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January 15, 2010

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Robert Perdue
Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

Subject: Board Order R7-2006-0060, WDID No. 7B 36 2033 001 - Interim Measures No. 3, Compliance Monitoring Program, Semiannual Groundwater Monitoring Report, Second Half 2009, PG&E Topock Compressor Station, Needles, California

Dear Mr. Yue and Mr. Perdue:

Enclosed is the *Compliance Monitoring Program, Semiannual Groundwater Monitoring Report, Second Half 2009* for the Interim Measure No. 3 at the Pacific Gas and Electric Company (PG&E) Topock Compressor Station. This monitoring report presents the results of the third and fourth quarter 2009 Compliance Monitoring Program (CMP) groundwater monitoring events and has been prepared in conformance with California Regional Water Quality Board (Water Board) Order No. R7-2006-0060, MRP No. R7-2006-0060 Revision 1, as well as with the Department of Toxic Substances Control (DTSC)'s July 15, 2005 letter approving the Compliance Monitoring Plan and subsequent letters modifying the reporting requirements.

On August 8, 2006 and July 3, 2008, PG&E submitted a revised contingency plan flowchart for groundwater quality changes associated with the injection system. The contingency plan specifies the concentrations and values for hexavalent chromium (Cr[VI]), total chromium (Cr[T]), total dissolved solids (TDS), and pH to be used to determine if contingency plan actions were necessary based on sample results. The water quality objectives (WQO) concentrations used to trigger the contingency plan are as follows: Cr(VI) greater than 32.6 micrograms per liter (µg/L), Cr(T) greater than 28.0 µg/L, TDS greater than 10,800 milligrams per liter, and pH outside of the range of 6.2 to 9.2.

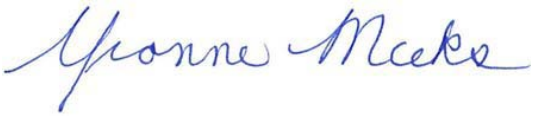
During the third quarter 2009 monitoring event, a primary sample and field duplicate from the well OW-2S (29.6 and 30.7 µg/L) exceeded the Cr(T) WQO. During the fourth quarter 2009 monitoring event, a sample from OW-2S (31.8 µg/L) exceeded the Cr(T) WQO. A review of the water quality parameters indicative of treated groundwater injection (Cr(VI), TDS, sulfate, molybdenum, nitrate/nitrite, and fluoride) confirm that injected water has not yet reached OW-2S and that the concentration of Cr(T) is not related to injected water (which consistently has significantly lower chromium concentrations than those measured at well OW-2S), but instead is related to the natural variability within the shallower portions of the aquifer.

In a letter data January 5, 2007, DTSC stated that it was not necessary to follow contingency plan requirements for Cr(VI) and Cr(T) with respect to OW-2S and OW-5S. The Water Board concurred with this decision in a letter dated March 2, 2007. As such, the contingency plan was not triggered due to the Cr(T) concentration detected in OW-2S during the second half 2009.

No other samples exceeded the water quality objectives for Cr(VI), Cr(T), pH, or TDS during second half 2009 sampling events. The next CMP event is scheduled to occur in April 2010.

Please contact me at (805) 546-5243 if you have any questions on the CMP.

Sincerely,



Yvonne Meeks
Topock Remediation Project Manager

Cc: Cliff Raley, Water Board
Christopher Guerre, DTSC

Enclosure

Final Report

Compliance Monitoring Program Semiannual Groundwater Monitoring Report, Second Half 2009

Interim Measure No. 3
PG&E Topock Compressor Station
Needles, California
Board Order R7-2006-0060
WDID No. 7B 36 2033 001

Prepared for

California Department of Toxic Substances Control and the California Regional Water Quality Control Board, Colorado River Basin Region

On behalf of

Pacific Gas and Electric Company

January 15, 2010

CH2MHILL

155 Grand Avenue, Suite 1000
Oakland, CA 94612

Compliance Monitoring Program
Semiannual Groundwater Monitoring Report
Second Half 2009

PG&E Topock Compressor Station
Needles, California
Board Order R7-2006-0060, WDID No. 7B 36 2033 001

Prepared for

California Department of Toxic Substance Control and the California Regional Water Quality Control Board, Colorado River Basin Region

On behalf of

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January 15, 2010

This report was prepared under the supervision of a California Professional Geologist

Serena Lee
Professional Geologist, P.G. #8259

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Acronyms and Abbreviations

µg/L	micrograms per liter
CMP	Compliance Monitoring Program
Cr(T)	total chromium
Cr(VI)	hexavalent chromium
CW	compliance well
DTSC	California Department of Toxic Substances Control
IM	Interim Measure
IM No. 3	Interim Measure No. 3
IW	injection well
mg/L	milligrams per liter
MRP	Monitoring and Reporting Program
PG&E	Pacific Gas and Electric Company
OW	observation well
QAPP	Quality Assurance Project Plan
TDS	total dissolved solids
USEPA	United States Environmental Protection Agency
Water Board	California Regional Water Quality Control Board, Colorado River Basin Region
WDR	Waste Discharge Requirements
WQO	water quality objective

1.0 Introduction

Pacific Gas and Electric Company (PG&E) is implementing an Interim Measure (IM) to address chromium concentrations in groundwater at the Topock Compressor Station near Needles, California. The IM consists of groundwater extraction in the Colorado River floodplain and management of extracted groundwater. The groundwater extraction, treatment, and injection systems are collectively referred to as Interim Measure No. 3 (IM No. 3). Currently, the IM No. 3 facilities include a groundwater extraction system, conveyance piping, a groundwater treatment plant, and an injection well field for the discharge of the treated groundwater. Figure 1 shows the location of the IM No. 3 extraction, conveyance, treatment, and injection facilities. (All figures are provided at the end of this report.)

The *Groundwater Compliance Monitoring Plan for Interim Measures No. 3 Injection Area* (CH2M HILL, 2005a) was submitted to the Water Board and the California Department of Toxic Substances Control (DTSC) on June 17, 2005 (herein referred to as the Compliance Monitoring Plan). The Compliance Monitoring Plan and its addendum provide the objectives, proposed monitoring program, data evaluation methods, and reporting requirements for the CMP. In a letter dated June 9, 2006, DTSC modified the reporting requirements of the Compliance Monitoring Plan (DTSC, 2006).

On October 13, 2004, the California Regional Water Quality Control Board, Colorado River Basin Region (Water Board) adopted Waste Discharge Requirements (WDR) Order No. R7-2004-0103. This WDR authorized PG&E to inject treated groundwater into wells located in the East Mesa area of the Topock site. This WDR was superseded on September 20, 2006 by WDR No. R7-2006-0060, which has similar terms. Work described in this report was performed in accordance with the WDR No. R7-2006-0060.

The WDR specifies effluent limitations, prohibitions, specifications, and provisions for subsurface injection. Monitoring and Reporting Program (MRP) No. R7-2004-0103 specified the requirements for the Compliance Monitoring Program (CMP) to monitor the aquifer in the injection well area to ensure that the injection of treated groundwater is not causing an adverse effect on the aquifer water quality. As with the WDR, MRP No. R7-2004-0103 was superseded on September 20, 2006 by MRP No. R7-2006-0060 with similar requirements.

The injection system consists of two injection wells (IWs): IW-2 and IW-3. Operation of the treatment system was conditionally approved on July 15, 2005 (DTSC, 2005), and injection into IW-2 began on July 31, 2005. Table 1 is a summary of the history of injection for IM No. 3. (All tables are provided at the end of this report.)

Figure 2 shows the locations of the injection wells and the groundwater monitoring wells (observation wells and compliance wells) in the CMP. Table 2 is a summary of information on well construction and sampling methods for all wells in the CMP.

On January 22, 2007 (DTSC, 2007), DTSC approved a reduction of constituents analyzed during quarterly sampling of the CMP observation wells (details are provided in CH2M HILL, 2006). The Water Board concurred in a letter dated January 23, 2007

(Water Board, 2007a). Observation wells (OWs) are sampled for a limited suite of constituents during quarterly monitoring events. Semiannual CMP events still retain the original constituent suite for the OWs and compliance wells (CWs).

On October 16, 2007, the Water Board approved collecting pH measurements in the field rather than through laboratory analysis due to the change to 15-minute holding time for laboratory measurements specified by United States Environmental Protection Agency (USEPA) Method 150.1 (Water Board, 2007b). DTSC provided concurrence for the field pH change in an e-mail dated January 22, 2008 (DTSC, 2008a). This change became effective with the first quarter 2008 sampling event.

On November 13, 2007, the Water Board approved a modification to hexavalent chromium (Cr[VI]) analytical methods, which extended the holding time from 24 hours to 28 days (Water Board, 2007c). DTSC provided concurrence for the 28-day holding time for Cr(VI) analyses in an e-mail dated January 22, 2008 (DTSC, 2008a). The first quarter 2008 sampling event was the first event to incorporate the new 28-day holding time for analyzing Cr(VI).

PG&E proposed modifications to the CMP, including the sampling and reporting frequency and the field pH trigger range for the CMP contingency plan, to the Water Board and the DTSC on July 3, 2008. On August 28, 2008, the Water Board approved these modifications as Revision 1 to the MRP (Water Board, 2008). On December 12, 2008, the modification of the CMP contingency plan pH range to a field pH range of 6.2 to 9.2 was also approved by the DTSC (DTSC, 2008b). The remaining MRP modifications were approved by DTSC on September 3, 2009 (DTSC, 2009).

With the approval of the MRP modifications quarterly sampling is no longer required. However, the third quarter data had already been collected. The MRP modifications require that the results of any analysis taken more frequently than required be reported. Therefore, third quarter results are included in this report.

For the third quarter sampling event, samples were collected from OWs (Figure 2) according to the following schedule:

- Nine OWs located near the IM No. 3 injection well field were sampled for a limited suite of constituents.

For the fourth quarter sampling event, as of October 2009, samples are collected from OWs and CWs (Figure 2) according to the following schedule:

- Nine OWs located near the IM No. 3 injection well field are sampled semiannually (during the 2nd and 4th quarters) for a limited suite of constituents.
- Six wells OW-1M, OW-1D, OW-2M, OW-2D, OW-5M, and OW-5D are sampled for a full suite of constituents one cluster at a time on a triennial (once every three years) schedule. Within a 3-year period, all OW middle and deep wells will be sampled for a full suite of constituents. The triennial sampling will occur during the annual event (4th quarter).
- Eight CWs wells are sampled annually (during the 4th quarter) for a full suite of constituents.

For semiannual events, laboratory analyses include total dissolved solids (TDS), turbidity, specific conductance, and a reduced suite of metals. Annual and triennial sampling events include dissolved total chromium (Cr[T]), Cr(VI), metals, specific conductance, TDS, turbidity, and major inorganic cations and anions for CWs and select OWs. For annual events for the rest of the OWs, laboratory analyses include TDS, turbidity, specific conductance, and a reduced suite of metals. Groundwater elevation data and field water quality data—including specific conductance, temperature, pH, oxidation-reduction potential, dissolved oxygen, turbidity and salinity—are also measured during each monitoring event (CH2M HILL, 2005a).

This report presents the results of the second half 2009 (third and fourth quarter) CMP groundwater monitoring events.

2.0 Second Half 2009 Activities

This section provides a summary of the monitoring and sampling activities completed during the third and fourth quarter 2009. The third quarter 2009 monitoring event was conducted on July 7-8, 2009 and consisted of:

- Nine observation monitoring wells were sampled for water quality analyses.
- Groundwater elevations and field water quality data were collected prior to sampling.
- One duplicate sample was collected at well OW-2S to assess field sampling and analytical quality control.

The fourth quarter 2009 event was a semiannual/annual event conducted on October 12-15, 2009 and consisted of:

- Nine observation and eight compliance monitoring wells were sampled for water quality analyses.
- Groundwater elevations and field water quality data were collected prior to sampling.
- Two duplicate samples were collected at well CW-3M and OW-1S to assess field sampling and analytical quality control.

Continuous groundwater elevation data were collected using pressure transducers/data loggers at five of the 17 CMP wells and were downloaded monthly during the reporting period.

The sampling methods, procedures, field documentation of the CMP sampling, water level measurements, and field water quality monitoring were performed in accordance with the *Sampling, Analysis, and Field Procedures Manual* (CH2M HILL, 2005b) and addendums.

CMP groundwater samples were analyzed by Truesdail Laboratories, Inc. in Tustin, California and EMAX Laboratories, Inc. in Torrance, California, both California-certified analytical laboratories. Analytical methods, sample volumes and containers, sample preservation, and quality control sample requirements were in accordance with the *Sampling, Analysis, and Field Procedures Manual* (CH2M HILL, 2005b) and addendums. Data validation and management were conducted in accordance with the *Quality Assurance Project Plan* (QAPP) provided as Appendix D of the *Sampling, Analysis, and Field Procedures Manual* and addendums.

3.0 Second Half 2009 Results

This section is a summary of the results of the CMP groundwater sampling conducted during the second half 2009. Figure 2 presents the locations of the CMP groundwater wells.

The data presented include results for Cr(VI), Cr(T), specific conductance, metals, TDS, turbidity, and major inorganic cations and anions. Laboratory data quality review, water level measurements, and water quality field parameter data are also presented in this section. The laboratory reports and field data sheets for the third and fourth quarter 2009 monitoring events are presented in Appendices A and B, respectively.

3.1 Analytical Results

Nine observation wells were sampled during the third quarter 2009 sampling event, and 17 compliance and observation wells were sampled during the fourth quarter 2009 sampling event. Analytical results for Cr(VI) and Cr(T), other metals, and general chemistry parameters are presented in Tables 3, 4, and 5 and are discussed below. Interim action levels/water quality objectives (WQOs) were updated in the *Addendum to the Compliance Monitoring Plan*, which was submitted to DTSC and the Water Board on December 13, 2005 (CH2M HILL, 2005c). On August 8, 2006, PG&E submitted a revised contingency plan flowchart for groundwater quality changes associated with the injection system. The contingency plan specifies the concentrations and values for Cr(VI), Cr(T), TDS, and pH to be used to determine if contingency plan actions were necessary based on sample results.

3.1.1 Hexavalent and Total Chromium

Table 3 presents the Cr(VI) and Cr(T) results for groundwater in the shallow, middle, and deep wells for the second half 2009 CMP sampling events. For shallow wells, the maximum detected Cr(VI) concentration was 31.7 micrograms per liter (µg/L) in well OW-2S on October 13, 2009. For the middle wells, the maximum detected Cr(VI) concentration was 16.7 µg/L in well CW-4M on October 15, 2009. For the deep wells, the maximum detected Cr(VI) concentration was 1.26 µg/L in well OW-1D on October 12, 2009.

During the second half 2009 sampling events, none of the samples exceeded the WQO of 32.6 µg/L for Cr(VI).

For shallow wells, the maximum detected Cr(T) concentration was 31.8 µg/L in well OW-2S on October 13, 2009. For the middle wells, the maximum detected Cr(T) concentration was 16.6 µg/L in well CW-4M on October 15, 2009. For the deep wells, the maximum detected Cr(T) concentration was 2.3 µg/L in well CW-4D on October 15, 2009.

During the second half 2009 sampling events, samples from one well exceeded the WQO of 28 µg/L for Cr(T). The July 8, 2009 primary and duplicate samples and the October 13, 2009 sample from well OW-2S had concentrations of 29.6 µg/L, 30.7 µg/L, and 31.8 µg/L, respectively. For these exceedances, the results are not considered to be the result of injection of treated groundwater since the average effluent concentration of Cr(T) from the IM No. 3 treatment plant is normally non-detect with a reporting limit of 0.2 µg/L (CH2M HILL,

2009a). Cr(T) and Cr(VI) concentrations at OW-2S have been consistently above the WQOs since November 2005. This exceedance of Cr(T) is thus considered reflective of the natural variance in background water quality. The contingency plan was not triggered due to the Cr(T) concentration detected in OW-2S during the second half 2009.

3.1.2 Other Metals and General Chemistry

Table 4 presents the other metals and cation results for the CMP groundwater wells sampled during the second half 2009. Metals and cations detected in the second half 2009 sampling events included arsenic, barium, boron, calcium, total iron, dissolved iron, magnesium, molybdenum, potassium, sodium, vanadium, and zinc. In general, concentrations of metals and cations detected during the second half 2009 sampling events are similar to those detected in previous sampling events.

Table 5 presents other inorganic analyte results from the CMP wells. During the second half 2009, the sampling results from all wells were within the WQOs for TDS (10,800 milligrams per liter [mg/L]) and pH (6.2 to 9.2). Sampling results for TDS varied from 954 mg/L in well OW-2S to 5,640 mg/L in well CW-3M. Field pH varied from 7.51 in well OW-2D to 8.19 in well CW-2D (see Table 10).

3.2 Analytical Data Quality Review

The laboratory analytical data generated from the third and fourth quarter 2009 CMP monitoring events were independently reviewed by project chemists to assess data quality and identify deviations from analytical requirements. The quality assurance and quality control requirements are outlined in the QAPP for the PG&E Topock Program, which is Appendix D of the *Sampling, Analysis, and Field Procedures Manual, Revision 1* (CH2M HILL, 2005b) and addendums. A detailed discussion of data quality for CMP sampling data is presented in the data validation reports, which are kept in the project file and are available upon request.

3.2.1 Matrix Interference

For the third quarter 2009 sampling event, matrix interference was encountered in two groundwater samples that affected the sensitivity for Cr(VI) when using Method E218.6. The Cr(VI) sample results from OW-1D and OW-2D reflected an adjusted reporting limit of 1 µg/L as a result of the serial dilution that was required to overcome the matrix interference and provide an acceptable matrix spike recovery. No qualifier flags were applied.

For the fourth quarter 2009 sampling event, matrix interference was encountered in six groundwater samples that affected the sensitivity for Cr(VI) when using Method E218.6. The Cr(VI) sample results from CW-1D, CW-2D, CW-3D, CW-4D, OW-2D, and OW-5D reflected an adjusted reporting limit of 1 µg/L (2 µg for CW-4D) as a result of the serial dilution that was required to overcome the matrix interference and provide an acceptable matrix spike recovery. No qualifier flags were applied.

3.2.2 Matrix Spike Samples

For the third and fourth quarter 2009 sampling events, matrix spike acceptance criteria were met.

3.2.3 Quantitation and Sensitivity

For the third and fourth quarter 2009 sampling events, with the exception of the matrix interference issues discussed in Section 3.2.1, all method and analyte combinations met the project reporting limit objectives.

3.2.4 Holding Time Data Qualification

For the third and fourth quarter 2009 sampling events, all method holding time requirements were met.

Based on the March 2007 EPA Ruling pH now has a 15 minute holding time. As a result pH measurements are performed in the field and are no longer considered a laboratory parameter for this project. Therefore, laboratory pH results were qualified as estimated and "J" flagged.

3.2.5 Field Duplicates

For the third quarter 2009 sampling event, all field duplicate acceptance criteria were met.

For the fourth quarter 2009 sampling event, one field duplicate (CW-3M) for dissolved zinc had a relative percent difference greater than the upper control limit. The detected result was qualified as estimated and "J" flagged; the non-detect result was qualified as estimated and "J" flagged. All other field duplicate acceptance criteria were met.

3.2.6 Method Blanks

For the third and fourth quarter 2009 sampling events, method blank acceptance criteria were met.

3.2.7 Equipment Blanks

For the third and fourth quarter 2009 sampling events, equipment blank acceptance criteria were met.

3.2.8 Laboratory Duplicates

For the third and fourth quarter 2009 sampling events, laboratory duplicate acceptance criteria for the methods were met.

3.2.9 Calibration

For the third and fourth quarter 2009 sampling events, initial and continuing calibrations were performed as required by the methods. All calibration criteria were met.

3.2.10 Conclusion

For the third and fourth quarter 2009 sampling events, the completeness objectives were met for all method and analyte combinations. The analyses and data quality met the QAPP and

laboratory method quality control criteria. Overall, the analytical data are considered acceptable for the purpose of the CMP.

3.3 Influence of Treated Water

3.3.1 Post-injection Versus Pre-injection

Injection of treated water began on July 31, 2005. Under WDR No. R7-2006-0060 for the IM No. 3 groundwater treatment system, PG&E is required to submit WDR monitoring reports on the operation of the system. These reports contain the analytical results of treated water effluent sampling and, as such, the reports are useful in determining the baseline water quality of the treated water being injected into the IM No. 3 injection well field. Table 6 provides selected effluent water analytical results from three of the monthly reports: August 29, 2005, July 2, 2007, and October 7, 2009. While there are differences among some parameters in these samples, a number of parameters show relatively consistent concentrations in the effluent over time. Analytes that are relatively consistent over the injection time period include Cr(VI), Cr(T), fluoride, molybdenum, nitrate/nitrite as nitrogen, sulfate, and TDS. These seven constituents provide a characterization of the effluent that does not appear to vary greatly over time and can serve as a basis for determining if a groundwater monitoring well is being affected by injection. In general terms, treated water has the following characteristics (based on review of December 2005 through October 2009 effluent characteristics):

- Cr(VI): typically non-detect (0.2 µg/L)
- Cr(T): typically non-detect (1.0 µg/L)
- Fluoride: approximately 2 mg/L
- Molybdenum: approximately 15 µg/L
- Nitrate/nitrite as nitrogen: approximately 3.0 mg/L
- Sulfate: approximately 500 mg/L
- TDS: approximately 4,000 mg/L

These treated water quality characteristics are meant to serve as a general guideline and not as a statistically representative sampling of the treated water quality over time.

Table 6 also lists the results of baseline sampling for the observation wells and compliance wells. A full set of nine OW groundwater samples was collected on July 27 and 28, 2005, and a full set of eight CW groundwater samples was collected on September 15, 2005. These samples are considered representative of conditions unaffected by injection and serve to characterize the pre-injection water quality. In comparing these sampling results to the treated injection water sampling results, there are some similarities in the constituent concentrations. For example, most of the pre-injection OW or CW deep well samples (OW-1D, OW-2D, OW-5D, CW-3D, and CW-4D) contain no detectable Cr(VI) or Cr(T), which is similar to the treated injection water. Most of the well samples show concentrations similar to the treated water for two or three constituents but observable differences in concentration from the treated water for the remaining four or five. By considering the entire suite of seven analytes and focusing on those parameters that show differences, it is relatively easy to distinguish between the pre-injection water quality at the monitoring wells and the treated water effluent quality.

Table 7 presents a comparison between the treated water quality and the results from the most recent sampling events (the third and fourth quarter 2009 sampling events). These samples were collected after approximately 51 months of injection. While the pre-injection OW and CW sample results were significantly different from the treated water quality, a number of the third and fourth quarter 2009 sample results now show a marked similarity to the treated water results. The following wells display the general characteristics of treated water: OW-1M, OW-1D, OW-2M, OW-2D, OW-5M, OW-5D, CW-1M, CW-1D, CW-2D, CW-3D, and CW-4D. These wells are locations and depths where the treated water injection front has largely replaced the local pre-injection groundwater. To date, all shallow observations wells (wells OW-1S, OW-2S, and OW-5S) and the following compliance wells (CW-3M, and CW-4M) show no water quality effects due to injection of treated water, indicating that injected water has not yet reached these depths and locations.

3.3.2 Water Quality Hydrographs

Trend data can be used to determine when a rapid change has occurred between sampling events, such as the arrival of the injection front. It can also be used to look at more gradual changes that occur over several sampling events, such as seasonal effects or the interaction of treated water with local groundwater and host aquifer material. Eleven analytes were selected for time-series analysis; these analytes are considered to be most representative of the IM No. 3 injection well field area and have sufficient detections to make time-series analysis useful. The analytes include chloride, Cr(T), fluoride, Cr(VI), molybdenum, nitrate/nitrite as nitrogen, pH, sodium, sulfate, TDS, and vanadium. Water quality hydrographs (time-series plots) of these 11 analytes in each observation well during the second half 2009 within the IM No. 3 injection well field are presented in Figures 3A through 3E.

Observation well water quality hydrographs are presented in Figures 3A through 3C. These hydrographs show the same overall patterns: wells that are identified as affected by treated water injection show a shift in water quality for characteristic parameters, while those identified as being unaffected by injection show no net trends. The water quality change brought on by the arrival of the treated water injection front can be either gradual (OW-5M) or step-wise (OW-2M), with most affected wells showing a pattern of change somewhere between the two. Based on the variability in response, it is inferred that the movement of treated water is non-uniform laterally between wells. This variability in lateral movement can be inferred from differences in the water quality hydrographs in both the mid-depth and deep wells. The OW shallow-depth wells (OW-1S, OW-2S, and OW-5S) show little water quality variation over time and generally have no net trends over time. TDS, sodium, chloride, vanadium, and molybdenum are particularly consistent with baseline pre-injection concentrations and show that the local groundwater quality at shallow depths is not being affected by injection of treated water or outside water sources.

Compliance well water quality hydrographs are presented in Figures 3D and 3E. Wells CW-1D, CW-2D, CW-3D, and CW-4D show a decreasing trend in TDS and chloride. Wells CW-1M and CW-2M show decreasing trends in Cr(VI) and Cr(T). These changes are attributed to the arrival of treated injection water.

3.4 Water Level Measurements

Table 8 presents the manual water level measurements and groundwater elevations for the second half 2009 monitoring events.

As a requirement of the conditional approval by DTSC (DTSC, 2005) and subsequent modifications (DTSC, 2009), water level measurements from continuously measured (measurements collected every half hour) pressure transducers were used to produce hydrographs from select wells. Figures 4A through 4C present hydrographs that illustrate groundwater elevation trends and vertical hydraulic gradients observed over the second half 2009 reporting period at select observation monitoring wells.

Groundwater elevation maps for shallow, middle, and deep wells are provided as Figures 5A through 5C. A snapshot of water level elevations was used to produce the groundwater elevation contour plots. The date is noted on each figure.

3.4.1 Groundwater Gradient Characteristics

The monitoring wells in the middle- and deep-zone categories are screened over a wide elevation range (74 feet in the middle zone wells and 59 feet in the deep wells). Because there are natural vertical gradients as well as vertical gradients induced by injection, the relationships of groundwater elevations for wells in each category will reflect a mixture of vertical and horizontal gradients in groundwater elevation. Therefore, the groundwater contours on Figures 5B and 5C should be viewed as approximate.

The injection well field is located in the East Mesa area of the Topock site (Figure 2). Overall sitewide water level contour maps for shallow wells are prepared annually, with flow consistently being shown to move to the east, northeast across the uplands portions of the site (CH2M HILL, 2009b).

The effects of injection in the IM No. 3 injection well field are superimposed on the more regional Topock site flow system and, as expected, a groundwater mound can be seen around the injection wells. This mound is centered on the active injection wells IW-3 and IW-2. The potentiometric surfaces in prior CMP reports mapped the growth of the groundwater mound over time and show that, after 51 months of injection, the mound has increased and then stabilized in height at several tenths of a foot in elevation above the surrounding water level elevations. Figures 5B and 5C present groundwater elevation contours for the average groundwater elevation of the mound within the middle and deep wells using November 23, 2009 groundwater elevations. As expected with a mound, the potentiometric surface of the deep wells is slightly broader, while the potentiometric surface of the middle wells is more localized to the vicinity of the injection wells. The mound is elliptical in shape, with the major axis running in a southwest to northeast direction. The lower gradients (broader contours) in the direction of the major axis are an indication that the aquifer permeabilities are greater in this direction, indicating that there may be a preferred direction to flow in this area.

The vertical gradient in the IM No. 3 injection well field area is directed upward at all of the CW and OW well clusters and also upward between each of the depth intervals in those same well clusters. Table 9 presents the vertical gradient data calculated using the November 23, 2009 groundwater elevations. The magnitude of the vertical gradients is

similar between clusters and between the depth intervals, indicating that the vertical gradient is of the same order of magnitude throughout the injection area. A component of the vertical gradients calculated in the vicinity of the IM No. 3 injection well field is undoubtedly related to the injection of treated water in the lower portions of the aquifer. The observed groundwater gradients in the IM No. 3 injection well field are consistent with expected regional groundwater flow within the southern Mohave Valley.

3.5 Field Parameter Data

A field water quality instrument and flow-through cell were used to measure water quality parameters during well purging and groundwater sampling. The measured field parameters included specific conductance, temperature, pH, oxidation-reduction potential, dissolved oxygen, turbidity, and salinity. Table 10 is a summary of the field water quality data measured during the third and fourth quarter 2009 monitoring events. Field data sheets for the third and fourth quarter 2009 events are presented in Appendix B.

3.6 WDR Monitoring Requirements

Table 11 identifies the laboratory that performed each analysis and lists the following information as required by the WDR for the second half 2009 monitoring events:

- Sample location
- Sample identification number
- Sampler name
- Sample date
- Sample time
- Laboratory performing analysis
- Analysis method
- Parameter
- Analysis date
- Laboratory technician
- Result unit
- Sample result
- Reporting limit
- Method detection limit

4.0 Status of Monitoring Activities

4.1 Quarterly Monitoring

Per the DTSC and RWQCB approved modifications to the MRP, quarterly monitoring is no longer required (Water Board, 2008; DTSC, 2009).

4.2 Semiannual Monitoring

The next semiannual monitoring event will occur in April during the second quarter 2010. This CMP monitoring event, which will encompass only the OW wells, will include the sampling and analysis scope presented in the Compliance Monitoring Plan (CH2M HILL, 2005a, c) and subsequent approved scope revisions (DTSC, 2007, 2008a-b, 2009; Water Board, 2007a-b, 2008). The groundwater monitoring report for this semiannual CMP monitoring event will be submitted by July 15, 2010.

5.0 References

California Department of Toxic Substances Control (DTSC). 2005. Letter to PG&E. "Conditional Approval for the Start Up and Operation of the Interim Measures No. 3 Treatment System and Injection Wells, Pacific Gas & Electric Company, Topock Compressor Station." July 15.

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6.0 Certification

PG&E submitted a signature delegation letter to the Water Board on September 20, 2006. The letter delegated PG&E signature authority to Mr. Curt Russell and Ms. Yvonne Meeks for correspondence regarding Board Order R7-2006-0060.

Certification Statement:

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

Signature: 

Name: Yvonne J. Meeks

Company: Pacific Gas and Electric Company

Title: Topock Project Manager

Date: January 15, 2010

Tables

TABLE 1
Operational Status of Interim Measures No. 3 Injection Wells From Inception of Injection Through Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

Time Period	Injection Status
July 31, 2005 to Fourth Quarter 2005	Injection occurred at IW-2.
First Quarter 2006	Injection occurred primarily at IW-2 except during periods of operational testing, when injection was divided equally between IW-2 and IW-3.
Second Quarter 2006	Injection occurred at IW-2.
Third Quarter 2006	In August 2006, IW-2 went offline for routine maintenance, and injection commenced at IW-3.
Fourth Quarter 2006	Injection occurred at IW-3, except during routine maintenance.
First Quarter 2007	Injection occurred at IW-3 and transitioned over to IW-2 on March 8.
Second Quarter 2007	Injection occurred at IW-3 from April 3 through June 20. Injection switched to IW-2 on June 20 and continued through July 20, 2007.
Third Quarter 2007	Injection occurred at IW-3 after July 20. Injection occurred at IW-2 on August 30 for an injection test and then returned to IW-3 after August 31.
Fourth Quarter 2007	Injection occurred at IW-3 and then switched to IW-2 on September 25 for routine maintenance. Injection returned to IW-3 after October 9.
First Quarter 2008	Injection occurred at IW-3 only. From February 5 through February 13, well maintenance activities were conducted at IW-2.
Second Quarter 2008	Injection occurred at IW-3 only. IM-3 system offline from April 21 through April 28 due to routine maintenance. Backwashing occurred at IW-3 on April 9, May 7, May 15, May 22, June 3, and June 4, 2008.
Third Quarter 2008	Injection occurred primarily at IW-3. Injection also occurred at IW-2 for short period on July 25 and from August 12 – August 31, 2008. Backwashing events occurred at IW-3 on June 17, June 27, July 9, July 15, July 17, July 18, August 12, August 13, September 2, and September 3, 2008. Backwashing events occurred at IW-2 on September 9 - September 11, 2008.
Fourth Quarter 2008	Injection occurred at IW-3 and then switched to IW-2 on September 23. Injection returned to IW-3 on October 7 and switched back to IW-2 on October 21. Injection primarily occurred at IW-2 until November 11 when it switched to IW-3 until December 3, 2008. Injection continued at IW-2 until December 16, 2008 and occurred concurrently and continued at IW-3 on December 11, 2008.
First Quarter 2009	Injection switched to IW-2 on December 30, 2008. On January 13, 2009 injection transitioned to IW-3. Backwashing events occurred periodically during the periods when each injection well was offline. Routine and scheduled maintenance occurred 12/18/08 and 1/21/09 at which time both wells were offline.
Second Quarter 2009	Injection continued at IW-3 until April 20, 2009. Injection ceased from April 20, 2009 to April 27, 2009 due to routine maintenance after which injection continued at IW-3 until May 26, 2009 when it transitioned to IW-2. Injection continued at IW-2 until June 9, 2009 when it switched to IW-3. Injection returned to IW-2 on June 24, 2009.

Third Quarter 2009	IM3 injection alternates between the two wells approximately every two weeks. Injection continued at IW-2 until July 8, when it transitioned to IW-3. Injection ceased from July 23 to 27, 2009 when it continued at IW-3 until September 9, 2009. Unplanned downtime occurred from September 9-14, 2009. On September 16, 2009 injection continued at IW-2, except during times of routine maintenance or otherwise mentioned.
Fourth Quarter 2009	Injection occurred at IW-2 until November 25, 2009 when it switched to IW-3. Injection continued at IW-3, except during times of routine maintenance.

TABLE 2
Well Construction and Sampling Summary for Groundwater Samples, Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

Well ID	Site Area	Measuring Point Elevation (ft AMSL)	Screen Interval (ft bgs)	Well Casing (inches)	Well Depth (ft btoc)	Depth to Water (ft btoc)	Sampling System	Typical Purge Rate (gpm)	Typical Purge Volume (gallons)	Pump Depth (ft bgs)	Transducer Status	Remarks
IM Compliance Wells												
CW-01M	East Mesa	566.07	140 - 190	2 (PVC)	190.0	109.7	Temp Redi-Flo AR	2	42	124		
CW-01D	East Mesa	566.46	250 - 300	2 (PVC)	300.2	109.8	Temp Redi-Flo AR	3	100	125		
CW-02M	East Mesa	549.45	152 - 202	2 (PVC)	202.0	93.3	Temp Redi-Flo AR	2	56	108		
CW-02D	East Mesa	549.43	285 - 335	2 (PVC)	355.0	92.8	Temp Redi-Flo AR	3	135	108		
CW-03M	East Mesa	534.10	172 - 222	2 (PVC)	222.0	78.2	Temp Redi-Flo AR	2	75	93		
CW-03D	East Mesa	534.14	270 - 320	2 (PVC)	340.0	77.5	Temp Redi-Flo AR	3	135	93		
CW-04M	East Mesa	518.55	119.5 - 169.8	2 (PVC)	169.8	62.0	Temp Redi-Flo AR	2	56	77		
CW-04D	East Mesa	518.55	233 - 283	2 (PVC)	303.0	62.0	Temp Redi-Flo AR	3	126	77		
IM Observation Wells												
OW-01S	East Mesa	550.21	83.5 - 113.5	2 (PVC)	113.5	94.1	Temp Redi-Flo AR	1	12	109	Active	
OW-01M	East Mesa	550.36	165 - 185	2 (PVC)	185.8	93.8	Temp Redi-Flo AR	2	48	109		
OW-01D	East Mesa	550.36	257 - 277	2 (PVC)	277.0	93.6	Temp Redi-Flo AR	3	94	108		
OW-02S	East Mesa	548.88	71 - 101	2 (PVC)	121.0	92.8	Temp Redi-Flo AR	2	16	108	Active	
OW-02M	East Mesa	548.52	190 - 210	2 (PVC)	210.3	91.8	Temp Redi-Flo AR	3	61	107		
OW-02D	East Mesa	549.01	310 - 330	2 (PVC)	340.0	91.7	Temp Redi-Flo AR	3	127	107		
OW-05S	East Mesa	551.83	70 - 110	2 (PVC)	110.3	95.6	Temp Redi-Flo AR	1	8	110	Active	
OW-05M	East Mesa	551.81	210 - 250	2 (PVC)	250.3	95.1	Temp Redi-Flo AR	3	81	110	Active	
OW-05D	East Mesa	552.41	300 - 320	2 (PVC)	350.0	95.6	Temp Redi-Flo AR	3	132	110	Active	

Notes:

AMSL	above mean sea level
BGS	below ground surface
BTOC	below top of polyvinyl chloride (PVC) casing
Redi-Flo AR	adjustable-rate electric submersible pump
Temp	temporary
gpm	gallons per minute

Depth to water shown is the most recently measured depth to water.
All wells were purged and sampled using 3 well-volume method.

