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August 1, 2006

Mr. Robert Perdue
Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
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**Subject: Board Order R7-2006-0008
PG&E Topock Compressor Station, Needles, California
Floodplain Reductive Zone In Situ Pilot Test
60-Day Status Report**

Dear Mr. Perdue:

Enclosed is the Board Order R7-2006-0008 60-Day Status Report for the Pacific Gas and Electric Company (PG&E) Topock Compressor Station, floodplain reductive zone in situ pilot test. This report is being submitted in compliance with the Waste Discharge Requirements (WDRs) issued by the Colorado River Basin Regional Water Quality Control Board (Water Board) under Board Order R7-2006-0008. WDRs under Board Order R7-2006-0008 apply to the floodplain reductive zone in situ pilot test only.

If you have any questions regarding this report, please call me at (805) 546-5243.

Sincerely,

Yvonne Meeks
Topock Project Manager

Enclosures:

Board Order R7-2006-0008 60-Day Status Report for the Floodplain Reductive Zone In Situ Pilot Test.

cc: José Cortez, Water Board
Liann Chavez, Water Board
Tom Vandenberg, Water Board
Christopher Guerre, Water Board (2 copies)

Pacific Gas and Electric Company

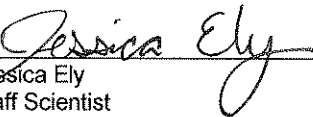
**60-Day Status Report for the
Floodplain Reductive Zone In Situ
Pilot Test**

Prepared Pursuant To

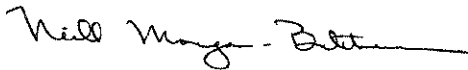
Waste Discharge Requirements
Order No. R7-2006-0008
PG&E Topock Compressor Station
San Bernardino County, California

1 August 2006


This report was prepared under the supervision of a California
licensed Professional Engineer (PE)



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**60-Day Status Report for the
Floodplain Reductive Zone In
situ Pilot Test**

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Acronyms and Abbreviations

EMAX	EMAX Laboratories, Inc.
Field Variance Report	Field Variance Report: Floodplain Hexavalent Chromium Reduction In situ Pilot Test
gpm	gallons per minute
ISPT	in situ pilot test
mg/L	milligrams per liter
MRP	Monitoring and Reporting Program
Ozark	Ozark Underground Laboratory
PG&E	Pacific Gas and Electric Company
Prosonic	Prosonic Corporation
psi	pounds per square inch
PT-1	pilot test monitoring well
PTI-1	pilot test injection well
RWQCB	California Regional Water Quality Control Board, Colorado River Basin Region
SAFPM	Sampling, Analysis, and Field Procedures Manual, PG&E Topock Program, Revision 1
S/M/D	shallow, middle, deep
STL	Severn Trent Laboratories, Inc.
TDS	Total Dissolved Solids

TOC	Total organic carbon
Truesdail	Truesdail Laboratories
USCS	United Soil Classification System
USEPA	United States Environmental Protection Agency
Work Plan	The In-situ Hexavalent Chromium Reduction Pilot Test Work Plan, Floodplain Reductive Zone Enhancement (August 2005)
Work Plan Addendum	Final Addendum to the In-situ Hexavalent Chromium Reduction Pilot Test Work Plan, Floodplain Reductive Zone Enhancement (December 5, 2005)
Work Plan Addendum 2	Addendum 2 to the In-situ Hexavalent Chromium Reduction Pilot Test Work Plan, Floodplain Reductive Zone Enhancement (April 14, 2006)

1. Introduction

Pacific Gas and Electric (PG&E) is implementing a floodplain reductive zone in situ pilot test (ISPT) to address elevated hexavalent chromium concentrations in groundwater at the Topock Compressor Station near Needles, California. The purpose of the floodplain ISPT is to evaluate the efficacy of using a food-grade reagent mixture to reduce hexavalent chromium in groundwater to form stable, insoluble trivalent chromium. The floodplain ISPT consists of injecting the reagent mixture into a well cluster (PTI-1 S/M/D) and monitoring the results in six three-level well nests (PT-1 through PT-6). Figure 1 provides a map of the PG&E Topock Compressor Station and ISPT area. (All figures are provided at the end of the report).

California Regional Water Quality Control Board, Colorado River Basin Region (RWQCB) Order No. R7-2006-0008 authorizes PG&E to inject 6,000 gallons of blended groundwater and reagent mixture into each well of injection well cluster (PTI-1 S/M/D) located in the Colorado River floodplain. Injection of the reagent mixture may occur one to four times during a six-month period for a maximum volume of injectant per well of 24,000 gallons.

The Monitoring and Reporting Program (MRP) under Order No. R7-2006-0008 requires that a status report summarizing the results collected up to Day 60 (measured from start of the first injection on May 3, 2006) of the ISPT be submitted to the RWQCB for review. This report, describing the implementation and monitoring activities related to the floodplain ISPT, satisfies that requirement.

This report is also intended to cover the first interim report as mentioned in the Work Plan. This interim report covers all activities from the commencement of field activities through Day 60 (July 2, 2006).

2. In situ Pilot Test Sampling Locations

Table 1 summarizes the well construction details of the injection well cluster (PTI-1 S/M/D) and monitoring well nests (PT-1 through PT-6). Figure 2 shows a map of the sampling locations, including extraction wells TW-2D, TW-3D, and PE-1. (All figures are provided at the end of the report).

3. Description of Activities

The procedures and the refinements to the floodplain ISPT are outlined in the following documents: *The In situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement* (Work Plan), dated August 2005, the *Final Addendum to the In situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement* (Work Plan Addendum 1), dated December 5, 2005, and the *Addendum 2 to the In situ Hexavalent Chromium Reduction Pilot Test Work Plan, Floodplain Reductive Zone Enhancement* (Work Plan Addendum 2), dated April 14, 2006. This 60-Day Status Report summarizes work completed from January through July 2, 2006 (the reporting period), as previously mentioned. During the reporting period, ARCADIS completed the well installation program, baseline sampling events, the first injection event, and daily, weekly, and the first monthly sampling events. Associated field activities were performed in accordance with these documents and the applicable procedures contained within the *Sampling, Analysis, and Field Procedures Manual, PG&E Topock Program, Revision 1* (SAFPM), except as listed in the *Field Variance Report: Floodplain Hexavalent Chromium Reduction In situ Pilot Test* (Field Variance Report), dated May 15, 2006 (Appendix A).

Sections 3.1 through 3.9 discuss the injection well and monitoring well installations, soil sampling, well development, well survey, baseline groundwater sampling, injection activities, and the post-injection sampling events, respectively.

3.1 Injection Well Installation

Prosonic Corporation of Mesa, Arizona (Prosonic) installed one injection well cluster at three intervals, shallow, middle, and deep (S/M/D), using rotosonic drilling techniques (PTI-1 S/M/D, Figure 2). During the advancement of each boring, a field geologist, under the supervision of a California Professional Geologist, recorded the lithology of the subsurface in accordance with United Soil Classification System (USCS, 1986) by observing continuous core samples retrieved from the boreholes. Soil samples were collected from PTI-1D as discussed in Sections 3.3 and 4.1.

The injection wells were constructed according to the Work Plan and Work Plan Addendum 1. After each boring was drilled to the specified depth, each injection well was constructed using 10 feet of 4-inch diameter stainless steel (0.020-inch slot) screen, extending across the selected interval. A schedule 80 PVC riser was installed from the top of the screened interval to approximately three feet above the ground surface.

The injection wells were completed with a sand pack (#2/12 sand) from the base of the boring to approximately two feet above the screen interval. A 1-foot transitional sand (#30 sand) was placed above the sand pack. A minimum 3-foot thick bentonite pellet or chip seal was placed above the transitional sand. Sand pack and seal levels were sounded with a weighted tape to assure the proper depths. Once the bentonite had set, a cement grout seal was placed from the top of the bentonite seal to the ground surface. The grout was tremied through a pipe placed near the bottom of the open annulus; this method of grouting effectively seals the well from the bentonite seal to the surface. The injection wells were completed with desert sand-colored stovepipe stick-up mounts.

Table 1 summarizes well construction details. Appendix B presents boring logs and well construction details.

3.2 Monitoring Well Installation

Prosonic installed six three-level monitoring well nests (PT-1 through PT-6) using rotosonic drilling techniques (Figure 2). During the advancement of each boring, a field geologist, under the supervision of a California Professional Geologist, recorded the lithology of the subsurface in accordance with USCS by observing continuous core samples retrieved from the boreholes. Soil samples were collected from each boring as discussed in Sections 3.3 and 4.1.

The monitoring wells were constructed according to the Work Plan and Work Plan Addendum 1. Each monitoring well nest was constructed with three separate 2-inch wells in a single borehole (PT-1 S/M/D through PT-6 S/M/D). Each monitoring well was constructed using 10 feet of 2-inch diameter PVC (0.020-inch slot) screen, extending across the selected interval. A schedule 40 PVC riser was installed from the top of the screened interval to approximately three feet above the ground surface for each of the wells in the nest.

The monitoring well nests were completed with a sand pack (#2/12 sand) from the base of the boring to approximately 2 feet above the deep well screen interval. A 1-foot transitional sand (#30 sand) was placed above that sand pack. A bentonite pellet seal was placed above the transitional sand to 2 feet below the middle well screen interval. A second sand pack was placed from 2 feet below to 2 feet above the middle well screen interval. A 1-foot transitional sand pack was placed above the second sand pack. A bentonite pellet seal was placed above the transitional sand to 2 feet below the shallow well screen interval. A third sand pack was placed from 2 feet below to

2 feet above the shallow screen interval. A 1-foot transitional sand pack was placed above the third sand pack. A minimum 3-foot thick bentonite pellet or chip seal was placed above the transitional sand. Sand pack and seal levels were sounded with a weighted tape to assure the proper depths. Once the bentonite had set, a cement grout seal was placed from the top of the bentonite seal to the ground surface. The grout was tremied through a pipe placed near the bottom of the open annulus; this method of grouting effectively seals the well from the bentonite seal to the surface. The monitoring well nests were completed with desert sand colored stovepipe stick-up mounts.

Table 1 summarizes well construction details. Appendix B presents boring logs and well construction details.

3.3 Soil Sampling

Soil samples were collected at 10-foot intervals within the saturated zone at the PTI-1D and PT-1 through PT-6 boreholes. The samples were sent to Severn Trent Laboratories (STL) in Los Angeles, California, a California-certified analytical laboratory. The samples were analyzed for hexavalent chromium (United States Environmental Protection Agency (USEPA) Method 7199), total organic carbon (TOC; USEPA Method 415.5), and percent moisture. Table 2 presents the soil analytical results and Appendix C presents the analytical laboratory reports. Section 4.1 discusses sampling procedures.

3.4 Well Development

Following a minimum 48-hour period to allow the grout to cure, Prosonic developed the wells using bailer, surging, and pumping techniques. The bailer was used to remove sediment that may have settled at the bottom of the well. Surging was used to draw sediments through the formation to distribute the materials surrounding the well and improve well efficiency. Field parameters, including pH, specific conductivity, turbidity, and temperature were monitored during purging activities. Appendix D presents the well development forms.

3.5 Well Surveying

PG&E, under the supervision of a California-licensed land surveyor, surveyed the northing and easting locations, top-of-casing, and ground surface elevation of each injection and monitoring well on March 2, 2006. The survey data are presented on Table 1.

3.6 Baseline Groundwater Sampling

Prior to injection activities, two baseline sampling events were completed as required. The baseline monitoring events were performed at the injection wells (PTI-1 S/M/D), the monitoring wells (PT-1 S/M/D through PT-6 S/M/D) and three extraction wells (TW-2D, TW-3D, and PE-1) from March 13 to March 18 and April 3 to April 7, 2006. Groundwater samples from each well were analyzed for hexavalent chromium (USEPA Method 7199) by Truesdail Laboratories (Truesdail); fluorescein (in-house method) by Ozark Underground Laboratory (Ozark); iodide (USEPA Method 300) by STL, in St. Louis, Missouri; total chromium, dissolved and total iron, manganese, calcium, magnesium, arsenic, potassium, sodium (USEPA Method 6010B), nitrate, nitrite, sulfate, carbonate, bicarbonate alkalinity, chloride, bromide, phosphorous (USEPA Method 300), TOC (USEPA Method 415.5), and sulfide (USEPA Method 376.1) by EMAX Laboratories, Inc. (EMAX). Samples were collected, labeled, and packaged according to the SAFPM.

Tables 2, 3, and 4 present the groundwater sampling field parameters and analytical results, respectively. Calibration logs for field-monitoring instruments are included in Appendix E. Groundwater sampling logs are included in Appendix F. All groundwater analytical laboratory reports have been submitted in previous monthly compliance reports (dated April 15, May 15, June 15, and July 14, 2006).

