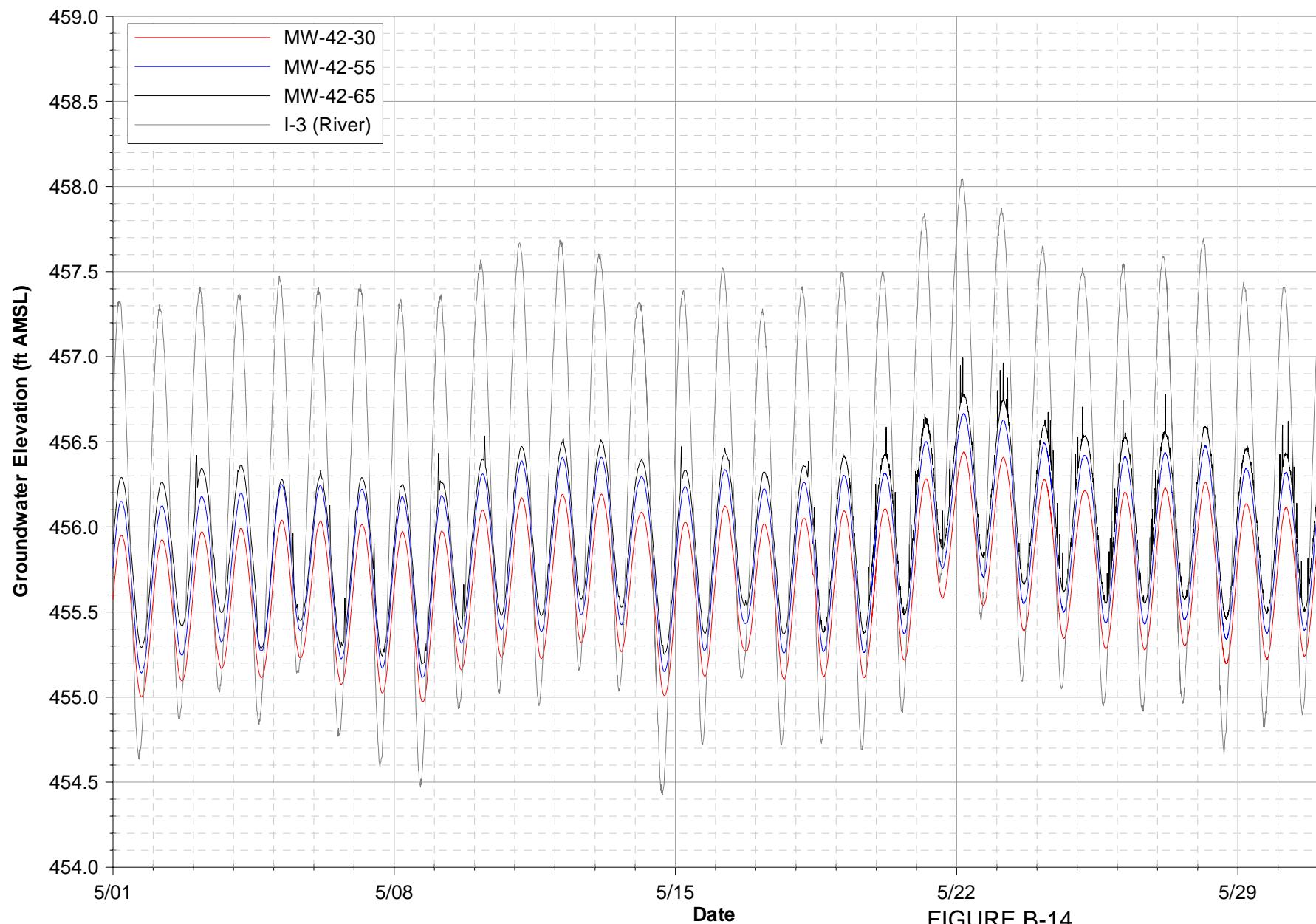


FIGURE B-13
MW-39 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



Note: Data subject to review.
MW-42 wells installed February 9, 2005

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