TABLE 3
Chromium Results for Groundwater Samples, Third and Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

		Method:	E218.6	E200.8
Location ID	**Sample Date**		**Hexavalent Chromium (µg/L)**	**Chromium (total) (µg/L)**
CW-01M	10/12/2009		1.94	2.36
CW-01D	10/12/2009		ND (1.1)	1.41
CW-02M	10/14/2009		6.49	6.70
CW-02D	10/14/2009		ND (1.1)	ND (1.0)
CW-03M	10/15/2009		11.4	11.4
CW-03M	10/15/2009	(FD)	11.4	11.6
CW-03D	10/15/2009		ND (1.1)	ND (1.0)
CW-04M	10/15/2009		16.7	16.6
CW-04D	10/15/2009		ND (2.1)	2.30
OW-01S	7/8/2009		17.8	19.4
OW-01S	10/12/2009		21.9	21.6
OW-01S	10/12/2009	(FD)	22.0	21.4
OW-01M	7/8/2009		2.57	3.38
OW-01M	10/12/2009		1.81	2.14
OW-01D	7/7/2009		ND (1.1)	1.78
OW-01D	10/12/2009		1.26	1.51
OW-02S	7/8/2009		29.3	29.6
OW-02S	7/8/2009	(FD)	30.0	30.7
OW-02S	10/13/2009		31.7	31.8
OW-02M	7/8/2009		2.52	2.64
OW-02M	10/13/2009		1.68	2.18
OW-02D	7/8/2009		ND (1.1)	ND (1.0)
OW-02D	10/13/2009		ND (1.1)	ND (1.0)
OW-05S	7/8/2009		21.2	22.9
OW-05S	10/13/2009		21.7	21.8
OW-05M	7/8/2009		2.37	2.10
OW-05M	10/13/2009		1.15	1.67
OW-05D	7/8/2009		1.08	1.26
OW-05D	10/13/2009		ND (1.1)	1.18

Notes:

FD field duplicate
ND parameter not detected at the listed reporting limit
µg/L micrograms per liter

Hexavalent Chromium and Chromium (total) are field filtered.

TABLE 4
Metal and Cation Results for Groundwater Samples, Third and Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

Location ID	Sample Date	Method:	Dissolved E200.7, E200.8																						
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Boron	Calcium	Iron [1]	Iron [2]	Potassium	Magnesium	Sodium
		µg/L																		mg/L						
CW-01M	10/12/2009	ND (50)	ND (10)	1.88	80.0	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	11.9	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	1.04	134	0.0251	0.029	12.2	11.2	1210
CW-01D	10/12/2009	ND (50)	ND (10)	1.69	22.6	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	12.2	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	1.02	149	ND (0.02)	ND (0.02)	11.9	13.2	1220
CW-02M	10/14/2009	ND (50)	ND (10)	2.76	66.3	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	25.8	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	1.08	129	ND (0.02)	ND (0.02)	13.1	10.4	1310
CW-02D	10/14/2009	ND (50)	ND (10)	4.18	10.5	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	17.6	ND (10)	ND (10)	ND (5.0)	ND (1.0)	5.69	ND (10)	1.46	76.0	ND (0.02)	ND (0.02)	11.9	4.25	1290
CW-03M	10/15/2009	ND (50)	ND (10)	1.34	51.2	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	21.1	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	44.2 J	1.12	208	ND (0.02)	ND (0.02)	17.0	17.7	1470
CW-03M	10/15/2009 FD	ND (50)	ND (10)	1.32	50.8	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	20.6	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)J	1.09	212	ND (0.02)	ND (0.02)	17.9	19.0	1470
CW-03D	10/15/2009	ND (50)	ND (10)	2.09	ND (10)	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	49.1	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	1.59	69.3	ND (0.02)	ND (0.02)	12.8	5.62	1320
CW-04M	10/15/2009	ND (50)	ND (10)	2.36	80.0	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	11.4	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	0.846	146	ND (0.02)	ND (0.02)	13.0	13.0	1080
CW-04D	10/15/2009	ND (50)	ND (10)	4.06	23.8	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	32.8	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	1.47	148	ND (0.02)	ND (0.02)	15.0	9.95	1560
OW-01S	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	ND (10)	---	---	---	---	---	---	0.32	---	---	---	---	---	---
OW-01S	10/12/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.366	---	---	---	---	---	---
OW-01S	10/12/2009 FD	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.362	---	---	---	---	---	---
OW-01M	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	ND (10)	---	---	---	---	---	---	1.01	---	---	---	---	---	---
OW-01M	10/12/2009	ND (50)	ND (10)	1.11	91.0	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	11.6	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	0.992	198	ND (0.02)	ND (0.02)	14.8	20.2	1150
OW-01D	7/7/2009	---	---	---	---	---	---	---	---	---	---	---	10.3	---	---	---	---	---	---	1.03	---	---	---	---	---	---
OW-01D	10/12/2009	ND (50)	ND (10)	1.48	36.4	ND (1.0)	ND (3.0)	ND (5.0)	ND (5.0)	ND (10)	ND (10)	ND (1.0)	ND (10)	ND (10)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (10)	1.01	176	0.0226	0.0239	13.9	14.8	1210
OW-02S	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	36.5	---	---	---	---	---	---	0.675	---	---	---	---	---	---
OW-02S	7/8/2009 FD	---	---	---	---	---	---	---	---	---	---	---	33.1	---	---	---	---	---	---	0.674	---	---	---	---	---	---
OW-02S	10/13/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.666	---	---	---	---	---	---
OW-02M	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	11.0	---	---	---	---	---	---	1.07	---	---	---	---	---	---
OW-02M	10/13/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.10	---	---	---	---	---	---
OW-02D	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	13.3	---	---	---	---	---	---	1.03	---	---	---	---	---	---
OW-02D	10/13/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.07	---	---	---	---	---	---
OW-05S	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	23.6	---	---	---	---	---	---	0.415	---	---	---	---	---	---
OW-05S	10/13/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.409	---	---	---	---	---	---
OW-05M	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	10.7	---	---	---	---	---	---	1.03	---	---	---	---	---	---
OW-05M	10/13/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.16	---	---	---	---	---	---
OW-05D	7/8/2009	---	---	---	---	---	---	---	---	---	---	---	12.8	---	---	---	---	---	---	1.09	---	---	---	---	---	---
OW-05D	10/13/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.07	---	---	---	---	---	---

NOTES:

FD	field duplicate
ND	parameter not detected at the listed reporting limit
mg/L	milligrams per liter
µg/L	micrograms per liter
---	data not collected or available
J	concentration estimated by laboratory or data validation

1 Total Iron

2 Dissolved Iron

TABLE 5
Other Inorganics Results for Groundwater Samples, Third and Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

	Method:	E120.1	SM4500-HB	SM2540C	SM2130B	E300.0	E300.0	E300.0	SM4500NO3E	SM2320B	SM4500NH3D
Location ID	**Sample Date**	**Specific Conductance (µmhos/cm)**	**pH (pH units)**	**Total Dissolved Solids (mg/L)**	**Turbidity (NTU)**	**Chloride (mg/L)**	**Fluoride (mg/L)**	**Sulfate (mg/L)**	**Nitrate/Nitrite as Nitrogen (mg/L)**	**Alkalinity, total as CaCo3 (mg/L)**	**Ammonia as Nitrogen (mg/L)**
CW-01M	10/12/2009	6980	7.56 J	3870	0.712	2060	2.19	480	2.78	69.0	ND (0.5)
CW-01D	10/12/2009	7120	7.73 J	4090	0.105	2080	1.94	492	3.19	64.0	ND (0.5)
CW-02M	10/14/2009	7020	8.00 J	4370	0.251	2130	2.88	436	1.78	49.0	ND (0.5)
CW-02D	10/14/2009	7140	8.19 J	4510	0.221	2110	4.92	491	3.65	59.0	ND (0.5)
CW-03M	10/15/2009	8600	7.83 J	5640	0.205	2710	2.81	415	1.23	47.0	ND (0.5)
CW-03M	10/15/2009 (FD)	8670	7.79 J	5080	0.229	2780	2.87	417	1.01	46.0	ND (0.5)
CW-03D	10/15/2009	7070	8.16 J	4590	0.369	2070	6.28	484	2.33	60.0	ND (0.5)
CW-04M	10/15/2009	6250	7.90 J	3760	0.176	1900	1.96	331	1.25	53.0	ND (0.5)
CW-04D	10/15/2009	8770	8.02 J	5580	0.168	2700	4.26	527	1.76	54.0	ND (0.5)
OW-01S	7/8/2009	3420	---	2000	0.418	893	1.85	169	1.76	---	---
OW-01S	10/12/2009	2960	7.75 J	1890	0.439	829	2.45	162	2.70	---	---
OW-01S	10/12/2009 (FD)	2890	7.74 J	1950	0.430	797	2.23	151	2.54	---	---
OW-01M	7/8/2009	7340	---	4290	0.193	1970	1.49	470	1.80	---	---
OW-01M	10/12/2009	7020	7.64 J	4190	0.234	2070	2.36	486	2.77	75.0	ND (0.5)
OW-01D	7/7/2009	7180	---	4260	0.661	1960	1.48	463	2.99	---	---
OW-01D	10/12/2009	7190	7.69 J	4630	0.473	2090	1.56	500	2.73	77.0	ND (0.5)
OW-02S	7/8/2009	1780	---	988	0.559	404	3.88	116	3.66	---	---
OW-02S	7/8/2009 (FD)	1720	---	954	0.543	399	4.27	113	3.47	---	---
OW-02S	10/13/2009	1720	8.06 J	962	0.735	389	5.20	112	3.54	---	---
OW-02M	7/8/2009	7220	---	4190	ND (0.1)	2070	1.74	487	2.75	---	---
OW-02M	10/13/2009	7120	7.70 J	4630	ND (0.1)	2090	4.81	489	2.73	---	---
OW-02D	7/8/2009	7350	---	4300	0.116	2030	1.91	478	3.90	---	---
OW-02D	10/13/2009	7490	7.58 J	4750	ND (0.1)	2250	2.17	529	2.92	---	---
OW-05S	7/8/2009	1940	---	1080	0.376	453	2.21	113	3.39	---	---
OW-05S	10/13/2009	1870	7.89 J	1040	0.680	462	2.40	113	3.56	---	---
OW-05M	7/8/2009	7340	---	4090	0.144	2050	1.89	484	2.73	---	---
OW-05M	10/13/2009	7140	7.60 J	4520	ND (0.1)	2100	2.08	490	2.64	---	---
OW-05D	7/8/2009	7400	---	4150	ND (0.1)	2090	1.88	482	2.89	---	---
OW-05D	10/13/2009	7250	7.65 J	4120	ND (0.1)	2070	2.31	489	2.84	---	---

NOTES:

ND	parameter not detected at the listed reporting limit
FD	field duplicate
µmhos/cm	micro-mhos per centimeter
NTU	Nephelometric Turbidity Unit
mg/L	milligrams per liter
---	data not collected, available
J	concentration estimated by laboratory or data validation

TABLE 6
Treated Water Quality Compared to OW and CW Pre-injection Water Quality
PG&E Topock Compliance Monitoring Program

Location ID	Sample Date	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Fluoride (mg/L)	Dissolved Molybdenum (µg/L)	Nitrate/ Nitrite as Nitrogen (mg/L)	Sulfate (mg/L)	TDS (mg/L)
Treated Water	8/29/2005	ND(1.0)	ND(2.1)	1.95	8.3	3.7	450	3620
Treated Water	7/2/2007	ND(0.2)	ND(1.0)	2.18	17.5	2.60	477	3980
Treated Water	10/7/2009	ND(0.2)	ND(1.0)	2.39	15.5	2.72	500	4310
OW-01S	7/28/2005	19.4	23.5	2.45	17.2	3.2	114	1320
OW-01M	7/27/2005	16.3	18.9	2.31	27	1.01	311	3450
OW-01D	7/27/2005	ND(1.0)	ND(1.3)	1.14	46.1	0.321	441	6170
OW-02S	7/28/2005	15.3	14.8	3.79	35.6	3.81	126	1090
OW-02M	7/28/2005	5.4	5.7	2.19	32.4	0.735	342	4380
OW-02D	7/28/2005	ND(1.0)	ND(1.2)	0.966	51.2	0.1	616	9550
OW-05S	7/28/2005	23.4	25.6	2.3	17.1	3.55	105	1060
OW-05M	7/28/2005	8.6	8.8	2.74	35.4	0.621	417	5550
OW-05D	7/28/2005	ND(1.0)	ND(1.2)	1.11	57	0.151	480	8970
CW-01M	9/15/2005	18.1	17.8	2.34	21.6	1.11	318	2990
CW-01D	9/15/2005	ND(1.0)	1.6	0.951	32.1	0.972	379	6230
CW-02M	9/15/2005	15.8	15.5	2.3	23.1	0.908	342	3500
CW-02D	9/15/2005	ND(1.0)	1.6	0.982	41.6	0.28	601	8770
CW-03M	9/15/2005	8.8	8.1	2.57	24.2	0.642	464	4740
CW-03D	9/15/2005	ND(1.0)	ND(1.0)	1.4	29.2	0.304	672	9550
CW-04M	9/15/2005	19.2	19	1.5	12.3	1.18	240	3310
CW-04D	9/15/2005	ND(1.0)	ND(1.0)	1.01	26	0.188	534	7470

NOTES:

ND Not detected at the listed reporting limit.
mg/L milligrams per liter
µg/L micrograms per liter

Hexavalent chromium samples were analyzed with method E218.6.
Total chromium samples were analyzed with method E200.8.
Total chromium samples of the treated water were unfiltered.

TABLE 7
Treated Water Quality Compared to Third and Fourth Quarter 2009 Sampling Event Water Quality
PG&E Topock Compliance Monitoring Program

Location ID	Sample Date	Hexavalent Chromium (µg/L)	Chromium (total) (µg/L)	Fluoride (mg/L)	Molybdenum (µg/L)	Nitrate/Nitrite as Nitrogen (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
Treated Water	6/3/2009	ND (0.2)	ND (1.0)	2.45	17.3	2.76	511	4370
Treated Water	9/2/2009	ND (0.2)	ND (1.0)	2.47	24.6	2.84	485	4220
Treated Water	10/7/2009	ND (0.2)	ND (1.0)	2.39	15.5	2.72	500	4310
CW-01M	10/12/2009	1.94	2.36	2.19	11.9	2.78	480	3870
CW-01D	10/12/2009	ND (1.0)	1.41	1.94	12.2	3.19	492	4090
CW-02M	10/14/2009	6.49	6.70	2.88	25.8	1.78	436	4370
CW-02D	10/14/2009	ND (1.0)	ND (1.0)	4.92	17.6	3.65	491	4510
CW-03M	10/15/2009 (FD)	11.4	11.6	2.87	20.6	1.01	417	5080
CW-03M	10/15/2009	11.4	11.4	2.81	21.1	1.23	415	5640
CW-03D	10/15/2009	ND (1.0)	ND (1.0)	6.28	49.1	2.33	484	4590
CW-04M	10/15/2009	16.7	16.6	1.96	11.4	1.25	331	3760
CW-04D	10/15/2009	ND (2.1)	2.30	4.26	32.8	1.76	527	5580
OW-01S	7/8/2009	17.8	19.4	1.85	ND (10)	1.76	169	2000
OW-01S	10/12/2009	21.9	21.6	2.45	---	2.70	162	1890
OW-01S	10/12/2009 (FD)	22.0	21.4	2.23	---	2.54	151	1950
OW-01M	7/8/2009	2.57	3.38	1.49	ND (10)	1.80	470	4290
OW-01M	10/12/2009	1.81	2.14	2.36	11.6	2.77	486	4190
OW-01D	7/7/2009	ND (1.0)	1.78	1.48	10.3	2.99	463	4260
OW-01D	10/12/2009	1.26	1.51	1.56	ND (10)	2.73	500	4630
OW-02S	7/8/2009	29.3	29.6	3.88	36.5	3.66	116	988
OW-02S	7/8/2009 (FD)	30.0	30.7	4.27	33.1	3.47	113	954
OW-02S	10/13/2009	31.7	31.8	5.20	---	3.54	112	962
OW-02M	7/8/2009	2.52	2.64	1.74	11.0	2.75	487	4190
OW-02M	10/13/2009	1.68	2.18	4.81	---	2.73	489	4630
OW-02D	7/8/2009	ND (1.0)	ND (1.0)	1.91	13.3	3.90	478	4300
OW-02D	10/13/2009	ND (1.0)	ND (1.0)	2.17	---	2.92	529	4750
OW-05S	7/8/2009	21.2	22.9	2.21	23.6	3.39	113	1080
OW-05S	10/13/2009	21.7	21.8	2.40	---	3.56	113	1040
OW-05M	7/8/2009	2.37	2.10	1.89	10.7	2.73	484	4090
OW-05M	10/13/2009	1.15	1.67	2.08	---	2.64	490	4520
OW-05D	7/8/2009	1.08	1.26	1.88	12.8	2.89	482	4150
OW-05D	10/13/2009	ND (1.0)	1.18	2.31	---	2.84	489	4120

TABLE 7
Treated Water Quality Compared to Third and Fourth Quarter 2009 Sampling Event Water Quality
PG&E Topock Compliance Monitoring Program

Notes:

FD	field duplicate
ND	parameter not detected at the listed reporting limit
mg/L	milligrams per liter
µg/L	micrograms per liter

All hexavalent chromium samples were analyzed with method E218.6

All chromium (total) and molybdenum samples were analyzed with method E200.8. Chromium (total) and molybdenum samples were field filtered, except for the treated water.

Fluoride and Sulfate samples were analyzed with method E300.0.

All nitrate/nitrite as nitrogen samples were analyzed with method SM4500NO3E, except for treated water which used method E300.

All total dissolved solid samples were analyzed with method SM2540C.

TABLE 8
Manual Water Level Measurements and Elevations, Third and Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

Location ID	Well Depth (feet BTOC)	Measuring Point Elevation (feet AMSL)	Monitoring Date & Time		Water Level Measurement (feet BTOC)	Salinity (%)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
CW-01M	190.0	566.16	12-Oct-09	12:25 PM	109.28	0.66	456.91
CW-01D	300.2	566.57	12-Oct-09	11:02 AM	109.42	0.70	457.28
CW-02M	202.0	549.37	14-Oct-09	4:05 PM	92.98	0.68	456.47
CW-02D	355.0	549.64	14-Oct-09	2:39 PM	92.55	0.60	457.06
CW-03M	222.0	534.21	15-Oct-09	9:30 AM	78.01	0.84	456.46
CW-03D	340.0	534.27	15-Oct-09	8:09 AM	77.29	0.66	457.07
CW-04M	169.8	518.66	15-Oct-09	12:39 PM	61.80	0.61	456.89
CW-04D	303.0	518.68	15-Oct-09	11:13 AM	61.75	0.84	457.32
OW-01S	113.5	550.21	08-Jul-09	9:49 AM	92.97	0.32	457.20
		550.15	12-Oct-09	4:04 PM	93.61	0.32	456.50
OW-01M	185.8	550.45	08-Jul-09	8:17 AM	92.73	0.68	457.76
			12-Oct-09	3:09 PM	93.32	0.68	457.17
OW-01D	277.0	550.48	07-Jul-09	4:25 PM	92.01	0.67	458.53
			12-Oct-09	2:05 PM	92.79	0.67	457.76
OW-02S	121.0	548.88	08-Jul-09	4:50 PM	91.52	0.19	457.28
			13-Oct-09	2:10 PM	92.42	0.19	456.39
OW-02M	210.3	548.59	08-Jul-09	3:37 PM	90.95	0.68	457.68
			13-Oct-09	12:59 PM	91.46	0.68	457.17
OW-02D	340.0	549.15	08-Jul-09	2:14 PM	90.90	0.67	458.30
			13-Oct-09	11:48 AM	91.33	0.67	457.88
OW-05S	110.3	551.83	08-Jul-09	12:56 PM	94.40	0.25	457.39
			13-Oct-09	10:28 AM	95.32	0.25	456.48
OW-05M	250.3	551.81	08-Jul-09	12:48 PM	93.85	0.67	458.02
			13-Oct-09	9:31 AM	94.71	0.67	457.24
OW-05D	350.0	552.41	08-Jul-09	10:46 AM	94.54	0.76	458.11
			13-Oct-09	8:13 AM	95.28	0.76	457.62

Notes:

AMSL above mean sea level
BTOC below top of polyvinyl chloride (PVC) casing
% percentage

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

TABLE 9
Vertical Gradients within the OW and CW Clusters
PG&E Topock Compliance Monitoring Program

Well Pairs	Vertical Gradient (ft/ft)[a]
CW-01D to CW-01M	0.0034
CW-02D to CW-02M	0.0026
CW-03D to CW-03M	0.0056
CW-04D to CW-04M	0.0038
OW-01M to OW-01S	0.0073
OW-01D to OW-01M	0.0023
OW-02M to OW-02S	0.0068
OW-02D to OW-02M	0.0047
OW-05M to OW-05S	0.0052
OW-05D to OW-05M	0.0047

[a] Positive value signifies an upward gradient.

Gradients calculated using November 23, 2009 groundwater levels.

TABLE 10
Field Parameter Measurements for Groundwater Samples, Third and Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

Location ID	Sampling Date	Specific Conductance (µmhos/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Salinity (%)
CW-01M	10/12/2009	7300	28.46	7.78	88.7	7.17	0.4	0.47
CW-01D	10/12/2009	7332	28.25	7.74	100.8	7.74	1	0.47
CW-02M	10/14/2009	7366	28.42	7.99	0.9	4.13	2	0.48
CW-02D	10/14/2009	7499	29.39	8.19	-12	6.48	2	0.48
CW-03M	10/15/2009	8911	28.37	7.66	50.5	0.81	2	0.58
CW-03D	10/15/2009	7319	29.2	8.07	98.7	6.39	1	0.47
CW-04M	10/15/2009	6516	28.41	7.73	21	1.69	3	0.42
CW-04D	10/15/2009	9063	29.19	7.86	27	4.62	1	0.59
OW-01S	7/8/2009	3540	30.24	7.56	53.9	4.27	1.4	0.23
OW-01S	10/12/2009	3070	28.22	7.65	72.2	5.34	2	0.2
OW-01M	7/8/2009	7390	29.26	7.55	111	---	0.4	0.48
OW-01M	10/12/2009	7268	28.05	7.54	98.7	11.3	1	0.47
OW-01D	7/7/2009	6596	29.86	7.62	37.8	10.1	2.1	0.43
OW-01D	10/12/2009	7326	28.06	7.61	102.1	11.3	2	0.47
OW-02S	7/8/2009	1800	29.96	7.95	98.1	8.69	1.7	0.12
OW-02S	10/13/2009	1759	27.92	8.16	65.1	8.1	2	0.11
OW-02M	7/8/2009	7390	28.89	7.58	137	---	0.3	0.48
OW-02M	10/13/2009	7402	28.88	7.65	86.3	9.98	0.4	0.48
OW-02D	7/8/2009	7450	30.63	7.51	91.7	---	0.4	0.48
OW-02D	10/13/2009	7817	27.77	7.63	96.4	9.26	1	0.5
OW-05S	7/8/2009	1990	29.56	7.79	130.3	7.65	1.9	0.13
OW-05S	10/13/2009	1952	28	7.9	78.6	6.99	3	0.13
OW-05M	7/8/2009	7460	28.68	7.55	102.8	7.81	0.4	0.48
OW-05M	10/13/2009	7407	28.37	7.66	100.2	6.41	0.5	0.48
OW-05D	7/8/2009	7480	29.31	7.58	104.1	8.76	0.4	0.48
OW-05D	10/13/2009	7358	29	7.71	121	7.22	1	0.47

Notes:

µmhos/cm	micro-mhos per centimeter
°C	degree centigrade
ORP	oxidation reduction potential
mV	millivolts
mg/L	milligrams per liter
NTU	Nephelometric Turbidity Unit
%	percentage
---	data not collected, not available, or rejected

Salinity is calculated using the specific conductance field measurement, the last measurement before sampling.

TABLE 11

Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009

PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-01D	CW-01D-022	Aurora Abbott	10/12/2009	11:57:00 AM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	7120	2.0	0.022
					TLI	EPA 200.7	BD	10/28/2009	Kris Collins	mg/L	1.02	0.20	0.002
					TLI	EPA 200.7	CAD	10/23/2009	Kris Collins	mg/L	149	4.00	0.68
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	10/28/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	10/23/2009	Kris Collins	mg/L	11.9	0.50	0.04
					TLI	EPA 200.7	MGD	10/23/2009	Kris Collins	mg/L	13.2	0.20	0.08
					TLI	EPA 200.7	NAD	10/23/2009	Kris Collins	mg/L	1220	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	1.69	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	22.6	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	1.41	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/15/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	12.2	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	ND (1.1)	1.1	0.0998

TABLE 11

Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009

PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-01D	CW-01D-022	Aurora Abbott	10/12/2009	11:57:00 AM	TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	2080	100	12.0
					TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	1.94	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	492	12.5	1.00
					TLI	SM 2320B	ALKB	10/14/2009	Iordan Stavrev	mg/L	64.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/14/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/14/2009	Iordan Stavrev	mg/L	64.0	5.0	0.153
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.105	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	4090	250	7.00
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.73 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/15/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	3.19	0.5	0.10
CW-01M	CW-01M-022	Aurora Abbott	10/12/2009	1:25:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	6980	2.0	0.022
					TLI	EPA 200.7	BD	10/28/2009	Kris Collins	mg/L	1.04	0.20	0.002
					TLI	EPA 200.7	CAD	10/23/2009	Kris Collins	mg/L	134	4.00	0.68
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	0.0251	0.02	0.004
					TLI	EPA 200.7	FETD	10/28/2009	Kris Collins	mg/L	0.029	0.02	0.004
					TLI	EPA 200.7	KD	10/23/2009	Kris Collins	mg/L	12.2	0.50	0.04
					TLI	EPA 200.7	MGD	10/23/2009	Kris Collins	mg/L	11.2	0.20	0.08
					TLI	EPA 200.7	NAD	10/23/2009	Kris Collins	mg/L	1210	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	1.88	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	80.0	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	2.36	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52

TABLE 11

Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009

PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-01M	CW-01M-022	Aurora Abbott	10/12/2009	1:25:00 PM	TLI	EPA 200.8	HGD	10/15/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	11.9	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	1.94	1.1	0.0998
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	2060	100	12.0
					TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	2.19	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	480	12.5	1.00
					TLI	SM 2320B	ALKB	10/14/2009	Iordan Stavrev	mg/L	69.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/14/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/14/2009	Iordan Stavrev	mg/L	69.0	5.0	0.153
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.712	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	3870	250	7.00
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.56 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/15/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.78	0.5	0.10
CW-02D	CW-02D-022	Aurora Abbott	10/14/2009	3:44:00 PM	TLI	EPA 120.1	SC	10/20/2009	Tina Acquiat	µmhos/cm	7140	2.0	0.022
					TLI	EPA 200.7	BD	11/2/2009	Kris Collins	mg/L	1.46	0.20	0.002
					TLI	EPA 200.7	CAD	10/26/2009	Kris Collins	mg/L	76.0	10.0	1.70
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	11/2/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	11/3/2009	Kris Collins	mg/L	11.9	0.50	0.04

TABLE 11

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PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-02D	CW-02D-022	Aurora Abbott	10/14/2009	3:44:00 PM	TLI	EPA 200.7	MGD	11/3/2009	Kris Collins	mg/L	4.25	0.20	0.08
					TLI	EPA 200.7	NAD	10/26/2009	Kris Collins	mg/L	1290	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	4.18	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	10.5	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/20/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	17.6	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	5.69	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/20/2009	Sonya Bersudsky	µg/L	ND (1.1)	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2110	100	12.0
					TLI	EPA 300.0	FL	10/16/2009	Giawad Ghenniwa	mg/L	4.92	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	491	12.5	1.00
					TLI	SM 2320B	ALKB	10/19/2009	Iordan Stavrev	mg/L	59.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/19/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/19/2009	Iordan Stavrev	mg/L	59.0	5.0	0.153

TABLE 11

Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009

PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-02D	CW-02D-022	Aurora Abbott	10/14/2009	3:44:00 PM	TLI	SM2130B	TRB	10/16/2009	Gautam Savani	NTU	0.221	0.1	0.007
					TLI	SM2540C	TDS	10/20/2009	Tina Acquiat	mg/L	4510	250	7.00
					TLI	SM4500-HB	PH	10/16/2009	Tina Acquiat	pH Units	8.19 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/19/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	3.65	0.5	0.10
CW-02M	CW-02M-022	Aurora Abbott	10/14/2009	4:50:00 PM	TLI	EPA 120.1	SC	10/20/2009	Tina Acquiat	µmhos/cm	7020	2.0	0.022
					TLI	EPA 200.7	BD	11/3/2009	Kris Collins	mg/L	1.08	0.20	0.002
					TLI	EPA 200.7	CAD	10/26/2009	Kris Collins	mg/L	129	10.0	1.70
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	11/3/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	11/3/2009	Kris Collins	mg/L	13.1	0.50	0.04
					TLI	EPA 200.7	MGD	11/3/2009	Kris Collins	mg/L	10.4	0.20	0.08
					TLI	EPA 200.7	NAD	10/26/2009	Kris Collins	mg/L	1310	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	2.76	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	66.3	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	6.70	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/20/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	25.8	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495

TABLE 11
Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-02M	CW-02M-022	Aurora Abbott	10/14/2009	4:50:00 PM	TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/20/2009	Sonya Bersudsky	µg/L	6.49	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2130	100	12.0
					TLI	EPA 300.0	FL	10/16/2009	Giawad Ghenniwa	mg/L	2.88	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	436	12.5	1.00
					TLI	SM 2320B	ALKB	10/19/2009	Iordan Stavrev	mg/L	49.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/19/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/19/2009	Iordan Stavrev	mg/L	49.0	5.0	0.153
					TLI	SM2130B	TRB	10/16/2009	Gautam Savani	NTU	0.251	0.1	0.007
					TLI	SM2540C	TDS	10/20/2009	Tina Acquiat	mg/L	4370	250	7.00
					TLI	SM4500-HB	PH	10/16/2009	Tina Acquiat	pH Units	8.00 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/19/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	1.78	0.5	0.10
CW-03D	CW-03D-022	Aurora Abbott	10/15/2009	9:09:00 AM	TLI	EPA 120.1	SC	10/20/2009	Tina Acquiat	µmhos/cm	7070	2.0	0.022
					TLI	EPA 200.7	BD	11/2/2009	Kris Collins	mg/L	1.59	0.20	0.002
					TLI	EPA 200.7	CAD	10/26/2009	Kris Collins	mg/L	69.3	10.0	1.70
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	11/2/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	11/3/2009	Kris Collins	mg/L	12.8	0.50	0.04
					TLI	EPA 200.7	MGD	11/3/2009	Kris Collins	mg/L	5.62	0.20	0.08
					TLI	EPA 200.7	NAD	10/26/2009	Kris Collins	mg/L	1320	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	2.09	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.21

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-03D	CW-03D-022	Aurora Abbott	10/15/2009	9:09:00 AM	TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/20/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	49.1	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/20/2009	Sonya Bersudsky	µg/L	ND (1.1)	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2070	100	12.0
					TLI	EPA 300.0	FL	10/16/2009	Giawad Ghenniwa	mg/L	6.28	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	484	12.5	1.00
					TLI	SM 2320B	ALKB	10/19/2009	Iordan Stavrev	mg/L	60.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/19/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/19/2009	Iordan Stavrev	mg/L	60.0	5.0	0.153
					TLI	SM2130B	TRB	10/16/2009	Gautam Savani	NTU	0.369	0.1	0.007
					TLI	SM2540C	TDS	10/20/2009	Tina Acquiat	mg/L	4590	250	7.00
					TLI	SM4500-HB	PH	10/16/2009	Tina Acquiat	pH Units	8.16 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/19/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.33	0.5	0.10
CW-03M	OW-90-022	Aurora Abbott	10/15/2009	8:25:00 AM	TLI	EPA 120.1	SC	10/20/2009	Tina Acquiat	µmhos/cm	8670	2.0	0.022

TABLE 11

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-03M	OW-90-022	Aurora Abbott	10/15/2009	8:25:00 AM	TLI	EPA 200.7	BD	11/2/2009	Kris Collins	mg/L	1.09	0.20	0.002
					TLI	EPA 200.7	CAD	10/26/2009	Kris Collins	mg/L	212	10.0	1.70
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	11/2/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	11/3/2009	Kris Collins	mg/L	17.9	0.50	0.04
					TLI	EPA 200.7	MGD	11/3/2009	Kris Collins	mg/L	19.0	0.20	0.08
					TLI	EPA 200.7	NAD	10/26/2009	Kris Collins	mg/L	1470	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	1.32	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	50.8	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	11.6	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/20/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	20.6	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)J	10.0	1.50
					TLI	EPA 218.6	CR6	10/20/2009	Sonya Bersudsky	µg/L	11.4	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2780	100	12.0

TABLE 11

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PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-03M	OW-90-022	Aurora Abbott	10/15/2009	8:25:00 AM	TLI	EPA 300.0	FL	10/16/2009	Giawad Ghenniwa	mg/L	2.87	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	417	12.5	1.00
					TLI	SM 2320B	ALKB	10/19/2009	Iordan Stavrev	mg/L	46.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/19/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/19/2009	Iordan Stavrev	mg/L	46.0	5.0	0.153
					TLI	SM2130B	TRB	10/16/2009	Gautam Savani	NTU	0.229	0.1	0.007
					TLI	SM2540C	TDS	10/20/2009	Tina Acquiat	mg/L	5080	250	7.00
					TLI	SM4500-HB	PH	10/16/2009	Tina Acquiat	pH Units	7.79 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/19/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	1.01	0.2	0.04
CW-03M	CW-03M-022	Aurora Abbott	10/15/2009	10:23:00 AM	TLI	EPA 120.1	SC	10/20/2009	Tina Acquiat	µmhos/cm	8600	2.0	0.022
					TLI	EPA 200.7	BD	11/2/2009	Kris Collins	mg/L	1.12	0.20	0.002
					TLI	EPA 200.7	CAD	10/26/2009	Kris Collins	mg/L	208	10.0	1.70
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	11/2/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	11/3/2009	Kris Collins	mg/L	17.0	0.50	0.04
					TLI	EPA 200.7	MGD	11/3/2009	Kris Collins	mg/L	17.7	0.20	0.08
					TLI	EPA 200.7	NAD	10/26/2009	Kris Collins	mg/L	1470	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	1.34	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	51.2	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	11.4	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/20/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125

TABLE 11
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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-03M	CW-03M-022	Aurora Abbott	10/15/2009	10:23:00 AM	TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	21.1	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	44.2 J	10.0	1.50
					TLI	EPA 218.6	CR6	10/20/2009	Sonya Bersudsky	µg/L	11.4	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2710	100	12.0
					TLI	EPA 300.0	FL	10/16/2009	Giawad Ghenniwa	mg/L	2.81	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	415	12.5	1.00
					TLI	SM 2320B	ALKB	10/19/2009	Iordan Stavrev	mg/L	47.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/19/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/19/2009	Iordan Stavrev	mg/L	47.0	5.0	0.153
					TLI	SM2130B	TRB	10/16/2009	Gautam Savani	NTU	0.205	0.1	0.007
					TLI	SM2540C	TDS	10/20/2009	Tina Acquiat	mg/L	5640	250	7.00
					TLI	SM4500-HB	PH	10/16/2009	Tina Acquiat	pH Units	7.83 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/19/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	1.23	0.2	0.04
CW-04D	CW-04D-022	Aurora Abbott	10/15/2009	12:10:00 PM	TLI	EPA 120.1	SC	10/20/2009	Tina Acquiat	µmhos/cm	8770	2.0	0.022
					TLI	EPA 200.7	BD	11/2/2009	Kris Collins	mg/L	1.47	0.20	0.002
					TLI	EPA 200.7	CAD	10/26/2009	Kris Collins	mg/L	148	10.0	1.70
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	11/2/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	11/3/2009	Kris Collins	mg/L	15.0	0.50	0.04
					TLI	EPA 200.7	MGD	11/3/2009	Kris Collins	mg/L	9.95	0.20	0.08

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-04D	CW-04D-022	Aurora Abbott	10/15/2009	12:10:00 PM	TLI	EPA 200.7	NAD	10/26/2009	Kris Collins	mg/L	1560	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	4.06	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	23.8	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	2.30	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/20/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	32.8	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/20/2009	Sonya Bersudsky	µg/L	ND (2.1)	2.1	0.20
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2700	100	12.0
					TLI	EPA 300.0	FL	10/16/2009	Giawad Ghenniwa	mg/L	4.26	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	527	12.5	1.00
					TLI	SM 2320B	ALKB	10/19/2009	Iordan Stavrev	mg/L	54.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/19/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/19/2009	Iordan Stavrev	mg/L	54.0	5.0	0.153
					TLI	SM2130B	TRB	10/16/2009	Gautam Savani	NTU	0.168	0.1	0.007