3.7 Injection Activities

On May 3, 2006, ARCADIS began injection activities. Injections were completed in wells PTI-1S, PTI-1M, and PTI-1D on May 4, May 5, and May 6, 2006, respectively. Each well was injected with 6,000 gallons of injection solution. The injection solution consisted of 50 pounds of sodium lactate, 14 pounds of yeast extract, and water as stipulated in the Work Plan and Work Plan Addenda 1 and 2. Each batch of injection solution was mixed with a tracer compound. PTI-1S injection solution was mixed with approximately 0.33 pounds of fluorescein dye tracer (5 milligrams per liter [mg/L]), PTI-1M injection solution was mixed with approximately 129 pounds of sodium bromide tracer (2,000 mg/L of bromide), and PTI-1D injection solution was mixed with approximately 131 pounds of potassium iodide tracer (2,000 mg/L of iodide). The injections were performed in accordance with Board Order No. R7-2006-0008. The water used for the injection solution was blended treated water from the IM-3 water treatment plant, located on-site, with a total dissolved solid (TDS) concentration of approximately 1,000 mg/L. The injection rate of the injection solution was approximately 22.9 gallons per minute (gpm) at a pressure of 2 to 4 pounds per square

inch (psi) for PTI-1S, approximately 51.7 gpm at a pressure of 9 psi for PTI-1M, and approximately 52.4 gpm at a pressure of 2 psi for PTI-1D.

In situ Troll® 9000 multi-parameter instruments were placed in monitoring wells PT-3 S/M/D intervals May 3 through May 7, 2006, to evaluate hydraulic connections between wells during the event. It was noted that injections into each interval at PTI-1 S/M/D affected the hydraulic heads in all intervals at PT-3 S/M/D. Maximum displacement at the PT-3 nest occurred approximately 25 minutes after the start of each injection.

The make-up water for the injection solution was sampled and analyzed for hexavalent chromium (Truesdail), iodide, TOC (methods previously listed), and TDS (USEPA Method 160.1) by EMAX. All three batches of injection solution were sampled and analyzed for the above constituents as well as fluorescein (in-house method, by Ozark).

3.8 Post-Injection Sampling Activities

During the period of the injections (May 3 through May 6, 2006), sampling for tracers (fluorescein, bromide, and iodide), hexavalent chromium, and TOC (methods previously listed) was conducted at selected wells. This sampling was in addition to the required MRP sampling.

The planned daily post-injection sampling events were performed from May 7 to May 12, 2006 (Days 1 through 6; post injection). During this daily sampling, the three injection wells (PTI-1 S/M/D) were sampled for fluorescein, bromide, iodide, hexavalent chromium, and TOC (methods previously listed) as planned, except on Day 2 when logistical constraints prevented these wells from being sampled as detailed in the Field Variance Report (Appendix A). Similarly, the nine monitoring wells (PT-1 S/M/D, PT-3 S/M/D, and PT-4 S/M/D) were sampled for fluorescein, bromide, iodide, and hexavalent chromium (methods previously listed) during the daily sampling as planned, except on Days 1 and 2 (Appendix A).

In accordance with the MRP, nine monitoring wells (PT-1 S/M/D, PT-3 S/M/D, and PT-4 S/M/D) were also sampled on Day 3 for total chromium, dissolved and total iron, manganese, calcium, magnesium, arsenic, potassium, sodium, nitrate, nitrite, sulfate, carbonate and bicarbonate alkalinity, chloride, bromide, phosphorous, sulfide, TOC, and TDS (methods previously listed).

Week 1 post-injection sampling event was performed on May 13, 2006. The injection wells (PTI-1 S/M/D) were sampled for fluorescein, bromide, iodide, and TOC. Monitoring wells (PT-1 S/M/D, PT-3 S/M/D, PT-4 S/M/D, and PT-6 S/M/D) were sampled for fluorescein, bromide, iodide, hexavalent chromium, total chromium, dissolved and total iron, manganese, calcium, magnesium, arsenic, potassium, sodium, nitrate, nitrite, sulfate, carbonate and bicarbonate alkalinity, chloride, bromide, phosphorous, TOC, and sulfide (methods previously listed).

Week 2 post-injection sampling event was performed from May 22 through May 25, 2006. The injection wells (PTI-1 S/M/D) were sampled for fluorescein, bromide, iodide, and TOC. Monitoring wells (PT-1 S/M/D, PT-2 S/M/D, PT-3 S/M/D, PT-4 S/M/D, and PT-6 S/M/D) were sampled for fluorescein, bromide, iodide, hexavalent chromium, total chromium, dissolved and total iron, nitrate, nitrite, sulfate, manganese, and TOC (methods listed above).

Week 3 post-injection sampling event was performed from May 30 through June 1, 2006. Injection wells (PTI-1 S/M/D) were sampled for fluorescein, bromide, iodide, and TOC. Monitoring wells (PT-1S, PT-1 S/M/D, PT-2 S/M/D, PT-3 S/M/D, PT-5 S/M/D, and PT-6 S/M/D) and extraction well (PE-1) were sampled for fluorescein, bromide, iodide, hexavalent chromium, total chromium, dissolved and total iron, nitrate, nitrite, sulfate, manganese, sulfide, and TOC (methods listed above).

Month 1 post-injection sampling event was performed from June 5 through June 8, 2006. Injection wells (PTI-1 S/M/D) were sampled for fluorescein, bromide, iodide and TOC. Monitoring wells (PT-1S, PT-1 S/M/D, PT-2 S/M/D, PT-3 S/M/D, PT-4 S/M/D, and PT-6 S/M/D) were sampled for fluorescein, bromide, iodide, hexavalent chromium, total chromium, dissolved and total iron, nitrate, nitrite, sulfate, manganese, sulfide, TOC calcium, magnesium, arsenic, potassium, sodium, carbonate, bicarbonate alkalinity, chloride, and phosphorous (methods previously listed).

Samples were collected, labeled and packaged according to the SAFPM. Tables 2, 3, and 4 present the groundwater sample field parameters and analytical results. Groundwater sampling logs are included in Appendix F. All groundwater analytical laboratory reports have been submitted in previous monthly compliance reports (dated April 15, May 15, June 15, and July 14, 2006).

In addition to the required sampling under the groundwater monitoring program, pressure transducers were deployed in monitoring wells PT-2 S/D, PT-5 S/D, and PT-6 S/D from April 7 through May 2, 2006, to monitor groundwater levels across the

area of the floodplain ISPT prior to the start of injections. Data from April 7 through 13, 2006 were combined with data from the Interim Measures performance monitoring for this period to produce figures depicting average groundwater elevations for the shallow and deep portions of the aquifer in the floodplain area (Appendix H).

3.9 Investigation Derived Wastes

Investigation-derived waste (IDW) soil from the roto sonic drilling effort was temporarily stored on-site in phase separators located nearby on Bench 20. The IDW water was later transported to IM-3 for treatment prior to injections. Soil samples were collected from each phase separator for characterization. Soil was characterized as non-hazardous and transport to Chemical Waste Management for disposal. The storage of the IDW soil and water was in compliance with the SAFPM. PG&E was responsible for the final disposal.

4. Sampling and Analytical Procedures

The following sections discuss the sampling procedures for soil and groundwater.

4.1 Soil Sampling Procedures

Soil samples were collected at 10-foot intervals within the saturated zone at the PTI-1D and PT-1 through PT-6 boreholes. ARCADIS field personnel took soil grab samples at the selected soil intervals. The samples were analyzed for hexavalent chromium, TOC, and percent moisture and sent to STL-Los Angeles. Table 2 presents the soil analytical results and Appendix C presents the analytical laboratory reports.

4.2 Groundwater Sampling Procedures

Groundwater sampling, and associated tasks, were performed in accordance with the applicable procedures contained in the SAFPM, with exceptions detailed in the Field Variance Report (Appendix A).

Prior to groundwater sampling, the depth to water was recorded for each well. These data were used to evaluate the volume of standing water in the well. The wells were purged using an Enviro-Tech ES-60 Whaler pump or a WaTerra® purge pump with dedicated polyethylene tubing. Purging continued until 3 casing volumes had been removed. Due to logistical considerations during the Day 1 through Day 6 and Week 1 sampling events, the injection wells were sampled using low-flow techniques with bladder pumps (Appendix A). Field parameters such as pH, specific conductance, temperature, color, odor, and depth to water were recorded (Table 2) while the wells were purged. After completion of purging, groundwater samples were collected into the appropriate containers.

The samples were stored in coolers at 4 degrees Celsius and transported to Truesdail, EMAX, STL, and Ozark via a courier service under Chain-of-Custody documentation. Truesdail, EMAX, and STL are certified by the California Department of Health Services (Certification #1247, #02116CA, and #2496, respectively) under the State of California's Environmental Laboratory Accreditation Program.

Analyses were performed in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136), or equivalent methods promulgated by the USEPA.

Field parameters are summarized in Table 2 and sample analytical results are summarized in Tables 3 and 4. Sampling logs are presented in Appendix F.

5. Analytical Results

Laboratory reports prepared by the certified analytical laboratories are presented in Appendix G. Summaries of primary parameters and secondary parameters are presented in Tables 3, and 4, respectively. The following sections discuss flow patterns, geochemical patterns and ISPT reporting variances, respectively.

5.1 Flow Patterns

The analytical results of post-injection sampling indicate that the injected tracers and TOC arrived at the PT-1 and PT-3 monitoring well nests within three days of completing the injections on May 3 through 6 (Table 4). In addition, the tracers and elevated TOC were observed at the PT-2 monitoring well nest during its first post-injection sampling at the end of Week 2. The arrival of the tracers is indicative of the injection solution distribution. Elevated TOC concentrations are also indicative of injection solution distribution, but may be affected by slight retardation in the aquifer and microbial degradation.

The data also provide additional demonstration that groundwater is captured by the on-site extraction system. Only the monitoring wells located west of the injection wells and towards the primary extraction well TW-3D (PT-1D, PT-2D, and PT-3D) had elevated levels of TOC and consistent detections of tracers. Conversely, wells PT-4, PT-5 and PT-6 (located east of the injection well) did not have significant detections of elevated TOC or tracers. Additionally, recent water level data indicate that groundwater across the pilot test area (both east and west of the injection well) would be captured by one of the extraction wells. Groundwater elevations for all depth intervals indicate a strong landward hydraulic gradient throughout the floodplain, according to the *Performance Monitoring Report for May 2006 Interim Measures Performance Monitoring Program* (CH2M Hill, dated June 21, 2006).

5.2 Geochemical Patterns

Indications of reducing conditions and the start of hexavalent chromium reduction have been noted in PTI-1D, PT-1D, and PT-2D. Indications of reducing conditions include a decrease in nitrate concentrations, an increase in iron concentrations, and slight increases in manganese and arsenic concentrations (Tables 4 and 5); however, more data are needed to make an accurate determination of temporal trends. Additional data trends will be assessed, as more data become available.

5.3 ISPT Reporting Variances

During the daily and Week 1 sampling events thirty-four samples and during Week 2 sampling event one sample collected for hexavalent chromium analysis at an off-site laboratory were analyzed outside the USEPA-recommend 24-hour holding time; however, because the samples holding time exceedances were minor, it is unlikely that significant losses of target analytes occurred and the results are considered usable for assessing groundwater concentrations for the purposes of the pilot test. ARCADIS and Truesdail have taken measures to reduce the chances of hold time exceedances. During the daily and Week 1 sampling events, six samples were collected for hexavalent chromium to be analyzed on-site at the IM-3 laboratory; however due to the large number of samples and IM-3 operational demands, these samples were not analyzed. During Week 2, corrective measures were implemented to minimize the likelihood of additional missed field hexavalent chromium analyses. In particular, a technician specifically dedicated to analyzing the pilot test samples has been assigned to the IM-3 laboratory. These variances are not expected to materially affect the ISPT results, or to affect the interpretation of the ISPT data. The Field Variance Report (Appendix A) references the interruptions and other variances during the daily and Week 1 sampling events.

6. Conclusions

This report summarizes the ISPT results through the first 60 days following injection, which included the well installation and associated activities, baseline sampling, the first injection event and daily, weekly and the first monthly post-injection sampling events. Indications of reducing conditions and the start of hexavalent chromium reduction are noted in PTI-1D, PT-1D, and PT-2D; however, longer-term data is needed to make an accurate determination of temporal trends. Data trends will be evaluated as more data become available.

7. Certification

PG&E submitted a signature delegation letter to the RWQCB on July 5, 2006. The letter delegated PG&E's signature authority to Mr. Curt Russell and Ms. Yvonne Meeks.

