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December 16, 2005

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Subject: Third Quarter 2005 Groundwater and Surface Water Monitoring Report
PG&E Topock Compressor Station, Needles, California

Dear Mr. Shopay:

Enclosed is the Third Quarter 2005 groundwater and surface water monitoring report for the Topock project. This quarterly monitoring event, which also satisfied semi-annual and biennial monitoring requirements, was conducted by PG&E during October 3-13, 2005. The event included monitoring and sampling of 79 groundwater wells and 9 surface water locations along the Colorado River. If you have any questions on the groundwater and surface water monitoring report, please call me at (805) 546-5243.

Sincerely,

Paul Bettner
for Yvonne Meeks

Enclosure

Groundwater and Surface Water Monitoring Report Third Quarter 2005

**PG&E Topock Compressor Station
Needles, California**

Prepared for
**California Department of Toxic Substances
Control**

On Behalf of
Pacific Gas and Electric Company

December 16, 2005

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155 Grand Avenue, Suite 1000
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Groundwater and Surface Water Monitoring Report

Third Quarter 2005

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December 16, 2005

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

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Acronyms and Abbreviations

CACA	Corrective Action Consent Agreement
CCR	California Code of Regulations
COC	constituent of concern
Cr(T)	total dissolved chromium
Cr(VI)	hexavalent chromium
DTSC	California Department of Toxic Substances Control
GMP	Groundwater and Surface Water Monitoring Program
IM	Interim Measures
µg/L	micrograms per liter
PG&E	Pacific Gas and Electric Company
RCRA	Resource Conservation and Recovery Act of 1976
RFI	RCRA facility investigation
SAP	Sampling and Analysis Plan
USEPA	United States Environmental Protection Agency

1.0 Introduction and Background

This report presents the results of the third quarter 2005 groundwater and surface water monitoring event conducted at Pacific Gas and Electric Company's (PG&E) Topock Compressor Station in October 2005. The Topock Groundwater and Surface Water Monitoring Program (GMP) is part of a Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) being performed under a Corrective Action Consent Agreement (CACA) issued by the California Department of Toxic Substances Control (DTSC) in 1996 for the Topock site (United States Environmental Protection Agency [USEPA] ID No. CAT080011729). The Topock Compressor Station is located in eastern San Bernardino County, 15 miles southeast of the city of Needles, California, as shown on Figure 1.

1.1 Background

The groundwater and surface water monitoring activities at the Topock site were initiated in 1998 as a continuation of the RFI groundwater investigations (CH2M HILL 2005a). In July 2004, at the request of DTSC (DTSC 2004a), PG&E submitted a *Sampling and Analysis Plan, Groundwater and Surface Water Monitoring* (SAP) (CH2M HILL 2004) that described the scope, schedule, and sampling and analysis procedures for the GMP. The SAP additionally recommended modifications to the monitoring locations, analyses, and sampling frequency for the GMP. On August 26, 2004, PG&E received verbal DTSC approval to implement the sampling plan modifications proposed in the July 2004 SAP.

Before August 26, 2004, the wells and surface water monitoring locations were sampled for the site constituents of concern (COCs) defined in the 1996 CACA. The site COCs listed in the CACA include hexavalent chromium [Cr(VI)], total dissolved chromium [Cr(T)], copper, nickel, zinc, electrical conductivity (also referred to as specific conductance), and pH.

As proposed in the July 2004 SAP and approved by DTSC, the parameters analyzed in this quarterly GMP include the primary site COCs (Cr(VI), Cr(T), specific conductance, and pH), and the California Code of Regulations (CCR) Title 22 full list of metals (including copper, nickel, and zinc) at selected groundwater monitoring wells. Groundwater and surface water elevation data and field water quality data are also measured during the monitoring events.

Beginning in March 2004, as directed by DTSC (DTSC 2004b), PG&E initiated groundwater extraction at the MW-20 bench, located adjacent to the floodplain area of the site, as part of an Interim Measures (IM) program. One of the provisions for the IM activity requested by DTSC was the collection of analytical data from selected sampling locations near the pumping operation. The performance monitoring initiated under the IM program is being performed as part of the GMP quarterly monitoring and reporting activity.

1.2 2005 GMP Monitoring Plan

During January and February 2005, new groundwater monitoring wells were installed in the floodplain area of the site under the IM program. A DTSC-approved IM *Contingency*

Plan for Sentry Well Groundwater Monitoring (DTSC 2005a) was initiated in February 2005, as directed by DTSC in response to elevated levels of Cr(VI) in one of the new monitoring wells. The Contingency Plan included the weekly sampling of four sentry wells in the floodplain and four consecutive weeks of sampling of three surface water stations. In May 2005, DTSC approved a revised sampling frequency for the Contingency Plan that resulted in the weekly sampling of one sentry well and the biweekly sampling of six sentry wells in the floodplain (DTSC 2005b).

An updated Monitoring Plan, describing the objectives, scope, and schedule for the GMP, was submitted to DTSC on April 11, 2005 (CH2M HILL 2005b). DTSC provided preliminary comments on May 24, 2005 (DTSC 2005c) that approved the inclusion of 11 additional monitoring wells in the GMP. DTSC has not yet provided final comments or approval of the April 2005 Monitoring Plan.

1.3 Sampling Procedure Modification

In the spring of 2005, a chromium filtration comparison test was performed at DTSC's request to evaluate the effects, if any, of field filtering versus laboratory filtering of samples collected for chromium analysis. The chromium results of groundwater samples collected from 16 wells during the March 2005 and April 2005 monthly monitoring events were statistically analyzed and evaluated to determine the effects of the two filtering approaches. From the results of the filtration comparison test, it was recommended that samples analyzed for Cr(VI) by USEPA Methods 7199 and 7196A should be filtered in the laboratory and that samples analyzed for Cr(T) by USEPA Method 6010B should be filtered and preserved in the field after sample collection (CH2M HILL 2005c). In a June 2005 letter, DTSC agreed with the recommendations and directed the changes to be initiated for the July 2005 monthly event (DTSC 2005d). Since July 2005, all groundwater samples analyzed for Cr(T) by USEPA Method 6010B are being filtered and preserved in the field after sample collection.

1.4 Surface Water Monitoring Modification

In an April 26, 2005 letter (DTSC 2005e), DTSC directed PG&E to submit a revised Section 5.0 of the Monitoring Plan (CH2M HILL 2005b) to include a plan for depth-specific surface water sampling in the Colorado River. A *Revised Sampling Plan and Standard Operating Procedure for Depth-Specific Surface Water Sampling* was submitted to DTSC on May 16, 2005 (CH2M HILL 2005d). DTSC provided conditional approval and comments on the revised Section 5.0 on June 30, 2005 (DTSC 2005f). A Revised Sampling Plan and Standard Operating Procedure (CH2M HILL 2005e) that incorporated the comments was submitted on July 13, 2005. The depth-specific surface water sampling program was initiated in July 2005 with eight in-channel stations and continued in September 2005 with nine in-channel stations (CH2M HILL 2005f). Three depth-specific water samples were taken at each in-channel station to the extent possible. The depth-specific surface water sampling will occur quarterly during normal river stages and monthly during low river stages (anticipated November 2005 through January 2006) until June 2006.

1.5 Access Routes

On September 14, 2005, a *Site Access and Sampling Procedures for Groundwater Monitoring Wells Located Near Potential Southwestern Willow Flycatcher Habitat, Rev 2* (CH2M HILL 2005g) was submitted to DTSC outlining access route requirements to be followed during the Southwestern Willow Flycatcher nesting season (typically June through September). These procedures were observed during the summer monitoring events through September 2005.

1.6 Current GMP Monitoring Activity

DTSC revised the sampling frequency for monitoring wells in the GMP initially through September 2005 (DTSC 2005g), and subsequently for the long term (DTSC 2005h). Under the GMP as of October 2005, samples are collected from monitoring wells and surface water stations according to the following schedule:

- Seventy-six monitoring wells are sampled semi-annually (twice a year).
- Sixty-one monitoring wells, one active water supply well, nine shoreline surface water stations, and nine in-channel depth-specific surface water stations are sampled quarterly.
- Twelve monitoring wells on the floodplain and nine surface water stations are sampled monthly.
- One monitoring well on the floodplain is sampled biweekly (every 2 weeks).
- Four inactive supply wells are sampled biennially (every 2 years).

Figure 2 shows the locations of the PG&E Topock Compressor Station, site features, groundwater and shoreline surface water monitoring stations in the GMP, and other monitoring wells at the site. Table 1 summarizes information on well construction and sampling methods for all wells in the GMP, and other monitoring wells at the site. Figure 3 presents the locations of the depth-specific surface water sampling locations as of October 2005.

2.0 Third Quarter 2005 Monitoring Activities

This section provides a summary of the monitoring and sampling activities completed during the third quarter 2005 reporting period and the specific groundwater and surface water results for analyses performed for the third quarter monitoring event. The quarterly monitoring event also fulfills the semi-annual and biennial sampling requirements. The biennial/semi-annual/quarterly monitoring event (hereafter referred to as the third quarter event) was conducted in October rather than September to avoid heat-related health and safety issues associated with working in high-temperature conditions during the summer months. Further, site access restrictions in place during the Southwestern Willow Flycatcher nesting season were discontinued by October, and sampling crews were able to proceed with standard sampling methodology on the floodplain for the quarterly event.

2.1 Summary of Monitoring and Sampling

The third quarter 2005 monitoring event was conducted from October 3 through 13, 2005 and consisted of:

- Seventy-nine monitoring wells and nine shoreline surface water stations (Figure 2) were sampled for Cr(VI), Cr(T), specific conductance, and pH. Of the 80 monitoring wells scheduled for sampling, only MW-24BR could not be sampled because of damage to the dedicated pump and the inability to sample using a portable pump.
- Nine wells were sampled for the full list of CCR Title 22 metals, in accordance with the July 2004 SAP (MW-10, MW-11, MW-12, MW-20-70, MW-20-130, MW-25, MW-34-55, MW-34-80, and MW-37D).
- Fourteen wells and two surface water locations were sampled for the IM performance monitoring parameters: total dissolved solids, oxygen 18, deuterium, chloride, sulfate, nitrate, bromide, alkalinity, calcium, magnesium, potassium, sodium, and boron.
- Groundwater and surface water elevations and field water quality data were collected at all sample locations.
- Duplicate samples were collected at eight monitoring wells (MW-12, MW-24A, MW-25, MW-33-150, MW-34-100, MW-35-60, MW-37S, and MW-41S) to assess field sampling and analytical procedures.
- A sitewide groundwater level survey was performed on October 14, 2005 to generate a groundwater elevation contour map for the third quarter 2005.

The sampling methods, procedures, field documentation of the GMP sampling, water level measurements, and field water quality monitoring were performed in accordance with PG&E's July 2004 SAP (CH2M HILL 2004a) and the *Sampling, Analysis, and Field Procedures Manual, Revision 1*, dated March 31, 2005 (CH2M HILL 2005h).

During the third quarter 2005 monitoring period, three monthly sampling events (July, August, and September), five biweekly sampling events, one weekly sampling event, and two depth-specific surface water events (July and September) were also conducted. The results of the monthly, biweekly, weekly, and depth-specific surface water monitoring events performed have been issued in periodic data reports to DTSC and project stakeholders during the reporting period. The monitoring data presented in this report (Tables 2 through 8) include the results from all events in the third quarter 2005; however, only the data from the October 2005 quarterly event are discussed.

2.1.1 Site COC Analyses

All monitoring wells and surface water stations sampled during this event were analyzed for Cr(VI), Cr(T), specific conductance, and pH. The analyses for the site COC parameters were performed by Truesdail Laboratories, Inc., a California-certified analytical laboratory in Tustin, California. In accordance with the SAP, Cr(VI) and Cr(T) were analyzed using the following analytical methods:

- Method SW 7196A was used for samples collected from monitoring wells where prior monitoring has detected Cr(VI) concentrations above 100 micrograms per liter ($\mu\text{g}/\text{L}$). The minimum reporting limit for Method SW 7196A for undiluted samples is 10 $\mu\text{g}/\text{L}$.
- Method SW 7199 was used for all surface water samples and all groundwater samples collected from monitoring wells where prior monitoring has not detected Cr(VI) concentrations above 100 $\mu\text{g}/\text{L}$. The minimum reporting limit for Cr(VI) using Method SW 7199 is 0.2 $\mu\text{g}/\text{L}$ for undiluted samples.
- Dissolved Cr(T) was analyzed using Method SW 6010B or Method SW 6020A (both have reporting limits of 1 $\mu\text{g}/\text{L}$ for undiluted samples).
- Method USEPA 218.6 (equivalent to Method SW 7199), with a reporting limit of 0.2 $\mu\text{g}/\text{L}$, was used for the Cr(VI) water analysis from the domestic supply well at Park Moabi.

2.1.2 Title 22 Metals

In addition to the site COCs, nine monitoring wells were sampled for antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc (CCR Title 22 full list of metals). In accordance with the DTSC January 25, 2005 letter (DTSC 2005i), the groundwater samples for CCR Title 22 dissolved metals analyses were field-filtered with a 0.45-micron inline filter. The metals analyses were performed by Emax Laboratories, a California-certified analytical laboratory in Torrance, California.

2.1.3 IM Performance Monitoring and Additional Water Quality Characterization

During the October 2005 monitoring event, 14 selected monitoring wells and two surface water locations were sampled for specific parameters to monitor the performance and effects of IM pumping at the MW-20 bench on groundwater chemistry in the floodplain area. The water samples were analyzed for:

- Total dissolved solids (USEPA Method 160.1).
- Chloride, sulfate, nitrate and bromide (USEPA Method 300.0).
- Dissolved calcium, magnesium, potassium, sodium, and boron (Method SW 6010B or SW 6020A).
- Alkalinity (USEPA Method 310.1).
- Stable isotopes oxygen 18 and deuterium (CF-IRMS methods).

The performance monitoring parameter analyses were performed by Truesdail Laboratories, Inc. and Emax Laboratories (cations, anions, and alkalinity). Stable isotope results for the October 2005 monitoring event are not available at this time due to equipment scheduling delays at the laboratory (Zymax Laboratory). Zymax has subcontracted the research laboratories at the University of Arizona to complete the stable isotope analyses for the October 2005 samples. The stable isotope results will be reported in the annual GMP Report.

Additional water quality characterization analyses were performed during this event to complete sampling that was intended for the June 2005 quarterly event but which could not be completed at that time. The additional parameters included ammonia (Method 350.2), total organic carbon (Method 415.2), dissolved silica (Method 370.1), iron (Method 6010B or 6020A), and manganese (Method 6010B or 6020A). These additional results, which are not part of the routine performance monitoring parameters, will be reported in the appendix of the annual GMP Report.

3.0 October 2005 Quarterly Monitoring Results

This section summarizes the results of the groundwater and surface water sampling completed for the Topock GMP October 2005 quarterly monitoring event. Figure 2 shows the locations of the GMP monitoring wells and the nine shoreline surface water locations sampled along the Colorado River. Figure 3 shows the locations of the nine depth-specific surface water monitoring stations in the river channel.

The monitoring results and data presented for the October 2005 quarterly event include results for site COCs, the performance monitoring parameters, and CCR Title 22 metals. Laboratory data quality review, water level measurements, and water quality field parameter data are also presented in this section. Complete laboratory reports and analytical documentation are maintained in the project file and are available upon request.

3.1 Site COC Analytical Results

3.1.1 Groundwater

Table 2 presents the results for chromium and other site COCs analytes in groundwater samples collected during this quarterly event and prior events from the past year. In October 2005, the maximum detected Cr(T) concentration was 10,700 µg/L at well MW-20-130, and the maximum detected Cr(VI) concentration was 10,200 µg/L, at well MW-20-100. Overall, the October 2005 chromium results are consistent with prior results at these locations (Table 2).

3.1.2 Surface Water

Table 3 presents the results of chromium and other analytes in shoreline surface water samples collected during this quarterly event and prior events from the past year. Cr(VI) and Cr(T) were not detected in any of the water samples collected at the nine shoreline surface water stations during the third quarter. To date, Cr(VI) has not been detected in any shoreline surface water sample.

Table 4 presents the results of chromium, other site COCs, total dissolved solids, total suspended solids, and hardness analyses for the depth-specific surface water sampling events performed in July and September 2005. Cr(VI) and Cr(T) were not detected in any of the water samples collected at the nine depth-specific surface water stations during either event.

3.1.3 Hexavalent Chromium Results

Figures 4A through 4C present the Cr(VI) results for wells monitoring the upper, middle, and lower depth intervals of the Alluvial Aquifer, respectively, during the October 2005 quarterly sampling event. Figures 4A through 4C also show the approximate outline of the area where the concentration of Cr(VI) in the groundwater is greater than 50 µg/L (the

California drinking water standard for total chromium). The Cr(VI) results for the surface water sampling during the October 2005 quarterly event are shown on Figure 4A.

The overall distribution and concentrations of Cr(VI) in the groundwater during October 2005 in the upper and middle depth monitoring wells (Figures 4A and 4B) are generally consistent and comparable with the prior quarterly monitoring data. The lower-depth monitoring well MW-40D has increased in Cr(VI) concentration to levels similar to March 2005 (Figure 4C).

Although the overall distribution of Cr(VI) is similar to prior monitoring events, the October 2005 sampling results indicate slightly increasing concentrations in MW-34-100 and declining concentrations in the middle depth interval well cluster MW-36 and the lower-depth interval MW-39 well cluster (see Table 2). The Cr(VI) concentration in well MW-36-100 decreased from 396 µg/L in September 2005 to 388 µg/L in October 2005. The Cr(VI) concentration in well MW-39-100 decreased from 4,540 µg/L in September 2005 to 4,010 µg/L in October 2005.

The Cr(VI) concentration in the water supply well at Park Moabi was 9.2 µg/L, which is consistent with prior results. Samples from the monitoring wells at PGE-7 and PGE-8, which are completed in bedrock, did not contain Cr(VI) during the October 2005 quarterly event. The quarterly event was the first GMP event to sample observation wells OW-3S, OW-3M, and OW-3D as part of the routine monitoring frequency.

3.2 Additional Analytes Results

3.2.1 IM Performance Monitoring and Additional Water Quality Characterization

Table 5 presents the results of the general chemistry and stable isotope analyses for the 14 monitoring wells and two surface water stations in the IM performance monitoring area from March 2004 through October 2005. Table 5 also provides the general chemistry and stable isotope results for the remaining wells for water quality characterization (as described in Section 2.1.3). Additional water quality characterization parameters not included in Table 5 will be presented in the 2005 GMP annual report.

The full set of additional water quality characterization data collected during the second and third quarter 2005 GMP events will be reported in the 2005 GMP annual report (following completion of the fourth quarterly event) and is not presented in this report. The general chemistry and stable isotope data collected under the GMP will be used to continue to assess water quality conditions and data trends in the IM performance monitoring floodplain area.

3.2.2 CCR Title 22 Metals

Table 6 presents the full list of CCR Title 22 metal results for the GMP monitoring wells sampled from September 2004 through October 2005. In addition to Cr(T), the trace metals detected in the October 2005 groundwater sampling event were arsenic, cobalt, lead, molybdenum, selenium, vanadium, and zinc. Excluding Cr(T) and arsenic, the dissolved concentrations of the trace metals detected during the October 2005 monitoring event are below the respective California drinking water standards.

3.3 Analytical Data Quality Review

The laboratory analytical data generated from the October 2005 monitoring event were independently reviewed by project chemists to assess data quality and identify deviations from analytical requirements. A detailed discussion of data quality for GMP sampling data is presented in the data validation reports, which are kept in the project file and are available upon request.

As discussed below, the completeness objectives were met for all method and analyte combinations. No significant analytical deficiencies were identified in the October 2005 monitoring data. With minor exceptions (noted below), the analyses and data quality meet the laboratory method quality control acceptance criteria. Overall, the analytical data for the October 2005 monitoring event are considered acceptable for the purpose of monitoring groundwater and surface water conditions at the site.

Matrix Interference: Matrix interference was encountered in groundwater samples from some of the monitoring wells, which affected the sensitivity for Cr(VI) when using Method SW 7199. Results from 24 wells reflect adjusted reporting limits (Table 2) as a result of serial dilutions that were required to overcome the matrix interference and provide acceptable matrix spike recoveries.

Quantitation and Sensitivity: All method and analyte combinations met the project reporting limit objectives, with the exception of the matrix interference issue explained above.

Holding Time Data Qualification: All method holding time requirements were met.

Calibration: All instrument calibration criteria were met, except the closing calibration for bromide by Method E300.0 exceeded criteria for samples MW-20-130, MW-30-50, MW-42-30, MW-42-55, and MW-42-65, and the results were estimated (J flagged).

Matrix Spike Samples: Matrix spike acceptance criteria were met, with the following exceptions: the Cr(VI) analysis for MW-18, MW-35-60 field duplicate, PGE-8, MW-21, and R 28 samples had recovery that was below the criteria, and the results were estimated (J flagged).

Chain of Custody: Each sample was documented in a completed chain of custody and received at the laboratory in good condition. All discrepancies identified in laboratory custody were promptly resolved except: (1) samples MW-15 and MW-16 were possibly not filtered due to the Cr(T) results being much higher than historical, and the Cr(T) results were estimated (J flagged); and (2) the Cr(T) analyses for MW-21, MW-22, MW-32-20, MW-39-60, and MW-43-75, and the cation analysis for MW-32-20 had samples that were not preserved, and the results were estimated (J flagged).

Field Duplicates: All field duplicates acceptance criteria were met.

Laboratory Duplicates: All laboratory duplicate acceptance criteria for all methods were met.

3.4 Water Level Measurements

Table 7 presents the water level measurements and groundwater and surface water elevations collected during the October 2005 monitoring event. Water level measurements from prior monitoring events since September 2004 are summarized in this table for reference and comparison. Table 7 also lists salinity data for the wells where water level data were measured. Groundwater salinity during this monitoring event ranged from 0.06 percent (MW-27-20) to a maximum of 3.00 percent (well MW-30-30)—a range that is consistent with results of prior monitoring. Because of the density differences in groundwater caused by salinity variations, the groundwater elevations measured in the monitoring wells have been normalized to a freshwater standard (Table 7).

Since March 2004, a network of over 70 pressure transducers has been used to collect continuous records of water elevation data in the Alluvial Aquifer (floodplain and IM No. 3 injection areas) and the Colorado River for the analysis and assessment of hydraulic data. This assessment is ongoing and is being reported as part of the IM activities. The average groundwater elevation data for wells in the floodplain area are calculated monthly and are presented in the IM performance monitoring reports (CH2M HILL 2005i).

Beginning in June 2005 at DTSC's direction (DTSC 2005e), a sitewide water level data set was collected quarterly to construct a groundwater elevation contour map for the upper-depth interval of the Alluvial Aquifer. In accordance with this direction, a sitewide water level survey was conducted during the October 2005 quarterly event that involved the manual collection of groundwater level data at 30 shallow wells within a two-hour period. Figure 5 presents the groundwater elevation contours for the upper-depth interval of the Alluvial Aquifer (shallow monitoring wells) measured on October 14, 2005. The groundwater elevation contours reflect transient conditions at the time of measurement and may not be representative of the average annual groundwater flow directions in the study area.

3.5 Field Parameter Data

A field water quality meter and flow-through cell were used to measure parameters during well purging and groundwater sampling (CH2M HILL 2004, 2005b). Water quality field measurements were also recorded during surface water sampling. The measured field parameters included specific conductance, temperature, pH, oxidation-reduction potential, and dissolved oxygen. Table 8 summarizes the field water quality data collected during the October 2005 quarterly event and prior monitoring events. Field data sheets and chain-of-custody records for the October monitoring event are presented in Appendix A.

4.0 Status of Monitoring Activities

This section summarizes the scope and status of ongoing monitoring activities scheduled for the Topock GMP. Monitoring activities up to and including the October 2005 quarterly event were conducted in accordance with the July 2004 SAP (CH2M HILL 2004a) and subsequent revisions. DTSC provided comments on the July 2004 SAP in a letter dated January 25, 2005 (DTSC 2005i). As described in Section 1.0, the GMP Monitoring Plan was submitted on April 11, 2005 (CH2M HILL 2005b). Additional wells were approved in May 2005, and the sampling frequency was revised in September 2005. Field filtration of Cr(VI) samples from monitoring wells and the depth-specific surface water sampling were initiated in July 2005. The Monitoring Plan will be revised in a future update to reflect the approved revisions.

4.1 Quarterly Monitoring – Fourth Quarter 2005 Event

The fourth quarter 2005 monitoring event is scheduled to be conducted in mid-December 2005. The groundwater and surface water monitoring report for the fourth quarter 2005 GMP event will be submitted approximately 12 weeks after sampling.

The surface water monitoring program has been augmented to include quarterly depth-specific sampling of nine in-channel surface water stations (CH2M HILL 2005e, f). The depth-specific sampling was initiated in July 2005 and will occur quarterly during normal river stages and monthly during low river stages (anticipated November 2005 through January 2006) until June 2006, after which the surface water monitoring program will be re-evaluated and modified as warranted with DTSC approval.

4.2 Monthly Monitoring

Beginning in November 2003, at the DTSC's request, PG&E conducted monthly sampling for Cr(VI) and Cr(T) in selected monitoring wells in the Colorado River floodplain for more frequent monitoring of water quality in this area. Requirements for the monthly monitoring activity were further modified to include surface water monitoring, as specified by DTSC (DTSC 2004b).

From October 2004 to May 2005, monthly sampling events included the sampling of 24 wells and nine surface water locations for Cr(VI) and Cr(T). After May 2005, monthly sampling events included the sampling of 35 wells and nine surface water locations for Cr(VI) and Cr(T). The sampling frequency was reduced from July through September 2005 to include the monthly sampling of 12 wells on the floodplain, with several floodplain wells requiring specially-modified procedures for low-impact sampling. In September 2005, the entire GMP sampling schedule was revised, retaining 12 wells for routine monthly sampling. This monthly monitoring frequency will continue in 2006.

4.3 Biweekly Well Sampling

From January to August 2004, at the DTSC's request, PG&E conducted weekly sampling for Cr(VI) and Cr(T) at seven selected monitoring wells in the floodplain, as part of IM data collection (DTSC 2004c). In August 2004, DTSC approved the transition from weekly to biweekly sampling for four select wells. The four floodplain wells included in biweekly sampling were MW-28-90, MW-33-90, MW-34-80, and MW-36-100.

In late February 2005, weekly sampling of selected floodplain monitoring wells and river sampling locations was resumed at DTSC direction. Weekly sampling of four wells (MW-27-60, MW-27-85, MW-34-80, and MW-34-100) was initiated during the week of February 23, 2005. The sampling frequencies were further revised in May 2005: MW-34-100 to weekly sampling, MW-27-85 and MW-34-80 to biweekly sampling, and MW-27-60 to monthly sampling (DTSC 2005b).

In July 2005, DTSC decreased the biweekly sampling schedule to one well (MW-34-100) for the period of July through September 2005 (DTSC 2005g). In a September 2005 letter, DTSC extended the reduced sampling frequency so that biweekly sampling of only MW-34-100 continues (DTSC 2005h). Groundwater monitoring of MW-34-100 and other sentry wells in the floodplain area will continue in accordance with the approved monitoring and contingency plans and as directed by DTSC.

5.0 References

- California Department of Toxic Substances Control (DTSC). 2004a. Letter to PG&E. "Notification of Required Weekly Sampling and Analysis of Monitoring Well MW-33-90 and Submission of a Revised Water Quality Sampling and Analysis Plan, Pacific Gas & Electric Company, Topock Compressor Station, Needles, California." May 3.
- _____. 2004b. Letter to PG&E. "Request for Interim Measure Work Plan No. 2, Pacific Gas & Electric Company, Topock Compressor Station." February 9.
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Tables

Table 1
Well Construction and Sampling Summary, October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Site Area	Measuring Point Elevation (ft MSL)	Screen Interval (ft bgs)	Well Casing (inches)	Well Depth (ft bgs)	Depth to Water (ft btoc)	Sampling System	Typical Purge Rate (gpm)	Typical Purge Volume (gallons)	Remarks
GMP Monitoring Wells										
MW-09	Bat Cave Wash	536.56	77 - 87	4 in PVC	89.4	66.8	CD pump	3	11	
MW-10	Bat Cave Wash	530.65	73.7 - 93.7	4 in PVC	96.9	74.7	CD pump	5	40	
MW-11	Bat Cave Wash	522.61	62.5 - 82.5	4 in PVC	86.1	80.5	CD pump	5	30	
MW-12	East of Station	484.01	27.5 - 47.5	4 in PVC	50.4	28.6	Ded. Redi-Flo AR	3	40	
MW-13	Bat Cave Wash	488.64	28.5 - 48.5	4 in PVC	52.0	33.3	CD pump	4	30	
MW-14	East Mesa	570.99	111 - 131	4 in PVC	133.8	115.2	CD pump	4	30	
MW-15	East of New Ponds	641.52	180.5 - 200.5	4 in PVC	203.0	185.2	CD pump	5	30	
MW-16	Near New Ponds	657.31	198 - 217	4 in PVC	218.1	200.8	CD pump	7	35	
MW-17	West of Mesa Area	589.96	130 - 149.5	4 in PVC	153.6	133.4	CD pump	5	32	
MW-18	West Mesa	545.32	85 - 104	4 in PVC	106.7	89.1	CD pump	5	30	
MW-19	Route 66	499.92	46 - 65	4 in PVC	65.8	45.0	CD pump	7	41	
MW-20-070	MW-20 bench	500.15	50 - 70	4 in PVC	69.6	46.2	CD pump	10	53	
MW-20-100	MW-20 bench	500.58	89.5 - 99.5	4 in PVC	101.4	46.0	CD pump	10	110	
MW-20-130	MW-20 bench	500.66	121 - 131	4 in PVC	132.3	47.7	CD pump	10	180	
MW-21	Route 66	505.55	39 - 59	4 in PVC	58.5	87.7	CD pump	10	10	low recharge well; purges dry at 1 casing volume
MW-22	Floodplain	460.72	5.5 - 10.5	2 in PVC	12.4	6.2	Peristaltic	0.2	4	
MW-23	East of Station	507.33	60 - 80	4 in PVC	81.4	54.1	CD Pump	5	20	low recharge well; purges dry at 1 casing volume
MW-24A	MW-24 Bench	567.16	104 - 123.5	4 in PVC	127.5	111.4	CD pump	3	30	
MW-24B	MW-24 Bench	564.76	193 - 213	4 in PVC	214.8	109.1	CD pump	7	210	
MW-24BR	MW-24 Bench	563.95	378 - 437	4 in PVC	441.0	108.3	CD pump	8	185	low recharge well; purges dry at 1 casing volume
MW-25	Near Bat Cave Wash	542.90	84.5 - 104.5	4 in PVC	106.5	50.3	CD pump	5	32	
MW-26	Route 66	502.22	51.5 - 71.5	2 in PVC	70.1	47.3	CD pump	7	50	
MW-27-020	Floodplain	460.56	7 - 17	2 in PVC	14.4	5.8	Ded. Redi-Flo AR	1	7	
MW-27-060	Floodplain	461.38	47.3 - 57.3	2 in PVC	59.0	6.7	Redi-Flo AR	2	25	
MW-27-085	Floodplain	460.99	77.5 - 87.5	2 in PVC	80.0	6.9	Redi-Flo AR	2	36	
MW-28-025	Floodplain	466.85	13 - 23	2 in PVC	21.1	12.0	Ded. Redi-Flo AR	1	5	
MW-28-090	Floodplain	467.51	70 - 90	2 in PVC	98.4	13.7	Ded. Redi-Flo AR	2	50	
MW-29	Floodplain	485.21	29.5 - 39.5	2 in PVC	41.5	30.1	Ded. Mini-Monsoon	0.5	6	
MW-30-030	Floodplain	468.12	12 - 32	2 in PVC	26.9	14.7	Ded. Redi-Flo AR	1	10	
MW-30-050	Floodplain	468.81	40.5 - 50.5	4 in PVC	52.6	14.4	Ded. Redi-Flo AR	2	75	
MW-31-060	MW-20 Bench	496.81	41.5 - 61.5	4 in PVC	64.0	42.1	CD pump	10	40	
MW-31-135	MW-20 Bench	498.11	113 - 133	2 in PVC	135.4	44.3	Redi-Flo AR	3	60	

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GMP Monitoring Wells										
MW-32-020	Floodplain	461.51	10 - 19	2 in PVC	19.6	7.2	Ded. Redi-Flo AR	1.5	6	
MW-32-035	Floodplain	461.63	27.5 - 35	4 in PVC	37.2	7.3	Ded. Redi-Flo AR	2	60	
MW-33-040	Floodplain	487.38	29 - 38	4 in PVC	41.8	32.5	Ded. Mini-Monsoon	0.5	4	
MW-33-090	Floodplain	487.55	69 - 88	4 in PVC	88.3	32.8	Ded. Redi-Flo AR	2	110	
MW-33-150	Floodplain	487.77	132 - 152	2 in PVC	155.0	33.8	Redi-Flo AR	3	60	
MW-33-210	Floodplain	487.25	190 - 210	2 in PVC	223.0	33.5	Redi-Flo AR	3	90	
MW-34-055	Floodplain	460.95	45 - 55	4 in PVC	56.6	6.8	Ded. Redi-Flo AR	2	100	
MW-34-080	Floodplain	461.20	73 - 82	4 in PVC	84.3	6.5	Ded. Redi-Flo AR	3	150	
MW-34-100	Floodplain	460.96	89.5 - 99.5	2 in PVC	117.0	7.2	Redi-Flo AR	2	55	
MW-35-060	Route 66	484.19	38.5 - 58.5	2 in PVC	56.8	29.2	Redi-Flo AR	2	18	
MW-35-135	Route 66	483.57	120 - 140	2 in PVC	158.7	29.0	Redi-Flo AR	3	66	
MW-36-020	Floodplain	469.26	10 - 20	1 in PVC	22.7	15.0	Peristaltic	0.5	4	
MW-36-040	Floodplain	469.61	30 - 40	1 in PVC	42.8	15.1	Peristaltic	0.5	4	
MW-36-050	Floodplain	469.60	46 - 51	1 in PVC	53.3	15.0	Peristaltic	0.75	5	
MW-36-070	Floodplain	469.25	60 - 70	1 in PVC	72.5	14.8	Peristaltic	0.5	7	
MW-36-090	Floodplain	469.61	80 - 90	1 in PVC	92.5	16.1	Peristaltic	0.4	10	
MW-36-100	Floodplain	469.64	88 - 98	2 in PVC	110.2	15.5	Ded. Redi-Flo AR	2	45	
MW-37D	Bat Cave Wash	486.19	180 - 200	2 in PVC	226.7	31.3	Redi-Flo AR	3	100	
MW-37S	Bat Cave Wash	485.97	64 - 84	2 in PVC	87.0	31.0	Redi-Flo AR	2	30	
MW-38D	Bat Cave Wash	525.31	163.3 - 183.3	2 in PVC	190.9	70.4	Redi-Flo AR	3	60	
MW-38S	Bat Cave Wash	525.51	75 - 95	2 in PVC	98.1	70.3	Redi-Flo AR	1	13	
MW-39-040	Floodplain	468.02	30 - 40	1 in PVC	42.1	13.5	Peristaltic	0.5	3.5	
MW-39-050	Floodplain	467.93	45 - 50	1 in PVC	54.6	13.9	Peristaltic	0.5	5	
MW-39-060	Floodplain	468.00	49 - 59	1 in PVC	66.3	14.2	Peristaltic	0.5	6	
MW-39-070	Floodplain	468.02	60 - 70	1 in PVC	71.7	14.2	Peristaltic	0.5	7	
MW-39-080	Floodplain	467.92	70 - 80	1 in PVC	82.6	14.6	Peristaltic	0.5	9	
MW-39-100	Floodplain	468.01	80 - 100	2 in PVC	117.7	14.7	Ded. Redi-Flo AR	2	45	
MW-40D	I-40 Median	566.08	235 - 255	2 in PVC	266.0	110.9	Redi-Flo AR	3	75	
MW-40S	I-40 Median	566.04	115 - 135	2 in PVC	134.0	110.3	Redi-Flo AR	2	13	
MW-41D	Bat Cave Wash	479.42	271 - 291	2 in PVC	313.0	24.5	Redi-Flo AR	3	145	
MW-41M	Bat Cave Wash	479.83	170 - 190	2 in PVC	192.4	24.4	Redi-Flo AR	3	85	
MW-41S	Bat Cave Wash	480.07	40 - 60	2 in PVC	61.6	24.7	Redi-Flo AR	2	42	

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GMP Monitoring Wells										
MW-42-030	Floodplain	463.81	9.8 - 29.8	2 in PVC	32.0	9.3	Redi-Flo AR	2	28	
MW-42-055	Floodplain	463.87	42.5 - 52.5	2 in PVC	56.0	9.3	Redi-Flo AR	3	21	
MW-42-065	Floodplain	463.37	56.2 - 66.2	2 in PVC	80.0	8.9	Redi-Flo AR	3	36	
MW-43-025	Floodplain	462.54	15 - 25	2 in PVC	27.0	7.9	Redi-Flo AR	1	9	
MW-43-075	Floodplain	462.71	65 - 75	2 in PVC	77.0	8.7	Redi-Flo AR	2	28	
MW-43-090	Floodplain	462.76	80 - 90	2 in PVC	102.0	9.0	Redi-Flo AR	2	47	
IM3 Observation Wells										
OW-03D	West Mesa	558.63	242 - 262	2 in PVC	274.0	102.1	Temp Redi-Flo AR	3	90	
OW-03M	West Mesa	558.90	180 - 200	2 in PVC	202.0	102.5	Temp Redi-Flo AR	3	54	
OW-03S	West Mesa	558.58	86 - 116	2 in PVC	118.0	102.3	Temp Redi-Flo AR	2	30	
Other Site Wells not in GMP										
MW-01	New Ponds	661.76	200 - 210	4 in PVC	217.0	206.0	air bladder pump	NA	NA	active PG&E pond monitoring well
MW-01	New Ponds	661.76	200 - 210	4 in PVC	217.0	206.0	air bladder pump	NA	NA	active PG&E pond monitoring well
MW-03	New Ponds	650.51	193 - 203	4 in PVC	205.0	195.2	air bladder pump	NA	NA	active PG&E pond monitoring well
MW-04	New Ponds	625.73	164.5 - 174.5	4 in PVC	176.3	179.5	air bladder pump	NA	NA	active PG&E pond monitoring well
MW-05	New Ponds	635.69	175.9 - 185.4	4 in PVC	186.2	169.9	air bladder pump	NA	NA	active PG&E pond monitoring well
MW-06	New Ponds	642.84	184.5 - 193.5	4 in PVC	194.9	186.5	air bladder pump	NA	NA	active PG&E pond monitoring well
MW-07	New Ponds	631.91	172.7 - 182.7	4 in PVC	185.0	---	air bladder pump	NA	NA	active PG&E pond monitoring well
MW-08	New Ponds	627.54	169 - 178	4 in PVC	179.9	171.3	air bladder pump	NA	NA	active PG&E pond monitoring well
MWP-08	Old Ponds	677.48	181 - 210	3 in PVC	213.0	189.5	---	NA	NA	inactive monitoring well
MWP-10	Old Ponds	675.81	195 - 235	3 in PVC	237.0	208.6	---	NA	NA	inactive monitoring well
MWP-12	Old Ponds	663.49	96 - 136	4 in PVC	143.0	107.8	---	NA	NA	inactive monitoring well
P-2	New Ponds	537.60	238.5 - 248.5	4 in PVC	251.0	169.8	---	NA	NA	inactive monitoring well
PGE-09N	East of River	462.21	25 - 95	12 in Steel	---	---	---	NA	NA	
PGE-09S	East of River	461.99	30 - 100	12 in Steel	---	---	---	NA	NA	
Test and Extraction Wells										
IW-02	East Mesa	550.10	170 - 330	6 in Steel	343.0	95.8	---	NA	NA	IM3 injection well
IW-03	East Mesa	554.44	160 - 320	6 in Steel	333.0	100.1	---	NA	NA	IM3 injection well
PE-01	Floodplain	469.65	79 - 89	6 in Steel	97.0	15.2	CD pump	3	400	
TW-01	Plan B Test	620.55	169 - 269	5 in PVC	240.2	164.5	CD pump	20	200	inactive pilot test well
TW-02D	MW-20 bench	499.57	113 - 148	6 in PVC	150.0	69.3	CD pump	70.1	160	active IM extraction well

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Test and Extraction Wells										
TW-02S	MW-20 bench	499.05	42.5 - 92.5	6 in PVC	102.1	44.0	CD pump	6	75	IM extraction well
TW-03D	MW-20 bench	---	111 - 156	8 in PVC	157.0	---	Temp pump	NA	NA	IM extraction well
Water Supply Wells										
PGE-06	MW-24 Bench	563.32	110 - 180	14 in Steel	181.0	107.3	CD pump	24	650	inactive supply
PGE-07	MW-24 Bench	563.89	195 - 330	14 in Steel	332.0	108.1	CD pump	12	600	inactive supply
PGE-08	Station	596.01	405 - 554	8 in Steel	564.0	140.8	CD pump	20	1900	inactive injection
PM-03	Park Moabi	518.55	80 - 200	8 in Steel	252.0	61.3	active supply well	NA	NA	call Park Ranger to schedule sampling

NOTES:

BGS below ground surface

MSL mean sea level

BTOC below top of polyvinyl chloride (PVC) casing

NA not known or available

CD pump dedicated constant-discharge electric submersible pump

Redi-Flo AR adjustable-rate electric submersible pump

Depth to water shown is the most recently measured depth to water.

All GMP wells except low recharge wells and Park Moabi well are purged and sampled using well-volume method.

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-9	21-Sep-04	265	333	3,340	7.63
	17-Dec-04	---	294	3,450	7.51
	11-Jan-05	279	---	---	---
	08-Mar-05	343	316	3,010	7.74
	07-Apr-05	338	318	---	---
	16-Jun-05	320	304	2,800	7.94
	16-Jun-05 FD	322	298	2,820	7.82
	03-Oct-05	309	287 FF	2,740	7.50
MW-10	21-Sep-04	1560	1630	3,640	7.59
	17-Dec-04	---	1320	3,400	7.53
	11-Jan-05	1210	---	---	---
	08-Mar-05	1140	1020	3,370	7.66
	08-Mar-05 FD	1030	1020	3,420	7.72
	16-Jun-05	1490	1210	3,290	8.03
	03-Oct-05	4570	4900 FF	1,690	7.74
MW-11	21-Sep-04	320	390	2,540	7.56
	17-Dec-04	---	387	2,500	7.52
	11-Jan-05	323	---	---	---
	08-Mar-05	396	392	2,310	7.89
	16-Jun-05	362	334	2,200	8.02
	03-Oct-05	649	617 FF	2,330	7.33
MW-12	20-Sep-04	1390	1440	2,280	8.24
	10-Mar-05	925	883	3,980	8.62
	10-Mar-05 FD	925	841	4,000	8.65
	06-Apr-05	810	871	---	---
	06-Apr-05 FD	810	868	---	---
	13-Jun-05	852	835	3,910	8.45
	16-Sep-05	698	618 FF	3,630	8.64
	04-Oct-05	660	644 FF	2,980	8.70
	04-Oct-05 FD	670	613 FF	2,970	8.70
MW-13	24-Sep-04	19.7	20.9	2,150	7.64
	24-Sep-04 FD	19.7	19.7	2,120	7.56
	16-Dec-04	19.3	16.0	1,910	7.78
	11-Mar-05	19.2	19.0	1,850	8.00
	14-Jun-05	14.8	19.1	1,850	7.62
	04-Oct-05	20.3	24.5 FF	1,770	7.08
MW-14	20-Sep-04	33.6	30.3	1,520	7.74
	20-Sep-04 FD	33.4	31.4	1,540	7.76
	16-Dec-04	31.3	24.2	1,530	7.82
	09-Mar-05	32.0	32.5	1,510	7.89
	07-Apr-05	34.3	38.0	---	---
	15-Jun-05	30.0	30.4	1,450	8.27
	15-Jun-05 FD	28.4	29.2	1,450	8.30
	06-Oct-05	35.4	34.8 FF	1,430	7.71

Table 2
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September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-15	22-Sep-04	7.90	7.50	1,340	7.80
	17-Dec-04	7.70	6.50	1,330	7.76
	09-Mar-05	8.40	8.40	1,350	7.81
	17-Jun-05	7.70	8.00	1,500	7.83
	06-Oct-05	7.60	14.0 J FF	1,410	7.75
MW-16	16-Dec-04	10.4	10.9	1,230	7.99
	06-Oct-05	4.10	21.8 J FF	1,020	7.97
MW-17	16-Dec-04	11.8	9.80	1,800	7.90
	05-Oct-05	13.6	11.7 FF	1,670	7.63
MW-18	24-Sep-04	29.1	30.9	1,300	7.63
	16-Dec-04	30.6	25.2	1,270	7.80
	09-Mar-05	34.1	34.6	1,190	7.81
	09-Mar-05 FD	33.3	36.0	1,180	7.84
	15-Jun-05	23.2	22.2	1,420	8.10
	06-Oct-05	34.7 J	29.9 FF	1,210	7.68
MW-19	20-Sep-04	732	994	2,300	7.69
	17-Dec-04	796	786	2,240	7.63
	07-Mar-05	1080	1010	2,150	7.73
	14-Jun-05	1150	1140	2,000	7.71
	04-Oct-05	1060	996 FF	1,970	7.65
MW-20-70	24-Sep-04	7680	7800	3,370	7.63
	16-Dec-04	7800	7840	3,250	7.62
	10-Mar-05	8280	8630	3,240	7.76
	07-Apr-05	8740	9020	---	---
	15-Jun-05	6680	6450	2,980	8.02
	15-Jun-05 FD	7000	7080	3,020	7.96
	11-Oct-05	6060	5930 FF	2,950	7.49
MW-20-100	24-Sep-04	5890	5480	4,970	7.70
	16-Dec-04	8130	7910	4,470	7.69
	10-Mar-05	8440	7770	4,180	8.03
	15-Jun-05	9600	10100	3,790	8.16
	11-Oct-05	10200	9430 FF	3,600	7.57
MW-20-130	24-Sep-04	7380	7490	12,100	7.73
	27-Jan-05	8600	9400	12,300	7.88
	09-Mar-05	8730	8900	11,000	7.90
	09-Mar-05 FD	8810	8170	10,900	7.81
	07-Apr-05	8980	8870	---	---
	15-Jun-05	10800	10300	11,000	8.15
	07-Oct-05	9590	10700 FF	12,000	7.71
MW-21	21-Sep-04	ND (1.0)	ND (1.0)	10,000	7.34
	17-Dec-04	ND (0.2) J	ND (1.0)	9,460	7.17
	08-Mar-05	ND (1.0)	ND (1.0)	8,890	7.39
	14-Jun-05	ND (1.0)	ND (1.0)	12,500	7.31

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-21	05-Oct-05	ND (1.0) J	ND (1.0) J FF	13,400	7.03
MW-22	23-Sep-04	ND (2.0)	6.60	32,700	6.99
	16-Dec-04	ND (1.0) J	7.00	34,300	6.88
	10-Mar-05	ND (2.0)	ND (1.0)	42,600	6.88
	17-Jun-05	ND (1.0)	ND (1.0)	31,100	6.95
	04-Oct-05	ND (2.0)	ND (1.0) J FF	44,600	6.88
MW-23	21-Sep-04	6.80	7.90	18,000	7.39
	17-Dec-04	1.10	1.50	17,300	7.14
	08-Mar-05	ND (1.0)	2.90	17,000	7.35
	14-Jun-05	8.90	7.70	15,900	7.26
	05-Oct-05	ND (1.0)	ND (1.0) FF	19,100	7.18
MW-24A	20-Sep-04	2960	2960	3,380	7.72
	17-Dec-04	---	2890	3,400	7.63
	11-Jan-05	3040	---	---	---
	07-Mar-05	3390	3180	3,330	7.88
	07-Mar-05 FD	3360	3290	3,380	7.96
	16-Jun-05	3280	2640	3,180	8.09
	03-Oct-05	3120	2930 FF	3,200	7.63
	03-Oct-05 FD	3040	2630 FF	3,190	7.61
MW-24B	21-Sep-04	5100	4940	13,400	8.10
	17-Dec-04	---	4470	13,400	7.53
	17-Dec-04 FD	4790	4420	13,400	7.79
	11-Jan-05	5260	---	---	---
	07-Mar-05	5320	4950	13,400	8.13
	16-Jun-05	5640	5660	12,700	8.29
	03-Oct-05	5240	4930 FF	14,900	7.84
MW-24BR	21-Sep-04	ND (1.0)	ND (1.0)	15,000	8.00
	17-Dec-04	ND (1.0)	3.50	14,500	7.83
	08-Mar-05	ND (1.0)	ND (1.0)	14,000	8.14
MW-25	22-Sep-04	1970	1940	1,620	7.60
	09-Mar-05	1740	1600	1,410	7.67
	07-Apr-05	1620	1700	---	---
	14-Jun-05	1730	1670	1,500	7.65
	14-Jun-05 FD	1760	1660	1,510	7.54
	04-Oct-05	1540	1470 FF	1,390	7.63
	04-Oct-05 FD	1540	1480 FF	1,190	7.61
MW-26	22-Sep-04	3670	3710	3,650	7.56
	16-Dec-04	3790	3800	3,410	7.60
	08-Mar-05	2990	3160	3,180	7.84
	08-Mar-05 FD	2990	3050	3,090	7.77
	13-Jun-05	3370	3140	3,420	7.57
	04-Oct-05	3040	2990 FF	3,120	7.60
MW-27-20	21-Sep-04	ND (0.2)	ND (1.0)	1,110	7.59
	19-Oct-04	ND (0.2)	ND (1.0)	---	---

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-27-20	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	02-Dec-04	ND (0.2)	---	---	---
	15-Dec-04	ND (0.2)	ND (1.0)	1,130	7.91
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	09-Feb-05	ND (0.2)	ND (1.0)	---	---
	08-Mar-05	ND (0.2)	ND (1.0)	1,830	7.75
	04-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	18-Jul-05	ND (0.2)	ND (1.0) FF	1,060	7.70
	05-Oct-05	ND (0.21)	ND (1.0) FF	1,040	7.56
MW-27-60	01-Mar-05	ND (1.0)	ND (1.0) J	---	---
	08-Mar-05	ND (1.0)	ND (1.0)	---	---
	23-Mar-05	ND (1.0)	ND (1.0)	---	---
	29-Mar-05	ND (1.0)	ND (1.0)	---	---
	05-Apr-05	ND (1.0)	ND (1.0)	13,500	---
	12-Apr-05	ND (1.0)	ND (1.0)	---	---
	19-Apr-05	ND (1.0)	ND (1.0)	---	---
	26-Apr-05	ND (1.0)	ND (1.0)	---	---
	04-May-05	ND (1.0)	ND (1.0)	---	---
	18-Jul-05	ND (1.0)	1.80 FF	14,200	7.70
	05-Oct-05	ND (1.0)	ND (1.0) FF	13,900	7.18
MW-27-85	01-Mar-05	ND (1.0)	ND (1.0) J	---	---
	08-Mar-05	ND (2.0)	ND (1.0)	---	---
	23-Mar-05	ND (1.0)	ND (1.0)	---	---
	29-Mar-05	ND (1.0)	ND (1.0)	---	---
	05-Apr-05	ND (1.0)	ND (1.0)	17,200	---
	12-Apr-05	ND (1.0)	ND (1.0)	---	---
	19-Apr-05	ND (1.0)	ND (1.0)	---	---
	26-Apr-05	ND (1.0)	ND (1.0)	---	---
	04-May-05	ND (1.0)	ND (1.0)	---	---
	19-May-05	ND (1.0)	ND (1.0)	---	---
	02-Jun-05	ND (1.0)	ND (1.0)	---	---
	19-Jul-05	ND (1.0)	3.00 FF	16,700	7.33
	16-Aug-05	ND (1.0)	ND (2.6) FF	---	---
	08-Sep-05	ND (1.0)	ND (1.0) FF	---	---
	05-Oct-05	ND (1.0)	ND (1.0) FF	19,800	7.12
MW-28-25	20-Sep-04	ND (0.2)	ND (1.0)	1,270	7.44
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	02-Dec-04	ND (0.2)	---	---	---
	14-Dec-04	ND (0.2)	ND (1.0)	1,260	7.80
	11-Jan-05	ND (0.2)	---	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	10-Mar-05	ND (0.2)	ND (1.0)	1,290	7.75
	04-Apr-05	ND (0.2)	ND (1.0)	---	---