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-04D	CW-04D-022	Aurora Abbott	10/15/2009	12:10:00 PM	TLI	SM2540C	TDS	10/20/2009	Tina Acquiat	mg/L	5580	250	7.00
					TLI	SM4500-HB	PH	10/16/2009	Tina Acquiat	pH Units	8.02 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/19/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	1.76	0.5	0.10
CW-04M	CW-04M-022	Aurora Abbott	10/15/2009	1:18:00 PM	TLI	EPA 120.1	SC	10/20/2009	Tina Acquiat	µmhos/cm	6250	2.0	0.022
					TLI	EPA 200.7	BD	11/2/2009	Kris Collins	mg/L	0.846	0.20	0.002
					TLI	EPA 200.7	CAD	10/26/2009	Kris Collins	mg/L	146	10.0	1.70
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	11/2/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	11/3/2009	Kris Collins	mg/L	13.0	0.50	0.04
					TLI	EPA 200.7	MGD	11/3/2009	Kris Collins	mg/L	13.0	0.20	0.08
					TLI	EPA 200.7	NAD	10/26/2009	Kris Collins	mg/L	1080	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	2.36	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	80.0	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	16.6	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/20/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	11.4	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
CW-04M	CW-04M-022	Aurora Abbott	10/15/2009	1:18:00 PM	TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/20/2009	Sonya Bersudsky	µg/L	16.7	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	1900	100	12.0
					TLI	EPA 300.0	FL	10/16/2009	Giawad Ghenniwa	mg/L	1.96	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	331	12.5	1.00
					TLI	SM 2320B	ALKB	10/19/2009	Iordan Stavrev	mg/L	53.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/19/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/19/2009	Iordan Stavrev	mg/L	53.0	5.0	0.153
					TLI	SM2130B	TRB	10/16/2009	Gautam Savani	NTU	0.176	0.1	0.007
					TLI	SM2540C	TDS	10/20/2009	Tina Acquiat	mg/L	3760	125	3.50
					TLI	SM4500-HB	PH	10/16/2009	Tina Acquiat	pH Units	7.90 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/19/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	1.25	0.2	0.04
OW-01D	OW-01D-021	Aurora Abbott	7/7/2009	5:18:08 PM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	7180	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	1.03	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	1.78	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	10.3	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	ND (1.1)	1.1	0.152
					TLI	EPA 300.0	CL	7/9/2009	Giawad Ghenniwa	mg/L	1960	200	28.0
					TLI	EPA 300.0	FL	7/9/2009	Giawad Ghenniwa	mg/L	1.48	0.5	0.025
					TLI	EPA 300.0	SO4	7/9/2009	Giawad Ghenniwa	mg/L	463	25.0	1.20
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.661	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	4260	250	50.4
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	2.99	0.5	0.10
OW-01D	OW-01D-022	Aurora Abbott	10/12/2009	2:50:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	7190	2.0	0.022

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-01D	OW-01D-022	Aurora Abbott	10/12/2009	2:50:00 PM	TLI	EPA 200.7	BD	10/28/2009	Kris Collins	mg/L	1.01	0.20	0.002
					TLI	EPA 200.7	CAD	10/23/2009	Kris Collins	mg/L	176	4.00	0.68
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	0.0226	0.02	0.004
					TLI	EPA 200.7	FETD	10/28/2009	Kris Collins	mg/L	0.0239	0.02	0.004
					TLI	EPA 200.7	KD	10/23/2009	Kris Collins	mg/L	13.9	0.50	0.04
					TLI	EPA 200.7	MGD	10/23/2009	Kris Collins	mg/L	14.8	0.20	0.08
					TLI	EPA 200.7	NAD	10/23/2009	Kris Collins	mg/L	1210	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	1.48	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	36.4	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	1.51	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/15/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	1.26	1.1	0.0998
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	2090	100	12.0

TABLE 11

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-01D	OW-01D-022	Aurora Abbott	10/12/2009	2:50:00 PM	TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	1.56	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	500	12.5	1.00
					TLI	SM 2320B	ALKB	10/14/2009	Iordan Stavrev	mg/L	77.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/14/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/14/2009	Iordan Stavrev	mg/L	77.0	5.0	0.153
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.473	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	4630	250	7.00
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.69 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/15/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.73	0.5	0.10
OW-01M	OW-01M-021	Aurora Abbott	7/8/2009	9:03:21 AM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	7340	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	1.01	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	3.38	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	ND (10)	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	2.57	1.1	0.152
					TLI	EPA 300.0	CL	7/9/2009	Giawad Ghenniwa	mg/L	1970	200	28.0
					TLI	EPA 300.0	FL	7/9/2009	Giawad Ghenniwa	mg/L	1.49	0.5	0.025
					TLI	EPA 300.0	SO4	7/9/2009	Giawad Ghenniwa	mg/L	470	25.0	1.20
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.193	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	4290	250	50.4
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	1.80	0.5	0.10
OW-01M	OW-01M-022	Aurora Abbott	10/12/2009	3:44:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	7020	2.0	0.022
					TLI	EPA 200.7	BD	10/28/2009	Kris Collins	mg/L	0.992	0.20	0.002
					TLI	EPA 200.7	CAD	10/23/2009	Kris Collins	mg/L	198	4.00	0.68
					TLI	EPA 200.7	FE	10/22/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	FETD	10/28/2009	Kris Collins	mg/L	ND (0.02)	0.02	0.004
					TLI	EPA 200.7	KD	10/23/2009	Kris Collins	mg/L	14.8	0.50	0.04

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-01M	OW-01M-022	Aurora Abbott	10/12/2009	3:44:00 PM	TLI	EPA 200.7	MGD	10/23/2009	Kris Collins	mg/L	20.2	0.20	0.08
					TLI	EPA 200.7	NAD	10/23/2009	Kris Collins	mg/L	1150	100	4.00
					TLI	EPA 200.8	AGD	11/2/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.19
					TLI	EPA 200.8	ALD	10/22/2009	Romuel Chaves	µg/L	ND (50)	50.0	2.36
					TLI	EPA 200.8	ASD	10/19/2009	Romuel Chaves	µg/L	1.11	1.0	0.142
					TLI	EPA 200.8	BAD	10/22/2009	Romuel Chaves	µg/L	91.0	10.0	0.21
					TLI	EPA 200.8	BED	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.15
					TLI	EPA 200.8	CDD	10/19/2009	Romuel Chaves	µg/L	ND (3.0)	3.0	0.06
					TLI	EPA 200.8	COBD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.075
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	2.14	1.0	0.075
					TLI	EPA 200.8	CUD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.52
					TLI	EPA 200.8	HGD	10/15/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.125
					TLI	EPA 200.8	MND	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.06
					TLI	EPA 200.8	MOD	10/19/2009	Romuel Chaves	µg/L	11.6	10.0	0.725
					TLI	EPA 200.8	NID	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.205
					TLI	EPA 200.8	PBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.075
					TLI	EPA 200.8	SBD	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.495
					TLI	EPA 200.8	SED	10/19/2009	Romuel Chaves	µg/L	ND (10)	10.0	0.245
					TLI	EPA 200.8	TLD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.085
					TLI	EPA 200.8	VD	10/19/2009	Romuel Chaves	µg/L	ND (5.0)	5.0	0.06
					TLI	EPA 200.8	ZND	10/26/2009	Romuel Chaves	µg/L	ND (10)	10.0	1.50
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	1.81	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2070	100	12.0
					TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	2.36	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	486	12.5	1.00
					TLI	SM 2320B	ALKB	10/14/2009	Iordan Stavrev	mg/L	75.0	5.0	0.153
					TLI	SM 2320B	ALKC	10/14/2009	Iordan Stavrev	mg/L	ND (5.0)	5.0	0.153
					TLI	SM 2320B	ALKT	10/14/2009	Iordan Stavrev	mg/L	75.0	5.0	0.153

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-01M	OW-01M-022	Aurora Abbott	10/12/2009	3:44:00 PM	TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.234	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	4190	250	7.00
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.64 J	2.0	0.017
					TLI	SM4500NH3D	NH3N	10/15/2009	Iordan Stavrev	mg/L	ND (0.5)	0.5	0.005
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.77	0.5	0.10
OW-01S	OW-01S-021	Aurora Abbott	7/8/2009	10:13:07 AM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	3420	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	0.32	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	19.4	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	ND (10)	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	17.8	0.2	0.0304
					TLI	EPA 300.0	CL	7/9/2009	Giawad Ghenniwa	mg/L	893	100	14.0
					TLI	EPA 300.0	FL	7/9/2009	Giawad Ghenniwa	mg/L	1.85	0.5	0.025
					TLI	EPA 300.0	SO4	7/9/2009	Giawad Ghenniwa	mg/L	169	5.0	0.24
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.418	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	2000	50.0	10.1
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	1.76	0.5	0.10
OW-01S	OW-91-022	Aurora Abbott	10/12/2009	12:32:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	2890	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	0.362	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	21.4	1.0	0.075
					TLI	EPA 218.6	CR6	10/15/2009	Sonya Bersudsky	µg/L	22.0	0.2	0.02
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	797	100	12.0
					TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	2.23	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	151	12.5	1.00
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.43	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	1950	50.0	1.40
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.74 J	2.0	0.017
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.54	0.5	0.10

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-01S	OW-01S-022	Aurora Abbott	10/12/2009	4:27:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	2960	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	0.366	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	21.6	1.0	0.075
					TLI	EPA 218.6	CR6	10/15/2009	Sonya Bersudsky	µg/L	21.9	0.2	0.02
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	829	40.0	4.80
					TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	2.45	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	162	5.0	0.40
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.439	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	1890	50.0	1.40
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.75 J	2.0	0.017
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.70	0.5	0.10
OW-02D	OW-02D-021	Aurora Abbott	7/8/2009	3:09:36 PM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	7350	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	1.03	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	ND (1.0)	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	13.3	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	ND (1.1)	1.1	0.152
					TLI	EPA 300.0	CL	7/9/2009	Giawad Ghenniwa	mg/L	2030	100	14.0
					TLI	EPA 300.0	FL	7/9/2009	Giawad Ghenniwa	mg/L	1.91	0.5	0.025
					TLI	EPA 300.0	SO4	7/9/2009	Giawad Ghenniwa	mg/L	478	25.0	1.20
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.116	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	4300	250	50.4
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	3.90	0.5	0.10
OW-02D	OW-02D-022	Aurora Abbott	10/13/2009	12:40:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	7490	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	1.07	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	ND (1.0)	1.0	0.075
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	ND (1.1)	1.1	0.0998
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	2250	100	12.0

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-02D	OW-02D-022	Aurora Abbott	10/13/2009	12:40:00 PM	TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	2.17	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	529	12.5	1.00
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	ND (0.1)	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	4750	250	7.00
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.58 J	2.0	0.017
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.92	0.5	0.10
OW-02M	OW-02M-021	Aurora Abbott	7/8/2009	4:16:13 PM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	7220	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	1.07	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	2.64	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	11.0	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	2.52	1.1	0.152
					TLI	EPA 300.0	CL	7/10/2009	Giawad Ghenniwa	mg/L	2070	100	14.0
					TLI	EPA 300.0	FL	7/10/2009	Giawad Ghenniwa	mg/L	1.74	0.5	0.025
					TLI	EPA 300.0	SO4	7/10/2009	Giawad Ghenniwa	mg/L	487	50.0	2.40
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	ND (0.1)	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	4190	250	50.4
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	2.75	0.5	0.10
OW-02M	OW-02M-022	Aurora Abbott	10/13/2009	1:46:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	7120	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	1.10	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	2.18	1.0	0.075
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	1.68	1.1	0.0998
					TLI	EPA 300.0	CL	10/16/2009	Giawad Ghenniwa	mg/L	2090	100	12.0
					TLI	EPA 300.0	FL	10/14/2009	Giawad Ghenniwa	mg/L	4.81	0.5	0.06
					TLI	EPA 300.0	SO4	10/16/2009	Giawad Ghenniwa	mg/L	489	12.5	1.00
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	ND (0.1)	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	4630	250	7.00
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.70 J	2.0	0.017

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-02M	OW-02M-022	Aurora Abbott	10/13/2009	1:46:00 PM	EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.73	0.5	0.10
OW-02S	MW-91-021	Aurora Abbott	7/8/2009	2:11:49 PM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	1720	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	0.674	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	30.7	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	33.1	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	30.0	1.1	0.152
					TLI	EPA 300.0	CL	7/9/2009	Giawad Ghenniwa	mg/L	399	20.0	2.80
					TLI	EPA 300.0	FL	7/9/2009	Giawad Ghenniwa	mg/L	4.27	0.5	0.025
					TLI	EPA 300.0	SO4	7/9/2009	Giawad Ghenniwa	mg/L	113	2.5	0.12
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.543	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	954	50.0	10.1
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	3.47	0.5	0.10
OW-02S	OW-02S-021	Aurora Abbott	7/8/2009	5:30:08 PM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	1780	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	0.675	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	29.6	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	36.5	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	29.3	1.1	0.152
					TLI	EPA 300.0	CL	7/10/2009	Giawad Ghenniwa	mg/L	404	20.0	2.80
					TLI	EPA 300.0	FL	7/10/2009	Giawad Ghenniwa	mg/L	3.88	0.5	0.025
					TLI	EPA 300.0	SO4	7/10/2009	Giawad Ghenniwa	mg/L	116	2.5	0.12
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.559	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	988	50.0	10.1
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	3.66	0.5	0.10
OW-02S	OW-02S-022	Aurora Abbott	10/13/2009	2:26:00 PM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	1720	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	0.666	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	31.8	1.0	0.075
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	31.7	1.1	0.0998

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-02S	OW-02S-022	Aurora Abbott	10/13/2009	2:26:00 PM	TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	389	100	12.0
					TLI	EPA 300.0	FL	10/15/2009	Giawad Ghenniwa	mg/L	5.20	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	112	5.0	0.40
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.735	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	962	50.0	1.40
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	8.06 J	2.0	0.017
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	3.54	0.5	0.10
OW-05D	OW-05D-021	Aurora Abbott	7/8/2009	11:37:00 AM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	7400	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	1.09	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	1.26	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	12.8	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	1.08	1.1	0.152
					TLI	EPA 300.0	CL	7/10/2009	Giawad Ghenniwa	mg/L	2090	100	14.0
					TLI	EPA 300.0	FL	7/10/2009	Giawad Ghenniwa	mg/L	1.88	0.5	0.025
					TLI	EPA 300.0	SO4	7/10/2009	Giawad Ghenniwa	mg/L	482	12.5	0.60
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	ND (0.1)	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	4150	250	50.4
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	2.89	0.5	0.10
OW-05D	OW-05D-022	Aurora Abbott	10/13/2009	9:08:00 AM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	7250	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	1.07	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	1.18	1.0	0.075
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	ND (1.1)	1.1	0.0998
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	2070	100	12.0
					TLI	EPA 300.0	FL	10/15/2009	Giawad Ghenniwa	mg/L	2.31	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	489	12.5	1.00
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	ND (0.1)	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	4120	250	7.00

TABLE 11
Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009
PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-05D	OW-05D-022	Aurora Abbott	10/13/2009	9:08:00 AM	TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.65 J	2.0	0.017
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.84	0.5	0.10
OW-05M	OW-05M-021	Aurora Abbott	7/8/2009	12:34:29 PM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	7340	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	1.03	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	2.10	1.0	0.266
					TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	10.7	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	2.37	1.1	0.152
					TLI	EPA 300.0	CL	7/10/2009	Giawad Ghenniwa	mg/L	2050	100	14.0
					TLI	EPA 300.0	FL	7/10/2009	Giawad Ghenniwa	mg/L	1.89	0.5	0.025
					TLI	EPA 300.0	SO4	7/10/2009	Giawad Ghenniwa	mg/L	484	12.5	0.60
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.144	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	4090	250	50.4
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	2.73	0.5	0.10
OW-05M	OW-05M-022	Aurora Abbott	10/13/2009	10:07:00 AM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	7140	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	1.16	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	1.67	1.0	0.075
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	1.15	1.1	0.0998
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	2100	100	12.0
					TLI	EPA 300.0	FL	10/15/2009	Giawad Ghenniwa	mg/L	2.08	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	490	12.5	1.00
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	ND (0.1)	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	4520	250	7.00
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.60 J	2.0	0.017
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	2.64	0.5	0.10
OW-05S	OW-05S-021	Aurora Abbott	7/8/2009	1:16:00 PM	TLI	EPA 120.1	SC	7/13/2009	Tina Acquiat	µmhos/cm	1940	2.0	0.153
					TLI	EPA 200.7	BD	7/31/2009	Kris Collins	mg/L	0.415	0.20	0.0048
					TLI	EPA 200.8	CRTD	7/9/2009	Daniel Kang	µg/L	22.9	1.0	0.266

TABLE 11

Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009

PG&E Topock Compliance Monitoring Program

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician	Units	Result	RL	MDL
OW-05S	OW-05S-021	Aurora Abbott	7/8/2009	1:16:00 PM	TLI	EPA 200.8	MOD	7/20/2009	Daniel Kang	µg/L	23.6	10.0	0.084
					TLI	EPA 218.6	CR6	7/9/2009	Michael Nonezyan	µg/L	21.2	1.1	0.152
					TLI	EPA 300.0	CL	7/10/2009	Giawad Ghenniwa	mg/L	453	20.0	2.80
					TLI	EPA 300.0	FL	7/10/2009	Giawad Ghenniwa	mg/L	2.21	0.5	0.025
					TLI	EPA 300.0	SO4	7/10/2009	Giawad Ghenniwa	mg/L	113	2.5	0.12
					TLI	SM2130B	TRB	7/9/2009	Gautam Savani	NTU	0.376	0.1	0.007
					TLI	SM2540C	TDS	7/13/2009	Tina Acquiat	mg/L	1080	50.0	10.1
					EMXT	SM4500NO3-E	NO3NO2N	7/17/2009	Elena Robles	mg/L	3.39	0.5	0.10
OW-05S	OW-05S-022	Aurora Abbott	10/13/2009	10:55:00 AM	TLI	EPA 120.1	SC	10/14/2009	Tina Acquiat	µmhos/cm	1870	2.0	0.022
					TLI	EPA 200.7	BD	10/22/2009	Kris Collins	mg/L	0.409	0.20	0.001
					TLI	EPA 200.8	CRTD	10/19/2009	Romuel Chaves	µg/L	21.8	1.0	0.075
					TLI	EPA 218.6	CR6	10/16/2009	Sonya Bersudsky	µg/L	21.7	0.2	0.02
					TLI	EPA 300.0	CL	10/15/2009	Giawad Ghenniwa	mg/L	462	20.0	2.40
					TLI	EPA 300.0	FL	10/15/2009	Giawad Ghenniwa	mg/L	2.40	0.5	0.06
					TLI	EPA 300.0	SO4	10/15/2009	Giawad Ghenniwa	mg/L	113	5.0	0.40
					TLI	SM2130B	TRB	10/14/2009	Gautam Savani	NTU	0.68	0.1	0.007
					TLI	SM2540C	TDS	10/15/2009	Tina Acquiat	mg/L	1040	50.0	1.40
					TLI	SM4500-HB	PH	10/14/2009	Tina Acquiat	pH Units	7.89 J	2.0	0.017
					EMXT	SM4500NO3-E	NO3NO2N	10/22/2009	Elena Robles	mg/L	3.56	0.5	0.10

TABLE 11

Board Order No. R7-2006-0060 WDR Monitoring Information for Groundwater Samples, Third and Fourth Quarter 2009

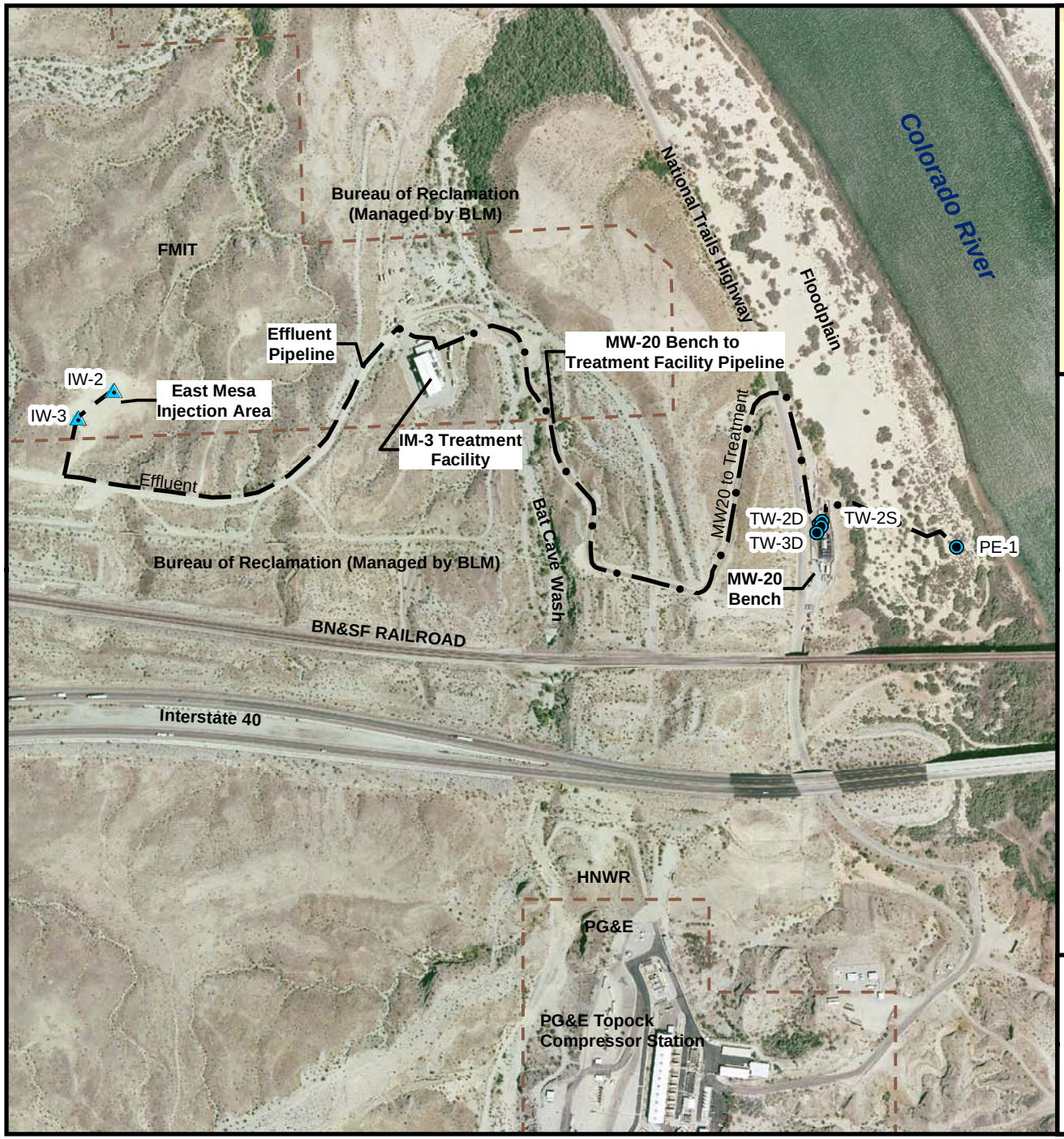
PG&E Topock Compliance Monitoring Program

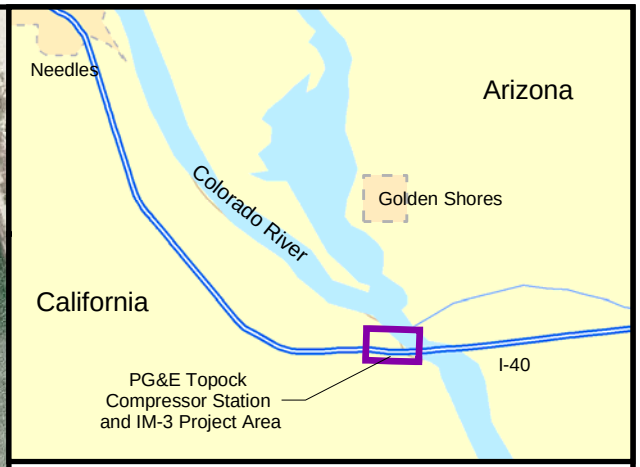
NOTES:

MDL	method detection limit corrected for sample dilution
RL	reporting limit corrected for sample dilution
ND	parameter not detected at the listed reporting limit
µmhos/cm	micro-mhos per centimeter
NTU	Nephelometric Turbidity Unit
mg/L	milligrams per liter
µg/L	micrograms per liter
J	Concentration estimated by laboratory or data validation
TLI	Truesdail Laboratories, Inc.
EMXT	Emax Laboratories
WDR	Waste Discharge Requirements

ALKC	alkalinity, as carbonate	HGD	mercury, dissolved
ALKT	alkalinity, total as CaCO3	KD	potassium, dissolved
ALKB	alkalinity, bicarbonate as CaCO3	MGD	magnesium, dissolved
ALD	almunium, dissolved	MND	manganese, dissolved
AGD	silver, dissolved	MOD	molybdenum, dissolved
ASD	arsenic, dissolved	NAD	sodium, dissolved
BD	boron, dissolved	NID	nickel, dissolved
BAD	barium, dissolved	NH3N	ammonia (as Nitrogen)
BED	beryllium, dissolved	NO3NO2N	nitrate/nitrite (as Nitrogen)
CAD	calcium, dissolved	PBD	lead, dissolved
CDD	cadmium, dissolved	SBD	antimony, dissolved
CL	chloride	SC	specific conductance
COBD	cobalt, dissolved	SED	selenium, dissolved
CRTD	chromium, dissolved	SO4	sulfate
CR6	hexavalent chromium	TLD	thallium, dissolved
CUD	copper, dissolved	TDS	total dissolved solids
FE	iron	TRB	turbidity
FETD	iron, dissolved	VD	vanadium, dissolved
FL	fluoride	ZND	zinc, dissolved

Figures





N

0 550 1,100 Feet

1 inch = 550 feet

LEGEND

- Property Line
- Existing IM Extraction Well
- Existing IM Injection Well
- Treatment Facility Pipeline

Notes: Location map shows Interim Measures No.3 (IM-3) facilities as of of January 2006. Aerial photography taken May 2005.

FIGURE 1
SITE LOCATION AND LAYOUT

IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

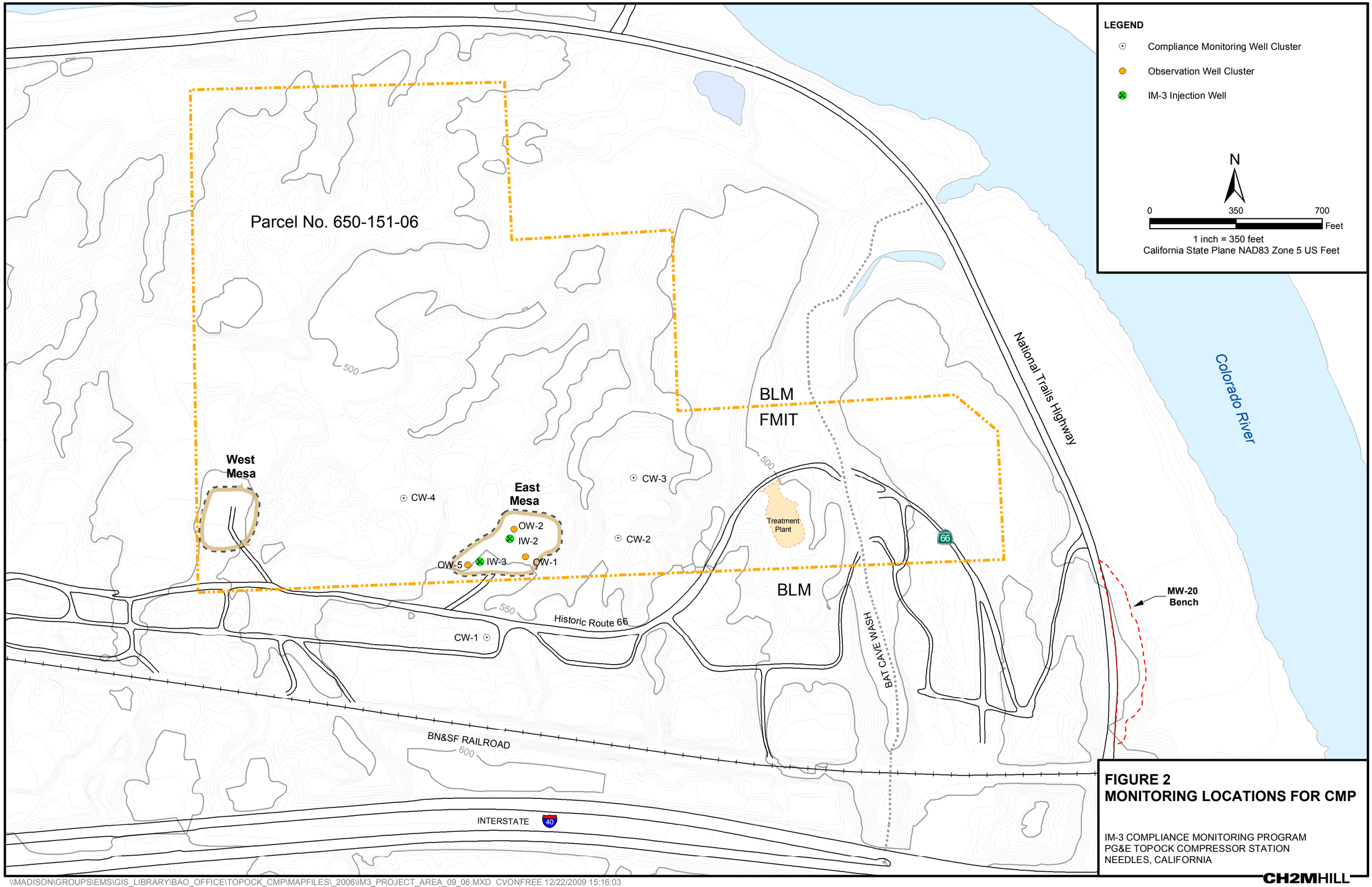
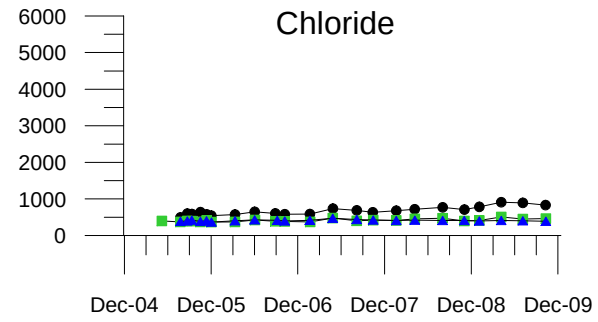


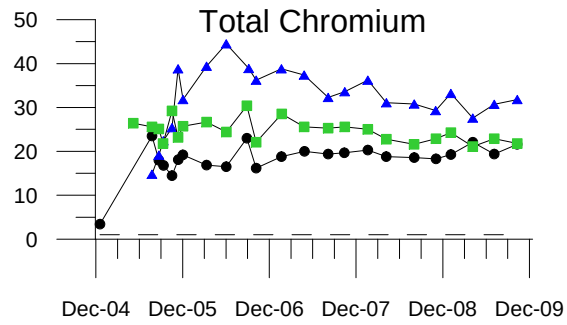
FIGURE 2
MONITORING LOCATIONS FOR CMP

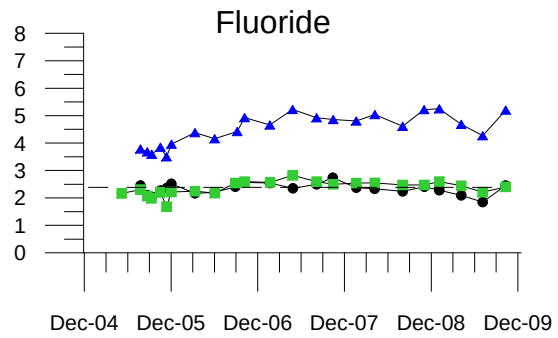
IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

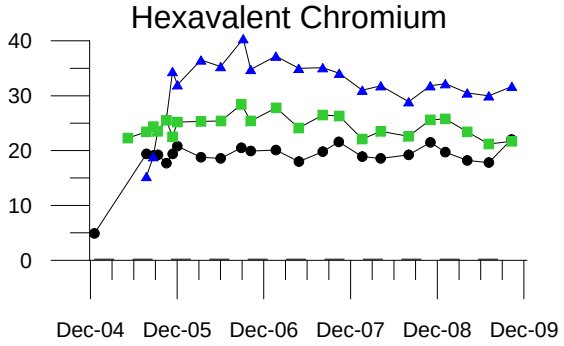
CH2MHILL

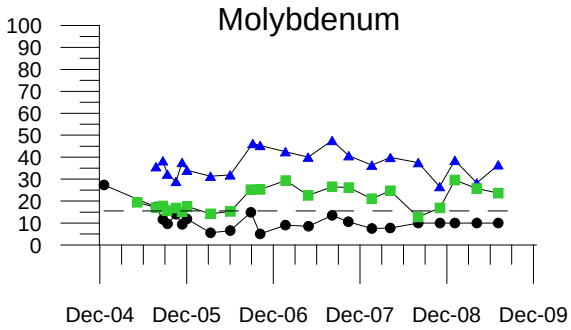
\\MADISON\GROUPS\EMS\GIS_LIBRARY\BAO_OFFICE\TOPOCK_CMP\MAPFILES_2006\IM3_PROJECT_AREA_09_06.MXD CVONFREE 12/22/2009 15:16:03

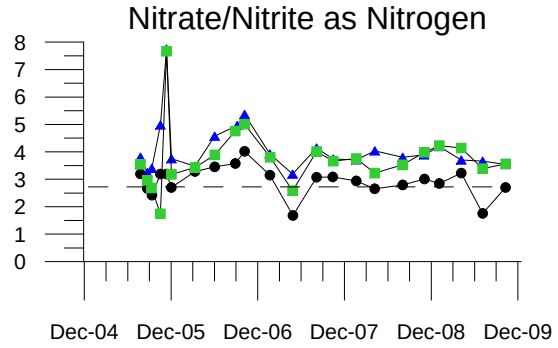


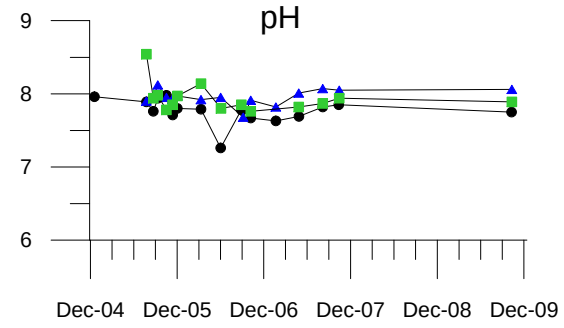


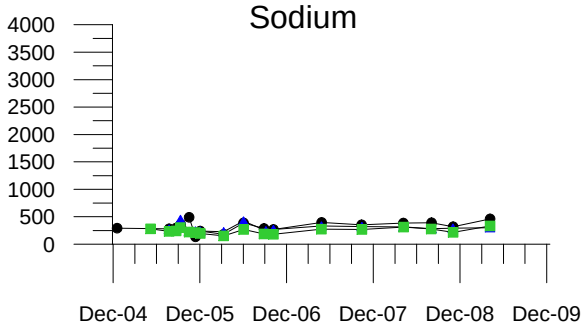


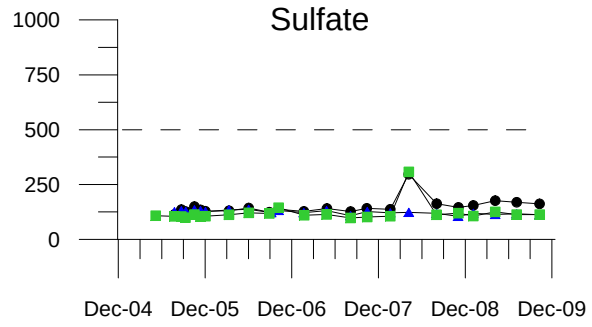


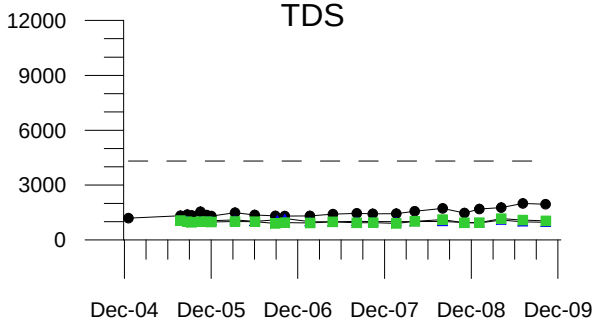


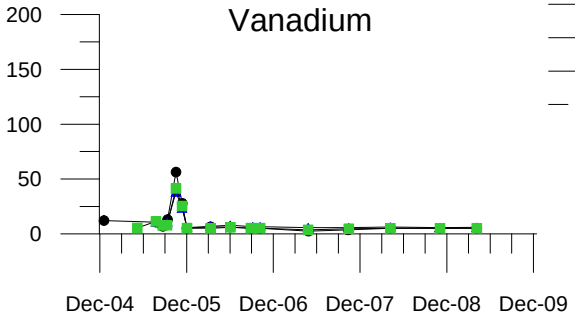


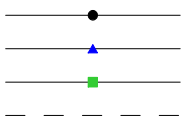








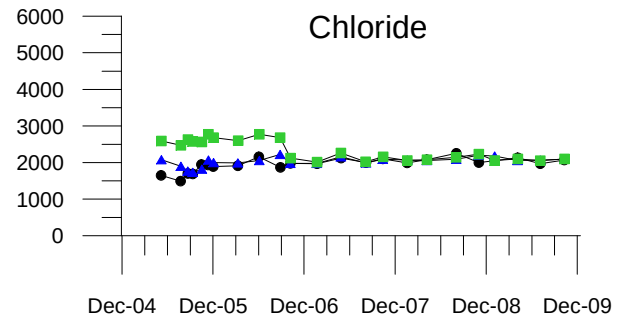


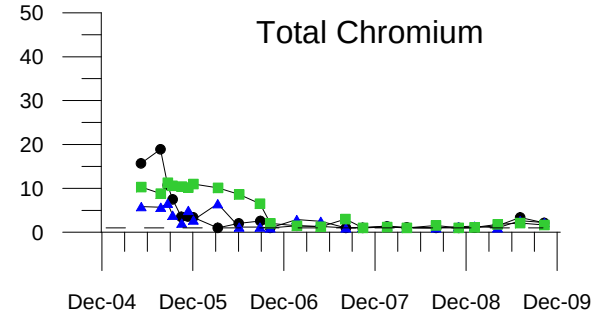


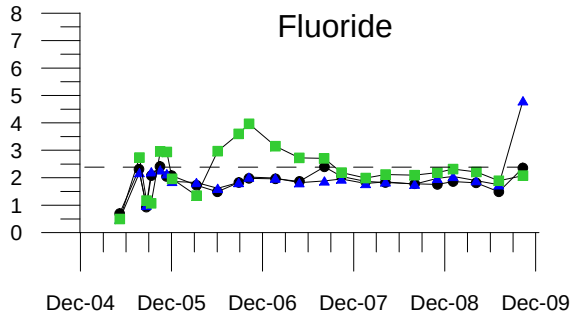
Cr(T), Cr(VI), molybdenum, and vanadium concentration units in µg/L. Other analyte concentration units in mg/L. Treated water only on select analytes.