Certification Statement:

I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Signature: 

Name: Yvonne Meeks

Company: PG&E

Title: Project Manager

Date: August 1, 2006

Table 1
Boring and Well Construction Detail Summary

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Well or Boring Designation	Date Completed	Aquifer Zone	Ground Elevation* (feet msl)	TOC Elevation** (feet msl)	Total Depth of Boring (feet bgs)	Casing Diameter (inches)	Boring Diameter (inches)	Well Completion Depth (feet bgs)	Well Completion Elevation (feet msl)	Screen Depth Interval (feet bgs)	Screen Elevation Interval (feet msl)	Sand Pack Depth Interval (feet bgs)	Sand Pack Elevation Interval (feet msl)	Bentonite Depth Interval (feet bgs)	Bentonite Elevation Interval (feet msl)	Well Permit Number	Distance From PTI-1 (feet)	Latitude	Longitude
PT-1S	31-Jan-06	S	472.239	474.644	125	2	10	45	430	35-45	440-430	32-47	443-428	28-32	447-443	2006010013	20	34° 43' 10.3"	114° 29' 25.8"
PT-1M	31-Jan-06	M	472.239	474.622	125	2	10	70	405	60-70	415-405	57-72	428-403	46-57	429-418	2006010013	23	34° 43' 10.3"	114° 29' 25.8"
PT-1D	31-Jan-06	D	472.239	474.627	125	2	10	105	370	95-105	380-370	92-125	383-350	72-92	403-383	2006010013	24	34° 43' 10.3"	114° 29' 25.8"
PT-2S	8-Feb-06	S	471.627	473.487	127	2	10	45	428	35-45	438-428	32-47	441-426	28-32	445-441	2006010012	45	34° 43' 10.3"	114° 29' 26.1"
PT-2M	8-Feb-06	M	471.627	473.587	127	2	10	70	404	60-70	414-404	57-72	423-402	46-57	428-417	2006010012	47	34° 43' 10.3 "	114° 29' 26.1"
PT-2D	8-Feb-06	D	471.627	473.522	127	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010012	49	34° 43' 10.3"	114° 29' 26.1"
PT-3S	14-Feb-06	S	471.698	473.584	129	2	10	45	429	35-45	439-429	32-47	442-427	28-32	446-442	2006010011	12	34° 43' 10.2"	114° 29' 25.6"
PT-3M	14-Feb-06	M	471.698	473.520	129	2	10	70	404	60-70	414-404	57-72	427-402	46-57	428-417	2006010011	15	34° 43' 10.2"	114° 29' 25.6"
PT-3D	14-Feb-06	D	471.698	473.525	129	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010011	13	34° 43' 10.2"	114° 29' 25.6"
PT-4S	12-Feb-06	S	471.79	474.430	127	2	10	45	429	35-45	439-429	32-47	442-427	28-32	446-442	2006010010	27	34° 43' 10.1"	114° 29' 25.4"
PT-4M	12-Feb-06	M	471.79	474.331	127	2	10	70	404	60-70	414-404	57-72	423-403	46-57	428-417	2006010010	29	34° 43' 10.1"	114° 29' 25.4"
PT-4D	12-Feb-06	D	471.79	474.299	127	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010010	24	34° 43' 10.1"	114° 29' 25.4"
PT-5S	10-Feb-06	S	471.262	473.611	127	2	10	45	429	35-45	439-429	32-47	442-427	28-32	446-442	2006010009	54	34° 43' 10.1"	114° 29' 25.0"
PT-5M	10-Feb-06	M	471.262	473.630	127	2	10	70	404	60-70	414-404	57-72	427-402	46-57	428-417	2006010009	53	34° 43' 10.2"	114° 29' 25.0"
PT-5D	10-Feb-06	D	471.262	473.625	127	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010009	49	34° 43' 10.2"	114° 29' 25.0"
PT-6S	28-Jan-06	S	474.441	475.981	137	2	10	45	431	35-45	441-431	32-47	444-429	28-32	448-444	2006010008	27	34° 43' 10.6"	114° 29' 25.4"
PT-6M	28-Jan-06	M	474.441	476.025	137	2	10	70	406	60-70	416-406	57-72	425-404	46-57	430-419	2006010008	23	34° 43' 10.6"	114° 29' 25.4"
PT-6D	28-Jan-06	D	474.441	476.013	137	2	10	105	371	95-105	381-381	92-137	384-339	72-92	444-384	2006010008	25	34° 43' 10.6"	114° 29' 25.4"
PTI-1S	28-Jan-06	S	472.751	475.035	47	4	10	45	430	35-45	440-430	32-47	443-428	28-32	447-443	2006010006	0	34° 43' 10.4"	114° 29' 25.5"
PTI-1M	26-Jan-06	M	472.938	475.087	77	4	10	70	405	60-70	415-405	57-72	428-403	46-57	429-418	2006010007	0	34° 43' 10.4"	114° 29' 25.6"
PTI-1D	26-Jan-06	D	472.573	474.762	137	4	10	105	370	95-105	380-370	92-137	383-338	72-92	403-383	2006010005	0	34° 43' 10.4"	114° 29' 25.6"
TW-2D	1-Apr-04	D	496.932	496.932	180	6	12	153	344	113-148	384-349	108-153	389-344	153-180, 101-108	344-317, 396-394	-	205	34° 43' 10.3"	114° 29' 28.0"
TW-3D	24-Oct-05	D	497.415	497.415	157	6	10	153	344	111-156	386-341	105-157	392-340	50-105	447-392	-	217	34° 43' 10.2"	114° 29' 28.1"
PE-1	2-Mar-05	D	466.879	496.549	105	6	10	110	387	79-89	418-408	76-99	421-398	99-105, 72-76	398-425, 392-421	2005101057	296	34° 43' 9.3"	114° 29' 22.2"

Notes:

- feet bgsFeet below ground surface
- feet mslFeet mean sea level
- PTI-Pilot test injection well
- PT-Pilot test monitoring well
- SShallow
- MMiddle
- DDeep
- TOCTop of casing
- *Elevations are in feet, North American Vertical Datum of 1988 (NAVD 88), NGS data sheet EU0763.
- **Reference elevation
- Not available

Table 2
Summary of Soil Analytical Results
PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Depth (ft bgs)	Hexavalent Chromium (mg/kg)	Total Organic Carbon (%)	Percent Moisture (%)
PT-1	31-Jan-06	N	20	<0.51	0.44	21
	31-Jan-06	N	20	<0.55	1.3	28
	31-Jan-06	N	40	<0.51	<0.064	21
	31-Jan-06	N	50	<0.47	<0.059	15
	31-Jan-06	N	70	<0.46	<0.057	13
	31-Jan-06	N	80	<0.44	<0.056	10
	31-Jan-06	N	90	<0.44	<0.056	10
	31-Jan-06	N	100	<0.46	<0.057	12
	31-Jan-06	N	110	<0.44	<0.055	8.9
	31-Jan-06	N	120	<0.45	<0.056	11
PT-2	07-Feb-06	N	21	<0.45	0.084	12
	07-Feb-06	N	31	<0.55	0.57	27
	07-Feb-06	N	41	<0.53	0.46	25
	08-Feb-06	N	51	<0.46	0.064	12
	08-Feb-06	N	61	<0.46	<0.057	12
	08-Feb-06	N	71	<0.47	<0.058	14
	08-Feb-06	N	81	<0.45	<0.057	12
	08-Feb-06	N	91	<0.44	<0.055	9.4
	08-Feb-06	N	101	<0.46	<0.058	14
	08-Feb-06	N	111	<0.45	<0.056	10
PT-3	13-Feb-06	N	22	<0.47	<0.058	14
	13-Feb-06	N	32	<0.53	0.70	25
	13-Feb-06	N	42	<0.50	<0.062	19
	13-Feb-06	N	52	<0.50	<0.062	19
	13-Feb-06	N	62	<0.50	<0.062	20
	13-Feb-06	N	72	<0.45	<0.056	11
	13-Feb-06	N	82	<0.46	<0.057	13
	14-Feb-06	N	92	<0.44	<0.055	9.2
	14-Feb-06	N	102	<0.45	<0.056	10
	14-Feb-06	N	112	0.48	<0.055	9.1
	14-Feb-06	N	122	<0.45	<0.056	11

Table 2
Summary of Soil Analytical Results
PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Depth (ft bgs)	Hexavalent Chromium (mg/kg)	Total Organic Carbon (%)	Percent Moisture (%)
PT-4	11-Feb-06	N	23	<0.52	0.59	23
	11-Feb-06	N	33	<0.48	<0.059	16
	11-Feb-06	N	43	<0.52	<0.064	22
	11-Feb-06	N	53	<0.49	<0.061	18
	11-Feb-06	N	63	<0.50	<0.063	20
	12-Feb-06	N	73	<0.46	<0.057	12
	12-Feb-06	N	83	<0.47	<0.058	14
	12-Feb-06	N	93	<0.44	<0.055	9.0
	12-Feb-06	N	103	<0.44	<0.055	9.6
	12-Feb-06	N	113	0.65	<0.055	9.5
	12-Feb-06	N	123	<0.47	<0.058	14
PT-5	09-Feb-06	N	20	<0.51	0.24	22
	09-Feb-06	N	30	<0.49	0.11	18
	09-Feb-06	N	40	<0.49	0.091	18
	09-Feb-06	N	50	<0.47	<0.058	14
	09-Feb-06	N	60	<0.47	<0.059	15
	09-Feb-06	N	70	<0.46	0.064	13
	09-Feb-06	N	80	<0.46	<0.058	13
	09-Feb-06	N	90	<0.48	<0.059	16
	09-Feb-06	N	100	<0.45	<0.057	12
	10-Feb-06	N	110	0.66	<0.060	16
	10-Feb-06	N	120	<0.44	<0.055	8.5
PT-6	29-Jan-06	N	30	<0.55	0.63	28
	29-Jan-06	N	40	<0.48	0.14	17
	29-Jan-06	N	50	<0.47	0.18	16
	29-Jan-06	N	60	<0.46	<0.058	14
	29-Jan-06	N	70	<0.46	<0.057	13
	29-Jan-06	N	80	<0.46	<0.058	14
	29-Jan-06	N	90	<0.45	<0.056	10
	29-Jan-06	N	100	<0.47	<0.059	15
	29-Jan-06	N	110	<0.47	<0.059	15
	29-Jan-06	N	120	<0.45	<0.056	11
	29-Jan-06	N	130	<0.46	<0.058	13

Table 2
Summary of Soil Analytical Results
PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Depth (ft bgs)	Hexavalent Chromium (mg/kg)	Total Organic Carbon (%)	Percent Moisture (%)
PTI-1D	24-Jan-06	N	20	<0.43	<0.053	6.3
	24-Jan-06	N	37	<0.49	<0.061	18
	24-Jan-06	N	47	<0.48	<0.060	17
	24-Jan-06	N	57	<0.47	<0.059	16
	24-Jan-06	N	67	<0.47	<0.059	15
	24-Jan-06	N	77	<0.45	<0.056	10
	25-Jan-06	N	87	<0.44	<0.055	9.5
	25-Jan-06	N	97	<0.44	<0.056	10
	25-Jan-06	N	107	<0.44	<0.055	9.3
	25-Jan-06	N	117	<0.44	<0.056	10
	26-Jan-06	N	127	<0.46	<0.057	13

Notes:

ft bgs Feet below ground surface
% Percent
mg/kg milligrams per kilogram
< Symbol indicates not detected at or above the laboratory reporting limit as noted.
N Normal

Table 3
Summary of Field Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Type	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-1S	17-Mar-06	N	35-45	-150.7	7.05	6,565	26.62	<10
	06-Apr-06	N		-173	7.06	6,892	26.92	<10
	04-May-06	N		-100.6	8.06	8,889	25.64	<10
	05-May-06	N		-107.2	7.55	7,457	26.82	<10
	06-May-06	N		-88.4	7.09	7,318	26.45	<10
	07-May-06	N		-98.6	7.31	7,097	26.59	<10
	08-May-06	N		-82.7	7.35	6,976	26.65	<10
	09-May-06	N		-30.7	7.12	7,550	26.63	<10
	10-May-06	N		-102.2	7.15	6,735	26.72	<10
	11-May-06	N		-97.7	7.22	6,369	26.72	<10
	12-May-06	N		-73	7.08	6,594	26.72	<10
	13-May-06	N		-47.2	7.18	5,961	26.61	---
	23-May-06	N		14.1	7.34	5,830	27.01	<10
	01-Jun-06	N		567.9	7.03	3,636	26.54	<10
	06-Jun-06	N		-173.5	7.39	6,546	26.88	<10
PT-1M	17-Mar-06	N	60-70	-211	7.46	7,000	26.21	<10
	06-Apr-06	N		-211.1	9	7,506	26.54	<10
	04-May-06	N		-88.7	8.45	6,824	25.1	<10
	06-May-06	N		-93.1	7.48	7,221	25.8	---
	07-May-06	N		-98.2	7.62	7,202	26.1	38
	08-May-06	N		-77.6	7.07	4,593	26.16	42
	09-May-06	N		-19.6	7.62	7,273	26.23	<10
	10-May-06	N		-118.8	7.69	6,657	26.55	15
	11-May-06	N		-92.1	7.61	6,539	26.29	11
	12-May-06	N		-77.3	7.54	6,877	26.3	<10
	13-May-06	N		-39.2	7.47	5,933	26.26	---
	24-May-06	N		-16.2	7.67	5,837	26.24	<10
	31-May-06	N		-59.6	7.36	4,549	27.59	<10
	06-Jun-06	N		-176.9	7.62	7,071	26.27	<10