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-28-25	03-May-05	ND (0.2)	ND (1.0)	---	---
	15-Jun-05	ND (0.2)	ND (1.0)	1,300	7.90
	13-Jul-05	ND (0.2)	ND (1.0) FF	---	---
	06-Oct-05	ND (0.2)	ND (1.0) FF	1,210	7.36
MW-28-90	09-Sep-04	ND (1.0)	---	---	---
	20-Sep-04	ND (1.0)	ND (1.0)	10,000	7.65
	06-Oct-04	ND (1.0)	---	---	---
	19-Oct-04	ND (1.0)	1.10	---	---
	02-Nov-04	ND (1.0)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	02-Dec-04	ND (1.0)	ND (1.0)	---	---
	13-Dec-04	ND (0.2) J	ND (1.0)	9,900	7.87
	29-Dec-04	ND (1.0)	ND (1.0)	---	---
	11-Jan-05	ND (1.0)	---	---	---
	27-Jan-05	ND (1.0)	5.10	---	---
	08-Feb-05	ND (1.0)	ND (1.0)	---	---
	22-Feb-05	ND (1.0)	ND (1.0)	---	---
	07-Mar-05	ND (1.0)	ND (1.0)	9,520	7.89
	22-Mar-05	ND (1.0)	ND (1.0)	---	---
	04-Apr-05	ND (1.0)	ND (1.0)	---	---
	20-Apr-05	ND (1.0)	ND (1.0)	---	---
	03-May-05	ND (1.0)	ND (1.0)	---	---
	19-May-05	ND (1.0)	ND (1.0)	---	---
	02-Jun-05	ND (1.0)	ND (1.0)	---	---
	15-Jun-05	ND (1.0)	ND (1.0)	9,860	8.04
	01-Jul-05	ND (1.0)	ND (1.0)	---	---
	13-Jul-05	ND (1.0)	ND (1.0) FF	---	---
	18-Aug-05	ND (1.0)	1.10 FF	---	---
	09-Sep-05	ND (1.0)	ND (1.0) FF	---	---
	06-Oct-05	ND (1.0)	ND (1.0) FF	8,230	7.80
MW-29	20-Sep-04	ND (0.2)	ND (1.0)	2,850	7.41
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	02-Dec-04	ND (0.2)	---	---	---
	14-Dec-04	ND (0.2) J	ND (1.0)	8,050	7.51
	11-Jan-05	ND (1.0)	---	---	---
	07-Feb-05	ND (1.0)	3.00	---	---
	09-Mar-05	ND (2.0)	ND (1.0)	24,900	7.32
	06-Apr-05	ND (1.0)	ND (1.0)	---	---
	05-May-05	ND (0.2)	ND (1.0)	---	---
	15-Jun-05	ND (0.2)	ND (1.0)	3,760	7.87
	04-Oct-05	ND (0.2)	ND (1.0) FF	4,620	7.37
MW-30-30	23-Sep-04	ND (5.0)	ND (1.0)	47,800	7.04
	20-Oct-04	ND (5.0)	ND (1.0)	---	---
	16-Nov-04	ND (5.0)	ND (1.0)	---	---

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-30-30	15-Dec-04	ND (5.0)	ND (1.0)	56,800	6.97
	11-Jan-05	ND (5.0)	---	---	---
	09-Feb-05	ND (5.0)	ND (1.0)	---	---
	10-Mar-05	ND (5.0)	ND (1.0)	57,300	7.00
	06-Apr-05	ND (2.0)	ND (1.0)	---	---
	09-May-05	ND (2.0)	ND (1.0)	---	---
	07-Oct-05	ND (0.2)	ND (1.0) FF	57,100	7.09
MW-30-50	23-Sep-04	831	739	10,300	7.38
	23-Sep-04 FD	774	754	10,300	7.36
	21-Oct-04	487	464	---	---
	17-Nov-04	243	257	---	---
	15-Dec-04	29.4	33.9	10,500	7.48
	15-Dec-04 FD	26.2	36.5	10,500	7.43
	11-Jan-05	ND (10)	---	---	---
	11-Jan-05 FD	ND (1.0)	---	---	---
	09-Feb-05	ND (10)	1.60 J	---	---
	09-Feb-05 FD	ND (1.0)	11.2 J	---	---
	10-Mar-05	ND (1.0)	ND (1.0)	10,200	7.29
	06-Apr-05	18.5	15.5	---	---
	06-Apr-05 FD	17.1 J	13.0	---	---
	09-May-05	ND (1.0)	ND (1.0)	---	---
	09-May-05 FD	ND (1.0)	ND (1.0)	---	---
	07-Oct-05	ND (1.0)	ND (1.0) FF	9,340	7.40
MW-31-60	22-Sep-04	3090	3070	2,880	7.66
	16-Nov-04	2920	3250	---	---
	16-Dec-04	2910	2680	2,750	7.75
	09-Mar-05	2700	2550	2,530	7.93
	07-Apr-05	1910	2030	---	---
	13-Jun-05	1790	1810	2,960	7.60
	06-Oct-05	1430	1470 FF	2,600	7.80
MW-31-135	23-Sep-04	282	246	11,200	7.95
	14-Dec-04	410 J	407	11,300	7.90
	10-Mar-05	422	403	10,900	8.09
	13-Jun-05	318	344	11,500	7.94
	13-Jun-05 FD	318	338	11,400	8.07
	06-Oct-05	271	251 FF	9,400	7.98
MW-32-20	20-Sep-04	ND (2.0)	ND (1.0)	27,800	7.00
	19-Oct-04	ND (1.0)	ND (1.0)	---	---
	15-Nov-04	ND (1.0) R	ND (1.0)	---	---
	02-Dec-04	ND (1.0)	---	---	---
	14-Dec-04	ND (1.0) J	ND (1.0)	24,600	7.08
	10-Jan-05	ND (1.0)	ND (1.0)	---	---
	07-Feb-05	ND (1.0)	ND (1.0)	---	---
	09-Mar-05	ND (2.0)	ND (1.0)	22,100	7.09
	04-Apr-05	ND (1.0)	ND (1.0)	---	---

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-32-20	09-May-05	ND (1.0)	ND (1.0)	---	---
	17-Jun-05	ND (1.0)	ND (1.0)	15,800	6.91
	04-Oct-05	ND (2.0)	ND (1.0) J FF	44,100	6.90
MW-32-35	21-Sep-04	ND (1.0)	ND (1.0)	7,530	7.19
	19-Oct-04	ND (1.0)	ND (1.0)	---	---
	15-Nov-04	ND (1.0) R	ND (1.0)	---	---
	02-Dec-04	ND (1.0)	---	---	---
	15-Dec-04	ND (1.0)	ND (1.0)	6,580	7.61
	10-Jan-05	ND (1.0)	ND (1.0)	---	---
	07-Feb-05	ND (1.0)	ND (1.0)	---	---
	09-Mar-05	ND (1.0)	ND (1.0)	6,460	7.42
	04-Apr-05	ND (1.0)	ND (1.0)	---	---
	09-May-05	ND (1.0)	ND (1.0)	---	---
	17-Jun-05	ND (1.0)	ND (1.0)	12,200	7.19
MW-33-40	04-Oct-05	ND (1.0)	ND (1.0) FF	13,100	7.29
	21-Sep-04	ND (1.0)	ND (1.0)	17,400	7.77
	20-Oct-04	ND (1.0)	ND (1.0)	---	---
	16-Nov-04	ND (1.0)	ND (1.0)	---	---
	15-Dec-04	ND (0.2) J	ND (1.0)	8,380	7.98
	11-Jan-05	ND (1.0)	---	---	---
	07-Feb-05	ND (1.0)	ND (1.0)	---	---
	09-Mar-05	ND (1.0)	ND (1.0)	5,530	8.23
	04-Apr-05	ND (0.2)	ND (1.0)	---	---
	05-May-05	ND (0.2)	ND (1.0)	---	---
	17-Jun-05	ND (0.2)	ND (1.0)	23300 R	7.91
MW-33-90	07-Oct-05	0.68	ND (1.0) FF	5,480	8.19
	08-Sep-04	13.5	---	---	---
	21-Sep-04	14.0	14.0	9,320	7.78
	06-Oct-04	12.0	---	---	---
	20-Oct-04	15.6	14.1	---	---
	02-Nov-04	17.6	18.2	---	---
	02-Nov-04 FD	17.4	16.8	---	---
	16-Nov-04	14.8	12.7	---	---
	02-Dec-04	15.6	13.1	---	---
	14-Dec-04	16.0	14.8	8,130	7.83
	29-Dec-04	16.7	13.7	---	---
	11-Jan-05	18.2	---	---	---
	27-Jan-05	17.7	14.4	---	---
	07-Feb-05	20.2	14.9	---	---
	22-Feb-05	19.0	18.3	---	---
	09-Mar-05	18.6	18.2	8,090	7.80
	22-Mar-05	18.9	19.2	---	---
	04-Apr-05	21.3	17.2	---	---
	19-Apr-05	20.3	17.9	---	---
	19-Apr-05 FD	20.0	18.2	---	---

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-33-90	05-May-05	17.4	16.8	---	---
	18-May-05	15.5	16.3	---	---
	01-Jun-05	17.8	14.0	---	---
	01-Jun-05 FD	16.0	12.7	---	---
	16-Jun-05	15.0	14.2	9,540	8.06
	16-Jun-05 FD	15.7 J	13.4	9,580	8.01
	20-Jul-05	16.1	17.3 FF	---	---
	20-Jul-05 FD	16.5	17.3 FF	---	---
	06-Oct-05	15.5	13.0 FF	8,300	7.72
MW-33-150	02-Mar-05	ND (1.0)	ND (1.0)	15,600	---
	02-Mar-05 FD	ND (1.0)	ND (1.0)	15,800	---
	16-Mar-05	ND (1.0)	ND (1.0)	16,900	---
	17-Jun-05	3.10 J	6.40	17,700	7.55
	20-Jul-05	5.20	5.60 FF	---	---
	17-Aug-05	4.00	6.10 FF	---	---
	09-Sep-05	3.90	2.80 FF	---	---
	06-Oct-05	4.50	3.90 FF	17,600	7.77
	06-Oct-05 FD	5.30	4.90 FF	17,800	7.79
MW-33-210	24-Feb-05	ND (1.0)	ND (2.1) J	18,900	---
	16-Mar-05	1.40	ND (1.0)	18,800	---
	16-Jun-05	5.10 J	1.70 J	21,600	7.89
	20-Jul-05	5.60	6.70 FF	---	---
	17-Aug-05	2.50	8.00 FF	---	---
	06-Sep-05	3.50	2.90 FF	---	---
	06-Oct-05	4.00	4.20 FF	20,800	7.58
MW-34-55	22-Sep-04	ND (1.0)	ND (1.0)	8,920	7.47
	20-Oct-04	ND (1.0)	ND (1.0)	---	---
	16-Nov-04	ND (1.0)	ND (1.0)	---	---
	15-Dec-04	ND (0.2) J	ND (1.0)	9,120	7.68
	12-Jan-05	ND (1.0)	ND (1.0)	---	---
	09-Feb-05	ND (1.0)	ND (1.0)	---	---
	10-Mar-05	ND (1.0)	ND (1.0)	9,140	7.80
	05-Apr-05	ND (1.0)	ND (1.0)	---	---
	05-May-05	ND (1.0)	ND (1.0)	---	---
	15-Jul-05	ND (1.0)	ND (1.3) FF	8,690	7.58
	05-Oct-05	ND (1.0)	ND (1.0) FF	7,600	7.36
MW-34-80	08-Sep-04	ND (1.0)	---	---	---
	23-Sep-04	ND (1.0)	ND (1.0)	13,200	7.41
	23-Sep-04 FD	ND (1.0)	ND (1.0)	12,600	7.46
	06-Oct-04	ND (1.0)	---	---	---
	20-Oct-04	ND (1.0)	ND (1.0)	---	---
	02-Nov-04	ND (1.0)	ND (1.0)	---	---
	17-Nov-04	ND (1.0)	ND (1.0)	---	---
	17-Nov-04 FD	ND (1.0)	ND (1.0)	---	---
	02-Dec-04	ND (1.0)	ND (1.0)	---	---

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-34-80	13-Dec-04	ND (1.0)	ND (1.0)	13,700	7.60
	29-Dec-04	ND (1.0)	ND (1.0)	---	---
	12-Jan-05	ND (1.0)	ND (1.0)	---	---
	27-Jan-05	ND (1.0)	ND (1.0)	---	---
	08-Feb-05	ND (1.0)	ND (1.0)	---	---
	22-Feb-05	ND (1.0)	ND (1.0)	---	---
	01-Mar-05	ND (1.0)	ND (1.0) J	---	---
	08-Mar-05	ND (1.0) J	ND (1.0)	14,200	7.73
	22-Mar-05	ND (1.0)	ND (1.0)	---	---
	29-Mar-05	ND (1.0)	ND (1.0)	---	---
	05-Apr-05	ND (1.0)	ND (1.0)	---	---
	12-Apr-05	ND (1.0)	ND (1.0)	---	---
	19-Apr-05	ND (1.0)	ND (1.0)	---	---
	26-Apr-05	ND (1.0)	ND (1.0)	---	---
	04-May-05	ND (1.0)	ND (1.0)	---	---
	18-May-05	ND (1.0)	ND (1.0)	---	---
	01-Jun-05	ND (1.0)	ND (1.0)	---	---
	30-Jun-05	ND (1.0)	ND (1.0)	15,000	7.52
MW-34-100	14-Feb-05	357	328	---	---
	16-Feb-05	354	294	---	---
	23-Feb-05	417	391	16,000	---
	01-Mar-05	402	374	---	---
	01-Mar-05 FD	411	332	---	---
	08-Mar-05	425 J	490	---	---
	23-Mar-05	421	548	---	---
	29-Mar-05	73.9 J	110	---	---
	29-Mar-05 FD	56.7 J	106	---	---
	05-Apr-05	452	488	16,100	---
	05-Apr-05 FD	455	454	15,900	---
	12-Apr-05	482	502	---	---
	12-Apr-05 FD	499	562	---	---
	19-Apr-05	473	599	---	---
	26-Apr-05	476	573	---	---
	26-Apr-05 FD	480	602	---	---
	04-May-05	491	530	---	---
	10-May-05	513	492	---	---
	10-May-05 FD	501	552	---	---
	18-May-05	524	564	---	---
	25-May-05	559	478	---	---
	01-Jun-05	527	609	---	---
	08-Jun-05	552	583	---	---

Table 2
Groundwater COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-34-100	21-Jun-05	560	477	17,300	7.97
	21-Jun-05 FD	578	480	18,000	8.00
	07-Jul-05	583	639	---	---
	14-Jul-05	617	701 FF	---	---
	27-Jul-05	597	504 FF	---	---
	10-Aug-05	574	589 FF	---	---
	10-Aug-05 FD	571	597 FF	---	---
	15-Aug-05	633	660 FF	---	---
	31-Aug-05	649	693 FF	---	---
	31-Aug-05 FD	658	604 FF	---	---
	07-Sep-05	673	868 FF	---	---
	20-Sep-05	675	891 FF	---	---
	05-Oct-05	732	732 FF	17,400	7.46
	05-Oct-05 FD	708	703 FF	16,900	7.39
MW-35-60	22-Sep-04	27.5	23.7	6,870	7.54
	13-Dec-04	26.8	27.0	6,700	7.67
	15-Mar-05	33.8	37.5	6,280	7.64
	13-Jun-05	33.6	34.1	7,170	7.54
	07-Oct-05	32.5	28.0 FF	6,590	7.57
	07-Oct-05 FD	35.1 J	32.0 FF	6,510	7.52
MW-35-135	23-Sep-04	7.60	6.30	10,500	7.72
	23-Sep-04 FD	7.90	6.60	10,700	7.75
	13-Dec-04	15.6 J	16.0	9,790	7.90
	13-Dec-04 FD	15.7 J	14.1	10,100	7.91
	15-Mar-05	23.0	21.4	9,960	7.80
	13-Jun-05	17.6	17.6	12,600	7.64
	07-Oct-05	21.2	17.8 FF	9,460	7.72
MW-36-20	21-Sep-04	ND (1.0)	ND (1.0)	23,800	7.39
	19-Oct-04	ND (2.0)	2.40	---	---
	17-Nov-04	ND (1.0)	6.50 J	---	---
	17-Nov-04 FD	ND (1.0)	ND (1.0) J	---	---
	14-Dec-04	ND (2.0) J	ND (1.0)	27,700	7.34
	11-Jan-05	ND (2.0)	ND (1.0)	---	---
	07-Feb-05	ND (1.0)	1.40	---	---
	09-Mar-05	ND (2.0)	ND (1.0)	24,400	7.43
	05-Apr-05	ND (1.0)	ND (1.0)	---	---
	03-May-05	ND (1.0)	ND (1.0)	---	---
	03-Oct-05	ND (1.0)	ND (1.0) FF	16,300	7.35
MW-36-40	21-Sep-04	ND (1.0)	ND (1.0)	10,600	7.48
	19-Oct-04	ND (1.0)	ND (1.0)	---	---
	17-Nov-04	ND (1.0)	ND (1.0)	---	---
	14-Dec-04	ND (1.0)	ND (1.0)	13,300	7.55
	12-Jan-05	ND (0.2)	ND (1.0)	---	---
	07-Feb-05	ND (1.0)	ND (1.0)	---	---
	08-Mar-05	ND (1.0)	ND (1.0)	12,400	7.55

Table 2
Groundwater COC Sampling Results
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Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-36-40	05-Apr-05	ND (1.0)	ND (1.0)	---	---
	05-May-05	ND (1.0)	ND (1.0)	---	---
	03-Oct-05	ND (1.0)	ND (1.0) FF	14,800	7.28
MW-36-50	21-Sep-04	ND (1.0)	ND (1.0)	9,650	7.54
	19-Oct-04	ND (1.0)	ND (1.0)	---	---
	17-Nov-04	ND (1.0)	ND (1.0)	---	---
	14-Dec-04	ND (0.2) J	ND (1.0)	9,080	7.66
	12-Jan-05	ND (1.0)	ND (1.0)	---	---
	07-Feb-05	ND (1.0)	ND (1.0)	---	---
	08-Mar-05	ND (1.0)	ND (1.0)	9,430	7.39
	05-Apr-05	ND (1.0)	ND (1.0)	---	---
	05-May-05	ND (1.0)	ND (1.0)	---	---
	03-Oct-05	ND (1.0)	ND (1.0) FF	8,090	7.34
MW-36-70	22-Sep-04	ND (1.0)	ND (1.0)	11,300	7.37
	20-Oct-04	ND (1.0)	ND (1.0)	---	---
	17-Nov-04	ND (1.0)	ND (1.0)	---	---
	14-Dec-04	ND (0.2) J	ND (1.0)	10,600	7.37
	11-Jan-05	ND (1.0)	ND (1.0)	---	---
	07-Feb-05	ND (0.21)	1.20	---	---
	08-Mar-05	ND (1.0)	ND (1.0)	10,400	7.44
	05-Apr-05	ND (1.0)	ND (1.0)	---	---
	03-May-05	ND (1.0)	ND (1.0)	---	---
	03-Oct-05	ND (1.0)	ND (1.0) FF	8,540	7.30
MW-36-90	23-Sep-04	3370	2780	14,800	7.75
	23-Sep-04 FD	3420	2970	14,300	7.75
	19-Oct-04	3200	2940	---	---
	17-Nov-04	2770	2700	---	---
	14-Dec-04	2270	2130	15,600	7.77
	14-Dec-04 FD	2270	2180	15,800	7.76
	12-Jan-05	1970	1780	---	---
	12-Jan-05 FD	1860	1800	---	---
	07-Feb-05	1720	1610	---	---
	09-Mar-05	1480	1380	15,800	7.55
	05-Apr-05	1040	946	---	---
	03-May-05	705	623	---	---
	25-Jul-05	344	343 FF	---	---
	17-Aug-05	346	336 FF	---	---
MW-36-100	08-Sep-05	267	301 FF	---	---
	03-Oct-05	302	286 FF	16,800	7.28
	09-Sep-04	2330	---	---	---
MW-36-100	09-Sep-04 FD	2260	---	---	---
	23-Sep-04	2710	2330	15,200	7.73
	06-Oct-04	2750	---	---	---
	06-Oct-04 FD	2680	---	---	---
	21-Oct-04	2640	2300	---	---

Table 2
Groundwater COC Sampling Results
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Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-36-100	21-Oct-04	2620	2250	---	---
	02-Nov-04	2490	2240	---	---
	17-Nov-04	2150	2270	---	---
	02-Dec-04	1860	1620	---	---
	02-Dec-04	FD 1750	1570	---	---
	14-Dec-04	1790	1810	14,700	7.72
	29-Dec-04	1690	1580	---	---
	29-Dec-04	FD 1720	1530	---	---
	12-Jan-05	1520 ~	1470 ~	---	---
	12-Jan-05	FD 1550	1510	---	---
	27-Jan-05	1500	1420	---	---
	27-Jan-05	FD 1420	1490	---	---
	09-Feb-05	1440	1420	---	---
	22-Feb-05	1430	1230	---	---
	22-Feb-05	FD 1390	1250	---	---
	09-Mar-05	1380	1200	16,600	7.74
	22-Mar-05	1250	1180	---	---
	22-Mar-05	FD 1230	1160	---	---
	04-Apr-05	1110	981	---	---
	20-Apr-05	825	844	---	---
	03-May-05	705	679	---	---
	18-May-05	617	796 J	---	---
	18-May-05	FD 620	624 J	---	---
	02-Jun-05	518	441	---	---
	19-Jul-05	398	635 FF	---	---
	15-Aug-05	391	410 FF	---	---
	15-Aug-05	FD 390	392 FF	---	---
	08-Sep-05	396 J	380 FF	---	---
	08-Sep-05	FD 397	454 FF	---	---
	05-Oct-05	383	370 FF	15,500	7.18
MW-37D	24-Sep-04	1250	1310	13,900	7.82
	24-Sep-04	FD 1250	1250	14,200	7.85
	14-Dec-04	1480	1520	13,900	7.81
	14-Dec-04	FD 1480	1490	13,900	7.80
	11-Mar-05	1610	1530	13,800	7.72
	15-Jun-05	1390	1540	13,200	8.20
	04-Oct-05	1800	1970 FF	14,900	7.77
MW-37S	23-Sep-04	7.50	6.80	4,430	7.64
	13-Dec-04	6.20	7.00	4,480	7.93
	11-Mar-05	7.40	5.40	4,260	7.84
	07-Apr-05	5.90	5.40	---	---
	15-Jun-05	2.10	2.60	3,700	8.19
	04-Oct-05	7.00	6.60 FF	4,210	7.98
	04-Oct-05	FD 7.00	6.50 FF	4,180	7.90
	MW-38D	23-Sep-04	270	237	19,500
					7.94

Table 2
Groundwater COC Sampling Results
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Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-38D	14-Dec-04	279	264	20,500	7.87
	11-Mar-05	328	323	20,000	8.01
	17-Jun-05	202	175	4980 R	8.50
	07-Oct-05	227	227 FF	21,500	7.95
MW-38S	24-Sep-04	894	891	4,000	7.43
	14-Dec-04	964	1010	4,310	7.82
	11-Mar-05	919	938	3,840	7.80
	17-Jun-05	807	730	3,790	7.72
	07-Oct-05	776	825 FF	3,430	7.47
MW-39-40	24-Sep-04	ND (1.0)	ND (1.0)	5,980	7.81
	20-Oct-04	ND (1.0)	ND (1.0)	---	---
	17-Nov-04	ND (0.2)	1.40	---	---
	15-Dec-04	ND (0.2)	ND (1.0)	5,920	7.70
	12-Jan-05	ND (1.0)	2.60	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	09-Mar-05	ND (1.0)	ND (1.0)	6,040	7.62
	05-Apr-05	ND (1.0)	ND (1.0)	---	---
	05-May-05	ND (0.2)	ND (1.0)	---	---
	16-Jun-05	ND (0.2)	ND (1.0)	6,430	8.03
	04-Oct-05	ND (0.2)	ND (1.0) FF	5,640	7.58
MW-39-50	24-Sep-04	2960	2960	8,190	7.66
	20-Oct-04	2630	2650	---	---
	18-Nov-04	1850	1720	---	---
	15-Dec-04	1470	1480	11,000	7.48
	14-Jan-05	1000	1020	---	---
	08-Feb-05	819	800	---	---
	09-Mar-05	422	372	12,100	7.51
	06-Apr-05	282 J	237	---	---
	03-May-05	206	204	---	---
	16-Jun-05	66.2	55.4	10,700	7.82
	04-Oct-05	ND (10)	4.70 FF	12,000	7.52
MW-39-60	24-Sep-04	3810	3610	7,410	7.74
	20-Oct-04	3590	3480	---	---
	20-Oct-04 FD	3670	3440	---	---
	18-Nov-04	3210	3130	---	---
	15-Dec-04	2800	2650	9,110	7.54
	14-Jan-05	1640	2880	---	---
	08-Feb-05	1880	1650	---	---
	09-Mar-05	1450	1300	11,200	7.45
	06-Apr-05	914	1080	---	---
	06-Apr-05 FD	914	907	---	---
	05-May-05	450	455	---	---
	05-May-05 FD	460	509	---	---
	16-Jun-05	213	198	13,100	7.72
	04-Oct-05	72.3	79.6 J FF	13,200	7.37

Table 2
Groundwater COC Sampling Results
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Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-39-70	24-Sep-04	5590	6360	8,740	7.68
	21-Oct-04	6410	5940	---	---
	18-Nov-04	7600	6390	---	---
	15-Dec-04	5040	5860	9,190	7.61
	12-Jan-05	5310	4860	---	---
	08-Feb-05	6640	6800	---	---
	09-Mar-05	4310	4010 J	10,600	7.60
	09-Mar-05 FD	4340	5310 J	10,500	7.56
	05-Apr-05	2280	2080	---	---
	05-May-05	1320	1270	---	---
	16-Jun-05	799	576	11,700	7.65
	04-Oct-05	840	754 FF	11,900	7.34
MW-39-80	24-Sep-04	8470	7570	10,800	7.58
	20-Oct-04	8310	7480	---	---
	18-Nov-04	9680	8850	---	---
	15-Dec-04	9430	8320	12,500	7.47
	14-Jan-05	8270	11200	---	---
	08-Feb-05	7750	8220	---	---
	08-Feb-05 FD	7890	7750	---	---
	09-Mar-05	7460	7240	12,400	7.56
	06-Apr-05	4820	4570	---	---
	03-May-05	3430	3510	---	---
	16-Jun-05	2220	1930	15,700	7.59
	25-Jul-05	2060	1990 FF	---	---
	17-Aug-05	2370	2460 FF	---	---
	06-Sep-05	2990	4880 FF	---	---
	04-Oct-05	3000	2770 FF	15,000	7.38
MW-39-100	23-Sep-04	11600	11400	13,700	7.66
	21-Oct-04	11400	10600	---	---
	17-Nov-04	11300	11100	---	---
	17-Nov-04 FD	11300	12700	---	---
	15-Dec-04	10900	11000	14,800	7.69
	12-Jan-05	10100 ~	9820 ~	---	---
	27-Jan-05	9930	10200	---	---
	09-Feb-05	9180	9480	---	---
	09-Feb-05 FD	9260	9710	---	---
	10-Mar-05	8940	8160	15,500	7.64
	06-Apr-05	8220	8230	---	---
	09-May-05	7980	8490	---	---
	09-May-05 FD	7720	8250	---	---
	17-Jun-05	6980	6030	18,700	7.41
	19-Jul-05	5500	5490 FF	---	---
	19-Jul-05 FD	5450	5450 FF	---	---
	17-Aug-05	4230	4050 FF	---	---
	06-Sep-05	4540	6480 FF	---	---

Table 2
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Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-39-100	04-Oct-05	4010	3950 FF	16,300	7.40
MW-40D	22-Sep-04	34.1	30.0	14,700	7.72
	22-Sep-04 FD	31.5	30.6	14,500	7.72
	16-Dec-04	38.5	33.2	14,900	7.57
	16-Dec-04 FD	36.8	32.4	15,000	7.59
	10-Mar-05	58.6	63.7	15,200	7.82
	16-Jun-05	7.60	6.40	14,100	7.96
	05-Oct-05	57.4	67.0 FF	16,700	7.54
MW-40S	22-Sep-04	7.70	6.80	1,920	7.78
	16-Dec-04	8.20	7.80	1,970	7.77
	10-Mar-05	5.50	5.50	1,910	7.61
	07-Apr-05	4.60	4.40	---	---
	16-Jun-05	6.30	5.30	1,870	8.08
	05-Oct-05	4.90	4.40 FF	1,890	7.65
MW-41D	18-Nov-04	ND (2.0)	8.10	---	---
	15-Dec-04	ND (1.0)	ND (1.0)	19,500	7.49
	11-Mar-05	ND (1.0)	ND (1.0)	20,700	7.90
	14-Jun-05	ND (1.0)	2.80	23,000	7.73
	05-Oct-05	ND (1.0)	ND (1.0) FF	19,200	7.71
MW-41M	18-Nov-04	4.10	3.50	---	---
	15-Dec-04	5.30	5.20	13,800	7.64
	11-Mar-05	8.10	4.90	14,500	8.04
	14-Jun-05	4.80	5.40 J	12,600	7.59
	14-Jun-05 FD	4.60	7.90 J	12,700	7.76
	05-Oct-05	5.40	5.00 FF	13,200	7.69
MW-41S	18-Nov-04	7.40	7.30	---	---
	16-Dec-04	11.8	11.0	4,950	7.90
	10-Mar-05	16.8	15.6	4,830	8.12
	14-Jun-05	11.3	19.0	4,460	7.90
	05-Oct-05	17.0	17.7 FF	4,520	7.81
	05-Oct-05 FD	17.3	15.3 FF	4,470	7.87
MW-42-30	23-Feb-05	ND (1.0)	ND (1.0)	11,300	---
	16-Mar-05	ND (1.0)	ND (1.0)	13,100	---
	07-Oct-05	ND (1.0)	ND (1.0) FF	17,200	7.26
MW-42-55	23-Feb-05	ND (1.0)	ND (1.0)	12,600	---
	16-Mar-05	ND (1.0)	ND (1.0)	15,600	---
	07-Oct-05	ND (1.0)	ND (1.0) FF	19,500	7.25
MW-42-65	24-Feb-05	ND (1.0)	ND (2.8) J	15,400	---
	16-Mar-05	ND (1.0)	ND (1.0)	12,500	---
	07-Oct-05	ND (1.0)	ND (1.0) FF	20,000	6.99
MW-43-25	07-Mar-05	ND (0.2)	ND (1.0)	1,440	---
	15-Mar-05	ND (0.2)	ND (1.0)	1,440	---
	20-Jun-05	ND (0.2)	ND (1.0)	1,740	7.75

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Well ID	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Dissolved Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
MW-43-25	04-Oct-05	ND (0.2)	ND (1.0) FF	1,170	7.32
MW-43-75	07-Mar-05	ND (1.0)	ND (1.0)	13,300	---
	15-Mar-05	ND (1.0)	ND (1.0)	13,800	---
	20-Jun-05	ND (1.0)	ND (1.0)	14,700	7.84
	26-Jul-05	ND (1.0)	ND (1.0) FF	---	---
	16-Aug-05	ND (1.0)	5.40 FF	---	---
	08-Sep-05	ND (1.0)	ND (1.0) FF	---	---
	04-Oct-05	ND (1.0)	ND (1.0) J FF	15,000	7.46
MW-43-90	07-Mar-05	ND (1.0)	ND (1.0)	19,900	---
	15-Mar-05	ND (1.0)	ND (1.0)	20,100	---
	15-Mar-05 FD	ND (1.0)	ND (1.0)	20,000	---
	20-Jun-05	ND (1.0)	ND (1.0)	25,100	7.38
	20-Jun-05 FD	ND (1.0)	ND (1.0)	24,400	7.37
	26-Jul-05	ND (2.0)	ND (1.6) FF	---	---
	16-Aug-05	ND (2.0)	ND (5.2) FF	---	---
	08-Sep-05	ND (1.0)	ND (1.0) FF	---	---
	04-Oct-05	ND (1.0)	ND (1.0) FF	22,000	6.95
OW-3D	06-Oct-05	0.30	ND (1.0) FF	6,900	8.19
OW-3M	06-Oct-05	16.7	14.3 FF	4,680	8.12
OW-3S	06-Oct-05	19.3	16.6 FF	1,740	7.79
PE-1	03-Oct-05	ND (1.0)	ND (1.0) FF	11,800	7.14
PGE-6	12-Oct-05	1630	2070 FF	3,730	7.65
PGE-7	13-Oct-05	ND (1.0)	ND (1.0) FF	10,800	9.44
PGE-8	13-Oct-05	ND (1.0) J	2.10 FF	16,900	8.52
Park Moabi	22-Sep-04	9.40	7.70	1,260	7.88
	15-Dec-04	ND (0.2)	ND (1.0)	1,300	8.08
	11-Mar-05	0.35	ND (1.0)	1,260	8.03
	15-Jun-05	9.90	8.60	1,200	8.16
	05-Oct-05	9.20	7.60 FF	14,300	7.69
TW-1	21-Dec-04	3820	3290	6,260	7.80
	11-Oct-05	3990	4340 FF	6,200	7.32
TW-2D	16-Dec-04	6280	6270	9,620	7.69
	09-Mar-05	5800	5620	9,400	7.87
TW-2S	16-Dec-04	5080	5050	3,270	7.70
	11-Mar-05	4400	4240	3,150	7.65
	07-Oct-05	3360	3340 FF	2,790	7.72

Table 2
Groundwater COC Sampling Results
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NOTES:

µg/L micrograms per liter
µS/cm microSiemens per centimeter
ND not detected at listed reporting limit
J concentration or reporting limit estimated by laboratory or data validation
R result exceeded analytical criteria for precision and accuracy; should not be used for project decision-making
+ the reporting limit (RL) for hexavalent chromium is estimated and might be as high as the total chromium RL data
(--) not collected or not available
FD field duplicate sample
FF field filtered
~ Review of the sample and field duplicate data for wells MW-36-100 and MW-39-100 collected on January 12, 2005 indicate that the sampler switched the pre-printed labels for these two locations.

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

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

The following monitoring wells were not sampled during the June 2005 quarterly event due to floodplain inaccessibility: MW-27 cluster, MW-30 cluster, MW-34-55, MW-36 cluster and MW-42 cluster. Monitoring well MW-24BR was not sampled due to problems involving the pump.

Beginning in July 2005, samples analyzed for total chromium by EPA Method 6010B or 6020A were filtered and preserved in the field after sample collection, as per DTSC's June 30, 2005 letter.

Monitoring well MW-24BR was not sampled during the October 2005 monitoring event due to equipment problems.

Table 3
Surface Water COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
CON	23-Sep-04	ND (0.2)	ND (1.0)	1,000	8.22
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,020	8.23
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	24-Feb-05	ND (0.2)	ND (1.0)	---	---
	01-Mar-05	ND (0.2)	ND (1.0) J	---	---
	07-Mar-05	ND (0.2)	ND (1.0)	1,040	8.34
	14-Mar-05	ND (0.2)	ND (1.0)	---	---
	06-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	990	8.16
	13-Jul-05	ND (0.2)	ND (1.0)	---	---
I-3	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	976	8.07
	23-Sep-04	ND (0.2)	ND (1.0)	997	8.24
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,020	8.26
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	08-Mar-05	ND (0.2)	ND (1.0)	1,050	8.31
	07-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	981	8.11
	13-Jul-05	ND (0.2)	ND (1.0)	---	---
NR-1	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	968	8.08
	23-Sep-04	ND (0.2)	ND (1.0)	1,010	8.22
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,040	8.36
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	08-Mar-05	ND (0.2)	ND (1.0)	1,030	8.35
	06-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	987	8.04
	13-Jul-05	ND (0.2)	ND (1.0)	---	---
	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	972	8.10

Table 3
Surface Water COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
NR-2	23-Sep-04	ND (0.2)	ND (1.0)	995	8.21
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,010	8.11
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	08-Mar-05	ND (0.2)	ND (1.0)	1,020	8.34
	06-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	961	8.22
	14-Jul-05	ND (0.2)	ND (1.0)	---	---
	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	971	8.12
NR-3	23-Sep-04	ND (0.2)	ND (1.0)	1,000	8.21
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,020	8.19
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	08-Mar-05	ND (0.2)	ND (1.0)	1,030	8.38
	06-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	996	8.03
	14-Jul-05	ND (0.2)	ND (1.0)	---	---
	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	968	8.09
R-22	23-Sep-04	ND (0.2)	ND (1.0)	977	8.29
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,020	8.29
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	24-Feb-05	ND (0.2)	ND (1.0)	---	---
	01-Mar-05	ND (0.2)	ND (1.0) J	---	---
	07-Mar-05	ND (0.2)	ND (1.0)	1,010	8.38
	14-Mar-05	ND (0.2)	ND (1.0)	---	---
	06-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	987	8.09
	13-Jul-05	ND (0.2)	ND (1.0)	---	---
	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	981	8.07

Table 3
Surface Water COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium ($\mu\text{g/L}$)	Total Chromium ($\mu\text{g/L}$)	Specific Conductance ($\mu\text{S/cm}$)	pH
R-27	22-Sep-04	ND (0.2)	ND (1.0)	1,020	8.30
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,020	8.29
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	24-Feb-05	ND (0.2)	ND (1.0)	---	---
	01-Mar-05	ND (0.2)	ND (1.0) J	---	---
	07-Mar-05	ND (0.2)	ND (1.0)	1,010	8.40
	14-Mar-05	ND (0.2)	ND (1.0)	---	---
	06-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	989	8.10
	13-Jul-05	ND (0.2)	ND (1.0)	---	---
	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	969	8.09
R-28	22-Sep-04	ND (0.2)	ND (1.0)	1,030	8.30
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,020	8.25
	10-Jan-05	ND (0.2)	ND (1.0)	---	---
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	08-Mar-05	ND (0.2)	ND (1.0)	1,020	8.34
	06-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	988	8.11
	14-Jul-05	ND (0.2)	ND (1.0)	---	---
	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2) J	ND (1.0)	970	8.08
RRB	23-Sep-04	ND (0.2)	ND (1.0)	1,100	7.88
	19-Oct-04	ND (0.2)	ND (1.0)	---	---
	15-Nov-04	ND (0.2) R	ND (1.0)	---	---
	13-Dec-04	ND (0.2)	ND (1.0)	1,080	8.16
	08-Feb-05	ND (0.2)	ND (1.0)	---	---
	07-Apr-05	ND (0.2)	ND (1.0)	---	---
	04-May-05	ND (0.2)	ND (1.0)	---	---
	14-Jun-05	ND (0.2)	ND (1.0)	986	8.05
	14-Jul-05	ND (0.2)	ND (1.0)	---	---
	18-Aug-05	ND (0.2)	ND (1.0)	---	---
	07-Sep-05	ND (0.2)	ND (1.0)	---	---
	05-Oct-05	ND (0.2)	ND (1.0)	998	7.88

Table 3
Surface Water COC Sampling Results
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

NOTES:

µg/L micrograms per liter
µS/cm microSiemens per centimeter
ND not detected at listed reporting limit
J concentration or reporting limit estimated by laboratory or data validation
R result exceeded analytical criteria for precision and accuracy, should not be used for decision-making.
(-) data not collected or not available
FD field duplicate sample

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

Other analysis methods: total chromium (Methods SW 6020A and SW 6010B), specific conductance (EPA120.1), pH (EPA150.1)

Table 4
In-Channel Surface Water COC and Additional Parameters Sampling Results
July through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-CON-S	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.11	344	635	ND (10)
C-CON-M	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.09	344	640	ND (10)
C-CON-D	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.10	324	655	ND (10)
C-CON-S	22-Sep-05	ND (0.2)	ND (1.0)	1,100	8.13	328	710	ND (10)
C-CON-M	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.10	328	730	ND (10)
C-CON-D	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.06	328	700	ND (10)
C-I-3-S	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.16	348	615	ND (10)
C-I-3-M	13-Jul-05	ND (0.2)	ND (1.0)	1,100	8.11	352	635	ND (10)
C-I-3-D	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.15	332	620	ND (10)
C-I-3-S	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.16	324	750	ND (10)
C-I-3-M	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.24	316	725	ND (10)
C-I-3-D	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.10	324	730	ND (10)
C-MAR-M	21-Sep-05	ND (0.2)	ND (1.0)	1,150	8.11	336	740	103
C-NR1-S	13-Jul-05	ND (0.2)	ND (1.0)	1,100	8.19	336	610	ND (10)
C-NR1-M	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.16	348	600	ND (10)
C-NR1-D	13-Jul-05	ND (0.2)	ND (1.0)	1,080	8.18	336	605	ND (10)
C-NR1-S	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.18	324	725	ND (10)
C-NR1-M	22-Sep-05	ND (0.2)	ND (1.0)	1,100	8.13	324	730	ND (10)
C-NR1-D	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.13	320	740	ND (10)
C-NR3-S	14-Jul-05	ND (0.2)	ND (1.0)	1,090	8.05	344	695	ND (10)
C-NR3-M	14-Jul-05	ND (0.2)	ND (1.0)	1,090	8.06	352	730	ND (10)
C-NR3-D	14-Jul-05	ND (0.2)	ND (1.0)	1,090	8.07	348	710	ND (10)
C-NR3-S	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.18	328	735	ND (10)

Table 4
In-Channel Surface Water COC and Additional Parameters Sampling Results
July through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-NR3-M	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.20	324	725	ND (10)
C-NR3-D	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.17	320	750	ND (10)
C-NR4-S	14-Jul-05	ND (0.2)	ND (1.0)	1,090	8.09	340	715	ND (10)
C-NR4-M	14-Jul-05	ND (0.2)	ND (1.0)	1,080	7.96	344	700	ND (10)
C-NR4-D	14-Jul-05	ND (0.2)	ND (1.0)	1,080	8.07	348	670	ND (10)
C-NR4-S	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.10	324	735	ND (10)
C-NR4-M	22-Sep-05	ND (0.2)	ND (1.0)	1,110	8.12	324	745	ND (10)
C-NR4-D	22-Sep-05	ND (0.2)	ND (1.0)	1,100	8.11	324	720	ND (10)
C-R22-S	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.18	352	630	ND (10)
C-R22-M	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.11	352	610	ND (10)
C-R22-D	13-Jul-05	ND (0.2)	ND (1.0)	1,100	8.17	352	590	ND (10)
C-R22-S	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.19	336	720	ND (10)
C-R22-M	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.17	336	735	ND (10)
C-R22-D	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.17	328	715	ND (10)
C-R27-S	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.14	340	625	ND (10)
C-R27-M	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.15	356	630	ND (10)
C-R27-D	13-Jul-05	ND (0.2)	ND (1.0)	1,100	8.13	348	635	ND (10)
C-R27-S	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.07	324	745	ND (10)
C-R27-M	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.22	320	730	ND (10)
C-R27-D	21-Sep-05	ND (0.2)	ND (1.0)	1,100	8.10	320	750	ND (10)
C-TAZ-S	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.21	328	650	ND (10)
C-TAZ-M	13-Jul-05	ND (0.2)	ND (1.0)	1,080	8.17	348	655	ND (10)
C-TAZ-D	13-Jul-05	ND (0.2)	ND (1.0)	1,090	8.18	344	615	ND (10)

Table 4
In-Channel Surface Water COC and Additional Parameters Sampling Results
July through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-TAZ-S	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.12	316	710	ND (10)
C-TAZ-M	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.06	324	730	ND (10)
C-TAZ-D	21-Sep-05	ND (0.2)	ND (1.0)	1,110	8.13	320	705	ND (10)

NOTES:

µg/L micrograms per liter

µS/cm microSiemens per centimeter

ND not detected at listed reporting limit

J concentration or reporting limit estimated by laboratory or data validation

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

(--) data not collected or not available

FD field duplicate sample

Hexavalent chromium analysis method: SW 7199 (reporting limit 0.2 µg/L)

Other analysis methods: total chromium (dissolved concentrations, Methods SW 6020A and SW 6010B, reporting limit 1 µg/L for undiluted samples), specific conductance (EPA120.1), pH (EPA150.1), Hardness (EPA130.2), Total Dissolved Solids (EPA160.1), and Total Suspended Solids (EPA160.2).

The sample ID's for the depth-specific surface water samples are:

S = shallow (1 foot from water surface)

M = middle (mid-point of water column)

D = deep (1 foot from river bottom)

Table 5
Interim Measures Performance Monitoring Analytical Results, March 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-20-70	03-Mar-04	2300	-6.5	-39.0	890	440	9.7	0.6	230	52	11	480	0.3	75
	03-Mar-04 FD	2300	-6.5	-53.0	890	440	9.7	0.6	220	51	11	460	0.3	72
	11-May-04	2100	-5.5	-53.0	800	450	10	ND (0.5)	210	48	9.7	490	0.4	76
	24-Sep-04	2200	-6.5	-57.0	824	402	9.7	ND (1)	180	58.5	12	430	0.2	74
	16-Dec-04	2080	-7.3	-60.0	753	374	9.68	0.604	177 J	52.5	9.05	410	0.497	70
	10-Mar-05	1940	-7.1	-59.0	740	378	9.98	ND (1)	198	55.4	9.89	431	0.412	81.7
	15-Jun-05	1980	-7	-60.0	749	388	9.79	ND (1)	189	55.4	10.5	433	0.414	73.8
	15-Jun-05 FD	2050	-8.3	-57.0	760	392	9.81	ND (1)	204	60.7	11.4	468	0.445	71.3
	11-Oct-05	1950	---	---	737	359	9.48	0.641	198	49.9	14.6	323	0.402	69.9
MW-20-100	03-Mar-04	3400	-4.2	-38.0	1300	740	9.6	0.7	170	20	11	1100	1	82
	11-May-04	3600	-2.7	-37.0	1300	700	9.6	0.5	150	18	10	1100	1	81
	24-Sep-04	3000	-4.8	-44.0	1180	621	8.85	ND (1)	140	23	13	860	0.8	100
	16-Dec-04	2840	-5	-47.0	1050	562	8.5	0.654	152	23.4	16.6	772	0.971	90
	10-Mar-05	2490	-5.2	-49.0	466	511	9.98	ND (1)	133	19.8	8.98	712	0.859	84.2
	15-Jun-05	2500	-4.7	-46.0	921	506	9.02	ND (1)	137	21.3	9.06	592	0.713	84
	11-Oct-05	2400	---	---	887	484	8.87	0.731	170	23.7	15.2	500	0.718	82.3
MW-20-130	03-Mar-04	11000	-6.6	-60.0	6200	960	6.2	ND (2.5)	400	19	35	3500	1.7	45
	11-May-04	8300	-5	-49.0	3300	1000	9.8	ND (0.5)	280	14	26	2500	1.7	62
	24-Sep-04	7800	-4.4	-45.0	7240	2280	9.8	ND (4)	240	15	33	2400	1.9	66
	27-Jan-05	7350	-5.7	-48.0	3790	1140	10.4	3.16	313	16.1	43.5	2260	2.03	66
	09-Mar-05	5520	-5.8	-56.0	3120	1080	10.9	ND (1)	219	12.1	24.7	2250	1.9	68.9
	09-Mar-05 FD	6200	-5.4	-51.0	3080	1080	10.9	ND (1)	231	12.8	25.4	2390	1.99	68.9
	15-Jun-05	7790	-5	-48.0	3410	1230	11.1	ND (1)	352	23.2	31.3	2980	2.75	68.7
	07-Oct-05	7330	---	---	3010	1210	10.9	1.04 J	349	13.9	38.4	2070	2.41	72.4
MW-25	03-Mar-04	970	-7.7	-56.0	300	220	4.2	ND (0.5)	92	18	7.8	230	0.4	140
	14-May-04	1000	-8.9	-59.0	310	210	4.2	ND (0.5)	89	19	8	230	0.4	130
	09-Jun-04	---	---	---	---	---	---	---	108	17.1	---	---	0.376	---
	22-Sep-04	1000	-7.6	-58.0	296	196	3.93	0.42	81	16.6	7.4	230	ND (0.2)	140
	09-Mar-05	877	-8.4	-62.0	247	169	3.64	ND (0.5)	77.6	16.1	6.24	211	0.441	158
	14-Jun-05	942	-8.6	-61.0	289	183	3.89	ND (0.5)	93.5	20	8.91	253	0.464	137
	14-Jun-05 FD	980	-7.2	-59.0	294	185	3.94	ND (0.5)	100	20.9	9.06	268	0.475	137

Table 5
Interim Measures Performance Monitoring Analytical Results, March 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-25	04-Oct-05	950	---	---	252	171	3.77	ND (0.5)	83.3	14.9	9.93	164	0.362	141
	04-Oct-05 FD	910	---	---	251	171	3.75	ND (0.5)	94.6	15.3	10.2	185	0.371	146
MW-26	03-Mar-04	1900	-6.7	-54.0	770	400	4.6	ND (0.5)	170	40	12	470	0.5	110
	14-May-04	9300 R	-8.4	-60.0	850	480	5.1	ND (0.5)	190	50	14	490	0.6	110
	22-Sep-04	2300	-6.7	-59.0	821	472	5.65	ND (1)	170	46	13	390	0.4	98
	16-Dec-04	2130	-8.6	-64.0	835	388	5	0.578	176	45.7	17.8	466	0.662	100
	08-Mar-05	1840	-8.8	-70.0	756	370	4.48	ND (0.5)	166	41.6	10.7	439	0.557	98.7
	08-Mar-05 FD	1800	-8.7	-70.0	708	338	4.45	ND (0.5)	166	40.9	11.4	438	0.559	96.1
	13-Jun-05	2130	-8.2	-65.0	847	371	4.9	ND (0.5)	178	44.6	14	511	0.663	103
	04-Oct-05	2120	---	---	779	372	4.88	0.601	166	40.4	19.8	352	0.526	109
MW-27-20	03-Mar-04	640	-11.7	-100.0	74	200	ND (0.4)	ND (0.5)	79	26	4	84	ND (0.2)	180
	12-May-04	570	-11.3	-98.0	72	200	ND (0.4)	ND (0.5)	77	25	3.7	87	ND (0.2)	170
	21-Sep-04	670	-12.3	-92.0	77.2	212	ND (0.2)	ND (0.2)	76	26	5	82	ND (0.2)	160
	15-Dec-04	692	-11.9	-101.0	87.2	236	ND (0.5)	ND (0.5)	91.5	32.6	4.61	88.4	ND (0.2)	169
	08-Mar-05	1250	-12	-102.0	190	432	ND (0.5)	ND (0.5)	137	56.6	4.89	195	ND (0.2)	215
	18-Jul-05	---	-11.9	-98.0	81.9	228	ND (0.5)	ND (0.5)	96.1	30.1	4.27	94.8	ND (0.2)	160
	05-Oct-05	742	---	---	91.1	252	ND (0.5)	ND (0.5)	88.6	31.4	5.48	81	ND (0.2)	175
MW-28-25	04-Mar-04	1000	-11.3	-95.0	220	290	ND (0.4)	ND (0.5)	120	33	3.8	210	0.2	260
	11-May-04	800	-11.3	-95.0	110	270	ND (0.4)	ND (0.5)	110	29	3.9	120	ND (0.2)	240
	07-Jun-04	890	-12.5	-100.0	150	220	ND (0.4)	---	---	---	---	---	---	---
	20-Sep-04	850 J	-11.7	-89.0	99.1	286	ND (0.4)	ND (0.2)	110	30	4.6	120	ND (0.2)	210
	14-Dec-04	810	-12	-99.0	110	310	ND (0.5)	ND (0.5)	122	35.7	4.78	103	ND (0.2) J	202
	10-Mar-05	880	-12.2	-95.0	112	302	ND (0.5)	ND (0.5)	129	36.3	3.5	122	ND (0.2)	204
	15-Jun-05	974	-11.6	-91.0	108	359	ND (0.5)	ND (0.5)	133	38.9	6.54	117	ND (0.2)	221
	06-Oct-05	884	---	---	99.8	300	ND (0.5)	ND (0.5)	123	37	6.61	88.7	ND (0.2)	197
MW-30-30	04-Mar-04	36000	-9	-76.0	19000	4100	ND (4)	5.2	1000	1000	50	9600	3.6	570
	12-May-04	30000	-7.8	-71.0	14000	3000	ND (4)	ND (50)	1300	800	47	8300	2.8	610
	23-Sep-04	42000	-9.5	-73.0	22000	4500	ND (200)	ND (100)	900	890	76	11000	4.1	570
	15-Dec-04	45500	-9.5	-79.0	19900	4730	ND (5)	8.14	1300	1400	118	6110	7.84	458
	10-Mar-05	38800	-9.8	-79.0	16000	4270	ND (5)	7.91	1590	1600	95.4	13600	4.97	421
	07-Oct-05	36400	---	---	17600	4000	ND (0.5)	ND (10)	1020	842	93.6	7650	5.2	521