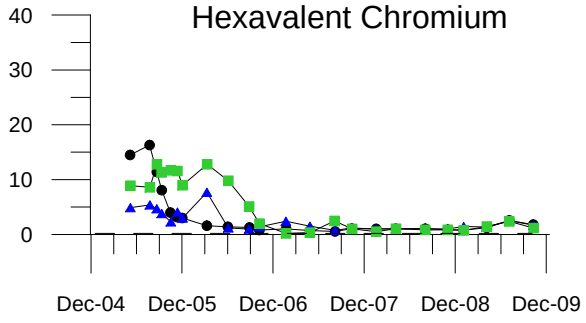
FIGURE 3A
OW-1S, OW-2S, OW-5S
WATER QUALITY HYDROGRAPHS
IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

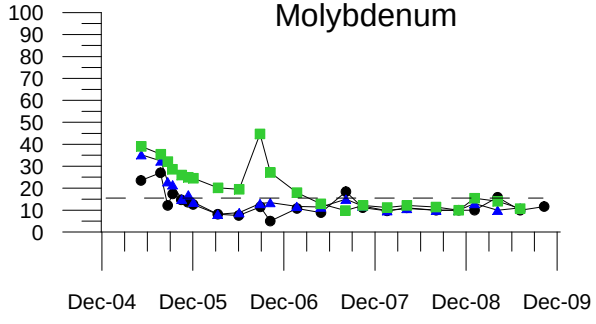
CH2MHILL

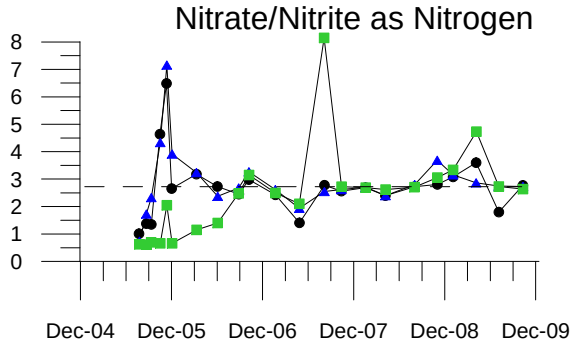


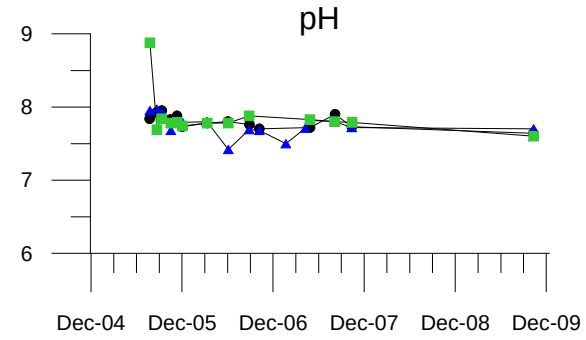


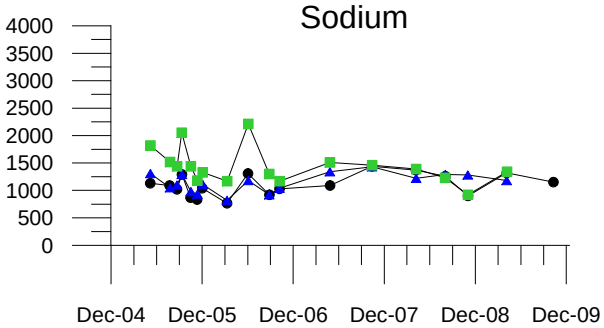


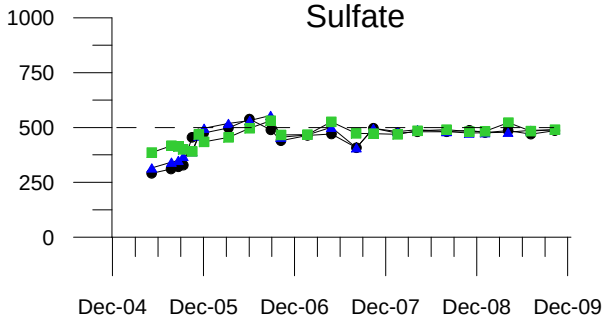


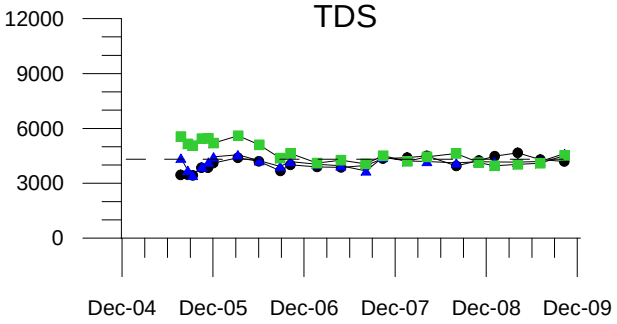


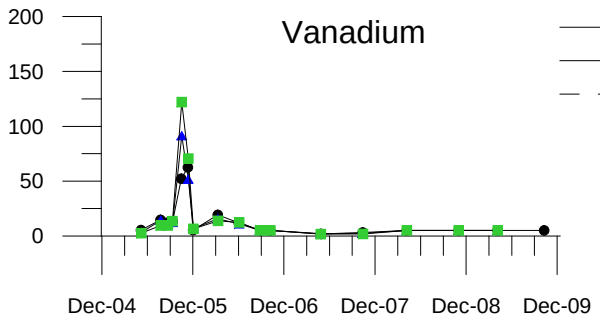


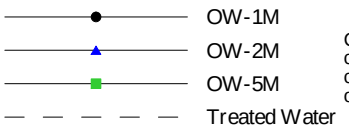








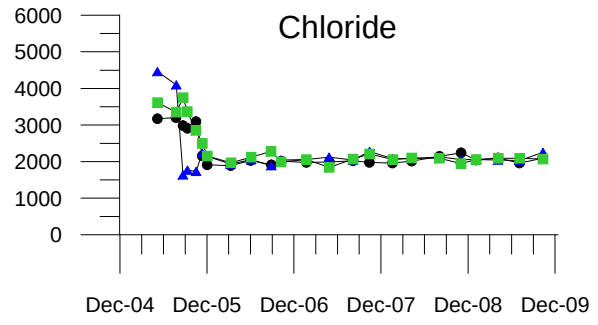


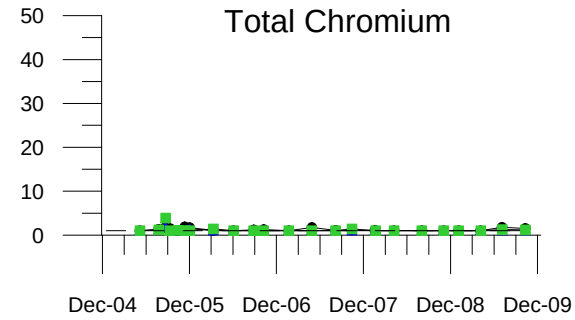


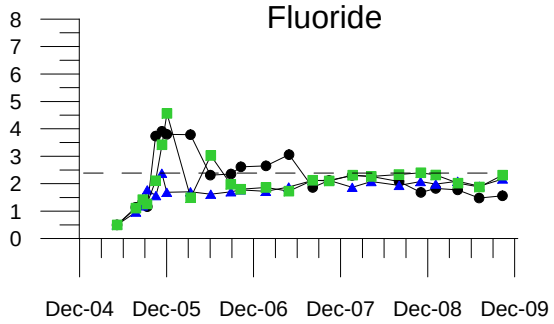
Cr(T), Cr(VI), molybdenum, and vanadium concentration units in µg/L. Other analyte concentration units in mg/L. Treated water only on select analytes.

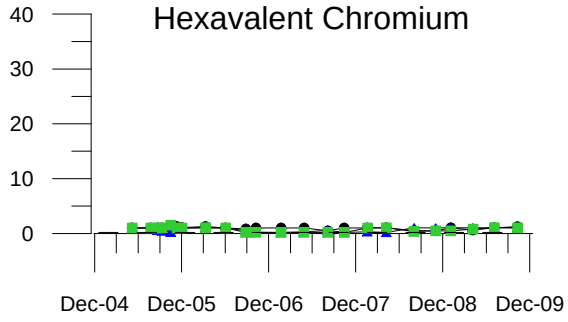
FIGURE 3B
OW-1M, OW-2M, OW-5M
WATER QUALITY HYDROGRAPHS
IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

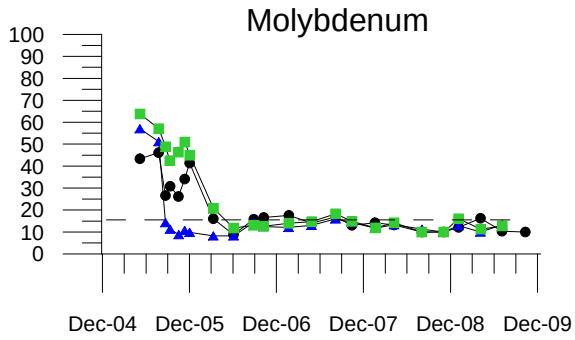
CH2MHILL

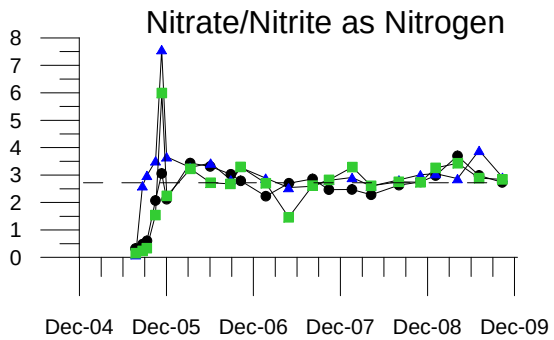


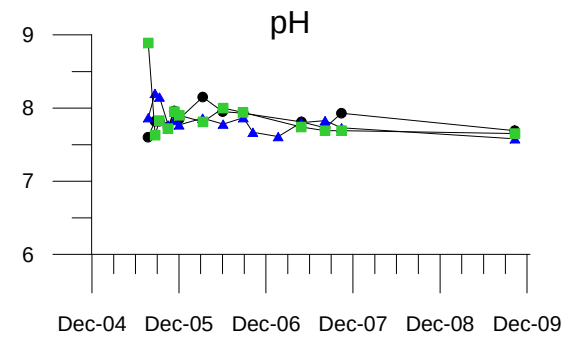


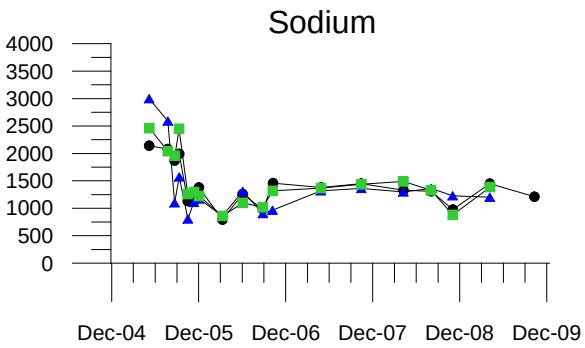


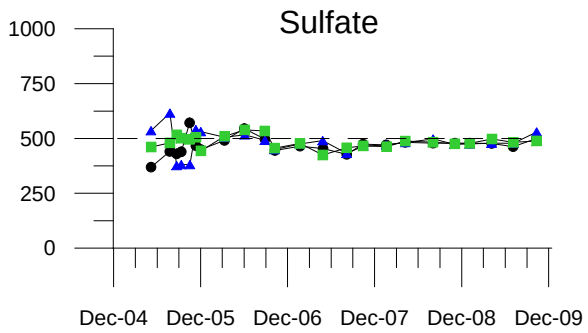


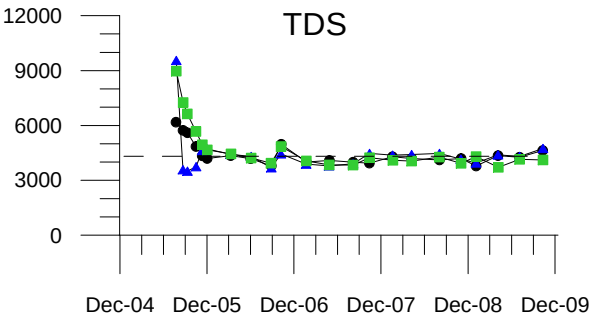


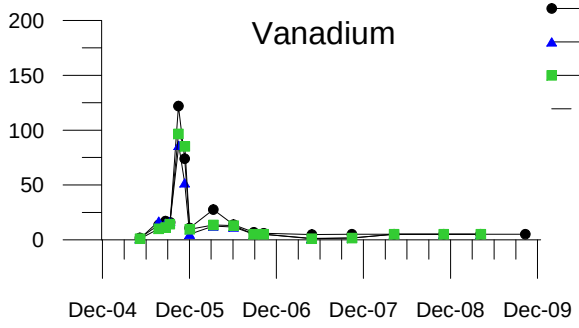












Cr(T), Cr(VI), molybdenum, and vanadium concentration units in µg/L. Other analyte concentration units in mg/L. Treated water only on select analytes.

FIGURE 3C
OW-1D, OW-2D, OW-5D
WATER QUALITY HYDROGRAPHS
IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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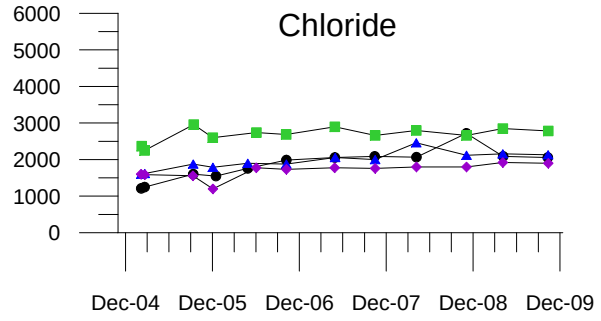

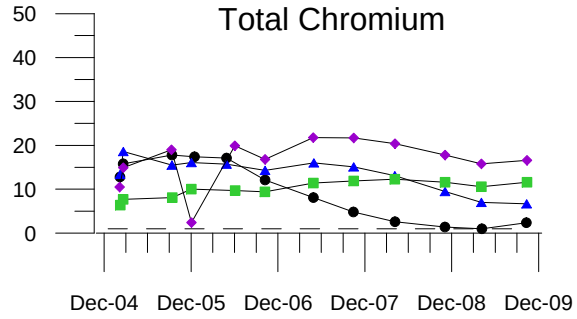

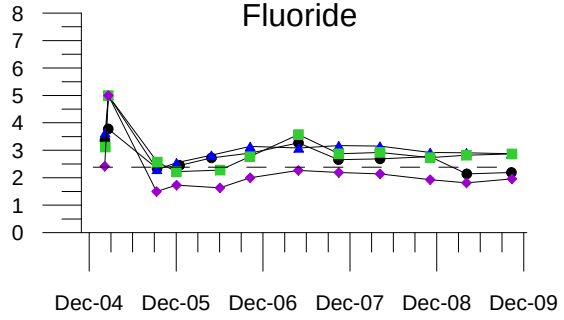

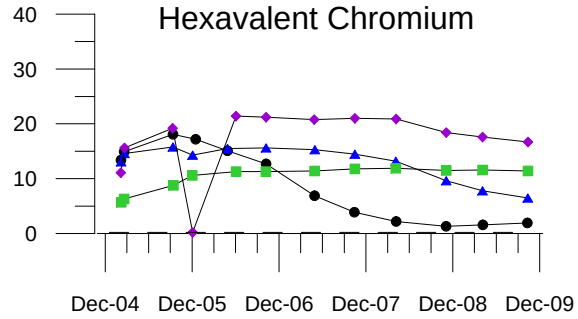

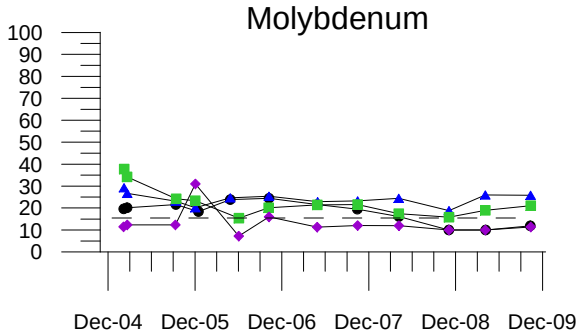

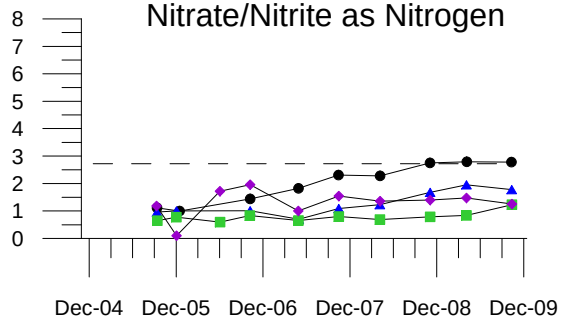

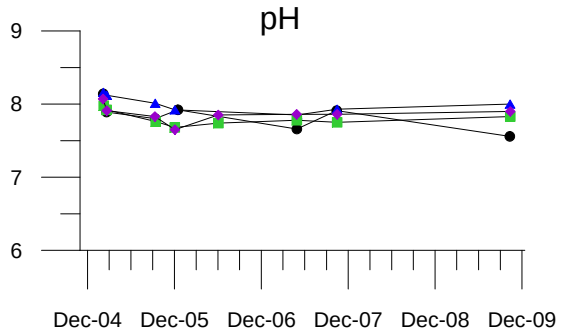

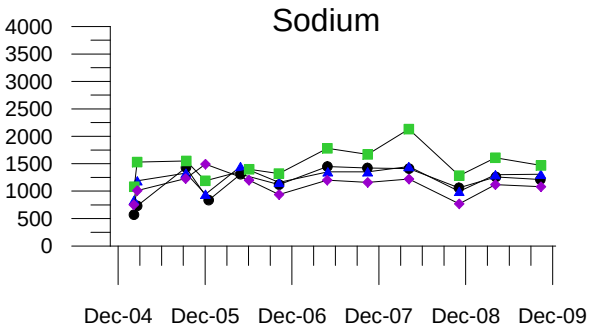

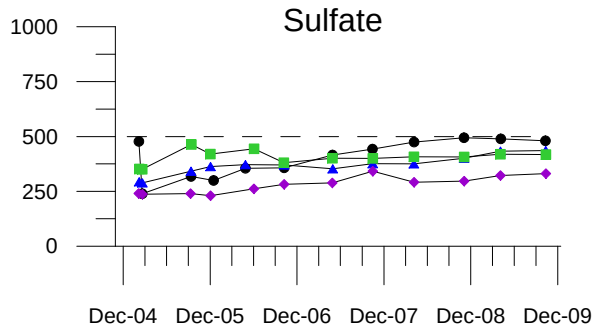

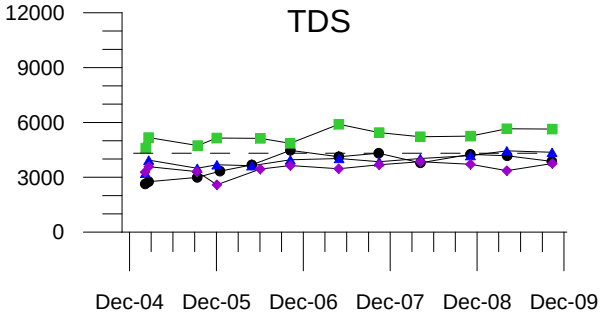

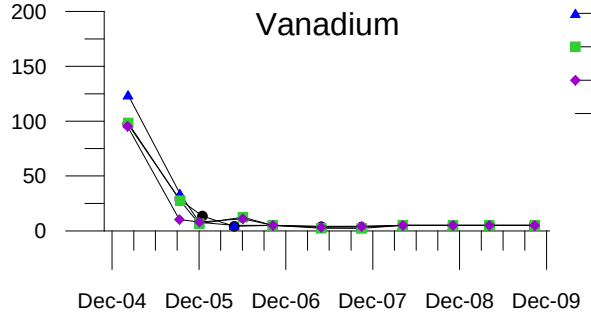

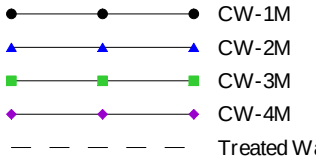

Cr(T), Cr(VI), molybdenum, and vanadium concentration units in µg/L. Other analyte concentration units in mg/L. Treated water only on select analytes.

FIGURE 3D
CW-1M, CW-2M, CW-3M, CW-4M
WATER QUALITY HYDROGRAPHS
IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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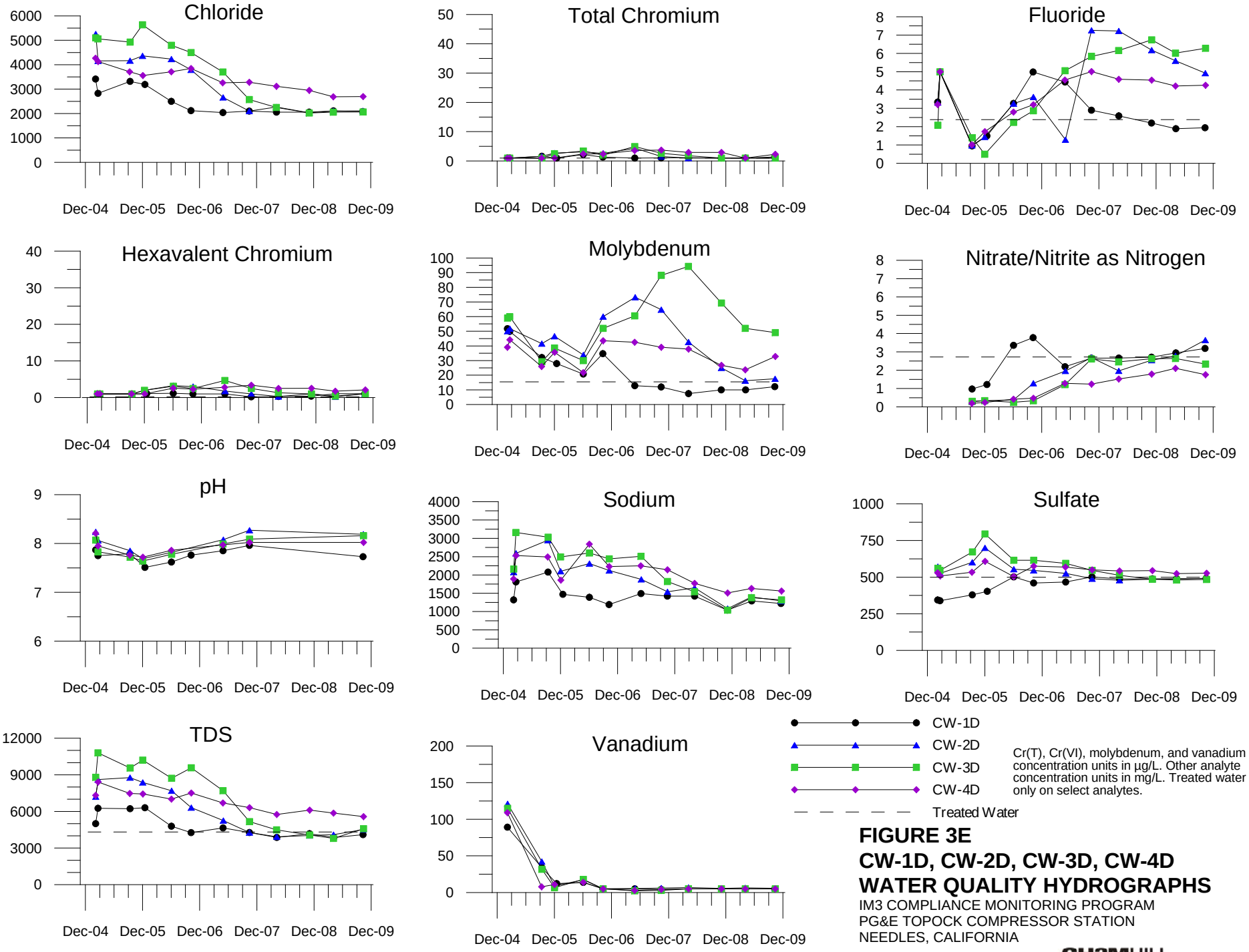
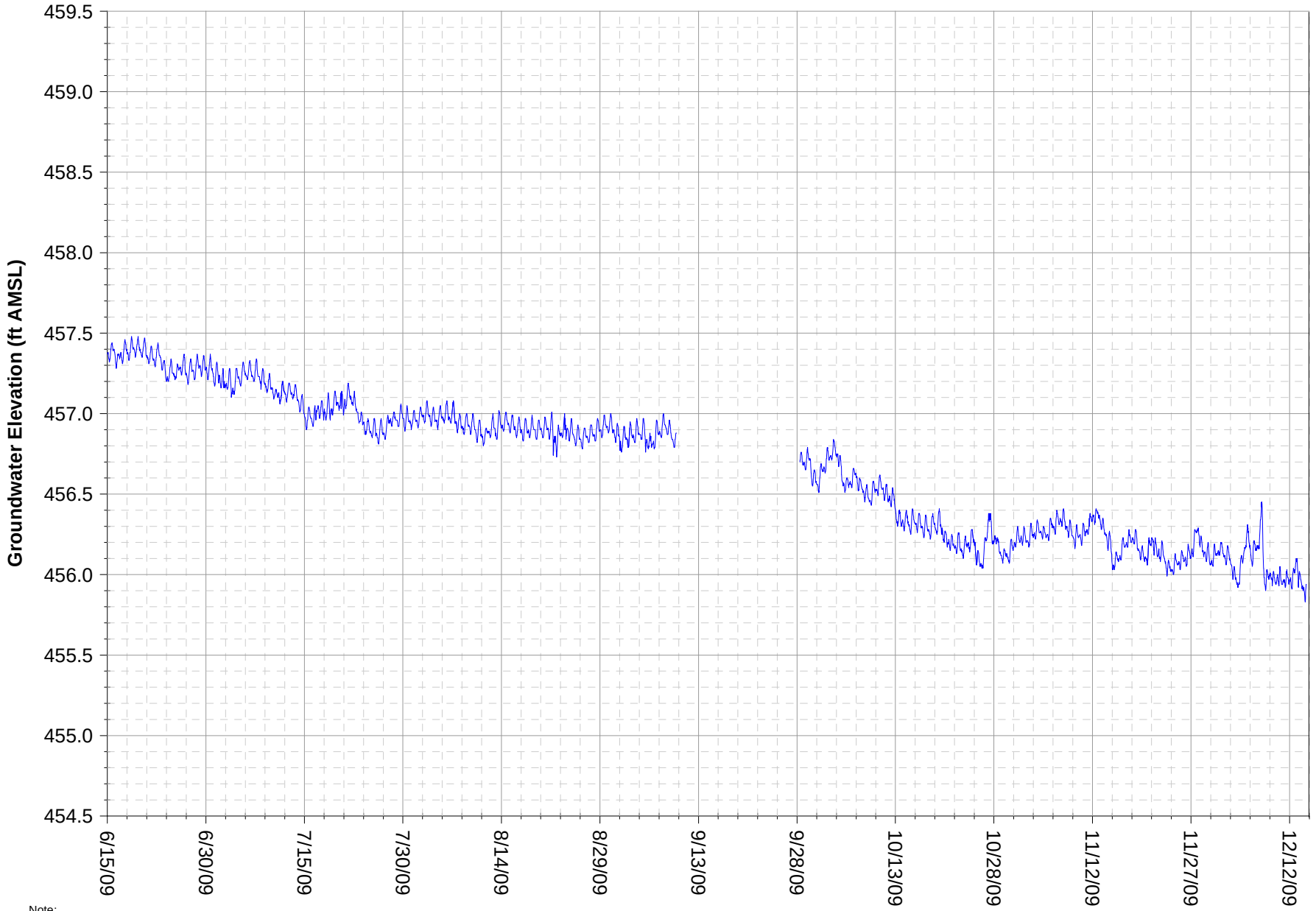


Cr(T), Cr(VI), molybdenum, and vanadium concentration units in µg/L. Other analyte concentration units in mg/L. Treated water only on select analytes.

FIGURE 3E
CW-1D, CW-2D, CW-3D, CW-4D
WATER QUALITY HYDROGRAPHS
IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

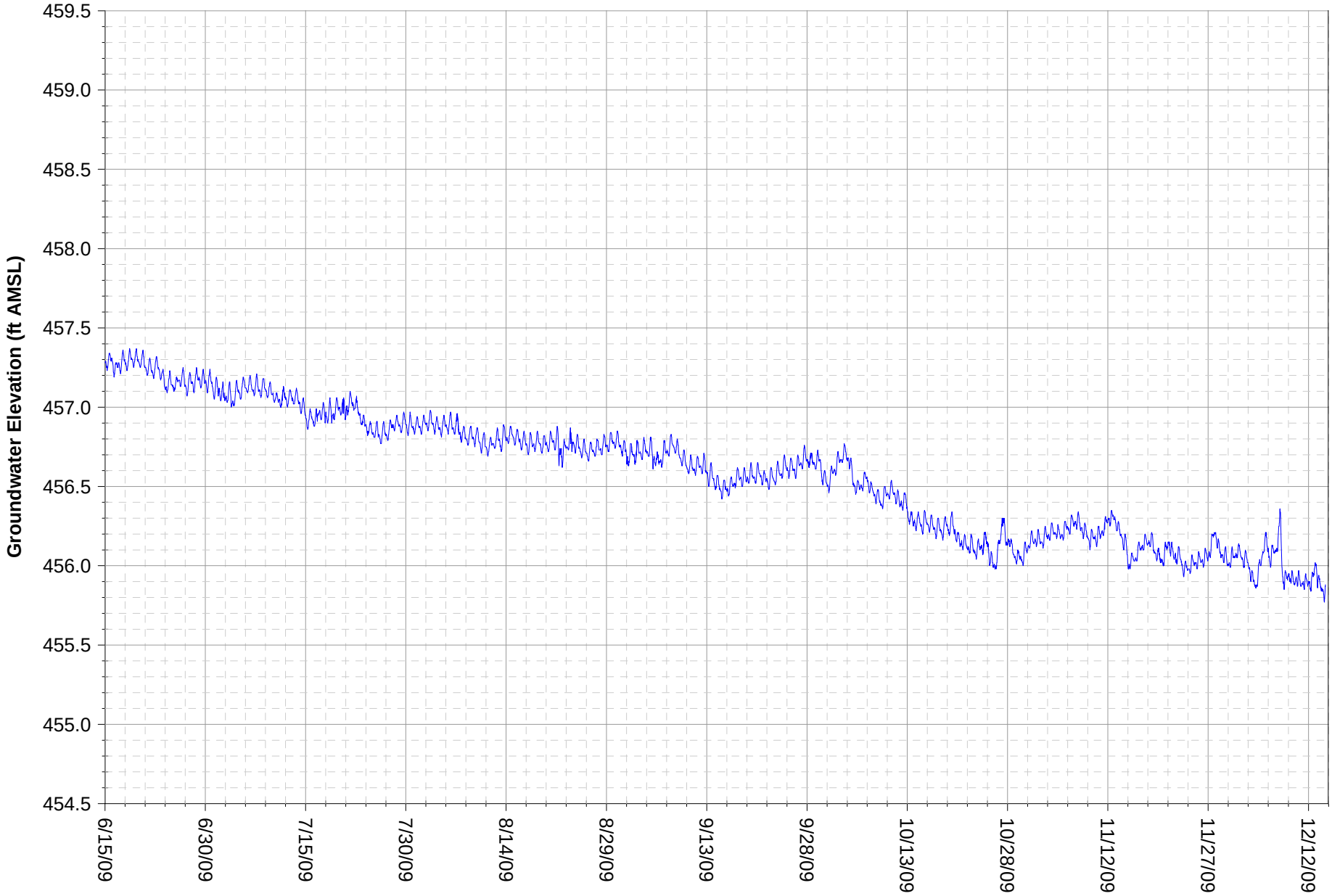
CH2MHILL



Note:
Data subject to review.
Refer to Table 1 for injection well status.
OW-01S data unavailable from September 10, 2009 to September 28, 2009 due to transducer failure.

FIGURE 4A
OW-1S GROUNDWATER ELEVATION HYDROGRAPH
IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

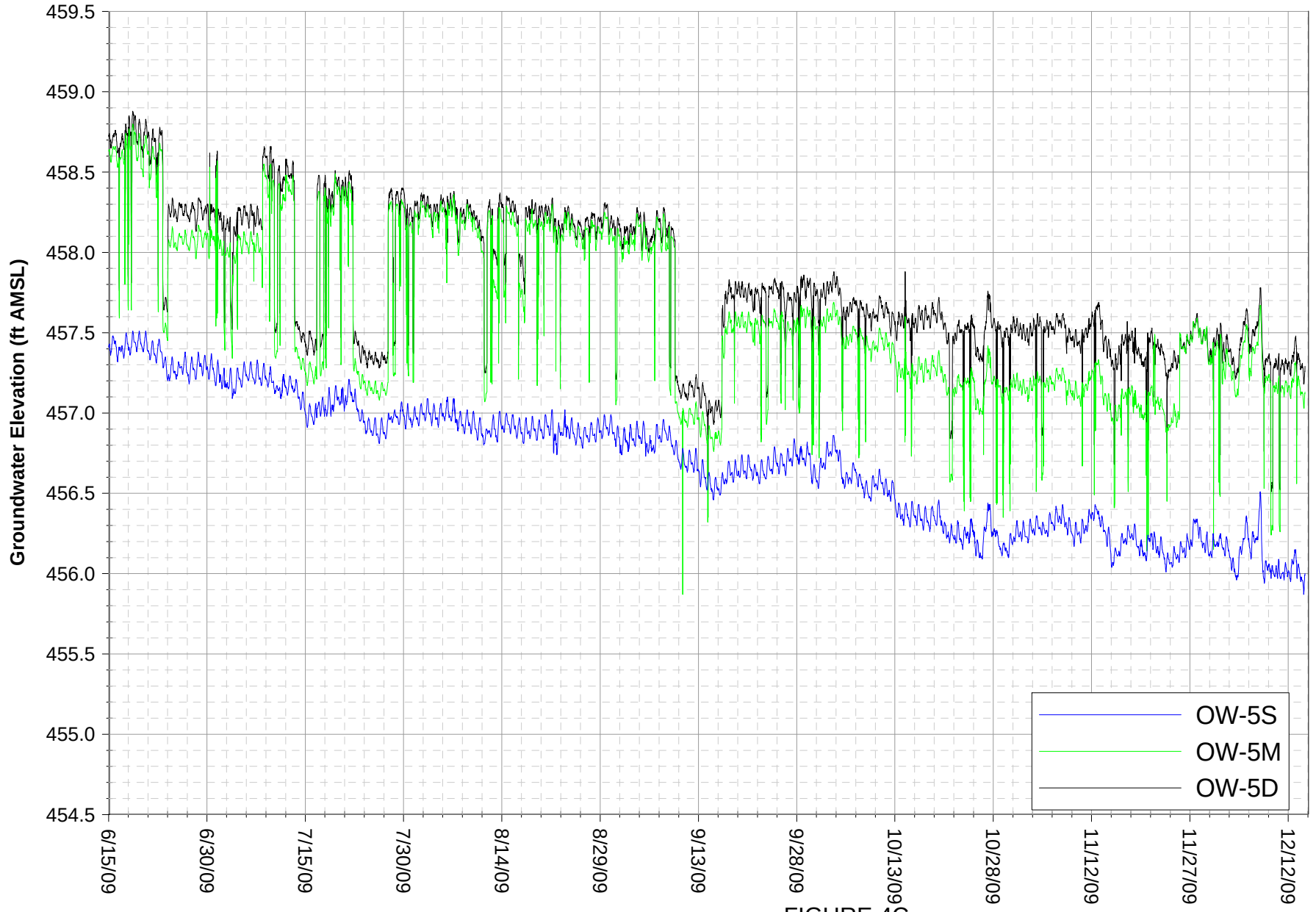
CH2MHILL



Note:
Data subject to review.
Refer to Table 1 for injection well status.