Table 3
Summary of Field Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Type	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-1D	17-Mar-06	N	95-105	-129.5	7.36	13,149	26.06	1900
	06-Apr-06	N		112	6.66	14,027	26	3,040
	05-May-06	N		47.6	7.86	12,918	26.03	---
	06-May-06	N		69.3	7.36	14,048	26.18	4,660
	07-May-06	N		79.3	7.62	13,536	26.07	3,680
	08-May-06	N		85.6	7.71	12,334	26.14	4,980
	09-May-06	N		-145.2	7.59	12,058	26.18	2,960
	10-May-06	N		5.7	7.54	11,794	26.19	2,840
	11-May-06	N		-7.1	7.71	10,586	26.1	1,740
	12-May-06	N		-6	7.56	10,653	26.5	2,260
	13-May-06	N		41.9	7.6	9,215	25.9	---
	24-May-06	N		90.2	6.6	10,570	26.25	1,420
	31-May-06	N		358.1	5.89	5,935	29.21	980
	05-Jun-06	N		403.4	8.41	10,776	27.13	840
PT-2S	17-Mar-06	N	35-45	-204	7.27	6,273	26.87	<10
	06-Apr-06	N		-175.9	6.14	6,867	26.79	<10
	24-May-06	N		-6.5	7.57	5,405	27.13	<10
	01-Jun-06	N		-88.7	7.25	6,678	26.74	10
	07-Jun-06	N		-168.6	7.57	6,268	26.37	<10
PT-2M	17-Mar-06	N		-170.9	7.29	7,304	26.3	<10
	06-Apr-06	N		-173.8	8.01	7,752	26.9	<10
	24-May-06	N		44.3	7.61	5,902	26.47	<10
	31-May-06	N		-65	7.14	7,271	25.94	<10
	07-Jun-06	N		-99.7	7.62	6,825	26.71	<10
PT-2D	17-Mar-06	N	95-105	-100.5	7.21	12,626	26.17	1600
	06-Apr-06	N		-71.3	7.04	13,924	26.03	2,300
	24-May-06	N		180.9	7.39	9,229	26.45	1,640
	31-May-06	N		-51.2	7.39	11,157	25.95	1,160
	07-Jun-06	N		403.3	7.61	10,386	26.21	840

Table 3
Summary of Field Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Type	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-3S	16-Mar-06	N	35-45	-218.9	7.14	6,353	26.67	<10
	03-Apr-06	N		-238.1	7.38	6,846	26.68	<10
	04-May-06	N		-119.3	8.1	6,380	27.1	<10
	05-May-06	N		-130.6	7.44	6,690	26.46	<10
	06-May-06	N		-130.7	7.1	6,363	26.6	<10
	07-May-06	N		-115.2	7.25	6,846	26.56	<10
	09-May-06	N		-43.9	7.27	6,976	26.55	<10
	10-May-06	N		-135.7	7.35	6,419	26.81	11
	11-May-06	N		-20.1	7.39	6,218	26.77	<10
	12-May-06	N		-92.7	7.14	6,169	26.69	<10
	13-May-06	N		-90.5	7.28	6,358	26.7	---
	23-May-06	N		1.37	7.13	5,944	26.82	<10
	30-May-06	N		-162.7	12.28	5,971	27.5	13
	06-Jun-06	N		-177.7	7.57	5,295	26.72	12
PT-3M	18-Mar-06	N	60-70	-249.1	7.96	7,232	26.19	<10
	07-Apr-06	N		-218.3	7.33	8,041	26.06	---
	04-May-06	N		-101.8	8.68	7,193	24.31	---
	05-May-06	N		-106	7.99	7,665	26.05	<10
	06-May-06	N		-96.6	7.53	7,613	25.83	<10
	07-May-06	N		-82	7.64	7,681	26.23	<10
	09-May-06	N		-8.4	7.58	7,718	25.98	<10
	10-May-06	N		-103	7.61	7,176	26.41	14
	11-May-06	N		-86.4	7.7	6,879	26.32	<10
	12-May-06	N		-71.8	7.54	6,927	26.27	13
	13-May-06	N		6.9	7.49	7,130	26.12	---
	23-May-06	N		42.8	7.38	7,475	26.13	<10
	30-May-06	N		-70.3	12.31	7,977	26.69	16
	06-Jun-06	N		-112.8	7.68	7,026	25.75	<10

Table 3
Summary of Field Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Type	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-3D	18-Mar-06	N	95-105	-54.4	7.38	13,782	25.98	4620
	05-Apr-06	N		51.8	7.51	14,347	26.71	7760
	05-May-06	N		66.7	7.87	13,263	25.96	3,140
	06-May-06	N		71.7	7.54	11,437	26.03	3,440
	07-May-06	N		76.8	7.81	9,027	26.14	4,200
	09-May-06	N		168.5	7.62	12,715	26.08	3,960
	10-May-06	N		2.6	6.66	10,771	26.33	3,960
	11-May-06	N		-11.9	7.86	11,767	26.28	3,780
	12-May-06	N		-6.1	7.65	12,290	26.18	3,720
	13-May-06	N		144.5	7.72	12,139	26.33	---
	23-May-06	N		129.1	7.31	13,111	27.37	3,900
	30-May-06	N		30.7	12.4	13,907	27.29	3,800
	06-Jun-06	N		12.6	7.71	12,310	25.82	3,380
PT-4S	15-Mar-06	N	35-45	-257	7.32	7,072	26.16	<10
	06-Apr-06	N		-159.9	7.8	7,783	26.11	<10
	04-May-06	N		-117	8.33	6,585	25.39	<10
	05-May-06	N		-126.6	7.7	7,325	25.82	<10
	09-May-06	N		-93.5	7.21	7,752	25.75	<10
	10-May-06	N		-119.8	7.41	4,939	26.33	<10
	11-May-06	N		6.2	7.62	7,180	27.26	<10
	12-May-06	N		-71.2	7.35	6,997	26.08	14
	13-May-06	N		-68.7	7.6	7,305	26.09	---
	23-May-06	N		20.4	7.53	6,411	27.13	<10
	30-May-06	N		-121.7	7.1	7,504	25.93	<10
	06-Jun-06	N		-230.2	7.78	7,377	27.56	<10
PT-4M	15-Mar-06	N	60-70	-246.1	7.9	6,784	25.99	<10
	07-Apr-06	N		-210.5	7.48	7,566	26.28	---
	04-May-06	N		-119.6	8.74	7,031	24.95	<10
	08-May-06	N		-113.4	7.97	7,384	26.14	11
	09-May-06	N		-58.9	7.74	7,588	25.84	<10
	10-May-06	N		-134	7.73	7,022	26.24	<10
	11-May-06	N		-115.2	7.92	6,991	26.21	<10
	12-May-06	N		-95.1	7.73	7,084	25.79	<10
	13-May-06	N		-68.6	7.85	6,265	25.93	---
	23-May-06	N		25.9	7.81	6,267	26.82	<10
	30-May-06	N		-113.1	7.48	7,467	25.61	11
	06-Jun-06	N		-211.3	7.89	7,258	26.68	<10

Table 3
Summary of Field Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Type	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-4D	15-Mar-06	N	95-105	-98.4	7.4	15,180	26.02	5800
	05-Apr-06	N		-30	7.58	162,310	26.61	5840
	08-May-06	N		62.7	7.93	14,947	26.1	5,920
	09-May-06	N		48.3	7.45	14,719	25.92	6,520
	10-May-06	N		42.1	7.68	14,351	26.14	6,160
	11-May-06	N		-10.2	7.84	13,923	26.15	5,920
	12-May-06	N		-4.5	7.72	14,580	25.97	7,480
	13-May-06	N		28.1	7.69	12,744	26	---
	23-May-06	N		50	7.91	13,640	31.2	4,840
	30-May-06	N		-81.3	7.43	15,116	25.97	5,800
	06-Jun-06	N		-174.3	7.81	15,010	26.65	4,780
PT-5S	16-Mar-06	N	35-45	-204.9	7.33	7,714	25.81	<10
	07-Apr-06	N		-177.3	7	8,640	25.75	---
	01-Jun-06	N		-88.9	7.17	8,682	25.46	<10
PT-5M	16-Mar-06	N	60-70	-184.6	7.29	6,989	25.48	<10
	07-Apr-06	N		-183.5	6.97	8,609	25.8	---
	01-Jun-06	N		-49.9	7.05	6,191	24.82	<10
PT-5D	16-Mar-06	N	95-105	-191.1	7.71	8,304	25.85	6200
	07-Apr-06	N		-181.1	7.05	8,561	25.78	---
	12-May-06	N		-1.2	7.7	13,620	26.62	5,240
	01-Jun-06	N		-45.5	7.47	14,037	25.5	3,660
PT-6S	18-Mar-06	N	35-45	-91.7	6.99	10,053	25.49	<10
	04-Apr-06	N		-187.9	7.22	10,379	26.56	<10
	13-May-06	N		-48.4	7.31	7,353	26.62	---
	22-May-06	N		-14	7.21	7,476	26.59	<10
	01-Jun-06	N		556.8	6.52	4,423	27.56	<10
	06-Jun-06	N		-164.1	7.65	8,564	26.25	14
PT-6M	16-Mar-06	N	60-70	-120.1	7.25	7,221	26.13	<10
	04-Apr-06	N		-114.1	7.45	7,761	26.18	<10
	13-May-06	N		22.6	7.46	6,212	26.22	---
	23-May-06	N		85.6	7.57	5,988	26.51	<10
	01-Jun-06	N		675.3	6.84	3,952	27.04	<10
	06-Jun-06	N		-197.1	7.98	6,832	2,610	<10

Table 3
Summary of Field Parameters

PG&E Topock
Needles, California

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Location Name	Sample Date	Sample Type	Sample Type	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-6D	16-Mar-06	N	95-105	-118.9	7.73	13,489	25.9	3380
	04-Apr-06	N		-91.1	7.72	12,784	26.95	2,580
	13-May-06	N		28.7	7.77	9,829	25.87	---
	22-May-06	N		79.4	7.9	9,631	26.37	2,040
	01-Jun-06	N		692.8	7.08	6,017	26.42	1,360
	06-Jun-06	N		-170.6	8	10,470	25.84	1,000
PTI-1S	15-Mar-06	N	35-45	-203.1	7.1	6,390	26.83	<10
	05-Apr-06	N		-184	7.28	6,964	27.06	<10
	06-May-06	N		---	---	---	---	620
	07-May-06	N		-137.8	6.73	4,936	33.59	600
	09-May-06	N		-54.8	6.57	5,627	32.39	---
	10-May-06	N		-155.1	6.29	5,313	25.6	290
	11-May-06	N		-156.5	6.27	5,326	28.93	20
	12-May-06	N		-71.9	6.8	4,457	28.07	70
	13-May-06	N		-132.8	6.58	4,582	28.42	---
	23-May-06	N		-21.3	6.66	4,262	27.04	<10
	31-May-06	N		-146	6.93	4,313	28.09	28
	05-Jun-06	N		-240.5	7.88	4,144	27.51	<10
PTI-1M	15-Mar-06	N	60-70	-220.1	7.38	7,338	26.17	14
	04-Apr-06	N		-173.8	7.71	7,919	27.06	<10
	06-May-06	N		-6.8	6.82	6,623	29.31	74
	07-May-06	N		-17.2	7.08	6,244	28.96	55
	09-May-06	N		-2.3	7.22	7,559	28.03	430
	10-May-06	N		57	7.26	6,179	29.4	28
	11-May-06	N		-149.5	7.02	7,325	27.56	27
	12-May-06	N		-72.4	7.52	6,066	27.05	29
	13-May-06	N		-229	7.45	6,745	27.13	---
	23-May-06	N		-231.7	6.66	6,204	27.57	11
	31-May-06	N		-120.2	7.2	6,824	26.76	57
	05-Jun-06	N		-254	8.13	7,092	26.94	<10