Table 5
Interim Measures Performance Monitoring Analytical Results, March 2004 through October 2005
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Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-30-50	05-Mar-04	6100	-6.4	-58.0	3000	750	1.2	ND (5)	280	120	16	1600	0.9	280
	05-Mar-04 FD	5900	-6.6	-56.0	2900	730	1.2	ND (5)	290	120	15	1600	0.9	280
	14-May-04	6300	-7.7	-54.0	2700	800	3.5	ND (5)	270	100	15	1700	1.2	180
	14-May-04 FD	6500	-7.5	-54.0	2600	800	3.5	ND (5)	270	110	16	1700	1.1	180
	23-Sep-04	6600	-7.3	-58.0	3330	742	1.58	ND (10)	290	100	18	1800	0.9	240
	23-Sep-04 FD	6800	-6.7	-58.0	3220	694	1.64	ND (10)	310	110	19	1900	0.9	240
	15-Dec-04	6750	-7.9	-63.0	3040	716	ND (0.5)	1.14	378	117	36.5	1720	1.39	249
	15-Dec-04 FD	6690	-7.8	-64.0	2920	725	ND (0.5)	1.13	372	114	37.8	1700	1.43	249
	10-Mar-05	6470 J	-8.3	-68.0	4660	672	ND (0.5)	1.03	335	107	16.5	2040	1.15	324
	07-Oct-05	6860	---	---	3060	857	ND (0.5)	0.899 J	438	101	37	1780	1.27	252
MW-31-60	03-Mar-04	1700	-8.1	-60.0	750	280	6.2	ND (0.5)	160	22	7.9	420	0.4	72
	14-May-04	1900	-9	-59.0	750	260	5.5	ND (0.5)	150	22	7.5	420	0.4	74
	22-Sep-04	1700	-8	-61.0	691	236	5.45	0.46	130	19	7.9	430	ND (0.2)	79
	16-Dec-04	1640	-8.7	-64.0	691	246	5.36	ND (0.5)	118	18.5	9.67	421	0.44	80
	09-Mar-05	1540	-8.6	-63.0	649	210	4.94	ND (0.5)	108	17.3	5.97	424	0.401	76.6
	13-Jun-05	1660	-8.2	-65.0	745	207	4.12	ND (0.5)	121	18.9	6.57	403	0.388	70
	06-Oct-05	1660	---	---	691	206	4.01	ND (0.5)	109	16.5	9.75	308	0.462	77.3
MW-32-20	04-Mar-04	6200	-8	-64.0	2900	540	ND (0.4)	ND (5)	520	180	13	1500	1.1	570
	12-May-04	5000	-7.1	-70.0	2100	130	ND (0.4)	ND (5)	510	180	16	1100	0.8	600
	20-Sep-04	21000 J	-7.3	-63.0	10200	3800	ND (0.4)	ND (100)	1100	420	45	4900	3	920
	14-Dec-04	16100	-8.2	-66.0	8890	1990	ND (5)	ND (5)	1140	400	46.8	3500	4.22 J	784
	09-Mar-05	12500	-7.2	-65.0	6930	1660	ND (0.5)	3.51	838	302	36.9	4000	2.76	123
	17-Jun-05	10200	-9	-67.0	4810	690	ND (0.5)	ND (2.5)	566	231	23.3	2620	1.75	676
	04-Oct-05	28800	---	---	14200	2420	ND (5)	6.19	1380 J	613 J	91.1 J	5400 J	4.75 J	733
MW-32-35	04-Mar-04	4200	-8	-65.0	1900	470	ND (0.4)	ND (5)	340	99	13	1100	1	310
	12-May-04	4500	-6.9	-64.0	1900	460	ND (0.4)	ND (5)	330	94	12	1100	0.9	320
	21-Sep-04	4500	-8.7	-63.0	2150	422	ND (0.2)	ND (10)	320	89	14	990	0.9	310
	15-Dec-04	4120	-8.5	-67.0	1760	524	ND (0.5)	0.89	351	96.3	24.7 J	954	1.28	276
	09-Mar-05	3560	-8.2	-68.0	1770	465	ND (0.5)	0.845	312	85.5	13	944	1.07	260
	17-Jun-05	7550	-9.5	-72.0	3520	787	ND (0.5)	ND (2.5)	506	120	14.8	2110	1.18	223
	04-Oct-05	8340	---	---	3840	765	ND (0.5)	ND (5)	567	134	29.3	1530	1.26	208

Table 5
Interim Measures Performance Monitoring Analytical Results, March 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-34-55	04-Mar-04	6700	-9.6	-77.0	3200	850	ND (0.4)	ND (5)	360	97	13	2000	1.2	270
	13-May-04	5700	-10.3	-77.0	2700	770	ND (0.4)	ND (5)	310	77	15	1900	1	270
	08-Jun-04	---	---	---	---	---	---	---	246	68.3	---	---	1.18	---
	22-Sep-04	5800	-11	-82.0	2700	732	ND (0.2)	ND (10)	260	85.2	17	1800	0.9	250
	15-Dec-04	5860	-10.9	-83.0	2390	743	ND (0.5)	0.743	288	69.9	33	1540	1.34	234
	10-Mar-05	6230	-10.8	-82.0	2620	739	ND (0.5)	0.654	366	71.3	29.1	1900	1.19	240
	15-Jul-05	---	-10.3	-84.0	2250	607	ND (0.5)	ND (0.5)	247	52	16.5	1420	1.02	242
	05-Oct-05	5150	---	---	2170	619	ND (0.5)	ND (0.5)	272	59.1	25.8	1230	1.2	232
MW-34-80	05-Mar-04	8800	-8.9	-75.0	4700	1000	ND (0.4)	ND (5)	280	24	25	2600	1.7	180
	13-May-04	8800	-10.2	-77.0	3900	1000	ND (4)	ND (5)	390	54	27	2800	1.4	270
	13-May-04 FD	9100	-10.2	-76.0	4000	1000	ND (4)	ND (5)	390	53	27	2700	1.5	280
	08-Jun-04	---	---	---	---	---	---	---	396	56.6	---	---	1.72	---
	23-Sep-04	8900	-9.9	-79.0	4050	997	ND (10)	ND (10)	410	76	32	2800	1.4	290
	23-Sep-04 FD	9900	-9.6	-78.0	4170	998	ND (10)	ND (10)	410	84.3	35	2800	1.5	290
	13-Dec-04	---	---	---	---	---	---	---	455	55	40.4	2220	1.63	---
	08-Mar-05	6940	-10.4	-83.0	4180	1040	ND (0.5)	1.01	439	68.1	28	2750	1.65	304
	15-Mar-05	8980	---	---	3920	ND (5)	ND (1)	---	445	65.7	29.7	2990	---	288
	30-Jun-05	7840	-8.4	-82.0	3910	979	ND (0.5)	ND (0.5)	497	76.5	27.7	2670	1.66	302
	05-Oct-05	10200	---	---	3880	1060	ND (0.5)	ND (0.5)	429	72.5	47.4	1660	1.57	302
MW-34-100	14-Mar-05	10800	---	---	5010	1210	ND (1)	---	221	17.4	34.1	3600	---	175
	21-Jun-05	11300	-9.7	-75.0	5350	1270	1.05	ND (0.5)	229	17.4	27.1	3510	2.22	179
	21-Jun-05 FD	10900 J	-9.5	-77.0	4920	1180	1.03	ND (0.5)	243	18.2	32.1	3740	2.36	179
	05-Oct-05	10400	---	---	4530	1150	1.2	ND (0.5)	171	13.8	55.2	2450	2.57	172
	05-Oct-05 FD	10400	---	---	4680	1200	1.21	ND (0.5)	228	14.1	50.9	2730	2.57	172
MW-36-20	15-Jun-04	6600	-10.1	-74.0	2900	660	ND (0.4)	---	406	69.9	27.1	1410	---	270
	03-Oct-05	9320	---	---	4580	1180	ND (0.5)	5.78	433	116	26.1	2040	1.93	330
MW-36-70	17-Jun-04	7600	-9.8	-71.0	3600	840	ND (0.4)	---	448	94.9	47.8	1420	---	270
	03-Oct-05	5450	---	---	2510	748	ND (0.5)	0.665	341	72.6	32.8	1450	1.56	218
MW-36-100	15-Jun-04	9500	-9.4	-65.0	4500	990	2.8	---	500	21	66.8	2470	---	75
	19-Jul-05	---	-9.5	-75.0	---	---	---	---	381	26.9	29.3	3330	2.05	---
	05-Oct-05	10700	---	---	4800	1230	ND (0.5)	ND (0.5)	390	23.3	46.7	2460	2.4	215

Table 5
Interim Measures Performance Monitoring Analytical Results, March 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Bromide	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity
Monitoring Wells														
MW-42-30	16-Mar-05	37100	---	---	4220 J	997	ND (1)	---	561	184	18.5	2330	---	319
	07-Oct-05	10400	---	---	4930	1170	ND (0.5)	1.71 J	698	178	41.2	2080	1.59	250
MW-42-55	16-Mar-05	10800	---	---	4970	1220	ND (1)	---	686	135	32.6	3050	---	209
	07-Oct-05	11800	---	---	5510	1290	ND (0.5)	1.87 J	1040	169	55.7	2320	1.51	250
MW-42-65	16-Mar-05	8600	---	---	3970	1070	ND (1)	---	511	95.5	27	2340	---	163
	07-Oct-05	11600	---	---	5100	1260	ND (0.5)	1.26 J	909	175	61.1	2620	1.54	262
Surface Water Stations														
R-27	03-Mar-04	630	-11.4	-86.0	87	250	ND (0.4)	ND (0.5)	77	28	4.4	94	ND (0.2)	140
	12-May-04	590	-11.4	-96.0	84	240	ND (0.4)	ND (0.5)	74	27	4.8	96	ND (0.2)	140
	22-Sep-04	680	-12.1	-98.0	88.4	237	0.38	ND (0.2)	77	29	4.8	99	ND (0.2)	130
	13-Dec-04	632	-11.4	-95.0	84.4	235	ND (0.5) R	ND (0.5)	79.6	31.4	4.95	86.5	ND (0.2) J	125
	07-Mar-05	669	-12.3	-102.0	92.7	244	ND (0.5)	ND (0.5)	82.8	31.3	4.72	108	ND (0.2)	136
	14-Jun-05	686	-11.4	-92.0	90.9	266	ND (0.5)	ND (0.5)	81.9	29.8	6.04	98.9	ND (0.2)	127
	05-Oct-05	678	---	---	85.1	255	ND (0.5)	ND (0.5)	101	36.2	6.56	91.2	ND (0.2)	130
R-28	03-Mar-04	670	-11.3	-90.0	87	250	0.5	ND (0.5)	78	28	4.4	93	ND (0.2)	140
	12-May-04	580	-11.5	-98.0	84	240	ND (0.4)	ND (0.5)	72	26	4.2	92	ND (0.2)	140
	22-Sep-04	680	-12.1	-99.0	104	240	0.38	ND (0.2)	79	30	4.9	99	ND (0.2)	130
	13-Dec-04	652	-11.1	-95.0	84.8	236	ND (0.5) R	ND (0.5)	79.9	31.5	4.93	86	ND (0.2) J	133
	08-Mar-05	651	-12.5	-102.0	90.4	231	ND (12.5)	ND (0.5)	83.7	31.4	5.02	107	ND (0.2)	132
	14-Jun-05	680	-11.6	-95.0	91.2	268	ND (0.5)	ND (0.5)	78.5	28.5	5.08	94.5	ND (0.2)	127
	05-Oct-05	672	---	---	85.5	255	ND (0.5)	ND (0.5)	85.7	30.4	6.3	77	ND (0.2)	122

Table 5
Interim Measures Performance Monitoring Analytical Results, March 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

NOTES:

FD field duplicate sample

ND parameter not detected at the listed reporting limit

J concentration or reporting estimated by laboratory or data validation

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

(---) parameter not analyzed

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

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

All metal results are dissolved concentrations except for selected unfiltered parameters noted with ^ (total metals concentration).

October 2005 quarterly event isotope results not available at the time of report preparation.

Table 6
Title 22 Metals, September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

California MCL:		6	50	1000	4	5	NE	50	1000 *	NE	2	NE	100	50	100*	2	NE	5000 *
Well ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
MW-10	9/21/2004	ND (5.0)	ND (10)	45.8	ND (3.0)	ND (3.0)	ND (3.0)	1960	6.40	ND (5.0)	ND (0.2)	115	ND (5.0)	ND (10)	ND (3.0)	ND (15)	25.2	22.7
MW-10	12/17/2004	ND (5.0)	ND (10)	44.9	ND (3.1)	ND (3.1)	ND (3.1)	1300	ND (5.0)	ND (2.1)	ND (0.2)	100	ND (5.0)	ND (10)	61.8	ND (15)	40.0	54.9
MW-10	3/8/2005	ND (5.0)	ND (10)	42.0	ND (3.1)	ND (3.1)	ND (3.1)	1110	ND (5.0)	ND (2.1)	ND (0.2)	83.3	ND (5.0)	ND (10)	ND (3.1)	ND (15)	141	56.2
MW-10 FD	3/8/2005	ND (5.0)	ND (10)	49.3	ND (3.1)	ND (3.1)	ND (3.1)	1100	ND (5.0)	ND (2.1)	ND (0.2)	81.1	ND (5.0)	ND (10)	ND (3.1)	ND (15)	165	65.6
MW-10	6/16/2005	ND (2.0)	6.39	45.5	ND (1.0)	ND (1.0)	ND (1.0)	1400	ND (1.0)	1.53	ND (0.2)	114	1.70	4.90	ND (1.0)	ND (1.0)	33.5	ND (10)
MW-10	10/3/2005	ND (2.0)	14.3	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	4900	ND (10)	1.53	ND (0.2)	301	ND (20)	1.93	ND (1.0)	ND (1.0)	49.7	79.4
MW-11	9/21/2004	ND (5.0)	ND (10)	45.1	ND (3.0)	ND (3.0)	ND (3.0)	431	ND (5.0)	ND (5.0)	ND (0.2)	8.80	ND (5.0)	ND (10)	ND (3.0)	ND (15)	5.80	ND (10)
MW-11	12/17/2004	ND (5.0)	ND (10)	38.8	ND (3.1)	ND (3.1)	ND (3.1)	393	ND (5.0)	ND (2.1)	ND (0.2)	9.40	ND (5.0)	13.6	ND (3.1)	ND (15)	9.90	27.4
MW-11	3/8/2005	ND (5.0)	ND (10)	38.3	ND (3.1)	ND (3.1)	ND (3.1)	357	ND (5.0)	ND (2.1)	ND (0.2)	9.00	ND (5.0)	ND (10)	ND (3.1)	ND (15)	85.9	56.7
MW-11	6/16/2005	ND (2.0)	1.53	42.1	ND (1.0)	ND (1.0)	ND (1.0)	379	ND (1.0)	ND (1.0)	ND (0.2)	11.5	1.03	4.50	ND (1.0)	ND (1.0)	8.31	13.4
MW-11	10/3/2005	ND (2.0)	1.68	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	617	ND (10)	ND (1.0)	ND (0.2)	16.4	ND (20)	5.31	ND (1.0)	ND (1.0)	6.30	ND (20)
MW-12	9/20/2004	20.9	68.6	62.8	ND (3.0)	ND (3.0)	ND (3.0)	1490	ND (5.0)	ND (5.0)	ND (0.2)	41.2	ND (5.0)	ND (10)	ND (3.0)	ND (15)	24.6	19.2
MW-12	3/10/2005	ND (5.0)	53.4	38.9	ND (3.1)	ND (3.1)	ND (3.1)	945	ND (5.0)	ND (2.1)	ND (0.2)	36.1	ND (5.0)	ND (10)	ND (3.1)	ND (15)	218	37.5
MW-12 FD	3/10/2005	ND (5.0)	64.2	39.9	ND (3.1)	ND (3.1)	ND (3.1)	912	ND (5.0)	ND (2.1)	ND (0.2)	40.7	ND (5.0)	ND (10)	ND (3.1)	ND (15)	202	54.6
MW-12	6/13/2005	ND (2.0)	110	44.1	ND (1.0)	ND (1.0)	ND (1.0)	957	ND (1.0)	ND (1.0)	ND (0.2)	77.3	11.7	5.73	ND (1.0)	1.11	34.2	24.4
MW-12	9/16/2005	ND (5.0)	103	110	ND (3.0)	ND (3.0)	ND (3.0)	618	ND (5.0)	5.70	ND (0.2)	63.5	17.9	ND (10)	ND (3.0)	ND (15)	52.2	75.5
MW-12	10/4/2005	ND (2.0)	146	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	644	ND (10)	ND (1.0)	ND (0.2)	76.9	ND (20)	3.92	ND (1.0)	ND (1.0)	41.6	ND (20)
MW-12 FD	10/4/2005	ND (2.0)	151	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	613	ND (10)	ND (1.0)	ND (0.2)	79.1	ND (20)	4.06	ND (1.0)	ND (1.0)	39.7	ND (20)
MW-20-70	9/24/2004	ND (5.0)	ND (10)	59.1	ND (3.0)	ND (3.0)	ND (3.0)	7550	10.8	ND (5.0)	ND (0.2)	20.6	ND (5.0)	18.1	ND (3.0)	ND (15)	ND (3.0)	24.8
MW-20-70	12/16/2004	ND (5.0)	ND (10)	36.6	ND (3.1)	ND (3.1)	ND (3.1)	7230	ND (5.0)	ND (2.1)	ND (0.2)	18.1	ND (5.0)	ND (10)	ND (3.1)	ND (15)	9.40	25.6
MW-20-70	3/10/2005	ND (5.0)	ND (10)	51.0	ND (3.1)	ND (3.1)	ND (3.1)	8120	ND (5.0)	ND (2.1)	ND (0.2)	13.0	5.20	ND (10)	ND (3.1)	ND (15)	91.6	136
MW-20-70	6/15/2005	ND (2.0)	1.59	47.4	ND (1.0)	ND (1.0)	ND (1.0)	6430	ND (1.0)	ND (1.0)	ND (0.2)	17.5	2.41	7.36	ND (1.0)	ND (1.0)	7.46	43.1 J
MW-20-70 FD	6/15/2005	ND (2.0)	1.62	51.8	ND (1.0)	ND (1.0)	ND (1.0)	7130	1.86	1.37	ND (0.2)	17.9	2.28	7.83	ND (1.0)	ND (1.0)	8.24	159 J
MW-20-70	10/11/2005	ND (2.0)	2.04	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	5930	ND (10)	ND (1.0)	ND (0.2)	23.0	ND (20)	8.81	ND (1.0)	ND (1.0)	117	ND (20)
MW-20-130	9/24/2004	ND (5.0)	ND (10)	40.3	ND (3.0)	ND (3.0)	ND (3.0)	7000	15.0	ND (5.0)	ND (0.2)	47.2	ND (5.0)	23.0	ND (3.0)	ND (15)	ND (3.0)	43.7
MW-20-130	1/27/2005	ND (5.0)	ND (10)	26.8	ND (3.0)	ND (3.0)	ND (3.0)	8410	ND (5.0)	ND (2.1)	ND (0.2)	44.4	ND (5.0)	13.0	ND (3.0)	ND (15)	11.6	24.6
MW-20-130	3/9/2005	ND (5.0)	ND (10)	21.5	ND (3.1)	ND (3.1)	ND (3.1)	8170	ND (5.0)	ND (2.1)	ND (0.2)	33.6	ND (5.0)	ND (10)	ND (3.1)	ND (15)	172	84.5 J
MW-20-130 FD	3/9/2005	ND (5.0)	ND (10)	20.0	ND (3.1)	ND (3.1)	ND (3.1)	7050	ND (5.0)	ND (2.1)	ND (0.2)	29.0	5.30	ND (10)	ND (3.1)	ND (15)	162	173 J
MW-20-130	6/15/2005	ND (2.0)	7.42	26.5	ND (1.0)	ND (1.0)	ND (1.0)	11300	1.62	ND (1.0)	ND (0.2)	57.6	ND (1.0)	10.7	ND (1.0)	ND (1.0)	4.13	31.9
MW-20-130	10/7/2005	ND (2.0)	6.58	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	10700	ND (5.0)	ND (1.0)	ND (0.2)	41.3	ND (21)	10.8	ND (1.0)	ND (3.0)	ND (20)	
MW-25	9/22/2004	ND (5.0)	ND (10)	40.7	ND (3.0)	ND (3.0)	ND (3.0)	1930	7.10	ND (5.0)	ND (0.2)	ND (5.0)	ND (5.0)	13.1	ND (3.0)	ND (15)	ND (3.0)	22.7
MW-25	3/9/2005	ND (5.0)	ND (10)	39.5	ND (3.1)	ND (3.1)	ND (3.1)	1700	ND (5.0)	ND (2.1)	ND (0.2)	ND (5.0)	ND (5.0)	ND (10)	ND (3.1)	ND (15)	73.3	94.6
MW-25	6/14/2005	ND (2.0)	1.81	45.5	ND (1.0)	ND (1.0)	ND (1.0)	1790	ND (1.0)	ND (1.0)	ND (0.2)	3.85	2.26	2.72	ND (1.0)	ND (1.0)	11.1	119 J
MW-25 FD	6/14/2005	ND (2.0)	1.93	48.9	ND (1.0)	ND (1.0)	ND (1.0)	1930	1.34	ND (1.0)	ND (0.2)	4.13	1.68	2.65	ND (1.0)	ND (1.0)	11.8	16.1 J
MW-25	10/4/2005	ND (2.0)	1.94	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	1470	ND (10)	ND (1.0)	ND (0.2)	3.49	ND (20)	2.38	ND (1.0)	ND (1.0)	6.00	ND (20)
MW-25 FD	10/4/2005	ND (2.0)	2.15	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)											

Table 6
Title 22 Metals, September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

California MCL:		6	50	1000	4	5	NE	50	1000 *	NE	2	NE	100	50	100*	2	NE	5000 *
Well ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
MW-34-55	12/15/2004	ND (5.0)	ND (10)	71.8	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	6.60	12.2	ND (0.2)	13.7	ND (5.0)	ND (10)	40.4	ND (15)	6.50	25.1
MW-34-55	3/10/2005	ND (5.0)	ND (10)	66.9	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	ND (5.0)	ND (2.1)	ND (0.2)	12.4	9.10	ND (10)	ND (3.1)	ND (15)	227	87.7
MW-34-55	10/5/2005	ND (2.0)	2.01	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (1.0)	ND (0.2)	15.7	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)	ND (5.0)	22.7
MW-34-80	9/23/2004	ND (5.0)	ND (10)	54.1	ND (3.0)	ND (3.0)	ND (3.0)	ND (1.0)	10.1	ND (5.0)	ND (0.2)	14.9	ND (5.0)	ND (10)	ND (3.0)	ND (15)	ND (3.0)	23.2
MW-34-80 FD	9/23/2004	ND (5.0)	ND (10)	52.8	ND (3.0)	ND (3.0)	ND (3.0)	ND (1.0)	10.6	ND (5.0)	ND (0.2)	14.4	ND (5.0)	ND (10)	ND (3.0)	ND (15)	ND (3.0)	22.0
MW-34-80	12/13/2004	ND (5.0)	ND (10)	42.0	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	ND (5.0)	ND (2.1)	ND (0.2)	14.7	8.60	ND (10)	ND (3.1)	ND (15)	15.3	29.7
MW-34-80	3/8/2005	ND (5.0)	ND (10)	51.8	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	ND (5.0)	ND (2.1)	ND (0.2)	13.3	15.5	ND (10)	ND (3.1)	ND (15)	238	41.7
MW-34-80	6/30/2005	ND (2.0)	2.09	46.4	ND (1.0)	ND (1.0)	1.39	ND (1.0)	2.25	ND (1.0)	ND (0.2)	11.1	2.23	ND (1.0)	ND (1.0)	ND (1.0)	2.74	37.0
MW-34-80	10/5/2005	ND (2.0)	2.06	ND (300)	ND (1.0)	ND (1.0)	1.23	ND (1.0)	ND (10)	ND (1.0)	ND (0.2)	10.8	ND (20)	ND (1.0)	ND (1.0)	ND (5.0)	ND (20)	
MW-37D	9/24/2004	ND (5.0)	ND (10)	65.0	ND (3.0)	ND (3.0)	ND (3.0)	1220	8.50	ND (5.0)	ND (0.2)	47.3	ND (5.0)	ND (10)	ND (3.0)	ND (15)	ND (3.0)	17.2
MW-37D FD	9/24/2004	ND (5.0)	ND (10)	65.9	ND (3.0)	ND (3.0)	ND (3.0)	1160	9.60	ND (5.0)	ND (0.2)	46.3	ND (5.0)	10.0	ND (3.0)	ND (15)	ND (3.0)	24.8
MW-37D	12/14/2004	ND (5.0)	ND (10)	46.4	ND (3.1)	ND (3.1)	ND (3.1)	1490	ND (5.0)	ND (2.1)	ND (0.2)	43.3	ND (5.0)	ND (10)	ND (3.1)	ND (15)	31.4 J	33.0 J
MW-37D FD	12/14/2004	ND (5.0)	ND (10)	49.9	ND (3.1)	ND (3.1)	ND (3.1)	1440	ND (5.0)	ND (2.1)	ND (0.2)	44.6	8.30	ND (10)	ND (3.1)	ND (15)	20.5 J	91.8 J
MW-37D	3/11/2005	ND (5.0)	ND (10)	53.9	ND (3.1)	ND (3.1)	ND (3.1)	1540	ND (5.0)	ND (2.1)	ND (0.2)	34.1	9.20	ND (10)	ND (3.1)	ND (15)	326	38.7
MW-37D	6/15/2005	ND (2.0)	3.63	54.9	ND (1.0)	ND (1.0)	ND (1.0)	1420	ND (1.0)	ND (1.0)	ND (0.2)	51.8	25.4	3.10	ND (1.0)	ND (1.0)	4.00	11.0
MW-37D	10/4/2005	ND (2.0)	3.42	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	1970	ND (10)	ND (1.0)	ND (0.2)	45.5	ND (20)	3.24	ND (1.0)	ND (1.0)	6.00	ND (20)

NOTES:

ND not detected at listed reporting limit

FD field duplicate sample

Title 22 metals are the metals listed in California Code of Regulations, Title 22, Section 66261.24(a)(2)(A)

The maximum contaminant levels (MCLs) listed, in micrograms per liter ($\mu\text{g/L}$), are the California primary drinking water standards, or California secondary MCLs, where noted *. NE = not established

All results are dissolved metals concentrations in $\mu\text{g/L}$ from field-filtered samples.

Metals analyzed by Methods SW6010B, SW6020A, and SW7470A.

Analytes detected above MCL are in bold.

Table 7
Manual Water Level Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL) ¹	Monitoring Date & Time	Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells						
MW-9	89	536.56	21-Sep-04 2:20 PM	80.48	0.20	456.05
			17-Dec-04 11:23 AM	81.68	0.20	454.86
			11-Jan-05 9:24 AM	81.76	0.20	454.78
			08-Mar-05 2:43 PM	82.04	0.20	454.50
			07-Apr-05 11:51 AM	82.07	0.19	454.47
			18-May-05 6:36 AM	81.10	0.19	455.43
			16-Jun-05 1:32 PM	80.45	0.19	456.08
			03-Oct-05 12:17 PM	80.22	0.20	456.31
MW-10	97	530.65	21-Sep-04 1:04 PM	75.72	0.20	454.87
			17-Dec-04 10:52 AM	75.92	0.20	454.68
			11-Jan-05 9:51 AM	76.00	0.39	454.63
			08-Mar-05 1:56 PM	76.35	0.39	454.28
			18-May-05 6:32 AM	75.21	0.21	455.38
			16-Jun-05 1:07 PM	74.66	0.21	455.93
			03-Oct-05 11:41 AM	74.46	0.21	456.13
MW-11	86	522.61	21-Sep-04 12:11 PM	66.80	0.10	455.73
			17-Dec-04 10:37 AM	67.99	0.10	454.54
			11-Jan-05 10:20 AM	68.12	0.10	454.42
			08-Mar-05 1:04 PM	68.50	0.10	454.04
			18-May-05 6:24 AM	67.12	0.16	455.42
			16-Jun-05 12:22 PM	66.69	0.16	455.85
			03-Oct-05 10:17 AM	66.65	0.15	455.89
MW-12	50	484.01	20-Sep-04 11:51 AM	28.67	0.20	455.29
			08-Mar-05 2:55 PM	30.09	0.20	453.87
			06-Apr-05 1:20 PM	30.07	0.22	453.89
			18-May-05 7:15 AM	28.81	0.22	455.15
			13-Jun-05 9:30 AM	28.54	0.22	455.42
			16-Sep-05 9:05 AM	28.35	0.22	455.61
			04-Oct-05 7:30 AM	28.52	0.23	455.44
MW-13	52	488.64	24-Sep-04 10:09 AM	32.33	0.10	456.25
			16-Dec-04 12:24 PM	32.00	0.10	456.58
			11-Mar-05 11:14 AM	35.38	0.10	453.21
			18-May-05 6:12 AM	32.81	0.12	455.77
			14-Jun-05 11:10 AM	32.59	0.12	455.99
			04-Oct-05 10:46 AM	33.10	0.13	455.48
MW-14	134	570.99	20-Sep-04 1:30 PM	115.26	0.10	455.67
			16-Dec-04 12:59 PM	116.50	0.10	454.43
			09-Mar-05 12:43 PM	117.05	0.10	453.88
			07-Apr-05 9:04 AM	116.48	0.10	454.45
			18-May-05 7:25 AM	115.29	0.10	455.64
			15-Jun-05 8:58 AM	114.90	0.10	456.02
			06-Oct-05 9:03 AM	115.15	0.10	455.77

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Manual Water Level Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL) ¹	Monitoring Date & Time		Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells							
MW-15	203	641.52	22-Sep-04	9:35 AM	185.50	0.10	455.95
			17-Dec-04	11:59 AM	186.45	0.10	455.01
			08-Mar-05	10:23 AM	187.18	0.10	454.28
			18-May-05	6:43 AM	185.43	0.10	456.02
			17-Jun-05	9:49 AM	185.38	0.10	456.07
			06-Oct-05	7:21 AM	185.25	0.10	456.20
MW-16	218	657.31	16-Dec-04	2:40 PM	201.57	0.09	455.68
			18-May-05	6:52 AM	201.74	0.09	455.51
			06-Oct-05	7:58 AM	200.76	0.09	456.48
MW-17	154	589.96	16-Dec-04	2:00 PM	134.12	0.10	455.78
			18-May-05	6:51 AM	133.82	0.11	456.07
			05-Oct-05	10:27 AM	133.27	0.11	456.62
MW-18	107	545.32	24-Sep-04	8:54 AM	89.33	0.10	455.92
			16-Dec-04	2:12 PM	90.42	0.10	454.83
			09-Mar-05	11:21 AM	91.03	0.10	454.22
			18-May-05	6:56 AM	89.41	0.09	455.83
			15-Jun-05	8:15 AM	89.05	0.09	456.19
			06-Oct-05	8:32 AM	89.06	0.09	456.18
MW-19	66	499.92	20-Sep-04	12:42 PM	45.19	0.11	454.66
			17-Dec-04	12:49 PM	46.00	0.11	453.86
			07-Mar-05	1:53 PM	47.07	0.22	452.80
			18-May-05	6:05 AM	44.20	0.15	455.66
			14-Jun-05	8:55 AM	43.91	0.15	455.95
			04-Oct-05	9:45 AM	45.03	0.13	454.83
MW-20-70	70	500.15	24-Sep-04	1:42 PM	45.71	0.20	454.37
			16-Dec-04	9:53 AM	47.07	0.20	453.02
			10-Mar-05	9:35 AM	48.44	0.14	451.64
			07-Apr-05	10:04 AM	46.15	0.14	453.93
			15-Jun-05	8:51 AM	45.02	0.14	455.05
			11-Oct-05	9:33 AM	45.96	0.20	454.12
MW-20-100	101	500.58	24-Sep-04	12:31 PM	46.32	0.30	454.15
			16-Dec-04	11:13 AM	47.78	0.30	452.70
			10-Mar-05	12:30 PM	49.08	0.30	451.40
			15-Jun-05	11:12 AM	45.77	0.30	454.71
			11-Oct-05	8:42 AM	46.04	0.25	454.42
MW-20-130	132	500.66	24-Sep-04	1:05 PM	46.90	1.06	454.04
			27-Jan-05	1:48 PM	49.20	0.67	451.53
			09-Mar-05	12:18 PM	72.90	0.67	427.79
			07-Apr-05	10:55 AM	47.28	0.75	453.50
			15-Jun-05	9:51 AM	46.28	0.75	454.49
			07-Oct-05	9:35 AM	47.65	0.63	453.05

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Manual Water Level Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL) ¹	Monitoring Date & Time	Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells						
MW-21	58	505.55	20-Sep-04 11:08 AM	50.11	0.87	455.46
			16-Dec-04 10:50 AM	50.80	0.87	454.77
			07-Mar-05 1:22 PM	50.98	0.87	454.59
			18-May-05 7:02 AM	50.47	0.87	455.10
			14-Jun-05 9:43 AM	50.05	0.87	455.52
			04-Oct-05 8:46 AM	50.10	0.75	455.46
MW-22	12	460.72	23-Sep-04 10:40 AM	6.12	1.91	454.67
			16-Dec-04 1:16 PM	7.00	1.91	453.78
			10-Mar-05 12:54 PM	7.53	1.91	453.25
			17-Jun-05 8:42 AM	5.52	1.88	455.28
			04-Oct-05 9:41 AM	6.17	2.20	454.64
MW-23	81	507.33	20-Sep-04 10:50 AM	52.22	1.17	455.24
			16-Dec-04 10:05 AM	53.23	1.17	454.23
			16-Dec-04 10:05 AM	53.23	1.17	454.23
			07-Mar-05 12:48 PM	53.00	1.17	454.46
			14-Jun-05 9:00 AM	51.86	1.16	455.60
			04-Oct-05 8:29 AM	54.08	1.16	453.37
			04-Oct-05 8:29 AM	54.08	1.16	453.37
MW-24A	127	567.16	20-Sep-04 2:35 PM	111.65	0.20	455.47
			17-Dec-04 8:34 AM	112.55	0.20	454.58
			11-Jan-05 12:00 PM	112.65	0.20	454.48
			07-Mar-05 11:44 AM	113.08	0.20	454.05
			18-May-05 6:13 AM	111.75	0.23	455.38
			16-Jun-05 11:21 AM	111.28	0.23	455.84
			03-Oct-05 9:45 AM	111.25	0.22	455.87
MW-24B	215	564.76	21-Sep-04 8:45 AM	109.30	0.83	455.64
			17-Dec-04 8:50 AM	110.35	0.83	454.60
			11-Jan-05 11:05 AM	110.37	0.83	454.58
			07-Mar-05 10:41 AM	110.83	0.83	454.12
			18-May-05 6:11 AM	109.51	0.82	455.43
			16-Jun-05 10:23 AM	109.01	0.82	455.92
			03-Oct-05 9:02 AM	109.10	0.82	455.83
MW-24BR	441	563.95	20-Sep-04 3:06 PM	107.88	0.92	456.66
			16-Dec-04 9:23 AM	109.10	0.92	455.46
			16-Dec-04 9:23 AM	109.10	0.92	455.46
			07-Mar-05 10:04 AM	109.54	0.92	455.03
			18-May-05 6:08 AM	108.29	0.92	456.28
MW-25	107	542.90	22-Sep-04 12:10 PM	87.50	0.10	455.33
			09-Mar-05 1:46 PM	89.52	0.10	453.32
			07-Apr-05 10:04 AM	88.80	0.11	454.04
			18-May-05 6:08 AM	87.52	0.11	455.31
			14-Jun-05 10:08 AM	87.10	0.11	455.74

Table 7
Manual Water Level Measurements
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Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL) ¹	Monitoring Date & Time	Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells						
MW-25	107	542.90	04-Oct-05 10:18 AM	87.58	0.11	455.25
MW-26	70	502.22	22-Sep-04 11:10 AM	47.03	0.20	455.11
			16-Dec-04 12:54 PM	48.30	0.20	453.85
			08-Mar-05 11:20 AM	48.98	0.20	453.17
			18-May-05 6:54 AM	47.08	0.23	455.07
			13-Jun-05 10:04 AM	46.70	0.23	455.46
			04-Oct-05 9:05 AM	47.18	0.23	454.97
MW-27-20	14	460.56	21-Sep-04 12:42 PM	6.08	0.01	454.46
			19-Oct-04 2:36 PM	7.03	0.01	453.51
			15-Nov-04 2:49 PM	7.07	0.01	453.47
			02-Dec-04 1:15 PM	6.58	0.01	453.96
			15-Dec-04 1:57 PM	7.16	0.01	453.38
			10-Jan-05 3:01 PM	7.93	0.03	452.62
			09-Feb-05 8:40 AM	7.58	0.03	452.97
			08-Mar-05 10:50 AM	8.68	0.03	451.87
			04-Apr-05 1:42 PM	5.87	0.05	454.68
			04-May-05 9:56 AM	4.39	0.05	456.15
			18-Jul-05 9:57 AM	4.14	0.12	456.41
			05-Oct-05 9:20 AM	5.80	0.06	454.74
MW-27-60	59	461.38	01-Mar-05 11:57 AM	8.86	0.95	452.77
			08-Mar-05 9:10 AM	9.73	0.95	451.89
			23-Mar-05 10:00 AM	7.45	0.95	454.16
			29-Mar-05 12:52 PM	7.35	0.95	454.26
			05-Apr-05 9:07 AM	7.33	0.95	454.30
			12-Apr-05 8:27 AM	5.03	0.95	456.61
			19-Apr-05 8:44 AM	5.30	0.95	456.32
			26-Apr-05 8:05 AM	5.04	0.95	456.58
			04-May-05 9:13 AM	5.42	0.95	456.20
			18-Jul-05 7:50 AM	4.83	0.95	456.80
			05-Oct-05 7:53 AM	6.71	0.87	454.86
MW-27-85	80	460.99	01-Mar-05 12:39 PM	8.60	1.31	452.92
			08-Mar-05 9:54 AM	9.42	1.31	452.09
			23-Mar-05 10:32 AM	7.24	1.31	454.27
			29-Mar-05 12:12 PM	7.04	1.31	454.46
			05-Apr-05 8:04 AM	7.00	1.31	454.52
			12-Apr-05 9:06 AM	4.93	1.31	456.61
			19-Apr-05 7:50 AM	5.00	1.31	456.52
			26-Apr-05 8:53 AM	5.41	1.31	456.11
			04-May-05 8:17 AM	5.02	1.31	456.50
			19-May-05 8:39 AM	5.04	1.31	456.48
			02-Jun-05 10:21 AM	5.30	1.31	456.22
			19-Jul-05 6:00 AM	4.46	1.13	457.01

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Monitoring Wells						
MW-27-85	80	460.99	16-Aug-05 5:12 AM	6.00	1.13	455.46
			08-Sep-05 8:21 AM	6.14	1.13	455.31
			05-Oct-05 8:35 AM	6.65	1.20	454.78
MW-28-25	21	466.85	20-Sep-04 12:17 PM	12.32	0.09	454.50
			19-Oct-04 10:47 AM	13.09	0.09	453.73
			15-Nov-04 10:42 AM	13.20	0.09	453.62
			02-Dec-04 9:38 AM	12.48	0.09	454.34
			14-Dec-04 1:42 PM	13.42	0.09	453.40
			11-Jan-05 2:45 PM	14.11	0.09	452.72
			10-Mar-05 9:09 AM	14.91	0.09	451.92
			04-Apr-05 8:08 AM	11.91	0.10	454.92
			03-May-05 8:40 AM	10.45	0.10	456.37
			15-Jun-05 9:45 AM	10.60	0.10	456.23
			13-Jul-05 9:12 AM	10.24	0.10	456.58
			06-Oct-05 8:13 AM	11.96	0.08	454.86
MW-28-90	98	467.66	09-Sep-04 9:17 AM	12.30	0.40	455.38
			20-Sep-04 1:58 PM	13.65	0.40	454.03
			06-Oct-04 9:07 AM	13.41	0.40	454.27
			19-Oct-04 11:51 AM	14.06	0.40	453.62
			02-Nov-04 9:07 AM	14.65	0.40	453.03
			15-Nov-04 11:45 AM	14.25	0.40	453.43
			02-Dec-04 10:00 AM	12.95	0.40	454.74
			13-Dec-04 11:30 AM	14.40	0.40	453.28
			29-Dec-04 9:38 AM	14.43	0.40	453.25
			11-Jan-05 2:05 PM	14.94	0.55	452.84
			27-Jan-05 12:17 PM	15.52	0.55	452.26
			08-Feb-05 9:56 AM	14.74	0.55	453.04
			22-Feb-05 10:12 AM	15.48	0.55	452.31
		467.51	07-Mar-05 2:32 PM	15.87	0.55	451.77
			22-Mar-05 1:46 PM	13.78	0.56	453.86
			04-Apr-05 8:43 AM	13.24	0.58	454.43
			20-Apr-05 7:56 AM	11.30	0.58	456.36
			03-May-05 9:48 AM	11.61	0.58	456.05
			19-May-05 7:25 AM	11.24	0.58	456.42
			02-Jun-05 8:30 AM	11.43	0.58	456.23
			15-Jun-05 10:41 AM	11.93	0.58	455.75
			01-Jul-05 9:53 AM	11.39	0.68	456.36
			13-Jul-05 10:04 AM	11.40	0.68	456.35
			18-Aug-05 5:05 AM	11.88	0.68	455.87
			09-Sep-05 7:11 AM	12.14	0.68	455.60
			06-Oct-05 7:21 AM	12.72	0.58	454.93
MW-29	42	485.21	20-Sep-04 11:01 AM	30.27	0.25	454.93

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Monitoring Wells						
MW-29	42	485.21	19-Oct-04 10:00 AM	30.96	0.25	454.24
			15-Nov-04 9:43 AM	31.33	0.25	453.87
			02-Dec-04 11:16 AM	31.27	0.25	453.93
			14-Dec-04 12:10 PM	31.47	0.25	453.73
			11-Jan-05 9:42 AM	31.79	0.24	453.41
			07-Feb-05 10:34 AM	31.90	0.24	453.30
			09-Mar-05 10:27 AM	32.38	0.24	452.82
			06-Apr-05 7:50 AM	30.73	0.30	454.47
			05-May-05 7:56 AM	29.29	0.30	455.91
			15-Jun-05 8:45 AM	29.11	0.30	456.09
			04-Oct-05 1:45 PM	30.11	0.32	455.09
MW-30-30	27	468.12	23-Sep-04 11:20 AM	13.72	3.13	454.78
			20-Oct-04 9:43 AM	14.12	3.13	454.37
			16-Nov-04 10:14 AM	14.41	3.13	454.07
			15-Dec-04 11:25 AM	14.76	3.13	453.72
			11-Jan-05 12:19 PM	15.08	3.14	453.40
			09-Feb-05 11:56 AM	15.35	3.14	453.13
			10-Mar-05 9:56 AM	15.78	3.14	452.68
			06-Apr-05 11:09 AM	14.07	2.97	454.41
			09-May-05 11:46 AM	13.05	2.97	455.44
			07-Oct-05 10:15 AM	14.73	3.00	453.73
MW-30-50	53	468.81	23-Sep-04 11:57 AM	14.52	0.55	454.31
			21-Oct-04 9:50 AM	14.76	0.55	454.07
			17-Nov-04 11:19 AM	14.82	0.55	454.02
			15-Dec-04 11:53 AM	15.35	0.55	453.48
			11-Jan-05 12:50 PM	16.10	0.58	452.74
			09-Feb-05 11:12 AM	16.15	0.58	452.69
			10-Mar-05 11:33 AM	17.09	0.58	451.75
			06-Apr-05 9:54 AM	14.00	0.54	454.83
			09-May-05 10:37 AM	13.38	0.54	455.45
			07-Oct-05 9:19 AM	14.42	0.77	454.47
MW-31-60	64	496.81	22-Sep-04 1:47 PM	42.05	0.20	454.71
			16-Nov-04 2:08 PM	42.87	0.20	453.89
			16-Dec-04 12:00 AM	43.28	0.20	453.48
			09-Mar-05 2:49 PM	44.65	0.16	452.11
			07-Apr-05 11:06 AM	42.15	0.20	454.61
			13-Jun-05 11:35 AM	40.96	0.20	455.79
			06-Oct-05 12:35 PM	42.20	0.16	454.55
MW-31-135	135	498.11	23-Sep-04 2:03 PM	43.88	0.73	454.31
			14-Dec-04 10:59 AM	44.92	0.73	453.31
			10-Mar-05 12:19 PM	46.40	0.69	451.77
			16-Jun-05 10:20 AM	42.84	0.74	455.39

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Monitoring Wells						
MW-31-135	135	498.11	06-Oct-05 12:56 PM	44.33	0.55	453.74
MW-32-20	20	461.51	20-Sep-04 3:03 PM	7.18	0.45	454.33
			19-Oct-04 12:43 PM	7.82	0.45	453.69
			15-Nov-04 1:00 PM	8.08	0.45	453.43
			02-Dec-04 1:45 PM	7.89	0.45	453.62
			14-Dec-04 2:30 PM	8.25	0.45	453.26
			10-Jan-05 1:42 PM	8.58	1.12	453.00
			07-Feb-05 2:43 PM	8.56	1.12	453.03
			09-Mar-05 2:16 PM	9.29	1.12	452.28
			04-Apr-05 1:02 PM	7.78	1.75	453.87
			09-May-05 1:05 PM	6.30	1.75	455.36
MW-32-35	37	461.63	17-Jun-05 11:28 AM	6.10	1.75	455.56
			04-Oct-05 11:44 AM	7.21	1.50	454.41
			21-Sep-04 9:20 AM	7.04	0.39	454.58
			19-Oct-04 1:19 PM	8.00	0.39	453.62
			15-Nov-04 1:56 PM	8.18	0.39	453.44
			02-Dec-04 2:13 PM	7.58	0.39	454.04
			15-Dec-04 9:05 AM	8.18	0.39	453.44
			10-Jan-05 2:11 PM	8.85	0.41	452.78
			07-Feb-05 1:55 PM	8.72	0.41	452.91
			09-Mar-05 2:50 PM	10.06	0.41	451.57
MW-33-40	42	487.41	04-Apr-05 12:17 PM	7.47	0.45	454.17
			09-May-05 12:20 PM	6.10	0.45	455.53
			17-Jun-05 10:52 AM	5.93	0.45	455.70
			04-Oct-05 10:57 AM	7.27	0.73	454.43
			21-Sep-04 1:03 PM	32.78	0.42	454.62
			20-Oct-04 9:01 AM	33.07	0.42	454.33
			16-Nov-04 9:29 AM	33.10	0.42	454.31
			15-Dec-04 1:20 PM	33.73	0.42	453.68
			11-Jan-05 10:24 AM	34.27	0.60	453.15
			07-Feb-05 11:17 AM	34.15	0.60	453.27
		487.38	10-Mar-05 11:20 AM	35.53	0.60	451.88
			04-Apr-05 9:40 AM	32.93	0.34	454.44
			05-May-05 9:54 AM	31.55	0.34	455.82
			17-Jun-05 8:36 AM	31.35	0.34	456.02
			06-Oct-05 8:56 AM	32.50	0.37	454.87
			06-Oct-05 8:56 AM	32.50	0.37	454.87
MW-33-90	88	487.57	08-Sep-04 2:09 PM	33.02	0.53	454.55
			21-Sep-04 1:52 PM	33.17	0.53	454.40
			06-Oct-04 12:15 PM	33.20	0.53	454.37
			20-Oct-04 12:50 PM	33.50	0.53	454.07
			02-Nov-04 12:08 PM	34.18	0.53	453.39

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Monitoring Wells						
MW-33-90	88	487.57	16-Nov-04 1:44 PM	33.50	0.53	454.09
			02-Dec-04 11:25 AM	33.14	0.53	454.43
			14-Dec-04 10:00 AM	33.86	0.53	453.73
			29-Dec-04 12:30 PM	34.18	0.55	453.41
			11-Jan-05 10:58 AM	34.45	0.55	453.13
			27-Jan-05 8:47 AM	34.79	0.55	452.79
			07-Feb-05 12:10 PM	34.43	0.55	453.17
			22-Feb-05 1:09 PM	34.98	0.55	452.62
			09-Mar-05 12:05 PM	35.82	0.55	451.76
			22-Mar-05 12:25 PM	33.90	0.53	453.67
		487.55	04-Apr-05 10:00 AM	33.15	0.52	454.42
			19-Apr-05 11:24 AM	32.08	0.52	455.47
			05-May-05 11:06 AM	31.84	0.52	455.71
			18-May-05 12:02 PM	31.80	0.52	455.77
			01-Jun-05 8:40 AM	31.30	0.52	456.27
			16-Jun-05 10:28 AM	31.70	0.52	455.87
			20-Jul-05 5:42 AM	31.08	0.60	456.52
			06-Oct-05 9:51 AM	32.84	0.58	454.73
MW-33-150	155	487.77	02-Mar-05 9:15 AM	34.89	1.10	453.42
			16-Mar-05 9:17 AM	35.40	1.10	452.90
			16-Jun-05 8:38 AM	32.00	1.10	456.31
			20-Jul-05 5:43 AM	31.76	1.06	456.48
			17-Aug-05 8:47 AM	32.70	1.13	455.63
			09-Sep-05 6:11 AM	32.58	1.13	455.75
			06-Oct-05 11:54 AM	33.70	1.09	454.58
MW-33-210	223	487.25	24-Feb-05 8:39 AM	34.75	1.38	453.67
			16-Mar-05 9:45 AM	35.43	1.38	453.00
			16-Jun-05 12:07 PM	32.28	1.38	456.18
			20-Jul-05 5:40 AM	31.78	1.38	456.67
			17-Aug-05 7:47 AM	32.49	1.38	455.95
			06-Sep-05 9:05 AM	32.70	1.38	455.73
			06-Oct-05 11:02 AM	33.35	1.25	454.83
MW-34-55	57	460.88	22-Sep-04 1:35 PM	6.62	0.53	454.32
			20-Oct-04 11:32 AM	7.07	0.53	453.87
			16-Nov-04 11:35 AM	6.75	0.53	454.30
			15-Dec-04 10:00 AM	7.32	0.53	453.62
			12-Jan-05 9:13 AM	8.38	0.58	452.58
			09-Feb-05 9:11 AM	7.98	0.58	452.99
			10-Mar-05 11:52 AM	9.23	0.58	451.73
		460.95	05-Apr-05 10:00 AM	6.88	0.54	454.14
			05-May-05 12:50 PM	5.53	0.54	455.48
			15-Jul-05 6:58 AM	3.95	0.55	457.09

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Monitoring Wells						
MW-34-55	57	460.95	05-Oct-05 12:03 PM	6.80	0.55	454.21
MW-34-80	84	460.99	08-Sep-04 11:55 AM	6.11	0.89	455.17
			23-Sep-04 8:40 AM	6.31	0.89	454.97
			06-Oct-04 10:45 AM	6.90	0.89	454.38
			20-Oct-04 2:12 PM	7.35	0.89	453.92
			02-Nov-04 10:44 AM	8.04	0.89	453.23
			17-Nov-04 9:20 AM	6.68	0.89	454.60
			02-Dec-04 8:25 AM	6.68	0.89	454.60
			13-Dec-04 1:00 PM	8.18	0.89	453.10
			29-Dec-04 10:45 AM	8.19	0.89	453.09
			12-Jan-05 10:32 AM	8.68	0.87	452.59
			27-Jan-05 11:00 AM	8.93	0.87	452.34
			08-Feb-05 11:45 AM	8.33	0.87	452.93
			22-Feb-05 2:33 PM	8.90	0.87	452.38
			01-Mar-05 9:30 AM	8.62	0.87	452.66
			08-Mar-05 1:22 PM	9.85	0.87	451.42
			22-Mar-05 11:00 AM	7.45	0.87	453.82
			29-Mar-05 9:15 AM	7.08	0.87	454.19
		461.20	05-Apr-05 11:06 AM	7.31	0.77	454.15
			12-Apr-05 11:07 AM	5.52	0.77	455.95
			19-Apr-05 10:35 AM	5.34	0.77	456.09
			26-Apr-05 11:00 AM	5.68	0.77	455.74
			04-May-05 11:09 AM	5.57	0.77	455.86
			18-May-05 9:38 AM	5.18	0.77	456.27
			01-Jun-05 10:43 AM	5.23	0.77	456.22
			30-Jun-05 11:56 AM	5.48	0.77	455.97
			14-Jul-05 9:00 AM	4.63	0.89	456.89
			15-Aug-05 7:36 AM	6.12	0.89	455.36
			07-Sep-05 7:11 AM	5.66	0.89	455.86
			05-Oct-05 12:00 PM	7.03	0.82	454.42
MW-34-100	117	460.90	14-Feb-05 11:34 AM	8.21	1.17	453.32
			14-Feb-05 10:22 AM	8.19	1.17	453.34
			16-Feb-05 1:10 PM	9.18	1.17	452.34
			16-Feb-05 12:13 PM	9.15	1.17	452.37
			23-Feb-05 9:27 AM	8.79	1.17	452.77
			01-Mar-05 10:52 AM	8.70	1.17	452.85
			08-Mar-05 12:15 PM	9.56	1.17	451.97
			23-Mar-05 11:16 AM	7.31	1.17	454.21
			29-Mar-05 10:37 AM	7.05	1.17	454.50
		460.96	05-Apr-05 1:00 PM	6.98	1.17	454.60
			12-Apr-05 10:05 AM	5.21	1.17	456.38
			19-Apr-05 9:55 AM	5.36	1.17	456.23
			26-Apr-05 10:04 AM	5.52	1.17	456.07