FIGURE 4B
OW-2S GROUNDWATER ELEVATION HYDROGRAPH
IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

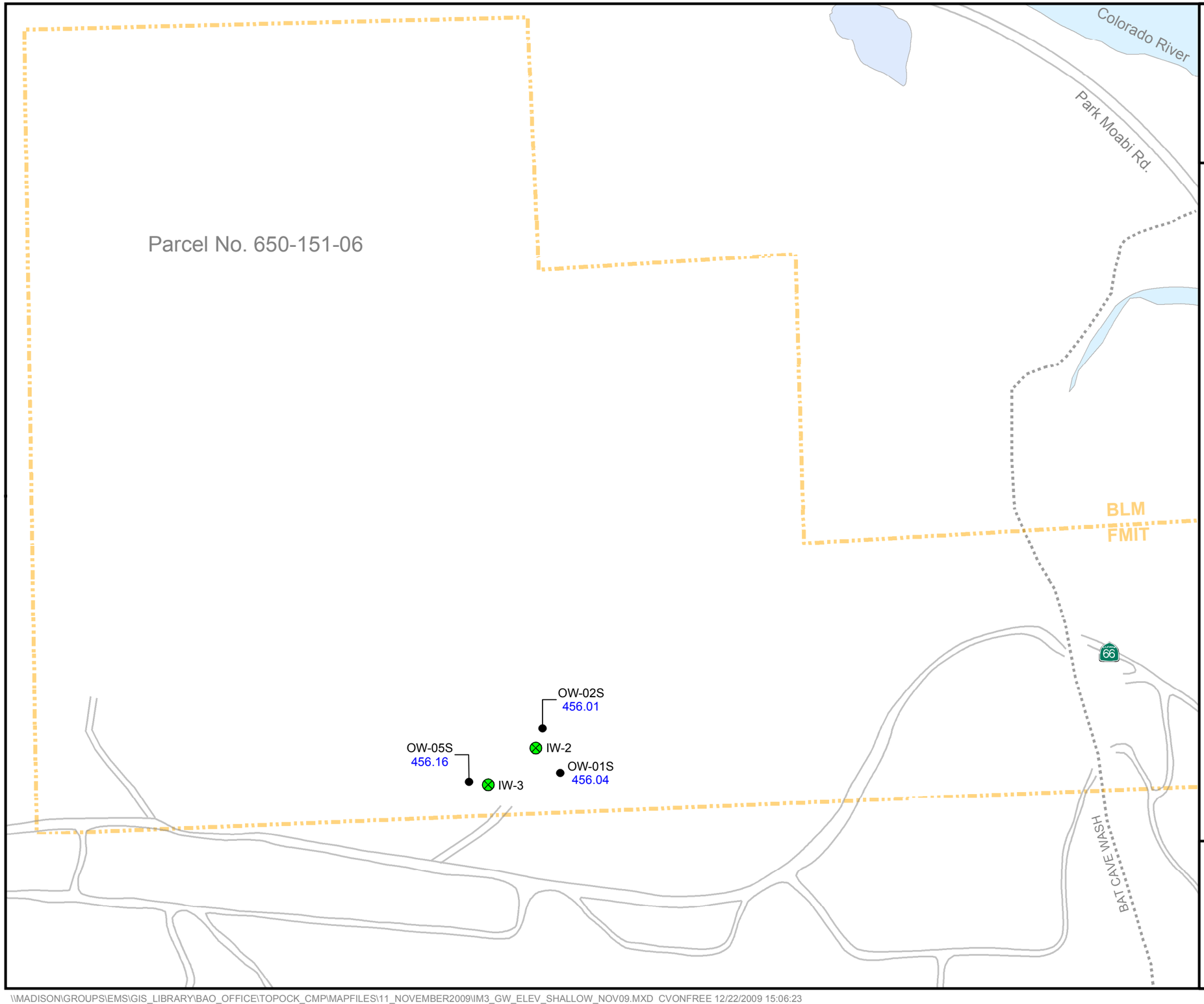
CH2MHILL



Note:
Data subject to review.
Refer to Table 1 for injection well status.

FIGURE 4C
OW-5 GROUNDWATER ELEVATION HYDROGRAPHS
IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



N

0 250 500 Feet

1 inch = 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

Groundwater Elevations for Shallow Wells in IM-3 Injection Area

OW-02S 456.01 — Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)

FIGURE 5A
GROUNDWATER ELEVATIONS FOR SHALLOW WELLS NOVEMBER 23, 2009

IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

\\MADISON\GROUPS\EMS\GIS_LIBRARY\BAO_OFFICE\TOPOCK_CMP\MAPFILES\11_NOVEMBER2009\IM3_GW_ELEV_SHALLOW_NOV09.MXD CVONFREE 12/22/2009 15:06:23

Parcel No. 650-151-06

Colorado River

Park Moabi Rd.

BLM
FMIT

BAT CAVE WASH

CW-04M
456.53

CW-03M
456.17

OW-02M
456.79

IW-2

CW-02M
456.22

OW-01M
456.60

OW-05M
456.89

IW-3

456.7

456.5

456.3

CW-01M
456.40

N

0 250 500 Feet

1 inch = 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

Groundwater Elevations for Mid-depth Wells in IM-3 Injection Area

- OW-02M 456.79 — Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- Groundwater elevation contour in feet above MSL (0.2 foot interval), dashed where inferred

FIGURE 5B
GROUNDWATER ELEVATION CONTOURS FOR MID-DEPTH WELLS NOVEMBER 23, 2009

IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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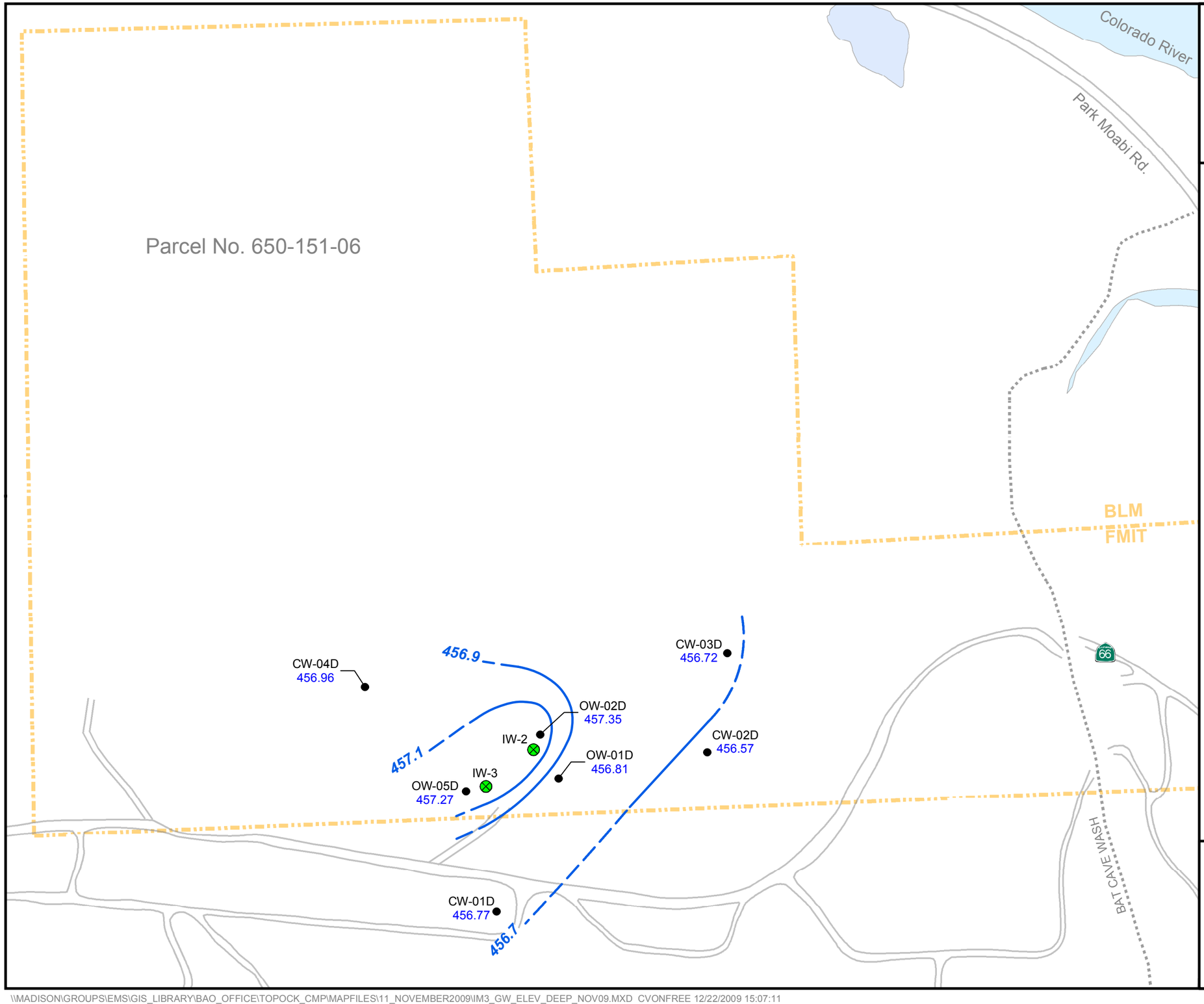
\\MADISON\GROUPS\EMS\GIS_LIBRARY\BAO_OFFICE\TOPOCK_CMP\MAPFILES\11_NOVEMBER2009\IM3_GW_ELEV_MID_NOV09.MXD CVONFREE 12/22/2009 15:05:40



N

0 250 500 Feet

1 inch = 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

Groundwater Elevations for Deep Wells in IM-3 Injection Area

- OW-05D 457.27 — Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- Groundwater elevation contour in feet above MSL (0.2 foot interval), dashed where inferred

FIGURE 5C
GROUNDWATER ELEVATION CONTOURS FOR DEEP WELLS NOVEMBER 23, 2009

IM3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

\\MADISON\GROUPS\EMS\GIS_LIBRARY\BAO_OFFICE\TOPOCK_CMP\MAPFILES\11_NOVEMBER2009\IM3_GW_ELEV_DEEP_NOV09.MXD CVONFREE 12/22/2009 15:07:11

Appendix A
Laboratory Reports, Second Half 2009

Appendix B
Field Data Sheets, Second Half 2009

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

August 3, 2009

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK 2009-CMP-021, GROUNDWATER MONITORING PROJECT, TLI NO.: 984209

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock 2009-CMP-021 groundwater-monitoring project. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data, and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data are under Section 5.

The samples were received and delivered with the chain of custody on July 7, 2009, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

Due to the large number of samples in-house, the samples for Total Chromium and Molybdenum analysis were analyzed by method EPA 200.8, rather than EPA 200.7 as requested on the chain of custody.

No other violations or non-conformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi
Manager, Analytical Services

K.R.P. Iyer
Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

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Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009

ANALYST LIST

EPA 120.1	Specific Conductivity	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
SM 2130B	Turbidity	Gautam Savani
EPA 300.0	Anions	Giawad Ghenniwa
EPA 200.7	Metals by ICP	Kris Collins
EPA 200.8	Metals by ICP/MS	Daniel Kang
EPA 218.6	Hexavalent Chromium	Michael Nonezyan

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REPORT

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Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 07CrH09C

Investigation: **Hexavalent Chromium by EPA 218.6**

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	15:43	µg/L	5.25	1.05	ND
984209-2	MW-91-021	14:11	15:53	µg/L	5.25	1.05	30.0
984209-3	OW-01M-021	09:03	17:40	µg/L	5.25	1.05	2.57
984209-4	OW-01S-021	10:13	14:08	µg/L	1.05	0.20	17.8
984209-5	OW-02D-021	15:09	18:22	µg/L	5.25	1.05	ND
984209-6	OW-02M-021	16:16	18:42	µg/L	5.25	1.05	2.52
984209-7	OW-02S-021	17:30	14:18	µg/L	5.25	1.05	29.3
984209-8	OW-05D-021	11:37	19:03	µg/L	5.25	1.05	1.08
984209-9	OW-05M-021	12:34	20:21	µg/L	5.25	1.05	2.37
984209-10	OW-05S-021	13:16	14:29	µg/L	5.25	1.05	21.2

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

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Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 07CrH09C

Investigation: **Hexavalent Chromium by EPA 218.6**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984208-1	333	333	0.00%	< 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984209-1	0.90	5.25	1.00	5.25	5.97	6.15	96.6%	90-110%	Yes
MS	984209-2	30.0	5.25	10.0	52.5	80.2	82.5	95.6%	90-110%	Yes
MS	984209-3	2.57	5.25	1.00	5.25	7.70	7.82	97.7%	90-110%	Yes
MS	984209-4	17.8	1.06	20.0	21.2	38.6	39.0	98.1%	90-110%	Yes
MS	984209-5	0.73	5.25	1.00	5.25	5.86	5.98	97.7%	90-110%	Yes
MS	984209-6	2.52	5.25	1.00	5.25	7.66	7.77	97.9%	90-110%	Yes
MS	984209-7	29.3	5.25	10.0	52.5	80.0	81.8	96.6%	90-110%	Yes
MS	984209-8	1.08	5.25	1.00	5.25	6.27	6.33	98.9%	90-110%	Yes
MS	984209-9	2.37	5.25	1.00	5.25	7.27	7.62	93.3%	90-110%	Yes
MS	984209-10	21.2	5.25	5.00	26.3	47.2	47.5	99.0%	90-110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

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Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 07CrH09C

Investigation: **Hexavalent Chromium by EPA 218.6**

QA/QC Summary

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.200	---	<0.200	Yes
MRCCS	5.11	5.00	102%	90% - 110%	Yes
MRCVS#1	10.0	10.0	100%	95% - 105%	Yes
MRCVS#2	9.83	10.0	98.3%	95% - 105%	Yes
MRCVS#3	9.64	10.0	96.4%	95% - 105%	Yes
MRCVS#4	9.68	10.0	96.8%	95% - 105%	Yes
MRCVS#5	9.67	10.0	96.7%	95% - 105%	Yes
MRCVS#6	9.63	10.0	96.3%	95% - 105%	Yes
LCS	5.08	5.00	102%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 07TUC09F

Investigation: **Turbidity by Method SM 2130B**

Analytical Results Turbidity

TLI I.D.	Field I.D.	Sample Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	NTU	1.00	0.100	0.661
984209-2	MW-91-021	14:11	NTU	1.00	0.100	0.543
984209-3	OW-01M-021	09:03	NTU	1.00	0.100	0.193
984209-4	OW-01S-021	10:13	NTU	1.00	0.100	0.418
984209-5	OW-02D-021	15:09	NTU	1.00	0.100	0.116
984209-6	OW-02M-021	16:16	NTU	1.00	0.100	ND
984209-7	OW-02S-021	17:30	NTU	1.00	0.100	0.559
984209-8	OW-05D-021	11:37	NTU	1.00	0.100	ND
984209-9	OW-05M-021	12:34	NTU	1.00	0.100	0.144
984209-10	OW-05S-021	13:16	NTU	1.00	0.100	0.376

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	9847209-7	0.559	0.560	0.18%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.100	---	<0.100	Yes
LCS	7.74	8.00	96.8%	90% - 110%	Yes
LCS	7.80	8.00	97.5%	90% - 110%	Yes
LCS	7.75	8.00	96.9%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 13, 2009
Analytical Batch: 07EC09D

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.	Field I.D.	Units	Method	MDL	DF	RL	Results
984209-1	OW-01D-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	7180
984209-2	MW-91-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	1720
984209-3	OW-01M-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	7340
984209-4	OW-01S-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	3420
984209-5	OW-02D-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	7350
984209-6	OW-02M-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	7220
984209-7	OW-02S-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	1780
984209-8	OW-05D-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	7400
984209-9	OW-05M-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	7340
984209-10	OW-05S-021	µmhos/cm	EPA 120.1	0.099	1.00	2.00	1940

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-9	7340	7340	0.00%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<2.00	---	<2.00	Yes
CCS	704	706	99.7%	90% - 110%	Yes
CVS#1	994	999	99.5%	90% - 110%	Yes
CVS#2	995	999	99.6%	90% - 110%	Yes
LCS	704	706	99.7%	90% - 110%	Yes
LCSD	704	706	99.7%	90% - 110%	Yes

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 13, 2009
Analytical Batch: 07TDS09D

Investigation: **Total Dissolved Solids by SM 2540C**

Analytical Results Total Dissolved Solids

TLI I.D.	Field I.D.	Units	Method	RL	Results
984209-1	OW-01D-021	mg/L	SM 2540C	250	4260
984209-2	MW-91-021	mg/L	SM 2540C	50.0	954
984209-3	OW-01M-021	mg/L	SM 2540C	250	4290
984209-4	OW-01S-021	mg/L	SM 2540C	50.0	2000
984209-5	OW-02D-021	mg/L	SM 2540C	250	4300
984209-6	OW-02M-021	mg/L	SM 2540C	250	4190
984209-7	OW-02S-021	mg/L	SM 2540C	50.0	988
984209-8	OW-05D-021	mg/L	SM 2540C	250	4150
984209-9	OW-05M-021	mg/L	SM 2540C	250	4090
984209-10	OW-05S-021	mg/L	SM 2540C	50.0	1080

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-8	4150	4040	1.34%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<25.0	---	<25.0	Yes
LCS 1	502	500	100%	90% - 110%	Yes
LCS 2	500	500	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
RL: Reporting Limit.

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Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 07AN09G

Investigation: **Sulfate by Method EPA 300.0**

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	16:31	mg/L	50.0	25.0	463
984209-2	MW-91-021	14:11	16:54	mg/L	5.00	2.50	113
984209-3	OW-01M-021	09:03	17:16	mg/L	50.0	25.0	470
984209-4	OW-01S-021	10:13	18:02	mg/L	10.0	5.00	169
984209-5	OW-02D-021	15:09	18:25	mg/L	50.0	25.0	478

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984180-1	463	468	1.07%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984180-1	463	100	10.0	1000	1450	1463	98.7%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	19.8	20.0	99.0%	90% - 110%	Yes
MRCVS#1	14.9	15.0	99.3%	90% - 110%	Yes
MRCVS#2	15.0	15.0	100%	90% - 110%	Yes
MRCVS#3	14.9	15.0	99.3%	90% - 110%	Yes
MRCVS#4	15.0	15.0	100%	90% - 110%	Yes
MRCVS#5	15.1	15.0	101%	90% - 110%	Yes
LCS	20.2	20.0	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

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Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 10, 2009
Analytical Batch: 07AN09H

Investigation: **Sulfate by Method EPA 300.0**

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
984209-6	OW-02M-021	16:16	12:19	mg/L	100	50.0	487
984209-7	OW-02S-021	17:30	15:33	mg/L	5.00	2.50	116
984209-8	OW-05D-021	11:37	15:44	mg/L	25.0	12.5	482
984209-9	OW-05M-021	12:34	15:55	mg/L	25.0	12.5	484
984209-10	OW-05S-021	13:16	16:07	mg/L	5.00	2.50	113

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-6	487	478	1.87%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984209-6	487	100	10.0	1000	1470	1487	98.3%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	20.0	20.0	100%	90% - 110%	Yes
MRCVS#1	14.8	15.0	98.7%	90% - 110%	Yes
MRCVS#2	14.7	15.0	98.0%	90% - 110%	Yes
MRCVS#3	14.7	15.0	98.0%	90% - 110%	Yes
LCS	20.0	20.0	100%	90% - 110%	Yes

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DF: Dilution Factor.

Respectfully submitted,
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for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 07AN09G

Investigation: **Chloride by Method EPA 300.0**

Analytical Results Chloride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	16:19	mg/L	1000	200	1960
984209-2	MW-91-021	14:11	16:42	mg/L	100	20.0	399
984209-3	OW-01M-021	09:03	17:05	mg/L	1000	200	1970
984209-4	OW-01S-021	10:13	17:51	mg/L	500	100	893
984209-5	OW-02D-021	15:09	18:13	mg/L	500	100	2030

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984180-1	297	301	1.34%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984180-1	297	100	4.00	400	705	697	102%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	—	<0.500	Yes
MRCCS	3.97	4.00	99.3%	90% - 110%	Yes
MRCVS#1	2.93	3.00	97.7%	90% - 110%	Yes
MRCVS#2	2.92	3.00	97.3%	90% - 110%	Yes
MRCVS#3	2.95	3.00	98.3%	90% - 110%	Yes
MRCVS#4	2.92	3.00	97.3%	90% - 110%	Yes
MRCVS#5	3.00	3.00	100%	90% - 110%	Yes
LCS	3.90	4.00	97.5%	90% - 110%	Yes

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DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

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Analytical Services

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Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 10, 2009
Analytical Batch: 07AN09H

Investigation: Chloride by Method EPA 300.0

Analytical Results Chloride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
984209-6	OW-02M-021	16:16	14:13	mg/L	500	100	2070
984209-7	OW-02S-021	17:30	13:38	mg/L	100	20.0	404
984209-8	OW-05D-021	11:37	14:24	mg/L	500	100	2090
984209-9	OW-05M-021	12:34	14:47	mg/L	500	100	2050
984209-10	OW-05S-021	13:16	14:58	mg/L	100	20.0	453

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-7	404	400	1.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984209-7	404	100	4.00	400	816	804	103%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	3.97	4.00	99.3%	90% - 110%	Yes
MRCVS#1	2.93	3.00	97.7%	90% - 110%	Yes
MRCVS#2	3.01	3.00	100%	90% - 110%	Yes
LCS	3.97	4.00	99.3%	90% - 110%	Yes

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Laboratory No.: 984209
Date: August 3, 2009
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Prep/ Analyzed: July 9, 2009
Analytical Batch: 07AN09G

Investigation: **Fluoride by Ion Chromatography using EPA 300.0**

Analytical Results Fluoride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	13:45	mg/L	5.00	0.500	1.48
984209-2	MW-91-021	14:11	13:56	mg/L	5.00	0.500	4.27
984209-3	OW-01M-021	09:03	14:08	mg/L	5.00	0.500	1.49
984209-4	OW-01S-021	10:13	14:19	mg/L	5.00	0.500	1.85
984209-5	OW-02D-021	15:09	14:30	mg/L	5.00	0.500	1.91

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-1	1.48	1.67	12.1%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984209-1	1.48	5.00	4.00	20.0	22.1	21.5	103%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	4.02	4.00	101%	90% - 110%	Yes
MRCCS#1	3.04	3.00	101%	90% - 110%	Yes
MRCCS#2	3.02	3.00	101%	90% - 110%	Yes
MRCVS#3	3.05	3.00	102%	90% - 110%	Yes
LCS	4.02	4.00	101%	90% - 110%	Yes

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Analytical Services

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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 10, 2009
Analytical Batch: 07AN09H

Investigation: **Fluoride by Ion Chromatography using EPA 300.0**

Analytical Results Fluoride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
984209-6	OW-02M-021	16:16	11:22	mg/L	5.00	0.500	1.74
984209-7	OW-02S-021	17:30	11:33	mg/L	5.00	0.500	3.88
984209-8	OW-05D-021	11:37	11:44	mg/L	5.00	0.500	1.88
984209-9	OW-05M-021	12:34	11:56	mg/L	5.00	0.500	1.89
984209-10	OW-05S-021	13:16	12:07	mg/L	5.00	0.500	2.21

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-6	1.74	1.80	3.39%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984209-6	1.74	5.00	4.00	20.0	22.4	21.7	103%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	4.06	4.00	102%	90% - 110%	Yes
MRCCS#1	3.06	3.00	102%	90% - 110%	Yes
MRCCS#2	3.08	3.00	103%	90% - 110%	Yes
MRCVS#3	3.05	3.00	102%	90% - 110%	Yes
MRCVS#4	3.06	3.00	102%	90% - 110%	Yes
LCS	4.09	4.00	102%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 070909A

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 070909A

Investigation: **Total Dissolved Chromium by Inductively Coupled Argon Plasma Mass Spectrometer using EPA 200.8**

Analytical Results Total Dissolved Chromium

TLI I.D.	Field I.D.	Sample Time	Method	Run Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	EPA 200.8	17:49	µg/L	5.00	1.00	1.78
984209-2	MW-91-021	14:11	EPA 200.8	17:55	µg/L	5.00	1.00	30.7
984209-3	OW-01M-021	09:03	EPA 200.8	18:02	µg/L	5.00	1.00	3.38
984209-4	OW-01S-021	10:13	EPA 200.8	18:28	µg/L	5.00	1.00	19.4
984209-5	OW-02D-021	15:09	EPA 200.8	18:34	µg/L	5.00	1.00	ND
984209-6	OW-02M-021	16:16	EPA 200.8	18:41	µg/L	5.00	1.00	2.64
984209-7	OW-02S-021	17:30	EPA 200.8	18:47	µg/L	5.00	1.00	29.6
984209-8	OW-05D-021	11:37	EPA 200.8	18:54	µg/L	5.00	1.00	1.26
984209-9	OW-05M-021	12:34	EPA 200.8	19:00	µg/L	5.00	1.00	2.10
984209-10	OW-05S-021	13:16	EPA 200.8	19:07	µg/L	5.00	1.00	22.9

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 070909A

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 9, 2009
Analytical Batch: 070909A

Investigation: **Total Dissolved Chromium by Inductively Coupled Argon Plasma Mass Spectrometer using EPA 200.8**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984207	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984207	0.00	5.00	50.0	250	247	250	98.8%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<1.00	---	<1.00	Yes
MRCCS	48.3	50.0	96.6%	90% - 110%	Yes
MRCVS#1	49.5	50.0	99.0%	90% - 110%	Yes
MRCVS#2	49.0	50.0	98.0%	90% - 110%	Yes
ICS	50.2	50.0	100%	80% - 120%	Yes
LCS	47.5	50.0	95.0%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

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TRUESDAIL LABORATORIES, INC.

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 073109A

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 31, 2009
Analytical Batch: 073109A

Investigation: **Total Dissolved Boron by Inductively Coupled Argon Plasma Atomic Emission Spectrometer using EPA 200.7**

Analytical Results Total Dissolved Boron

TLI I.D.	Field I.D.	Sample Time	Method	Run Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	EPA 200.7	13:20	µg/L	1.00	200	1030
984209-2	MW-91-021	14:11	EPA 200.7	13:42	µg/L	1.00	200	674
984209-3	OW-01M-021	09:03	EPA 200.7	13:48	µg/L	1.00	200	1010
984209-4	OW-01S-021	10:13	EPA 200.7	13:54	µg/L	1.00	200	320
984209-5	OW-02D-021	15:09	EPA 200.7	14:11	µg/L	1.00	200	1030
984209-6	OW-02M-021	16:16	EPA 200.7	14:16	µg/L	1.00	200	1070
984209-7	OW-02S-021	17:30	EPA 200.7	14:22	µg/L	1.00	200	675
984209-8	OW-05D-021	11:37	EPA 200.7	14:28	µg/L	1.00	200	1090
984209-9	OW-05M-021	12:34	EPA 200.7	14:34	µg/L	1.00	200	1030
984209-10	OW-05S-021	13:16	EPA 200.7	14:39	µg/L	1.00	200	415

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

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Analytical Services

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Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 073109A

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 31, 2009
Analytical Batch: 073109A

Investigation: **Total Dissolved Boron by Inductively Coupled Argon Plasma Atomic Emission Spectrometer using EPA 200.7**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-1	1030	1010	2.0%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984209-1	1030	1.00	2000	2000	2790	3030	88.0%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<20.0	---	<20.0	Yes
MRCCS	4830	5000	96.6%	95% - 105%	Yes
MRCVS#1	4950	5000	99.0%	90% - 110%	Yes
MRCVS#2	4780	5000	95.6%	90% - 110%	Yes
LCS	4870	5000	97.4%	90% - 110%	Yes

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Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 072009A

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 20, 2009
Analytical Batch: 072009A

Investigation: **Total Dissolved Molybdenum by Inductively Coupled Argon Plasma Mass Spectrometer using EPA 200.8**

Analytical Results Total Dissolved Molybdenum

TLI I.D.	Field I.D.	Sample Time	Method	Run Time	Units	DF	RL	Results
984209-1	OW-01D-021	17:18	EPA 200.8	13:43	µg/L	5.00	10.0	10.3
984209-2	MW-91-021	14:11	EPA 200.8	14:36	µg/L	5.00	10.0	33.1
984209-3	OW-01M-021	09:03	EPA 200.8	14:43	µg/L	5.00	10.0	ND
984209-4	OW-01S-021	10:13	EPA 200.8	14:50	µg/L	5.00	10.0	ND
984209-5	OW-02D-021	15:09	EPA 200.8	14:56	µg/L	5.00	10.0	13.3
984209-6	OW-02M-021	16:16	EPA 200.8	15:03	µg/L	5.00	10.0	11.0
984209-7	OW-02S-021	17:30	EPA 200.8	15:10	µg/L	5.00	10.0	36.5
984209-8	OW-05D-021	11:37	EPA 200.8	15:16	µg/L	5.00	10.0	12.8
984209-9	OW-05M-021	12:34	EPA 200.8	15:23	µg/L	5.00	10.0	10.7
984209-10	OW-05S-021	13:16	EPA 200.8	15:30	µg/L	5.00	10.0	23.6

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Ten (10) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 072009A

Laboratory No.: 984209
Date: August 3, 2009
Collected: July 7 - 8, 2009
Received: July 8, 2009
Prep/ Analyzed: July 20, 2009
Analytical Batch: 072009A

Investigation: **Total Dissolved Molybdenum by Inductively Coupled Argon Plasma Mass Spectrometer using EPA 200.8**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	984209-1	10.3	9.63	6.72%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	984209-1	10.3	5.00	50.0	250	272	260	105%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<10.0	---	<10.0	Yes
MRCCS	50.7	50.0	101%	90% - 110%	Yes
MRCVS#1	49.2	50.0	98.4%	90% - 110%	Yes
MRCVS#2	48.4	50.0	96.8%	90% - 110%	Yes
LCS	46.9	50.0	93.8%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

For Mona Nassimi, Manager
Analytical Services

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984209

CH2MHILL **CHAIN OF CUSTODY RECORD** 7/8/2009 3:30:49 PM Page 1 OF 1

Project Name PGE Topock
Location Topock
Project Number 370367.MP.02.CM.01
Project Manager Jay Piper
Sample Manager Matt Ringler

Task Order
Project 2009-CMP-021
Turnaround Time 10 Days
Shipping Date: 7/8/2009
COC Number: 3

	Container	250 ml Poly	500 ml Poly	1 Liter Poly	1L Poly	1 Liter Poly	1 Liter Poly
	Preservatives	(NH4)2SO3/NH4OH, 4°C	HNO3	4°C	4°C	4°C	4°C
	Filtered	NA	Field	NA	NA	NA	NA
	Holding Time	28	7	28	7	2	28
		Cr6 (E218.6) Lab Filtered	Metals (E200.7FF) Field Filtered B, Cr, Mo	Specific Conductance (E120.1)	TDS (SM2540C)	Anions (E300.0) Chloride,Fluoride,Sulfate	Turbidity (SM2130)

Rec'd 07/08/09
S/984209

ALERT !!
Level III QC
For Sample Containers
See Form Attached

		DATE	TIME	Matrix							Number of Containers	COMMENTS
1	OW-01D-021	7/7/2009	17:18	Water	X	X	X	X	X	X	5	MS=1
	MW-89-021	7/8/2009	10:29	Water	X						1	Hold
2	MW-91-021	7/8/2009	1411	Water	X	X	X	X	X	X	5	
3	OW-01M-021	7/8/2009	9:03	Water	X	X	X	X	X	X	5	
4	OW-01S-021	7/8/2009	10:13	Water	X	X	X	X	X	X	5	
5	OW-02D-021	7/8/2009	1509	Water	X	X	X	X	X	X	5	MS=2
6	OW-02M-021	7/8/2009	16016	Water	X	X	X	X	X	X	5	
7	OW-02S-021	7/8/2009	1730	Water	X	X	X	X	X	X	5	
8	OW-05D-021	7/8/2009	11:37	Water	X	X	X	X	X	X	5	
9	OW-05M-021	7/8/2009	12:34	Water	X	X	X	X	X	X	5	
10	OW-05S-021	7/8/2009	13:16	Water	X	X	X	X	X	X	5	
											TOTAL NUMBER OF CONTAINERS 51	

Signatures	Date/Time
Approved by	7-8-09
Sampled by	1800
Relinquished by	
Received by Rafael Davila	7-8-09 18:00
Relinquished by Rafael Davila	7-8-09 23:55
Received by Shubhanna	7/8/09 23:55

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: Truesdail Laboratories, Inc.
Lab Phone: (714) 730-6239

ATTN: Sample Custody

Special Instructions:
July 9-10, 2009

Report Copy to
Shawn Duffy
(530) 229-3303

670

EMAX

095080

CH2MHILL

CHAIN OF CUSTODY RECORD

7/8/2009 3:32:12 PM

Project Name PGE Topock
Location Topock
Project Number 370367.MP.02.CM.01
Project Manager Jay Piper
Sample Manager Matt Ringier

Task Order
Project 2009-CMP-021
Turnaround Time 12 Days
Shipping Date: 7/8/2009
COC Number: 4

	Container:	1 Liter Poly
	Preservatives:	H□SO□, pH<2, 4°C
	Filtered:	NA
	Holding Time:	28

		DATE	TIME	Matrix	Nitrate/Nitrite (SM4500NO3-E)		Number of Containers	COMMENTS
1	OW-01D-021	7/7/2009	17:18	Water	X		1	
2	MW-91-021	7/8/2009	1411	Water	X		1	
3	OW-01M-021	7/8/2009	9:03	Water	X		1	
4	OW-01S-021	7/8/2009	10:13	Water	X		1	
5	OW-02D-021	7/8/2009	1509	Water	X		1	
6	OW-02M-021	7/8/2009	1616	Water	X		1	
7	OW-02S-021	7/8/2009	1730	Water	X		1	
8	OW-05D-021	7/8/2009	11:37	Water	X		1	
9	OW-05M-021	7/8/2009	12:34	Water	X		1	
10	OW-05S-021	7/8/2009	13:16	Water	X		1	
						TOTAL NUMBER OF CONTAINERS	10	

T = 3.2°C

	Signatures	Date/Time
Approved by		7-8-09
Sampled by		1800
Relinquished by		
Received by	Rafael Davila	7-8-09 18:00
Relinquished by	Rafael Davila	7-8-09 23:55
Received by	Shakhmine	7/9/09 1019
	KeithStant	7/9/09 1040
	[illegible]	7/9/09 1705

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name:
Lab Phone:

ATTN:
Sample Custody

Special Instructions:
July 9-10, 2009

Report Copy to
Shawn Duffy
(530) 229-3303

1001

CLIENT: CH2M HILL TOPOCK

SDG: 09G080

Analyst names:

1. SM4500NO3: Elena Robles

CASE NARRATIVE

Client : CH2M HILL

Project : PG&E'S TOPOCK GAS COMPRESSOR STAT

SDG : 09G080

METHOD SM4500NO3
NITRATE/NITRITE-N

A total of ten (10) water samples were received on 07/09/09 for Nitrate/Nitrite as N analysis, Method SM4500NO3 in accordance with Methods for Chemical Analysis of Water and Wastes, EPA600/479020 (1983).