Table 3
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PG&E Topock
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60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Sample Type	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PTI-1D	15-Mar-06	N	95-105	-89.9	7.37	13,018	26.04	1780
	03-Apr-06	N		-87	7.68	13,811	26.07	3,520
	07-May-06	N		43.5	6.99	6,659	27.75	61
	09-May-06	N		124.5	7.25	6,880	29.05	870
	10-May-06	N		181	7.68	13,066	29.78	3,320
	11-May-06	N		159.9	8.13	11,442	27.48	1,140
	12-May-06	N		47.8	6.43	4,888	28.17	122
	13-May-06	N		-6.4	7.35	6,626	26.74	---
	22-May-06	N		154.7	8.08	15,136	27.57	980
	31-May-06	N		-198.3	7.92	12,156	26.32	1,160
	05-Jun-06	N		-210.4	8.51	11,989	28.74	920
PE-1	17-Mar-06	N	79-89	---	---	---	---	115
	05-Apr-06	N		---	---	---	---	144
	01-Jun-06	N		---	---	---	---	116
TW-2D	17-Mar-06	N	113-148	---	---	---	---	1620
	05-Apr-06	N		---	---	---	---	1620
TW-3D	17-Mar-06	N	111-156	---	---	---	---	3660
	05-Apr-06	N		---	---	---	---	3460
INJ_SOLUTION_01	05-May-06	N	NA	---	---	---	---	<10
INJ_SOLUTION_03	06-May-06	N	NA	---	---	---	---	174

Notes:

ft bgs Feet below ground surface
mV Millivolts
µS/cm Microsiemens per centimeter
C° Degrees Celsius
µg/L Micrograms per liter
ORP Oxidation Reduction Potential
< Symbol indicates not detected at or above the estimated reporting limit as noted.
N Normal
ND Not Detected
NA Not applicable
--- Not available/Not analyzed

Table 4
Summary of Primary Analytical Parameters

PG&E Topock
Needles, California

60-Day Status Report For the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-1S	17-Mar-06	N	35-45	<1	1.3	<1	<.5	ND	<.5	<.1	3,050	1,930	1,320	198	2.98
	06-Apr-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	1,910	1,860	779	181	3.04
	04-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	05-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	06-May-06	N		<0.2	<1	<1	<.5	ND	<.5	<.1	5,560	2,960	947	90.1	6.66
	07-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	08-May-06	N		<0.2	---	<1	<1	ND	---	---	---	---	---	---	---
	09-May-06	N		<1	<1	<1	0.846	ND	<.5	<.1	2,360	4,770	1,070	144	4.16
	10-May-06	N		<1	---	<1	<2.5	ND	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	<2.5	ND	---	---	---	---	---	---	---
	12-May-06	N		<1 J/HD	---	<1	<1	ND	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	4.48	<1	<1	ND	<1	<.2	3,900	3,220	800	122	4.58
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	117,000	826	790	157	4.53
	01-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.1	89,600	2,570	911	126	5.11
	06-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.5	43,400	3,020	857	125	5.77
PT-1M	17-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.1	<500	<500	1,330	411	1.14
	06-Apr-06	N		<1	1	<1	<.5	ND	<.5	<.5	591	557	1,350	446	1.1
	04-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	06-May-06	N		<1	<1	<1	258	0.452	<.5	<.1	554	535	1,230	397	27.9
	07-May-06	N		<1	---	<1	390	0.466	---	---	---	---	---	---	---
	08-May-06	N		<1	---	<1	377	0.429	---	---	---	---	---	---	---
	09-May-06	N		<1	<1	<1	341	0.232	<.5	<.1	543	550	2,430	391	25.4
	10-May-06	N		<1	---	<1	296	0.458	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	273	0.433	---	---	---	---	---	---	---
	12-May-06	N		<1 J/HD	---	<1	245	0.423	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	3.69	<1	216	0.354	<.5	<.1	696	668	4,390	451	5.39
	24-May-06	N		<1	10.8	<1	96	0.160	<.5	<.5	673	6,900	3,560	425	2.02
	31-May-06	N		<1	3.29	<1	48.9	0.101	<.5	<.5	7,360	577	3,950	430	2.4
	06-Jun-06	N		<1	<1	<1	36.7	0.083	<.5	<.5	5,230	637	3,450	501	1.82

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-1D	17-Mar-06	N	95-105	2,470	2,270	<1	0.581	ND	1.84	<.5	<500	<500	88.2	943	1.07
	17-Mar-06	FD		2,460	2,230	<1	<.5	ND	1.84	<.5	<500	<500	85.7	941	1.18
	06-Apr-06	N		3,080	2,770	5.45	<.5	ND	2.27	<.5	<500	<500	51	978	1.09
	06-Apr-06	FD		2,960	2,690	6.15	<.5	ND	2.26	<.5	<500	<500	54.8	963	1.1
	06-May-06	N		4,140	4,350	<1	<.5	ND	2.64	<.1	<500	<500	26.7	930	1.24
	07-May-06	N		3,560	---	50.9	<1	ND	---	---	---	---	---	---	---
	08-May-06	N		3,190	---	252	1.26	ND	---	---	---	---	---	---	---
	09-May-06	N		2,870	2,780	441	2.63	0.023	1.18	<.2	<500	<500	48.9	846	37.5
	10-May-06	N		2,670	---	464	2.92	0.029	---	---	---	---	---	---	---
	11-May-06	N		2,660	---	528	2.87	0.016	---	---	---	---	---	---	---
	12-May-06	N		2,520	---	578	3.01	0.022	---	---	---	---	---	---	---
	13-May-06	N		2,380 J/HD	2,390	613	3	0.016	<1	<.2	<500	<500	60.1	529	58.4
	24-May-06	N		1,320	1,330	488	2.61	0.164	<.5	<.5	<500	<500	507	653	30.7
	31-May-06	N		970	896	373	1.86	ND	<.5	<.5	<500	<500	992	665	16
	05-Jun-06	N		931	859	371	1.71	ND	<.5	<.5	<500	<500	1,270	730	10.1
PT-2S	17-Mar-06	N	35-45	<1	<1	<1	0.563	ND	<.5	<.1	34,300	976	1,170	11.7	7.42
	06-Apr-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	30,200	1,850	1,240	8.91	8.57
	24-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	164,000	<500	1,160	3.02	11
	01-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.1	91,900	934	1,300	3.06	9.65
	07-Jun-06	N		1	<1	<1	<.5	ND	<.5	<.5	42,300	950	1,280	2.77	10.8
PT-2M	17-Mar-06	N	60-70	<1	8.19	<1	<.5	ND	<.5	<.5	<500	<500	547	474	<1
	06-Apr-06	N		<0.2	7.58	<1	<.5	ND	<.5	<.1	<500	<500	380	471	<1
	24-May-06	N		<1	<1	<1	40	0.114	<.5	<.5	20,000	<500	431	423	1.76
	31-May-06	N		<1	<1	<1	12.1	0.033	<.5	<.5	3,430	<500	363	438	2.21
	31-May-06	FD		<1	<1	<1	12	0.038	<.5	<.5	4,150	<500	371	429	2.28
	07-Jun-06	N		1	<1	<1	5.29	0.024	<.5	<.5	1,220	<500	353	487	1.85

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-2D	17-Mar-06	N	95-105	1,660	1,580	<1	<.5	ND	1.23	<.5	<500	<500	154	931	1.09
	17-Mar-06	FD		1,670	1,570	<1	<.5	ND	1.26	<.5	<500	<500	161	924	1.24
	06-Apr-06	N		2,310	2,160	4.44	<.5	ND	1.68	<.5	<500	<500	79.7	924	1.02
	06-Apr-06	FD		2,290	2,170	4.1	<.5	ND	1.84	<.5	<500	<500	78.3	946	<1
	24-May-06	N		1,800	1,760	374	2.11	ND	<.5	<.5	507	<500	173	691	26.9
	31-May-06	N		1,180	1,170	388	1.85	ND	<.5	<.5	1,400	<500	320	689	17.6
	07-Jun-06	N		951	930	390	1.99	ND	<.5	<.5	<500	<500	423	724	14.4
PT-3S	16-Mar-06	N	35-45	<1	40.3	<1	<.5	ND	<.5	<.1	6,370	4,860	1,160	217	4.27
	03-Apr-06	N		<1	1.48	<1	<.5	ND	<.5	<.5	5,510	4,990	988	221	4.66
	04-May-06	N		<0.2	---	<1	<1	ND	---	---	---	---	---	---	---
	05-May-06	N		<0.2	---	<1	<1	ND	---	---	---	---	---	---	---
	06-May-06	N		<1	1.46	<1	<.5	ND	<.5	<.1	7,370	5,660	968	80.2	5.05
	06-May-06	FD		<1	1.01	<1	<.5	ND	<.5	<.1	6,500	5,820	950	80.4	5.26
	07-May-06	N		<0.2	---	<1	<1	ND	---	---	---	---	---	---	---
	09-May-06	N		<0.2 J/HD	1.54	<1	<1	9.61	<1	<.2	7,850	6,280	973	112	5.83
	10-May-06	N		<1	---	<1	19	34.4	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	1.07	5.49	---	---	---	---	---	---	---
	12-May-06	N		<0.2	---	<1	64.6	42.3	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	2.38	<1	93.7	56.0	<1	<.2	6,710	5,890	872	112	14.6
	23-May-06	N		<1	<1	<1	68.1	1,060	<1	<.5	130,000	1,750	830	30.5	49.9
	30-May-06	N		<1	1.36	<1	470	1,510	<2.5	<.5	27,600	695	762	24.4	93.5
	06-Jun-06	N		<1	<1	<1	749	1,220	<2.5	<.5	21,900	3,220	750	23.2	119

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-3M	18-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.5	<500	<500	1,670	571	1.33
	07-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	<500	<500	2,020	672	1.01
	04-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	05-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	06-May-06	N		<1 J/FD	<1	<1	<.5	ND	<.5	<.1	508	<500	1,720	597	1.11
	07-May-06	N		<1	---	<1	2.32	0.025	---	---	---	---	---	---	---
	09-May-06	N		<0.2 J/HD	<1	<1	28.8	0.075	<.5	<.1	518	<500	1,350	559	2.94
	10-May-06	N		<1	---	<1	60.2	0.148	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	75.8	0.2	---	---	---	---	---	---	---
	12-May-06	N		<1 J/HD	---	<1	87.1	0.223	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	2.46	<1	72.9	0.135	<.5	<.1	620	597	1,250	530	3.22
	13-May-06	FD		<0.2	9.68	<1	73.3	0.180	<.5	<.1	620	589	1,270	517	3.89
	23-May-06	N		<1	<1	<1	27.4	0.104	<.5	<.5	12,000	<500	1,550	573	1.59
	30-May-06	N		<1	3.09	<1	9.74	0.043	<.5	<.5	33,100	<500	1,260	533	1.94
	06-Jun-06	N		<1	<1	<1	4.86	0.031	<.5	<.5	5,140	<500	1,100	583	1.77
	06-Jun-06	FD		<1	1.61	<1	4.5	0.034	<.5	<.5	24,400	<500	1,130	575	2.41
PT-3D	18-Mar-06	N	95-105	4,390	4,370	<1	<.5	ND	3.33	<.5	<500	<500	16.7	984	<1
	05-Apr-06	N		4,440	4,680	8.87	<.5	ND	3.28	<.5	<500	<500	10.2	966	<1
	05-May-06	N		3,980	---	<1	<1	ND	---	---	---	---	---	---	---
	06-May-06	N		3,090 J/FD	3,420	666	2.93	0.031	1.73	<.1	<500	<500	28.4	699	80.3
	07-May-06	N		4,140	---	515	3.15	0.023	---	---	---	---	---	---	---
	09-May-06	N		3,900 J/HD	3,920	268	2.1	0.020	2.02	<.2	<500	<500	42	853	36
	10-May-06	N		3,680	---	199	<2.5	0.013	---	---	---	---	---	---	---
	11-May-06	N		3,700	---	159	---	ND	---	---	---	---	---	---	---
	12-May-06	N		1,940	---	127	<2.5	ND	---	---	---	---	---	---	---
	13-May-06	N		3,550 J/HD	3,630	96.8	3.07	0.151	2.1	<.2	<500	<500	309	909	9.41
	23-May-06	N		4,380	3,940	21.7	<.5	ND	2.73	<.5	671	<500	113	854	2.39
	30-May-06	N		3,880	4,030	<1	<1	ND	2.82	<.5	<500	<500	83.8	843	2.23
	06-Jun-06	N		3,730	3,770	2.92	<.5	ND	2.82	<.5	1,630	<500	67.5	985	1.31