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Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL) ¹	Monitoring Date & Time	Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells						
MW-34-100	117	460.96	04-May-05 1:02 PM	5.94	1.17	455.65
			10-May-05 7:04 AM	4.79	1.17	456.81
			18-May-05 8:52 AM	5.16	1.17	456.43
			25-May-05 9:20 AM	5.00	1.17	456.61
			01-Jun-05 12:24 PM	5.65	1.17	455.97
			08-Jun-05 8:23 AM	4.96	1.17	456.67
			21-Jun-05 10:08 AM	5.25	1.17	456.34
			07-Jul-05 9:22 AM	5.02	1.07	456.50
			14-Jul-05 6:52 AM	4.63	1.07	456.86
			27-Jul-05 5:21 AM	5.49	1.07	456.05
			10-Aug-05 5:17 AM	5.77	1.07	455.71
			15-Aug-05 5:58 AM	6.20	1.07	455.34
			31-Aug-05 6:30 AM	5.86	1.07	455.68
			07-Sep-05 8:41 AM	5.98	1.07	455.55
			20-Sep-05 6:48 AM	5.60	1.07	455.86
			05-Oct-05 11:00 AM	6.90	1.01	454.61
MW-35-60	57	484.19	22-Sep-04 2:45 PM	29.62	0.35	454.53
			13-Dec-04 2:01 PM	30.68	0.35	453.48
			15-Mar-05 12:04 PM	32.00	0.35	452.16
			13-Jun-05 11:53 AM	27.95	0.41	456.22
			07-Oct-05 11:56 AM	29.35	0.44	454.82
MW-35-135	159	483.57	23-Sep-04 10:36 AM	29.05	0.71	454.68
			13-Dec-04 12:03 PM	30.19	0.71	453.60
			15-Mar-05 12:20 PM	31.38	0.71	452.36
			13-Jun-05 12:44 PM	28.00	0.67	455.73
			07-Oct-05 11:06 AM	28.98	0.70	454.75
MW-36-20	23	469.32	21-Sep-04 11:48 AM	14.01	0.66	455.32
			19-Oct-04 2:28 PM	16.90	0.66	452.43
			17-Nov-04 8:54 AM	15.15	0.66	454.18
			14-Dec-04 12:44 PM	15.97	0.66	453.36
			11-Jan-05 2:15 PM	16.66	1.11	452.69
			07-Feb-05 11:44 AM	16.49	1.11	452.86
			08-Mar-05 9:11 AM	18.01	1.11	451.33
		469.26	03-May-05 8:40 AM	13.40	1.90	455.96
			03-Oct-05 12:12 PM	14.96	0.71	454.32
MW-36-40	43	469.64	21-Sep-04 1:32 PM	15.45	0.49	454.19
			19-Oct-04 11:47 AM	16.15	0.49	453.49
			17-Nov-04 9:40 AM	15.43	0.49	454.22
			15-Dec-04 9:20 AM	16.11	0.49	453.54
			12-Jan-05 10:36 AM	17.15	0.74	452.54
			07-Feb-05 1:22 PM	16.90	0.74	452.80
			08-Mar-05 11:03 AM	18.01	0.74	451.68

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Monitoring Wells						
MW-36-40	43	469.61	05-May-05 11:33 AM	14.10	0.62	455.55
			03-Oct-05 10:25 AM	15.06	0.64	454.60
MW-36-50	53	469.65	21-Sep-04 10:56 AM	15.50	0.50	454.16
			18-Oct-04 9:54 AM	15.98	0.50	453.68
			18-Oct-04 9:54 AM	15.98	0.50	453.68
			17-Nov-04 10:40 AM	15.48	0.50	454.18
			15-Dec-04 8:41 AM	16.10	0.50	453.56
			12-Jan-05 11:15 AM	17.15	0.68	452.56
			07-Feb-05 2:05 PM	16.92	0.68	452.79
			08-Mar-05 10:02 AM	18.00	0.68	451.71
			469.60 05-May-05 12:07 PM	14.17	0.54	455.45
			03-Oct-05 12:34 PM	15.00	0.44	454.60
MW-36-70	72	469.31	22-Sep-04 10:02 AM	14.75	0.70	454.65
			20-Oct-04 9:04 AM	15.28	0.70	454.12
			17-Nov-04 11:49 AM	15.21	0.70	454.20
			14-Dec-04 1:58 PM	16.04	0.70	453.37
			11-Jan-05 2:15 PM	16.54	0.63	452.85
			07-Feb-05 10:22 AM	16.38	0.63	453.01
			08-Mar-05 12:02 PM	17.70	0.63	451.69
			469.25 03-May-05 10:02 AM	13.44	0.73	455.93
			03-Oct-05 10:59 AM	14.78	0.53	454.52
MW-36-90	92	469.68	23-Sep-04 1:30 PM	15.63	0.92	454.29
			19-Oct-04 12:46 PM	16.53	0.92	453.38
			17-Nov-04 12:33 PM	16.04	0.92	453.90
			15-Dec-04 9:52 AM	16.24	0.92	453.69
			12-Jan-05 9:04 AM	17.49	1.27	452.64
			07-Feb-05 12:25 PM	17.23	1.27	452.89
			09-Mar-05 9:15 AM	18.65	1.27	451.47
			469.61 03-May-05 10:57 AM	14.53	1.16	455.48
			25-Jul-05 9:53 AM	14.19	1.16	455.84
			17-Aug-05 6:50 AM	14.73	1.16	455.30
MW-36-100	110	469.69	08-Sep-05 7:30 AM	14.74	1.16	455.28
			03-Oct-05 9:17 AM	9.25	0.98	460.69

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Monitoring Wells						
MW-36-100	110	469.69	12-Jan-05 12:48 PM	17.52	0.89	452.46
			27-Jan-05 12:50 PM	17.85	0.89	452.13
			09-Feb-05 10:35 AM	17.35	0.89	452.64
			22-Feb-05 11:54 AM	17.95	0.89	452.04
			09-Mar-05 1:28 PM	18.88	0.89	451.10
			22-Mar-05 2:41 PM	16.69	0.97	453.35
			04-Apr-05 11:28 AM	16.08	1.30	454.13
			20-Apr-05 8:34 AM	14.35	1.30	455.87
			03-May-05 12:35 PM	14.82	1.30	455.40
			18-May-05 1:22 PM	14.94	1.30	455.31
			02-Jun-05 9:22 AM	14.26	1.30	455.96
			19-Jul-05 8:18 AM	13.86	1.30	456.39
			17-Aug-05 9:30 AM	15.00	1.30	455.24
			08-Sep-05 6:41 AM	14.81	1.30	455.43
			05-Oct-05 9:57 AM	15.35	1.10	454.71
MW-37D	227	486.19	24-Sep-04 9:42 AM	31.41	0.75	454.93
			14-Dec-04 12:07 PM	32.39	0.75	453.96
			11-Mar-05 10:48 AM	33.28	0.75	453.07
			18-May-05 6:18 AM	31.25	0.93	455.35
			15-Jun-05 11:55 AM	30.88	0.93	455.72
			04-Oct-05 11:45 AM	31.25	0.89	455.29
MW-37S	87	485.97	23-Sep-04 8:54 AM	31.30	0.20	454.51
			13-Dec-04 1:00 PM	32.42	0.20	453.40
			11-Mar-05 10:15 AM	34.29	0.20	451.53
			07-Apr-05 12:57 PM	32.20	0.25	453.63
			18-May-05 6:20 AM	31.00	0.25	454.83
			15-Jun-05 10:53 AM	30.67	0.25	455.15
			04-Oct-05 11:43 AM	31.00	0.25	454.82
MW-38D	191	525.31	23-Sep-04 12:44 PM	70.53	1.36	455.37
			14-Dec-04 9:18 AM	71.68	1.36	454.24
			11-Mar-05 9:18 AM	72.34	1.36	453.58
			18-May-05 6:29 AM	70.93	1.32	454.96
			17-Jun-05 8:46 AM	70.48	1.32	455.40
			07-Oct-05 7:34 AM	70.45	1.24	455.37
MW-38S	98	525.51	24-Sep-04 8:50 AM	70.38	0.22	455.05
			14-Dec-04 10:11 AM	71.44	0.22	454.00
			11-Mar-05 8:40 AM	72.10	0.22	453.34
			18-May-05 6:27 AM	70.72	0.25	454.73
			17-Jun-05 8:01 AM	70.25	0.25	455.19
			07-Oct-05 8:27 AM	70.18	0.24	455.26
MW-39-40	42	468.02	20-Oct-04 2:20 PM	14.45	0.30	453.53
			17-Nov-04 1:57 PM	14.11	0.30	453.87

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Monitoring Wells						
MW-39-40	42	468.02	15-Dec-04 1:06 PM	14.80	0.30	453.18
			12-Jan-05 1:48 PM	15.51	0.50	452.51
			08-Feb-05 12:38 PM	15.36	0.50	452.67
			09-Mar-05 11:18 AM	16.77	0.50	451.25
			05-May-05 8:59 AM	12.25	0.38	455.75
			16-Jun-05 10:10 AM	12.00	0.38	456.01
			04-Oct-05 7:40 AM	13.50	0.38	454.50
MW-39-50	55	467.93	20-Oct-04 12:56 PM	14.46	0.50	453.47
			18-Nov-04 8:59 AM	13.70	0.50	454.23
			15-Dec-04 12:17 PM	14.72	0.50	453.21
			14-Jan-05 9:51 AM	15.79	0.80	452.22
			08-Feb-05 10:49 AM	15.27	0.80	452.74
			09-Mar-05 10:59 AM	16.75	0.80	451.26
			06-Apr-05 7:55 AM	13.21	0.67	454.77
			03-May-05 12:45 PM	13.80	0.67	454.18
			16-Jun-05 12:35 PM	12.00	0.67	455.99
			04-Oct-05 10:14 AM	13.86	0.85	454.16
MW-39-60	66	468.00	20-Oct-04 10:15 AM	14.40	0.40	453.56
			18-Nov-04 10:09 AM	14.25	0.40	453.72
			15-Dec-04 10:41 AM	14.41	0.40	453.56
			14-Jan-05 1:20 PM	15.96	0.67	452.11
			08-Feb-05 8:48 AM	15.42	0.67	452.66
			09-Mar-05 12:35 PM	16.92	0.67	451.15
			05-May-05 9:41 AM	12.69	0.77	455.42
			16-Jun-05 11:43 AM	12.00	0.77	456.13
			04-Oct-05 11:03 AM	14.16	0.90	453.99
MW-39-70	72	468.02	21-Oct-04 9:42 AM	14.40	0.40	453.58
			18-Nov-04 11:13 AM	14.25	0.40	453.74
			15-Dec-04 1:52 PM	15.13	0.40	452.86
			12-Jan-05 12:54 PM	15.82	0.63	452.26
			08-Feb-05 11:45 AM	15.65	0.63	452.44
			09-Mar-05 1:09 PM	17.04	0.63	451.04
			05-May-05 8:10 AM	12.89	0.65	455.21
			16-Jun-05 10:53 AM	12.00	0.65	456.11
			04-Oct-05 8:21 AM	14.19	0.85	453.99
MW-39-80	83	467.92	20-Oct-04 11:20 AM	14.63	0.60	453.34
			18-Nov-04 12:25 PM	14.44	0.60	453.54
			15-Dec-04 11:34 AM	14.42	0.60	453.56
			14-Jan-05 8:55 AM	16.00	0.97	452.15
			08-Feb-05 9:44 AM	15.55	0.97	452.62
			09-Mar-05 3:07 PM	17.01	0.97	451.14
			03-May-05 1:16 PM	13.35	0.90	454.78

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Monitoring Wells						
MW-39-80	83	467.92	16-Jun-05 1:10 PM	12.00	0.90	456.16
			25-Jul-05 8:40 AM	12.55	0.90	455.60
			17-Aug-05 5:56 AM	13.22	0.90	454.93
			06-Sep-05 6:45 AM	13.36	0.90	454.79
			04-Oct-05 9:03 AM	14.23	1.03	453.96
MW-39-100	118	468.01	23-Sep-04 2:35 PM	14.07	0.95	454.26
			21-Oct-04 12:03 PM	14.53	0.95	453.80
			17-Nov-04 2:25 PM	14.58	0.95	453.77
			15-Dec-04 2:30 PM	14.30	0.95	454.05
			12-Jan-05 11:55 AM	15.88	0.89	452.43
			27-Jan-05 10:00 AM	16.04	0.89	452.26
			09-Feb-05 12:36 PM	15.80	0.89	452.52
			10-Mar-05 1:48 PM	16.80	0.89	451.50
			06-Apr-05 11:35 AM	14.10	1.30	454.51
			09-May-05 9:30 AM	13.07	1.30	455.54
			17-Jun-05 9:50 AM	13.60	1.30	455.00
			19-Jul-05 7:02 AM	12.52	1.40	456.22
			17-Aug-05 5:10 AM	13.45	1.40	455.28
			06-Sep-05 7:48 AM	13.62	1.40	455.11
			04-Oct-05 12:50 PM	14.79	1.20	453.73
MW-40D	266	566.08	22-Sep-04 9:45 AM	110.98	0.89	455.27
			16-Dec-04 9:53 AM	112.17	0.89	454.12
			10-Mar-05 10:54 AM	112.74	0.89	453.56
			18-May-05 7:09 AM	111.26	0.97	455.13
			16-Jun-05 8:48 AM	110.81	0.97	455.57
			05-Oct-05 8:48 AM	110.90	0.95	455.46
MW-40S	134	566.04	22-Sep-04 9:46 AM	110.55	0.10	455.40
			16-Dec-04 9:09 AM	111.82	0.10	454.14
			10-Mar-05 9:46 AM	112.30	0.10	453.66
			07-Apr-05 7:50 AM	112.00	0.12	453.96
			18-May-05 7:11 AM	110.80	0.12	455.16
			16-Jun-05 8:00 AM	110.36	0.12	455.59
			05-Oct-05 9:38 AM	110.30	0.12	455.65
MW-41D	313	479.42	18-Nov-04 8:45 AM	24.95	1.43	456.27
			15-Dec-04 11:16 AM	25.32	1.43	455.83
			11-Mar-05 8:55 AM	26.25	1.43	454.88
			18-May-05 6:25 AM	24.36	1.36	456.65
			14-Jun-05 8:10 AM	23.98	1.36	456.98
			05-Oct-05 11:38 AM	24.55	1.35	456.36
MW-41M	192	479.83	18-Nov-04 10:05 AM	24.80	1.12	455.82
			15-Dec-04 12:28 PM	25.21	1.12	455.34
			11-Mar-05 10:08 AM	26.14	1.12	454.37

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Monitoring Wells						
MW-41M	192	479.83	18-May-05 6:26 AM	24.16	1.11	456.35
			14-Jun-05 9:31 AM	23.83	1.11	456.65
			05-Oct-05 11:37 AM	24.40	0.98	455.91
MW-41S	62	480.07	18-Nov-04 11:00 AM	25.42	0.49	454.65
			16-Dec-04 11:26 AM	25.92	0.49	454.14
			10-Mar-05 2:51 PM	26.87	0.49	453.19
			18-May-05 6:27 AM	24.13	0.16	455.84
			14-Jun-05 10:21 AM	23.86	0.16	456.10
			05-Oct-05 11:36 AM	24.58	0.28	455.41
MW-42-30	32	463.90	23-Feb-05 1:27 PM	11.60	0.88	452.38
		463.81	16-Mar-05 11:02 AM	12.10	0.88	451.78
			07-Oct-05 8:40 AM	9.34	1.04	454.57
MW-42-55	56	464.00	23-Feb-05 2:03 PM	11.63	0.93	452.51
		463.87	16-Mar-05 11:45 AM	12.12	0.93	451.92
			07-Oct-05 7:58 AM	9.32	1.08	454.77
MW-42-65	80	463.49	24-Feb-05 9:58 AM	11.13	1.21	452.75
		463.37	16-Mar-05 12:15 PM	11.75	1.21	452.02
			07-Oct-05 7:24 AM	8.86	1.09	454.86
MW-43-25	27	462.54	07-Mar-05 10:34 AM	10.62	0.10	451.90
			15-Mar-05 10:10 AM	10.72	0.09	451.80
			20-Jun-05 10:30 AM	6.23	0.10	456.29
			04-Oct-05 8:48 AM	7.90	0.07	454.61
MW-43-75	77	462.71	07-Mar-05 10:37 AM	10.74	0.88	452.24
			15-Mar-05 10:43 AM	10.27	0.88	452.72
			20-Jun-05 8:21 AM	6.18	0.91	456.84
			26-Jul-05 7:31 AM	7.05	0.91	455.98
			16-Aug-05 6:45 AM	7.38	0.91	455.64
			08-Sep-05 9:45 AM	7.95	0.91	455.05
			04-Oct-05 8:25 AM	8.22	0.93	454.75
MW-43-90	102	462.76	07-Mar-05 10:39 AM	10.94	1.32	452.46
			15-Mar-05 11:13 AM	11.11	1.32	452.30
			20-Jun-05 8:21 AM	6.18	1.33	457.27
			26-Jul-05 5:39 AM	6.56	1.31	456.91
			16-Aug-05 8:12 AM	7.73	1.31	455.72
			08-Sep-05 9:41 AM	8.15	1.31	455.28
			04-Oct-05 7:52 AM	8.36	1.20	454.93
OW-3D	274	558.63	18-May-05 6:06 AM	102.60	0.29	455.62
			06-Oct-05 10:12 AM	102.14	0.45	456.26
OW-3M	202	558.90	18-May-05 6:05 AM	102.95	0.24	455.70
			06-Oct-05 11:06 AM	102.48	0.33	456.23
OW-3S	118	558.58	18-May-05 6:03 AM	102.61	0.13	455.92

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Monitoring Wells						
OW-3S	118	558.58	06-Oct-05 11:53 AM	102.18	0.13	456.35
PE-1	97	469.65	03-Oct-05 9:49 AM	15.20	0.75	454.68
PGE-6	181	563.32	18-May-05 6:20 AM 12-Oct-05 5:53 AM	107.93 107.34	0.26 0.28	455.24 455.84
PGE-7	332	563.89	18-May-05 6:16 AM 13-Oct-05 9:37 AM	108.65 108.11	0.88 1.00	455.78 456.52
PGE-8	564	596.01	18-May-05 5:52 AM	140.75	1.11	456.71
TW-1	240	620.55	11-Oct-05 10:43 AM	164.53	0.35	455.87
Other Wells not in GMP						
CW-1D	322	566.46	18-May-05 6:37 AM	110.86	0.71	455.88
CW-1M	191	566.07	18-May-05 6:36 AM	110.35	0.24	455.56
CW-2D	355	549.43	18-May-05 6:33 AM	93.89	0.93	456.27
CW-2M	202	549.45	18-May-05 6:35 AM	93.60	0.42	455.79
CW-3D	342	534.14	18-May-05 6:40 AM	78.84	1.17	456.50
CW-3M	224	534.10	18-May-05 6:42 AM	78.31	0.56	455.83
CW-4D	305	518.55	18-May-05 6:11 AM	63.11	0.95	456.14
CW-4M	171	518.55	18-May-05 6:12 AM	62.69	0.40	455.77
MW-1	217	661.76	18-May-05 6:27 AM	206.81	0.04	454.91
MW-3	205	650.51	18-May-05 6:02 AM	195.92	0.09	454.56
MW-4	176	625.73	18-May-05 6:14 AM	170.41	0.07	455.29
MW-5	186	635.69	18-May-05 6:07 AM	180.10	0.09	455.56
MW-6	195	642.84	18-May-05 6:23 AM	187.22	0.04	455.58
MW-7	185	631.91	18-May-05 6:20 AM	176.86	0.07	455.02
MW-8	180	627.54	18-May-05 6:07 AM	171.75	0.07	455.75
MWP-8	213	677.48	18-May-05 6:17 AM	189.51	0.00	---
MWP-10	237	675.81	18-May-05 6:33 AM	208.64	0.00	---
MWP-12	143	663.49	18-May-05 6:43 AM	107.85	0.00	555.52
OW-1D	281	550.36	18-May-05 6:30 AM	94.83	0.65	455.58
OW-1M	189	550.36	18-May-05 6:32 AM	94.61	0.34	455.60
OW-1S	114	550.15	18-May-05 6:31 AM	94.37	0.17	455.75
OW-2D	342	549.01	18-May-05 6:27 AM	93.82	0.96	455.80
OW-2M	211	548.52	18-May-05 6:24 AM	92.88	0.50	455.59
OW-2S	121	548.75	18-May-05 6:26 AM	92.95	0.14	455.73
OW-5D	352	552.35	18-May-05 6:20 AM	96.93	0.66	455.49
OW-5M	254	551.75	18-May-05 6:19 AM	96.07	0.46	455.58

Table 7
Manual Water Level Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL) ¹	Monitoring Date & Time	Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Other Wells not in GMP						
OW-5S	113	551.75	18-May-05 6:18 AM	95.95	0.13	455.74
Surface Water Stations						
I-3	---	460.30	17-Sep-04 12:18 PM 16-Dec-04 12:53 PM 01-Mar-05 12:18 PM 07-Apr-05 8:08 AM 04-May-05 12:57 PM 18-Aug-05 7:09 AM	6.05 7.16 7.80 4.27 5.35 4.55	0.00 0.00 0.00 0.00 0.00 0.00	454.25 453.14 452.50 456.03 454.95 455.75
RRB	---	476.63	17-Sep-04 10:30 AM 16-Dec-04 11:40 AM 01-Mar-05 2:38 PM 07-Apr-05 9:03 AM 14-Jun-05 11:15 AM 18-Aug-05 7:48 AM 05-Oct-05 9:59 AM	21.85 23.35 23.09 20.35 20.99 20.66 22.14	0.00 0.00 0.00 0.00 0.00 0.00 0.00	454.78 453.28 453.54 456.28 455.64 455.97 454.49

NOTES:

BGS below ground surface
 AMSL above mean sea level
 BMP below well measure point
 (--) data not collected or available.

¹ Measuring Point Elevations were re-surveyed in February 2004.

Well depths rounded off to whole foot.

The water levels measured in the MW-20 monitoring well cluster may be affected by active IM pumping in the TW-2D extraction well.

I-3 water elevation data not available from 9/1/05 to 10/4/05 due to transducer damage from river.

Salinity used to adjust water level to freshwater equivalent. Salinity values have been averaged in accordance with the Performance Monitoring Program.

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-9	21-Sep-04	2,900	29.08	7.23	73	7.28
	17-Dec-04	---	27.80	7.27	124	7.19
	11-Jan-05	3,180	29.00	7.14	169	8.71
	08-Mar-05	3,490	29.51	7.44	164	8.65
	07-Apr-05	---	30.60	7.33	117	6.59
	16-Jun-05	2,760	36.29	7.48	78	4.93
	03-Oct-05	2,550	30.00	7.49	142	5.85
MW-10	21-Sep-04	3,290	28.98	7.16	53	4.68
	17-Dec-04	---	27.50	7.34	113	2.64
	11-Jan-05	3,190	28.60	7.37	148	1.77
	08-Mar-05	3,850	29.10	7.35	124	2.92
	16-Jun-05	3,370	31.69	7.57	59	3.71
	03-Oct-05	1,610	29.10	7.73	136	5.23
MW-11	21-Sep-04	2,300	29.38	7.08	61	7.87
	17-Dec-04	---	27.80	7.29	111	5.70
	11-Jan-05	2,800	27.10	7.39	143	6.69
	08-Mar-05	2,670	29.36	7.31	133	7.02
	16-Jun-05	2,230	32.54	7.46	65	5.60
	03-Oct-05	2,190	29.70	7.42	142	5.91
MW-12	20-Sep-04	4,480	28.30	8.08	26	6.15
	10-Mar-05	---	28.43	8.90	34	7.04
	06-Apr-05	---	28.30	8.27	56	6.34
	13-Jun-05	4,060	29.70	8.39	60	6.97
	16-Sep-05	3,290	29.00	8.49	-37	6.58
	04-Oct-05	3,040	28.20	8.63	55	6.13
MW-13	24-Sep-04	1,950	28.43	7.83	107	6.55
	16-Dec-04	1,750	28.16	7.64	152	7.57
	11-Mar-05	1,950	29.17	7.47	69	5.57
	14-Jun-05	1,820	31.28	7.42	65	8.47
	04-Oct-05	1,910	28.44	7.74	16	6.41
MW-14	20-Sep-04	1,590	28.90	7.45	47	6.50
	16-Dec-04	1,350	26.48	7.76	156	8.20
	09-Mar-05	1,640	28.90	7.68	160	6.52
	07-Apr-05	---	28.70	7.66	75	6.58
	15-Jun-05	1,460	33.56	7.30	177	---
	06-Oct-05	1,660	28.53	7.82	26	7.12
MW-15	22-Sep-04	---	29.28	---	54	---
	17-Dec-04	---	28.80	7.56	-30	6.81
	09-Mar-05	1,470	29.57	7.64	94	8.33
	17-Jun-05	2,220	30.90	7.79	-30	7.73
	06-Oct-05	1,670	29.54	7.26	-19	8.11
MW-16	16-Dec-04	1,690	28.80	7.89	-6	5.54
	06-Oct-05	1,210	29.29	7.81	-74	6.79

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-17	16-Dec-04	1,540	30.00	7.82	187	---
	05-Oct-05	1,590	30.70	7.63	72	6.51
MW-18	24-Sep-04	1,280	28.39	7.47	132	8.06
	16-Dec-04	1,120	26.01	7.76	183	8.66
	09-Mar-05	1,290	28.60	7.58	150	8.30
	15-Jun-05	1,540	30.18	7.24	165	---
	06-Oct-05	1,420	28.56	7.68	62	8.08
MW-19	20-Sep-04	2,380	28.67	7.31	37	5.49
	17-Dec-04	---	28.40	7.35	13	6.33
	07-Mar-05	2,200	28.43	7.49	100	6.67
	14-Jun-05	2,170	29.30	7.61	65	6.80
	04-Oct-05	2,150	28.50	7.75	30	6.87
MW-20-70	24-Sep-04	3,220	29.32	8.00	89	8.79
	16-Dec-04	3,440	22.61	8.00	150	---
	10-Mar-05	---	29.40	7.46	151	8.77
	07-Apr-05	3,820	29.30	7.75	92	6.63
	15-Jun-05	3,160	29.69	7.72	152	6.85
	11-Oct-05	3,330	28.66	7.53	151	6.90
MW-20-100	24-Sep-04	4,410	31.06	7.90	89	1.13
	16-Dec-04	4,770	26.57	8.29	126	---
	10-Mar-05	7,100	29.70	7.64	110	0.40
	15-Jun-05	3,870	29.50	7.77	136	3.44
	11-Oct-05	4,140	28.96	7.45	157	1.54
MW-20-130	24-Sep-04	11,400	29.61	8.16	72	1.57
	27-Jan-05	---	27.80	7.66	38	1.81
	09-Mar-05	12,800	29.00	6.63	126	0.02
	07-Apr-05	11,000	29.40	7.88	99	4.89
	15-Jun-05	10,600	29.65	7.73	145	4.66
	07-Oct-05	12,300	30.31	7.65	53	2.46
MW-21	21-Sep-04	10,900	28.43	6.95	-128	7.29
	17-Dec-04	---	25.40	7.19	-97	4.71
	08-Mar-05	11,300	28.01	7.04	-86	6.00
	14-Jun-05	12,000	30.30	7.30	81	6.80
	05-Oct-05	11,400	28.26	7.24	-149	2.42
MW-22	23-Sep-04	33,500	29.30	7.59	-111	0.34
	16-Dec-04	32,600	23.97	7.33	-113	---
	10-Mar-05	46,300	22.00	7.13	-150	4.74
	17-Jun-05	33,700	23.99	6.93	-57	3.23
	04-Oct-05	35,500	32.96	6.66	-86	2.51
MW-23	21-Sep-04	16,800	28.37	6.71	-152	5.26
	16-Dec-04	---	26.90	7.01	-72	2.24
	08-Mar-05	19,100	27.98	7.01	-48	3.64
	14-Jun-05	19,500	28.70	7.43	23	7.80

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-23	04-Oct-05	19,400	27.90	7.25	-19	2.19
MW-24A	20-Sep-04	3,530	29.07	7.39	63	4.24
	17-Dec-04	---	28.00	7.51	118	2.35
	11-Jan-05	4,700	28.80	7.62	111	1.43
	07-Mar-05	3,460	28.76	7.51	49	3.09
	16-Jun-05	3,470	31.73	7.70	52	2.70
	03-Oct-05	3,040	29.20	7.70	157	3.26
MW-24B	21-Sep-04	10,800	29.69	7.67	42	4.30
	17-Dec-04	---	27.10	7.77	104	1.01
	11-Jan-05	14,000	29.40	7.87	105	1.02
	07-Mar-05	14,300	29.65	7.87	-2	1.70
	16-Jun-05	13,100	35.51	7.93	-4	2.20
	03-Oct-05	14,000	30.20	7.93	153	3.19
MW-24BR	21-Sep-04	13,500	32.22	7.65	-373	1.82
	16-Dec-04	---	27.90	7.82	-343	0.19
	08-Mar-05	15,200	30.04	7.72	-351	1.31
MW-25	22-Sep-04	1,640	30.45	7.41	75	7.01
	09-Mar-05	1,570	29.54	7.42	181	8.63
	07-Apr-05	---	29.70	7.41	95	7.30
	14-Jun-05	1,620	30.30	7.56	107	6.90
	04-Oct-05	1,510	29.23	7.65	55	6.72
MW-26	22-Sep-04	3,130	30.10	7.27	92	8.43
	16-Dec-04	4,000	29.60	7.40	55	9.52
	08-Mar-05	3,450	29.77	7.47	123	10.03
	13-Jun-05	3,820	32.12	7.49	119	9.16
	04-Oct-05	3,380	29.90	7.54	45	8.79
MW-27-20	21-Sep-04	970	23.19	8.08	-183	---
	19-Oct-04	1,230	22.77	7.62	-214	3.27
	15-Nov-04	1,220	20.82	8.18	-177	6.01
	02-Dec-04	1,030	20.04	8.25	-179	6.37
	15-Dec-04	1,320	19.01	8.07	-186	7.40
	10-Jan-05	3,140	17.40	7.33	-178	0.16
	09-Feb-05	3,500	16.60	7.61	-198	0.07
	08-Mar-05	2,180	17.60	7.57	-178	0.00
	04-Apr-05	2,580	18.50	7.58	-194	0.00
	04-May-05	1,280	19.10	7.54	-176	0.40
	18-Jul-05	1,040	34.94	7.68	-190	1.08
MW-27-60	05-Oct-05	1,170	22.21	7.10	-158	1.82
	01-Mar-05	13,400	22.20	7.36	-143	5.09
	08-Mar-05	18,000	21.30	7.22	-144	1.06
	23-Mar-05	12,700	21.98	7.35	-124	1.74
	29-Mar-05	16,800	22.90	7.29	-154	0.26
	05-Apr-05	16,700	22.30	7.24	-157	0.05

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-27-60	12-Apr-05	13,800	22.30	7.16	-146	0.20
	19-Apr-05	---	21.38	7.93	---	---
	26-Apr-05	22,100	22.48	7.24	-111	7.00
	04-May-05	14,400	23.20	7.28	-114	0.40
	18-Jul-05	13,500	34.25	7.19	-125	2.62
	05-Oct-05	13,200	21.69	6.48	-97	3.16
MW-27-85	01-Mar-05	18,600	22.50	7.61	-155	4.94
	08-Mar-05	22,000	22.70	7.47	-152	0.15
	23-Mar-05	16,100	22.48	7.50	-145	1.03
	29-Mar-05	19,700	23.50	7.21	-167	0.52
	05-Apr-05	19,700	22.30	7.11	-134	1.97
	12-Apr-05	16,900	22.60	7.09	-134	0.09
	19-Apr-05	---	21.52	7.90	---	---
	26-Apr-05	18,100	21.84	7.41	-138	5.72
	04-May-05	18,500	23.00	7.12	-128	0.40
	19-May-05	19,600	23.00	7.60	-131	1.00
	02-Jun-05	19,500	23.00	7.08	-100	0.95
	19-Jul-05	19,100	27.90	6.90	-106	0.88
	16-Aug-05	13,700	23.60	7.14	-156	1.33
	08-Sep-05	20,500	30.50	7.14	-158	1.70
	05-Oct-05	18,100	22.49	6.51	-82	2.11
MW-28-25	20-Sep-04	1,330	25.90	7.74	---	---
	19-Oct-04	1,280	25.44	7.36	-70	---
	15-Nov-04	1,570	24.59	7.77	-33	4.97
	02-Dec-04	1,260	23.91	8.04	-170	5.63
	14-Dec-04	---	24.70	7.35	-43	---
	11-Jan-05	1,560	23.14	7.53	-115	7.15
	10-Mar-05	1,400	23.52	7.62	60	5.63
	04-Apr-05	1,590	22.40	7.31	-108	0.10
	03-May-05	1,280	23.00	7.41	-59	0.40
	15-Jun-05	1,460	23.70	7.71	-54	2.70
	13-Jul-05	1,690	24.60	7.51	19	4.92
	06-Oct-05	1,300	25.22	6.98	-35	2.01
MW-28-90	09-Sep-04	9,600	24.17	7.70	-321	2.29
	20-Sep-04	10,100	23.90	8.35	-124	---
	06-Oct-04	9,900	23.12	7.74	-199	5.10
	19-Oct-04	9,760	23.34	7.80	-193	---
	02-Nov-04	10,200	22.50	7.39	-160	4.56
	15-Nov-04	11,000	22.97	8.30	-143	4.96
	02-Dec-04	9,120	21.25	8.46	-201	5.85
	13-Dec-04	9,000	22.46	7.80	-137	---
	29-Dec-04	15,900	21.70	7.70	-175	0.34
	11-Jan-05	14,200	22.01	7.95	-193	7.11
	27-Jan-05	12,100	22.60	7.87	-203	0.13

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-28-90	08-Feb-05	9,430	21.70	7.79	-181	0.03
	22-Feb-05	9,300	22.22	8.23	-54	5.84
	07-Mar-05	12,300	23.30	7.83	-190	0.05
	22-Mar-05	12,200	23.00	7.81	-203	0.18
	04-Apr-05	12,600	22.10	7.56	-172	0.44
	20-Apr-05	9,990	22.14	7.88	-93	3.94
	03-May-05	10,600	23.40	7.68	-208	0.40
	19-May-05	9,110	24.40	7.60	-147	0.80
	02-Jun-05	---	23.70	7.62	-141	1.01
	15-Jun-05	9,410	23.50	8.19	-205	2.50
	01-Jul-05	12,700	28.40	7.67	-174	1.76
	13-Jul-05	8,850	26.02	7.76	-142	4.31
	18-Aug-05	9,740	22.10	7.60	-178	1.15
	09-Sep-05	8,190	22.70	7.62	-190	1.71
	06-Oct-05	9,070	21.86	6.94	-138	2.02
MW-29	20-Sep-04	2,980	25.70	7.68	-125	---
	19-Oct-04	3,820	25.62	7.17	-203	---
	15-Nov-04	5,510	25.10	7.40	-184	---
	02-Dec-04	6,420	24.76	7.84	-208	5.62
	14-Dec-04	---	---	---	---	---
	11-Jan-05	1,700	25.27	7.29	-147	6.45
	07-Feb-05	20,100	25.40	7.12	-150	0.46
	09-Mar-05	32,900	25.70	7.02	-127	1.72
	06-Apr-05	22,700	25.20	7.01	-128	2.03
	05-May-05	4,840	27.70	7.38	-142	0.05
	15-Jun-05	6,580	29.80	7.10	-108	3.10
	04-Oct-05	5,240	26.71	7.31	-110	3.20
MW-30-30	23-Sep-04	51,700	28.09	7.75	-132	0.15
	20-Oct-04	52,600	26.53	6.83	-126	3.22
	16-Nov-04	58,600	26.64	7.26	-121	3.25
	15-Dec-04	---	25.76	7.26	-116	4.38
	11-Jan-05	---	26.19	6.93	-118	4.62
	09-Feb-05	59,700	25.20	7.10	-121	0.23
	10-Mar-05	65,900	24.62	7.25	-84	4.11
	06-Apr-05	38,000	26.70	6.90	-143	0.32
	09-May-05	47,700	27.20	6.87	-131	0.31
	07-Oct-05	45,000	27.60	6.94	-146	2.54
MW-30-50	23-Sep-04	10,500	27.15	8.03	-63	0.00
	21-Oct-04	10,300	25.46	7.14	-63	0.04
	17-Nov-04	10,000	26.07	7.12	-87	5.17
	15-Dec-04	10,300	25.26	7.62	-115	5.84
	11-Jan-05	13,600	25.42	7.25	-215	6.36
	09-Feb-05	13,300	25.60	7.39	-155	0.00
	10-Mar-05	9,000	26.87	7.55	-230	4.66

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Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-30-50	06-Apr-05	14,000	26.40	7.22	-252	0.49
	09-May-05	14,200	27.40	7.15	-100	0.33
	07-Oct-05	12,300	26.80	7.22	-236	2.81
MW-31-60	22-Sep-04	2,970	29.30	7.50	85	7.17
	16-Nov-04	2,890	27.87	7.48	85	7.23
	16-Dec-04	3,240	28.00	7.62	5	6.12
	09-Mar-05	2,860	28.99	7.64	192	6.87
	07-Apr-05	---	30.50	7.54	102	5.25
	13-Jun-05	3,060	29.52	7.70	122	8.00
	06-Oct-05	2,990	28.73	7.80	54	6.36
MW-31-135	23-Sep-04	9,500	30.45	7.78	17	5.03
	14-Dec-04	13,700	28.59	7.70	-23	6.15
	10-Mar-05	12,500	30.00	7.86	42	1.49
	13-Jun-05	14,600	30.90	7.85	42	4.46
	06-Oct-05	10,100	29.62	8.00	-4	2.02
MW-32-20	20-Sep-04	---	28.40	7.12	-129	---
	19-Oct-04	25,300	28.66	6.69	-147	2.13
	15-Nov-04	28,400	26.53	7.24	-147	4.51
	02-Dec-04	24,700	25.73	7.30	-145	4.92
	14-Dec-04	28,500	25.40	6.86	-161	2.10
	10-Jan-05	26,900	23.40	6.68	-157	0.13
	07-Feb-05	25,900	22.60	6.94	-155	0.02
	09-Mar-05	29,900	22.80	6.84	-161	0.03
	04-Apr-05	26,000	25.30	6.95	-178	0.02
	09-May-05	20,600	24.70	6.73	-121	0.18
	17-Jun-05	15,500	25.70	7.13	-188	2.40
	04-Oct-05	36,000	29.51	6.69	-115	2.35
MW-32-35	21-Sep-04	5,880	25.54	7.61	-157	---
	19-Oct-04	6,710	25.49	7.13	-190	---
	15-Nov-04	7,500	24.99	7.71	-170	---
	02-Dec-04	7,700	24.34	7.78	-159	5.62
	15-Dec-04	---	24.47	7.61	-169	6.04
	10-Jan-05	7,510	24.80	7.05	-176	0.13
	07-Feb-05	10,000	25.10	7.29	-175	0.52
	09-Mar-05	12,400	25.80	7.23	-183	0.07
	04-Apr-05	9,800	25.90	7.36	-197	0.10
	09-May-05	13,600	26.50	7.17	-164	0.24
	17-Jun-05	12,800	27.70	7.57	-202	2.30
	04-Oct-05	11,600	25.55	7.25	-159	2.06
MW-33-40	21-Sep-04	---	28.44	8.17	-127	0.33
	20-Oct-04	17,300	27.06	7.56	-129	0.47
	16-Nov-04	15,700	27.07	8.07	-69	4.73
	15-Dec-04	9,000	26.60	8.34	-110	6.54
	11-Jan-05	8,600	26.69	7.97	-174	6.23

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-33-40	07-Feb-05	7,540	27.20	7.96	-162	0.65
	09-Mar-05	7,050	27.90	7.97	-125	3.28
	04-Apr-05	9,900	26.60	8.15	-160	0.73
	05-May-05	5,760	28.00	8.22	-90	0.55
	17-Jun-05	5,460	27.80	8.61	-94	5.40
MW-33-90	08-Sep-04	8,540	28.55	7.31	-162	2.02
	21-Sep-04	8,620	28.32	8.23	-124	0.25
	06-Oct-04	8,580	29.39	7.80	-190	1.14
	20-Oct-04	8,380	27.44	7.70	-132	0.32
	02-Nov-04	8,860	27.44	7.64	-185	3.18
	16-Nov-04	11,400	26.75	8.21	-93	3.91
	02-Dec-04	7,730	24.32	8.38	-199	5.46
	29-Dec-04	15,000	26.80	7.64	-115	0.54
	11-Jan-05	8,840	27.08	7.75	-113	---
	27-Jan-05	10,100	26.20	7.70	-138	0.71
	07-Feb-05	9,320	27.20	7.69	-75	0.54
	22-Feb-05	8,930	27.25	8.17	10	5.22
	09-Mar-05	13,700	28.30	7.59	-101	0.66
	22-Mar-05	14,600	28.10	7.73	-92	4.74
	04-Apr-05	13,300	27.40	7.72	-98	0.34
	19-Apr-05	8,830	28.04	7.99	---	4.00
	05-May-05	8,250	29.00	7.75	-244	0.28
	18-May-05	17,200	28.80	7.50	-141	1.61
	01-Jun-05	12,000	29.50	7.61	-53	0.41
	16-Jun-05	9,500	29.90	8.22	-209	2.10
	20-Jul-05	8,440	29.80	7.49	-23	0.61
	06-Oct-05	9,210	28.40	7.18	-33	1.86
MW-33-150	02-Mar-05	15,900	26.50	7.70	-120	4.57
	16-Mar-05	21,600	26.00	7.30	-175	1.60
	17-Jun-05	18,300	29.40	7.80	-172	3.00
	20-Jul-05	16,100	29.09	7.45	-59	0.70
	17-Aug-05	17,000	28.80	7.53	-72	1.32
	09-Sep-05	17,000	28.60	7.60	-108	1.68
	06-Oct-05	15,800	28.83	7.19	-41	2.05
MW-33-210	24-Feb-05	22,200	27.19	7.98	-116	4.91
	16-Mar-05	25,300	27.00	7.59	-103	0.58
	16-Jun-05	22,400	30.60	7.87	-216	2.00
	20-Jul-05	19,200	29.14	7.15	-40	0.76
	17-Aug-05	19,900	28.70	7.29	-88	1.24
	06-Sep-05	22,600	29.10	7.23	-109	1.68
	06-Oct-05	18,800	29.14	6.96	-30	1.78
MW-34-55	22-Sep-04	9,410	22.94	7.68	-94	---
	20-Oct-04	9,330	22.73	7.32	-108	---
	16-Nov-04	9,600	22.40	7.80	-88	3.90

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-34-55	15-Dec-04	9,000	22.21	7.70	-94	6.31
	12-Jan-05	12,100	21.86	7.24	-101	6.37
	09-Feb-05	12,600	22.00	7.50	-112	0.00
	10-Mar-05	9,000	23.12	7.66	-191	5.13
	05-Apr-05	12,400	23.10	7.35	-110	0.68
	05-May-05	8,860	22.60	7.37	-99	0.06
	15-Jul-05	9,180	26.03	7.46	-77	3.60
	05-Oct-05	8,610	21.94	6.83	-93	1.69
MW-34-80	08-Sep-04	13,000	23.95	6.89	-194	2.34
	23-Sep-04	13,100	22.85	7.98	-82	---
	06-Oct-04	12,800	23.36	7.31	-194	---
	20-Oct-04	13,200	22.68	7.21	-175	---
	02-Nov-04	13,700	22.82	7.20	-219	3.37
	17-Nov-04	12,700	22.25	7.10	-209	5.99
	02-Dec-04	10,400	21.39	7.83	-238	5.72
	13-Dec-04	12,700	22.52	7.66	-174	6.07
	29-Dec-04	19,600	22.60	7.17	-99	0.19
	12-Jan-05	17,300	22.45	7.16	-181	6.21
	27-Jan-05	14,800	23.10	7.24	-134	0.11
	08-Feb-05	15,500	22.70	7.30	-162	0.00
	22-Feb-05	14,100	22.14	7.64	-95	5.77
	01-Mar-05	13,300	22.52	7.33	-127	5.14
	08-Mar-05	17,600	24.00	7.24	-84	0.04
	22-Mar-05	15,200	24.10	7.21	-83	0.16
	29-Mar-05	16,800	22.90	7.23	-214	0.00
	05-Apr-05	17,200	23.30	7.19	-207	0.01
	12-Apr-05	14,200	23.60	7.17	-86	0.08
	19-Apr-05	13,800	22.95	7.45	4	5.09
	26-Apr-05	13,700	23.56	7.34	-94	3.55
	04-May-05	15,900	23.70	7.20	-241	0.30
	18-May-05	16,000	24.40	6.99	-138	1.33
	01-Jun-05	17,800	27.30	6.98	-117	0.37
	30-Jun-05	18,300	33.70	7.28	-61	1.57
	14-Jul-05	17,900	33.40	7.11	-104	1.19
	15-Aug-05	14,600	26.90	7.12	-137	1.49
	07-Sep-05	17,100	26.90	7.12	-148	1.55
	05-Oct-05	13,800	22.34	6.67	-58	2.21
MW-34-100	14-Feb-05	25,000	23.00	7.63	-246	0.18
	16-Feb-05	20,400	23.62	7.95	-159	5.32
	23-Feb-05	18,000	22.09	7.34	-35	1.37
	01-Mar-05	15,700	23.40	7.58	-86	5.04
	08-Mar-05	19,900	24.90	7.47	-60	0.41
	23-Mar-05	14,600	23.66	7.58	-98	0.76
	29-Mar-05	18,100	24.90	7.46	-96	0.46

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Field Water Quality Measurements
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PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-34-100	05-Apr-05	20,000	24.50	7.43	-115	0.31
	12-Apr-05	15,500	24.80	7.40	-61	0.18
	19-Apr-05	16,200	24.20	7.68	8	5.96
	26-Apr-05	21,000	24.12	7.60	-45	4.09
	04-May-05	18,700	24.40	7.48	-98	0.60
	10-May-05	15,800	22.59	7.37	21	3.01
	18-May-05	19,000	24.60	7.22	50	3.01
	25-May-05	18,700	25.30	7.47	-93	1.20
	01-Jun-05	20,000	25.60	7.45	-59	0.42
	08-Jun-05	20,300	23.70	7.93	-15	2.30
	21-Jun-05	20,500	27.90	7.33	-26	1.93
	07-Jul-05	18,800	32.65	7.50	-88	3.76
	14-Jul-05	20,200	29.50	7.38	-26	1.93
	27-Jul-05	17,800	27.41	7.38	-2	1.12
	10-Aug-05	19,700	24.70	7.40	-83	1.40
	15-Aug-05	16,600	25.70	7.40	-17	1.24
	31-Aug-05	16,900	28.50	7.39	-42	1.89
	07-Sep-05	19,500	27.80	7.37	-60	1.53
	20-Sep-05	14,000	30.20	7.39	-28	1.99
	05-Oct-05	15,900	24.02	6.89	-13	1.91
MW-35-60	22-Sep-04	7,240	28.07	7.31	-22	4.71
	13-Dec-04	7,010	27.10	7.46	-53	1.08
	15-Mar-05	6,510	26.63	7.89	-18	2.22
	13-Jun-05	---	29.60	7.27	-8	2.47
	07-Oct-05	7,560	27.98	7.49	-1	1.90
MW-35-135	23-Sep-04	9,400	28.51	7.60	-50	5.19
	13-Dec-04	---	27.10	7.71	-75	0.12
	15-Mar-05	10,800	27.00	8.09	-108	2.11
	13-Jun-05	15,000	28.50	7.60	-138	1.75
	07-Oct-05	10,800	28.17	7.75	-55	1.29
MW-36-20	21-Sep-04	16,900	27.30	7.32	-179	4.93
	19-Oct-04	---	26.86	7.03	-128	5.45
	17-Nov-04	22,800	26.16	7.58	-152	4.18
	14-Dec-04	29,500	26.07	7.57	-151	5.97
	11-Jan-05	38,900	24.70	7.02	-112	0.88
	07-Feb-05	31,400	24.84	6.96	-62	6.16
	09-Mar-05	22,600	25.39	7.61	-88	7.59
	05-Apr-05	20,000	24.55	7.63	-92	5.26
	03-May-05	10,200	25.13	7.63	-180	3.51
	03-Oct-05	13,000	26.68	7.42	-165	3.02
MW-36-40	21-Sep-04	8,800	27.24	7.45	-185	5.06
	19-Oct-04	9,400	25.86	7.41	12	---
	17-Nov-04	14,400	24.92	7.75	-166	4.25
	14-Dec-04	---	23.70	7.36	-168	0.11

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Field Water Quality Measurements
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PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-36-40	12-Jan-05	8,500	25.30	7.35	-191	0.26
	07-Feb-05	11,300	25.19	7.21	-151	6.60
	08-Mar-05	9,000	25.53	7.82	-194	5.54
	05-Apr-05	11,200	25.61	7.67	-162	5.34
	05-May-05	10,300	25.62	7.58	-180	2.74
	03-Oct-05	10,800	25.72	7.28	-162	3.79
MW-36-50	21-Sep-04	7,370	27.02	7.39	-191	4.89
	18-Oct-04	9,140	26.07	7.28	13	---
	17-Nov-04	10,700	24.67	7.76	-147	4.47
	14-Dec-04	---	24.10	7.28	-151	0.31
	12-Jan-05	5,630	25.10	7.29	-163	0.22
	07-Feb-05	11,000	25.06	7.02	-131	5.61
	08-Mar-05	8,800	25.42	7.70	-168	5.53
	05-Apr-05	9,320	25.68	7.60	-129	5.55
	05-May-05	9,330	25.64	7.52	-137	2.10
	03-Oct-05	7,500	26.23	7.45	-133	2.87
MW-36-70	22-Sep-04	10,900	26.04	6.96	-151	3.95
	20-Oct-04	10,700	25.40	6.82	-135	6.33
	17-Nov-04	11,700	25.26	7.59	-126	4.28
	14-Dec-04	9,200	25.27	7.64	-131	6.52
	11-Jan-05	12,100	24.70	7.19	-130	0.30
	07-Feb-05	18,500	24.74	6.94	-60	7.19
	08-Mar-05	11,300	26.81	7.60	-115	5.17
	05-Apr-05	9,990	25.02	7.37	-48	5.55
	03-May-05	12,300	25.70	7.28	-103	0.00
	03-Oct-05	7,680	26.12	7.37	-112	2.54
MW-36-90	23-Sep-04	15,100	27.17	7.65	67	---
	19-Oct-04	15,700	25.73	7.59	16	6.78
	17-Nov-04	---	25.21	7.95	-27	4.14
	14-Dec-04	---	23.50	7.43	-8	1.06
	12-Jan-05	11,900	24.10	7.35	-137	0.21
	07-Feb-05	19,300	24.99	7.14	51	5.37
	09-Mar-05	18,100	25.35	7.74	49	5.10
	05-Apr-05	15,100	25.23	7.63	64	5.27
	03-May-05	17,600	25.90	7.39	55	0.00
	25-Jul-05	18,400	25.90	7.26	129	1.13
	17-Aug-05	16,600	25.60	7.15	152	1.27
	08-Sep-05	17,500	25.60	7.22	49	1.63
	03-Oct-05	12,700	25.66	7.15	174	3.44
MW-36-100	09-Sep-04	14,800	26.81	7.54	-109	2.72
	23-Sep-04	15,000	26.23	8.64	-50	---
	06-Oct-04	15,200	26.53	7.84	-78	0.18
	21-Oct-04	15,500	25.21	7.72	-55	---
	02-Nov-04	16,300	24.67	7.65	-36	3.60

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Field Water Quality Measurements
September 2004 through October 2005
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Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-36-100	17-Nov-04	15,400	25.08	7.55	-16	5.85
	02-Dec-04	14,000	24.86	8.22	-67	5.50
	29-Dec-04	---	25.10	7.48	-40	0.21
	12-Jan-05	22,300	24.78	7.46	-9	6.06
	27-Jan-05	19,300	25.40	7.52	-33	0.21
	09-Feb-05	20,900	24.20	7.66	-12	0.02
	22-Feb-05	18,700	24.79	7.92	55	5.16
	09-Mar-05	22,600	27.30	7.34	-20	0.26
	22-Mar-05	19,900	26.10	7.46	-16	0.19
	04-Apr-05	19,600	25.40	7.42	-20	0.07
	20-Apr-05	17,500	25.27	7.63	2	3.12
	03-May-05	18,700	26.90	7.36	4	0.40
	18-May-05	34,800	27.00	7.16	12	1.52
	02-Jun-05	18,800	27.20	7.38	23	2.48
	19-Jul-05	17,700	33.96	7.11	17	1.02
	15-Aug-05	16,800	30.20	7.17	-15	1.62
	08-Sep-05	18,300	27.50	7.20	21	1.70
	05-Oct-05	16,500	25.70	6.66	4	2.78
MW-37D	24-Sep-04	11,900	30.39	7.49	-41	4.84
	14-Dec-04	17,000	29.76	7.70	3	6.22
	11-Mar-05	---	30.80	7.99	21	4.37
	04-Oct-05	15,100	30.46	8.09	4	2.76
MW-37S	23-Sep-04	4,380	29.58	7.46	16	5.48
	13-Dec-04	4,470	28.70	7.74	-66	2.62
	11-Mar-05	---	29.38	7.88	36	5.15
	07-Apr-05	---	31.10	7.67	-68	1.99
	15-Jun-05	3,930	33.65	7.70	-71	8.07
	04-Oct-05	4,460	29.28	7.98	-33	3.01
MW-38D	23-Sep-04	17,400	31.77	7.76	15	4.51
	14-Dec-04	---	28.77	7.25	99	5.44
	11-Mar-05	23,500	30.47	8.00	56	3.95
	17-Jun-05	22,200	31.90	8.01	68	1.66
	07-Oct-05	25,700	30.47	7.82	-2	1.07
MW-38S	24-Sep-04	3,940	29.01	6.94	129	4.88
	14-Dec-04	4,500	28.82	7.25	53	6.24
	11-Mar-05	4,650	28.38	7.36	120	5.36
	17-Jun-05	4,540	30.20	7.48	55	2.87
	07-Oct-05	4,290	29.50	7.45	47	2.17
MW-39-40	20-Oct-04	5,930	26.70	7.53	-194	6.71
	17-Nov-04	6,800	26.27	8.10	-181	4.19
	15-Dec-04	---	26.20	7.69	-173	0.52
	12-Jan-05	4,180	25.60	7.50	-180	0.40
	08-Feb-05	7,390	26.33	8.03	-160	5.38
	09-Mar-05	8,290	26.78	7.86	-177	5.01