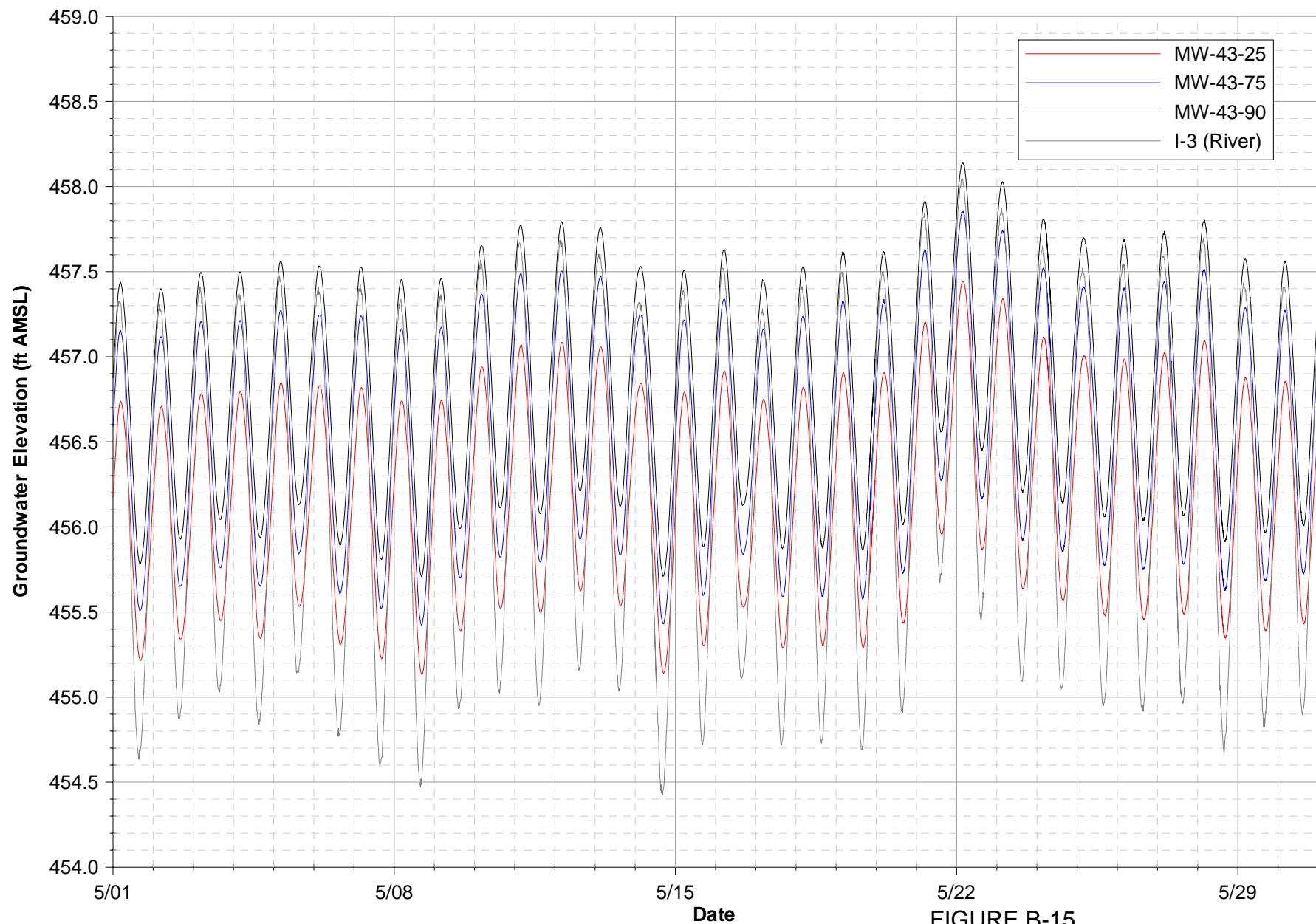


FIGURE B-15
MW-43 CLUSTER HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

Note: Data subject to review.
 MW-43 wells installed mid March, 2005