Table 4
Summary of Primary Analytical Parameters
PG&E Topock
Needles, California
60-Day Status Report For the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-4S	15-Mar-06	N	35-45	<1	3.83	0.714 J	<.5	ND	<.5	<.1	4,060	713	919	474	1.69
	06-Apr-06	N		<1	5.84	<1	<.5	ND	<.5	<.5	2,510	1,350	707	450	1.69
	04-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	05-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	09-May-06	N		<0.2 J/HD	<1	<1	<.5	ND	<.5	<.1	10,800	1,490	657	472	2.4
	10-May-06	N		<1	---	<1	<2.5	ND	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	12-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	3.18	<1	<1	ND	<1	<.2	2,320	1,940	673	415	2.02
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	18,600	<500	683	436	2.29
	30-May-06	N		<1	1.15	<1	<.5	ND	<.5	<.5	20,000	<500	650	426	2.72
PT-4M	06-Jun-06	N		<1	<1	<1	<.5	0.073	<.5	<.5	8,530	1,340	610	492	2.56
	15-Mar-06	N	60-70	<1	<1	0.75 J	<.5	ND	<.5	<.1	<500	<500	966	609	<1
	07-Apr-06	N		<1	1.63	<1	<.5	ND	<.5	<.5	<500	<500	766	722	1.05
	04-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	08-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	09-May-06	N		<0.21 J/HD	<1	<1	<.5	ND	<.5	<.1	723	700	686	504	1.12
	10-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	11-May-06	N		<1 J/HD	---	<1	<.5	ND	---	---	---	---	---	---	---
	12-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	2.05	<1	<.5	ND	<.5	<.1	988	899	612	529	1.22
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	3,700	<500	613	565	1.58
	30-May-06	N		<1	229	<1	<.5	ND	<.5	<.5	929	<500	492	534	2.05
	06-Jun-06	N		<1	2.24	<1	<.5	ND	<.5	<.5	1,330	<500	523	570	1.31

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-4D	15-Mar-06	N	95-105	5,670	5,510	<1	1.32	ND	4.28	<.5	<500	<500	8.27	1,080	<1
	05-Apr-06	N		5,960	5,480	12.9	<.5	ND	4.7	<.5	<500	<500	<5	1,110	1.05
	08-May-06	N		5,870	---	<1	<1	ND	---	---	---	---	---	---	---
	09-May-06	N		5,900 J/HD	5,900	<1	<2.5	ND	4.6	<.5	<500	<500	<5	1,110	1.16
	10-May-06	N		5,830	---	<1	<2.5	ND	---	---	---	---	---	---	---
	11-May-06	N		5,790	---	<1	<1	ND	---	---	---	---	---	---	---
	12-May-06	N		5,810	---	<1	<1	ND	---	---	---	---	---	---	---
	13-May-06	N		5,710 J/HD	5,900	<1	<1	ND	4.36	<.2	<500	<500	<5	1,050	1.21
	23-May-06	N		5,750	5,880	<1	<.5	ND	4.91	<.5	<500	<500	<5	1,010	1.6
	23-May-06	FD		---	5,970	<1	<.5	ND	4.89	<.5	<500	<500	<5	1,010	1.87
	30-May-06	N		5,730	5,740	<1	<1	ND	4.75	<.5	2,390	<500	21	989	2.32
PT-5S	06-Jun-06	N		5,800	5,560	<1	<.5	0.078	4.7	<.5	<500	<500	<5	1,130	1.44
	16-Mar-06	N	35-45	<1	2.71	<1	<.5	ND	<.5	<.1	949	971	2,440	401	3.2
	07-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	995	1,030	1,850	490	2.76
	01-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.1	4,250	1,870	1,530	372	4.14
PT-5M	16-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.1	<500	<500	707	463	1.04
	07-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	1,850	1,820	1,770	443	3.31
	01-Jun-06	N		<1 J/HD	<1	<1	<.5	ND	<.5	<.1	4,570	<500	168	437	1.62
PT-5D	16-Mar-06	N	95-105	6,150	5,650	<1	<.5	ND	4.86	0.258	<500	<500	355	1,080	<1
	07-Apr-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	2,280	2,200	1,700	403	3.49
	12-May-06	N		4,250	4,680	<1	1.17	0.02	3.58	<1	<500	<500	209	1,020	1.34
	01-Jun-06	N		3,900	3,930	<1	<.5	ND	3.18	<.1	3,550	<500	132	919	1.27

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-6S	16-Mar-06	N	35-45	<1	---	---	---	---	---	---	---	---	---	---	---
	18-Mar-06	N		---	4.6	<1	1.18	ND	<.5	<1	4,560	3,530	9,260	60	13.4
	04-Apr-06	N		<1	<1	<1	1.3	ND	<.5	<.5	11,600	6,310	7,650	57.8	14.2
	13-May-06	N		<1 J/HD	2.83	<1	<1	ND	<1	<.2	33,000	13,400	4,400	3.03	13
	22-May-06	N		<1 J/HD	26	<1	<.5	ND	<.5	<.5	22,600	1,180	3,710	5.91	13.9
	01-Jun-06	N		<1 J/HD	1.38	<1	<.5	ND	<.5	<.1	17,000	12,600	3,710	6.96	13.4
	06-Jun-06	N		<1	1.44	<1	<2.5	ND	<2.5	<.5	19,000	17,100	3,250	4.57	14.8
PT-6M	16-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.1	<500	<500	56.1	486	<1
	04-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	<500	<500	55.2	498	1.22
	13-May-06	N		<1 J/HD	4.53	<1	<.5	ND	<.5	<.1	<500	<500	71.2	509	1.7
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	1,690	<500	71.2	476	1.11
	01-Jun-06	N		<1	1.24	<1	<.5	ND	<.5	<.1	1,150	<500	77.6	479	1.4
	06-Jun-06	N		<1	1.66	<1	<.5	ND	<.5	<.5	1,650	<500	76.4	528	3.14
PT-6D	16-Mar-06	N	95-105	3,310	3,140	<1	<.5	ND	2.5	0.218	<500	<500	361	844	<1
	04-Apr-06	N		2,270	2,180	4.23	<.5	ND	1.73	<.5	<500	<500	258	750	<1
	13-May-06	N		1,760 J/HD	1,720	<1	<1	ND	1.49	<.2	1,320	<500	169	810	1.16
	22-May-06	N		1,610 J/HD	1,970	<1	<.5	ND	1.42	<.5	2,520	<500	168	719	1.96
	01-Jun-06	N		1,440	1,420	<1	<.5	ND	1.2	<.1	764	<500	152	711	1.08
	06-Jun-06	N		1,340	1,290	<1	1.85	0.105	1.38	<.5	1,130	<500	134	750	2.45

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PTI-1S	15-Mar-06	N	35-45	<1	19.8	0.708 J	<.5	ND	<.5	<.1	7,360	8,350	717	122	4.55
	05-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	7,730	3,320	606	120	4.84
	06-May-06	N		<1 J/FD	4.15	<1	1,130	1,950	<2.5	<.5	21,500	19,900	980	15	588
	07-May-06	N		<1 J/FD	---	<1	449	3,820	---	---	---	---	---	---	452
	09-May-06	N		<1	---	<1	360	3,820	---	---	---	---	---	---	474
	09-May-06	FD		<0.2	---	<1	360	3,770	---	---	---	---	---	---	467
	10-May-06	N		<1	---	<1	362	3,560	---	---	---	---	---	---	506
	11-May-06	N		<1	---	<1	316	3,760	---	---	---	---	---	---	543
	12-May-06	N		<1	---	<1	284	3,710	---	---	---	---	---	---	558
	13-May-06	N		---	---	<1	288	3,730	---	---	---	---	---	---	525
	23-May-06	N		---	---	<1	213	3,810	---	---	---	---	---	---	214
	31-May-06	N		---	---	<1	56.4	4,090	---	---	---	---	---	---	188
	05-Jun-06	N		---	---	<1	28.7	3,750	---	---	---	---	---	---	136
PTI-1M	15-Mar-06	N	60-70	3.9	8.2	0.718 J	<.5	ND	<.5	<.1	<500	<500	141	510	<1
	04-Apr-06	N		3.3	11.1	<1	<.5	ND	<.5	<.5	<500	<500	99.5	529	<1
	06-May-06	N		<1 J/FD	<1	<1	1,430	0.853	<.5	<.1	<500	<500	1,770	18.7	210
	07-May-06	N		<1 J/FD	---	<1	1,510	0.728	---	---	---	---	---	---	215
	09-May-06	N		<1	---	---	621	0.272	---	---	---	---	---	---	83.4
	10-May-06	N		<1	---	<1	1,080	0.746	---	---	---	---	---	---	111
	11-May-06	N		<1	---	<1	1,130	0.79	---	---	---	---	---	---	101
	12-May-06	N		<1	---	<1	1,090	0.934	---	---	---	---	---	---	77.6
	13-May-06	N		---	---	<1	1,060	1.04	---	---	---	---	---	---	67.6
	23-May-06	N		---	---	<1	1,490	1.58	---	---	---	---	---	---	77.8
	31-May-06	N		---	---	<1	169	0.298	---	---	---	---	---	---	3.56
	05-Jun-06	N		---	---	<1	125	0.281	---	---	---	---	---	---	2.18

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PTI-1D	15-Mar-06	N	95-105	1,620	1,580	<1	2.63	ND	<.5	<.5	<500	<500	1,070	907	1.3
	03-Apr-06	N		3,350	3,370	6.42	<.5	ND	2.59	<.5	<500	<500	140	912	<1
	07-May-06	N		<1 J/FD	---	1,640	8.27	0.153	---	---	---	---	---	---	195
	09-May-06	N		<1	---	1,950	19.2	0.794	---	---	---	---	---	---	204
	10-May-06	N		937	---	672	4.56	0.087	---	---	---	---	---	---	46.4
	11-May-06	N		1,050	---	613	3.76	0.059	---	---	---	---	---	---	31.9
	12-May-06	N		<1 J/HD	---	2,400	12.6	0.603	---	---	---	---	---	---	215
	13-May-06	N		---	---	1,760	8.24	0.145	---	---	---	---	---	---	206
	22-May-06	N		---	---	57.9	0.942	ND	---	---	---	---	---	---	2.34
	31-May-06	N		---	---	<1	<.5	ND	---	---	---	---	---	---	3.26
PE-1	05-Jun-06	N		---	---	20	<.5	ND	---	---	---	---	---	---	2.45
	17-Mar-06	N	79-89	148	138	<1	<.5	ND	<.5	<.5	<500	<500	12.7	900	2.14
	05-Apr-06	N		140	136	<1	<.5	ND	<.5	<.5	<500	<500	12.3	939	1.99
TW-2D	01-Jun-06	N		114	111	<1	<.5	ND	<.5	<.1	<500	<500	12.5	773	2.34
	17-Mar-06	N	113-148	1,430	1,530	<1	<.5	ND	1.67	<.5	<500	<500	<5	501	<1
TW-3D	05-Apr-06	N		1,350	1,240	2.55	<.5	ND	1.51	<.5	<500	<500	<5	509	<1
	17-Mar-06	N	111-156	3,350	3,070	<1	<.5	ND	4.87	<.2	<500	<500	<5	613	1.04
INJ_SOLUTION_01	05-Apr-06	N		3,140	2,980	6.12	<.5	ND	4.61	<.5	<500	<500	<5	645	<1
	04-May-06	N	NA	---	---	---	---	5,620	---	---	---	---	---	---	265
INJ_SOLUTION_02	05-May-06	N		---	---	---	<5	---	---	---	---	---	---	---	---
	05-May-06	N	NA	---	---	---	1,790	---	---	---	---	---	---	---	276
INJ_SOLUTION_03	06-May-06	N		---	---	1,960	---	---	---	---	---	---	---	---	258
	06-May-06	N	NA	---	---	---	---	---	---	---	---	---	---	---	---
Make_Up_Water	05-May-06	N		---	---	<1	<.5	---	---	---	---	---	---	---	---

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
Field Blank	17-Mar-06	FB	NA	<0.21	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	04-Apr-06	FB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	09-May-06	EB		<0.2 J/HD	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	13-May-06	FB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	24-May-06	FB		0.25	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	2.45	1.53
	01-Jun-06	FB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	21.4
	05-Jun-06	FB		<0.2	<1	<1	<.5	0.027	<.5	<.1	<500	<500	<5	<.5	<1
Equipment Blank	17-Mar-06	EB	NA	<0.21	2.91	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	07-Apr-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	09-May-06	FB		<0.2 J/HD	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	13-May-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	1.33
	24-May-06	EB		0.23	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	2.47	1.17
	01-Jun-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	05-Jun-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	1.03

Notes:

ft bgs	Feet below ground
mg/L	Milligrams per liter
µg/L	Micrograms per liter
ppb	Parts per billion
<	Symbol indicates not detected at or above laboratory detection limit
N	Normal
EB	Equipment blank
FB	Field blank
FD	Field duplicate
J	Reported value is estimated
J/HD	Sample analyzed beyond USEPA-recommended holding time. Results may still be used for their intended purpose.
NA	Not applicable
ND	Not detected
Nitrate-N	Nitrate as Nitrogen

Table 4
Summary of Primary Analytical Parameters
 PG&E Topock
 Needles, California
 60-Day Status Report For the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
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Notes continued:

Nitrite-N	Nitrite as Nitrogen
---	Not analyzed/Not sampled
USEPA	United States Environmental Protection Agency
Dissolved	Samples were field filtered with a 0.45 micron filter