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Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-39-40	05-Apr-05	6,200	26.51	7.82	-179	5.42
	05-May-05	6,070	26.53	7.75	-179	1.78
	16-Jun-05	9,600	27.10	7.59	-202	2.09
	04-Oct-05	5,640	26.50	7.41	-203	2.87
MW-39-50	20-Oct-04	8,700	26.87	7.38	18	7.10
	18-Nov-04	11,800	25.84	7.29	12	---
	15-Dec-04	---	25.90	7.40	18	3.01
	14-Jan-05	11,900	25.70	7.69	77	0.80
	08-Feb-05	14,500	26.14	7.91	76	5.35
	09-Mar-05	14,400	26.68	7.65	11	4.96
	06-Apr-05	12,400	25.88	7.23	81	4.43
	03-May-05	14,300	27.20	7.33	56	0.04
	16-Jun-05	15,200	27.30	7.33	-44	1.98
	04-Oct-05	13,600	26.90	7.21	-78	2.59
MW-39-60	20-Oct-04	7,670	26.62	7.37	32	7.02
	18-Nov-04	8,690	26.86	7.47	31	6.30
	15-Dec-04	---	25.70	7.45	29	0.34
	14-Jan-05	10,500	25.50	7.64	95	---
	08-Feb-05	12,900	26.09	7.87	106	5.17
	09-Mar-05	15,200	26.84	7.58	65	4.95
	06-Apr-05	12,600	26.27	7.21	84	4.30
	05-May-05	14,600	26.56	7.27	43	1.98
	16-Jun-05	17,600	27.30	7.13	19	1.86
	04-Oct-05	14,100	27.00	7.05	-20	2.15
MW-39-70	21-Oct-04	8,390	26.28	7.46	98	6.41
	18-Nov-04	9,450	26.81	7.51	45	6.54
	15-Dec-04	---	25.70	7.56	11	0.43
	12-Jan-05	8,000	24.90	7.39	53	0.88
	08-Feb-05	11,400	26.00	7.99	89	5.53
	09-Mar-05	13,800	26.50	7.74	71	5.25
	05-Apr-05	11,500	26.28	7.44	61	5.76
	05-May-05	12,500	26.09	7.27	98	1.92
	16-Jun-05	16,000	26.70	7.15	22	1.81
	04-Oct-05	13,800	26.60	7.05	31	2.72
MW-39-80	20-Oct-04	9,800	26.61	7.29	70	7.05
	18-Nov-04	13,600	26.35	7.43	90	6.50
	15-Dec-04	---	25.30	7.43	66	1.59
	14-Jan-05	11,600	25.70	7.80	163	0.50
	08-Feb-05	14,900	25.68	7.98	99	5.80
	09-Mar-05	16,800	26.51	7.75	82	5.01
	06-Apr-05	13,800	26.03	7.32	88	4.65
	03-May-05	14,900	27.00	7.23	106	0.37
	16-Jun-05	16,800	27.60	7.17	52	1.99
	25-Jul-05	17,400	26.70	7.09	169	1.23

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Field Water Quality Measurements
September 2004 through October 2005
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Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-39-80	17-Aug-05	15,600	26.50	7.07	164	1.34
	06-Sep-05	17,700	26.50	7.00	149	1.97
	04-Oct-05	15,900	26.90	7.09	76	2.73
MW-39-100	23-Sep-04	14,200	27.87	8.49	15	2.14
	21-Oct-04	14,500	26.06	7.67	32	2.34
	17-Nov-04	14,200	26.29	7.59	57	6.43
	15-Dec-04	---	26.32	8.11	24	6.19
	12-Jan-05	20,200	25.86	7.56	63	6.24
	27-Jan-05	20,200	26.60	7.61	45	2.14
	09-Feb-05	22,000	26.80	7.78	33	2.19
	10-Mar-05	24,500	27.57	7.95	28	5.05
	06-Apr-05	---	27.40	7.40	54	1.53
	09-May-05	20,400	28.30	7.33	159	1.75
	17-Jun-05	19,200	29.30	7.89	14	2.80
	19-Jul-05	18,400	29.23	7.17	80	1.34
	17-Aug-05	18,600	26.40	7.15	170	1.53
	06-Sep-05	21,000	26.90	7.11	134	2.22
	04-Oct-05	15,900	26.84	7.29	73	2.32
MW-40D	22-Sep-04	13,600	31.61	8.02	-112	0.44
	16-Dec-04	16,800	28.81	7.56	-80	5.63
	10-Mar-05	17,200	30.93	7.59	-19	1.49
	16-Jun-05	14,500	33.36	7.60	-149	1.96
	05-Oct-05	16,100	31.90	7.51	-60	2.64
MW-40S	22-Sep-04	2,050	30.50	8.09	79	8.27
	16-Dec-04	1,780	28.53	7.44	70	7.93
	10-Mar-05	2,080	29.22	7.57	134	7.33
	07-Apr-05	---	30.00	7.56	26	7.65
	16-Jun-05	1,900	32.27	7.72	143	5.97
	05-Oct-05	1,940	30.90	7.64	7	6.81
MW-41D	18-Nov-04	21,600	28.28	8.29	-181	3.48
	15-Dec-04	---	29.81	7.80	-222	5.05
	11-Mar-05	22,700	29.61	7.90	-244	0.62
	14-Jun-05	21,000	31.67	7.75	-212	3.17
	05-Oct-05	21,100	31.40	7.77	-225	2.38
MW-41M	18-Nov-04	20,800	25.96	8.21	-115	4.04
	15-Dec-04	18,800	29.15	7.68	-102	5.30
	11-Mar-05	16,100	29.95	7.74	-66	0.82
	14-Jun-05	13,800	30.90	7.62	-106	2.78
	05-Oct-05	15,100	30.40	7.63	-85	2.42
MW-41S	18-Nov-04	1,690	26.66	8.43	-99	4.43
	16-Dec-04	4,260	28.67	7.91	-19	6.35
	10-Mar-05	5,080	29.46	7.83	87	2.46
	14-Jun-05	4,460	30.36	7.79	-45	4.28

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-41S	05-Oct-05	4,660	29.50	7.84	-47	3.29
MW-42-30	23-Feb-05	12,600	23.31	7.20	-175	1.47
	16-Mar-05	17,800	24.71	7.29	-136	1.21
	07-Oct-05	16,700	26.20	7.20	-139	2.92
MW-42-55	23-Feb-05	13,600	23.71	7.36	-188	0.95
	16-Mar-05	17,100	25.46	7.51	-191	0.51
	07-Oct-05	18,100	25.50	7.14	-126	5.62
MW-42-65	24-Feb-05	20,500	24.64	7.41	-119	5.03
	16-Mar-05	21,400	25.51	7.10	-126	0.55
	07-Oct-05	17,300	25.80	6.81	-121	2.85
MW-43-25	07-Mar-05	1,690	20.30	7.17	-161	6.05
	15-Mar-05	1,660	19.68	7.67	-177	4.59
	20-Jun-05	1,800	21.00	7.36	-174	1.88
	04-Oct-05	1,220	21.42	7.50	-159	1.95
MW-43-75	07-Mar-05	15,200	21.70	7.29	-150	5.60
	15-Mar-05	14,900	20.86	7.60	-178	0.49
	20-Jun-05	18,100	21.80	7.31	-165	1.78
	26-Jul-05	15,600	29.07	7.36	-160	1.13
	16-Aug-05	13,800	25.90	7.26	-168	1.33
	08-Sep-05	16,400	28.20	7.29	-176	1.68
	04-Oct-05	12,900	22.09	7.20	-126	2.27
MW-43-90	07-Mar-05	21,500	22.20	6.94	-185	0.23
	15-Mar-05	22,000	20.93	7.28	-153	0.47
	20-Jun-05	26,200	22.30	6.86	-140	1.79
	26-Jul-05	23,800	27.20	6.90	-129	2.09
	16-Aug-05	19,400	27.30	6.79	-136	1.33
	08-Sep-05	23,100	30.10	6.87	-152	1.69
	04-Oct-05	18,400	22.65	6.70	-78	4.85
OW-3D	06-Oct-05	7,890	31.10	8.23	-178	1.29
OW-3M	06-Oct-05	5,440	30.66	8.16	-90	1.82
OW-3S	06-Oct-05	2,040	30.12	7.84	-9	7.07
PE-1	03-Oct-05	11,600	26.10	7.37	-202	0.77
PGE-6	12-Oct-05	4,240	28.14	7.48	-23	1.59
PGE-8	13-Oct-05	22,300	31.50	8.26	-338	1.08
Park Moabi	22-Sep-04	1,340	28.60	7.09	118	7.50
	15-Dec-04	1,570	19.84	8.04	-235	7.18
	11-Mar-05	1,330	26.17	7.72	-59	3.65
	15-Jun-05	1,440	31.08	8.13	158	5.93
	05-Oct-05	1,430	28.98	7.83	93	6.76
TW-1	21-Dec-04	---	27.90	7.31	126	4.05
	11-Oct-05	7,120	30.39	7.30	148	4.90

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
TW-2D	16-Dec-04	9,200	25.38	8.39	143	7.10
TW-2S	16-Dec-04	3,540	26.03	8.23	155	7.96
	11-Mar-05	---	29.30	7.65	90	4.83
	07-Oct-05	3,320	22.10	6.24	204	8.57
Surface Water Stations						
CON	23-Sep-04	1,040	21.10	7.93	190	8.44
	19-Oct-04	922	18.49	8.23	219	9.74
	15-Nov-04	1,020	16.90	8.09	39	5.91
	13-Dec-04	1,170	15.42	7.55	143	11.50
	10-Jan-05	1,060	13.14	7.83	171	11.30
	08-Feb-05	1,100	12.97	7.90	210	14.11
	24-Feb-05	1,200	14.19	8.02	188	9.62
	01-Mar-05	1,270	16.86	8.14	198	10.55
	07-Mar-05	1,210	17.02	8.56	94	11.85
	14-Mar-05	1,570	16.40	8.25	191	9.88
	06-Apr-05	1,120	16.41	8.48	125	10.08
	04-May-05	1,080	19.40	8.24	141	9.84
	14-Jun-05	2,170	21.80	8.27	132	9.65
	13-Jul-05	980	22.60	8.21	179	10.50
	18-Aug-05	1,190	20.80	8.00	29	8.92
I-3	07-Sep-05	1,190	21.37	7.91	58	12.58
	05-Oct-05	1,120	19.17	7.97	120	9.43
NR-1	23-Sep-04	1,060	18.94	7.92	195	9.40
	19-Oct-04	921	18.98	9.00	183	10.15
	15-Nov-04	980	17.80	8.45	44	5.87
	13-Dec-04	1,160	15.35	8.08	131	11.10
	10-Jan-05	1,060	13.81	8.06	181	12.03
	08-Feb-05	1,090	14.24	8.30	178	14.30
	08-Mar-05	1,170	15.11	---	191	8.98
	07-Apr-05	1,160	15.51	8.22	117	11.63
	04-May-05	1,090	18.90	8.20	181	9.84
	14-Jun-05	2,040	21.20	8.17	101	9.72
	13-Jul-05	980	22.10	8.06	189	9.98
	18-Aug-05	1,180	20.30	8.06	61	8.97
	07-Sep-05	1,180	20.68	8.21	59	13.20
	05-Oct-05	1,100	18.49	7.18	125	8.87

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Surface Water Stations						
NR-1	06-Apr-05	1,130	16.50	8.47	116	10.28
	04-May-05	1,090	18.80	8.17	165	9.77
	14-Jun-05	2,090	20.20	8.07	134	9.03
	13-Jul-05	980	22.60	8.20	180	10.60
	18-Aug-05	1,210	20.10	7.98	56	8.97
	07-Sep-05	1,180	20.34	8.22	77	13.40
	05-Oct-05	1,110	18.92	8.02	108	9.91
NR-2	23-Sep-04	1,030	22.36	8.11	185	8.83
	19-Oct-04	911	18.43	8.26	216	9.69
	15-Nov-04	965	16.90	8.14	56	6.00
	13-Dec-04	1,160	15.85	7.16	155	11.23
	10-Jan-05	1,090	13.01	7.53	178	11.68
	08-Feb-05	1,080	12.69	8.11	226	13.64
	08-Mar-05	1,160	15.89	---	144	10.74
	06-Apr-05	1,140	16.43	8.44	124	10.41
	03-May-05	1,090	18.80	8.24	172	9.83
	14-Jun-05	1,900	20.00	8.17	126	9.20
	14-Jul-05	1,140	21.40	8.21	194	11.10
	18-Aug-05	1,190	20.30	7.96	63	8.84
	07-Sep-05	1,180	20.23	8.18	67	11.76
	05-Oct-05	1,100	18.83	8.04	93	9.44
NR-3	23-Sep-04	1,050	22.05	7.47	189	8.44
	19-Oct-04	904	18.41	8.17	218	9.10
	15-Nov-04	960	16.90	8.38	46	6.06
	13-Dec-04	1,150	15.92	7.44	142	11.33
	10-Jan-05	1,070	12.96	7.71	176	11.20
	08-Feb-05	1,080	12.71	8.26	224	13.93
	08-Mar-05	1,160	15.70	---	152	9.26
	06-Apr-05	1,120	16.42	8.46	124	9.92
	04-May-05	1,090	18.80	8.25	175	9.83
	14-Jun-05	1,890	20.10	8.23	121	9.14
	13-Jul-05	1,170	21.30	8.17	187	11.20
	18-Aug-05	1,220	20.20	8.00	67	8.72
	07-Sep-05	1,180	20.28	8.17	66	12.80
	05-Oct-05	1,100	18.80	8.11	101	9.59
R-22	23-Sep-04	1,460	19.07	7.27	193	9.56
	19-Oct-04	1,220	18.86	8.01	249	9.74
	15-Nov-04	1,150	17.11	7.28	180	12.48
	13-Dec-04	1,150	15.39	8.05	128	11.22
	10-Jan-05	1,060	14.09	8.15	192	11.65
	08-Feb-05	1,170	13.21	6.35	165	13.41
	24-Feb-05	986	13.97	7.10	170	10.13
	01-Mar-05	1,260	19.36	6.80	161	16.92
	07-Mar-05	1,070	16.99	8.14	139	12.12

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Surface Water Stations						
R-22	14-Mar-05	1,650	16.24	8.19	156	10.49
	06-Apr-05	1,120	16.69	8.15	110	10.20
	04-May-05	1,080	18.60	8.10	176	9.58
	14-Jun-05	1,960	21.40	8.18	128	9.58
	13-Jul-05	980	22.90	8.13	202	10.40
	18-Aug-05	1,090	20.70	8.02	44	8.83
	07-Sep-05	1,210	20.56	7.31	127	13.08
	05-Oct-05	1,110	18.52	7.37	95	9.32
R-27	22-Sep-04	1,210	22.30	8.79	-117	10.31
	19-Oct-04	922	19.56	7.66	248	9.63
	15-Nov-04	1,040	16.99	7.90	180	12.93
	13-Dec-04	1,150	15.19	8.00	117	11.50
	10-Jan-05	1,060	14.16	8.26	200	11.12
	08-Feb-05	1,080	12.65	7.02	181	13.50
	24-Feb-05	1,190	14.16	7.82	179	9.62
	01-Mar-05	1,260	18.30	7.77	174	10.71
	07-Mar-05	1,060	18.13	8.18	102	11.43
	14-Mar-05	1,450	16.30	8.20	172	10.15
	06-Apr-05	1,150	18.35	8.44	96	9.90
	04-May-05	1,080	18.80	8.23	167	9.51
	14-Jun-05	1,770	22.20	8.24	121	9.43
	13-Jul-05	980	23.00	8.19	180	11.30
	18-Aug-05	---	20.50	8.00	33	8.87
	07-Sep-05	1,160	20.81	7.52	77	11.63
	05-Oct-05	1,120	19.34	7.65	92	9.50
R-28	22-Sep-04	925	23.25	8.46	-128	9.19
	19-Oct-04	908	19.38	7.80	234	9.41
	15-Nov-04	1,190	17.18	8.24	158	12.17
	13-Dec-04	1,160	15.75	7.86	108	11.32
	10-Jan-05	1,060	14.50	8.22	194	11.43
	08-Feb-05	1,060	13.05	7.59	192	13.04
	08-Mar-05	1,180	16.75	---	168	9.40
	06-Apr-05	1,230	17.01	8.43	73	10.55
	04-May-05	1,080	18.90	8.24	167	9.72
	14-Jun-05	1,610	21.70	8.25	120	9.42
	14-Jul-05	1,170	21.80	8.16	224	10.80
	18-Aug-05	1,340	20.50	7.97	-16	8.54
	07-Sep-05	1,180	20.60	7.69	59	13.03
	05-Oct-05	1,110	18.82	7.84	95	9.78
RRB	23-Sep-04	1,160	19.28	7.92	196	9.47
	19-Oct-04	1,330	17.21	8.15	228	9.45
	15-Nov-04	1,400	14.70	8.54	8	5.61
	13-Dec-04	1,200	16.44	7.68	-48	10.88
	08-Feb-05	1,400	12.67	8.01	197	13.76

Table 8
Field Water Quality Measurements
September 2004 through October 2005
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Surface Water Stations						
RRB	07-Apr-05	1,170	16.91	8.22	78	10.78
	04-May-05	1,090	21.00	8.04	106	9.58
	14-Jun-05	---	26.20	8.23	121	8.90
	14-Jul-05	1,180	24.30	8.24	203	10.60
	18-Aug-05	---	24.60	7.38	4	6.38
	07-Sep-05	1,270	21.97	7.74	82	12.16
	05-Oct-05	1,190	18.65	7.84	146	9.22

NOTES:

$\mu\text{S}/\text{cm}$ microSiemens per centimeter

ORP oxidation reduction potential, results rounded off to whole point

mV millivolts

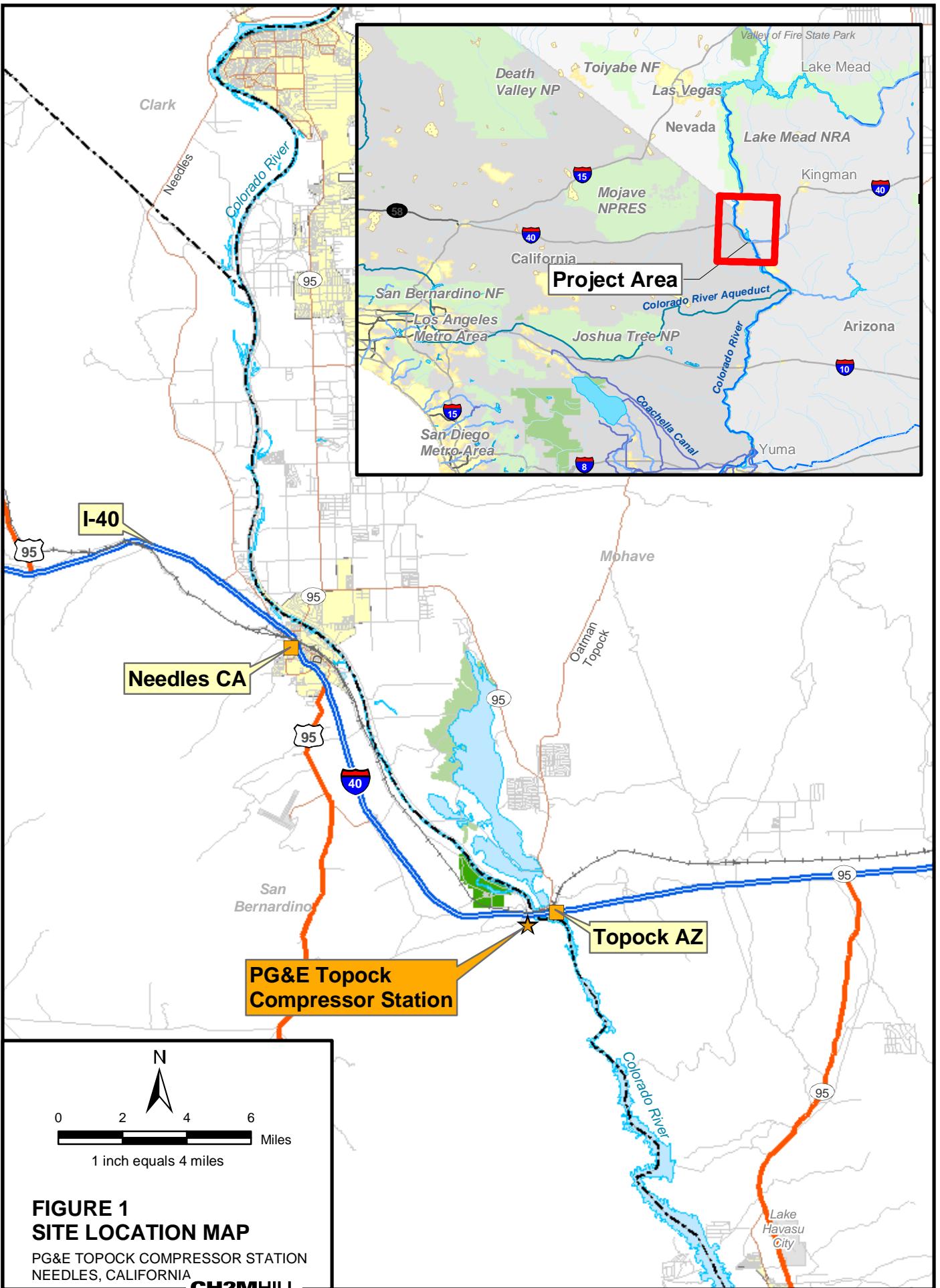
mg/L milligrams per liter

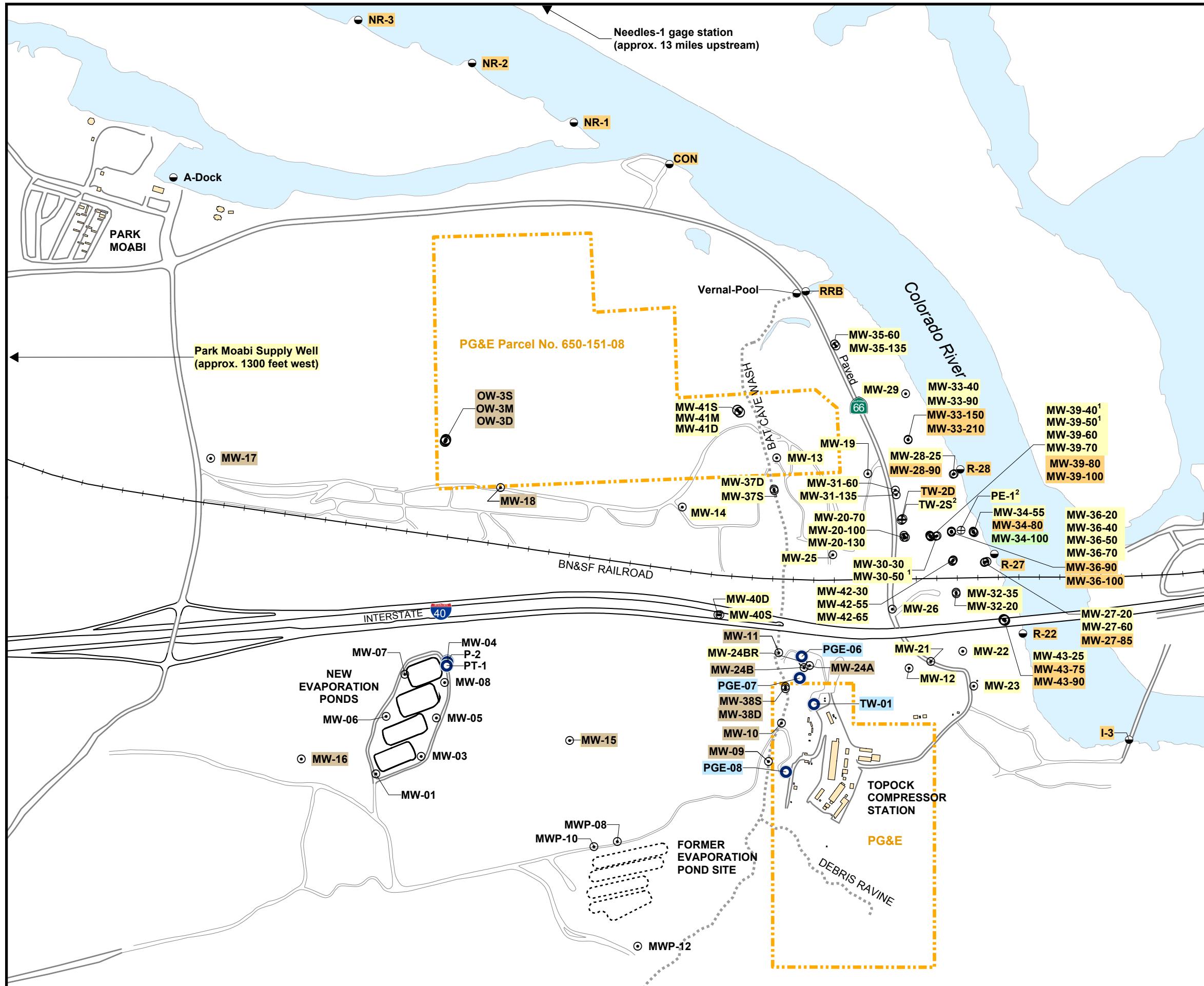
(--) data not collected, not available, or rejected

All field measurements were collected during groundwater / surface water sampling using a Horiba U-22 water quality meter and/or Orion pH/ORP meter.

Field water quality parameters from MW-33-40 and PGE-7 are not available for October 2005 monitoring event because wells went dry very soon after pumping began.

Figures





LEGEND

- Groundwater Monitoring Well
- Test Well or Supply Well (Inactive)
- Surface Water Monitoring Location
- ⊕ Extraction Well
- PG&E Property Boundary

Sampling Frequency for Groundwater and Surface Water Monitoring Program (GMP) - October 2005

- | | |
|------------|----------------------|
| ○ PGE-06 | Biennial Sampling |
| ○ TW-01 | Semi-Annual Sampling |
| ○ MW-18 | Quarterly Sampling |
| ○ MW-29 | Monthly Sampling |
| ○ MW-34-80 | Bi-Weekly Sampling |

¹ Revert to monthly sampling once PE-1 is brought on line.

² Revert to monthly sampling if active.



0 800 1,600
Feet

1 inch equals 800 feet
California State Plane NAD83 Zone 5 US Feet

FIGURE 2
MONITORING LOCATIONS AND SAMPLING FREQUENCY FOR GMP OCTOBER 2005

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

CH2MHILL

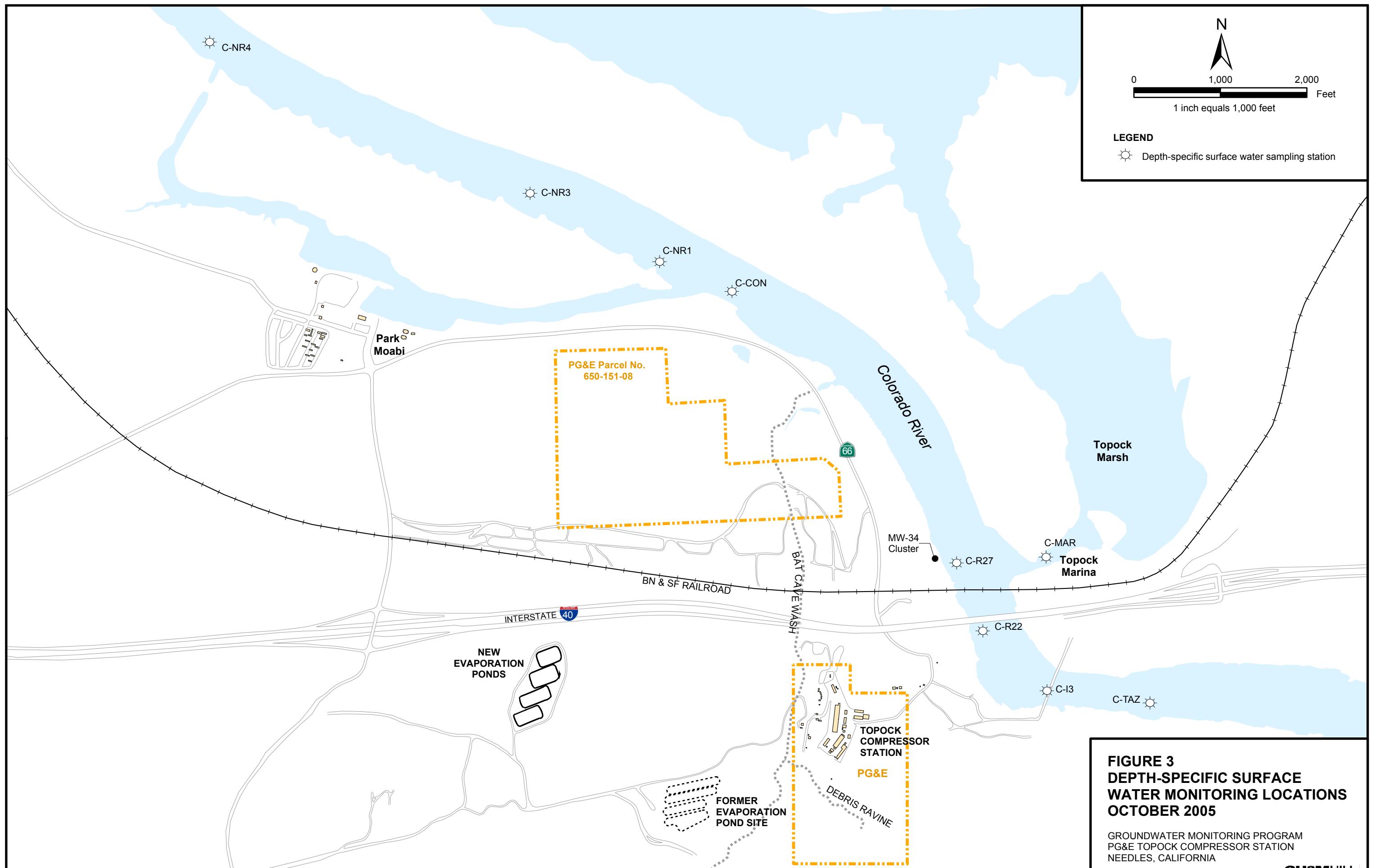


FIGURE 3
DEPTH-SPECIFIC SURFACE
WATER MONITORING LOCATIONS
OCTOBER 2005

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

CH2MHILL

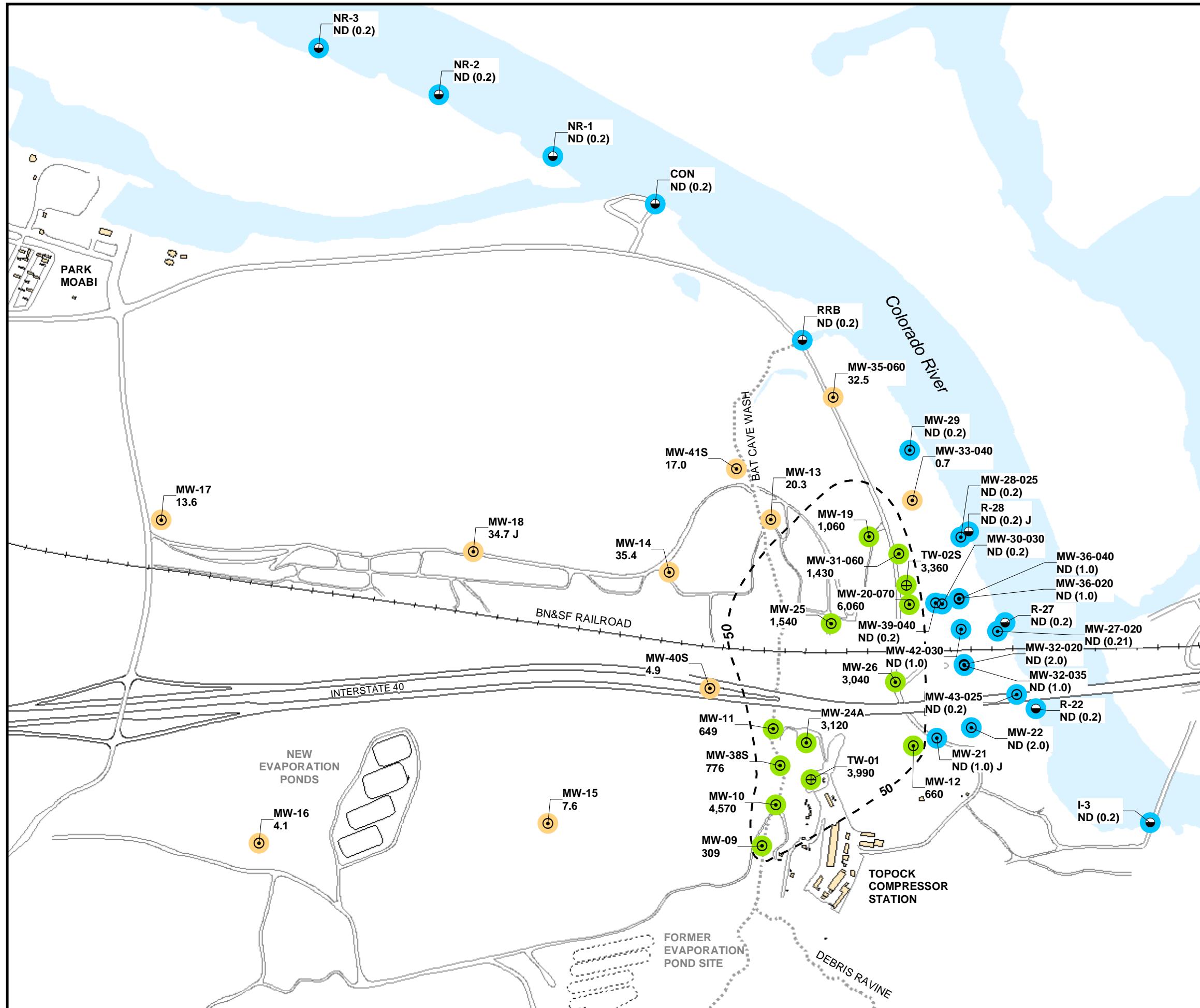


FIGURE 4A
CR(VI) SAMPLING RESULTS
UPPER DEPTH INTERVAL OF AQUIFER
3RD QUARTER 2005 MONITORING EVENT
GROUNDWATER MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

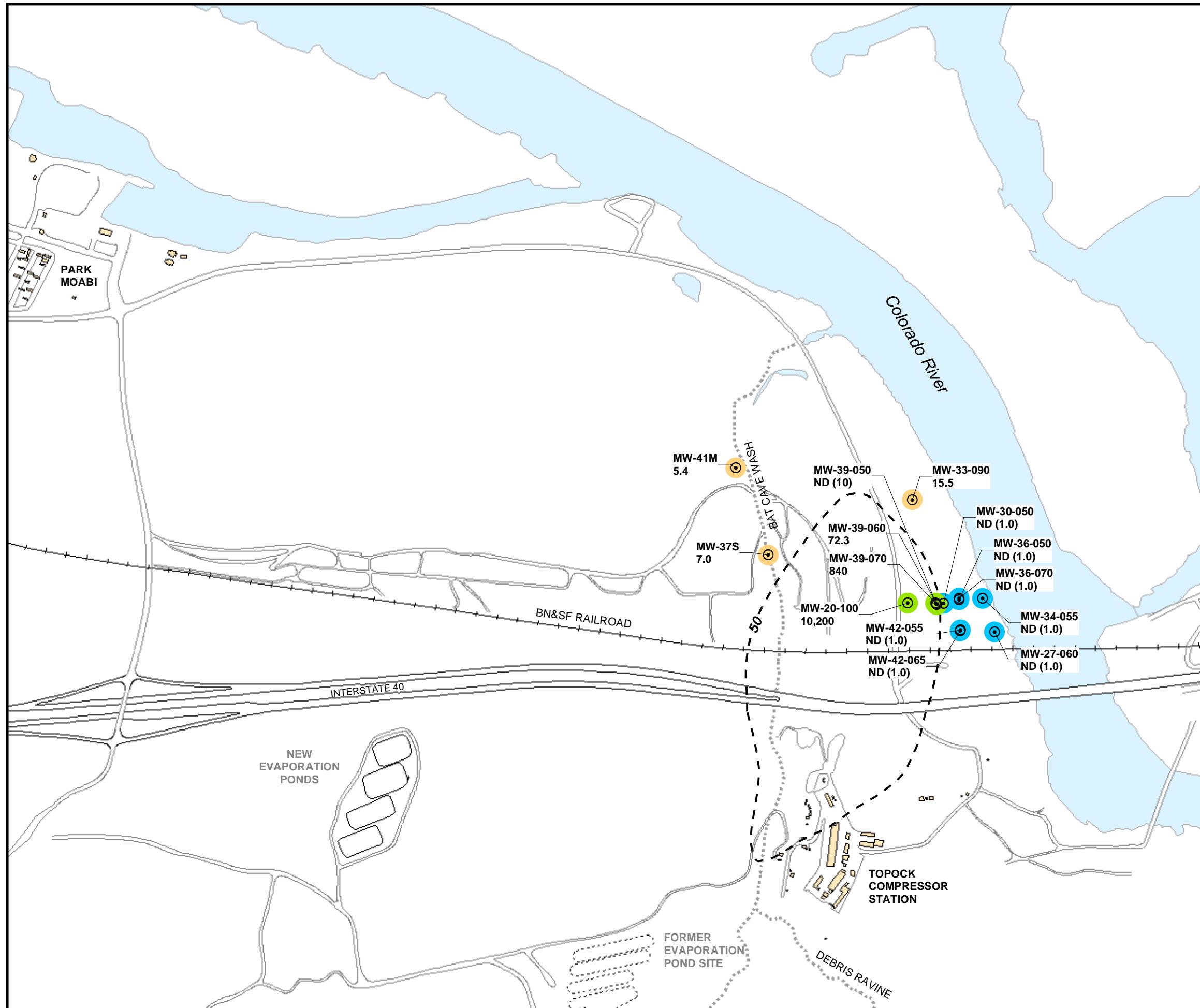
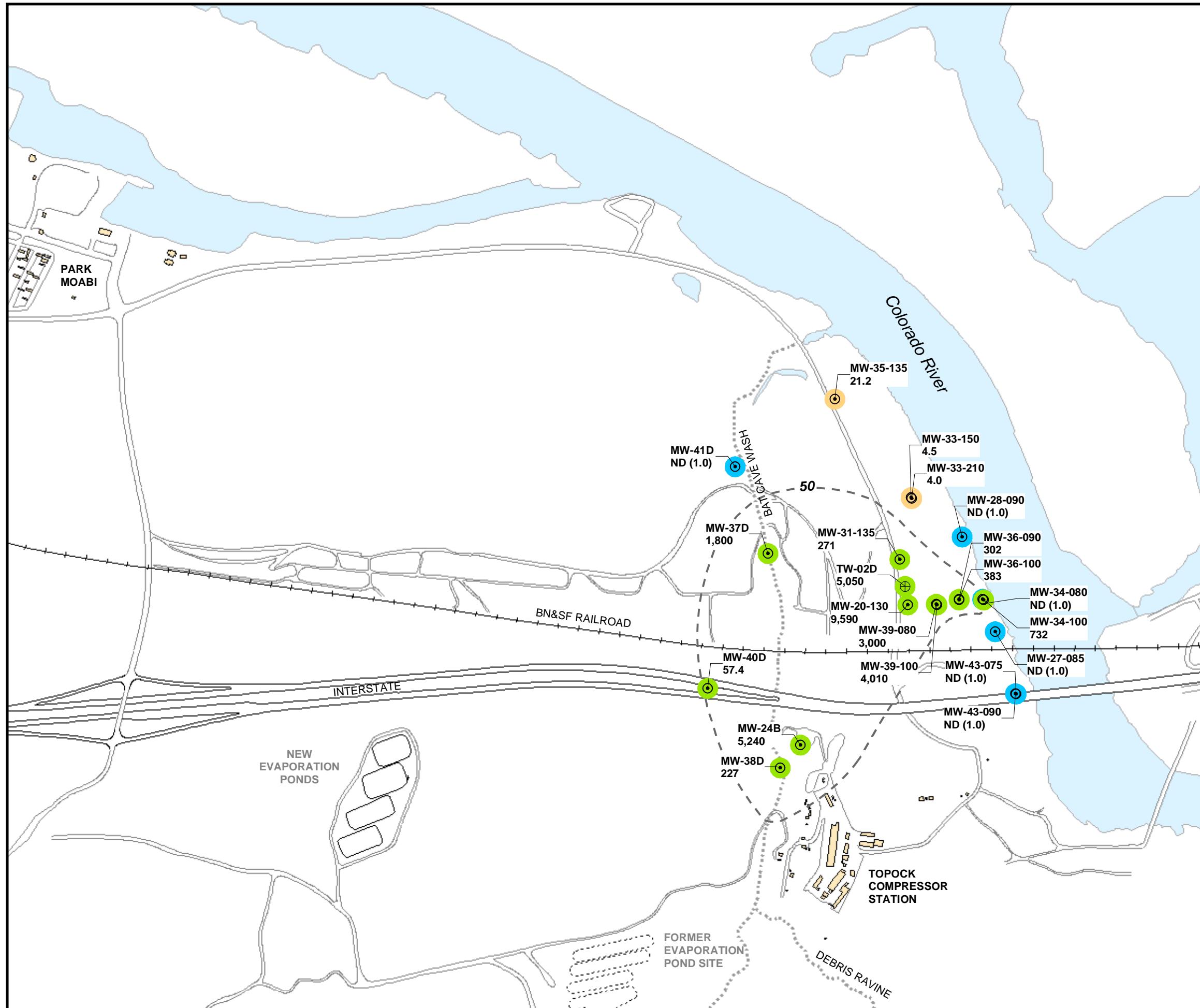


FIGURE 4B
CR(VI) SAMPLING RESULTS
MIDDLE DEPTH INTERVAL OF AQUIFER
3RD QUARTER 2005 MONITORING EVENT

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



LEGEND

- Groundwater Monitoring Well
- Groundwater Test or Supply Well
- Surface Water Monitoring Location
- ⊕ Extraction Well

6.28 Concentration of hexavalent chromium [Cr(VI)] in micrograms per liter ($\mu\text{g}/\text{L}$)

Results shown are concentrations detected in primary samples from wells completed in Lower Depth Interval of Alluvial Aquifer, October 2005 monitoring event. See Table 2 for complete results.

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

NS Not sampled

Cr(VI) Concentrations in Groundwater Samples

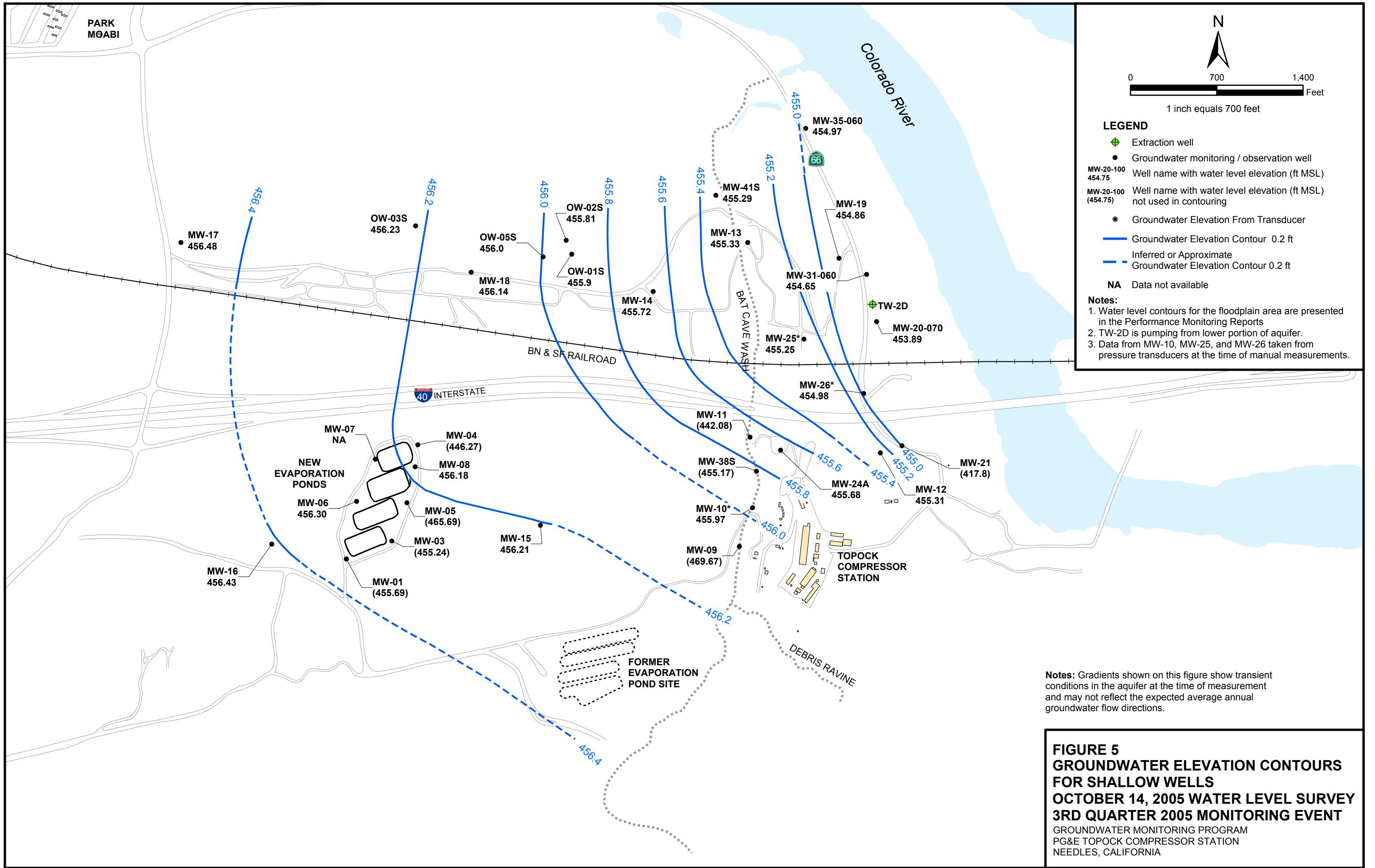
- Not detected at analytical reporting limit
 - Concentration between reporting limit and 50 µg/L
 - Concentration greater than 50 µg/L
- 50
/ /
| |
Approximate outline of Cr(VI) in groundwater
≥ 50 µg/L (California drinking water standard
for Total Chromium)

N
0 750 1,500
1 inch equals 750 feet

FIGURE 4C
CR(VI) SAMPLING RESULTS
LOWER DEPTH INTERVAL OF AQUIFER
3RD QUARTER 2005 MONITORING EVENT

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

CH2MHILL



Appendix A
Field Data Sheets and Chain of Custody Records,
October 2005

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/3/05						
Field Team	1	Field Conditions	Sunny, hot								
Well/Sample Number	MW-09-081			QC Sample ID	NA			QC Sample Time			
Purge Start Time	1337			Purge Method	Groundfoss			Ded. Pump	Y		
Flow Cell:	Y / N			Min. Purge Volume (gal)/(L)	21 gal			Purge Rate (gpm)/(mLpm)	14 gpm		
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1337	6	7.65	2.65	1.13	6.53	29.3	0.1	1.7	140	
	1338	10	7.53	2.56	1.4	6.93	29.5	0.1	1.7	143	
	1339	12	7.51	2.50	2.55	5.52	29.6	0.1	1.6	146	
	1340	15	7.47	2.52	8.76	5.44	29.7	0.1	1.6	146	
	1341	15	7.48	2.54	6.93	5.89	29.9	0.1	1.6	143	
	1342	18	7.48	2.54	8.24	5.87	30.0	0.1	1.6	142	
	1344	21	7.49	2.55	3.42	5.86	30.0	0.1	1.7	142	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?			Y	Y	Y	Y	NA	—	—	Y	

Sample Time 1345 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 80.22

WD (Well Depth - from table) ft btc (91)

SWH (Standing Water Height) = WD-Initial Depth 10.78

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 7.11

Three Casing Volumes = 21.3

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300.9G

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
1317	80.22	1348	82.85		

Comments:

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/3/05					
Field Team	1	Field Conditions <u>Sunny, hot</u>				Page	1 of _____				
Well/Sample Number	MW-10-081				QC Sample ID	NA				QC Sample Time	_____
Purge Start Time	1247				Purge Method	ground fog				Ded. Pump	Y
Flow Cell	Y / N				Min. Purge Volume (gal)/(L)	47 gal				Purge Rate (gpm)/(mLpm)	13 gpm
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1247	5	7.69	3.07		6.29	28.5	0.2	1.8	138	yellow, no odor
	1248	181	7.81	1.77	2.85	4.99	28.9	0.1	1.1	133	"
	1249	15	7.79	1.59	1.07	5.23	29.0	0.1	1.0	134	"
	1250	20	7.75	1.56	0.65	5.51	29.0	0.1	1.0	134	"
	1250	29	7.74	1.56	0.95	5.50	29.0	0.1	1.0	135	"
	1251	35	7.72	1.59	1.68	5.34	29.1	0.1	1.0	136	"
	1252	40	7.72	1.62	1.2	5.29	29.1	0.1	1.1	136	"
	1253	46	7.73	1.62	1.33	5.26	29.1	0.1	1.1	136	"
	1254	51	7.73	1.61	0.98	5.23	29.1	0.1	1.0	136	"
Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?		Y	Y	Y	Y	NA	—	—	Y		
Are measurements consistent with previous?					NA						

Sample Time 1255 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 74.46

WD (Well Depth - from table) ft btc (98)

SWH (Standing Water Height) = WD-Initial Depth 23.54

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 15.54

Three Casing Volumes = 46.6

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300. PG

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
1241	74.46	1258	74.50	

Comments:

Odo: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/3/05					
Field Team	1	Field Conditions <u>Sunny, hot</u>				Page	1	of _____			
Well/Sample Number		MW-11-081		QC Sample ID	NA		QC Sample Time				
Purge Start Time		1224		Purge Method	groundfoss	Ded. Pump	Y				
Flow Cell (Y) / N		Min. Purge Volume (gal)/(L)				48 gal	Purge Rate (gpm)/(mLpm)			6 gpm	
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
66.65	1224	0-12	7.61	2.47	12.5	6.28	29.4	0.1	1.7	133	slightly yellow
69.6	1226	12	7.48	2.32	29.25.7	6.30	29.6	0.1	1.5	137	"
69.78	1227	18	7.45	2.27	29.3	6.20	29.7	0.1	1.5	138	"
69.95	1227	24	7.44	2.25	14.1	6.03	29.7	0.1	1.5	139	"
70.02	1228	343	7.43	2.24	17.6	5.89	29.7	0.1	1.5	140	"
70.02	1229	38	7.43	2.24	19.0	6.00	29.8	0.1	1.5	140	"
70.05	1230	45	7.43	2.23	9.29	5.97	29.8	0.1	1.5	141	"
70.07	1231	57	7.42	2.19	12.1	5.91	29.7	0.1	1.4	142	"
Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?		Y	Y	Y	Y	NA	Y	Y	Y		
Are measurements consistent with previous?					NA						

Sample Time 1232 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____
 Comments: _____

Initial Depth to Water (ft BTOC): 66.65
 WD (Well Depth - from table) ft btc (91)
 SWH (Standing Water Height) = WD-Initial Depth 24.35
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)
 One Casing Volume = D*SWH 16.07
 Three Casing Volumes = 48.2

Measure Point: Well TOC		Steel Casing	WATER LEVEL METER SERIAL NUMBER: 101.300. PG		
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	
				Time of Reinstallation	
11:7	66.65	1233	68.0		
Comments:					

Color: clear, grey, yellow/brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3								
Job Number	328225.GM.02.00			Date	10/3/05 - 10/4/05								
Field Team	1	Field Conditions	Sunny, hot	Page	1	of							
Well/Sample Number	MW-12-081			QC Sample ID	NA	QC Sample Time							
Purge Start Time	14070858			Purge Method	Redi-flo	Ded. Pump	XN						
Flow Cell:	Y	N		Min. Purge Volume (gal)/(L)	47 gal	Purge Rate (gpm)/(mLpm)	4 gpm						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)		
28.94	0904	0 - 8	7.52	3.53	8.86	7.10	28.08	0.2	2.2	43	slightly yellow, no odor		
28.9	0906	1b 10	8.36	3.09	19.4	6.40	28.04	0.2	2.0	47	'		
28.92	0908	24	8.50	23.00	14.9	6.28	28.18	0.1	1.9	50	'		
28.94	0910	32	8.57	3.03	5.86	6.22	28.18	0.2	1.9	52	'		
28.96	0912	40	8.60	3.00	3.40	6.18	28.21	0.2	2.0	53	'		
28.95	0914	48	8.63	3.04	2.14	6.13	28.20	0.2	1.9	55	'		
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV			
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y			
Are measurements consistent with previous?			Y	Y	Y	NA	-	-	Y				

Sample Time 0915 Sample Location: pump tubing X well port spigot bailer other

Comments: Duplicate sample MW-90-081 @ 0920.