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at a frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for NAG001WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at a frequency prescribed by the project.
Percent recovery for G080-10M was within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

METHOD SM4500NO3
NITRATE/NITRITE-N

Client : CH2M HILL
Project : PG&E'S TOPOCK GAS COMPRESSOR STAT
Batch No. : 09G080

Matrix : WATER
Instrument ID : I70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	NAG001WB	ND	1	NA	0.100	0.0200	07/17/0916:11	NA	NAG00111	NAG00108	NAG001W	NA	NA
LCS1W	NAG001WL	0.477	1	NA	0.100	0.0200	07/17/0916:11	NA	NAG00112	NAG00108	NAG001W	NA	NA
LCD1W	NAG001WC	0.483	1	NA	0.100	0.0200	07/17/0916:11	NA	NAG00113	NAG00108	NAG001W	NA	NA
OW-01D-021	G080-01	2.99	5	NA	0.500	0.100	07/17/0916:11	NA	NAG00114	NAG00108	NAG001W	07/07/0917:18	07/09/09
MW-91-021	G080-02	3.47	5	NA	0.500	0.100	07/17/0916:12	NA	NAG00115	NAG00108	NAG001W	07/08/0914:11	07/09/09
OW-01M-021	G080-03	1.80	5	NA	0.500	0.100	07/17/0916:12	NA	NAG00116	NAG00108	NAG001W	07/08/0909:03	07/09/09
OW-01S-021	G080-04	1.76	5	NA	0.500	0.100	07/17/0916:12	NA	NAG00117	NAG00108	NAG001W	07/08/0910:13	07/09/09
OW-02D-021	G080-05	3.90	5	NA	0.500	0.100	07/17/0916:12	NA	NAG00118	NAG00108	NAG001W	07/08/0915:09	07/09/09
OW-02M-021	G080-06	2.75	5	NA	0.500	0.100	07/17/0916:13	NA	NAG00121	NAG00119	NAG001W	07/08/0916:16	07/09/09
OW-02S-021	G080-07	3.66	5	NA	0.500	0.100	07/17/0916:13	NA	NAG00122	NAG00119	NAG001W	07/08/0917:30	07/09/09
OW-05D-021	G080-08	2.89	5	NA	0.500	0.100	07/17/0916:13	NA	NAG00123	NAG00119	NAG001W	07/08/0911:37	07/09/09
OW-05M-021	G080-09	2.73	5	NA	0.500	0.100	07/17/0916:13	NA	NAG00124	NAG00119	NAG001W	07/08/0912:34	07/09/09
OW-05S-021	G080-10	3.39	5	NA	0.500	0.100	07/17/0916:14	NA	NAG00125	NAG00119	NAG001W	07/08/0913:16	07/09/09
OW-05S-021DUP	G080-10D	3.55	5	NA	0.500	0.100	07/17/0916:14	NA	NAG00126	NAG00119	NAG001W	07/08/0913:16	07/09/09
OW-05S-021MS	G080-10M	3.88	5	NA	0.500	0.100	07/17/0916:14	NA	NAG00127	NAG00119	NAG001W	07/08/0913:16	07/09/09

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November 6, 2009

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK 2009-CMP-022, GROUNDWATER MONITORING PROJECT, TLI NO.: 985819

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock 2009-CMP-022 groundwater-monitoring project. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data, and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data are under Section 5.

The samples were received and delivered with the chain of custody on October 13, 2009, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

Samples 985819-1 through 985819-6 were received and analyzed past the holding time for pH.

Mercury was analyzed by EPA 200.8 rather that EPA 245.1 due to instrument problems.

The chain of custody requested Total Dissolved Chromium and Total Dissolved Boron by SW 6010B for samples 985819-5 through 985819-12. Mr. Shawn Duffy of CH2M Hill requested the samples be analyzed by EPA 200.7 or EPA 200.8. Total Dissolved Chromium was analyzed by EPA 200.8 and Total Dissolved Boron was analyzed by EPA 200.7.

No other violations or non-conformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi
Manager, Analytical Services

K.R.P. Iyer
Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

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Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 200
Received: October 13, 2009

ANALYST LIST

METHOD	PARAMETER	ANALYST
EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
SM 2320B	Alkalinity	Iordan Stavrev
SM 2130B	Turbidity	Gautam Savani
EPA 300.0	Anions	Giawad Ghenniwa
SM 4500-NH3 D	Ammonia	Iordan Stavrev
EPA 200.7	Metals by ICP	Kris Collins
EPA 200.8	Metals by ICP/MS	Romuel Chaves
EPA 218.6	Hexavalent Chromium	Sonya Bersudsky

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 14, 2009
Analytical Batch: 10PH09I

Investigation: **pH by SM 4500-H B**

Analytical Results pH

TLI I.D.	Field I.D.	Run Time	Units	MDL	RL	Results
985819-1	CW-01D-022	08:25	pH	0.017	2.00	7.73 J
985819-2	CW-01M-022	08:28	pH	0.017	2.00	7.56 J
985819-3	OW-01D-022	08:31	pH	0.017	2.00	7.69 J
985819-4	OW-01M-022	08:33	pH	0.017	2.00	7.64 J
985819-5	OW-01S-022	08:35	pH	0.017	2.00	7.75 J
985819-6	OW-91-022	08:36	pH	0.017	2.00	7.74 J
985819-7	OW-02D-022	08:46	pH	0.017	2.00	7.58
985819-8	OW-02M-022	08:52	pH	0.017	2.00	7.70
985819-9	OW-02S-022	08:55	pH	0.017	2.00	8.06
985819-10	OW-05D-022	08:38	pH	0.017	2.00	7.65
985819-11	OW-05M-022	08:40	pH	0.017	2.00	7.60
985819-12	OW-05S-022	08:43	pH	0.017	2.00	7.89

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	985819-7	7.58	7.59	0.01	± 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
MRCVS	7.03	7.00	0.03	± 0.100 Units	Yes
LCS	7.05	7.00	0.05	± 0.100 Units	Yes
LCSD	7.04	7.00	0.04	± 0.100 Units	Yes

ND: Below the reporting limit (Not Detected).
RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Analyzed: October 15, 2009
Analytical Batch: 10CrH09I

Investigation: **Hexavalent Chromium by IC Using Method EPA 218.6**

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-5	OW-01S-022	16:27	19:04	µg/L	1.05	0.20	21.9
985819-6	OW-91-022	12:32	19:25	µg/L	1.05	0.20	22.0

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Analyzed: October 15, 2009
Analytical Batch: 10CrH09I

Investigation: **Hexavalent Chromium by IC Using Method EPA 218.6**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-9	32.2	31.7	1.56%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985819-5	21.9	1.08	20.0	21.6	42.2	43.5	94.0%	90-110%	Yes
MS	985819-6	22.0	1.08	20.0	21.6	42.8	43.6	96.3%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
BLANK	ND	<0.200	---	<0.200	Yes
MRCCS	5.20	5.00	104%	90% - 110%	Yes
MRCVS#1	10.1	10.0	101%	95% - 105%	Yes
MRCVS#2	10.2	10.0	102%	95% - 105%	Yes
MRCVS#3	9.97	10.0	99.7%	95% - 105%	Yes
MRCVS#4	9.94	10.0	99.4%	95% - 105%	Yes
LCS	5.17	5.00	103%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Sean Comb
Mona Nassimi, Manager
Analytical Services

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REPORT

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155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Analyzed: October 16, 2009
Analytical Batch: 10CrH09J

Investigation: Hexavalent Chromium by IC Using Method EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-1	CW-01D-022	11:57	11:21	µg/L	5.25	1.05	ND
985819-2	CW-01M-022	13:25	11:42	µg/L	5.25	1.05	1.94
985819-3	OW-01D-022	14:50	11:00	µg/L	5.25	1.05	1.26
985819-4	OW-01M-022	15:44	11:11	µg/L	5.25	1.05	1.81
985819-7	OW-02D-022	12:40	12:55	µg/L	5.25	1.05	ND
985819-8	OW-02M-022	13:46	13:05	µg/L	5.25	1.05	1.68
985819-9	OW-02S-022	14:26	13:16	µg/L	5.25	1.05	31.7
985819-10	OW-05D-022	09:08	13:26	µg/L	5.25	1.05	ND
985819-11	OW-05M-022	10:07	15:33	µg/L	5.25	1.05	1.15
985819-12	OW-05S-022	10:55	15:22	µg/L	1.05	0.20	21.7

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

For Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Analyzed: October 16, 2009
Analytical Batch: 10CrH09J

Investigation: Hexavalent Chromium by IC Using Method EPA 218.6

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-3	1.26	1.12	11.8%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985819-1	0.891	5.25	1.00	5.25	6.18	6.14	101%	90-110%	Yes
MS	985819-2	1.94	5.25	1.00	5.25	7.53	7.19	106%	90-110%	Yes
MS	985819-3	1.26	5.25	1.00	5.25	6.30	6.51	96.0%	90-110%	Yes
MS	985819-4	1.81	5.25	1.00	5.25	7.27	7.06	104%	90-110%	Yes
MS	985819-7	0.298	5.25	1.00	5.25	5.70	5.55	103%	90-110%	Yes
MS	985819-8	1.68	5.25	1.00	5.25	6.97	6.93	101%	90-110%	Yes
MS	985819-9	31.7	5.25	10.0	52.5	81.2	84.2	94.3%	90-110%	Yes
MS	985819-10	0.705	5.25	1.00	5.25	6.13	5.96	103%	90-110%	Yes
MS	985819-11	1.15	5.25	1.00	5.25	6.76	6.40	107%	90-110%	Yes
MS	985819-12	21.7	1.09	25.0	27.3	47.6	49.0	95.0%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
BLANK	ND	<0.200	---	<0.200	Yes
MRCCS	5.17	5.00	103%	90% - 110%	Yes
MRCVS#1	9.86	10.0	98.6%	95% - 105%	Yes
MRCVS#2	9.73	10.0	97.3%	95% - 105%	Yes
MRCVS#3	9.87	10.0	98.7%	95% - 105%	Yes
LCS	5.15	5.00	103%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

For Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 101909A

Laboratory No.: 985819

Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 19, 2009
Analytical Batch: 101909A

Investigation: **Total Dissolved Chromium by Inductively Coupled Argon Plasma Mass Spectrometer using EPA 200.8**

Analytical Results Total Dissolved Chromium

TLI I.D.	Field I.D.	Units	Method	Run Time	DF	RL	Results
985819-5	OW-01S-022	µg/L	EPA 200.8	12:10	5.00	1.00	21.6
985819-6	OW-91-022	µg/L	EPA 200.8	12:16	5.00	1.00	21.4
985819-7	OW-02D-022	µg/L	EPA 200.8	12:22	5.00	1.00	ND
985819-8	OW-02M-022	µg/L	EPA 200.8	12:28	5.00	1.00	2.18
985819-9	OW-02S-022	µg/L	EPA 200.8	12:35	5.00	1.00	31.8
985819-10	OW-05D-022	µg/L	EPA 200.8	12:41	5.00	1.00	1.18
985819-11	OW-05M-022	µg/L	EPA 200.8	12:47	5.00	1.00	1.67
985819-12	OW-05S-022	µg/L	EPA 200.8	13:06	5.00	1.00	21.8

ND: Not detected at reporting limit
DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Laboratory No.: 985819

Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 103009A

Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 30, 2009
Analytical Batch: 103009A

Investigation: **Total Dissolved Chromium by Inductively Coupled Argon Plasma Mass Spectrometer using EPA 200.8**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985893-1	ND	ND	0.00%	≤20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985893-1	0.00	5.00	50.0	250	249	250	99.6%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<1.00	---	<1.00	Yes
MRCCS	51.7	50.0	103%	90% - 110%	Yes
MRCVS#1	51.9	50.0	104%	90% - 110%	Yes
MRCVS#2	51.9	50.0	104%	90% - 110%	Yes
MRCVS#3	50.8	50.0	102%	90% - 110%	Yes
ICS	50.9	50.0	102%	80% - 120%	Yes
LCS	51.7	50.0	103%	90% - 110%	Yes

ND: Not detected at reporting limit
DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Laboratory No.: 985819

Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 102209B

Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 22, 2009
Analytical Batch: 102209B

Investigation: **Total Dissolved Boron by Inductively Coupled Argon Plasma Atomic Emission Spectrometer using EPA 200.7**

Analytical Results Total Dissolved Boron

TLI I.D.	Field I.D.	Units	Method	Run Time	DF	RL	Results
985819-5	OW-01S-022	µg/L	EPA 200.7	14:25	1.00	200	366
985819-6	OW-91-022	µg/L	EPA 200.7	14:30	1.00	200	362
985819-7	OW-02D-022	µg/L	EPA 200.7	14:36	1.00	200	1070
985819-8	OW-02M-022	µg/L	EPA 200.7	14:42	1.00	200	1100
985819-9	OW-02S-022	µg/L	EPA 200.7	14:47	1.00	200	666
985819-10	OW-05D-022	µg/L	EPA 200.7	14:53	1.00	200	1070
985819-11	OW-05M-022	µg/L	EPA 200.7	14:58	1.00	200	1160
985819-12	OW-05S-022	µg/L	EPA 200.7	15:04	1.00	200	409

ND: Not detected at reporting limit
DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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Laboratory No.: 985819

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Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01
Prep. Batch: 102209B

Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 22, 2009
Analytical Batch: 102209B

Investigation: **Total Dissolved Boron by Inductively Coupled Argon Plasma Atomic Emission Spectrometer using EPA 200.7**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-1 T	1100	1100	0.00%	≤20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985819-1 T	1100	1.00	2000	2000	3070	3100	98.5%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<200	---	<200	Yes
MRCCS	5110	5000	102%	95% - 105%	Yes
MRCVS#1	5000	5000	100%	90% - 110%	Yes
MRCVS#2	5210	5000	104%	90% - 110%	Yes
MRCVS#3	5330	5000	107%	90% - 110%	Yes
LCS	5040	5000	101%	90% - 110%	Yes

ND: Not detected at reporting limit
DF: Dilution Factor

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Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 14, 2009
Analytical Batch: 10EC09F

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.	Field I.D.	Units	Method	MDL	DF	RL	Results
985819-1	CW-01D-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7120
985819-2	CW-01M-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	6980
985819-3	OW-01D-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7190
985819-4	OW-01M-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7020
985819-5	OW-01S-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	2960
985819-6	OW-91-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	2890
985819-7	OW-02D-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7490
985819-8	OW-02M-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7120
985819-9	OW-02S-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	1720
985819-10	OW-05D-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7250
985819-11	OW-05M-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7140
985819-12	OW-05S-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	1870

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-12	1870	1870	0.00%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<2.00	---	<2.00	Yes
CCS	708	706	100%	90% - 110%	Yes
CVS#1	998	999	99.9%	90% - 110%	Yes
CVS#2	998	999	99.9%	90% - 110%	Yes
LCS	707	706	100%	90% - 110%	Yes
LCSD	707	706	100%	90% - 110%	Yes

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DF: Dilution Factor.

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Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 15, 2009
Analytical Batch: 10TDS09D

Investigation: **Total Dissolved Solids by SM 2540C**

Analytical Results Total Dissolved Solids

TLI I.D.	Field I.D.	Units	Method	RL	Results
985819-1	CW-01D-022	mg/L	SM 2540C	250	4090
985819-2	CW-01M-022	mg/L	SM 2540C	250	3870
985819-3	OW-01D-022	mg/L	SM 2540C	250	4630
985819-4	OW-01M-022	mg/L	SM 2540C	250	4190
985819-5	OW-01S-022	mg/L	SM 2540C	50.0	1890
985819-6	OW-91-022	mg/L	SM 2540C	50.0	1950
985819-7	OW-02D-022	mg/L	SM 2540C	250	4750
985819-8	OW-02M-022	mg/L	SM 2540C	250	4630
985819-9	OW-02S-022	mg/L	SM 2540C	50.0	962
985819-10	OW-05D-022	mg/L	SM 2540C	250	4120
985819-11	OW-05M-022	mg/L	SM 2540C	250	4520
985819-12	OW-05S-022	mg/L	SM 2540C	50.0	1040

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-9	962	946	0.84%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<10.0	---	<10.0	Yes
LCS 1	497	500	99.4%	90% - 110%	Yes
LCS 2	496	500	99.2%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
RL: Reporting Limit.

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Laboratory No.: 985819

Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 14, 2009
Analytical Batch: 10ALK09D

Investigation: **Alkalinity by SM 2320B**

Analytical Results Total Alkalinity, Bicarbonate, Carbonate

TLI I.D.	Field I.D.	Units	RL	Total Alkalinity	Bicarbonate	Carbonate
985819-1	CW-01D-022	mg/L	5.00	64.0	64.0	ND
985819-2	CW-01M-022	mg/L	5.00	69.0	69.0	ND
985819-3	OW-01D-022	mg/L	5.00	77.0	77.0	ND
985819-4	OW-01M-022	mg/L	5.00	75.0	75.0	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-4	75.0	75.0	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985819-4	75.0	1.00	100	100	170	175	95.0%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<5.00	---	<5.00	Yes
LCS	100	100	100%	90% - 110%	Yes

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Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 14, 2009
Analytical Batch: 10TUC09I

Investigation: **Turbidity by Method SM 2130B**

Analytical Results Turbidity

TLI I.D.	Field I.D.	Sample Time	Units	DF	RL	Results
985819-5	OW-01S-022	16:27	NTU	1.00	0.100	0.439
985819-6	OW-91-022	12:32	NTU	1.00	0.100	0.430
985819-7	OW-02D-022	12:40	NTU	1.00	0.100	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985809-9	ND	ND	0.00%	< 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.100	---	<0.100	Yes
LCS	8.08	8.00	101%	90% - 110%	Yes
LCS	7.92	8.00	99%	90% - 110%	Yes
LCS	8.10	8.00	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

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Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 14, 2009
Analytical Batch: 10TUC09J

Investigation: **Turbidity by Method SM 2130B**

Analytical Results Turbidity

TLI I.D.	Field I.D.	Sample Time	Units	DF	RL	Results
985819-1	CW-01D-022	11:57	NTU	1.00	0.100	0.105
985819-2	CW-01M-022	13:25	NTU	1.00	0.100	0.712
985819-3	OW-01D-022	14:50	NTU	1.00	0.100	0.473
985819-4	OW-01M-022	15:44	NTU	1.00	0.100	0.234
985819-8	OW-02M-022	13:46	NTU	1.00	0.100	ND
985819-9	OW-02S-022	14:26	NTU	1.00	0.100	0.735
985819-10	OW-05D-022	09:08	NTU	1.00	0.100	ND
985819-11	OW-05M-022	10:07	NTU	1.00	0.100	ND
985819-12	OW-05S-022	10:55	NTU	1.00	0.100	0.680

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985833-2	0.394	0.396	0.51%	< 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.100	---	<0.100	Yes
LCS	8.06	8.00	101%	90% - 110%	Yes
LCS	7.90	8.00	98.8%	90% - 110%	Yes
LCS	7.88	8.00	98.5%	90% - 110%	Yes

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Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 15, 2009
Analytical Batch: 10NH3-E09B

Investigation: **Ammonia as N by Method SM 4500-NH3 D**

Analytical Results Ammonia as N

TLI I.D.	Field I.D.	Sample Time	Method	Units	DF	RL	Results
985819-1	CW-01D-022	11:57	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985819-2	CW-01M-022	13:25	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985819-3	OW-01D-022	14:50	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985819-4	OW-01M-022	15:44	SM 4500-NH3 D	mg/L	1.00	0.500	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-4	ND	ND	0.0%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985819-4	0.00	1.00	6.00	6.00	5.89	6.00	98.2%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	5.95	6.00	99.2%	90% - 110%	Yes
MRCVS#1	5.74	6.00	95.7%	90% - 110%	Yes
LCS	10.0	10.0	100%	90% - 110%	Yes

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P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 14, 2009
Analytical Batch: 10AN09I

Investigation: **Fluoride by Ion Chromatography using EPA 300.0**

Analytical Results Fluoride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-1	CW-01D-022	11:57	14:55	mg/L	5.00	0.500	1.94
985819-2	CW-01M-022	13:25	15:30	mg/L	5.00	0.500	2.19
985819-3	OW-01D-022	14:50	15:41	mg/L	5.00	0.500	1.56
985819-4	OW-01M-022	15:44	15:52	mg/L	5.00	0.500	2.36
985819-5	OW-01S-022	16:27	16:04	mg/L	5.00	0.500	2.45
985819-6	OW-91-022	12:32	16:15	mg/L	5.00	0.500	2.23
985819-7	OW-02D-022	12:40	16:27	mg/L	5.00	0.500	2.17
985819-8	OW-02M-022	13:46	16:38	mg/L	5.00	0.500	4.81

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985815	ND	ND	0.0%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985815	0.00	1.00	2.00	2.00	2.16	2.00	108%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	4.08	4.00	102%	90% - 110%	Yes
MRCVS#1	3.14	3.00	105%	90% - 110%	Yes
MRCVS#2	3.15	3.00	105%	90% - 110%	Yes
MRCVS#3	3.14	3.00	105%	90% - 110%	Yes
LCS	4.08	4.00	102%	90% - 110%	Yes

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 15, 2009
Analytical Batch: 10AN09J

Investigation: **Fluoride by Ion Chromatography using EPA 300.0**

Analytical Results Fluoride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-9	OW-02S-022	14:26	11:46	mg/L	5.00	0.500	5.20
985819-10	OW-05D-022	09:08	11:58	mg/L	5.00	0.500	2.31
985819-11	OW-05M-022	10:07	12:09	mg/L	5.00	0.500	2.08
985819-12	OW-05S-022	10:55	12:21	mg/L	5.00	0.500	2.40

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate, Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985858-1	1.26	1.22	3.23%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985858-1	1.26	1.00	4.00	4.00	5.26	5.26	100%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	4.10	4.00	103%	90% - 110%	Yes
MRCVS#1	3.12	3.00	104%	90% - 110%	Yes
MRCVS#2	3.12	3.00	104%	90% - 110%	Yes
LCS	4.09	4.00	102%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 17, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 15, 2009
Analytical Batch: 10AN09J
Revision 1

Investigation: **Chloride by Ion Chromatography using EPA 300.0**

Analytical Results Chloride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-1	CW-01D-022	11:57	15:57	mg/L	500	100	2080
985819-2	CW-01M-022	13:25	16:09	mg/L	500	100	2060
985819-3	OW-01D-022	14:50	16:20	mg/L	500	100	2090
985819-5	OW-01S-022	16:27	16:43	mg/L	200	40.0	829
985819-6	OW-91-022	12:32	16:54	mg/L	500	100	797
985819-7	OW-02D-022	12:40	17:06	mg/L	500	100	2250
985819-9	OW-02S-022	14:26	17:28	mg/L	500	100	389
985819-10	OW-05D-022	09:08	18:03	mg/L	500	100	2070
985819-11	OW-05M-022	10:07	18:14	mg/L	500	100	2100
985819-12	OW-05S-022	10:55	18:25	mg/L	100	20.0	462

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

fo Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 15, 2009
Analytical Batch: 10AN09J

Investigation: **Chloride by Ion Chromatography using EPA 300.0**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985858-3	50.7	50.6	0.20%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985858-3	50.7	25.0	4.00	100	152	151	101%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	3.97	4.00	99.3%	90% - 110%	Yes
MRCVS#1	2.98	3.00	99.3%	90% - 110%	Yes
MRCVS#2	2.98	3.00	99.3%	90% - 110%	Yes
MRCVS#3	2.96	3.00	98.7%	90% - 110%	Yes
MRCVS#4	2.99	3.00	99.7%	90% - 110%	Yes
LCS	3.97	4.00	99.3%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 16, 2009
Analytical Batch: 10AN09K

Investigation: **Chloride by Ion Chromatography using EPA 300.0**

Analytical Results Chloride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-4	OW-01M-022	15:44	16:14	mg/L	500	100	2070
985819-8	OW-02M-022	13:46	16:25	mg/L	500	100	2090

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985761	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985761	0.00	1.00	2.00	2.00	2.01	2.00	101%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	3.97	4.00	99.3%	90% - 110%	Yes
MRCVS#1	2.98	3.00	99.3%	90% - 110%	Yes
MRCVS#2	3.01	3.00	100%	90% - 110%	Yes
MRCVS#3	3.01	3.00	100%	90% - 110%	Yes
MRCVS#4	3.03	3.00	101%	90% - 110%	Yes
LCS	3.97	4.00	99.3%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 15, 2009
Analytical Batch: 10AN09J

Investigation: **Sulfate by Ion Chromatography using EPA 300.0**

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-1	CW-01D-022	11:57	19:11	mg/L	25.0	12.5	492
985819-2	CW-01M-022	13:25	19:23	mg/L	25.0	12.5	480
985819-3	OW-01D-022	14:50	19:34	mg/L	25.0	12.5	500
985819-5	OW-01S-022	16:27	20:20	mg/L	10.0	5.00	162
985819-6	OW-91-022	12:32	20:31	mg/L	25.0	12.5	151
985819-7	OW-02D-022	12:40	20:42	mg/L	25.0	12.5	529
985819-9	OW-02S-022	14:26	21:05	mg/L	10.0	5.00	112
985819-10	OW-05D-022	09:08	21:17	mg/L	25.0	12.5	489
985819-11	OW-05M-022	10:07	21:28	mg/L	25.0	12.5	490
985819-12	OW-05S-022	10:55	21:39	mg/L	10.0	5.00	113

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
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Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 15, 2009
Analytical Batch: 10AN09J

Investigation: **Sulfate by Ion Chromatography using EPA 300.0**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985858-3	105	105	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985858-3	105	25.0	10.0	250	364	355	104%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	20.2	20.0	101%	90% - 110%	Yes
MRCVS#1	15.0	15.0	100%	90% - 110%	Yes
MRCVS#2	15.0	15.0	100%	90% - 110%	Yes
MRCVS#3	15.0	15.0	100%	90% - 110%	Yes
MRCVS#4	15.0	15.0	100%	90% - 110%	Yes
MRCVS#5	15.1	15.0	101%	90% - 110%	Yes
LCS	20.2	20.0	101%	90% - 110%	Yes

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Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 16, 2009
Analytical Batch: 10AN09K

Investigation: **Sulfate by Ion Chromatography using EPA 300.0**

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-4	OW-01M-022	15:44	18:38	mg/L	25.0	12.5	486
985819-8	OW-02M-022	13:46	18:50	mg/L	25.0	12.5	489

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985761	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985761	0.00	1.00	2.00	2.00	1.94	2.00	97.0%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	20.2	20.0	101%	90% - 110%	Yes
MRCVS#1	15.0	15.0	100%	90% - 110%	Yes
MRCVS#2	15.0	15.0	100%	90% - 110%	Yes
MRCVS#3	15.1	15.0	101%	90% - 110%	Yes
MRCVS#4	15.0	15.0	100%	90% - 110%	Yes
MRCVS#5	15.0	15.0	100%	90% - 110%	Yes
LCS	20.2	20.0	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985819
Date: November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Prep/ Analyzed: October 22, 2009
Analytical Batch: 102209B

Investigation: Total Iron by Inductively Coupled Argon Plasma Atomic Emission Spectrometer using EPA 200.7

Analytical Results Total Iron

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985819-1	CW-01D-022	11:57	13:31	µg/L	1.00	20.0	ND
985819-2	CW-01M-022	13:25	13:53	µg/L	1.00	20.0	25.1
985819-3	OW-01D-022	14:50	13:59	µg/L	1.00	20.0	22.6
985819-4	OW-01M-022	15:44	14:19	µg/L	1.00	20.0	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-1	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985819-1	0.00	1.00	2000	2000	2090	2000	105%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<20.0	---	<20.0	Yes
MRCCS	5120	5000	102%	95% - 105%	Yes
MRCVS#1	5090	5000	102%	90% - 110%	Yes
MRCVS#2	5330	5000	107%	90% - 110%	Yes
MRCVS#3	5450	5000	109%	90% - 110%	Yes
ICS	2040	2000	102%	80% - 120%	Yes
LCS	5050	5000	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Samples: Twelve (12) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Investigation: California Title 22, Section 26 Metals [dissolved]

Laboratory No.: 985819
Reported November 5, 2009
Collected: October 12 - 13, 2009
Received: October 13, 2009
Analyzed: See Below

Analytical Results

SAMPLE ID: CW-01D-022 **Time Collected:** 11:57 **LAB ID:** 985819-1

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	13:25
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:54
Arsenic	EPA 200.8	1.69	5.00	µg/L	1.00	101909B	10/19/09	16:54
Barium	EPA 200.8	22.6	5.00	µg/L	10.0	102209A	10/22/09	13:25
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:54
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	16:54
Chromium	EPA 200.8	1.41	5.00	µg/L	1.00	101909B	10/19/09	16:54
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:54
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:54
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:54
Magnesium	EPA 200.7	13200	20.0	µg/L	200	102309A	10/23/09	14:31
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:54
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	101509A-Hg	10/15/09	12:34
Molybdenum	EPA 200.8	12.2	5.00	µg/L	10.0	101909B	10/19/09	16:54
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:54
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:54
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	12:39
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:54
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:54
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	13:30
Boron	EPA 200.7	1020	1.00	µg/L	200	102809B	10/28/09	15:30
Calcium	EPA 200.7	149000	20.0	µg/L	4000	102309A	10/23/09	14:31
Iron	EPA 200.7	ND	1.00	µg/L	20.0	102809B	10/28/09	15:30
Potassium	EPA 200.7	11900	20.0	µg/L	500	102309A	10/23/09	14:31
Sodium	EPA 200.7	1220000	500	µg/L	100000	102309A	10/23/09	13:38

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SAMPLE ID: CW-01M-022 **Time Collected:** 13:25 **LAB ID:** 985819-2

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	13:31
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:00
Arsenic	EPA 200.8	1.88	5.00	µg/L	1.00	101909B	10/19/09	17:00
Barium	EPA 200.8	80.0	5.00	µg/L	10.0	102209A	10/22/09	13:31
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	17:00
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	17:00
Chromium	EPA 200.8	2.36	5.00	µg/L	1.00	101909B	10/19/09	17:00
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:00
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:00
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:00
Magnesium	EPA 200.7	11200	20.0	µg/L	200	102309A	10/23/09	14:53
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:00
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	101509A-Hg	10/15/09	13:12
Molybdenum	EPA 200.8	11.9	5.00	µg/L	10.0	101909B	10/19/09	17:00
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:00
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:00
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	12:45
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	17:00
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:00
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	13:36
Boron	EPA 200.7	1040	1.00	µg/L	200	102809B	10/28/09	16:05
Calcium	EPA 200.7	134000	20.0	µg/L	4000	102309A	10/23/09	14:53
Iron	EPA 200.7	29.0	1.00	µg/L	20.0	102809B	10/28/09	16:05
Potassium	EPA 200.7	12200	20.0	µg/L	500	102309A	10/23/09	14:53
Sodium	EPA 200.7	1210000	500	µg/L	100000	102309A	10/23/09	13:59

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SAMPLE ID: OW-01D-022		Time Collected: 14:50				LAB ID: 985819-3		
Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	13:38
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:06
Arsenic	EPA 200.8	1.48	5.00	µg/L	1.00	101909B	10/19/09	17:06
Barium	EPA 200.8	36.4	5.00	µg/L	10.0	102209A	10/22/09	13:38
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	17:06
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	17:06
Chromium	EPA 200.8	1.51	5.00	µg/L	1.00	101909B	10/19/09	17:06
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:06
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:06
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:06
Magnesium	EPA 200.7	14800	20.0	µg/L	200	102309A	10/23/09	14:58
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:06
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	101509A-Hg	10/15/09	13:19
Molybdenum	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:06
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:06
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:06
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	12:52
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	17:06
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:06
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	13:43
Boron	EPA 200.7	1010	1.00	µg/L	200	102809B	10/28/09	16:11
Calcium	EPA 200.7	176000	20.0	µg/L	4000	102309A	10/23/09	14:58
Iron	EPA 200.7	23.9	1.00	µg/L	20.0	102809B	10/28/09	16:11
Potassium	EPA 200.7	13900	20.0	µg/L	500	102309A	10/23/09	14:58
Sodium	EPA 200.7	1210000	500	µg/L	100000	102309A	10/23/09	14:05

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SAMPLE ID: OW-01M-022 **Time Collected:** 15:44 **LAB ID:** 985819-4

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	13:44
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:12
Arsenic	EPA 200.8	1.11	5.00	µg/L	1.00	101909B	10/19/09	17:12
Barium	EPA 200.8	91.0	5.00	µg/L	10.0	102209A	10/22/09	13:44
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	17:12
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	17:12
Chromium	EPA 200.8	2.14	5.00	µg/L	1.00	101909B	10/19/09	17:12
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:12
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:12
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:12
Magnesium	EPA 200.7	20200	20.0	µg/L	200	102309A	10/23/09	15:03
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:12
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	101509A-Hg	10/15/09	13:25
Molybdenum	EPA 200.8	11.6	5.00	µg/L	10.0	101909B	10/19/09	17:12
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:12
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	17:12
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	12:58
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	17:12
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	17:12
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	13:49
Boron	EPA 200.7	992	1.00	µg/L	200	102809B	10/28/09	16:16
Calcium	EPA 200.7	198000	20.0	µg/L	4000	102309A	10/23/09	15:03
Iron	EPA 200.7	ND	1.00	µg/L	20.0	102809B	10/28/09	16:16
Potassium	EPA 200.7	14800	20.0	µg/L	500	102309A	10/23/09	15:03
Sodium	EPA 200.7	1150000	500	µg/L	100000	102309A	10/23/09	14:26

ND: Not detected,or below limit of detection.
DF: Dilution factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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TLI CMP Day 1+2 985819

Rec'd 10/13/09
s 985819

CH2MHILL **CHAIN OF CUSTODY RECORD** 10/13/2009 3:28:16 PM Page 1 OF

Project Name PGE Topock
Location Topock
Project Number 370367.MP.02.CM.01
Project Manager Jay Piper
Sample Manager Matt Ringler

Task Order
Project 2009-CMP-022
Turnaround Time 10 Days
Shipping Date: 10/13/2009
COC Number: 1

	Container:	250 ml Poly	500 ml Poly	500 ml Poly	500 ml Poly	1 Liter Poly	1 Liter Poly	1L Poly	1 Liter Poly	1 Liter Poly	1 Liter Poly	1 Liter Poly	
	Preservatives:	(NH4)2SO4/NH4OH, 4°C	HNO3	HNO3	HNO3, 4°C	4°C	4°C	4°C	4°C	4°C	4°C	H2SO4 pH<2, 4°C	
	Filtered:	Field	Field	NA	Field	NA	NA	NA	NA	NA	NA	NA	
	Holding Time:	28	7	180	180	28	28	7	2	28	28	28	
		Cr6 (E218.6) Field Filtered	Metals (E200.7FF) Field Filtered Title 22,Al,B,Ca,Mg,K,Na,Mn,Fe	Metals (E200.7T) Total Iron, unfiltered	Metals (6010BFF) Field Filtered Cr,B	Specific Conductance (E120.1)	PH (SM4500HB)	TDS (SM2540C)	Anions (E300.0) Cl, Fl, SO4	Alkalinity (SM2320B)	Turbidity (SM2130)	Ammonia (SM4500NH3)	
	DATE TIME Matrix												Number of Containers COMMEN
-1 CW-01D-022	10/12/2009 11:57 Water	X	X	X		X	X	X	X	X	X	X	7 6
-2 CW-01M-022	10/12/2009 13:25 Water	X	X	X		X	X	X	X	X	X	X	7 6
-3 OW-01D-022	10/12/2009 14:50 Water	X	X	X		X	X	X	X	X	X	X	7 6 pH
-4 OW-01M-022	10/12/2009 15:44 Water	X	X	X		X	X	X	X	X	X	X	7 6
-5 OW-01S-022	10/12/2009 16:27 Water	X			X	X	X	X	X		X		5 4
OW-87-022	10/12/2009 16:48 Water	X											1 Hold
-6 OW-91-022	10/12/2009 12:32 Water	X			X	X	X	X	X		X		5 4
-7 OW-02D-022	10/13/2009 12:40 Water	X			X	X	X	X	X		X		5 4
-8 OW-02M-022	10/13/2009 13:46 Water	X			X	X	X	X	X		X		5 4
-9 OW-02S-022	10/13/2009 14:26 Water	X			X	X	X	X	X		X		5 4 pH
-10 OW-05D-022	10/13/2009 9:08 Water	X			X	X	X	X	X		X		5 4
-11 OW-05M-022	10/13/2009 10:07 Water	X			X	X	X	X	X		X		5 4
-12 OW-05S-022	10/13/2009 10:55 Water	X			X	X	X	X	X		X		5 4
OW-88-022	10/13/2009 11:13 Water	X											1 Hold
												TOTAL NUMBER OF CONTAINERS	70 Rec 58

Sample Condition Upon Receipt
ALERT Level III QC

Signatures	Date/Time
Approved by	10-13-09
Sampled by	1540
Relinquished by	
Received by Rafael Davila	10-13-09 16:00
Relinquished by Rafael Davila	10/13/09 21:50
Received by	10/13/09

Shipping Details
Method of Shipment: courier
On Ice: yes / no
Airbill No:
Lab Name: Truesdail Laboratories, Inc.
Lab Phone: (714) 730-6239

ATTN:

Sample Custody

Special Instructions:
Oct 13-15, 2009

Report Copy to
Shawn Duffy
(530) 229-3303

FROM (FRI) OCT 16 2009 14:04/ST. 13:59/No. 6800000802 P 4

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

November 10, 2009

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK 2009-CMP-022, GROUNDWATER MONITORING PROJECT, TLI NO.: 985892

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock 2009-CMP-022 groundwater-monitoring project. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data, and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data are under Section 5.