Table 5
Summary of Secondary Analytical Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-1S	17-Mar-06	N	35-45	262,000	74,700	<5	15,400	1,040,000	367	<5	1,710	<.5	<2	---
	06-Apr-06	N		267,000	70,500	<5	14,400	1,090,000	368	<5	1,740	<.5	<2	3,860
	06-May-06	N		287,000	83,200	<5	14,800	1,110,000	437	<5	2,180	<.5	<2	4,680
	09-May-06	N		298,000	89,100	<5	14,500	1,110,000	405	<5	1,910	<.5	<2	---
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	4,340
	13-May-06	N		260,000	79,100	<5	13,900	1,080,000	423	<5	2,140	<1	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		278,000	83,600	10.4	14,600	1,060,000	461	<5	1,960	<.5	<2	---
PT-1M	17-Mar-06	N	60-70	229,000	40,100	<5	15,700	1,230,000	145	<5	1,790	<.5	<2	---
	06-Apr-06	N		242,000	40,600	<5	15,000	1,290,000	144	<5	1,840	<.5	<2	4,250
	06-May-06	N		233,000	36,600	<5	13,200	1,370,000	168	<5	1,820	<.5	<2	4,340
	09-May-06	N		214,000	34,700	6.56	12,800	1,280,000	125	<5	1,790	<.5	<2	---
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	3,470
	13-May-06	N		207,000	35,800	9.84	12,500	1,380,000	192	<5	1,880	<.5	<2	---
	24-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	31-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		221,000	38,900	7.14	12,700	1,290,000	191	<5	2,140	<.5	<2	---
PT-1D	17-Mar-06	N	95-105	321,000	24,900	<5	24,600	2,540,000	107	<5	3,650	<.5	<2	---
	17-Mar-06	FD		316,000	24,900	<5	24,800	2,550,000	110	<5	3,610	<.5	<2	---
	06-Apr-06	N		332,000	24,000	<5	25,300	2,680,000	101	<5	3,780	<.5	<2	8,070
	06-Apr-06	FD		334,000	23,600	<5	25,100	2,700,000	98.1	<5	3,700	<.5	<2	8,260
	06-May-06	N		357,000	24,300	<5	25,300	2,930,000	85.2	<5	4,230	<.5	<2	8,260
	09-May-06	N		260,000	17,700	<5	20,800	2,360,000	130	<5	3,170	<1	<2	6,960
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	7,070
	13-May-06	N		223,000	16,600	<5	20,700	2,340,000	160	<5	2,170	<1	<2	---
	24-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	31-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	05-Jun-06	N		220,000	17,400	5.38	26,300	2,160,000	127	<5	3,210	<.5	<2	---

Table 5
Summary of Secondary Analytical Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-2S	17-Mar-06	N	35-45	273,000	92,700	<5	12,500	929,000	613	<5	1,630	<.5	<2	---
	06-Apr-06	N		300,000	99,800	<5	12,100	1,030,000	635	<5	1,670	<.5	<2	3,810
	24-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2	---
	07-Jun-06	N		324,000	105,000	5.77	11,600	1,000,000	691	<5	1,900	<.5	<2	---
PT-2M	17-Mar-06	N	60-70	227,000	35,600	<5	14,700	1,340,000	264	<5	1,880	<.5	<2	---
	06-Apr-06	N		232,000	35,600	<5	13,400	1,400,000	204	<5	1,920	<.5	<2	4,430
	24-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	31-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	31-May-06	FD		---	---	---	---	---	---	---	---	---	<2	---
	07-Jun-06	N		220,000	36,500	<5	12,600	1,360,000	212	<5	2,020	<.5	<2	---
PT-2D	17-Mar-06	N	95-105	314,000	25,700	<5	24,900	2,530,000	125	<5	3,530	<.5	<2	---
	17-Mar-06	FD		315,000	26,300	<5	25,200	2,560,000	112	<5	3,560	<.5	<2	---
	06-Apr-06	N		338,000	25,600	<5	25,100	2,640,000	109	<5	3,550	<.5	<2	8,120
	06-Apr-06	FD		338,000	25,800	<5	25,300	2,650,000	109	<5	3,660	<.5	<2	8,040
	24-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	31-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	07-Jun-06	N		231,000	18,100	5.36	21,700	2,310,000	154	<5	3,120	<.5	<2	---
PT-3S	16-Mar-06	N	35-45	244,000	85,600	<5	10,000	942,000	334	<5	1,740	<.5	<2	---
	03-Apr-06	N		236,000	80,600	5.08	10,300	930,000	369	<5	1,800	<.5	<2	4,080
	06-May-06	N		270,000	86,300	6.06	10,100	1,080,000	378	<5	1,900	<.5	<2	3,770
	06-May-06	FD		265,000	85,100	5.96	10,100	1,060,000	367	<5	1,860	<.5	<2	3,610
	09-May-06	N		281,000	93,100	6.28	11,100	1,150,000	367	<5	1,850	<1	<2	4,030
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	3,950
	13-May-06	N		238,000	79,500	6.32	9,840	1,050,000	365	<5	1,820	<1	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		189,000	63,000	8.17	9,260	9,170,000	505	<5	1,250	<2.5	<2	---

Table 5
Summary of Secondary Analytical Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-3M	18-Mar-06	N	60-70	162,000	32,600	<5	19,900	1,360,000	112	<5	1,830	<.5	<2	---
	07-Apr-06	N		184,000	30,500	<5	18,300	1,510,000	131	<5	1,910	<.5	<2	4,420
	06-May-06	N		194,000	28,900	<5	15,100	1,490,000	157	<5	2,050	<.5	<2	4,120
	09-May-06	N		186,000	28,800	<5	14,100	1,440,000	170	<5	2,020	<.5	<2	4,410
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	4,370
	13-May-06	N		193,000	28,300	<5	13,800	1,500,000	176	<5	2,040	<.5	<2	---
	13-May-06	FD		193,000	28,300	<5	13,700	1,490,000	184	<5	1,970	<.5	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		184,000	27,100	<5	12,900	1,360,000	172	<5	2,170	<.5	<2	---
	06-Jun-06	FD		189,000	27,900	<5	13,400	1,410,000	196	<5	2,160	<.5	<2	---
PT-3D	18-Mar-06	N	95-105	273,000	19,200	<5	22,900	2,570,000	104	<5	3,920	<.5	<2	---
	05-Apr-06	N		277,000	18,200	<5	22,200	2,720,000	87.2	<5	3,760	<.5	<2	8,130
	06-May-06	N		218,000	13,400	<5	19,500	2,300,000	117	<5	3,080	<.5	<2	6,950
	09-May-06	N		243,000	16,000	<5	21,200	2,620,000	114	<5	3,330	<1	<2	7,500
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	7,070
	13-May-06	N		234,000	16,700	5.06	20,700	2,590,000	112	<5	3,660	<1	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		249,000	17,100	<5	22,000	2,670,000	98.1	<5	3,990	<.5	<2	---
PT-4S	15-Mar-06	N	35-45	261,000	64,300	6.22	14,100	1,180,000	184	<5	1,800	1.35	<2	---
	06-Apr-06	N		282,000	61,800	6.56	13,400	1,300,000	188	<5	2,020	<.5	<2	4,470
	09-May-06	N		276,000	61,500	7.84	12,100	1,270,000	197	<5	2,110	<.5	<2	4,580
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	4,510
	13-May-06	N		267,000	61,100	7.59	12,300	1,300,000	181	<5	2,210	<1	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		263,000	60,200	8.38	12,000	1,200,000	211	<5	2,270	<.5	<2	---

Table 5
Summary of Secondary Analytical Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-4M	15-Mar-06	N	60-70	148,000	25,700	<5	18,700	1,370,000	144	<5	1,800	<.5	<2	---
	07-Apr-06	N		155,000	28,900	<5	20,400	1,480,000	117	<5	1,800	<.5	<2	4,190
	09-May-06	N		176,000	27,200	<5	15,400	1,490,000	168	<5	2,020	<.5	<2	4,250
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	3,870
	13-May-06	N		174,000	25,700	<5	14,000	1,460,000	178	<5	2,010	<.5	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		176,000	25,900	<5	13,400	1,380,000	184	<5	2,170	<.5	<2	---
PT-4D	15-Mar-06	N	95-105	334,000	20,700	5.13	24,800	3,150,000	79.4	<5	4,350	<.5	<2	---
	05-Apr-06	N		339,000	21,100	<5	24,000	3,060,000	68.1	<5	4,450	<.5	<2	9,150
	09-May-06	N		339,000	21,100	5.36	24,300	3,200,000	69.2	<5	4,500	<2.5	<2	9,040
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	9,290
	13-May-06	N		339,000	21,000	5.19	24,500	3,200,000	69.2	<5	4,380	<1	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	23-May-06	FD		---	---	---	---	---	---	---	---	---	<2	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
PT-5S	06-Jun-06	N	35-45	325,000	20,200	5.27	24,200	2,970,000	66.2	<5	4,850	<.5	<2	---
	16-Mar-06	N		315,000	72,300	8.86	14,200	1,320,000	279	<5	2,050	<.5	<2	---
	07-Apr-06	N		323,000	65,700	9.36	13,800	1,460,000	237	<5	2,170	<.5	<2	5,080
PT-5M	01-Jun-06	N	60-70	---	---	---	---	---	---	---	---	---	<2	---
	16-Mar-06	N		196,000	33,000	<5	11,000	1,220,000	237	<5	1,740	<.5	<2	---
	07-Apr-06	N		332,000	72,200	11.1	14,500	1,420,000	270	<5	2,210	<.5	<2	5,050
PT-5D	01-Jun-06	N	95-105	---	---	---	---	---	---	---	---	---	<2	---
	16-Mar-06	N		317,000	21,000	<5	24,500	3,150,000	62.3	<5	4,460	<.5	<2	---
	07-Apr-06	N		337,000	73,200	11.5	14,500	1,400,000	289	<5	2,190	<.5	<2	5,030
	12-May-06	N		298,000	20,900	<5	24,400	3,300,000	93.2	<5	4,160	<.5	<2	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2	---

Table 5
Summary of Secondary Analytical Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-6S	18-Mar-06	N	35-45	269,000	157,000	12.6	21,400	1,490,000	501	<5	2,870	<.5	<2	---
	04-Apr-06	N		296,000	153,000	15.2	20,300	1,540,000	451	<5	2,900	<.5	<2	5,940
	13-May-06	N		297,000	147,000	25.5	16,600	1,500,000	538	<5	2,740	<1	<2	---
	22-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		310,400	148,000	29.9	16,400	1,360,000	505	<5	2,820	<2.5	<2	---
PT-6M	16-Mar-06	N	60-70	230,000	39,700	<5	11,800	1,300,000	227	<5	1,840	<.5	<2	---
	04-Apr-06	N		238,000	43,400	<5	12,800	1,392,000	227	<5	1,980	<.5	<2	4,340
	13-May-06	N		224,000	39,100	<5	12,300	1,390,000	210	<5	2,030	<.5	<2	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		228,000	38,700	<5	12,400	1,300,000	226	<5	2,080	<.5	<2	---
PT-6D	16-Mar-06	N	95-105	245,000	16,200	<5	19,900	2,600,000	102	<5	3,630	<.5	<2	---
	04-Apr-06	N		239,000	17,500	<5	19,800	2,620,000	97.3	<5	3,420	<.5	<2	7,140
	13-May-06	N		216,000	14,900	<5	19,100	2,590,000	104	<5	3,310	<1	<2	---
	22-May-06	N		---	---	---	---	---	---	---	---	---	<2	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2	---
	06-Jun-06	N		187,000	13,200	<5	17,300	2,210,000	118	<5	3,380	<.5	<2	---
PTI-1S	15-Mar-06	N	35-45	266,000	88,200	13.2	11,600	980,000	375	<5	1,730	<.5	<2	---
	05-Apr-06	N		266,000	88,200	7.18	11,200	996,000	357	<5	1,760	<.5	<2	3,810
	06-May-06	N		155,000	14,100	<5	30,900	992,000	602	<5	798	<2.5	<2	3,930
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	3,040
PTI-1M	15-Mar-06	N	60-70	223,000	33,200	<5	12,200	1,360,000	179	<5	1,910	<.5	<2	---
	04-Apr-06	N		226,000	37,700	<5	12,800	1,480,000	180	<5	2,050	<.5	<2	4,450
	06-May-06	N		130,000	17,700	26.5	20,400	1,320,000	383	<5	1,080	<.5	<2	4,450
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	4,480