Initial Depth to Water (ft BTOC): 28.4852

WD (Well Depth - from table) ft btc (52)

SWH (Standing Water Height) = WD-Initial Depth 23.5248

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 15.5250

Three Casing Volumes = 46.55

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300 . PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0830	28.4852	0917	28.95
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/1/05					
Field Team	1	Field Conditions <u>Sunny, hot</u>				Page	1	of			
Well/Sample Number		MW-13-081		QC Sample ID	NA	QC Sample Time					
Purge Start Time		1212		Purge Method	CD Pump	Ded. Pump	Y				
Flow Cell		Y / N		Min. Purge Volume (gal)/(L)	37 gal	Purge Rate (gpm)/(mLpm)	4 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
33.88	1213	0-4	7.84	1.94	52.4	6.95	28.49	0.1	1.2	-44	slightly yellow
33.95	1214	8	7.81	1.94	17.3	6.69	28.54	0.1	1.2	-27	"
33.94	1215	12	7.78	1.93	19.1	6.50	28.55	0.1	1.2	-13	"
33.93	1217	20	7.74	1.92	1.8	6.45	28.54	0.1	1.2	0	"
33.94	1219	28	7.74	1.92	8.77	6.42	28.53	0.1	1.2	8	"
33.92	1221	36	7.74	1.91	2.4	6.42	28.51	0.1	1.2	14	"
33.93	1223	44	7.74	1.91	1.77	6.41	28.44	0.1	1.2	16	"
Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?		Y	Y	Y	Y	NA	Y	Y	Y		
Are measurements consistent with previous?		Y	Y	Y	Y	NA	Y	Y	Y		

Sample Time 1225 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 33.10

WD (Well Depth - from table) ft btc (52)

SWH (Standing Water Height) = WD-Initial Depth 18.9

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 12.47

Three Casing Volumes = 37.4

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300. P6

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
1146	33.10	1225	33.95	
Comments:				

Odor: none sulphur, organic, other

Solids: trace Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-6-05						
Field Team	1	Field Conditions	Windy, clear 70's			Page	1	of	1		
Well/Sample Number MW-14-081			QC Sample ID	NA	QC Sample Time						
Purge Start Time	1008		Purge Method	DC	Ded. Pump	Yes					
Flow Cell:	Y	N	Min. Purge Volume (gal/L)	40	Purge Rate (gpm)/(mLpm)	7.8					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
117.40	1009	7.8	7.85	1.67	17.5	6.90	28.46	0.1	1.1	9	
117.58	1010	15.7	7.84	1.67	9.55	6.93	28.50	0.1	1.1	16	
117.65	1011	23.5	7.83	1.67	5.43	6.96	28.51	0.1	1.1	23	
117.72	1012	31.3	7.83	1.66	4.73	7.02	28.54	0.1	1.1	23	
117.73	1013	39.2	7.82	1.66	4.98	7.12	28.53	0.1	1.1	26	
	1014	47	- sample								
STABLE											
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			V	V	V	V	NA	—	—	X	
Are measurements consistent with previous?			Y	Y	V	Y	NA	—	—	N	

Sample Time 1014 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 115.15

WD (Well Depth - from table) ft btc (135)

SWH (Standing Water Height) = WD-Initial Depth 19.85

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in)

One Casing Volume = D*SWH 13.1

Three Casing Volumes = 39.3

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101300

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1003	115.15	1015	117.80
Comments:			

Color: O clear, grey, yellow, brown, black, cloudy, green

Odor: O none, sulphur, organic, other

Solids: O trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00			Date	10-6-05							
Field Team	1	Field Conditions	Windy, Clear, 70's	Page	1	of	1					
Well/Sample Number	MW-15-004 MW-15-081	QC Sample ID	NA	QC Sample Time								
Purge Start Time	827 MW-15-081	Purge Method	D.C.	Ded. Pump	Yes							
Flow Cell	O1 N	Min. Purge Volume (gal)/(L)	40	Purge Rate (gpm)(mLpm)	8.8							
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
185.78	0828	8.8	6.06	2.57	38.8	7.96	28.83	0.1	1.5	18		
185.78	0829	7.6	6.48	1.80	69.6	7.88	29.06	0.1	1.1	12		
185.80	0830	26.4	6.63	1.70	41.1	7.88	29.21	0.1	1.1	8		
185.82	0831	35.2	6.91	1.67	5.62	7.98	29.42	0.1	1.1	-7		
185.82	0832	44	7.05	1.68	2.63	7.99	29.49	0.1	1.1	-9		
185.82	0833	52.8	7.17	1.69	1.89	8.05	29.53	0.1	1.1	-14		
185.83	0834	61.6	7.26	1.67	1.52	8.11	29.54	0.1	1.1	-19		
185.82	0835	70.4	7.37		\	S stable	\	\	\	\		
185.82	0836	79.2	7.34	2	\	\	\	\	\	\		
185.82	Parameter Stabilization Criteria	88	0837	7.43	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV
Did Parameters Stabilize prior to sampling?	87	0838	7.44	✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?			✓					NA				

Sample Time 0840 Sample Location: pump tubing X well port spigot bailer other

Comments: No recirculation

Initial Depth to Water (ft BTOC): 185.25
 WD (Well Depth - from table) ft btc (205)
 SWH (Standing Water Height) = WD-Initial Depth 19.75
 D (Volume as per diameter) 2" = 0.11, 4" = 0.66 1" = 0.04 (4 in)
 One Casing Volume = D*SWH 13
 Three Casing Volumes = 39.1

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC		Steel Casing	WATER LEVEL METER SERIAL NUMBER: 101300
Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0821	185.25	0842	185.83
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-6-05						
Field Team	1	Field Conditions	Wind, clear, 70's	Page	1	of	1				
Well/Sample Number	MW-16-081			QC Sample ID	NA	QC Sample Time	-				
Purge Start Time	0902			Purge Method	DC	Ded. Pump	Yes				
Flow Cell	1	N		Min. Purge Volume (gal)/(L)	39	Purge Rate (gpm)/(mLpm)	5.6				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
205.21	0903	5.6	7.71	1.24	09.31	5.52	28.35	0.1	0.8	-116	
205.45	0904	11.2	7.71	1.21	5.00	5.93	29.03	0.1	0.8	-98	
205.77	0905	16.8	7.73	1.21	5.54	6.76	29.17	0.1	0.8	-88	
206.27	0906	21.4	7.77	1.21	6.51	6.88	29.24	0.1	0.8	-84	
206.74	0907	27.7	7.81	1.21	5.75	6.79	29.29	0.1	0.8	-74	
0908		33.3									
0909		38.9									
0910		44.6									
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 0910 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 200.76
 WD (Well Depth - from table) ft btc (220)
 SWH (Standing Water Height) = WD-Initial Depth 19.24
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in)
 One Casing Volume = D*SWH 12.6
 Three Casing Volumes = 38.1

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: 101300			
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW		
0858	200.76	0911	207.60		
Comments:					

Color: (circle) clear, grey, yellow, brown, black, cloudy, green

Odor: (circle) sulphur, organic, other

Solids: (circle) Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/15/05					
Field Team	1	Field Conditions <u>Sunny, windy</u>				Page	1	of			
Well/Sample Number	MW-17-081				QC Sample ID	NA	QC Sample Time				
Purge Start Time	1134				Purge Method	CD Pump	Ded. Pump	Y			
Flow Cell	Y	/ N	Min. Purge Volume (gal)/(L) <u>39 gal</u>			Purge Rate (gpm)/(mLpm)	7 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
1134	0-7	7.78	1.74	21.0	7.44	28.8	0.1	1.1	76	clear, no odor	
1136	21	7.52	1.70	21.9	4.77	29.5	0.1	1.1	68	"	
1137	28	7.51	1.68	19.5	4.62	29.6	0.1	1.1	65	"	
1138	35	7.53	1.68	21.2	4.69	29.6	0.1	1.1	62	"	
1139	23	7.55	1.68	37.7	4.55	29.7	0.1	1.1	50	"	
1140	26	7.55	1.68	15.3	5.10	30.2	0.1	1.1	51	"	
1144	30	7.60	1.63	2.6	6.15	30.6	0.1	1.1	61	"	
1147	35	7.62	1.60	2.1	6.38	30.6	0.1	1.0	67	"	
1149	39	7.63	1.59		6.51	30.7	0.1	1.0	72	"	
Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?		Y	Y	Y	Y	NA	Y	Y	Y		
Are measurements consistent with previous?						NA					

Sample Time 1200 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 133.27

WD (Well Depth - from table) ft btc (153)

SWH (Standing Water Height) = WD-Initial Depth 19.73

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

¹One Casing Volume = D*SWH 13.02

Three Casing Volumes = 39

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300-PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
<u>1127</u>	<u>133.27</u>	<u>1552</u>	<u>150.9</u>
Comments: <u>1200</u>			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP		Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00		Date	10-6-05							
Field Team	1	Field Conditions	<i>Sunny, breezy</i>		Page	1 of 1					
Well/Sample Number	MW-18-081		QC Sample ID	NA	QC Sample Time	—					
Purge Start Time	0937		Purge Method	DC	Ded. Pump	Yes					
Flow Cell	D	N	Min. Purge Volume (gal/L)	46	Purge Rate (gpm) (mL.ppm)	89.6					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
89.57	0938	89.6	7.65	1.49	0.88	8.39	28.33	0.1	0.9	56	
89.61	0939	167.1	7.67	1.45	0.55	8.07	28.51	0.1	0.9	58	
89.62	0940	242.87	7.67	1.43	0.94	8.04	28.53	0.1	0.9	60	
89.63	0941	323.83	7.67	1.42	1.16	8.05	28.57	0.1	0.9	61	
89.64	0942	404.7	7.67	1.42	1.35	8.07	28.56	0.1	0.9	61	
89.65	0943	485.7	7.68	1.42	1.06	8.08	28.56	0.1	0.9	62	
0944		867 - Sample									- STABLE -
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?						✓	NA	—	—	✓	
Are measurements consistent with previous?			✓				NA				

Sample Time 0944 Sample Location: pump tubing X well port spigot bailer other

Comments: 67 gal purged

Initial Depth to Water (ft BTOC): 89.06

WD (Well Depth - from table) ft btc (112)

SWH (Standing Water Height) = WD-Initial Depth 22.94

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in)

One Casing Volume = D*SWH 15.14

Three Casing Volumes = 45.42

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: 101300			
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
0932	89.06	0945	89.68	—	—
'Comments: 0947					

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	1	Field Conditions	Sunny, hot	Page	1	of					
Well/Sample Number	MW-19-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1051			Purge Method	CD Pump	Ded. Pump	Y				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	44 gal	Purge Rate (gpm)/(mLpm)	6 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1051	0-6	7.83	2.25	113	7.09	28.62	0.1	1.4	35	yellow, no smell
47.24	1053	12	7.77	2.18	2.63	6.81	28.46	0.1	1.4	23	"
47.39	1055	24	7.76	2.16	2.01	6.67	28.43	0.1	1.4	24	"
47.42	1056	30	7.75	2.16	2.43	6.66	28.46	0.1	1.4	27	"
47.45	1057	34	7.76	2.16	3.38	6.62	28.53	0.1	1.4	30	"
47.50	1058	42	7.75	2.16	2.07	6.63	28.45	0.1	1.4	27	"
47.51	1059	48	7.75	2.15	2.00	6.87	28.50	0.1	1.4	30	"
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1100 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 45.03

WD (Well Depth - from table) ft btc (67)

SWH (Standing Water Height) = WD-Initial Depth 21.97

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 14.5

Three Casing Volumes = 43.5

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300. PG

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
1045	45.03	1101	47.57	

Comments:

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/11/05						
Field Team	3	Field Conditions			Page	1	of	1			
Well/Sample Number MW-20-070-081			QC Sample ID	NA	QC Sample Time						
Purge Start Time 1039			Purge Method	BCV	Ded. Pump	RF4					
Flow Cell: (Y) N			Min. Purge Volume (gal)/(L)	50	Purge Rate (gpm)/(mLpm)	9					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
1041	18	7.56	3.38	6.20	5.99	28.57	0.2	2.1	151		
1042	27	7.55	3.31	3.94	6.61	28.59	0.2	2.1	151		
1043	36	7.54	3.31		6.78	28.62	0.2	2.1	151		
1044	45	7.54	3.31		6.87	28.68	0.2	2.1	151		
60.28	1045	54	7.53	3.33	6.90	28.66	0.2	2.1	151		
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 1050 Sample Location: pump tubing well port X spigot bailer other
 Comments:

Initial Depth to Water (ft BTOC): 46.04 45.96

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

WD (Well Depth - from table) ft btc (71)

SWH (Standing Water Height) = WD-Initial Depth 25.04

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in) .66

One Casing Volume = D*SWH 16.53

Three Casing Volumes = 49.57

Color: clear, grey, yellow, brown, black, cloudy, green

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer
Time	Initial DTW	Time	Final DTW	Time of Removal
1042	46.02	1058	46.50	NA
Comments:				

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

1033 45.96

Topock Sampling Log

Project Name Job Number Field Team	PGE Topock GMP 328225.GM.02.00 3			Sampling Event Date Page	2005-GMP-081-Q3 10/11/05 1 of 1							
Well/Sample Number	MW-20-100-081			QC Sample ID	NA		QC Sample Time NA					
Purge Start Time	0957			Purge Method	3CV		Ded. Pump	4" AF				
Flow Cell (Y) / N				Min. Purge Volume (gal)/(L)	109		Purge Rate (gpm)/(mLpm)	8				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
	0959	16	6.68	4.17	10.9	1.83	28.73	0.2	2.7	177		
71.90	1001	32	7.09	4.15	23.1	1.70	28.69	0.2	2.7	170		
75.20	1003	48	7.21	4.14	58.4	1.57	28.70	0.2	2.6	166		
76.55	1005	64	7.32	4.13	44.4	1.50	28.82	0.2	2.6	162		
77.30	1007	80	7.37	4.14	27.7	1.51	28.95	0.2	2.6	160		
77.63	1009	106.96	7.41	4.14	19.3	1.54	28.95	0.2	2.7	159		
77.94	1011	112	7.45	4.14	15.8	1.54	28.96	0.2	2.7	157		
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?			Y	X	N	Y	NA	—	—	X		
Are measurements consistent with previous?						NA						

Sample Time 1015 Sample Location: pump tubing _____ well port X spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOS): 46.04

WD (Well Depth - from table) ft btc (101)

SWH (Standing Water Height) = WD-Initial Depth 54.98

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in) 0.66

One Casing Volume = D*SWH 36.27

Three Casing Volumes = 108.82

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0942	46.04	1028	46.38
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-7-05						
Field Team	3	Field Conditions			Page	1	of	1			
Well/Sample Number	MW-20-130-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1053			Purge Method	Grundfos Radiflow II	Ded. Pump	NO				
Flow Cell:	O	N		Min. Purge Volume (gal)/(L)	170	Purge Rate (gpm)/(mLpm)	3.5				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
56.62	1100	24.5	7.65	8.29	0.45	1.48	30.02	0.5	5.2	50	
56.70	1107	49	7.61	10.8	0.58	2.25	30.06	0.6	7	50	
56.66	1114	73.5	7.62	11.5	0.53	2.23	30.15	0.7	7	52	
56.68	1121	98	7.63	12.0	0.19	2.32	30.15	0.7	7	53	
56.60	1128	122.5	7.65	12.0	0.33	2.34	30.15	0.7	7	52	
56.60	1135	147	7.64	12.4	0.32	2.32	30.23	0.7	8	53	
56.62	1142	171.5	7.65	12.3	0.31	2.46	30.31	0.7	8	53	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	—	—	<input checked="" type="checkbox"/>	
Did Parameters Stabilize prior to sampling?			<input checked="" type="checkbox"/>				NA	—	—	<input checked="" type="checkbox"/>	
Are measurements consistent with previous?							NA				

Sample Time 1145 Sample Location: pump tubing well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 47.65

WD (Well Depth - from table) ft btc (133)

SWH (Standing Water Height) = WD-Initial Depth 85.35

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in)

One Casing Volume = D*SWH 56.33

Three Casing Volumes = 168.9

Color: clear, grey, yellow, brown, black, cloudy, green

Very green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101300

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1035	47.65	7442	56.62
Comments:	1158	47.80	

Odor: none, sulphur, organic, other

? - not attempted

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/14/05						
Field Team	1	Field Conditions	Sunny, hot	Page	1	of					
Well/Sample Number	MW-21-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	0949			Purge Method	CD pump	Ded. Pump	X				
Flow Cell:	N	Min. Purge Volume (gal)/(L)	18 gal	Purge Rate (gpm)/(mLpm)	could not measure						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
0950		7.59	0.999	7.88	7.62	27.89	0.7	7	-126		slightly yellow, no odor
0951		7.36	12.0	7.56	4.12	27.89	0.7	7	-145	"	"
0951		7.28	11.7	7.55	2.87	28.00	0.7	7	-150	"	"
0952	12	7.24	11.4	6.66	2.42	28.26	0.6	7	-149	"	"
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 0930 on Sample Location: pump tubing X well port spigot bailer other

Comments: 10/15/05 pumped dry @ 0952. Will come back tomorrow to sample.

Initial Depth to Water (ft BTOC): 50.16

WD (Well Depth - from table) ft btc (59)

SWH (Standing Water Height) = WD-Initial Depth 8.9

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 5.87

Three Casing Volumes = 17.6

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300. PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0946	50.10		
Comments:			

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	2	Field Conditions	Sunny, clear, 75°F			Page	4	of	8		
Well/Sample Number	MW-22-081			QC Sample ID	NA		QC Sample Time				
Purge Start Time	10:49			Purge Method	Grnd		Ded. Pump	N/A			
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	3.48		Purge Rate(gpm)/(mLpm)	purge / day			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	10:50	1.0	7.41	1.17	10.8	3.61	24.0	0.05	0.7	-130	
	10:51	2.0	7.34	1.16	14.2	3.65	24.7	0.05	0.7	-136	
	10:52	3.0	7.32	1.14	15.8	3.01	25.1	4.05	0.7	-134	
	10:53	4.0	6.65								very turbid / allow to clear up. well goes dry & then recharges
	11:00	7.0	6.67	35.7	999	2.17	32.38	2.27	22	-84	
	11:02	8.0	6.65	35.9	999	2.34	32.70	2.28	22	-84	
	11:24	9.0	6.66	35.5	999	2.51	32.96	2.27	22	-86	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Are measurements consistent with previous?							NA	—	—		

Sample Time 11:27 Sample Location: pump tubing X well port spigot bailer other

Comments: Unable to take water levels since pump is so high in well

Initial Depth to Water (ft BTOC): 6.17

WD (Well Depth - from table) ft btc (13)

SWH (Standing Water Height) = WD-Initial Depth 6.83

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 1.16

Three Casing Volumes = 3.48

Color: clear, grey, yellow, brown, black, cloudy, green red

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Hach PGE 2005-018

Horiba C106552

PGE-2005-018

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
10:41	6.17	11:39	7.10

Comments:

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silts, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00			Date	11/4/05							
Field Team	1	Field Conditions	Sunny, hot	Page	1	of						
Well/Sample Number	MW-23-081			QC Sample ID	NA			QC Sample Time				
Purge Start Time	0932			Purge Method				Ded. Pump	Y			
Flow Cell	O	/ N		Min. Purge Volume (gal)/(L)	55 gal			Purge Rate (gpm)/(mLpm)	5.6 gpm			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
	0933	0-5	7.52	19.9	116	2.71	28.02	1.2	12	-64	slightly yellow, smell sulphur	
	0934	10	7.38	19.2	31.0	1.62	27.95	1.1	12	-51	"	
	0935	+5 12	7.35	19.1	21.1	1.48	27.93	1.1	12	-41	"	
	0936	20 14	7.31	19.2	18.9	1.55	27.87	1.2	12	-34	"	
	0937	25 16	7.27	19.4	16.5	2.05	27.87	1.2	12	-28	"	
	0938	18	7.25	19.4	16.7	2.19	27.90	1.2	12	-19	"	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?							NA					
Are measurements consistent with previous?							NA					

Sample Time 0915 Sample Location: pump tubing X well port spigot bailer other
 On 10/5/05 Comments: pumped dry @ 0939. Will return tomorrow to sample.

Initial Depth to Water (ft BTOC): 54.08

WD (Well Depth - from table) ft btc (82)

SWH (Standing Water Height) = WD-Initial Depth 27.92

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 18.43

Three Casing Volumes = 55.3

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: 101.300 306-107. PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0929	54.08		
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/3/05						
Field Team	1	Field Conditions <u>Sunny, hot</u>			Page	1	of _____				
Well/Sample Number MW-24A-081			QC Sample ID NA			QC Sample Time _____					
Purge Start Time	1050	Purge Method <u>grundfos</u> Dred. Pump <u>Y</u>									
Flow Cell	<u>Y</u>	Min. Purge Volume (gal)/(L) <u>31 gal</u>			Purge Rate (gpm)/(mLpm) <u>14 gpm</u>						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1050	3	7.98	3.14	1.89	6.90	28.6	0.2	2	155	no odor - yellow
	1051	8	7.80	3.07	0.59	4.23	29.0	0.2	2	157	" "
	1052	12	7.76	3.06	2.02	3.71	29.0	0.2	2	157	" "
	1053	15	7.74	3.06	2.16	3.46	29.1	0.2	2	157	" "
	1053	18	7.73	3.05	1.43	3.38	29.1	0.2	2	157	" "
	1054	25	7.71	3.04	0.96	3.30	29.2	0.2	2	157	" "
	1055	29	7.71	3.04	0.67	3.28	29.2	0.2	2	157	" "
	1056	35	7.70	3.04	0.69	3.26	29.2	0.2	2	157	" "
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1057 Sample Location: pump tubing X well port spigot bailer other

Comments: Dup. MW-91-081 sample time 1130

Initial Depth to Water (ft BTOC): 111.25

WD (Well Depth - from table) ft btc (127)

SWH (Standing Water Height) = WD-Initial Depth 15.75

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH 10.395

Three Casing Volumes = 31

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300.PG

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
104.35	111.25	1102	111.28	
Comments:				

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/3/05						
Field Team	1	Field Conditions	Sunny, hot	Page	1	of					
Well/Sample Number	MW-24B-081			QC Sample ID	NA	QC Sample Time	-				
Purge Start Time	1010			Purge Method	Grun fcs	Ded. Pump	Yes				
Flow Cef:	Y	/ N		Min. Purge Volume (gal)/(L)	218 gal	Purge Rate (gpm)/(mLpm)	11.9 gal/min				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
120.95	1011	0 - 12	6.97	13.1	7.96	3.05	29.9	0.7	8	188	slightly yellow
122.4	1014	33	8.01	13.8	21.64	2.77	30.2	0.8	9	167	" "
122.95	1017	66	8.02	13.9	15.7	2.90	30.2	0.8	9	164	" "
122.75	1020	99	7.96	13.9	32.5	3.09	30.3	0.8	9	159	" "
123.0	1023	132	7.94	13.9	15.2	3.15	30.2	0.8	9	157	" "
123.05	1026	165	7.93	14.0	9.74	3.18	30.2	0.8	9	155	" "
123.08	1029	198	7.93	14.0	9.61	3.18	30.2	0.8	9	154	" "
123.11	1032	231	7.93	14.0	6.10	3.19	30.2	0.8	9	153	" "
1035	264										
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1035 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 109.1

WD (Well Depth - from table) ft btc (219)

SWH (Standing Water Height) = WD-Initial Depth 109.9

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in)

One Casing Volume = D*SWH 72.53

Three Casing Volumes = 218 gal

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: 101.300. PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1002	109.1	1036	123.18
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/13/05						
Field Team	1 Field Conditions			Page	1 of 1						
Well/Sample Number MW-24BR-081			QC Sample ID	NA		QC Sample Time					
Purge Start Time			Purge Method	Ded. Pump							
Flow Cell: Y / N			Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)							
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
			Unable to collect sample: Pump has failed down well and effort to use internal pump did not work.								
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time _____ Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft btc (441)

SWH (Standing Water Height) = WD-Initial Depth

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = D*SWH

Three Casing Volumes =

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
		Approx. 5 min After Reinstallation	
Time	Initial DTW	Time	Final DTW
Comments:			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	1	Field Conditions	Sunny, hot								
Well/Sample Number	MW-25-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1121			Purge Method	CD pump	Ded. Pump	Y				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	38 gal	Purge Rate (gpm)/(mLpm)	7 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
95.04	1122	0-7	7.80	1.72	6.99	6.60	29.90	0.1	1.1	44	
95.07	1125	14	7.67	1.51	15.3	6.39	29.19	0.1	1.0	49	
	1126	21	7.64	1.52	16.2	6.84	29.19	0.1	1.0	51	
97.0	1127	28	7.65	1.52	15.6	6.72	29.21	0.1	1.0	52	
97.1	1128	35	7.65	1.52	11.4	6.74	29.23	0.1	1.0	53	
97.3	1129	42	7.65	1.51	11.0	6.72	29.23	0.1	1.0	55	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1130 Sample Location: pump tubing X well port spigot bailer other

Comments: Duplicate sample MW-92-081 @ 1140

Initial Depth to Water (ft BTOC): 87.58
 WD (Well Depth - from table) ft btc (107)
 SWH (Standing Water Height) = WD-Initial Depth 19.42
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in)
 One Casing Volume = D*SWH 12.82
 Three Casing Volumes = 38.45

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: 101.300-PG			
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
1118	87.58	1136	98.22		
Comments:					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/4/05					
Field Team	1	Field Conditions	sunny, hot				Page	1	of		
Well/Sample Number	MW-26-081				QC Sample ID	NA					
Purge Start Time	1013				Purge Method	CD Pump	Ded. Pump	Y			
Flow Cell	Y	N	Min. Purge Volume (gal)/(L)			53 gal	Purge Rate (gpm)/(mLpm)	7 gpm, turned down			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1013	0-7	7.82	3.49	156	5.75	29.71	0.2	2.2	2	cloudy, brown, slightly yellow
#162	1015	10 21 44	7.62	3.45	171	4.00	29.70	0.2	2.1	11	"
61.6	1017	1821	7.59	3.10	1000	3.63	29.55	0.2	2.0	10	"
67.0	1019	12 28 26	7.55	3.34	969	5.87	29.85	0.2	2.1	18	"
1023	3530	7.55	3.37	120	8.64	29.91	0.2	2.2	31	"	
65.0	1025	4240	7.55	3.37	46.1	8.47	29.93	0.2	2.2	37	"
46.0	1028	4950	7.53	3.39	163	8.37	29.95	0.2	2.2	42	"
	1030	5060	7.54	3.38	213	8.79	29.90	0.2	2.2	45	"
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10 NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	N	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1035 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____
 Comments: _____

Initial Depth to Water (ft BTOC): 47.18
 WD (Well Depth - from table) ft btc (74)
 SWH (Standing Water Height) = WD-Initial Depth 26.82
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)
 One Casing Volume = D*SWH 17.7
 Three Casing Volumes = 53.1

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC		Steel Casing	WATER LEVEL METER SERIAL NUMBER: 101.300. PG		
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Approx. 5 min After Reinstallation	Time of Removal	Time of Reinstallation	
1005	47.18				
Comments:					

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00			Date	10-5-05							
Field Team	2	Field Conditions	BREEZY SUNNY CLEAR 70°									
Well/Sample Number	MW-27-020-081			QC Sample ID	NA	QC Sample Time						
Purge Start Time	10:21			Purge Method	GROENFOS	Ded. Pump	YES					
Flow Cell	①	N		Min. Purge Volume (gal)/(L)	6.73	Purge Rate (gpm)(mLpm)	1					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
6.17	10:22	1	7.57	1.64	1.42	3.21	22.13	0.07	0.9	-136		
6.19	10:23	2	7.34	1.27	1.05	2.02	22.19	0.06	0.8	-149		
6.19	10:24	3	7.10	1.20	0.96	1.90	22.20	0.05	0.8	-153		
6.19	10:25	4	7.14	1.18	0.91	1.84	22.22	0.05	0.8	-155		
6.19	10:26	5	7.12	1.18	0.94	1.85	22.22	0.05	0.8	-156		
6.19	10:27	6	7.11	1.18	0.90	1.83	22.23	0.05	0.8	-157		
6.19	10:28	7	7.10	1.17	1.05	1.82	22.21	0.05	0.8	-158		
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	.	✓			
Are measurements consistent with previous?							NA					

Sample Time 10:30 Sample Location: pump tubing X well port spigot bailer other

Comments: REcirculated well for 10 min

Initial Depth to Water (ft BTOPC): 5.80

WD (Well Depth - from table) ft btc (19)

SWH (Standing Water Height) = WD-Initial Depth 13.2

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (2 in)

One Casing Volume = D*SWH 2.21

Three Casing Volumes = 6.73

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: PGE2005-01

Recirculation Transducer

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
10:20	5.80	1048	5.86	

Comments:

Odor: none, sulphur, organic, other

Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	2	Field Conditions	Sunny, clear 65°F								
Well/Sample Number	MW-27-060-081			QC Sample ID	NA	QC Sample Time			—		
Purge Start Time	900			Purge Method	Grindos	Ded. Pump	N6				
Flow Cell	Y	N		Min. Purge Volume (ml)/(L)	26.67	Purge Rate (mlpm)/(mLpm)	2				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
—	0903	6	6.24	12.6	4.54	5.70	21.36	0.74	8	6.	
7.17	0906	12	6.15	13.0	1.78	3.19	21.64	0.75	8	-100	
7.18	0909	18	6.35	13.2	—	3.59	21.64	0.75	8	-97	
7.19	0912	24	6.41	13.2	1.59	4.00	21.69	0.76	8	-94	
7.19	0915	30	6.45	13.3	1.32	3.75	21.68	0.76	8	-95	
7.19	0918	36	6.48	13.2	1.02	3.16	21.69	0.76	8	-97	
						CLOSE					
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA	—	—		

Sample Time 0920 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 6.71

WD (Well Depth - from table) ft btc (59)

SWH (Standing Water Height) = WD-Initial Depth 52.29

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 8.89

Three Casing Volumes = 26.67

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: PGE 2005-01

Hank Horiba PGE 2005-01C
C101552

mixing If Transducer

Initial DTW / Before Removal		Approx. 5 min After Reinstalation		Time of Removal	0853
Time	Initial DTW	Time	Final DTW	Time of Reinstalation	0931
0853	6.71	0934	6.79		

Comments: Recirculated for 10 min

Odor: none, sulphur, organic, other

Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-5-05						
Field Team	2	Field Conditions	Breezy - 70's	Page	2	of	7				
Well/Sample Number	MW-27-085-081			QC Sample ID	NA	QC Sample Time	-				
Purge Start Time	9:40			Purge Method	GRUNDFOS	Ded. Pump	No				
Flow Cell	O	N		Min. Purge Volume (gal/L)	37.40	Purge Rate (gpm/mLpm)	2				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
8.01	9:43	6	6.52	18.0	1.02	2.78	21.81	1.07	11	-88	
8.01	9:46	12	6.52	18.1	4.71	2.21	21.86	1.07	11	-92	
8.00	9:49	18	6.50	18.0	13.6	2.15	22.33	1.07	11	-90	
8.00	9:52	24	6.50	18.0	3.65	2.71	22.43	1.07	11	-87	
8.01	9:55	30	6.50	18.0	1.70	2.97	22.48	1.07	11	-83	
8.01	9:58	36	6.50	18.1	1.74	3.14	22.49	1.07	11	-81	
8.01	10:01	42	6.51	18.1	1.33	2.11	22.49	1.08	11	-82	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Did Parameters Stabilize prior to sampling?			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Are measurements consistent with previous?							NA				

Sample Time 10:03 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 6.65
 WD (Well Depth - from table) ft btc (80)
 SWH (Standing Water Height) = WD-Initial Depth 73.35
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (2 in)
¹One Casing Volume = D*SWH 12.44
 Three Casing Volumes = 37.40

Measure Point: Well TOC		Steel Casing		WATER LEVEL METER SERIAL NUMBER: PGE 2005-01	
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
0935	6.65	10:25	6.66	0936	1012
Comments:					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/6/05						
Field Team	2	Field Conditions	Sunny, clear, 75°F								
Well/Sample Number	MW-28-025-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	0914			Purge Method	GND	Ded. Pump	yes				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	7 gal	Purge Rate (gpm)/(mLpm)	1				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
12.62	0918	0-4	7.65	1.52	6.19	5.24	24.96	0.07	0.9	-1	brown
12.62	0920	6	7.22	1.34	5.51	2.28	25.17	0.06	0.9	-20	
12.60	0921	7	7.11	1.32	5.8	1.89	25.2	0.06	0.8	-27	
12.60	0922	8..	7.06	1.31	4.72	2.12	25.19	0.06	0.8	-30	
12.63	0923	9	7.01	1.31	3.05	2.02	25.19	0.06	0.8	-33	
12.62	0924	10	6.98	1.30	2.99	2.01	25.22	0.06	0.8	-35	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Are measurements consistent with previous?							NA	—	—		

Sample Time 0925, Sample Location: pump tubing well port X spigot bailer other

Comments: Disturbed transducer during recirculation @ 0927.

Initial Depth to Water (ft BTOC): 11.96
 WD (Well Depth - from table) ft btc 25
 SWH (Standing Water Height) = WD-Initial Depth 13.04
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 2"
 One Casing Volume = D*SWH 2.22
 Three Casing Volumes = 6.65

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC		Steel Casing	WATER LEVEL METER SERIAL NUMBER: see previous		
Initial DTW / Before Removal		Reinst		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	
0913	11.96	0937	12.01	Time of Reinstallation	
Comments:					

Odor: none, sulphur, organic, other

Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name PGE Topock GMP
Job Number 328225.GM.02.00
Field Team 2 **Field Conditions** *Scattered clouds*

Sampling Event 2005-GMP-081-Q3
Date 10/4/05
Page 1 of _____

Well/Sample Number MW-28-090-081

QC Sample ID NA

QC Sample Time

Purge Start Time ~~0828~~ 0834

Purge Method Ground Ded. Pump yes

Flow Cell: Y / N

Min. Purge Volume (gal)/(L) 4.9 gal Purge Rate (gpm)/(mLpm) 2.0

Flow Cell: Y / N

Sample Time 09:00 Sample Location: pump tubing well port spigot bailer other

Comments: _____

11 DE 2025 7-1

Initial Depth to Water (ft BTOC): 12.72

WD (Well Depth - from table) ft btc (98)

SWH (Standing Water Height) = WD-Initial Depth 85.28

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

$$\text{One Casing Volume} = D^*SWH$$

Three Casing Volumes = 43.5

Measure Point	Well TOC	Steel Casing	WATER LEVEL METER SERIAL NUMBER:	Haniba 10134 PGE 2005-01
Initial DTW / Before Removal		<i>Received</i>	If Transducer	
		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
0821	12.72	0910	12.90	
Comments:				

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	2	Field Conditions	Sunny, clear 95°F	Page	8	of	8				
Well/Sample Number	MW-29-081			QC Sample ID	NA	QC Sample Time	—				
Purge Start Time	1452			Purge Method	Groundbox	Ded. Pump	No				
Flow Cell	Y	N		Min. Purge Volume (gal)(L)	6.06	Purge Rate (gpm)/(mLpm)	0.5				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
1454	1										missed while gauging gpm
33.92	1456	2	8.27	4.15	208	4.76	30.60	0.19	2.4	-97	
33.20	1458	3	7.72	3.07	75.8	2.34	27.87	0.16	2.0	-114	
35.94	1500	4	7.49	3.20	42.3	3.01	22.08	0.20	2.5	-121	
36.58	1502	5	7.38	4.88	30.4	2.96	26.78	0.25	3.1	-118	
37.10	1504	6	7.30	5.39	28.7	3.11	26.71	0.29	3.4	-113	
37.39	1506	7	7.31	5.24	24.7	3.20	26.71	0.27	3.2	-110	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Are measurements consistent with previous?							NA	—	—		

Sample Time 1508 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 30.11

WD (Well Depth - from table) ft btc (42)

SWH (Standing Water Height) = WD-Initial Depth 11.89

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 2.02

Three Casing Volumes = 6.06

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC		Steel Casing	WATER LEVEL METER SERIAL NUMBER: PGE 2005-01B		
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
1445	30.11	1500	30.33	1446	1515
Comments:					

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/7/05						
Field Team	2	Field Conditions	Sunny	Page	5	of					
Well/Sample Number	MW-30-030-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1117			Purge Method	redi-flo	Ded. Pump	Y				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	10 gal	Purge Rate (gpm)/(mLpm)	1 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
14.52	1128 ²⁰	3	7.15	45.1	6.14	6.41	27.5	2.9	29	-105	
14.53	1129 ²¹	4	6.95	45.2	7.23	3.19	27.5	2.9	29	-123	
14.54	1128 ²²	5	6.94	45.1	12.5	2.79	27.6	2.9	29	-131	
14.54	1124 ²³	6	6.94	45.1	9.51	2.70	27.6	2.9	29	-135	
14.54	1124	7	6.94	45.0	12.9	2.61	27.6	2.9	29	-141	
14.55	1125	8	6.94	45.0	13.2	2.58	27.6	2.9	29	-143	
14.55	1126	9	6.94	45.0	8.81	2.56	27.6	2.9	29	-145	
14.56	1127	10	6.94	45.0	5.79	2.54	27.6	2.9	29	-146	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?						NA					

Sample Time 1130 Sample Location: pump tubing _____ well port X spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 14.73

WD (Well Depth - from table) ft btc (34)

SWH (Standing Water Height) = WD-Initial Depth 19.27

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 3.28

Three Casing Volumes = 9.8

Color clear, grey, yellow, brown, black, cloudy, green

Measure Point Well TOC		Steel Casing		WATER LEVEL METER SERIAL NUMBER: PGE-2005-01A	
Initial DTW / Before Removal		Approx. 5 min After Reinstalation		Time of Removal	Time of Reinstalation
Time	Initial DTW	Time	Final DTW		
1115	14.73	1139	13.78		
Comments: 14.78 inc					

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/17/05					
Field Team	2	Field Conditions	Sunny				Page	4 of			
Well/Sample Number		MW-30-050-081		QC Sample ID	NA	QC Sample Time					
Purge Start Time	1021		Purge Method	Redi-flo	Ded. Pump	Y					
Flow Cell:	O	N	Min. Purge Volume (gal)/(L)	74 gal	Purge Rate (gpm)/(mLpm)	2 gpm					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
14.78	1023	4	7.46	8.62	9.77	6.58	26.4	0.5	5.8	-276	
14.79	1027	12	7.32	12.4	5.14	3.09	26.7	0.7	8	-257	
14.82	1031	20	7.27	12.4	2.00	2.94	26.7	0.7	8	-249	
14.82	1035	28	7.25	12.4	1.36	2.90	26.7	0.7	8	-245	
14.83	1039	36	7.24	12.3	0.87	2.88	26.7	0.7	8	-245	
14.83	1043	44	7.23	12.3	1.16	2.86	26.7	0.7	8	-239	
14.85	1047	52	7.23	12.3	1.22	2.84	26.7	0.7	8	-237	
14.86	1051	60	7.22	12.3	1.30	2.83	26.7	0.7	8	-236	
14.88	1055	68	7.22	12.3	1.08	2.82	26.7	0.7	8	-237	
14.88	1059	76	7.22 +/- 0.1 pH units	12.3 +/- 3%	1.20 +/- 10% NTU units when >10 NTUs	2.81 +/- 0.3 mg/L	26.8 NA	0.7 NA	8 NA	-236 +/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?		Y	Y	Y	Y	NA	Y	Y	Y		
Are measurements consistent with previous?						NA					

Sample Time 1100 Sample Location: pump tubing well port spigot bailer other

Comments: _____

Initial Depth to Water (ft BTOC): 14.42

WD (Well Depth - from table) ft btc (52)

SWH (Standing Water Height) = WD-Initial Depth 37.58

D (Volume as per diameter) 2" = 0.17, 4" = 0.66, 1" = 0.04 (4 in)

One Casing Volume = D*SWH 24.8

Three Casing Volumes = 74.4

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: PGE-2005-01A			
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	
1019	14.42	1114	14.53	Time of Reinstallation	
Comments: _____					

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/6/05						
Field Team	1	Field Conditions			Page	1	of 1				
Well/Sample Number	MW-31-135-081 060	QC Sample ID	NA	QC Sample Time	NA						
Purge Start Time		Purge Method	SCV	Ded. Pump	Y						
Flow Cell: Y / N		Min. Purge Volume (gal)/(L)	43	Purge Rate (gpm)/(mLpm)	9 gpm						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
45.67	13:41	18.0	7.76	2.94	14.2	6.26	28.76	0.1	1.9	59	
45.73	13:42	27.0	7.79	2.96	14.7	6.26	28.76	0.1	1.9	56	
45.76	13:43	36.0	7.80	2.97	7.46	6.37	28.72	0.1	1.9	54	
45.80	13:44	45	7.80	2.98	4.35	6.38	28.73	0.1	1.9	54	
45.82	13:45	54	7.80	2.99	3.45	6.36	28.73	0.1	1.9	54	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 1350 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 42.20

WD (Well Depth - from table) ft btc (134) 64

SWH (Standing Water Height) = WD-Initial Depth 21.8

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2in)(4) .66

One Casing Volume = D*SWH 14.39

Three Casing Volumes = 43.16

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1335	42.20	1351	45.95

Comments:

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/6/05						
Field Team	1	Field Conditions	Sunny, Hot	Page	1	of	1				
Well/Sample Number	MW-31-060-081			QC Sample ID	NA	QC Sample Time			NA		
Purge Start Time	12:37	13:55		Purge Method	3CV	Ded. Pump	Y				
Flow Cell	O	N	1923	Min. Purge Volume (gal)/(L)	43.46	Purge Rate (gpm)/(mLpm)	2				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
46.22	1427	8	7.79	8.02	1.03	3.66	29.88	0.5	5.3	12	
46.42	1431	16	7.84	10.0	4.95	2.77	29.71	0.6	6	16	
46.26	1435	18.24	7.93	10.0	78.5	2.39	29.71	0.6	6	16	
46.26	1439	32	7.95	10.2	27.1	2.32	29.66	0.6	6	16	
46.24	1443	40	7.99	10.2	4.00	2.15	29.67	0.6	6	-5	
46.24	1447	48	8.00	10.2	1.86	2.07	29.63	0.6	6	-4	
46.24	1451	56	8.00	10.1	1.32	2.02	29.62	0.6	6	-4	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time _____ Sample Location: pump tubing well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 42.20 44.33
 WD (Well Depth - from table) ft btc 64.1341
 SWH (Standing Water Height) = WD-Initial Depth 21.8 89.67
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in) (2)
 One Casing Volume = D*SWH 14.39 15.24
 Three Casing Volumes = 43.16 45.73

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
<u>1355</u>	<u>42.20</u>	<u>13571505</u>	<u>44.45</u>
Comments: <u>44.33</u>		Time of Removal <u>1357</u> Time of Reinstallation <u>1500</u>	

Odor: none, sulphur, organic, other

Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Sample Time 1255 Sample Location: pump tubing well port spigot bailer other

Comments: _____

Initial Depth to Water (ft BTOC): 7.31

WD (Well Depth - from table) ft btc (22)

SWH (Standing Water Height) = WD-Initial Depth 14.79

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

$$\text{One Casing Volume} = D^2 \cdot SWH$$

Three Casing Volumes = 7.54

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: P6E 2005-013

Initial DTW / Before Removal		If Transducer		
Time	Initial DTW	Time	Final DTW	Time of Removal
—	—	—	—	Time of Reinstallation _____
Comments:				

Comments:

Order: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Sample Time 12:55 Sample Location: pump tubing X well port spigot bailer other

Comments: _____

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Initial Depth to Water (ft BTOC): **7.27**

WD (Well Depth - from table) ft btc (39)

SWH (Standing Water Height) = WD-Initial Depth 31.73

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

One Casing Volume = $D^2 \cdot SWH$

Three Casing Volumes = 62.83

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: DSC 2005 -018

		If Transducer		
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal _____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation _____
_____	_____	_____	_____	_____
Comments:				

Color: ~~clear~~, grey, yellow, brown, black, cloudy, green

Odor: (none) sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

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Topock Sampling Log

Project Name	PGE Topock GMP		Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00		Date	10/6/05							
Field Team	2	Field Conditions	Sunny, clear, 75°F								
Well/Sample Number	MW-33-040-081		QC Sample ID	NA	QC Sample Time						
Purge Start Time	1356		Purge Method	Grundfos	Ded. Pump	No					
Flow Cell	/ N		Min. Purge Volume (gpm)/(L)	19	Purge Rate (gpm)/(mLpm)	1.0					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1	7.39	6.57								
	2										
	3										
	4										
	5										
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?						NA					
Are measurements consistent with previous?						NA					

Sample Time 1207 on 10/7/05 Sample Location: pump tubing well port X spigot bailer other
 Comments: Pumped well dry. Recommend redevelopment. Come back to sample. Could not get water from well.

Initial Depth to Water (ft BTOC): 32.50
 WD (Well Depth - from table) ft btc (42)
 SWH (Standing Water Height) = WD-Initial Depth 9.5
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in) 2 inch
¹ One Casing Volume = D*SWH 6.28 1.62
 Three Casing Volumes = 18.81 4.85

Measure Point: Well TOC		Steel Casing	WATER LEVEL METER SERIAL NUMBER: see previous 10/7/05		
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
0956	32.50			1050	1417 1200
Comments:					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/6/05						
Field Team	2	Field Conditions	Sunny, windy	Page	4	of					
Well/Sample Number	MW-33-090-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1059			Purge Method	grundfos	Ded. Pump	N				
Flow Cell Y / N				Min. Purge Volume (gal)/(L)	115 gal	Purge Rate (gpm)/(mLpm)	3 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
33.33	1103	12	7.52	7.40	512	4.14	28.30	0.44	5.1	48	
33.34	1108	27	7.16	8.61	2.00	2.24	28.35	0.48	5.4	-15	
33.37	1113	42	7.16	8.95	2.05	2.05	28.38	0.50	5.6	-29	
33.40	1118	57	7.17	9.03	1.14	2.00	28.36	0.50	5.7	-31	
33.40	1123	72	7.17	9.10	1.03	1.94	28.42	0.51	5.7	-33	
33.42	1128	87	7.18	9.13	1.42	1.91	28.38	0.51	5.8	-34	
33.42	1133	102	7.18	9.20	1.05	1.89	28.39	0.51	5.8	-33	
33.43	1138	117	7.18	9.21	1.12	1.80	28.40	0.51	5.8	-33	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1140 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 32.84
 WD (Well Depth - from table) ft btc (91)
 SWH (Standing Water Height) = WD-Initial Depth 58.16
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (4 in)
 One Casing Volume = D*SWH 38.39
 Three Casing Volumes = 115

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: See previous			
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
1051	32.84	1207	32.96	1052	1201
Comments:					

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu; Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/6/05						
Field Team	2	Field Conditions	Sunny, Windy	Page	5 of 5						
Well/Sample Number	MW-33-150-081			QC Sample ID	MW-96-081						
Purge Start Time	1305			Purge Method	ground fos	Ded. Pump	N				
Flow Cell	Y	N		Min. Purge Volume (gal/L)	62 gal	Purge Rate (gpm)(mLpm)	32.5				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
35.91	1308	7.5	7.11	15.4	1.74	5.74	29.23	0.90	10	-7	
34.0	1311	15	7.19	15.3	1.23	2.83	28.69	0.89	9	-36	
34.02	1314	22.5	7.20	15.5	1.15	2.48	28.82	0.91	10	-46	
34.02	1317	30	7.20	15.7	0.98	2.59	28.80	0.92	10	-46	
34.03	1320	37.5	7.20	15.8	1.15	2.64	28.84	0.92	10	-44	
34.04	1323	45	7.20	15.4	1.09	2.22	28.84	0.93	10	-44	
34.05	1326	52.5	7.19	15.8	1.33	2.42	28.81	0.93	10	-41	
34.06	1329	60.	7.19	15.8	1.45	2.43	28.81	0.92	10	-40	
34.06	1332	67.5	7.19	15.8	0.92	2.05	28.83	0.92	10	-41	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	NA	Y	Y	Y		
Are measurements consistent with previous?						NA					

Sample Time 1335 Sample Location: pump tubing X well port spigot bailer other
 Comments: Duplicate sample @ MW-96-081 @ 1200. start recirculation @ 1335.

Initial Depth to Water (ft BTOS): 33.70
 WD (Well Depth - from table) ft btc (155)
 SWH (Standing Water Height) = WD-Initial Depth 121.3
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)
¹ One Casing Volume = D*SWH 20.62
 Three Casing Volumes = 62

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: See previous			
If Transducer		Initial DTW / Before Removal		Approx. 5 min After Reinstallation	
Time	Initial DTW	Time	Final DTW	Time of Removal	1301
1254	33.70	1356	33.78	Time of Reinstallation	1348
Comments:					

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/6/05						
Field Team	2	Field Conditions	Sunny, Windy	Page	V	of					
Well/Sample Number	MW-33-210-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1206			Purge Method	grundfos	Ded. Pump	N				
Flow Cell:	Y	/	N	Min. Purge Volume (gal)/(L)	97 gal	Purge Rate (gpm)/(mLpm)	2.5 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
34.95	1209	7.5	7.12	0.999	30.9	10.10	28.71	1.12	12	40	
35.0	1214	20	7.02	18.7	2.23	2.71	28.74	1.12	12	-1	
35.02	1219	32.5	7.01	18.7	1.42	2.23	29.03	1.12	12	-43	
35.03	1224	45	6.99	18.7	1.17	2.07	29.04	1.12	12	-46	
35.04	1229	57.5	6.98	18.7	1.45	1.96	29.11	1.12	12	-40	
35.05	1234	70	6.97	18.7	1.15	1.90	29.11	1.11	12	-37	
35.06	1239	82.5	6.97	18.8	1.04	1.85	29.11	1.12	12	-33	
35.08	1244	95	6.96	18.8	0.97	1.82	29.12	1.12	12	-31	
35.10	1249	107.5	6.96	18.8	1.26	1.78	29.14	1.12	12	-30	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?						NA					

Sample Time 1250 Sample Location: pump tubing X well port spigot bailer other

Comments: . . .

Initial Depth to Water (ft BTOC): 33.35

WD (Well Depth - from table) ft btc (223)

SWH (Standing Water Height) = WD-Initial Depth 189.65

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 32.24

Three Casing Volumes = 96.7

Colors: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC		Steel Casing			WATER LEVEL METER SERIAL NUMBER: see previous		
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW				
1202	33.35	1313	33.5				
Comments:							

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-5-05						
Field Team	2	Field Conditions	Sunny 70's	Page	67	of	7				
Well/Sample Number	MW-34-055-081			QC Sample ID	NA	QC Sample Time	—				
Purge Start Time	1304			Purge Method	Grundfos	Ded. Pump	40 yes				
Flow Cell	✓	N		Min. Purge Volume (gal)/(L)	98	Purge Rate (gpm)/(mLpm)	3				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
7.12	1309	15	6.88	8.83	1.69	3.71	22.11	0.49	5.5	-81	
7.14	1314	30	6.90	8.73	1.42	2.37	22.13	0.48	5.5	-98	
7.15	1319	45	6.85	8.72	1.42	2.30	22.16	0.48	5.5	-99	
7.19	1324	60	6.84	8.68	1.35	2.53	22.15	0.48	5.5	-94	
7.22	1329	75	6.83	8.65	1.13	1.85	21.92	0.48	5.4	-94	
7.26	1334	90	6.83	8.62	1.06	1.72	21.92	0.48	5.4	-94	
7.26	1339	105	6.83	8.61	0.99	1.69	21.94	0.47	5.4	-93	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?							NA				

Sample Time 1342 Sample Location: pump tubing X well port spigot bailer other

Comments: Well recirculated for 10 min after sampling

Initial Depth to Water (ft BTOC): 6.90 6.80

WD (Well Depth - from table) ft btc (56) 4.77

SWH (Standing Water Height) = WD-Initial Depth 4.92

D (Volume as per diameter) 2"=0.114"= 0.66 "=0.04 (4 in) 8.25

One Casing Volume = D*SWH 32.47

Three Casing Volumes = 97.4

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer
Time	Initial DTW	Time	Final DTW	Time of Removal
1000	6.92	1405	7.09	1202 —
				Time of Reinstallation

Comments: 6.80

(303)

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-5-05						
Field Team	2	Field Conditions	Sunny 70's	Page	6 of 7						
Well/Sample Number	MW-34-080-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1409			Purge Method	Grounds	Ded. Pump	yes				
Flow Cell	②	/ N		Min. Purge Volume (gal/L)	15.3	Purge Rate (gpm)/(mLpm)	3				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
10.30	1415	30	6.67	12.8	1.42	3.43	21.70	0.74	.8	-112	Initial purge rate
10.33	1425	60	6.61	13.6	2.56	4.29	22.31	0.79	8	-84	73 gpm slowed
10.38	1435	90	6.60	13.7	1.95	3.15	22.33	0.79	9	-68	+3 at 30 gal
10.41	1445	120	6.61	13.7	1.31	1.79	22.34	0.79	9	-63	
10.41	1455	150	6.67	13.8	1.40	2.21	22.34	0.79	9	-58	
	.					2.21					
	.										
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 1500 Sample Location: pump tubing ~~X~~ well port spigot bailer other

Comments:

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Initial Depth to Water (ft BTOC): 1.03

WD (Well Depth - from table) ft btc (84)

SWH (Standing Water Height) = WD-Initial Depth 76.97

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)

$$^1 \text{One Casing Volume} = D^*SWH$$

Three Casing Volumes = 152.4

Three Casting Volumes

Color: clear, grey / yellow / brown, black, cloudy, green

Measure Point: Well Tool Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer			
		Approx. 5 min After Reinstallation		Time of Removal	—
Time	Initial DTW	Time	Final DTW	Time of Reinstallation	
1300	7.03	1515	753		—

Comments

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-5-05						
Field Team	2	Field Conditions	Windy, Scary 70's								
Well/Sample Number	MW-34-100-081			QC Sample ID	MW - 73	QC Sample Time	1200				
Purge Start Time	1204			Purge Method	Grunefos	Ded. Pump	No				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	57	Purge Rate (gpm) (mLpm)	2				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
7.93	1209	10	6.97	15.3	7.40	4.61	23.15	0.89	9	-104	
7.95	1214	20	6.96	15.8	2.21	2.59	23.96	0.93	10	-29	
7.98	1219	30	6.94	15.9	2.79	2.24	24.01	0.73	10	-20	
7.99	1224	40	6.92	15.9	1.32	2.06	24.64	0.93	10	-16	
8.00	1229	50	6.90	15.9	1.11	1.98	24.01	0.93	10	-15	
8.01	1234	60	6.89	15.9	1.11	1.91	24.02	0.94	10	-13	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?							NA				

Sample Time 1237 Sample Location: pump tubing X well port spigot baller other

Comments: Recirculated well for 10 min.

Initial Depth to Water (ft BTOC): 6.90

WD (Well Depth - from table) ft btc (117) ~~117~~

SWH (Standing Water Height) = WD-Initial Depth 110.1

D (Volume as per diameter) $2'' = 0.174'' = 0.66$, $1'' = 0.04$ (2 in)

One Casing Volume = D*SWH 18.7

Three Casing Volumes = 56.2

Color: clear, grey, yellow, brown, black, cloudy, green

Slt yellow tinge

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: PGE 2005-01

Initial DTW / Before Removal		Reinst If Transducer	
Time	Initial DTW	Time	Final DTW
1208	6.90	1302	7.03
Comments:			

Odor: none sulphur, organic, other

~~Slt sulphur~~
Slt sulphur

Solids: Trace Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name Job Number Field Team	PGE Topock GMP 328225.GM.02.00 2		Sampling Event Date Page	2005-GMP-081-Q3 10/7/05 of _____							
Well/Sample Number	MW-35-060-081		QC Sample ID	NA	QC Sample Time						
Purge Start Time	1310		Purge Method	3CV	Ded. Pump No						
Flow Cell: Y / N			Min. Purge Volume (gal)/(L)	16	Purge Rate (gpm)/(mL.pm)						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
29.80	1312	2	6.63	7.90	8.63	5.16	32.78	0.4	5.0	18	
29.84	1314	4	7.54	7.59	4.79	3.09	29.04	0.4	4.8	7	
29.84	1316	6	7.52	7.62	4.78	2.50	28.52	0.4	4.8	5	
29.85	1318	8	7.51	7.62	2.14	2.27	28.08	0.4	4.8	3	
29.85	1320	10	7.50	7.61	1.63	2.13	28.02	0.4	4.8	1	
29.84	1322	12	7.49	7.61	0.59	2.05	27.99	0.4	4.8	1	
29.84	1324	14	7.49	7.59	1.44	1.95	28.00	0.4	4.8	0	
29.85	1326	16	7.49	7.56	0.68	1.90	27.98	0.4	4.7	-1	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 1330 Sample Location: pump tubing well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 29.35

WD (Well Depth - from table) ft btc (60)

SWH (Standing Water Height) = WD-Initial Depth 30.65

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in) 0.17

One Casing Volume = D*SWH 6.21

Three Casing Volumes = 18.6

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1256	29.35	1342	29.41
Comments: 1347			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00			Date	10/7/05							
Field Team	2 Field Conditions			Page	of							
Well/Sample Number	MW-35-135-081			QC Sample ID	NA	QC Sample Time						
Purge Start Time	1215			Purge Method	3CV	Ded. Pump	No					
Flow Cell	Y	I	N	Min. Purge Volume (gal)/(L)	67	Purge Rate (gpm)/(mLpm)	3					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
31.10	1218	9	7.57	11.4	0.40	2.33	28.20	0.6	7	-92		
31.11	1221	18	7.66	11.3	0.52	1.92	28.16	0.6	7	-78		
31.12	1224	27	7.71	11.0	0.41	1.70	28.13	0.6	7	-70		
31.13	1227	36	7.73	11.0	0.29	1.50	28.17	0.6	7	-63		
31.13	1230	45	7.74	10.9	0.23	1.43	28.17	0.6	7	-60		
31.15	1233	54	7.74	10.9	0.13	1.37	28.20	0.6	7	-57		
31.15	1236	63	7.75	10.8	0.34	1.29	28.17	0.6	7	-55		
				+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria												
Did Parameters Stabilize prior to sampling?							NA					
Are measurements consistent with previous?							NA					

Sample Time _____ Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 12.06 28.98

WD (Well Depth - from table) ft btc (159)

SWH (Standing Water Height) = WD-Initial Depth 130.05D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in) 0.17One Casing Volume = D*SWH 22.11Three Casing Volumes = 66.32

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Approx. 5 min After Reinstallation		Time of Removal <u>1207</u>	
Time	Initial DTW	Time	Final DTW
<u>1206</u>	<u>28.98</u>	<u>1300</u>	<u>29.00</u>
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-3-05						
Field Team	3	Field Conditions	Sunny 90's	Page	of						
Well/Sample Number	MW-36-020-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1250			Purge Method	peristaltic	Ded. Pump					
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	1.0	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
1252			7.37	13.2	2.75	8.89	27.29	0.76	8	-143	
1254			7.39	13.4	4.79	3.78	26.59	0.77	8	-157	
1256	1256		7.41	13.1	2.01	3.25	26.68	0.75	8	-162	
1258	1258	3.5	7.42	13.0	2.10	3.02	26.68	0.74	8	-165	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 1300 Sample Location: pump tubing well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 15.86
 WD (Well Depth - from table) ft btc (23)
 SWH (Standing Water Height) = WD-Initial Depth 7.14
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (1 in) .04
 One Casing Volume = D*SWH 0.29
 Three Casing Volumes = 0.86

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

After		Before		If Transducer	
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	1242
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 1324	
1248	15.86	1312	14.96		
Comments: 14.86					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10-3-05					
Field Team	3	Field Conditions	Sunny 90				Page	of			
Well/Sample Number	MW-36-040-081				QC Sample ID	NA		QC Sample Time			
Purge Start Time					Purge Method	Ded. Pump					
Flow Cell: Y / N					Min. Purge Volume (gal)/(L)	3.35	Purge Rate (gpm)/(mLpm)				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1130	0.5	7.30	11.3	4.97	9.52	25.87	0.64	7	-145	
	1132	2.5	7.25	11.2	2.15	4.54	25.72	0.63	7	-155	
	1134	2.5	7.28	11.1	3.86	3.98	25.76	0.63	7	-160	
	1136	3.5	7.28	10.8	2.08	3.79	25.72	0.63	7	-162	
		✓	✓	✓	✓	✓	✓	✓	—	—	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?							NA				

Sample Time 1140 Sample Location: pump tubing well port spigot baller other

Comments:

Initial Depth to Water (ft BTOC): 15.06

WD (Well Depth - from table) ft btc (43)

SWH (Standing Water Height) = WD-Initial Depth 27.94

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (1 in) .04

One Casing Volume = D*SWH 1.12

Three Casing Volumes = 3.35

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		After		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
1125	15.06	1146	15.10		
Comments:	Final WL reading taken before transducer install.				

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

* WL probe will not fit in 1" well w/o transducer cable for after install reading.

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-3-2005						
Field Team	3	Field Conditions	Sunny Hot 90's			Page	of				
Well/Sample Number	MW-36-050-081			QC Sample ID	NA	—	QC Sample Time	—			
Purge Start Time	1334			Purge Method	peristaltic	Ded. Pump					
Flow Cell:	②	N	Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)							
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1338	—	7.70	7.64	—	6.79	26.98	0.42	4.8	-142	
	1340	0.5	7.60	7.62	15.4	4.31	26.49	0.42	4.8	-137	
	1342	1.5	7.54	7.57	3.74	3.62	26.46	0.41	4.8	-133	
	1344	2.5	7.50	7.54	7.58	3.07	26.46	0.41	4.6	-133	
	1346	3.5	7.48	7.43	6.11	2.93	26.30	0.40	4.6	-132	
	1348	4.5	7.46	7.36	4.11	2.86	26.23	0.40	4.7	-133	
	1350	5.5	7.45	7.50	4.08	2.87	—	—	—	—	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 1355 Sample Location: pump tubing X well port spigot bailer other

Comments: _____

Initial Depth to Water (ft BTOC): NA ~15'

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

WD (Well Depth - from table) ft btc (53)

SWH (Standing Water Height) = WD-Initial Depth 38

D (Volume as per diameter) 2" = 0.17, 4" = 0.66, 1" = 0.04 (1 in)

One Casing Volume = D*SWH 1.52

Three Casing Volumes = 4.56

Color: clear, grey, yellow, brown, black, cloudy, green

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer
Time	Initial DTW	Time	Final DTW	Time of Removal
NA	—	—	—	NA NA
Comments: Transducer bolted in place. Could not remove with tools available.				

Odor: none, sulphur, organic, other Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand
remove with tools available.

Project Name	PGE Topock GMP.			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-3-05						
Field Team	3	Field Conditions	Sunny 90°	Page	1	of					
Well/Sample Number	MW-36-070-081			QC Sample ID	NA	QC Sample Time	NT				
Purge Start Time	1200			Purge Method	Peri.	Ded. Pump	Tubing				
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	7	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1203	0.5	7.72	8.07	20.4	5.10	27.97	0.44	5.0	-127	
	1205	1	7.49	7.67	20.4	3.09	25.91	0.42	4.8	-121	
	1207	2	7.40	7.69	20.4	2.89	25.98	0.42	4.8	-112	
	1209	3	7.39	7.54	27.1	2.75	25.84	0.42	4.8	-112	
	1211	4	7.38	7.57	27.5	2.68	25.84	0.41	4.8	-112	
	1213	5	7.38	7.6	30.3	2.69	25.85	0.41	4.8	-112	
	1215	6	7.37	7.68	4.51	2.54	26.12	0.42	4.8	-112	
	1217	7	✓	✓	1.98	✓	—	✓	✓	✓	
	1219	8			2.75						
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?							NA				

Sample Time 1225 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 14.78
 WD (Well Depth - from table) ft btc (73) 58.22
 SWH (Standing Water Height) = WD-Initial Depth
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 (1 in) 2.33
 One Casing Volume = D*SWH
 Three Casing Volumes = 7

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: _____		
After Initial DTW / Before Removal		Before If Transducer		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
1159	14.78	—	—	1156
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/3/05						
Field Team	3	Field Conditions	Sunny, Not	Page	1 of 1						
Well/Sample Number	MW-36-090-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1023			Purge Method	Peristaltic Dred. Pump Tubing						
Flow Cell	<input checked="" type="radio"/> Y	N		Min. Purge Volume (gal)/(L)	43	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
1028	2.0	6.76	12.2	8.61	11.04	25.78	0.20	8	203		
1038	4.0	7.00	12.8	0.34	4.79	25.60	0.73	8	191		
1042	5.0	7.07	12.4	20.8	4.18	25.61	0.71	8	185		
1046	6.0	7.09	12.3	4.21	3.95	25.54	0.70	8	183		
1050	7.0	7.10	12.2	1.45	3.88	25.50	0.68	7	181		
1054	8.0	7.12	12.1	0.81	3.82	25.62	0.70	8	179		
1058	9.0	7.14	12.8	1.98	3.58	25.62	0.73	8	176		
1102	10.0	7.15	12.7	1.36	3.44	25.66	0.73	8	174		
		~	~	~	~	~	~	~	~		
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Are measurements consistent with previous?							NA				

Sample Time 1105 Sample Location: pump tubing well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 9.25

WD (Well Depth - from table) ft btc (93)

SWH (Standing Water Height) = WD-Initial Depth 83.25

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (1 in) 1.04

One Casing Volume = D*SWH 14.24 3.35

Three Casing Volumes = 42.7 10

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: _____			
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW		
10/3/05 11:17	9.25	10/3/05 11:21	15.65		
Comments: Final wt after reinsertion					

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-5-05						
Field Team	2	Field Conditions	Windy / 70's	Page	4	of	7				
Well/Sample Number	MW-36-100-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1103			Purge Method	Grav/Flow	Ded. Pump	yes				
Flow Cell:	N	Min. Purge Volume (gal)/(L)	49	Purge Rate(gpm)/(mLpm)	6						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
-	1104	6	-	-	-	-	-	-	-	-	
24.51	1105	12	6.64	16.1	2.61	6.57	25.37	0.95	10	41	
24.40	1106	18	6.67	16.6	20.4	3.66	26.60	0.98	10	24	
	1107	24	6.67	16.6	38.0	3.19	26.64	0.98	10	13	
24.40	1108	30	6.67	16.6	21.2	3.07	25.64	0.98	10	9	
24.41	1109	36	6.66	16.5	6.98	2.85	26.63	0.97	10	4	
24.42	1110	42	6.66	16.5	3.67	2.71	25.65	0.97	10	4	
24.42	1111	48	6.66	16.5	4.12	2.80	25.70	0.97	10	4	
24.42	1112	54	6.66	16.5	3.79	2.78	25.70	0.97	10	4	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 1114 Sample Location: pump tubing X well port spigot bailer other

Comments: recirculate for 10 minutes → final DTW

Initial Depth to Water (ft BTOC): 15.35

WD (Well Depth - from table) ft btc (110)

SWH (Standing Water Height) = WD-Initial Depth 94.65

D (Volume as per diameter) 2"= 0.174"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 16.09

Three Casing Volumes = 48.2

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well T00 Steel Casing WATER LEVEL METER SERIAL NUMBER: NCE 2005-001

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
1057	15.35	1150	1535	—
Comments:				

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00			Date	10/4/05							
Field Team	1	Field Conditions	Sunny, hot	Page	1	of						
Well/Sample Number	MW-38D-081			QC Sample ID	NA			QC Sample Time				
Purge Start Time	1255 7			Purge Method	grundfos			Ded. Pump	N			
Flow Cell Y / N				Min. Purge Volume (gal)/(L)	100 gal			Purge Rate (gpm)/(mLpm)	4 gpm			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
32.17	1255	0 - 4	11.13	12.4	1.58	3.80	30.07	0.7	8	-86	clear, no odor	
33.2	1259	20	10.05	13.9	1.82	4.20	29.69	0.8	9	-48	"	
33.2	1302	36	8.84	14.7	1.48	3.91	30.27	0.9	9	-12	"	
33.2	1305	52	8.40	15.0	1.28	4.04	30.51	0.9	9	-1	"	
33.2	1308	68	8.22	14.8	0.88	4.16	30.54	0.9	9	1	"	
33.2	1311	84	8.14	14.7	1.27	3.92	30.54	0.9	9	1	"	
33.2	1314	100	8.09	15.1	1.63	2.76	30.46	0.9	9	4	"	
Parameter Stabilization Criteria				+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?				Y	Y	Y		NA	Y	Y	Y	
Are measurements consistent with previous?								NA				

Sample Time 1315 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 31.25

WD (Well Depth - from table) ft btc 194 227

SWH (Standing Water Height) = WD-Initial Depth 195.75

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 33.28

Three Casing Volumes = 100 gal

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: 101-300-PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1245	31.25	31.7	33.2
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	1	Field Conditions <i>Sunny, hot</i>			Page	1	of _____				
Well/Sample Number	MW-35S-081			QC Sample ID	NA	QC Sample Time _____					
Purge Start Time	<i>1335</i>			Purge Method	<i>grundfos</i>	Ded. Pump	<i>N</i>				
Flow Cell Y / N				Min. Purge Volume (gal)/(L)	<i>29 gal</i>	Purge Rate (gpm)/(mLpm)	<i>2 gpm</i>				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
31.35	1336	4	8.06	4.16	2.42	6.96	30.78	0.2	2.2	12	<i>slightly yellow</i>
31.35	1338	8	8.24	4.54	1.17	5.43	29.47	0.2	3.0	-9	"
31.36	1340	12	8.13	4.67	0.88	3.89	29.27	0.2	3.0	-27	"
31.35	1342	16	8.07	4.54	0.80	3.17	29.23	0.2	2.9	-39	"
31.35	1344	20	8.02	4.43	0.88	3.21	29.24	0.2	2.8	-43	"
31.35	1346	24	8.00	4.45	0.70	3.16	29.23	0.2	2.9	-47	"
31.35	1348	28	7.99	4.47	0.81	3.06	29.28	0.2	2.9	-40	"
31.35	1350	32	7.98	4.46	1.02	3.01	29.28	0.2	2.9	-33	"
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time *1350* Sample Location: pump tubing *X* well port _____ spigot _____ bailer _____ other _____Comments: *Duplicate sample MW-94-081 @ 1355*Initial Depth to Water (ft BTOC): *31.0*WD (Well Depth - from table) ft btc *98.87*SWH (Standing Water Height) = WD-Initial Depth *57*

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH *9.52*Three Casing Volumes = *28.56*

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: *101.300. PG*

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
<i>1243</i>	<i>31.0</i>	<i>1352</i>	<i>31.35</i>
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-7-05						
Field Team	1	Field Conditions	Sunny, cool 60's								
Well/Sample Number	MW-38D-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	0852			Purge Method	ground flow	Ded. Pump	NO				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	62	Purge Rate (ml)/(ml.ppm)	3				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
71.480855	9	6.64	20.3	0.98	1.75	29.22	1.2	13	133		
71.51	0858	18	6.89	25.4	0.68	1.13	30.04	1.6	16	117	
71.51	085901	27	7.17	25.5	0.70	0.93	30.27	1.6	16	95	
71.51	0904	36	7.39	25.4	0.37	0.92	30.31	1.6	16	77	
71.51	0907	45	7.54	25.3	0.44	0.95	30.39	1.6	16	62	
71.51	0910	54	7.63	25.9	0.37	0.99	30.36	1.6	16	53	
71.51	0913	63	7.64	25.7	0.17	1.02	30.37	1.6	16	41	
71.51	0916	72	7.77	25.6	0.29	1.05	30.41	1.6	16	17	
71.51	0919	81	7.82	25.7	0.63	1.07	30.47	1.6	16	-2	
After 4 vol purge pH + ORP would not stabilize. Possible injection zone, sampled after 4 vol purged.											
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			NO	✓	✓	NA	-	-	NO	zone, sampled after 4 vol purged.	
Are measurements consistent with previous?						NA					

Sample Time 0918 Sample Location: pump tubing X well port spigot bailer other

Comments: 0920 Equipment blank collected for at 0930 Total purged - 90 gal.

EB-100705-081

Initial Depth to Water (ft BTOC): 70.45 Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101300

WD (Well Depth - from table) ft btc (191) 120.55 If Transducer

SWH (Standing Water Height) = WD-Initial Depth

D (Volume as per diameter) 2"=0.174"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 70.45 0923 71.51

Three Casing Volumes = 61.98

Color: clear, grey, yellow, brown, black, cloudy, green Odor: none, sulphur, organic, other Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-7-05						
Field Team	1	Field Conditions	Sunny 70's	Page	1	of	1				
Well/Sample Number	MW-38S-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	0925			Purge Method	grundfos	Ded. Pump					
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	15	Purge Rate (gpm)/(mLpm)	1				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity ‰	TDS g/L	Eh/ORP mv	Comments (See description below)
72.27	0931	2	7.77	4.87	40.9	3.93	29.32	0.2	3.0	45	
71.48	0939	4	7.62	4.44	8.41	2.64	29.41	0.2	2.8	46	
71.50	0941	6	7.53	4.36	2.72	2.49	29.45	0.2	2.8	45	
71.50	0943	8	7.51	4.34	2.70	2.26	27.96	0.2	2.8	45	
71.50	0945	10	7.48	4.31	0.81	2.14	29.48	0.2	2.7	45	
71.50	0947	12	7.47	4.29	0.70	2.13	29.48	0.2	2.8	46	
71.50	0949	14	7.46	4.28	0.78	2.15	29.51	0.2	2.8	46	
71.50	0951	16	7.45	4.29	0.55	2.17	29.50	0.2	2.8	47	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 0952 Sample Location: pump tubing X well port spigot bailer other

Comments: 0952

18 gal purged

Initial Depth to Water (ft BTOC): 70.18

WD (Well Depth - from table) ft btc (98)

SWH (Standing Water Height) = WD-Initial Depth 27.82

D (Volume as per diameter) $2'' = 0.17, 4'' = 0.66, 1'' = 0.04$ (2 in)

One Casing Volume = D*SWH 4.73

Three Casing Volumes = 14.2

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101300

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0927	70.18	0954	71.50
Comments:			

Odor: none, sulphur, organic, other

Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	3	Field Conditions	Sunny, clear	Page	1	of	1				
Well/Sample Number	MW-39-040-081			QC Sample ID	NA	QC Sample Time	NA				
Purge Start Time	852			Purge Method	Densitetic	Ded. Pump	Tubing				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	3.42	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
854 ^{1/2}	854		7.10	5.77	1.83	2.95	26.5	0.3	3.7	-197	
856			7.29	5.73	0.57	2.89	26.5	0.3	3.7	-202	
858			7.37	5.69	0.54	2.87	26.5	0.3	3.7	-204	
900			7.40	5.65	0.55	2.87	26.5	0.3	3.7	-204	
902	3.5		7.41	5.64	0.76	2.87	26.5	0.3	3.7	-203	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 905 Sample Location: pump tubing ✓ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 1350

WD (Well Depth - from table) ft btc (42)

SWH (Standing Water Height) = WD-Initial Depth 28.5

D (Volume as per diameter)²= 0.17, 4"= 0.66, 1"=0.04 (1 in) 0.04

One Casing Volume = D*SWH 1.14

Three Casing Volumes = 3.42

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
840	1350	915	1356
Comments:			

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	3	Field Conditions	Sunny, Hot	Page	1 of 1						
Well/Sample Number	MW-39-050-081			QC Sample ID	NA	QC Sample Time	NA				
Purge Start Time	1116			Purge Method	3CV	Ded. Pump	Tubing				
Flow Cell	(Y) N			Min. Purge Volume (gal)/(L)	4.3	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
1118		7.38	12.8	2.21	3.88	27.2	0.7	8	-146		
1121		7.32	12.7	2.23	3.02	26.9	0.7	8	-147		
1124		7.31	12.6	1.17	2.97	26.9	0.7	8	-145		
1127		7.24	13.3	0.73	2.79	26.9	0.8	9	-119		
11301		7.23	13.4	0.29	2.73	27.0	0.7	9	-103		
1135		7.22	13.5	18.037	2.68	26.9	0.8	9	-94		
1139		7.22	13.5	0.32	2.63	27.0	0.8	9	-88		
1143		7.21	13.6	0.33	2.61	27.0	0.8	9	-82		
1145		7.21	13.6	0.35	2.59	26.9	0.8	9	-78		
Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV		
Did Parameters Stabilize prior to sampling?		/	/	/	/	NA	—	—	/		
Are measurements consistent with previous?						NA					

Sample Time 1150 Sample Location: pump tubing ✓ well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOS): 13.86

WD (Well Depth - from table) ft btc (50)

SWH (Standing Water Height) = WD-Initial Depth 36.14

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (1 in) .04

One Casing Volume = D*SWH 1.45

Three Casing Volumes = 4.3

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

After		Before		If Transducer	
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW		
1114	13.86	12.00	13.95		
Comments:					

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	3	Field Conditions			Page	1	of 1				
Well/Sample Number	MW-39-060-081			QC Sample ID	NA	QC Sample Time MA					
Purge Start Time	1208			Purge Method	3CV	Ded. Pump	Tubing				
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	6.25	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
1210			7.20	13.3	2.57	3.18	27.1	0.8	9	-107	
1214			7.11	13.9	2.36	2.81	27.1	0.8	9	-105	
1217			7.06	14.0	2.16	2.73	26.9	0.8	9	-70	
1220			7.05	14.0	7.41	2.32	27.0	0.8	9	-57	
1223 ⁴			7.04	14.0	5.59	2.32	27.0	0.8	9	-48	
1228 ⁸	4.0		7.04	14.0	4.24	2.25	27.0	0.8	9	-39	
1232			7.04	14.1	2.30	2.23	26.9	0.8	9	-29	
1236			7.05	13.8	1.82	2.17	26.9	0.8	9	-25	
1240			7.05	14.1	2.12	2.15	27.0	0.8	9	-20	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	—	
Are measurements consistent with previous?							NA				

Sample Time 1245 Sample Location: pump tubing ✓ well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 14.16

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

WD (Well Depth - from table) ft btc (66)

SWH (Standing Water Height) = WD-Initial Depth 51.84

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (1 in) 0.04

One Casing Volume = D*SWH 2.07

Three Casing Volumes = 6.22

Color: clear, grey, yellow, brown, black, cloudy, green

After		Before		If Transducer
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
1203	14.16	12.54	14.31	1255
Comments:				

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/6/04						
Field Team	3	Field Conditions	Sunny, Hot	Page	1	of	1				
Well/Sample Number	MW-39-070-081			QC Sample ID	NA	QC Sample Time	NA				
Purge Start Time	0924 0924			Purge Method	3CR	Ded. Pump	Tubing				
Flow Cell Y/N				Min. Purge Volume (gal)/(L)	7.0	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	0926		7.26	9.62	3.57	32.8	26.6	0.5	6.2	-13	
	0928		7.20	9.53	3.34	2.98	26.6	0.5	6.2	-7	
	0930		7.19	9.65	2.50	2.92	26.6	0.5	6.2	-3	
	0932		7.09	13.5	1.25	2.84	26.5	0.8	9	11	
	0934		7.06	13.6	0.96	2.83	26.5	0.8	9	16	
	0937		7.06	13.5	2.25	2.81	26.5	0.8	9	21	
	0940		7.06	13.6	2.50	2.78	26.6	0.8	9	24	
	0943		7.06	13.8	2.34	2.75	26.6	0.8	9	29	
	0946		7.05	13.8	2.81	2.72	26.6	0.8	9	31	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 0950 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 14.19

WD (Well Depth - from table) ft btc (72)

SWH (Standing Water Height) = WD-Initial Depth 57.81

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (1 in) 0.04

One Casing Volume = D*SWH 2.31

Three Casing Volumes = 6.99

Color: clear grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
921	14.19	958	14.28
Comments:			

Odor: none sulphur, organic, other

Solids: Trace Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	3	Field Conditions	Sunny, Hot	Page	1	of	1				
Well/Sample Number	MW-39-080-081			QC Sample ID	NA	QC Sample Time	NA				
Purge Start Time	10:06			Purge Method	3CV	Ded. Pump	Tubing				
Flow Cell:	O	I	N	Min. Purge Volume (gal)/(L)	8-25	Purge Rate (gpm)/(mLpm)					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1009 ¹⁴	1.0	7.07	14.4	0.94	2.84	27.1	0.8	9	66	
	1022	2.0	7.06	14.5	1.55	2.82	26.9	0.8	10	67	
	1030 ²⁷	3.0	7.07	15.2	0.43	2.81	26.9	0.9	10	68	
	1038 ³²	4.0	7.09	15.4	0.50	2.78	27.0	0.9	10	68	
	1046 ⁴²	5.0	7.09	15.6	0.37	2.80	27.0	0.9	10	75	
	1054 ⁴⁷	6.0	7.09	15.9	0.44	2.74	27.0	0.9	10	76	
	1052	10052	7.0	15.9	0.24	2.75	27.0	0.9	10	76	
	1057	10057	8.0	15.9	0.53	2.73	26.9	0.9	10	76	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	V	NA	-	-	Y	
Are measurements consistent with previous?							NA				

Sample Time 1100 Sample Location: pump tubing ✓ well port spigot bailer other

Comments: _____

Initial Depth to Water (ft BTOC): 14.23

WD (Well Depth - from table) ft btc (83)

SWH (Standing Water Height) = WD-Initial Depth 68.77

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (1 in) 0.04

One Casing Volume = D*SWH 2.75

Three Casing Volumes = 8.25

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		Before		If Transducer	
		Approx. 5 min After Reinstallation		Time of Removal	
Time	Initial DTW	Time	Final DTW	Time of Reinstallation	
1003	14.23	1109	14.36		
Comments: _____					

Odor: nohe, sulphur, organic, other

Solids: trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	2	Field Conditions	Sunny, clear 90°F	Page	7	of	8				
Well/Sample Number	MW-39-100-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1350			Purge Method	Grundfos	Ded. Pump	yes				
Flow Cell:	(Y)	N		Min. Purge Volume (gal)/(L)	52.64	Purge Rate (gpm)/(mLpm)	2.0				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
15.65	1355	10	7.81	14.9	119	3.61	27.26	0.37	9	39	Value to Horizon not opened
15.70	1400	20	7.51	16.2	9.84	3.04	26.98	0.95	10	59	
15.70	1405	30	7.43	16.2	6.78	2.75	26.88	0.95	10	60	
15.70	1410	40	7.34	16.2	5.22	2.48	26.85	0.95	10	66	
15.70	1415	50	7.31	16.1	3.23	2.37	26.84	0.95	10	70	
15.69	1420	60	7.29	15.9	2.36	2.32	26.84	0.93	10	73	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Are measurements consistent with previous?							NA	—	—		

Sample Time **5:22** Sample Location: **pump tubing** well port spigot bailed other

Comments: _____

Initial Depth to Water (ft BTOC): 19.7

WD (Well Depth - from table) ft btc (118)

SWH (Standing Water Height) = WD-Initial Depth 10' 5.21

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH

Three Casing Volumes = 52.64

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer		
Time	Initial DTW	Time	Final DTW	Time of Removal
—	—	—	—	Time of Reinstallation _____
Comments:				

Comments

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	1	Field Conditions	Sunny, cool	Page	1	of					
Well/Sample Number	MW-40D-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	0957			Purge Method	temp. recirculation	Ded. Pump	N				
Flow Cell	Y	I	N	Min. Purge Volume (gal)/(L)	79 gal	Purge Rate (gpm)/(mLpm)	3 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
112.90	0958	0-3	6.89	3.78	>100	4.54	24.8	0.2	2.5	96	cloudy, no smell
	1002	125	generator	generator	quit, had to restart						
113.10	1006	27	7.34	16.3	11	2.87	31.8	1.6	11	-97	clear, + no odor
113.09	1010	39	7.97	16.3	2.31	2.68	31.9	1.0	11	-74	clear, + no odor
113.09	1014	51	7.49	16.3	2.67	2.64	31.8	1.0	11	-70	"
113.09	1018	63	7.50	16.3	6.68	2.66	31.8	1.0	11	-61	"
113.10	1022	75	7.50	16.2	1.95	2.64	31.9	1.0	11	-64	"
113.10	1026	87	7.51	16.1	1.94	2.64	31.9	0.9	10	-60	"
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?						NA					

Sample Time 1030 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 110.90
 WD (Well Depth - from table) ft btc (266)
 SWH (Standing Water Height) = WD-Initial Depth 155.10
 D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)
 One Casing Volume = D*SWH 26.37
 Three Casing Volumes = 79.1

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: 161-300.PG			
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
0948	110.90	1030	113.09		
Comments:					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00			Date	10/5/05							
Field Team	1	Field Conditions	Sunny, windy									
Well/Sample Number	MW-40S-081			QC Sample ID	NA			QC Sample Time				
Purge Start Time	1048			Purge Method	temp. redi-flush ded. Pump			A				
Flow Cell: Y N				Min. Purge Volume (gal)/(L)	12 gal			Purge Rate (gpm)/(mLpm)	12 gpm			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
	56		45			5.67	29.1	0.8				
	1048		7.54	16.20		21.89	30.6	0.9				
110.80	1054	0-2	7.64	2.64	45.0	6.39	31.5	0.1	1.5	-5	cloudy, no odor	
110.7	1056	6	7.64	2.04	20.2	6.72	30.9	0.1	1.3	-1	"	
110.68	1057	8	7.64	2.00	10.9	6.69	31.2	0.1	1.3	3	"	
110.67	1058	10	7.64	1.98	6.74	6.74	31.0	0.1	1.3	5	clear, no odor	
110.66	1059	12	7.63	1.96	4.12	6.79	30.9	0.1	1.3	6	"	
110.66	1100	14	7.64	1.94	3.46	6.81	30.9	0.1	1.3	7	"	
Parameter Stabilization Criteria				+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?								NA				
Are measurements consistent with previous?								NA				

Sample Time 1105 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 110.3

WD (Well Depth - from table) ft btc (134)

SWH (Standing Water Height) = WD-Initial Depth 23.7

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 4.03

Three Casing Volumes = 12.09

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: 101.300. PG			
Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
1038	110.3	1105	110.66		
Comments:					
Odor: none, sulphur, organic, other					
Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand					

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	1	Field Conditions	Sunny, windy	Page	1	of					
Well/Sample Number	MW-41D-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1259			Purge Method	Temp. rediflo	Ded. Pump	N				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	147 gal	Purge Rate (gpm)/(mLpm)	3 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
25.86	1300	0-3	7.71	19.9	2.9	5.20	29.5	1.2	13	-210	organic smell, clear
25.90	1307	24	7.90	19.9	1.5	2.54	30.4	1.2	13	-270	sulphur smell, clear
25.90	1314	45	7.86	20.9	5.9	2.41	31.2	1.3	14	-255	"
25.70	1321	66	7.82	21.2	2.0	2.05	31.3	1.3	14	-240	"
25.70	1328	87	7.80	21.2	1.1	2.43	31.4	1.3	14	-233	"
25.90	1335	108	7.79	21.1	1.0	2.41	31.4	1.3	14	-229	low sulphur smell
25.90	1342	129	7.78	21.1	2.2	2.40	31.3	1.3	14	-226	"
25.90	1349	150	7.77	21.1	1.2	2.38	31.4	1.3	14	-225	"
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1350 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 24.55

WD (Well Depth - from table) ft btc (313)

SWH (Standing Water Height) = WD-Initial Depth 288.5

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 49.05

Three Casing Volumes = 147.14

Color clear grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300-PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1228	24.55	1350	25.90
Comments:			

Odor: none sulphur organic other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/15/05						
Field Team	1	Field Conditions	Sunny, hot, windy								
Well/Sample Number	MW-41M-081			QC Sample ID	NA		QC Sample Time				
Purge Start Time	1357			Purge Method	temp.-redi-flo Dred. Pump N						
Flow Cell:	Y	N		Min. Purge Volume (gal)/(L)	8.5 gal	Purge Rate (gpm)/(mLpm)	3 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
25.03	1358	6-3	7.71	14.9	1.6	4.86	29.7	0.9	10	-46	no smell, clear
25.08	1402	15	7.40	14.3	1.5	3.96	29.9	0.8	9	-39	"
25.09	1406	27	7.56	14.9	1.4	3.28	30.3	0.9	10	-50	"
25.09	1410	39	7.61	15.2	1.1	2.57	30.3	0.9	10	-71	"
26.08	1414	51	7.43	16.4	1.8	2.52	30.3	0.9	10	-78	"
26.08	1418	63	7.63	15.2	1.6	2.13	30.3	0.9	10	-83	"
25.08	1422	75	7.63	15.2	1.4	2.12	30.4	0.9	10	-85	"
25.08	1426	87	7.63	15.1	0.8	2.42	30.4	0.9	10	-85	"
	1430	97									
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?							NA				

Sample Time 1430 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 24.80

WD (Well Depth - from table) ft btc (192)

SWH (Standing Water Height) = WD-Initial Depth 167.6

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 28.49

Three Casing Volumes = 85.48

Color: clear grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: 101.300. PG

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1237	20.40	1430	25.08
Comments:			

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/15/05						
Field Team	1	Field Conditions	Sunny, windy	Page	1	of					
Well/Sample Number	MW-41S-081			QC Sample ID	NA		QC Sample Time				
Purge Start Time	1435			Purge Method	temp. recirc-flo	Ded. Pump	N				
Flow Cell	✓	N		Min. Purge Volume (gal)/(L)	19.1 gal	Purge Rate (gpm)/(mLpm)	3 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
24.90	1436	0-3	7.89	12.3	> 100	5.01	29.8	0.7	7	-27	no odor, clear
24.90	14387	6	7.89	9.0	65	4.61	29.5	0.3	3.9	-35	"
24.90	1438	9	7.87	5.61	34.5	4.63	29.5	0.3	3.4	-39	"
24.90	1439	12	7.86	5.07	12.8	4.26	29.5	0.3	3.3	-42	"
24.90	1440	15	7.85	4.89	7.4	3.46	29.5	0.3	3.1	-44	"
24.90	1441	18	7.84	4.71	6.4	3.46	29.5	0.2	3.1	-46	"
24.90	1442	21	7.84	4.66	5.7	3.29	29.5	0.2	3.0	-47	"
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			Y		Y	Y	NA	Y	Y	Y	
Are measurements consistent with previous?						NA					

Sample Time 1450 Sample Location: pump tubing X well port spigot bailer other

Comments: Collect duplicate MW-95-081 e 1500

Initial Depth to Water (ft BTOC): 24.58

WD (Well Depth - from table) ft btc (62)

SWH (Standing Water Height) = WD-Initial Depth 37.42

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 6.36

Three Casing Volumes = 19.1

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101.300.PG

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
1234	24.58	1455	24.90	

Comments:

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/7/05						
Field Team	2	Field Conditions	Sunny	Page	3	of					
Well/Sample Number	MW-42-030-081			QC Sample ID	NA		QC Sample Time				
Purge Start Time	0943			Purge Method	grundfos	Ded. Pump	N				
Flow Cell	O	/ N		Min. Purge Volume (gal)/(L)	12 gal	Purge Rate (gpm)/(mLpm)	2 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
10.05	0946	2	7.44	11.9	359	6.53	26.7	0.7	8	-137	
10.07	0947	4	7.32	12.7	376	3.60	26.4	0.8	9	-138	
10.08	0948	6	7.23	16.2	105	5.20	26.2	1.0	11	-133	
10.10	0949	8	7.20	16.5	91.1	3.59	26.2	1.0	11	-135	
10.10	0950	10	7.19	16.7	77.1	3.13	26.2	1.0	11	-136	
10.10	0951	12	7.19	16.7	67.1	2.98	26.2	1.0	11	-138	
10.11	0952	14	7.20	16.7	43.6	2.92	26.2	1.0	11	-139	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 0944 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 9.34

WD (Well Depth - from table) ft btc (32)

SWH (Standing Water Height) = WD-Initial Depth 22.66

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 3.75

Three Casing Volumes = 11.6

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: P6E-2005-01A

Initial DTW / Before Removal		If Transducer			
		Approx. 5 min After Reinstallation		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW		
0940	9.34	1012	8.944	0940	1007
Comments:					

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/17/05						
Field Team	2	Field Conditions	Sunny	Page	2	of					
Well/Sample Number	MW-42-055-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	0901			Purge Method	grundfos	Ded. Pump	N				
Flow Cell	Y	I	N	Min. Purge Volume (gal)/(L)	24901	Purge Rate (gpm)/(mLpm)	2 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
9.95	0903	4	7.13	13.3	10.1	7.32	25.7	0.8	9	-134	
9.97	0905	8	7.12	17.3	1.75	6.16	25.5	1.0	11	-147	
10.00	0906	10	7.13	18.1	1.47	6.00	25.5	1.1	12	-144	
9.99	0908	14	7.14	18.5	2.30	6.06	25.5	1.1	12	-137	
9.98	0910	168	7.14	18.4	1.99	6.45	25.5	1.1	12	-132	
9.98	0911	20	7.14	18.3	3.61	5.891	25.5	1.1	12	-130	
9.99	0913	24	7.14	18.2	4.62	5.85	25.6	1.1	12	-127	
..	0914	24	7.14	18.1	2.10	5.62	25.5	1.1	12	-126	
9.99	0914	24									
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	NA	Y	Y	Y		
Are measurements consistent with previous?						NA					

Sample Time 0915 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 9.32

WD (Well Depth - from table) ft btc (56)

SWH (Standing Water Height) = WD-Initial Depth 46.68

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 7.94

Three Casing Volumes = 23.8

Color: clear grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: PGE-2005-01A

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0858	9.32	0958	9.53
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/17/05						
Field Team	2	Field Conditions	Sunny	Page	1	of					
Well/Sample Number	MW-42-065-081			QC Sample ID	NA			QC Sample Time			
Purge Start Time	0829			Purge Method	grundfos	Ded. Pump	N				
Flow Cell	Y	N		Min. Purge Volume (gal)/(L)	36 gal	Purge Rate (gpm)/(mLpm)	3 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
9.75	0831	6	6.30	15.9	5	4.74	25.0	0.9	10	-150	
9.76	0833	12	6.73	16.4	43.80	3.26	25.4	1.0	11	-161	
9.76	0834	15	6.73	17.0	3.30	2.97	25.5	1.0	11	-139	
9.77	0835	18	6.75	17.1	2.27	2.86	25.6	1.0	11	-132	
9.75	0837	24	6.78	17.1	1.75	2.84	25.7	1.0	11	-127	
9.75	0839	30	6.79	17.3	2.95	2.85	25.7	1.0	11	-124	
9.76	0840	33	6.80	17.3	2.08	2.84	25.8	1.0	11	-123	
9.77	0841	36	6.81	17.3	2.71	2.85	25.8	1.0	11	-121	
Parameter Stabilization Criteria				+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV
Did Parameters Stabilize prior to sampling?				Y	Y	Y	Y	NA	Y	Y	Y
Are measurements consistent with previous?								NA			

Sample Time 0842 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 8.86

WD (Well Depth - from table) ft btc (80)

SWH (Standing Water Height) = WD-Initial Depth 71.14

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 12.09

Three Casing Volumes = 36.3

Color clear grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: PGE-2005-01A

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	0825
Time	Initial DTW	Time	Final DTW	Time of Reinstallation	
0824	8.86	0918	8.97		0858

Comments:

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	2	Field Conditions	Sunny (low 75°)	Page	3	of	8				
Well/Sample Number	MW-43-025-081			QC Sample ID	NA	QC Sample Time	—				
Purge Start Time	10:10			Purge Method	Ground	Ded. Pump	NB				
Flow Cell:	✓	/ N		Min. Purge Volume (gal/L)	9.74	Purge Rate (gpm)(mLpm)	1.0				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
8.30	10:12	2	7.25	12.9	22.6	2.71	23.55	0.24	2.1	-147	
8.32	10:14	4	7.72	1.34	96.0	2.33	22.01	0.06	0.8	-159	
8.35	10:16	6	7.62	1.28	52.7	2.41	21.71	0.06	0.8	-159	
8.35	10:18	8	7.54	1.25	24.7	2.01	21.49	0.06	0.8	-159	
8.31	10:20	10	7.50	1.22	8.02	1.95	21.42	0.06	0.8	-159	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓ N	✓ N	NA	—	—	✓	
Are measurements consistent with previous?							NA	—	—		

Sample Time 10:22 Sample Location: pump tubing X well port spigot bailer other

Comments: _____

PGE 2005-01B
C101552

PGE 2005-01B

Initial Depth to Water (ft BTOC): 7.90
WD (Well Depth - from table) ft btc (27)
SWH (Standing Water Height) = WD-Initial Depth 19.1
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)
One Casing Volume = D*SWH 3.25
Three Casing Volumes = 9.74

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE 2005-01B

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW		
0948	7.90	1031	8.00	0949	1026
Comments: _____					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/4/05						
Field Team	2	Field Conditions	Sunny, clear, 75°F	Page	2	of	8				
Well/Sample Number	MW-43-075-081			QC Sample ID	NA	QC Sample Time	—				
Purge Start Time	0928			Purge Method	Groundfog	Ded. Pump	N/A				
Flow Cell	Y	/ N		Min. Purge Volume (gal)/(L)	35.08	Purge Rate (gpm)/(mLpm)	3.0				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
8.90	0930	6	6.75	19.4	5.41	4.34	22.50	0.83	9	-98	
8.92	0932	12	7.10	12.7	1.47	3.10	21.64	0.72	8	-121	
8.93	0934	18	7.16	12.7	1.65	2.45	22.06	0.73	8	-121	
8.94	0936	24	7.18	12.7	1.30	2.38	22.07	0.73	8	-123	
8.94	0938	30	7.19	12.7	1.75	2.28	22.08	0.74	8	-125	
8.95	0940	36	7.20	12.9	1.23	2.27	22.09	0.74	8	-126	
		35									
		40									
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Are measurements consistent with previous?			Y	Y	Y	Y	NA	—	—	Y	

Sample Time 0942 Sample Location: pump tubing X well port spigot bailer other

Comments: _____

Initial Depth to Water (ft BTOC): 8.22

WD (Well Depth - from table) ft btc (77)

SWH (Standing Water Height) = WD-Initial Depth 68.78

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 11.69

Three Casing Volumes = 35.08

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TCC Steel Casing

WATER LEVEL METER SERIAL NUMBER: PGE 2005-018

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW		
0925	8.23	0925	8.30	0925	0945

Comments:

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

None

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/14/05						
Field Team	2	Field Conditions	Sunny, clear 75°	Page	1	of	8				
Well/Sample Number	MW-43-090-081			QC Sample ID	NA	QC Sample Time	—				
Purge Start Time	0900			Purge Method	Ground for	Ded. Pump	No				
Flow Cell(Y) / N				Min. Purge Volume (gal/L)	47.76	Purge Rate (gpm)/(mLpm)	3.0				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
10.33	0905	15	6.56	17.5	1.60	6.37	22.56	1.15	12	-92	
10.35	0910	30	6.66	18.9	1.31	5.60	22.69	1.13	12	-95	
10.37	0915	45	6.69	18.1	1.51	4.83	22.65	1.08	11	-79	
10.37	0920	60	6.70	18.4	1.45	4.85	22.65	0.96	11	-78	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	—	Y	NA	—	—	Y	
Are measurements consistent with previous?					—		NA	—	—		

Sample Time 0922 Sample Location: pump tubing X well port spigot baller other

Comments: _____

Initial Depth to Water (ft BTOC): 8.36

WD (Well Depth - from table) ft btc (102)

SWH (Standing Water Height) = WD-Initial Depth 93.64

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (2 in)

One Casing Volume = D*SWH 15.92

Three Casing Volumes = 47.76

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER:

Hach PGE 2005-01B

Horiba C101552

PGE 2005-01B

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	0852
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 0925	
0852	8.36	0932	8.60		
Comments: _____					

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-6-05						
Field Team	1	Field Conditions	Windy, clear 70's								
Well/Sample Number	OW-03D-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1123			Purge Method	Grundfus Ded. Pump (no) reci. Fl. 2						
Flow Cell Y N				Min. Purge Volume (gal/L)	88	Purge Rate (gal/minLpm)	3				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
103.46	1128	15	3.50	3.55	2.57	1.62	30.50	0.2	2.6	-178	
104.48	1133	30	7.69	8.01	0.36	1.46	30.91	0.4	5.1	-207	low Odor
103.47	1138	45	8.12	7.91	0.38	1.40	31.00	0.4	5.0	-199	U. silt odor
103.47	1143	60	8.20	8.06	0.40	1.34	31.05	0.4	5.1	-174	no odor
103.47	1148	75	8.23	7.93	0.37	1.32	31.11	0.4	5.0	-190	
103.47	1153	90	8.23	7.89	0.39	1.29	31.10	0.4	5.0	-178	
Parameter Stabilization Criteria				+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV
Did Parameters Stabilize prior to sampling?				C	C	C	C	NA	C	C	
Are measurements consistent with previous?								NA			

Sample Time 1155 Sample Location: pump tubing X well port spigot bailer other

Comments: 96 total gal purged | Equipment Blown EB-100605-081 at 1205

Initial Depth to Water (ft BTOC): 102.14
 WD (Well Depth - from table) ft btc (274)
 SWH (Standing Water Height) = WD-Initial Depth 171.86
~~D (Volume as per diameter) 2" = 0.174" = 0.66, 1" = 0.04 (2 in)~~
~~One Casing Volume = D*SWH 29.21~~
~~Three Casing Volumes = 87.6~~

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC		If Transducer			
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	
Time	Initial DTW	Time	Final DTW	Time of Reinstallation	
1112	102.14	1156	103.47		
Comments:					

Odor: none, sulphur, organic other
~~low / med~~

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-6-05						
Field Team	1	Field Conditions	Sunny, 80s, windy								
Well/Sample Number	OW-03M-081			QC Sample ID	NA	QC Sample Time	—				
Purge Start Time	12:11			Purge Method	Gusher redflow II Ded. Pump NO						
Flow Cell:	Y	I	N	Min. Purge Volume (gal/L)	51	Purge Rate (gpm)/(mLpm)	Z				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
102.81	1216	10	8.39	3.06	6.39	3.38	30.51	0.1	1.9	-91	U. low odor
102.82	1221	20	8.14	5.23	1.16	2.44	30.66	0.3	3.4	-86	
102.81	1226	30	8.16	5.42	0.58	2.96	30.68	0.3	3.4	-92	No od.
102.81	1231	40	8.17	5.49	0.48	1.91	30.69	0.3	3.5	-92	
102.81	1236	50	8.16	5.47	0.26	1.85	30.71	0.3	3.4	-90	
102.81	1241	60	8.16	5.44	0.22	1.82	30.66	0.3	3.4	-90	
102.81	1243	64	-	-	5.5 Taste						
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	—	
Are measurements consistent with previous?							NA				

Sample Time 1243 Sample Location: pump tubing X well port spigot bailer other

Comments: _____

Initial Depth to Water (ft BTOC): 102.48

WD (Well Depth - from table) ft btc (202)

SWH (Standing Water Height) = WD-Initial Depth

D (Volume as per diameter) $2'' = 0.17$, $4'' = 0.66$, $1'' = 0.04$ (2 in)

One Casing Volume = D*SWH

Three Casing Volumes = 50.75

Color: grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 101300

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
1206	102.48	1244	102.81
Comments: _____			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

U. s/t.

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10-6-05						
Field Team	1	Field Conditions <i>windy, clear</i>			Page	1 of 1					
Well/Sample Number	OW-03S-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time	1303			Purge Method	<i>ground gas red-flow H</i>	Ded. Pump	NO				
Flow Cels	1 N	Min. Purge Volume (gal)/(L)	9	Purge Rate (gpm)/(mLpm)	1						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
-	1304	1	8.04	2.31	264	7.93	30.61	0.1	1.4	-13.	
102.71	1305	2	7.93	2.14	149	7.82	30.22	0.1	1.3	-10	<i>Some suspended</i>
102.72	1306	3	7.89	2.09	67	7.65	30.21	0.1	1.3	-9	<i>particles in</i>
102.73	1307	4	7.88	2.07	38.1	7.55	30.20	0.1	1.3	-6	<i>purge water.</i>
102.74	1308	5	7.87	2.06	31.9	7.49	30.18	0.1	1.3	-5	
102.75	1309	6	7.86	2.06	13.6	7.45	30.17	0.1	1.3	-4	
102.75	1310	7	7.85	2.05	13.9	7.41	30.17	0.1	1.3	-10	<i>Cleared up.</i>
102.76	1311	8	7.84	2.03	7.4	7.37	30.13	0.1	1.3	-9	
102.77	1312	9	7.84	2.04	6.19	7.07	30.12	0.1	1.3	-9	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓		—	NA	—	—	—	
Are measurements consistent with previous?						NA					

Sample Time 1315 Sample Location: pump tubing X well port spigot bailer other

Comments: 12 gallons purged

Initial Depth to Water (ft BTOC): 102.18

WD (Well Depth - from table) ft btc (118)

SWH (Standing Water Height) = WD-Initial Depth 15.82

D (Volume as per diameter) $2^2 = 0.17$, $4^2 = 0.66$, $1^2 = 0.04$ (2 in)

One Casing Volume = D*SWH 2.69

Three Casing Volumes = 8.06

Measure Point: Well TOC Steel Casing		WATER LEVEL METER SERIAL NUMBER: 101300			
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	Time of Reinstallation
1253	102.50	1316	102.77		
Comments: 102.18					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/3/05					
Field Team	2	Field Conditions Sunny, clear 95°F				Page	1	of	1		
Well/Sample Number	PE-01				QC Sample ID	NA	QC Sample Time				
Purge Start Time	1050				Purge Method	Gravimeter	Ded. Pump	No			
Flow Cell Y/N					Min. Purge Volume (gal/L)	361	Purge Rate (gpm)/(mlpm)	33			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
19.03	1106	62580	7.33	10.0	2.12	1.19	25.50	0.6	6	-196	
19.04	1122	125100	7.36	10.5	1.19	0.87	25.66	0.6	7	-197	
19.07	1138	1825150	7.36	11.0	0.78	0.81	25.76	0.6	7	-198	
19.11	1154	250200	7.37	11.4	0.78	0.75	24.03	0.6	7	-200	
19.25	1210	3425250	7.37	11.5	0.81	0.74	26.2	0.6	7	-201	
19.36	1226	375300	7.37	11.6	0.85	0.77	26.10	0.7	7	-202	
	1242	350									
	1258	400									
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA			✓	
Are measurements consistent with previous?			✓				NA				

Sample Time 1230 Sample Location: pump tubing X well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 15.2

WD (Well Depth - from table) ft btc (97)

SWH (Standing Water Height) = WD-Initial Depth 81.8

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (6 in) 1.47

One Casing Volume = D*SWH 180.25

Three Casing Volumes = 20.75

Measure Point: Well TOC Steel Casing

WATER LEVEL METER SERIAL NUMBER: PGE 2005-01B

If Transducer

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal	10:58
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 12:46 PM	
10:49 AM	15.2	12:51 PM	15.55		

Comments:

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

None

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/12/05						
Field Team	1	Field Conditions			Page	1 of 1					
Well/Sample Number	PGE-06-081			QC Sample ID	NA	QC Sample Time	NA				
Purge Start Time	0700			Purge Method	3CV	Ded. Pump	CD				
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	1768 gal	Purge Rate (gpm)/(mLpm)	16 gpm				
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
109.10	0715	8240	8.88	4.24	2.6	.86	27.85	.3	3.9	322	Cloudy brown at start
109.30	0730	480	8.38	5.96	55.0	.88	27.54	.3	3.8	-160	Cleared quickly
109.15	0745	720	7.99	5.51		1.03	24.57	.3	3.4	-76	
109.15	0800	960	7.71	4.88	55.0	1.61	28.08	.3	3.1	-66	
109.27	0815	1200	7.53	4.46	55.0	1.28	28.57	.2	2.9	-53	
109.27	0830	1440	7.52	4.29	55.0	1.35	28.34	.2	2.7	-39	
109.25	0845	1680	7.48	4.27	132	1.56	28.14	.2	2.7	-25	
109.25	0849	1768	7.48	4.24	129	1.59	28.14	.2	2.7	-23	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?					N		NA	-	-	N	
Are measurements consistent with previous?							NA				

Sample Time 0850 Sample Location: pump tubing well port X spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 107.34

WD (Well Depth - from table) ft btc (181)

SWH (Standing Water Height) = WD-Initial Depth 73.66

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (14 in) 80

One Casing Volume = D*SWH 589.28 x 3

Three Casing Volumes = 1767.87

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: 2005-03

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
0653	10734	0857	107.67
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/13/05						
Field Team	1	Field Conditions			Page	of					
Well/Sample Number	PGE-07-081			QC Sample ID	NA						
Purge Start Time	1038			Purge Method	Ded. Pump						
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
											<p>Bump Pump was turned on @ 1038. Began pumping at 20+ gpm. After ~30 seconds the pump stopped working and a slow trickle of water was discharged. The trickle was used to fill sample bottles. No field parameters were collected.</p>
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time _____ Sample Location: _____ pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments:

Initial Depth to Water (ft BTOC):

WD (Well Depth - from table) ft btc (332)

SWH (Standing Water Height) = WD-Initial Depth

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (14 in)

¹ One Casing Volume = D*SWH

Three Casing Volumes =

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC **Steel Casing** **WATER LEVEL METER SERIAL NUMBER:** _____

Initial DTW / Before Removal		If Transducer			
		Approx. 5 min After Reinstallation		Time of Removal	Time of Reinstallation
Time	Initial DTW	Time	Final DTW		
1037	108.11				
Comments:					

Comments:

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3							
Job Number	328225.GM.02.00			Date	10/12/05							
Field Team	1	Field Conditions			Page	1 of 2						
Well/Sample Number PGE-08-081				QC Sample ID	NA	QC Sample Time						
Purge Start Time 1025				Purge Method	Ded. Pump							
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)	4						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)	
156.80	1030	70	9.50	19.3	1000	1.15	29.84	1.1	12	-263		
170.65	1115	180 200	8.96	19.6	99.9	1.34	31.56	1.2	12	-344		
171.00	1200	380	9.42	21.3	65.2	1.32	31.70	1.3	13	-350		
171.21	1245	560	8.37	22.3	32.4	1.08	31.90	1.4	14	-353		
165.00	1330	940	8.36	22.5	11.9	1.00	32.00	1.4	14	-356		
163.90	1415	1120	8.36	22.7	8.4	1.05	32.12	1.4	14	-357		
163.60	1500	1300	8.24	22.7	6.9 44m	0.94	32.09	1.4	14	-358		
Parameter Stabilization Criteria				+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?								NA				
Are measurements consistent with previous?								NA				

Sample Time _____ Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 146.65

WD (Well Depth - from table) ft btc (564)

SWH (Standing Water Height) = WD-Initial Depth 2.61 917

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (8 in) 2.61

One Casing Volume = D*SWH 1088.37

Three Casing Volumes = 3269.11

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Approx. 5 min After Reinstallation		Time of Removal	NA
Time	Initial DTW	Final DTW	Time of Reinstallation
1025	146.65		NA
Comments:			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/13/05						
Field Team	1	Field Conditions			Page	2 of 2					
Well/Sample Number	PGE-08-081			QC Sample ID	NA			QC Sample Time	NA		
Purge Start Time	745			Purge Method				Ded. Pump			
Flow Cell:	D1 N			Min. Purge Volume (gal)/(L)				Purge Rate (gpm)/(mLpm)			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
162.35	715	1480	8.53	22.4	4.9	0.92	29.84	1.1	14	-306	
					Purge rate = 20 gpm & 833						
181.66	837	1632	8.64	22.1	71.7	1.32	28.83	1.3	14	-257	
181.61	853	1952	8.65	21.5	11.7	1.02	30.40	1.3	13	-292	
187.59	909	2272	8.39	22.4	9.8	0.94	31.08	1.4	14	-315	
925	2592	8.30	22.3	6.6	0.99	31.44	1.3	14	-328		
941	2912	8.28	22.3	4.4	1.04	31.38	1.3	14	-335		
957	3232	8.26	22.3	3.8	1.08	31.50	1.4	14	-338		
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	✓	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 1000 Sample Location: pump tubing well port X spigot bailer other

Comments: Water on outside of pump piping makes all measurements off spec.