Table 5
Summary of Secondary Analytical Parameters

PG&E Topock
Needles, California

60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PTI-1D	15-Mar-06	N	95-105	289,000	21,500	<5	23,600	2,470,000	134	<5	3,420	<.5	<2	---
	03-Apr-06	N		267,000	18,000	<5	21,700	2,600,000	99.7	<5	3,620	<.5	<2	8,080
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	7,530
PE-1	17-Mar-06	N	79-89	261,000	37,400	<5	19,700	2,200,000	277	<5	2,990	<.5	<2	---
	05-Apr-06	N		263,000	36,400	<5	19,600	2,090,000	256	<5	3,110	<.5	<2	6,580
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2	---
TW-2D	17-Mar-06	N	113-148	207,000	23,600	<5	13,200	1,240,000	110	<5	1,920	<.5	<2	---
	05-Apr-06	N		231,000	25,800	<5	14,700	1,400,000	112	<5	2,070	<.5	<2	4,390
TW-3D	17-Mar-06	N	111-156	254,000	27,700	<5	15,900	1,540,000	97.3	<5	2,190	<.5	<2	---
	05-Apr-06	N		283,000	28,800	<5	17,900	1,740,000	89.9	<5	2,580	<.5	<2	5,580
INJ_SOLUTION_01	04-May-06	N	NA	---	---	---	---	---	---	---	---	---	---	2,240
INJ_SOLUTION_02	05-May-06	N	NA	---	---	---	---	---	---	---	---	---	---	4,650
INJ_SOLUTION_03	06-May-06	N	NA	---	---	---	---	---	---	---	---	---	---	4,460
Field Blank	17-Mar-06	FB	NA	<1000	<1000	<5	<1000	2,040	<5	<5	<.5	<.5	<2	---
	04-Apr-06	FB		<1000	<1000	<5	<1000	<1000	<5	<5	<.5	<.5	<2	<10
	09-May-06	FB		<1000	<1000	<5	<1000	<1000	<5	<5	<.5	<.5	<2	---
	13-May-06	FB		<1000	<1000	<5	<1000	<1000	<5	<5	<.5	<.5	<2	---
	24-May-06	FB		---	---	---	---	---	---	---	---	---	<2	---
	01-Jun-06	FB		---	---	---	---	---	---	---	---	---	<2	---
	05-Jun-06	FB		<1000	<1000	<5	<1000	<1000	<5	<5	<.5	<.5	<2	---

Table 5
Summary of Secondary Analytical Parameters

PG&E Topock
Needles, California

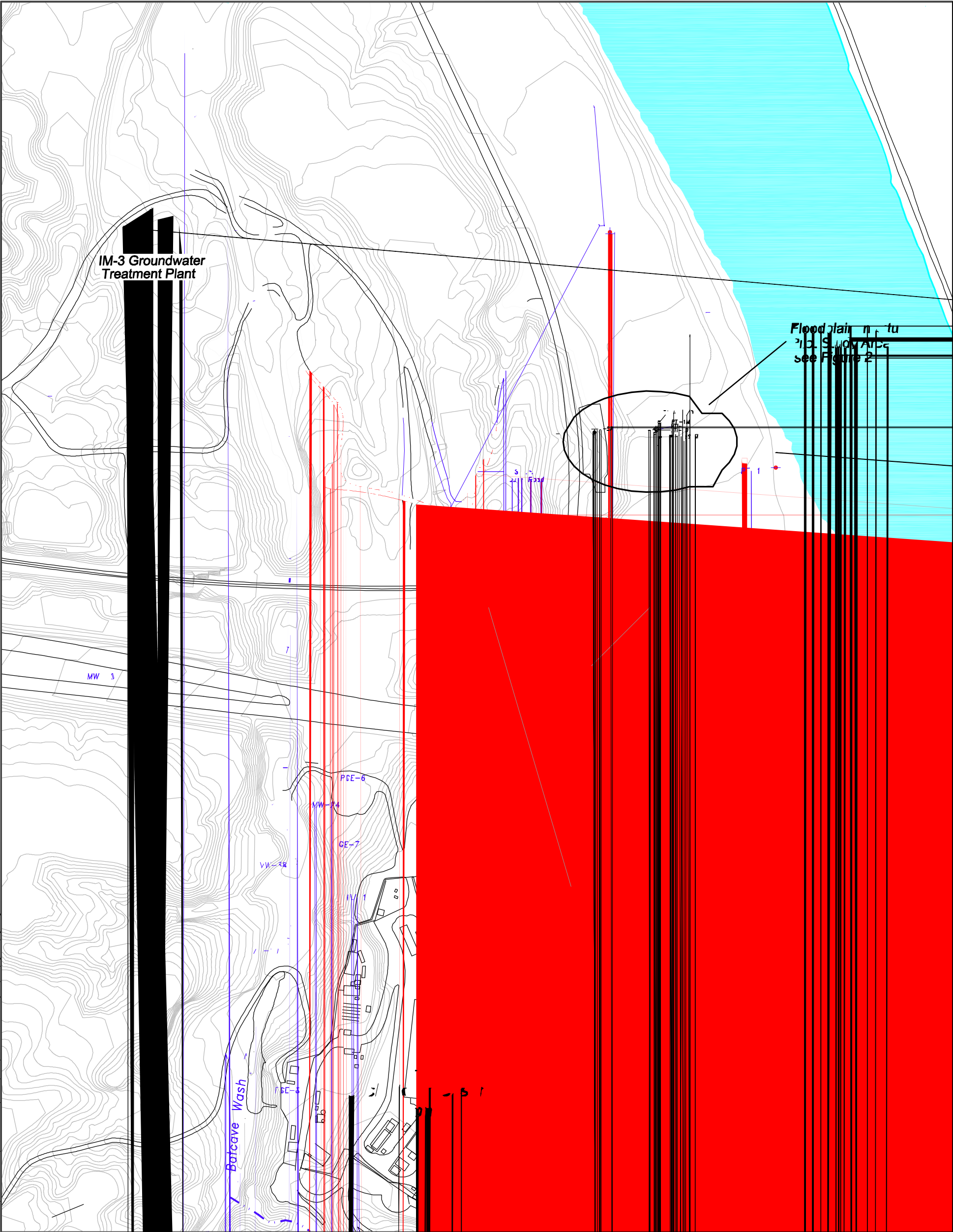
60-Day Status Report for the Floodplain Reductive Zone In-situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
Equipment Blank	17-Mar-06	EB	NA	<1000	<1000	<5	<1000	5,360	<5	<5	<.5	<.5	<2	---
	07-Apr-06	EB		<1000	<1000	<5	<1000	1,500	<5	<5	<.5	<.5	<2	<10
	09-May-06	EB		<1000	<1000	<5	<1000	<1000	<5	<5	<.5	<.5	<2	---
	13-May-06	EB		<1000	<1000	<5	<1000	<1000	<5	<5	<.5	<.5	<2	---
	24-May-06	EB		---	---	---	---	---	---	---	---	---	<2	---
	01-Jun-06	EB		---	---	---	---	---	---	---	---	---	<2	---
	05-Jun-06	EB		<1000	<1000	<5	<1000	<1000	<5	<5	<.5	<.5	<2	---

Notes:

ft bgs	Feet below ground
mg/L	Milligrams per liter
µg/L	Micrograms per liter
<	Symbol indicates not detected at or above laboratory detection limit as noted
EB	Equipment blank
FB	Field blank
FD	Field duplicate
N	Normal
NA	Not applicable
Dissolved	Samples were field filtered with a 0.45 micron filter
---	Not analyzed/not sampled

Acad Version : R16.1s (LWS Tech)
User Name : mchlu
Date/Time : Mon, 17 Apr 2006 - 9:30am
Path/Name : G:\Projects-Active\PG&E TOPOCK 16 Deliverables\Full Reports\102006 - Quarterly Report\Figures\Fig1.dwg



Source: MWH Draft In-Situ Hexavalent Chromium Reduction Pilot Test Work Plan, Unland Plume Treatment, 2006.

- Legend**
- Monitoring Well Locations
 - Extraction Well Locations
 - Injection Well Locations

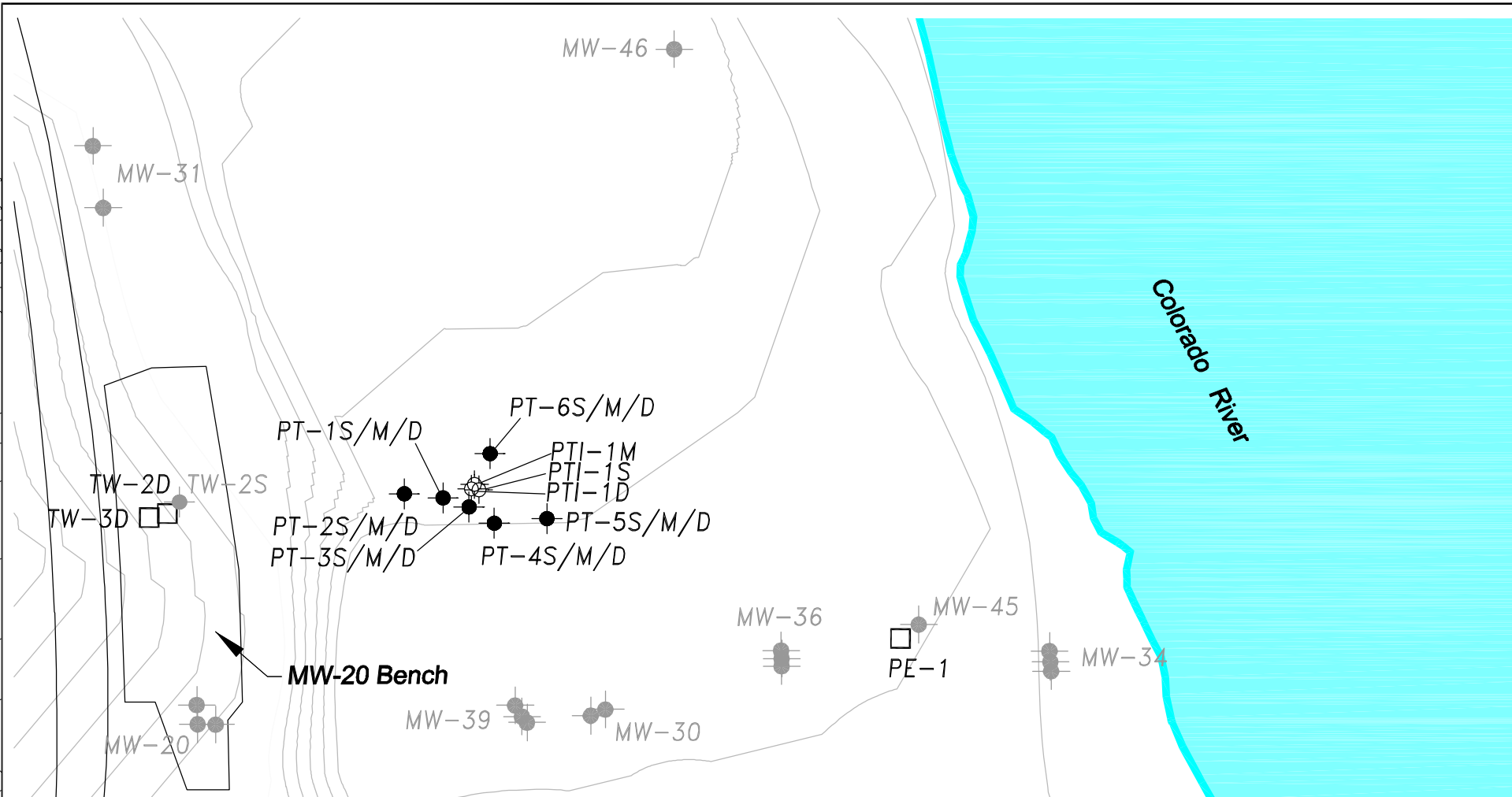
Project Director	Area Manager
N. MORGAN-BUTCHER	J. PE
Task Manager	Technician
H. VOSCO	
Drawing Date	Drawn
05 APR 06	M. CH

ARCADIS

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SITE PLAN
PG&E TOPOCK FACILITY
NEEDLES, CALIFORNIA

Project Number
RC000689.0001
Figure
1



Source: MWH Draft In-Situ Hexavalent Chromium Reduction Pilot Test Work Plan, Upland Plume Treatment, 2006.

Legend

- Monitoring Well Locations
- Extraction Well Locations
- Injection Well Locations



0 FEET 100
SCALE

Project Director N. MORGAN-BUTCHER	Area Manager J. PETERS	 ARCADIS G&M, Inc. 1050 Marina Way South Richmond, CA 94804 Tel: 510-233-3200 Fax: 510-233-3204 www.arcadis-us.com	SAMPLE LOCATION MAP PG&E TOPOCK FACILITY NEEDLES, CALIFORNIA	Project Number RC000689.0001
Task Manager H. VOSCOTT	Technical Review			Figure 2
Drawing Date 05 APR 06	Drawn By M. CHIU			

Appendix A

Field Variance Reports

Appendix B

Boring Logs/Well Construction Forms

Appendix C

Soil Analytical Reports and Chain-of-Custody Documentation

Appendix D

Well Development Forms

Appendix E

Calibration Log Forms

Appendix F

Groundwater Sampling Logs

Appendix G

Groundwater Elevation Maps