Initial Depth to Water (ft BTOC):

WD (Well Depth - from table) ft btc (564)

SWH (Standing Water Height) = WD-Initial Depth

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (8 in)

One Casing Volume = D*SWH

Three Casing Volumes =

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
Comments:			

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/11/05						
Field Team	1 Field Conditions			Page	1 of 1						
Well/Sample Number TW-01-081			QC Sample ID	NA	QC Sample Time NA						
Purge Start Time 1204			Purge Method	SCV	Ded. Pump	RF4					
Flow Cell: Y N			Min. Purge Volume (gal)/(L)	207	Purge Rate (gpm)/(mLpm)	8					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
	1206	8	7.44	6.57	8.22	1.98	28.47	0.4	4.1	153	
164.83	1210	416	7.37	9.38	10.4	4.42	30.18	0.5	5.7	151	
164.83	1214	7224	7.36	7.38	2.6	4.48	30.23	0.4	4.7	149	
164.83	1218	3104	7.32	7.19	2.7	4.86	30.18	0.4	4.5	149	
164.83	1222	136	7.31	7.17	3.1	4.88	30.21	0.4	4.5	149	
164.83	1226	168	7.30	7.15	3.3	4.85	30.28	0.5	4.5	148	
164.83	1230	200	7.30	7.14	4.0	4.87	30.30	0.4	4.5	148	
164.83	1234	232	7.30	7.12	4.3	4.90	30.39	0.4	4.5	148	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			✓	✓	—	✓	NA	—	—	✓	
Are measurements consistent with previous?							NA				

Sample Time 1240 Sample Location: pump tubing _____ well port X spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 164.53

WD (Well Depth - from table) ft btc (269)

SWH (Standing Water Height) = WD-Initial Depth 104.8647

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (5 in) .66

One Casing Volume = D*SWH 68.95

Three Casing Volumes = 206.85

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

		If Transducer	
Initial DTW / Before Removal		Approx. 5 min After Reinstallation	
Time	Initial DTW	Time	Final DTW
1143	164.53		
Comments:			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/7/05					
Field Team	1 Field Conditions				Page	1 of 1					
Well/Sample Number	TW-02-081 (TW-02S-081)		QC Sample ID	NA		QC Sample Time					
Purge Start Time	0900 - 0910		Purge Method	3CV		Ded. Pump	Yes				
Flow Cell	Y / N		Min. Purge Volume (gal)/(L)					Purge Rate (gpm)/(mLpm)	50		
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
											New well construction not allows reading of meters. Final reading collected in bucket. New port will be set up for future samples
0913	0913	150	6.24	3.32	1.7	8.57	22.10	0.17	2.1	204	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 0915 Sample Location: pump tubing _____ well port spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"= 0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
		Approx. 5 min After Reinstallation	
Time	Initial DTW	Time	Final DTW
Comments: _____			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	3	Field Conditions	Sunny, windy, warm								
Well/Sample Number	Park Moabi-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time				Purge Method	Ded. Pump						
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
0/A	1200	N/A	7.53	1.43	3.51	6.76	28.98	0.1	0.9	93	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?						NA					
Are measurements consistent with previous?						NA					

Sample Time 1200 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Approx. 5 min After Reinstallation		Time of Removal _____	
Time	Initial DTW	Time	Final DTW
Comments: _____			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	3	Field Conditions	SUNNY, WARM	Page	1	of 1					
Well/Sample Number	CON-081		QC Sample ID	NA	QC Sample Time	NA					
Purge Start Time	N/A		Purge Method	NA	Ded. Pump	NA					
Flow Cell: Y / N			Min. Purge Volume (gal)/(L)	—	Purge Rate (gpm)/(mLpm)	—					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
NA	11:40	NA	7.97	1.12	9.05	7.43	19.17	0.1	0.7	120 120 mV	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 11:40 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other GRAB

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH

Three Casing Volumes = _____

Color: clear, grey, yellow, brown, black, cloudy, green

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Approx. 5 min After Reinstallation		Time of Removal _____	
Time	Initial DTW	Time	Final DTW
Comments: _____			

Odor: none sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	<u>10/31/05</u>						
Field Team	3	Field Conditions			Page	1 of 1					
Well/Sample Number	I-3-081			QC Sample ID	NA	QC Sample Time			<u>NA</u>		
Purge Start Time	<u>NA</u>			Purge Method	<u>Grab</u>	Ded. Pump					
Flow Cell: Y / (N)				Min. Purge Volume (gal)/(L)	<u>NA</u>	Purge Rate (gpm)/(mLpm)			<u>NA</u>		
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
5.37	853	NA	7.18	1.10	2.16	8.87	18.49	0.0	0.7	125	
			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Parameter Stabilization Criteria											
Did Parameters Stabilize prior to sampling?						NA					
Are measurements consistent with previous?						NA					

Sample Time 900 Sample Location: pump tubing _____ well port _____ spigot _____ bailer other _____

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Approx. 5 min After Reinstallation		Time of Removal _____	
Time	Initial DTW	Time	Final DTW
Comments: _____			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/05/05						
Field Team	3	Field Conditions	windy, sunny, clear			Page	of				
Well/Sample Number	NR-1-081			QC Sample ID	NA		QC Sample Time				
Purge Start Time	N/A			Purge Method	D/A		Ded. Pump				
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
—	12:35	N/A	8.02	1.11	2.85	9.91	18.92	0.0	0.7	108	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 12:40 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other X GRAB

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Time	Initial DTW	Time	Final DTW
Comments: _____			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/05/05					
Field Team	3	Field Conditions <i>Windy, sunny, warm.</i>				Page	of _____				
Well/Sample Number	NR-2-081				QC Sample ID	NA	QC Sample Time _____				
Purge Start Time	<i>N/A</i>				Purge Method	Ded. Pump _____					
Flow Cell: Y / N					Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm) _____					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
<i>—</i>	<i>12:45</i>	<i>N/A</i>	<i>8.04</i>	<i>1.10</i>	<i>1.29</i>	<i>9.44</i>	<i>18.83</i>	<i>0.0</i>	<i>0.7</i>	<i>93</i>	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 1250 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other X grab _____

Comments: _____

Initial Depth to Water (ft BTOS): _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer			
		Approx. 5 min After Reinstallation		Time of Removal _____	
Time	Initial DTW	Time	Final DTW	Time of Reinstallation _____	
Comments: _____					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/05/05						
Field Team	3	Field Conditions	windy, sunny, warm.								
Well/Sample Number	NR-3-081			QC Sample ID	NA		QC Sample Time				
Purge Start Time	N/A			Purge Method	Ded. Pump						
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
-	0926	2/A	7.37	1.11		232	18.52	0.1	0.7	95	
-	1258	N/A	8.11	1.10	1.10	9.59	18.8	0.0	0.7	101	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 0930 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other X Grab Grab _____

Comments: 1300

Initial Depth to Water (ft BTOC): _____ Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer
Time	Initial DTW	Time	Final DTW	Time of Removal
				Time of Reinstallation
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	3	Field Conditions	SUNNY + WARM								
Well/Sample Number	R-22-081			QC Sample ID	NA	QC Sample Time					
Purge Start Time				Purge Method		Ded. Pump					
Flow Cell: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				Min. Purge Volume (gal)/(L)	Purge Rate (gpm)/(mLpm)						
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
-	0926	N/A	7.37	1.11	3.9	9.32	18.52	0.1	0.7	95	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 0930 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other X GRAB

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft btc _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
Approx. 5 min After Reinstallation		Time of Removal _____	
Time	Initial DTW	Time	Final DTW
Comments: _____			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP				Sampling Event	2005-GMP-081-Q3					
Job Number	328225.GM.02.00				Date	10/5/05					
Field Team	3	Field Conditions SUNNY, WARM				Page	1	of	1		
Well/Sample Number	R-27-081				QC Sample ID	NA	QC Sample Time NA				
Purge Start Time	NA				Purge Method	NA	Ded. Pump	NA			
Flow Cell: Y	N	Min. Purge Volume (gal)/(L) —				Purge Rate (gpm)/(mLpm) —					
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
NA	10:04	NA	7.65	1.12	2.45	9.50	19.34	0.1	0.7	92	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 10:05 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other GRAB

Comments: _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft bto _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer	
		Approx. 5 min After Reinstallation	
Time	Initial DTW	Time	Final DTW
Comments: _____			

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	3	Field Conditions SUNNY, WARM			Page	1 of 1					
Well/Sample Number	R-28-081			QC Sample ID	NA		QC Sample Time	NA			
Purge Start Time	NA			Purge Method	NA		Ded. Pump	NA			
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	—		Purge Rate (gpm)/(mLpm)	—			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
~	10:30	NA	7.84	1.11	2.23	9.78	18.8	20.0	0.7	95	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 10:30 Sample Location: pump tubing _____ well port _____ spigot _____ baller _____ other GRAB _____

Comments: 10:35 _____

Initial Depth to Water (ft BTOC): _____

WD (Well Depth - from table) ft bto _____

SWH (Standing Water Height) = WD-Initial Depth _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

One Casing Volume = D*SWH _____

Three Casing Volumes = _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer			
		Approx. 5 min After Reinstallation		Time of Removal _____	
Time	Initial DTW	Time	Final DTW	Time of Reinstallation _____	
Comments: _____					

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name	PGE Topock GMP			Sampling Event	2005-GMP-081-Q3						
Job Number	328225.GM.02.00			Date	10/5/05						
Field Team	3	Field Conditions <u>SUNNY, WARM</u>			Page	1 of 1					
Well/Sample Number	RRB-081			QC Sample ID	NA		QC Sample Time	NA			
Purge Start Time	NA			Purge Method	NA		Ded. Pump	NA			
Flow Cell: Y / N				Min. Purge Volume (gal)/(L)	—		Purge Rate (gpm)/(mLpm)	—			
Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below)
22.14'	10:59	NA	7.84	1.19	33.4	9.22	18.65	0.1	0.8	146 ¹⁴⁶	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?							NA				
Are measurements consistent with previous?							NA				

Sample Time 11:00 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other GRABComments: 11:25

Initial Depth to Water (ft BTOC): _____

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

WD (Well Depth - from table) ft btc _____

If Transducer

SWH (Standing Water Height) = WD-Initial Depth _____

Initial DTW / Before Removal

Approx. 5 min After Reinstallation

Time of Removal _____

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 _____

Time Initial DTW

Time Final DTW

Time of Reinstallation _____

One Casing Volume = D*SWH _____

Comments:

Three Casing Volumes = _____

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand



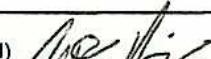
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CHAIN OF CUSTODY RECORD

COC Number

TURNAROUND TIME 10 ~~5~~ Days
DATE 10/3/05 PAGE OF

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/3/05PAGE 1 OF 1

COMPANY	CH2M HILL														COMMENTS	
PROJECT NAME	PG&E Topock															
PHONE	(510) 251-2888		FAX	(510) 622-7086												
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612															
P.O. NUMBER	328225.GM.02.00															
SAMPLERS (SIGNATURE)	<u>J. Bentz</u>															
SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (218.6) Lab Filtered	CR6 (71964) Lab Filtered	CR6 (7199) Lab Filtered	Diss Metals (6010B) Field Filtered	Total Metals (7470A) Field Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	NUMBER OF CONTAINERS				
MW-24A-081	10/3/05	1057	GW	X	X	X							X	X		3
MW-24B-081	10/3/05	1035	GW	X	X	X							X	X		3
MW-91-081	10/3/05	1130	GW	X	X	X							X	X		3
MW-11-081	10/3/05	1232	GW	X	X	X							X	X		4
MW-10-081	10/3/05	1255	GW	X	X	X							X	X		4
MW-09-081	10/3/05	1345	GW	X	X	X							X	X		3
MW-12-081	10/3/05		GW	X	X	X							X	X		4
MW-90-081	10/3/05		GW	X	X	X							X	X		4

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished) Bob Trewhile Printed Name Bob Trewhile Company/ Agency CH2M Hill Date/ 10/3/05 Time/ 15:30

SAMPLE CONDITIONS

RECEIVED COOL WARM °F _____

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time



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CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

DATE 10/3/65

10 Days

PAGE 1 OF 1

COMPANY	CH2M HILL			COMMENTS
PROJECT NAME	PG&E Topock			
PHONE	(510) 251-2888	FAX	(510) 622-7086	
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612			
P.O. NUMBER	328225.GM.02.00			
SAMPLERS (SIGNATURE)				
SAMPLE I.D.	DATE	TIME	DESCRIPTION	
PE - 01-81	10/3/05	12:30 PM	SW	X
PE - 01-81	10/3/05	12:34 PM	-	X
			CR6 (218.6) Lab Filtered	
			CR6 (71964) Lab Filtered	
			CR6 (7199) Lab Filtered	
			Diss Metals (6010B) Field Filtered Chromium	
			Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	
			Diss Metals (6010B) Field Filtered Cr Fe Mg K Na B	
			Diss Metals (6010B) Field Filtered Title 22	
			Diss Metals (7470A) Field Filtered Ca Mg K	
			Total Metals (200.7) Field Filtered	
			Specific Conductance (120.1)	
			pH (150.1)	
			TDS (160.1)	
			NUMBER OF CONTAINERS	32/193 88/3

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>Not Rely</i>	<i>North Bay</i>	<i>Crimson Hill</i>	<i>10/3/03 16:20</i>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley |kelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number
TURNAROUND TIME 10 Days
DATE 10/3/05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
	Matt Rijo	CH2m Hill	10/3/05 1520
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO.

SPECIAL REQUIREMENTS:

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/3/05

10 Days

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature *John B. Ringer* **Printed Name** *John B. Ringer* **Company/ Agency** *Cuzm Hill*
(Please print)

SAMPLE CONDITIONS
RECEIVED COOL WARM _____ °F

(Relinquished) Printed Company/
Signature Name Agency

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

(Relinquished) Name _____ Company/
Signature Printed Name _____ Agency _____

—
—

(Received)	Name	Agency
Signature	Printed	Company/ Agency

—
—

ZymaX envirotechnology, Inc.
71 Zaca Ln. San Luis Obispo, CA 93401
phone: (805) 781-3686 ext. 118
Stephanie Dollahite

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/5/05

PAGE 7 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)		Printed Name	Ruth Ringer	Company/ Agency	CH2M Hill	Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

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71 Zaca Ln. San Luis Obispo, CA 93401
phone: (805) 781-3686 ext. 118
Stephanie Dollahite

CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

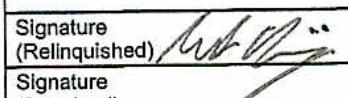
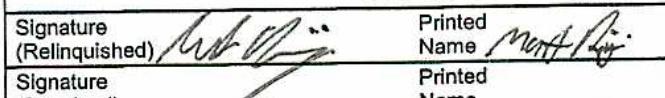
DATE 10/3/05

10 Days

PAGE 1 OF 1

COMPANY	CH2M HILL				COMMENTS
PROJECT NAME	PG&E Topock GWM				
PHONE	(510) 251-2888	FAX	(510) 622-7086		
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612				
P.O. NUMBER	328225.GM.02.00				
SAMPLERS (SIGNATURE)					
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Oxygen 18 & Deuterium (CF-IRMS)	NUMBER OF CONTAINERS
PE-01-81	10/3/05	12:30	ew	X	1
					TOTAL NUMBER OF CONTAINERS

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished) 	Printed Name <u>Stephanie</u>	Company/ Agency <u>CH2M HILL</u>	Date/ Time <u>10/3/05 12:30</u>
Signature (Received) 	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS		
RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>
°F		
CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>
SPECIAL REQUIREMENTS:		



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/4/05

10 Days

PAGE 1 OF 2

COMPANY	CH2M HILL											COMMENTS				
PROJECT NAME	PG&E Topock															
PHONE	(510) 251-2888	FAX	(510) 622-7086													
ADDRESS	155 Grand Ave Ste 1000															
P.O. NUMBER	328225.GM.02.00															
SAMPLERS (SIGNATURE)	<u>J. Buntin</u>															
SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (218.6) Lab Filtered	CR6 (71964) Lab Filtered	CR6 (7199) Lab Filtered	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	Total Metals (7470A) Field Filtered	Specific Conductance (200.7) Field Filtered	pH (150.1)	TDS (160.1)	NUMBER OF CONTAINERS			
MW-12-081	10/4/05	0915	GW	X			X	X	X	X	X			4		
MW-90-081	10/4/05	0920	GW	X			X	X	X	X	X			4		
MW-26-081	10/4/05	1035	GW	X	X		X			X	X	X		3		
MW-19-081	10/4/05	1100	GW	X	X					X	X			3		
MW-25-081	10/4/05	1130	GW	X				X	X	X	X			4		
MW-92-081	10/4/05	1140	GW	X				X	X	X	X			4		
MW-13-081	10/4/05	1225	GW		X	X				X	X			3		
EB-100405-081	10/4/05	1323	GW		X	X								2		
MW-37D-081	10/4/05	1315	GW	X			X	X	X	X				4		

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished) <u>R. McRee</u>	Printed Name <u>Bob McRee</u>	Company/ Agency <u>CH2M HILL</u>	Date/ Time <u>10/4/05 15:30</u>
Signature (Received) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>
Signature (Relinquished) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>
Signature (Received) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>
Signature (Relinquished) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>
Signature (Received) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>

SAMPLE CONDITIONS

RECEIVED COOL WARM °F CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/4/05

10 Days

PAGE 2 OF 2

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>Bob Treble</i>	<i>Bob Treble</i>	<i>Chemtill</i>	<i>10/4/05 5:30</i>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



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CHAIN OF CUSTODY RECORD

COC Number

TURNAROUND TIME
DATE 12/14/05

10 5 Days

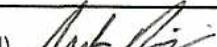
5 Days

~~5~~ Days

5 Days

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)		Printed Name	Matt Ringier	Company/ Agency	CWCM Hill	Date/ Time	10/6/05 1530
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time	
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time	
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

10

TURNAROUND TIME

5 Days

DATE 10/4/05PAGE 1 OF 1

COMPANY	CH2M HILL	PROJECT NAME	PG&E Topock	PHONE	(510) 251-2888	FAX	(510) 622-7086	ADDRESS	155 Grand Ave Ste 1000	Oakland, CA 94612	P.O. NUMBER	328225.GM.02.00	SAMPLERS (SIGNATURE)	<u>DDM</u>	COMMENTS
MW-43-090-081	10/4/05	0922	6W			X X								X X	3
MW-43-075-081		0940				X X								X X	3
MW-43-025-081		1022				X X								X X	3
MW-22-081		1127				X X								X X	3
MW-32-035-081		1235				X X								X X X	4
MW-32-020-081		1255				X X	X							X X X	4
MW-39-100-081		1422				X X	X							X X	4
MW-39-081	10	1508	▼			X X								X X	3
															27

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<u>John Dalluge</u>	<u>John Dalluge</u>	<u>CH2M Hill</u>	<u>10/4/05</u>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/4/05

10 Days

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>Reinell</i>	<i>Bob Tibbs</i>	<i>Ct 2 m (full</i>	<i>10/10/03 1530</i>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

Zymax envirotechnology, inc.
71 Zaca Ln. San Luis Obispo, CA 93401
phone: (805) 781-3686 ext. 118
Stephanie Dollahite

CHAIN OF CUSTODY RECORD

COC Number _____
TURNAROUND TIME 10 Days
DATE 10/4/05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD					SAMPLE CONDITIONS		
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	10/4/05 1530	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time		CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time		SPECIAL REQUIREMENTS:		
Signature (Received)	Printed Name	Company/ Agency	Date/ Time				
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time				
Signature (Received)	Printed Name	Company/ Agency	Date/ Time				

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number _____
TURNAROUND TIME 10 Days
DATE 10/4/05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

Zymax envirotechnology, inc.
71 Zaca Ln. San Luis Obispo, CA 93401
phone: (805) 781-3686 ext. 118
Stephanie Dollahite

CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/4/11

DATE 10/4/05 PAGE 1 OF 1

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)		Printed Name	John Dall'Orto	Company/. Agency	CHAM Hill	Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

10 Days

TURNAROUND TIME

DATE 10/5/05PAGE 1 OF 2

COMPANY	CH2M HILL											COMMENTS			
PROJECT NAME	PG&E Topock														
PHONE	(510) 251-2888	FAX	(510) 622-7086												
ADDRESS	155 Grand Ave Ste 1000														
P.O. NUMBER	328225.GM.02.00														
SAMPLERS (SIGNATURE)															
SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (218.6) Lab Filtered	CR6 (7198A) Lab Filtered	CR6 (7199) Lab Filtered	Diss Metals (6010B) Field Filtered	Diss Metals (6010B) Field Filtered Chromium	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	Diss Metals (5010B) Field Filtered Title 22	Total Metals (7470A) Field Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	NUMBER OF CONTAINERS
C0N-081	10/5/05	11:40	SW	X X							X X	X X		3	
i-3-081	10/5/05	9:00	SW	X X							X X	X X		3	
R-27-81	10/5/05	10:05	SW	X SUB X							X X X	X X X		3	
R-22-81	10/5/05	9:30	SW	X X							X X	X X		3	
R-28-81	10/5/05	10:35	SW	X X							X X X	X X X		3	
RRB-81	10/5/05	11:00	SW	X X							X X	X X		3	
PARK MOAB-81	10/5/05	12:00	SW	X X							X X	X X		3	
NR-1-081	10/5/05	12:40	SW	X X							X X	X X		3	
NR-2-081	10/5/05	12:50	SW	X X							X X	X X		3	

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)		Printed Name	Matt Thyngs	Company/ Agency	CH2M HILL	Date/ Time	10/5/05 1530
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time	
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time	
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	

SAMPLE CONDITIONS
RECEIVED COOL WARM °F
CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



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(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

PAGE 2 OF 2

COMPANY	CH2M HILL				COMMENTS
PROJECT NAME	PG&E Topock				
PHONE	(510) 251-2888		FAX	(510) 622-7086	
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612				
P.O. NUMBER	328225.GM.02.00				
SAMPLERS (SIGNATURE)					
SAMPLE I.D.	DATE	TIME	DESCRIPTION		
NR-3 - 031	10/5/05	13:00	SW	X	CR6 (218.6) Lab Filtered
				X	CR6 (7196A) Lab Filtered
				X	CR6 (7199) Lab Filtered
				X	Diss Metals (6010B) Field Filtered L-123
				X	Diss Metals (6010B) Field Filtered Chromium
				X	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B
				X	Diss Metals (5010B) Field Filtered Title 22 Na B Fe Mn
				X	Total Metals (7470A) Field Filtered
				X	Specific Conductance (200.7) Field Filtered Chromium
				X	pH (150.1)
				X	TDS (160.1)
					NUMBER OF CONTAINERS

CHAIN OF CUSTODY SIGNATURE RECORD

CHAIN OF CUSTODY FORM				
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	10/5/05 1530
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	
RECEIVED COOL <input type="checkbox"/> WARM <input type="checkbox"/> _____ °F				
CUSTODY SEALED YES <input type="checkbox"/> NO <input type="checkbox"/>				
SPECIAL REQUIREMENTS:				

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/5/05

PAGE 1 OF 1

COMPANY	CH2M HILL				NUMBER OF CONTAINERS										COMMENTS							
PROJECT NAME	PG&E Topock GWM																					
PHONE	(510) 251-2888	FAX	(510) 622-7086																			
ADDRESS	155 Grand Ave Ste 1000																					
P.O. NUMBER	Oakland, CA 94612																					
SAMPLERS (SIGNATURE)																						
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Alkalinity (310.1)	Atrions (300)	Bromide Chlorite Sulfate Nitrate	Ammonia (350.2)	Total Organic Carbon (415.2)	Silica (370.1)													
R-27-081	10/5/05	10:05	SW	X	X	X														2		
R-28-081	10/5/05	10:35	SW	X	X	X														2		

ZymaX envirotechnology, Inc.
71 Zaca Ln. San Luis Obispo, CA 93401
phone: (805) 781-3686 ext. 118
Stephanie Dollahite

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number _____
TURNAROUND TIME 10 Days
DATE 10/15/05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD					SAMPLE CONDITIONS				
Signature (Relinquished)	Printed Name	Company/ Agency	CH2M HILL	Date/ Time	10/5/05 1530	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>	°F _____
Signature (Received)	Printed Name	Company/ Agency		Date/ Time		CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>	
Signature (Relinquished)	Printed Name	Company/ Agency		Date/ Time		SPECIAL REQUIREMENTS:			
Signature (Received)	Printed Name	Company/ Agency		Date/ Time					
Signature (Relinquished)	Printed Name	Company/ Agency		Date/ Time					
Signature (Received)	Printed Name	Company/ Agency		Date/ Time					

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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

10 Days

TURNAROUND TIME

DATE 10/5/05

PAGE 1 OF 1

COMPANY	CH2M HILL	COMMENTS													
PROJECT NAME	PG&E Topock														
PHONE	(510) 251-2888	FAX (510) 622-7086													
ADDRESS	155 Grand Ave Ste 1000														
P.O. NUMBER	328225.GM.02.00														
SAMPLERS (SIGNATURE)	<u>John Dallinger</u>														
SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (218.6) Lab Filtered	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Diss Metals (6010B) Field Filtered	Diss Metals (6010B) Field Filtered Chromium	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	Diss Metals (6010B) Field Filtered Cr Fe Mn	Total Metals (7470A) Field Filtered Title 22	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	NUMBER OF CONTAINERS
MW-27-060-081	10/5/05	0820	Gw	X	X	.	.	.	X	X	X	X	X	3	
MW-27-085-081		1603		X	X	.	.	.	X	X	X	X	X	3	
MW-27-020-081		1030		X	X	X	.	.	X	X	X	X	X	3	
MW-36-700-081		1114		X	X	X	.	.	X	X	X	X	X	3	
MW-34-100-081		1237		X	X	X	.	.	X	X	X	X	X	3	
MW-34-055-081		1342		X	X	X	X	X	X	X	X	X	X	3	
MW-34-080-081		1500		X	X	X	X	X	X	X	X	X	X	3	
MW-93-081		1200		X	X	.	.	.	X	X	X	X	X	2	

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<u>John Dallinger</u>	<u>John Dallinger</u>	<u>CH2M HILL</u>	<u>10/5/05 1530</u>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS
RECEIVED COOL WARM °F
CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

GOC Number

TURNAROUND TIME
DATE 10/5/65

5 Days

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

CHAIN OF CUSTODY SIGNATURE PAGE			
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time <i>10/5/05 1530</i>
	<i>John Delpierre</i>	<i>CFF&S 16-41</i>	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM _____

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:



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14201 Franklin Avenue, Tustin, CA 92780-7008
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CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/5/05

PAGE 1 OF 2

COMPANY	CH2M HILL	COMMENTS													
PROJECT NAME	PG&E Topock														
PHONE	(510) 251-2888	FAX	(510) 622-7086												
ADDRESS	155 Grand Ave Ste 1000														
OAKLAND, CA 94612															
P.O. NUMBER	328225.GM.02.00														
SAMPLERS (SIGNATURE)	<u>J. Bennett</u>														
SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (218.6) Lab Filtered	CR6 (71964) Lab Filtered	CR6 (7199) Lab Filtered	Diss Metals (6010B) Field Filtered Chromium	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	Diss Metals (6010B) Field Filtered Title 22	Diss Metals (6010B) Field Filtered Na B Fe Mn	Total Metals (7470A) Field Filtered Title 22 Ca Mg K	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	NUMBER OF CONTAINERS
MW-23-081	10/5/05	0915	GW	X X						X X				3	
MW-21-081	10/5/05	0930	GW	X X						X X				3	
MW-40D-081	10/5/05	1030	GW	X X						X X				3	
MW-40S-081	10/5/05	1105	GW	X X						X X				3	
EB-100505-081	10/5/05	1040	GW	X X										2	
MW-17-081	10/5/05	1200	GW	X X						X X				3	
MW-41D-081	10/5/05	1350	GW	X X						X X				3	
MW-41M-081	10/5/05	1430	GW	X X						X X				3	
MW-41S-081	10/5/05	1450	GW	X X						X X				3	

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	<u>J. Bennett</u>	Printed Name	Janney Bradtmueller	Company/ Agency	CH2M HILL	Date/ Time	10/5/05 15:00
Signature (Received)	<u>Andrea P. Brooks</u>	Printed Name	Andrea P. Brooks	Company/ Agency	Executive Director	Date/ Time	10/5/05 15:00
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time	
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time	
Signature (Received)		Printed Name		Company/ Agency		Date/ Time	

RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>	°F
CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>	

SPECIAL REQUIREMENTS:



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CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/5/05 PAGE 2 OF 2

PAGE 2 OF 2

CHAIN OF CUSTODY SIGNATURE RECORD

Signature Printed **Company/**
(Relinquished) *Brent* Name **Agency** *C H Z M H I L L*

Date/ 10/5/85
Time 1500

RECEIVED COOL WARM °F

Signature Andre P Brooks Printed Name Andre P Brooks Company/Executive
(Received) Andre P Brooks Agency Courier

Date/ 10/5/05
Time 1500

CUSTODY SEALED YES NO

**Signature
(Relinquished)** **Printed
Name** **Company/
Agency**

Date
Time

SPECIAL REQUIREMENTS:

Signature (Received)	Printed Name	Company/ Agency
-------------------------	-----------------	--------------------

Date
Time

Signature (Relinquished)	Printed Name	Company/ Agency
-----------------------------	-----------------	--------------------

Date
Time

SPECIAL REQUIREMENTS:

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number
TURNAROUND TIME 10 Days
DATE 10/5/05 PAGE 1 OF 1

COMPANY	CH2M HILL											COMMENTS	
PROJECT NAME	PG&E Topock GWM												
PHONE	(510) 251-2888	FAX	(510) 622-7086										
ADDRESS	155 Grand Ave Ste 1000												
P.O. NUMBER	328225.GM.02.00												
SAMPLERS (SIGNATURE)													
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Alkalinity (310.1)	Anions (300)	Bromide Chloride Sulfate Nitrate	Ammonia (350.2)	Total Organic Carbon (415.2)	Silica (370.1)	7199 <i>Conf F748</i>	NUMBER OF CONTAINERS		
MW-27-020-081	10/5/05	030	GW	X	X						1		
MW-34-100-081		037		X	X	X			X		2		
MW-36-100-081		1114		X	X	X	X	X			3		
MW-34-055-081		1340		X	X		X	X			3		
MW-34-080-081		1500		X	X						1		
MW-93-081		1200		X	X	X					2		
											13	TOTAL NUMBER OF CONTAINERS	

CHAIN OF CUSTODY SIGNATURE RECORD

SAMPLE CONDITIONS
RECEIVED COOL WARM °F _____

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

Signature (Relinquished) 	Printed Name John Dallman	Company/ Agency CH2M HILL	Date/ Time 10/5/05 1530
Signature (Received) 	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

ZymaX envirotechnology, inc.
71 Zaca Ln. San Luis Obispo, CA 93401
phone: (805) 781-3686 ext. 118
Stephanie Dollahite

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

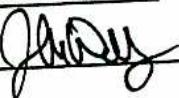
COC Number

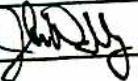
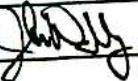
TURNAROUND TIME

10 Days

DATE 10/5/05

PAGE 1 OF 1

COMPANY	CH2M HILL	PROJECT NAME	PG&E Topock GWM	PHONE	(510) 251-2888 FAX (510) 622-7086	ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612	P.O. NUMBER	328225.GM.02.00	SAMPLERS (SIGNATURE)		COMMENTS
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Oxygen 18 & Deuterium (CF-IRMS)							No Sample collected	
MW-27-060-081	10/5/05	0930	GW								No Sample collected	
MW-27-085-081		1000		X							1	
MW-27-020-081	10/5/05	1030	GW	X							1	
MW-36-150-081		1114		X							1	
MW-34-100-081		1237		X							1	
MW-34-055-081		1342		X							1	
MW-34-080-081		1500		X							TOTAL NUMBER OF CONTAINERS	
MW-93-081		1200		X							6	

CHAIN OF CUSTODY SIGNATURE RECORD						SAMPLE CONDITIONS		
Signature (Relinquished) 	Printed Name <u>John Dollahite</u>	Company/ Agency <u>CH2M HILL</u>	Date/ Time <u>10/5/05</u> <u>1530</u>	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>	<u> </u> °F	
Signature (Received) 	Printed Name	Company/ Agency	Date/ Time	CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>		
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	SPECIAL REQUIREMENTS:				
Signature (Received)	Printed Name	Company/ Agency	Date/ Time					
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time					
Signature (Received)	Printed Name	Company/ Agency	Date/ Time					



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www.trueasdail.com

CHAIN OF CUSTODY RECORD

COC Number

TURNAROUND TIME

10 Days

PAGE 1 OF 1

COMPANY	CH2M HILL				COMMENTS	
PROJECT NAME	PG&E Topock					
PHONE	(510) 251-2888		FAX	(510) 622-7086		
ADDRESS	155 Grand Ave Ste 1000					
	Oakland, CA 94612					
P.O. NUMBER	328225.GM.02.00					
SAMPLERS (SIGNATURE)	<u>J. Buntz</u>					
SAMPLE I.D.	DATE	TIME	DESCRIPTION			NUMBER OF CONTAINERS
MW-28-090-081	10/6/05	0900	GW	X X	CR6 (218.6) Lab Filtered	3
MW-28-025-081	10/6/05	0925	GW	X X	CR6 (71964) Lab Filtered	3
MW-33-090-081	10/6/05	1140	GW	X X	CR6 (7199) Lab Filtered	3
MW-33-210-081	10/6/05	1250	GW	X X	Diss Metals (6010B) Field Filtered	3
MW-33-150-081	10/6/05	1335	GW	X X	Diss Metals (6010B) Field Filtered Chromium	3
MW-94-081	10/6/05	1200	GW	X X	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	3
					Diss Metals (6010B) Field Filtered Title 22	
					Na B Fe Mn	
					Total Metals (74704) Field Filtered	
					Na B Fe Mn Title 22 Ca Mg K	
					Specific Conductance (200.7)	
					pH (150.1)	
					TDS (160.1)	

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	<i>J. Kelly</i>	Printed Name	Company/ Agency	Date/ Time
Signature (Received)		<i>John Dally</i>	<i>CIA M HJL</i>	<i>10/6/65 1530</i>
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/6/05PAGE 1 OF 2

COMPANY	CH2M HILL														COMMENTS	
PROJECT NAME	PG&E Topock															
PHONE	(510) 251-2888		FAX (510) 622-7086													
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612															
P.O. NUMBER	328225.GM.02.00															
SAMPLERS (SIGNATURE)	<u>Matt Ringer</u>															
SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (218.6) Lab Filtered	CR6 (7196A) Lab Filtered	CR6 (7198) Lab Filtered	Diss Metals (6010B) Field Filtered	Diss Metals (6010B) Field Filtered Chromium	Diss Metals (6010B) Field Filtered Cr Ca Mg K Na B	Diss Metals (6010B) Field Filtered Title 22	Diss Metals (6010B) Field Filtered Na B Fe Mn	Total Metals (7470A) Field Filtered Title 22 Ca Mg K	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	NUMBER OF CONTAINERS
MW-14-081	10/6/05	1014	GW	X	X								X	X		
MW-15-081	10/6/05	840	GW		X	X							X	X		
MW-16-081	10/6/05	910	GW		X	X							X	X		
MW-18-081	10/6/05	944	GW		X	X							X	X		
OW-03D-081	10/6/05	1155	GW		X	X							X	X		
OW-03M-081	10/6/05	1243	GW		X	X							X	X		
OW-03S-081	10/6/05	1315	GW		X	X							X	X		
EB-100605-D81	10/6/05	1205	DI		X	X										
MW-31-060-081	10/6/05	1350	GW	X					X	X		X	X	X		

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished) <u>Matt Ringer</u>	Printed Name <u>Matt Ringer</u>	Company/ Agency <u>CH2M HILL</u>	Date/ Time <u>10/6/05 1520</u>	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>	°F _____
Signature (Received) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>	CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>	
Signature (Relinquished) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>	SPECIAL REQUIREMENTS:			
Signature (Received) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>				
Signature (Relinquished) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>				
Signature (Received) <u></u>	Printed Name <u></u>	Company/ Agency <u></u>	Date/ Time <u></u>				



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/6/05

5 Days

PAGE 92 OF 2

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)		Printed Name	Matt Ringier	Company/ Agency	CH2M Hill	Date/ Time
Signature (Received)		Printed Name		Company/ Agency		10/6/05 1530
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time
Signature (Received)		Printed Name		Company/ Agency		Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley ikelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number _____
TURNAROUND TIME 10 Days
DATE 10/6/05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	<i>Matt Ringer</i>	<i>CH2 m 6/11</i>	<i>10/6/05 1535</i>	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>	_____ °F
Signature (Received)	Printed Name	Company/ Agency	Date/ Time				CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time				SPECIAL REQUIREMENTS:			
Signature (Received)	Printed Name	Company/ Agency	Date/ Time							
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time							
Signature (Received)	Printed Name	Company/ Agency	Date/ Time							

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Joe Kelbley kelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

COC Number _____
TURNAROUND TIME 10 Days
DATE 10/6/05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>[Signature]</i>	<i>John Dillinger</i>	<i>Chase Hill</i>	<i>10/6/65 1530</i>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

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71 Zaca Ln. San Luis Obispo, CA 93401
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Stephanie Dollahite

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number _____
TURNAROUND TIME _____ 10 Days
DATE 10/6/05 PAGE 1 OF 1

COMPANY	CH2M HILL				COMMENTS
PROJECT NAME	PG&E Topock GWM				
PHONE	(510) 251-2888	FAX	(510) 622-7086		
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612				
P.O. NUMBER	328225.GM.02.00				
SAMPLERS (SIGNATURE)	<u>Matt R. H.</u>				
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Oxygen 18 & Deuterium (CF-IRMS)	NUMBER OF CONTAINERS
MW-31-060-081	10/6/05	1350	FW	X	
					TOTAL NUMBER OF CONTAINERS

CHAIN OF CUSTODY SIGNATURE RECORD				SAMPLE CONDITIONS		
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>
<u>Matt R. H.</u>	<u>Matt R. H.</u>	<u>CH2M HILL</u>	<u>10/6/05</u> <u>1350</u>			°F _____
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>
				SPECIAL REQUIREMENTS:		
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time			
Signature (Received)	Printed Name	Company/ Agency	Date/ Time			
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time			
Signature (Received)	Printed Name	Company/ Agency	Date/ Time			

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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number _____
TURNAROUND TIME 10 Days
DATE 10/6/05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

SAMPLE CONDITIONS					
RECEIVED	COOL	<input type="checkbox"/>	WARM	<input type="checkbox"/>	_____ °F
CUSTODY SEALED		YES	<input type="checkbox"/>	NO	<input type="checkbox"/>

SPECIAL REQUIREMENTS:



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CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/7/05 PAGE 1 OF 1

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature Bentley Printed Name Jenny Boddinville Company/ Agency CH2M Hill Date/ 10/7/05
(Relinquished) Time 1350

Signature (Received)	Printed Name	Company/ Agency	Date/ Time
-------------------------	-----------------	--------------------	---------------

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
-----------------------------	-----------------	--------------------	---------------

Signature (Received)	Printed Name	Company/ Agency	Date/ Time
-------------------------	-----------------	--------------------	---------------

**Signature
(Relinquished)** **Printed
Name** **Company/
Agency** **Date/
Time**

Signature (Received)	Printed Name	Company/ Agency	Date/ Time
-------------------------	-----------------	--------------------	---------------

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
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Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/17/05

PAGE | OF |

COMPANY	CH2M HILL	COMMENTS								
PROJECT NAME	PG&E Topock GWM									
PHONE	(510) 251-2888	FAX (510) 622-7086								
ADDRESS	155 Grand Ave Ste 1000									
	Oakland, CA 94612									
P.O. NUMBER	328225.GM.02.00									
SAMPLERS (SIGNATURE)	J. Buntin									
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Alkalinity (310.1)	Anions (300)	Bromide Chloride Sulfate Nitrate	Ammonia (350.2)	Total Organic Carbon (415.2)	Silica (370.1)	NUMBER OF CONTAINERS
MW-42-D165-D81	10/7/05	0842	GW	X	X	X	X	X	X	3
MW-42-D55-D81	10/7/05	0915	GW	X	X	X	X	X	X	3
MW-42-D30-D81	10/7/05	0954	GW	X	X	X	X	X	X	3
MW-30-D50-D81	10/7/05	1100	GW	X	X	X	X	X	X	3
MW-30-D30-D81	10/7/05	1130	GW	X	X					13

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>J. Bennett</i>	Jenny Bivactimwell	CITZMILL	10/7/05 1350
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

RECEIVED COOL WARM _____ °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

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71 Zaca Ln. San Luis Obispo, CA 93401
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Stephanie Dollahite

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10/7/05

PAGE 1

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

CUSTODY SIGNATURE RECORD				SAMPLE CONDITIONS
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	RECEIVED <input type="checkbox"/> COOL <input type="checkbox"/> WARM <input type="checkbox"/> °F _____
<i>J. Bennett</i>	Jenny Bradtmiller	CITIZENSHIP	10/7/05 1350	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	CUSTODY SEALED <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	SPECIAL REQUIREMENTS:
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	



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CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10-7-05

PAGE 1 OF 1

COMPANY	CH2M HILL											COMMENTS	
PROJECT NAME	PG&E Topock												
PHONE	(510) 251-2888	FAX	(510) 622-7086										
ADDRESS	155 Grand Ave Ste 1000												
OAKLAND, CA 94612													
P.O. NUMBER	328225.GM.02.00												
SAMPLERS (SIGNATURE)	<u>Dan C.</u>												
SAMPLE I.D.	DATE	TIME	DESCRIPTION										
MW-38D-081	10-7-05	0920	GW	X	X								3
MW-38D-081													
MW-38S-081	10-7-05	0935	GW	X	X								3
MW-20-130-081	10-7-05	1145	GW	X	No			XX		XX			4
EB-100705-081	10-7-05	0930	WATER	X	X								2
MW-35-135-081	10-7-05	1240	GW	X	X					XX			3
MW-35-060-081	10-7-05	1330	GW	X	X					XX			3
MW-025081	10-7-05	0915	GW	X	X					XX			3
MW-97-081	10-7-05	1400	GW	X	X					XX			3

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished) <u>Dan C.</u>	Printed Name Dan C.	Company/ Agency CH2M HILL	Date/ Time 10-7-05 1500
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS
RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

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Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10-21-05 PAGE 5 OF 5

CHAIN OF CUSTODY SIGNATURE RECORD

CUSTODY SIGNATURE RECORD				SAMPLE CONDITIONS
Signature (Relinquished)	D. C.	Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)		Printed Name	Company/ Agency	Date/ Time
Signature (Received)		Printed Name	Company/ Agency	Date/ Time
				RECEIVED COOL <input type="checkbox"/> WARM <input type="checkbox"/> °F _____
				CUSTODY SEALED YES <input type="checkbox"/> NO <input type="checkbox"/>
SPECIAL REQUIREMENTS:				

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CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME

10 Days

DATE 10-7-05 PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	<i>Dan Cragg</i>	Printed Name	<i>Dan Cragg</i>	Company/ Agency	<i>CIA/Human Relations</i>	Date/ Time	<i>10-7-05 1500</i>	SAMPLE CONDITIONS
Signature (Received)		Printed Name		Company/ Agency		Date/ Time		RECEIVED <input type="checkbox"/> COOL <input type="checkbox"/> WARM <input type="checkbox"/> °F <u> </u>
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time		CUSTODY SEALED <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>
Signature (Received)		Printed Name		Company/ Agency		Date/ Time		SPECIAL REQUIREMENTS:
Signature (Relinquished)		Printed Name		Company/ Agency		Date/ Time		
Signature (Received)		Printed Name		Company/ Agency		Date/ Time		



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/11/05

105 Days

PAGE 1 OF 1

COMPANY	CH2M HILL	
PROJECT NAME	PG&E Topock	
PHONE	(510) 251-2888	FAX (510) 622-7086
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612	
P.O. NUMBER	328225 GM 02 00	

SAMPLERS (SIGNATURE)

CHAIN OF CUSTODY SIGNATURE RECORD

WASH CUSTODY SIGNATURE RECORD				
Signature (elinquished)	Printed Name	Company/ Agency	Date/ Time	10/11/05 1530
Signature (received)	Printed Name	Company/ Agency	Date/ Time	
Signature (elinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (received)	Printed Name	Company/ Agency	Date/ Time	
Signature (elinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (received)	Printed Name	Company/ Agency	Date/ Time	

SAMPLE CONDITIONS			
RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>	_____ °F
CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>	
SPECIAL REQUIREMENTS:			

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Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/11/05

10 Days

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>M. B. Ringer</i>	<i>M. B. Ringer</i>	<i>CHZM Hill</i>	<i>9/11/05 1520</i>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL WARM °F

CUSTODY SEALED YES NO

SPECIAL REQUIREMENTS:

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71 Zaca Ln. San Luis Obispo, CA 93401
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Stephanie Dollahite

CHAIN OF CUSTODY RECORD

[2005-GMP-081-Q3]

COC Number

TURNAROUND TIME
DATE 10/11/05

10 Days

PAGE 1 OF 1

CHAIN OF CUSTODY SIGNATURE RECORD

PRINTED CUSTODY SIGNATURE RECORD						SAMPLE CONDITIONS		
Signature Relinquished)	Printed Name	Company/ Agency	Date/ Time	10/11/05 1530	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/>	°F _____
Signature Received)	Printed Name	Company/ Agency	Date/ Time		CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>	
Signature Relinquished)	Printed Name	Company/ Agency	Date/ Time		SPECIAL REQUIREMENTS:			
Signature Received)	Printed Name	Company/ Agency	Date/ Time					
Signature Relinquished)	Printed Name	Company/ Agency	Date/ Time					
Signature Received)	Printed Name	Company/ Agency	Date/ Time					



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CHAIN OF CUSTODY RECORD
[2005-GMP-081-Q3]

COC Number
TURNAROUND TIME
DATE 10/13/05 10 Days
PAGE 1 OF 1

COMPANY	CH2M HILL			COMMENTS
PROJECT NAME	PG&E Topock			NUMBER OF CONTAINERS
PHONE	(510) 251-2888		FAX (510) 622-7086	
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612			
P.O. NUMBER	328225.GM.02.00			
SAMPLERS (SIGNATURE)	<u>Matt Ringer</u>			
SAMPLE I.D.	DATE	TIME	DESCRIPTION	
PGE-08-081	10/13/05	1000	G-W	X X
PGE-07-081	10/13/05	1105	G-W	X X
				X X
				X X
				X X
				X X
				X X
				X X
				X X
				X X

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	SAMPLE CONDITIONS		
<u>Matt Ringer</u>	Matt Ringer	CH2M HILL	10/13/05 1200	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/> °F
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	SPECIAL REQUIREMENTS:		
Signature (Received)	Printed Name	Company/ Agency	Date/ Time			
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time			
Signature (Received)	Printed Name	Company/ Agency	Date/ Time			