The samples were received and delivered with the chain of custody on October 15, 2009, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

Samples 985892-1 and 985892-2 were received and analyzed past the holding time for pH.

Mercury was analyzed by EPA 200.8 rather that EPA 245.1 due to instrument problems.

No other violations or non-conformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi
Manager, Analytical Services

K.R.P. Iyer
Quality Assurance/Quality Control Officer

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www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 200
Received: October 15, 2009

ANALYST LIST

METHOD	PARAMETER	ANALYST
EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
SM 2320B	Alkalinity	Iordan Stavrev
SM 2130B	Turbidity	Gautam Savani
EPA 300.0	Anions	Giawad Ghenniwa
SM 4500-NH3 D	Ammonia	Iordan Stavrev
EPA 200.7	Metals by ICP	Kris Collins
EPA 200.8	Metals by ICP/MS	Romuel Chaves
EPA 218.6	Hexavalent Chromium	Sonya Bersudsky

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 16, 2009
Analytical Batch: 10PH09O

Investigation: pH by SM 4500-H B

Analytical Results pH

TLI I.D.	Field I.D.	Run Time	Units	MDL	RL	Results
985892-1	CW-02D-022	08:20	pH	0.017	2.00	8.19 J
985892-2	CW-02M-022	08:22	pH	0.017	2.00	8.00 J
985892-3	CW-03D-022	08:18	pH	0.017	2.00	8.16
985892-4	CW-03M-022	08:25	pH	0.017	2.00	7.83
985892-5	CW-04D-022	08:30	pH	0.017	2.00	8.02
985892-6	CW-04M-022	08:32	pH	0.017	2.00	7.90
985892-7	OW-90-022	08:15	pH	0.017	2.00	7.79

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	985892-6	7.90	7.91	0.01	± 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
MRCVS	7.04	7.00	0.04	± 0.100 Units	Yes
LCS	7.03	7.00	0.03	± 0.100 Units	Yes
LCSD	7.02	7.00	0.02	± 0.100 Units	Yes

ND: Below the reporting limit (Not Detected).
RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Analyzed: October 20, 2009
Analytical Batch: 10CrH09K

Investigation: **Hexavalent Chromium by IC Using Method EPA 218.6**

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985892-1	CW-02D-022	15:44	09:03	µg/L	5.25	1.05	ND
985892-2	CW-02M-022	16:50	09:24	µg/L	5.25	1.05	6.49
985892-3	CW-03D-022	09:09	08:01	µg/L	5.25	1.05	ND
985892-4	CW-03M-022	10:23	08:32	µg/L	5.25	1.05	11.4
985892-5	CW-04D-022	12:10	11:18	µg/L	10.5	2.10	ND
985892-6	CW-04M-022	13:18	08:42	µg/L	5.25	1.05	16.7
985892-7	OW-90-022	08:25	08:53	µg/L	5.25	1.05	11.4

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Analyzed: October 20, 2009
Analytical Batch: 10CrH09K

Investigation:

Hexavalent Chromium by IC Using Method EPA 218.6

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985892-2	6.49	6.55	0.92%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985892-1	0.310	5.25	1.00	5.25	5.83	5.56	105%	90-110%	Yes
MS	985892-2	6.49	5.25	5.00	26.3	32.9	32.7	101%	90-110%	Yes
MS	985892-3	0.378	5.25	1.00	5.25	5.63	5.63	100%	90-110%	Yes
MS	985892-4	11.4	5.25	5.00	26.3	40.0	37.7	109%	90-110%	Yes
MS	985892-5	1.90	10.5	1.00	10.5	12.5	12.4	101%	90-110%	Yes
MS	985892-6	16.7	5.25	5.00	26.3	44.1	43.0	104%	90-110%	Yes
MS	985892-7	11.4	5.25	5.00	26.3	38.9	37.7	105%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
BLANK	ND	<0.200	---	<0.200	Yes
MRCCS	5.16	5.00	103%	90% - 110%	Yes
MRCVS#1	10.2	10.0	102%	95% - 105%	Yes
MRCVS#2	10.2	10.0	102%	95% - 105%	Yes
MRCVS#3	10.1	10.0	101%	95% - 105%	Yes
MRCVS#4	10.0	10.0	100%	95% - 105%	Yes
MRCVS#5	10.1	10.0	101%	95% - 105%	Yes
LCS	5.15	5.00	103%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892

Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 20, 2009
Analytical Batch: 10EC09K

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.	Field I.D.	Units	Method	MDL	DF	RL	Results
985892-1	CW-02D-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7140
985892-2	CW-02M-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7020
985892-3	CW-03D-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	7070
985892-4	CW-03M-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	8600
985892-5	CW-04D-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	8770
985892-6	CW-04M-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	6250
985892-7	OW-90-022	µmhos/cm	EPA 120.1	0.022	1.00	2.00	8670

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985892-6	6250	6270	0.32%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<2.00	---	<2.00	Yes
CCS	704	706	99.7%	90% - 110%	Yes
CVS#1	997	999	99.8%	90% - 110%	Yes
CVS#2	998	999	99.9%	90% - 110%	Yes
LCS	704	706	99.7%	90% - 110%	Yes
LCSD	704	706	99.7%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

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Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 20, 2009
Analytical Batch: 10TDS09E

Investigation: **Total Dissolved Solids by SM 2540C**

Analytical Results Total Dissolved Solids

TLI I.D.	Field I.D.	Units	Method	RL	Results
985892-1	CW-02D-022	mg/L	SM 2540C	250	4510
985892-2	CW-02M-022	mg/L	SM 2540C	250	4370
985892-3	CW-03D-022	mg/L	SM 2540C	250	4590
985892-4	CW-03M-022	mg/L	SM 2540C	250	5640
985892-5	CW-04D-022	mg/L	SM 2540C	250	5580
985892-6	CW-04M-022	mg/L	SM 2540C	125	3760
985892-7	OW-90-022	mg/L	SM 2540C	250	5080

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	985892-7	5080	5020	0.59%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<10.0	---	<10.0	Yes
LCS 1	499	500	99.8%	90% - 110%	Yes
LCS 2	503	500	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
RL: Reporting Limit.

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Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 19, 2009
Analytical Batch: 10ALK09E

Investigation: **Alkalinity by SM 2320B**

Analytical Results Total Alkalinity, Bicarbonate, Carbonate

TLI I.D.	Field I.D.	Units	RL	Total Alkalinity	Bicarbonate	Carbonate
985892-1	CW-02D-022	mg/L	5.00	59.0	59.0	ND
985892-2	CW-02M-022	mg/L	5.00	49.0	49.0	ND
985892-3	CW-03D-022	mg/L	5.00	60.0	60.0	ND
985892-4	CW-03M-022	mg/L	5.00	47.0	47.0	ND
985892-5	CW-04D-022	mg/L	5.00	54.0	54.0	ND
985892-6	CW-04M-022	mg/L	5.00	53.0	53.0	ND
985892-7	OW-90-022	mg/L	5.00	46.0	46.0	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985892-1	59.0	61.0	3.33%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985892-6	53.0	1.00	100	100	149	153	96.0%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<5.00	---	<5.00	Yes
LCS	99.0	100	99.0%	90% - 110%	Yes

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Prep/ Analyzed: October 16, 2009
Analytical Batch: 10TUC09M

Investigation: **Turbidity by Method SM 2130B**

Analytical Results Turbidity

TLI I.D.	Field I.D.	Sample Time	Units	DF	RL	Results
985892-1	CW-02D-022	15:44	NTU	1.00	0.100	0.221
985892-2	CW-02M-022	16:50	NTU	1.00	0.100	0.251
985892-3	CW-03D-022	09:09	NTU	1.00	0.100	0.369
985892-4	CW-03M-022	10:23	NTU	1.00	0.100	0.205
985892-5	CW-04D-022	12:10	NTU	1.00	0.100	0.168
985892-6	CW-04M-022	13:18	NTU	1.00	0.100	0.176
985892-7	OW-90-022	08:25	NTU	1.00	0.100	0.229

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985893-14	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.100	---	<0.100	Yes
LCS	7.84	8.00	98.0%	90% - 110%	Yes
LCS	7.62	8.00	95.3%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

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Prep/ Analyzed: October 19, 2009
Analytical Batch: 10NH3-E09C

Investigation: **Ammonia as N by Method SM 4500-NH3 D**

Analytical Results Ammonia as N

TLI I.D.	Field I.D.	Sample Time	Method	Units	DF	RL	Results
985892-1	CW-02D-022	15:44	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985892-2	CW-02M-022	16:50	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985892-3	CW-03D-022	09:09	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985892-4	CW-03M-022	10:23	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985892-5	CW-04D-022	12:10	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985892-6	CW-04M-022	13:18	SM 4500-NH3 D	mg/L	1.00	0.500	ND
985892-7	OW-90-022	08:25	SM 4500-NH3 D	mg/L	1.00	0.500	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985892-7	ND	ND	0.0%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985892-7	0.00	1.00	6.00	6.00	6.04	6.00	101%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	5.97	6.00	99.5%	90% - 110%	Yes
MRCVS#1	5.82	6.00	97.0%	90% - 110%	Yes
LCS	10.4	10.0	104%	90% - 110%	Yes

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REPORT

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Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 16, 2009
Analytical Batch: 10AN09K

Investigation: **Fluoride by Ion Chromatography using EPA 300.0**

Analytical Results Fluoride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985892-1	CW-02D-022	15:44	10:41	mg/L	5.00	0.500	4.92
985892-2	CW-02M-022	16:50	10:53	mg/L	5.00	0.500	2.88
985892-3	CW-03D-022	09:09	11:04	mg/L	5.00	0.500	6.28
985892-4	CW-03M-022	10:23	11:16	mg/L	5.00	0.500	2.81
985892-5	CW-04D-022	12:10	11:27	mg/L	5.00	0.500	4.26
985892-6	CW-04M-022	13:18	11:38	mg/L	5.00	0.500	1.96
985892-7	OW-90-022	08:25	11:50	mg/L	5.00	0.500	2.87

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985761	ND	ND	0.0%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985761	0.00	1.00	2.00	2.00	2.13	2.00	107%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	4.09	4.00	102%	90% - 110%	Yes
MRCVS#1	3.12	3.00	104%	90% - 110%	Yes
MRCVS#2	3.13	3.00	104%	90% - 110%	Yes
LCS	4.09	4.00	102%	90% - 110%	Yes

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DF: Dilution Factor.

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Attention: Shawn Duffy
Sample: Seven (7) Groundwater Samples
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Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 16, 2009
Analytical Batch: 10AN09K

Investigation: **Chloride by Ion Chromatography using EPA 300.0**

Analytical Results Chloride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985892-1	CW-02D-022	15:44	16:56	mg/L	500	100	2110
985892-2	CW-02M-022	16:50	17:07	mg/L	500	100	2130
985892-3	CW-03D-022	09:09	17:18	mg/L	500	100	2070
985892-4	CW-03M-022	10:23	17:53	mg/L	500	100	2710
985892-5	CW-04D-022	12:10	18:04	mg/L	500	100	2700
985892-6	CW-04M-022	13:18	18:15	mg/L	500	100	1900
985892-7	OW-90-022	08:25	18:27	mg/L	500	100	2780

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Analytical Batch: 10AN09K

Investigation: **Chloride by Ion Chromatography using EPA 300.0**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985761	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985761	0.00	1.00	2.00	2.00	2.01	2.00	101%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	3.97	4.00	99.3%	90% - 110%	Yes
MRCVS#1	2.98	3.00	99.3%	90% - 110%	Yes
MRCVS#2	3.01	3.00	100%	90% - 110%	Yes
MRCVS#3	3.01	3.00	100%	90% - 110%	Yes
MRCVS#4	3.03	3.00	101%	90% - 110%	Yes
LCS	3.97	4.00	99.3%	90% - 110%	Yes

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Analytical Batch: 10AN09K

Investigation: **Sulfate by Ion Chromatography using EPA 300.0**

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985892-1	CW-02D-022	15:44	19:01	mg/L	25.0	12.5	491
985892-2	CW-02M-022	16:50	19:13	mg/L	25.0	12.5	436
985892-3	CW-03D-022	09:09	19:24	mg/L	25.0	12.5	484
985892-4	CW-03M-022	10:23	19:35	mg/L	25.0	12.5	415
985892-5	CW-04D-022	12:10	20:10	mg/L	25.0	12.5	527
985892-6	CW-04M-022	13:18	20:21	mg/L	25.0	12.5	331
985892-7	OW-90-022	08:25	20:32	mg/L	25.0	12.5	417

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Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 16, 2009
Analytical Batch: 10AN09K

Investigation: **Sulfate by Ion Chromatography using EPA 300.0**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985761	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985761	0.00	1.00	2.00	2.00	1.94	2.00	97.0%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<0.500	---	<0.500	Yes
MRCCS	20.2	20.0	101%	90% - 110%	Yes
MRCVS#1	15.0	15.0	100%	90% - 110%	Yes
MRCVS#2	15.0	15.0	100%	90% - 110%	Yes
MRCVS#3	15.1	15.0	101%	90% - 110%	Yes
MRCVS#4	15.0	15.0	100%	90% - 110%	Yes
MRCVS#5	15.0	15.0	100%	90% - 110%	Yes
LCS	20.2	20.0	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Mona Nassimi, Manager
Analytical Services

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Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 22, 2009
Analytical Batch: 102209B

Investigation: **Total Iron by Inductively Coupled Argon Plasma Atomic Emission Spectrometer using EPA 200.7**

Analytical Results Total Iron

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
985892-1	CW-02D-022	15:44	15:10	µg/L	1.00	20.0	ND
985892-2	CW-02M-022	16:50	15:30	µg/L	1.00	20.0	ND
985892-3	CW-03D-022	09:09	15:36	µg/L	1.00	20.0	ND
985892-4	CW-03M-022	10:23	15:41	µg/L	1.00	20.0	ND
985892-5	CW-04D-022	12:10	15:47	µg/L	1.00	20.0	ND
985892-6	CW-04M-022	13:18	15:52	µg/L	1.00	20.0	ND
985892-7	OW-90-022	08:25	15:58	µg/L	1.00	20.0	ND

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DF: Dilution Factor.

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REPORT

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155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy
Sample: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Laboratory No.: 985892
Date: November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Prep/ Analyzed: October 22, 2009
Analytical Batch: 102209B

Investigation: **Total Iron by Inductively Coupled Argon Plasma Atomic Emission Spectrometer using EPA 200.7**

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	985819-1	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	985819-1	0.00	1.00	2000	2000	2090	2000	105%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
Blank	ND	<20.0	---	<20.0	Yes
MRCCS	5120	5000	102%	95% - 105%	Yes
MRCVS#1	5090	5000	102%	90% - 110%	Yes
MRCVS#2	5330	5000	107%	90% - 110%	Yes
MRCVS#3	5450	5000	109%	90% - 110%	Yes
ICS	2040	2000	102%	80% - 120%	Yes
LCS	5050	5000	101%	90% - 110%	Yes

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DF: Dilution Factor.

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612
Attention: Shawn Duffy

Samples: Seven (7) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 370367.MP.02.CM.01
P.O. No.: 370367.MP.02.CM.01

Investigation: California Title 22, Section 26 Metals [dissolved]

Laboratory No.: 985892
Reported November 10, 2009
Collected: October 14 - 15, 2009
Received: October 15, 2009
Analyzed: See Below

Analytical Results

SAMPLE ID: CW-02D-022 **Time Collected:** 15:44 **LAB ID:** 985892-1

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	13:50
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	15:32
Arsenic	EPA 200.8	4.18	5.00	µg/L	1.00	101909B	10/19/09	15:32
Barium	EPA 200.8	10.5	5.00	µg/L	10.0	102209A	10/22/09	13:50
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	15:32
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	15:32
Chromium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	15:32
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	15:32
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	15:32
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	15:32
Magnesium	EPA 200.7	4250	20.0	µg/L	200	110309A	11/03/09	10:32
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	15:32
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	102009A-Hg	10/20/09	10:09
Molybdenum	EPA 200.8	17.6	5.00	µg/L	10.0	101909B	10/19/09	15:32
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	15:32
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	15:32
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	13:24
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	15:32
Vanadium	EPA 200.8	5.69	5.00	µg/L	5.00	101909B	10/19/09	15:32
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	12:13
Boron	EPA 200.7	1460	1.00	µg/L	200	110209A	11/02/09	14:07
Calcium	EPA 200.7	76000	50.0	µg/L	10000	102609A	10/26/09	10:29
Iron	EPA 200.7	ND	1.00	µg/L	20.0	110209A	11/02/09	14:07
Potassium	EPA 200.7	11900	20.0	µg/L	500	110309A	11/03/09	10:32
Sodium	EPA 200.7	1290000	500	µg/L	100000	102609A	10/26/09	12:21

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SAMPLE ID: CW-02M-022 **Time Collected:** 16:50 **LAB ID:** 985892-2

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	13:57
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:03
Arsenic	EPA 200.8	2.76	5.00	µg/L	1.00	101909B	10/19/09	16:03
Barium	EPA 200.8	66.3	5.00	µg/L	10.0	102209A	10/22/09	13:57
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:03
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	16:03
Chromium	EPA 200.8	6.70	5.00	µg/L	1.00	101909B	10/19/09	16:03
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:03
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:03
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:03
Magnesium	EPA 200.7	10400	20.0	µg/L	200	110309A	11/03/09	10:54
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:03
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	102009A-Hg	10/20/09	10:34
Molybdenum	EPA 200.8	25.8	5.00	µg/L	10.0	101909B	10/19/09	16:03
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:03
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:03
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	13:31
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:03
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:03
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	12:39
Boron	EPA 200.7	1080	1.00	µg/L	200	110309A	11/03/09	12:47
Calcium	EPA 200.7	129000	50.0	µg/L	10000	102609A	10/26/09	10:51
Iron	EPA 200.7	ND	1.00	µg/L	20.0	110309A	11/03/09	12:47
Potassium	EPA 200.7	13100	20.0	µg/L	500	110309A	11/03/09	10:54
Sodium	EPA 200.7	1310000	500	µg/L	100000	102609A	10/26/09	12:43

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SAMPLE ID: CW-03D-022 **Time Collected:** 09:09 **LAB ID:** 985892-3

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	14:03
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:10
Arsenic	EPA 200.8	2.09	5.00	µg/L	1.00	101909B	10/19/09	16:10
Barium	EPA 200.8	ND	5.00	µg/L	10.0	102209A	10/22/09	14:03
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:10
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	16:10
Chromium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:10
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:10
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:10
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:10
Magnesium	EPA 200.7	5620	20.0	µg/L	200	110309A	11/03/09	10:59
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:10
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	102009A-Hg	10/20/09	10:40
Molybdenum	EPA 200.8	49.1	5.00	µg/L	10.0	101909B	10/19/09	16:10
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:10
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:10
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	13:38
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:10
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:10
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	12:45
Boron	EPA 200.7	1590	1.00	µg/L	200	110209A	11/02/09	14:34
Calcium	EPA 200.7	69300	50.0	µg/L	10000	102609A	10/26/09	11:12
Iron	EPA 200.7	ND	1.00	µg/L	20.0	110209A	11/02/09	14:34
Potassium	EPA 200.7	12800	20.0	µg/L	500	110309A	11/03/09	10:59
Sodium	EPA 200.7	1320000	500	µg/L	100000	102609A	10/26/09	13:04

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SAMPLE ID: CW-03M-022 **Time Collected:** 10:23 **LAB ID:** 985892-4

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	14:09
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:28
Arsenic	EPA 200.8	1.34	5.00	µg/L	1.00	101909B	10/19/09	16:28
Barium	EPA 200.8	51.2	5.00	µg/L	10.0	102209A	10/22/09	14:09
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:28
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	16:28
Chromium	EPA 200.8	11.4	5.00	µg/L	1.00	101909B	10/19/09	16:28
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:28
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:28
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:28
Magnesium	EPA 200.7	17700	20.0	µg/L	200	110309A	11/03/09	11:15
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:28
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	102009A-Hg	10/20/09	11:37
Molybdenum	EPA 200.8	21.1	5.00	µg/L	10.0	101909B	10/19/09	16:28
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:28
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:28
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	13:44
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:28
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:28
Zinc	EPA 200.8	44.2	5.00	µg/L	10.0	102609A	10/26/09	13:04
Boron	EPA 200.7	1120	1.00	µg/L	200	110209A	11/02/09	14:55
Calcium	EPA 200.7	208000	50.0	µg/L	10000	102609A	10/26/09	11:17
Iron	EPA 200.7	ND	1.00	µg/L	20.0	110209A	11/02/09	14:55
Potassium	EPA 200.7	17000	20.0	µg/L	500	110309A	11/03/09	11:15
Sodium	EPA 200.7	1470000	500	µg/L	100000.	102609A	10/26/09	13:09

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SAMPLE ID: CW-04D-022 **Time Collected:** 12:10 **LAB ID:** 985892-5

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	14:15
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:35
Arsenic	EPA 200.8	4.06	5.00	µg/L	1.00	101909B	10/19/09	16:35
Barium	EPA 200.8	23.8	5.00	µg/L	10.0	102209A	10/22/09	14:15
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:35
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	16:35
Chromium	EPA 200.8	2.30	5.00	µg/L	1.00	101909B	10/19/09	16:35
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:35
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:35
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:35
Magnesium	EPA 200.7	9950	20.0	µg/L	200	110309A	11/03/09	11:20
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:35
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	102009A-Hg	10/20/09	11:43
Molybdenum	EPA 200.8	32.8	5.00	µg/L	10.0	101909B	10/19/09	16:35
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:35
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:35
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	13:51
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:35
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:35
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	13:11
Boron	EPA 200.7	1470	1.00	µg/L	200	110209A	11/02/09	15:00
Calcium	EPA 200.7	148000	50.0	µg/L	10000	102609A	10/26/09	11:23
Iron	EPA 200.7	ND	1.00	µg/L	20.0	110209A	11/02/09	15:00
Potassium	EPA 200.7	15000	20.0	µg/L	500	110309A	11/03/09	11:20
Sodium	EPA 200.7	1560000	500	µg/L	100000	102609A	10/26/09	13:15

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SAMPLE ID: CW-04M-022 **Time Collected:** 13:18 **LAB ID:** 985892-6

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	14:35
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:41
Arsenic	EPA 200.8	2.36	5.00	µg/L	1.00	101909B	10/19/09	16:41
Barium	EPA 200.8	80.0	5.00	µg/L	10.0	102209A	10/22/09	14:35
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:41
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	16:41
Chromium	EPA 200.8	16.6	5.00	µg/L	1.00	101909B	10/19/09	16:41
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:41
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:41
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:41
Magnesium	EPA 200.7	13000	20.00	µg/L	200	110309A	11/03/09	11:26
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:41
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	102009A-Hg	10/20/09	11:49
Molybdenum	EPA 200.8	11.4	5.00	µg/L	10.0	101909B	10/19/09	16:41
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:41
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:41
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	13:57
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:41
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:41
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	13:17
Boron	EPA 200.7	846	1.00	µg/L	200	110209A	11/02/09	15:06
Calcium	EPA 200.7	146000	50.0	µg/L	10000	102609A	10/26/09	11:28
Iron	EPA 200.7	ND	1.00	µg/L	20.0	110209A	11/02/09	15:06
Potassium	EPA 200.7	13000	20.0	µg/L	500	110309A	11/03/09	11:26
Sodium	EPA 200.7	1080000	500	µg/L	100000	102609A	10/26/09	13:20

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

SAMPLE ID: OW-90-022 **Time Collected:** 08:25 **LAB ID:** 985892-7

Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	µg/L	50.0	102209A	10/22/09	14:41
Antimony	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:47
Arsenic	EPA 200.8	1.32	5.00	µg/L	1.00	101909B	10/19/09	16:47
Barium	EPA 200.8	50.8	5.00	µg/L	10.0	102209A	10/22/09	14:41
Beryllium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:47
Cadmium	EPA 200.8	ND	5.00	µg/L	3.00	101909B	10/19/09	16:47
Chromium	EPA 200.8	11.6	5.00	µg/L	1.00	101909B	10/19/09	16:47
Cobalt	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:47
Copper	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:47
Lead	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:47
Magnesium	EPA 200.7	19000	20.0	µg/L	200	110309A	11/03/09	11:31
Manganese	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:47
Mercury	EPA 200.8	ND	5.00	µg/L	1.00	102009A-Hg	10/20/09	11:56
Molybdenum	EPA 200.8	20.6	5.00	µg/L	10.0	101909B	10/19/09	16:47
Nickel	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:47
Selenium	EPA 200.8	ND	5.00	µg/L	10.0	101909B	10/19/09	16:47
Silver	EPA 200.8	ND	5.00	µg/L	5.00	110209A	11/02/09	14:04
Thallium	EPA 200.8	ND	5.00	µg/L	1.00	101909B	10/19/09	16:47
Vanadium	EPA 200.8	ND	5.00	µg/L	5.00	101909B	10/19/09	16:47
Zinc	EPA 200.8	ND	5.00	µg/L	10.0	102609A	10/26/09	13:23
Boron	EPA 200.7	1090	1.00	µg/L	200	110209A	11/02/09	15:12
Calcium	EPA 200.7	212000	50.0	µg/L	10000	102609A	10/26/09	11:33
Iron	EPA 200.7	ND	1.00	µg/L	20.0	110209A	11/02/09	15:12
Potassium	EPA 200.7	17900	20.0	µg/L	500	110309A	11/03/09	11:31
Sodium	EPA 200.7	1470000	500	µg/L	100000	102609A	10/26/09	13:26

ND: Not detected,or below limit of detection.
DF: Dilution factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

TLI CMP Day 3+4 985892

CH2MHILL **CHAIN OF CUSTODY RECORD** 10/15/2009 2:48:03 PM Page 1 OF 1

Project Name PGE Topock
Location Topock
Project Number 370367.MP.02.CM.01
Project Manager Jay Piper
Sample Manager Matt Ringier

Task Order
Project 2009-CMP-022
Turnaround Time 10 Days
Shipping Date: 10/15/2009
COC Number: 5

				Container:	250 ml Poly	500 ml Poly	500 ml Poly	1 Liter Poly	1 Liter Poly	1L Poly	1 Liter Poly	1 Liter Poly	1 Liter Poly	1 Liter Poly			
				Preservatives:	(NH4)2SO4/NH4OH, 4°C	HNO3	HNO3	4°C	4°C	4°C	4°C	4°C	4°C	H2SO4, pH<2, 4°C			
				Filtered:	Field	Field	NA	NA	NA	NA	NA	NA	NA	NA			
				Holding Time:	28	7	180	28	28	7	2	28	28	28			
					Cr6 (E218.6) Field Filtered	Metals (E200.7FF) Field Filtered Title 22,Al,B,Ca,Mg,K,Na,Mn,Fe	Metals (E200.7T) Total Iron, unfiltered	Specific Conductance (E120.1)	PH (SM4500HB)	TDS (SM2540C)	Anions (E300.0) Cl, Fl, SO4	Alkalinity (SM2320B)	Turbidity (SM2130)	Ammonia (SM4500NH3)			
		DATE	TIME	Matrix												Number of Containers	COMMENTS
-1	CW-02D-022	10/14/2009	15:44	Water	X	X	X	X	X	X	X	X	X	X	ALERT !! Level III QC	7	6
-2	CW-02M-022	10/14/2009	16:50	Water	X	X	X	X	X	X	X	X	X	X	pH=2	7	6
	OW-89-022	10/14/2009	17:16	Water	X											1	Hold
-3	CW-03D-022	10/15/2009	9:09	Water	X	X	X	X	X	X	X	X	X	X		7	6
-4	CW-03M-022	10/15/2009	10:23	Water	X	X	X	X	X	X	X	X	X	X		7	6
-5	CW-04D-022	10/15/2009	12:10	Water	X	X	X	X	X	X	X	X	X	X	pH=2	7	6
-6	CW-04M-022	10/15/2009	13:18	Water	X	X	X	X	X	X	X	X	X	X		7	6
-7	OW-90-022	10/15/2009	8:25	Water	X	X	X	X	X	X	X	X	X	X		7	6
	OW-86-022	10-15-09	1355	li	X										TOTAL NUMBER OF CONTAINERS	~~50~~ 44	1 Hold

For Sample Conditions See Form Attached

Signatures		Date/Time
Approved by		10-15-09
Sampled by		1530
Relinquished by		
Received by	Bonifacio Dayag	10-15-09 1530
Relinquished by	Bonifacio Dayag	10-15-09 2030
Received by	Shebuenstra	10/15/09 20:30

Shipping Details
Method of Shipment: courier
On Ice: yes / no
AirBill No:
Lab Name: Truesdail Laboratories, Inc.
Lab Phone: (714) 730-6239

ATTN: Sample Custody

Special Instructions:
Oct 13-15, 2009

Report Copy to
Shawn Duffy
(530) 229-3303

111

EMax CMP Day 1+2 09J198

CH2MHILL CH_0408

CHAIN OF CUSTODY RECORD

10/13/2009 3:29:17 PM

Project Name PGE Topock
Location Topock
Project Number 370367.MP.02.CM.01
Project Manager Jay Piper
Sample Manager Matt Ringier

Task Order
Project 2009-CMP-022
Turnaround Time 12 Days
Shipping Date: 10/13/2009
COC Number: 2

		DATE	TIME	Matrix	Container: 1 Liter Poly; Preservatives: H□SO□, pH<2, 4°C; Filtered: NA; Holding Time: 28; Nitrate/Nitrite (SM4500NO3-E)	Number of Containers	COMMENTS
1	CW-01D-022	10/12/2009	11:57	Water	X	1	
2	CW-01M-022	10/12/2009	13:25	Water	X	1	
3	OW-01D-022	10/12/2009	14:50	Water	X	1	
4	OW-01M-022	10/12/2009	15:44	Water	X	1	
5	OW-01S-022	10/12/2009	16:27	Water	X	1	
6	OW-91-022	10/12/2009	12:32	Water	X	1	
7	OW-02D-022	10/13/2009	12:40	Water	X	1	
8	OW-02M-022	10/13/2009	13:46	Water	X	1	
9	OW-02S-022	10/13/2009	14:26	Water	X	1	
10	OW-05D-022	10/13/2009	9:08	Water	X	1	
11	OW-05M-022	10/13/2009	10:07	Water	X	1	
12	OW-05S-022	10/13/2009	10:55	Water	X	1	
					TOTAL NUMBER OF CONTAINERS	12	

T = 2.8°C

	Signatures	Date/Time
Approved by		10-13-09
Sampled by		1540
Relinquished by		10/13/09
Received by	Rafael Davila	16:00
Relinquished by	Rafael Davila	10/13/09 21:50
Received by	Keith Stant ~~10/14/09 935~~	
	Keith Stant 10/14/09 1455	10/14/09 1455

Shipping Details
Method of Shipment: courier
On Ice: yes / no
Airbill No:
Lab Name:
Lab Phone:

ATTN:
Sample Custody

Special Instructions:
Oct 13-15, 2009

Report Copy to
Shawn Duffy
(530) 229-3303

1691

CASE NARRATIVE

Client : CH2M HILL

Project : PG&E'S TOPOCK GAS COMPRESSOR STAT

SDG : 09J198

METHOD SM4500NO3
NITRATE/NITRITE-N

A total of twelve (12) water samples were received on 10/14/09 for Nitrate/Nitrite as N analysis, Method SM4500NO3 in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for NAJ002WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recovery for J198-01M was within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

METHOD SM4500NO3
NITRATE/NITRITE-N

Client : CH2M HILL
Project : PG&E'S TOPOCK GAS COMPRESSOR STAT
Batch No. : 09J198

Matrix : WATER
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	NAJ002WB	ND	1	NA	0.100	0.0200	10/22/0915:46	NA	NAJ00211	NAJ00208	NAJ002W	NA	NA
LCS1W	NAJ002WL	0.507	1	NA	0.100	0.0200	10/22/0915:46	NA	NAJ00212	NAJ00208	NAJ002W	NA	NA
LCD1W	NAJ002WC	0.514	1	NA	0.100	0.0200	10/22/0915:46	NA	NAJ00213	NAJ00208	NAJ002W	NA	NA
CW-01D-022	J198-01	3.19	5	NA	0.500	0.100	10/22/0915:46	NA	NAJ00214	NAJ00208	NAJ002W	10/12/0911:57	10/14/09
CW-01D-022DUP	J198-01D	3.18	5	NA	0.500	0.100	10/22/0915:47	NA	NAJ00215	NAJ00208	NAJ002W	10/12/0911:57	10/14/09
CW-01D-022MS	J198-01M	3.65	5	NA	0.500	0.100	10/22/0915:47	NA	NAJ00216	NAJ00208	NAJ002W	10/12/0911:57	10/14/09
CW-01M-022	J198-02	2.78	5	NA	0.500	0.100	10/22/0915:48	NA	NAJ00217	NAJ00208	NAJ002W	10/12/0913:25	10/14/09
OW-01D-022	J198-03	2.73	5	NA	0.500	0.100	10/22/0915:50	NA	NAJ00218	NAJ00208	NAJ002W	10/12/0914:50	10/14/09
OW-01M-022	J198-04	2.77	5	NA	0.500	0.100	10/22/0915:51	NA	NAJ00221	NAJ00219	NAJ002W	10/12/0915:44	10/14/09
OW-01S-022	J198-05	2.70	5	NA	0.500	0.100	10/22/0915:51	NA	NAJ00222	NAJ00219	NAJ002W	10/12/0916:27	10/14/09
OW-91-022	J198-06	2.54	5	NA	0.500	0.100	10/22/0915:53	NA	NAJ00223	NAJ00219	NAJ002W	10/12/0912:32	10/14/09
OW-02D-022	J198-07	2.92	5	NA	0.500	0.100	10/22/0915:54	NA	NAJ00224	NAJ00219	NAJ002W	10/13/0912:40	10/14/09
OW-02M-022	J198-08	2.73	5	NA	0.500	0.100	10/22/0915:54	NA	NAJ00225	NAJ00219	NAJ002W	10/13/0913:46	10/14/09
OW-02S-022	J198-09	3.54	5	NA	0.500	0.100	10/22/0915:54	NA	NAJ00226	NAJ00219	NAJ002W	10/13/0914:26	10/14/09
OW-05D-022	J198-10	2.84	5	NA	0.500	0.100	10/22/0915:54	NA	NAJ00227	NAJ00219	NAJ002W	10/13/0909:08	10/14/09
OW-05M-022	J198-11	2.64	5	NA	0.500	0.100	10/22/0915:55	NA	NAJ00228	NAJ00219	NAJ002W	10/13/0910:07	10/14/09
OW-05S-022	J198-12	3.56	5	NA	0.500	0.100	10/22/0915:55	NA	NAJ00229	NAJ00219	NAJ002W	10/13/0910:55	10/14/09

CMP
EMax Day 3+4

09J239

CH2MHILL CH-0408

CHAIN OF CUSTODY RECORD

10/15/2009 2:46:21 PM

Project Name PGE Topock
Location Topock
Project Number 370367.MP.02.CM.01
Project Manager Jay Piper
Sample Manager Matt Ringler

Task Order
Project 2009-CMP-022
Turnaround Time 12 Days
Shipping Date: 10/15/2009
COC Number: 6

	Container:	1 Liter Poly
	Preservatives:	H_2SO_4, pH<2, 4°C
	Filtered:	NA
	Holding Time:	28

		DATE	TIME	Matrix	Nitrate/Nitrite (SM4500NO3-E)	Number of Containers	COMMENTS
1.	CW-02D-022	10/14/2009	15:44	Water	X	1	
2.	CW-02M-022	10/14/2009	16:50	Water	X	1	
3.	CW-03D-022	10/15/2009	9:09	Water	X	1	
4	CW-03M-022	10/15/2009	10:23	Water	X	1	
5	CW-04D-022	10/15/2009	12:10	Water	X	1	
6	CW-04M-022	10/15/2009	13:18	Water	X	1	
7	OW-90-022	10/15/2009	8:25	Water	X	1	
					TOTAL NUMBER OF CONTAINERS	7	

	Signatures	Date/Time
Approved by		10/15/09
Sampled by		1530
Relinquished by		
Received by	Bonifacio Dayao	10-15-09 1530
Relinquished by	Bonifacio Dayao	10-15-09 2000
Received by	Keith Stout	10-16-09 9:15
	Keith Stout	10-16-09 1650

Shipping Details
Method of Shipment: courier
On Ice: yes / no T = 2.8 °C
Airbill No:
Lab Name:
Lab Phone:

ATTN:
Sample Custody

Special Instructions:
Oct 13-15, 2009

Report Copy to
Shawn Duffy
(530) 229-3303

10/14/09 1600

T001

CASE NARRATIVE

Client : CH2M HILL

Project : PG&E'S TOPOCK GAS COMPRESSOR STAT

SDG : 09J239

METHOD SM4500NO3
NITRATE/NITRITE-N

A total of seven (7) water samples were received on 10/16/09 for Nitrate/Nitrite as N analysis, Method SM4500NO3 in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for NAJ002WL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated for this SDG.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

METHOD SM4500NO3
NITRATE/NITRITE-N

Client : CH2M HILL
Project : PG&E'S TOPOCK GAS COMPRESSOR STAT
Batch No. : 09J239

Matrix : WATER
Instrument ID : 70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	NAJ002WB	ND	1	NA	0.100	0.0200	10/22/0915:46	NA	NAJ00211	NAJ00208	NAJ002W	NA	NA
LCS1W	NAJ002WL	0.507	1	NA	0.100	0.0200	10/22/0915:46	NA	NAJ00212	NAJ00208	NAJ002W	NA	NA
LCD1W	NAJ002WC	0.514	1	NA	0.100	0.0200	10/22/0915:46	NA	NAJ00213	NAJ00208	NAJ002W	NA	NA
CW-02D-022	J239-01	3.65	5	NA	0.500	0.100	10/22/0915:59	NA	NAJ00232	NAJ00230	NAJ002W	10/14/0915:44	10/16/09
CW-02M-022	J239-02	1.78	5	NA	0.500	0.100	10/22/0916:00	NA	NAJ00233	NAJ00230	NAJ002W	10/14/0916:50	10/16/09
CW-03D-022	J239-03	2.33	5	NA	0.500	0.100	10/22/0916:00	NA	NAJ00234	NAJ00230	NAJ002W	10/15/0909:09	10/16/09
CW-03M-022	J239-04	1.23	2	NA	0.200	0.0400	10/22/0916:00	NA	NAJ00235	NAJ00230	NAJ002W	10/15/0910:23	10/16/09
CW-04D-022	J239-05	1.76	5	NA	0.500	0.100	10/22/0916:02	NA	NAJ00236	NAJ00230	NAJ002W	10/15/0912:10	10/16/09
CW-04M-022	J239-06	1.25	2	NA	0.200	0.0400	10/22/0916:02	NA	NAJ00237	NAJ00230	NAJ002W	10/15/0913:18	10/16/09
OW-90-022	J239-07	1.01	2	NA	0.200	0.0400	10/22/0916:03	NA	NAJ00238	NAJ00230	NAJ002W	10/15/0908:25	10/16/09

Revised Report

CLIENT: CH2M HILL TOPOCK

SDG: 09J198

Analyst names:

1. SM4500NO3: Elena Robles

1003A

CLIENT: CH2M HILL TOPOCK

SDG: 09J239

Analyst names:

1. SM4500NO3: Elena Robles

1003A

Project Name PGE Topock GMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/7/09
Sampler A. Abbott, M. Kaul Field Team 1 Field Conditions Sunny, clear, ~110°F, windy from SW Page 1 of 1

Well/Sample Number OW-01D-021 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 1642 (1727) Purge Method Temp. Ded. Pump No
Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 94.3 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity µS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity % ppt	TDS g/L	Eh/ORP mv	Comments (See description below
94.95	1649	~~(min)~~ 0018	7.55	6547	0.6	5.26	29.65	3.55	4.25	24.5	272.61 Hz
94.95	1654	0036	7.56	6552	0.4	6.05	29.92	3.55	4.26	29.1	
94.97	1700	0054	7.61	6598	0.9	10.05	29.96	3.58	4.29	34.9	
94.96	1706	0072	7.62	6598	3.4	10.10	29.92	3.58	4.29	32.4	
95.05	1712	0090	7.62	6596	4.0	10.10	29.88	3.58	4.29	33.3	
95.06	1715	0099	7.62	6596	2.1	10.11	29.86	3.58	4.29	37.8	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/-2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (1/6/2009)			7.86	7321	0.8	~~10.71~~ Slightly higher	29.66	0.47		-38.2	
Are measurements consistent with previous?			Y	Y	Y		NA	—	—	Y	

Sample Time 1718 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 92.01
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (277)
SWH (Standing Water Height) = WD-Initial Depth 184.99
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 31.4
Three Casing Volumes = 94.3

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

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 1627
1625	92.01	~~1745~~ 1736	92.05	Time of Reinstallation ~~1737~~ 1737

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

p.11 760-326-3308 Barry Collom Jul 14 09 12:46p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/8/09
Sampler Abbott Field Team 1 Field Conditions sunny, wind from E, 5kts, ~ high 90s. Page 1 of

Well/Sample Number OW-01M-021 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 831-09:08 Purge Method Tmp (PP) Ded. Pump No
Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 47.37 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 ppt	TDS g/L	Eh/ORP mv	Comments (See description below
92.87	0841	8	7.51	7.315	2.9	8.83	29.41	4.04	4.79	125.0	252 Hz
92.88	0845	16	7.52	7.39	0.5	11.99	29.28	4.04	4.80	117.4	
92.89	0849	24	7.53	7.38	0.2	12.32	29.27	4.04	4.79	115.9	
92.89	0853	32	7.54	7.38	0.3	12.57	29.26	4.04	4.79	113.6	
92.89	0858	~~40~~ 42 DM	7.55	7.39	0.2	12.52	29.24	4.04	4.80	112.2	
92.89	0901	48	7.55	7.39	0.4	12.56	29.26	4.04	4.80	111.0	Transducer seems to have tight fit, which might indicate bending in the casing.
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 Stablize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	Bubbles @ sampling
Previous Field measurement (1/6/2009)			7.75	7290	0.5	6.11	29.68	0.47		57.9	
Are measurements consistent with previous?			Y	Y	Y	higher	NA	—	—	higher	

Sample Time 9:03 Sample Location: pump tubing X well port spigot bailer other
Comments:

Initial Depth to Water (ft BTOC): 92.73
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (185.8000
SWH (Standing Water Height) = WD-Initial Depth 93.07
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH ~~15.8~~ 15.9
Three Casing Volumes = ~~47.5~~ 47.7

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

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 0821
817	92.73	9:21	92.73	Time of Reinstallation 0914

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

p.8 760-326-3308 Barry Collom Jul 14 09 12:44p

Project Name PGE Topock CMP — **Sampling Event** 2009-CMP-021
Job Number 370367.MP.02.CM.01 — **Date** 7/8/09
Sampler Abbott — Field Team 1 — Field Conditions sunny, hot, high 90s, low 100s, wind from SE, 2 ~~mph~~ kts. — Page 1 of 1

Well/Sample Number OW-01S-021 — **QC Sample ID** NA — QC Sample Time N/A
Purge Start Time ~~0954~~ 0955 - 10:18 — Purge Method Temp. — Ded. Pump No
Flow Cell (Y) / N — Min. Purge Volume (gal)/(L) 11 — 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 ~~%~~ ppt	TDS g/L	Eh/ORP mv	Comments (See description below
93.08	0957	2	6.97	3.29	14.2	6.75	30.02	1.98	2.46	119.5	222 Hz
93.08	0959	4	7.53	3.90	4.9	4.23	29.70	2.07	2.56	75.2	
93.08	1001	6	7.52	3.90	5.9	4.01	29.85	2.03	2.52	65.3	
93.08	1003	8	7.51	3.79	2.8	4.12	29.90	2.00	2.46	60.4	
93.08	1005	10	7.53	3.72	2.3	4.21	29.93	1.92	2.39	58.1	
93.08	1007	12	7.55	3.62	2.5	4.29	29.94	1.89	2.36	56.1	
93.08	1009	14	7.56	3.59	1.6	4.22	30.20	1.87	2.32	55.9	
93.08	1011	16	7.56	3.54	1.4	4.27	30.24	1.83	2.29	53.9	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/- 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Previous Field measurement (1/6/2009)			7.76	2979	3	2.98	28.84	0.19		-80	
Are measurements consistent with previous?			yes	yes	yes	yes	NA	—	—	yes	

Sample Time _____ Sample Location: pump tubing X well port ___ spigot ___ bailer ___ other ___
Comments: 1029 Collect Equipment Blank MW-09-021

Initial Depth to Water (ft BTOC): 92.97 — Measure Point: (Well TOC) Steel Casing — WATER LEVEL METER SERIAL NUMBER: PGE-2005-01B
Field measured confirmation of Well Depth (ft btoc): ___
WD (Well Depth - from database) ft btoc (113.5)
SWH (Standing Water Height) = WD-Initial Depth 20.53
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 3.5
Three Casing Volumes = 10.5

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	0950
9:49	92.97	10:27	92.98	Time of Reinstallation	1022

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

p.7 760-326-3308 Barry Collom Jul 14 09 12:44p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/8/08
Sampler Abbott Field Team 1 Field Conditions Sunny, ~110°, wind from SE 25 kts
Page 1 of

Well/Sample Number OW-02D-021 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 1425 Purge Method 4 temp Ded. Pump NO
Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 127.0 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 % ppt	TDS g/L	Eh/ORP mv	Comments (See description below
91.07	1432	21	7.54	7.27	0.4	7.77	29.52	3.97	4.73	103.3	270Hz
91.07	1439	42	7.53	7.35	2.4	9.51	30.45	4.02	4.79	91.5	
91.07	1446	63	7.49	7.45	0.9	11.72	30.58	4.07	4.84	94.7	
91.07	1453	84	7.50	7.46	0.5	11.68	30.60	4.07	4.85	95.5	
91.07	~~1500~~ 1501 pm	~~105~~ 108	7.51	7.46	0.4	11.64	30.62	4.07	4.85	93.4	
91.07	1507	127 (AA)	7.51	7.45	0.4	11.66	30.63	4.07	4.85	91.7	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/- 2°c	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			yes	yes	yes	yes	NA	—	—	yes	
Previous Field measurement (1/6/2009)			7.9	7302	0.5	4.81	27.55	0.47		-47.4	
Are measurements consistent with previous?			yes	yes	yes	higher	NA	—	—	yes	

Sample Time 1509 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 90.90
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (340)
SWH (Standing Water Height) = WD-Initial Depth 249.1
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 42.3
Three Casing Volumes = 127.0

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

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	1418
1414	90.90	1522	90.83	Time of Reinstallation	1516

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

p.1 760-326-3308 Barry Collom Jul 14 09 03:04p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/8/09
Sampler Abbott Field Team 1 Field Conditions Sunny, few high clouds, 105°F, SE wind 3-13 Page 1 of

Well/Sample Number OW-02M-021 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 1547 - 1620 Purge Method ____ Ded. Pump ____
Flow Cell: (Y) N Min. Purge Volume (gal)/(L) 61 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 ppt	TDS g/L	Eh/ORP mv	Comments (See description below
91.21	1551	12	7.54	7.29	0.4	6.94	29.55	3.99	4.74	~~160~~ 158.0	288 Hz
91.21	1555	24	7.57	7.38	0.4	11.84	28.95	4.04	4.80	160.2	
91.21	1559	36	7.56	7.38	0.1	11.99	28.88	4.04	4.80	156.7	
91.21	1603	48	7.55	7.39	0.3	11.98	28.87	4.04	4.80	152.0	
91.21	1607	61 dm	7.57	7.38	0.4	11.98	28.90	4.04	4.80	143.3	
91.21	1611	73	7.57	7.39	0.3	12.00	28.97	4.04	4.80	139.8	
91.21	1614	82	7.58	7.39	0.3	12.04	28.89	—	—	137.0	— = missed
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~+/-~~ +/-2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			yes	yes	yes	yes	NA	—	—	yes	Bubbles while sampling.
Previous Field measurement (1/6/2009)			7.82	7271	0.4	5.97	28.9	0.47		-37.1	
Are measurements consistent with previous?			lower	yes	yes	higher	NA	—	—	higher	

Sample Time 1610 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): ~~99.5~~ dm 90.95 Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-01B
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (210.3000
SWH (Standing Water Height) = WD-Initial Depth 119.35
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 20.3
Three Casing Volumes = 60.9

If Transducer

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 1538
1537	~~99.5~~ 90.96	1636	~~99~~ 90.99	Time of Reinstallation 1630

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

p.3 760-326-3308 Barry Collom Jul 14 09 03:04p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/8/09
Sampler Abbott Field Team 1 Field Conditions Sunny, hot, ~105°F, calm Page 1 of 9

Well/Sample Number OW-02S-021 **QC Sample ID** MW-91-021 QC Sample Time 1411
Purge Start Time ~~17:00~~ 17:09 restart Purge Method temp Ded. Pump no
Flow Cell: Y / N 1737 Min. Purge Volume (gal) (L) 15 Purge Rate (gpm) (mL.pm) 1

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity ppt	TDS g/L	Eh/ORP mv	Comments (See description below
91.89	1712	3	7.96	1.80	17.3	8.61	29.84	0.90	1.17	155.4	230 Hz
91.90	1715	6	7.91	1.80	6.1	8.63	29.93	0.90	1.17	142.5	1502 pump
91.91	1718	9	7.92	1.80	4.4	8.63	29.87	0.90	1.17	128.5	stopped because
91.91	1721	12	7.93	1.80	3.7	8.68	29.85	0.90	1.17	115.6	hose disconnected
91.91	1724	15	7.95	1.80	2.7	8.68	29.74	0.90	1.17	107.3	
91.91	1726	17	7.94	1.80	2.2	8.65	29.92	0.90	1.17	101.6	
91.91	1728	19	7.95	1.80	1.7	8.69	29.96	0.90	1.17	98.1	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ±2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (1/6/2009)			8.17	1807	3	5.11	28.29	0.11		-54.7	
Are measurements consistent with previous?			yes	yes	yes	yes	NA	—	—	higher	

Sample Time 1730 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 91.52
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (121)
SWH (Standing Water Height) = WD-Initial Depth 29.48
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 5.0
Three Casing Volumes = 15.0

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-07B

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	1652
1650	91.52	1750	91.54	Time of Reinstallation	1745
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)

p.2 760-326-3308 Barry Collom Jul 14 09 03:04p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/8/09
Sampler Abbott Field Team 1 Field Conditions Sunny, clear, ~105, Wind from E, 3 knots Page 1 of 1

Well/Sample Number OW-05D-021 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 1052 - 11:40 Purge Method _____ Ded. Pump _____
Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 130 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 ~~%~~ ppt	TDS g/L	Eh/ORP mv	Comments (See description below
94.86	1059	21	7.56	7.27	0.9	6.07	28.73	3.98	4.73	132.8	281 Hc
94.88	1106	42	7.55	7.39	0.6	7.72	29.08	4.07	4.83	119.6	
94.82	1113	63	7.56	7.48	0.4	8.73	29.30	4.09	4.86	110.3	
94.82	1120	84	7.57	7.48	0.5	8.77	29.30	4.09	4.86	110.8	
94.82	1127	105	7.58	7.48	0.3	8.78	29.31	4.10	4.86	107.5	
94.82	1135	130	7.58	7.48	0.4	8.76	29.31	4.10	4.86	104.1	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/- 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			yes	yes	yes	yes	NA	—	—	yes	
Previous Field measurement (1/6/2009)			7.78	7316	0.3	4.73	29.45	0.47		-32.7	
Are measurements consistent with previous?			yes	yes	yes	higher	NA	—	—	higher	

Sample Time 1137 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____
Comments: _____

Initial Depth to Water (ft BTOC): 94.54
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (350)
SWH (Standing Water Height) = WD-Initial Depth 255.46
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 43.4
Three Casing Volumes = 130.3

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

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 1047
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 1143
1046	94.54	1151	94.48	

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

p.6 760-326-3308 Barry Collom Jul 14 09 12:43p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/8/09
Sampler Abbott Field Team 1 Field Conditions Sunny/108F, wind from W. 5kts
Page 1 of 1

Well/Sample Number OW-05M-021 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 12:06 Purge Method Temp. Ded. Pump No
Flow Cell (Y) N Min. Purge Volume (gal)/(L) 80 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 ~~%~~ ppt	TDS g/L	Eh/ORP mv	Comments (See description below
94.29	12:11	13.5	7.54	7.28	0.5	5.43	28.89	3.98	4.73	143.7	272 Hz
94.28	12:16	27	7.54	7.37	3.8	6.75	28.77	4.04	4.81	116.7	
94.28	12:20	40.5	7.53	7.46	1.8	7.74	28.72	4.10	4.85	118.1	
94.28	12:25	54	7.54	7.47	2.4	7.80	28.67	4.10	4.86	103.9	
94.28	12:29	67.5	7.55	7.47	0.9	7.80	28.67	4.10	4.86	102.7	
94.28	12:33	81	7.55	7.46	0.4	7.81	28.68	4.10	4.86	102.8	

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/-2°c	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?	yes	yes	yes	yes	NA	—	—	yes	
Previous Field measurement (1/6/2009)	7.78	7347	0.3	4.33	29.9	0.47		-57.4	
Are measurements consistent with previous?	yes	yes	yes	yes	NA	—	—	yes	

Sample Time 1234 Sample Location: slight odor pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 93.85
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (250.3000
SWH (Standing Water Height) = WD-Initial Depth 156.45
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 26.6
Three Casing Volumes = — 80

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

(AM) Initial DTW / Before Removal		(AM) Initial Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	12:01
1248	93.85	(AM) 1200	93.85	Time of Reinstallation	12:41
Comments: 5 min after install					

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

p.5 760-326-3308 Barry Collom Jul 14 09 12:43p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-021
Date 7/8/09
Sampler A. Wood Field Team 1 Field Conditions Sunny, ~110°F, Windy from E, ~7 kts
Page 1 of 1

Well/Sample Number OW-05S-021
QC Sample ID NA
QC Sample Time N/A
Purge Start Time 1304
Purge Method Temp Ded. Pump No
Flow Cell: Y / N
Min. Purge Volume (gal) (L) 8.1 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 ppt	TDS g/L	Eh/ORP mv	Comments (See description below
94.53	1306	2	7.77	2.17	34.6	7.51	29.33	1.08	1.38	166.7	
94.54	1308	4	7.78	2.09	43.7	7.57	29.61	1.05	1.35	149.7	
94.54	1310	6	7.79	2.01	5.6	7.62	29.61	1.01	1.29	132.9	
94.54	1312	8	7.79	2.00	3.5	7.66	29.55	1.00	1.29	131.9	
94.54	1314	10	7.79	1.99	1.9	7.65	29.56	1.00	1.29	130.3	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ± 3° C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (1/6/2009)			8.05	1785	5	5.25	28.26	0.11		-48.6	
Are measurements consistent with previous?			Y	Y	Y	Y	NA	—	—	Y	

Sample Time 1316 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 94.40
Measure Point: Well TOC / Steel Casing
WATER LEVEL METER SERIAL NUMBER: PGE-2005-01B
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (110.3000
SWH (Standing Water Height) = WD-Initial Depth 15.9
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 2.7
Three Casing Volumes = 8.1

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 1257
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 1325
12:56	94.40	1330	94.36	

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

p.4 760-326-3308 Barry Collom Jul 14 09 12:42p

Project Name PGE Topock CMP — **Sampling Event** 2009-CMP-022

Job Number 370367.MP.02.CM.01 — Date 10/14/09

Sampler Abbott — Field Team 1 — Field Conditions cloudy, upper 80s F, wind from (SE) East ~2-3 mph — Page 1 of 1

BJC

Well/Sample Number GW-01D-022 — **QC Sample ID** NA — QC Sample Time N/A

Purge Start Time 1119 – 12:00 — Purge Method Temp. Pump — Ded. Pump No

Flow Cell: (Y) / N — Min. Purge Volume (gal)/(L) 107.4 — Purge Rate (gpm)/(mL.pm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity ~~µS/cm~~ mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
109.51	1125	18	7.54	7.235	4	4.15	28.48	3.96	4.706	140.8	
109.50	1131	36	7.74	7.325	4	7.29	28.25	4.01	4.761	117.5	
109.51	1137	54	7.74	7.328	2	7.62	28.19	4.01	4.764	109.8	
109.51	1143	72	7.73	7.330	1	7.68	28.22	4.01	4.764	106.0	
109.50	1149	90	7.73	7.331	1	7.72	28.22	4.02	4.765	103.7	
109.49	1155	108	7.74	7.332	1	7.74	28.25	4.02	4.766	100.8	

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ± 2°C	NA	NA	+/- 10 mV
Did Parameters Stablize prior to sampling?	Y	Y	Y	Y	~~NA~~ Y	—	—	Y
Previous Field measurement (4/8/2009)	7.74	7430	0.7	5.77	29.16	0.48		78.8
Are measurements consistent with previous?	Y	~~Y~~ slightly higher	Y	higher	NA			higher

Sample Time 1157 — Sample Location: pump tubing X — well port ____ — spigot ____ — bailer ____ — other ____

Comments: ____

Initial Depth to Water (ft BTOC): 109.42 — Measure Point: (Well TOC) Steel Casing — WATER LEVEL METER SERIAL NUMBER: PGE-2005-02B

Field measured confirmation of Well Depth (ft btoc): —

WD (Well Depth - from database) ft btoc (320)

SWH (Standing Water Height) = WD-Initial Depth 210.58

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 35.8

Three Casing Volumes = 107.4

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	11:04
11:02	109.42	12:13	109.41	Time of Reinstallation	12:08

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

p.3

Oct 15 09 03:36p

BHC

Project Name PGE Topock GMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/12/09
Sampler Abbott Field Team 1 Field Conditions Cloudy ~80°F. wind from East, 2-3 mph Page 1 of 1

Well/Sample Number CW-01M-022 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 12:35 - 1329 Purge Method Temp. Pump Ded. Pump ND
Flow Cell (Y) N Min. Purge Volume (gal)/(L) 41.2 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
109.35	1230	7	7.81	7.310	1	7.02	28.33	4.00	4.751	96.5	
109.35	1242	14	7.79	7.298	1	7.12	28.41	3.99	4.744	93.3	
109.35	1245	21	7.79	7.301	1	7.17	28.40	4.00	4.745	91.6	
109.35	1249	28	7.78	7.301	0.3	7.16	28.44	4.00	4.745	90.6	
109.35	1252	35	7.78	7.298	0.9	7.16	28.46	3.99	4.744	89.9	
109.35	1256	42	7.78	7.300	0.4	7.17	28.46	4.00	4.745	88.7	12:57 pump stopped by itself (ground fault) switching pumps. Restart 1325.

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ±.2°C	NA	NA	+/- 10 mV
Did Parameters Stablize prior to sampling?	Y	Y	Y	Y	~~NA~~ Y	—	—	Y
Previous Field measurement (4/8/2009)	7.75	7467	1.7	5.2	29.74	0.48		78.5
Are measurements consistent with previous?	Y	Y	Y	Y	NA	—	—	slightly higher

Sample Time 1325 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 109.28 Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-018
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (190)
SWH (Standing Water Height) = WD-Initial Depth 80.72
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 13.7
Three Casing Volumes = 41.2 gallons

Initial DTW / Before Removal		If Transducer			
Time	Initial DTW	Approx. 5 min After Reinstallation Time	Final DTW	Time of Removal	1227
1225	109.28	~~1335~~ (AM) 1340	109.33	Time of Reinstallation	1334
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

p.4
Oct 15 09 03:36p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/14/09
Sampler ABBOTT Field Team 1 Field Conditions clear sky, ~90°F, wind from SE ~3 mph Page 1 of 1

Well/Sample Number CW-02D-022 QC Sample ID NA QC Sample Time N/A
Purge Start Time 1454 – 1547 Purge Method Temp. Pump Ded. Pump No
Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 134 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
92.55	1503	27	8.23	7.513	1	6.12	28.54	4.12	4.884	-42.7	
92.55	1512	54	8.21	7.515	4	6.52	29.24	4.12	4.886	-33.9	
92.55	1521	81	8.21	7.506	2	6.50	29.24	4.11	4.880	-27.0	
92.55	1530	108	8.20	7.501	2	6.48	29.39	4.11	4.895	-19.8	
92.55	1539	135	8.19	7.497	1	6.48	29.38	4.11	4.874	-13.8	
92.55	1542	144	8.19	7.499	2	6.48	29.39	4.11	4.874	-12.0	
	1547	+5 GAL	pump off								
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ±2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	–	–	Y	
Previous Field measurement (4/7/2009)			7.79	7769	1.7	6.45	30.79	0.5		96	
Are measurements consistent with previous?			Y	Y	Y	Y	NA lower	–	–	lower	

Sample Time 1544 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 92.55
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (355)
SWH (Standing Water Height) = WD-Initial Depth 262.45
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 44.6
Three Casing Volumes = 133.8

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

Initial DTW / Before Removal		If Transducer		
Time	Initial DTW	Approx. 5 min After Reinstallation Time	Final DTW	Time of Removal 14:40
14:39	92.55	16:00	92.51	Time of Reinstallation (1454) 1554

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

p.5
Oct 15 09 03:36p

Project Name: PGE Topock CMP
Job Number: 370367.MP.02.CM.01
Sampling Event: 2009-CMP-022
Date: 10/14/09
Sampler: Mabott Field Team: 1 Field Conditions: 90°F, a wind from SE 2 mph; clear sky Page: 1 of 1

Well/Sample Number: CW-02M-022
QC Sample ID: NA
QC Sample Time: N/A
Purge Start Time: 16:18 - 16:54
Purge Method: Temp. Ded. Pump: No
Flow Cell: Y / N
Min. Purge Volume (gal)(L): 57.4 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
93.11	16:23	10 14	7.98	7.380	2	4.08	28.38	4.04	4.797	-1.3	
93.11	16:28	20	7.98	7.375	5	4.09	28.39	4.04	4.793	-1.1	
93.11	16:33	30	7.98	7.368	3	4.11	28.40	4.04	4.791	-0.5	
93.11	16:38	40	7.99	7.374	2	4.12	28.41	4.04	4.792	-0.2	
93.11	16:43	50	7.99	7.367	3	4.11	28.42	4.03	4.786	0.3	
93.11	16:48	60	7.99	7.366	2	4.13	28.42	4.03	4.788	0.9	
	16:54	pump off									
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ±2 °C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (4/7/2009)			7.54	7713	1.3	3.44	29.7	0.5		42.4	
Are measurements consistent with previous?			Y	Y	Y	higher	~~NA~~ lower			lower	

Sample Time: 1650 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____

Comments: 1716 Collect equipment blank OW-89-022

Initial Depth to Water (ft BTOC): 92.99
Measure Point: Well TOC Steel Casing
WATER LEVEL METER SERIAL NUMBER: PGE-2005-018
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (205.5)
SWH (Standing Water Height) = WD-Initial Depth 112.52
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 19.1
Three Casing Volumes = 57.4

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal: 16:07
Time	Initial DTW	Time	Final DTW	Time of Reinstallation: 17:00
16:05	92.98	17:04	92.98	

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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Oct 15 09 03:36p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01

Sampling Event 2009-CMP-022
Date 10/15/09

BEC

Sampler Abbott Field Team 1 Field Conditions clear sky, ~75°, calm Page 1 of 1

Well/Sample Number CW-03D-022 **QC Sample ID** NA **QC Sample Time** N/A

Purge Start Time 8:19 – 9:12 Purge Method Temp. Ded. Pump No

Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 134 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
77.35	8:28	27	8.09	7.308	2	4.29	28.23	4.00	4.752	147.0	
77.35	8:37	54	8.09	7.324	3	6.34	29.06	4.01	4.759	127.3	
77.35	8:46	81	8.08	7.320	3	6.37	29.26	4.00	4.755	115.7	
77.35	8:56	~~108~~ 111	8.07	7.317	2	6.38	29.18	4.00	4.755	106.3	
77.35	9:04	135	8.07	7.318	1	6.40	29.19	4.00	4.756	100.6	
77.35	9:07	144	8.07	7.319	1	6.39	29.20	4.00	4.758	98.7	
	9:12		pump off								
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ±2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	–	–	Y	
Previous Field measurement (4/7/2009)			7.77	7643	1.1	6.21	30.73	0.49		40.2	
Are measurements consistent with previous?			Y	~~Y~~ lower	Y	Y	~~NA~~ lower	–	–	higher	

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

Comments: ____

Initial Depth to Water (ft BTOC): 77.29

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-018

Field measured confirmation of Well Depth (ft btoc): –

WD (Well Depth - from database) ft btoc (340)

SWH (Standing Water Height) = WD-Initial Depth 262.71

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 44.66

Three Casing Volumes = 134

Initial DTW / Before Removal		If Transducer		
Time	Initial DTW	Approx. 5 min After Reinstallation Time	Final DTW	Time of Removal 0809
~~0806~~ 0809	77.29	09:25	77.28	Time of Reinstallation 9:19

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

p.7
Oct 15 09 03:37p

Topock Sampling Log

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampler Abbott Field Team 1 Field Conditions Clear sky, calm, ~80°F

Sampling Event 2009-CMP-022
Date 10/15/2009
Page 1 of 1

BRC

Well/Sample Number CW-03M-022 **QC Sample ID** OW-90-022 QC Sample Time 0825

Purge Start Time 0946 – 10:28 Purge Method Temp. Ded. Pump No

Flow Cell (Y) N Min. Purge Volume (gal)/(L) 63.2 Purge Rate (gpm)/(mL.pm) 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
78.15	0954	16	7.62	9.141	2	0.42	28.15	5.10	5.960	83.7	
78.15	1002	32	7.66	9,054	1	0.76	28.42	5.03	5.876	67.7	
78.15	1010	48	7.66	8.939	2	0.82	28.44	4.96	5.807	57.1	
78.15	~~1005~~ 1018	64	7.66	8,905	2	0.83	28.48	4.94	5.739	51.6	
78.15	1024	70	7.66	8.911	2	0.81	28.37	4.95	5.792	50.5	
	1028		pump off								
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ ± 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (4/7/2009)			7.43	9630	1.2	0.51	29.8	0.62		27.8	
Are measurements consistent with previous?			Y	Y	Y	Y	~~NA~~ lower			Y	

Sample Time 10:23 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 78.01

Field measured confirmation of Well Depth (ft btoc): —

WD (Well Depth - from database) ft btoc (222)

SWH (Standing Water Height) = WD-Initial Depth 123.99

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 21.08

Three Casing Volumes = 63.2

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

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	0932
9:30	78.01	10:42	78.01	Time of Reinstallation	1037

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

p.8
Oct 15 09 03:37p

Topock Sampling Log

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampler Abbott Field Team 1 Field Conditions Sunny ~90°F, wind from West ~1 mph
Sampling Event 2009-CMP-022
Date 10/15/09
Page 1 of 1

Well/Sample Number CW-04D-022
QC Sample ID NA
QC Sample Time N/A
Purge Start Time 11:23 - 12:12
Purge Method Ded
Ded. Pump No
Flow Cell (Y) / N
Min. Purge Volume (gal)/(L) 123
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
62.05	11:31	24	7.81	7.494	1	5.77	28.35	4.11	4.866	59.5	
62.15	11:39	48	7.85	7.599	4	6.17	29.02	4.21	4.999	53.2	
62.16	11:47	72	7.83	8.923	2	4.64	29.11	4.95	5.805	39.1	
62.16	11:55	96	7.86	9.003	2	4.61	29.16	5.00	5.855	32.4	
62.16	12:04	123	7.86	9.048	2	4.61	29.19	5.03	5.881	28.1	
62.16	12:07	132	7.86	9.063	1	4.62	29.19	5.03	5.891	27.0	
	12:12			pump off							
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ ±2C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	-	-	Y	
Previous Field measurement (4/7/2009)			7.56	9437	1	4.62	30.49	0.61		36.2	
Are measurements consistent with previous?			Y	lower	Y	Y	~~NA~~ lower	-	-	Y	

Sample Time 12:10 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 61.75
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (303)
SWH (Standing Water Height) = WD-Initial Depth 241.25
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 41.0
Three Casing Volumes = 123

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

Initial DTW / Before Removal		If Transducer			
		Approx. 5 min After Reinstallation			
Time	Initial DTW	Time	Final DTW	Time of Removal	11:15
11:13	61.75	11:13 11:27	61.75 81	Time of Reinstallation	12:08

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

p.9
Oct 15 09 03:38p

Topock Sampling Log

Project Name PGE Topock GMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-GMP-022
Date 10/15/09
Sampler Abbott Field Team 1 Field Conditions clear, ~95°F, wind from west ~2 mph **Page** 1 of 1

BZC

Well/Sample Number CW-04M-022 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 12:48 - 13:21 Purge Method Temp. Ded. Pump No
Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 55.1 Purge Rate (gpm)/(mL.pm) 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
62.08	12:52	8	7.78	6.658	5	1.98	28.21	3.62	4.327	29.4	
62.17	12:56	16	7.74	6.588	4	1.91	28.37	3.58	4.280	27.2	
62.15	13:00	24	7.73	6.532	2	1.76	28.37	3.55	4.245	25.8	
62.15	13:04	32	7.73	6.525	1	1.73	28.36	3.54	4.240	24.3	
62.14	13:08	40.	7.73	6.520	2	1.70	28.39	3.54	4.240	22.9	
62.14	13:12	48	7.73	6.515	2	1.69	28.40	3.54	4.236	21.7	
62.14	13:16	56	7.73	6.516	3	1.69	28.41	3.54	4.237	21.0	
	13:21		pump off								
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ ±2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (4/7/2009)			7.47	6757	1.2	1.38	29.9	0.43		28.7	
Are measurements consistent with previous?			Y	Y		Y	~~NA~~ Y °C			Y	

Sample Time 13:18 Sample Location: pump tubing X well port spigot bailer other
Comments: Pump set at ~80 feet below surface (~20 ft below WL)
Collect equipment blank OW-86-022 @ 1355

Initial Depth to Water (ft BTOC): 61.80
Field measured confirmation of Well Depth (ft btoc): -
WD (Well Depth - from database) ft btoc (169.8000
SWH (Standing Water Height) = WD-Initial Depth 108
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 18.36
Three Casing Volumes = 55.1

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

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	12:40
12:39	61.80	(AA) ~~12:34~~ 13:35	~~61.80~~ (AA) 61.75	Time of Reinstallation	13:30

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

p.10
Oct 15 09 03:39p

Topock Sampling Log

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/12/09
Sampler Abbott, Field Team 1, Field Conditions cloudy, ~75°F, Wind from E, SE 8mph, Page 1 of 1

Well/Sample Number OW-01D-022 **QC Sample ID** NA **QC Sample Time** N/A
Purge Start Time 1413 - 1453 **Purge Method** Temp. **Ded. Pump** No
Flow Cell (Y) / N **Min. Purge Volume** (gal)/(L) 94 **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
95.93	1421	24	7.67	7.266	2	7.13	28.32	3.98	4.726	80.2	
96.02	1429	48	7.60	7.344	3	11.26	28.06	4.02	4.772	88.1	SMALL AMOUNT OF AIR IN LINE
96.02	1437	72	7.60	7.339	8 (FE)	7.60 11.33	28.06	4.02	4.770	95.8	seems to get more air in line once it goes through flow cell)
96.02	1445	96	7.60	7.326	2	11.33	28.06	4.01	4.760	100.7	
96.02	1448	105	7.61	7.326	2	11.35	28.06	4.01	4.761	102.1	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ± 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA Y	—	—	Y	Lots of air when sampling in line
Previous Field measurement (7/7/2009)			7.62	6596	2.1	10.1	29.86	0.43		37.8	
Are measurements consistent with previous?			Y	Y	Y	higher	NA	—	—	Y	

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

Initial Depth to Water (ft BTOC): 92.79 Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-01B
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (277)
SWH (Standing Water Height) = WD-Initial Depth 184.21
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 31.3
Three Casing Volumes = 94 gallons

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 1408
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 1458
1405	92.79	1505	92.73	

Comments:

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

p.11
Oct 15 09 03:39p

Topock Sampling Log

Project Name PGE Topock GMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/12/2009
BLE
Sampler Abbott Field Team 1 Field Conditions Cloudy, 82°F, wind from E ~1-2mph Page 1 of 1

Well/Sample Number OW-01M-022 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 1518 - 1547 Purge Method Temp. Pump Ded. Pump No
Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 48 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
93.51	1522	8	7.55	7.254	2	9.26	28.09	3.97	4.718	98.7	
93.54	1526	16	7.54	7.275	2	11.22	28.03	3.98	4.726	97.5	air in line.
93.54	1530	24	7.54	7.273	1	11.16	28.02	3.97	4.720	98.2	"
93.54	1534	32	7.54	7.260	1	11.31	28.05	3.97	4.717	98.3	"
93.54	1538	40	7.54	7.245	1	11.35	28.05	3.96	4.704	98.8	"
93.54	1542	48	7.54	7.268	1	11.32	28.05	3.98	4.718	98.7	"
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ± 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y			Y	
Previous Field measurement (7/8/2009)			7.55	7390	0.4		29.26	0.48		111	
Are measurements consistent with previous?			Y	Y	Y	higher	NA	—	—	Y	

Sample Time 1544 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 93.32
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (185.8000)
SWH (Standing Water Height) = WD-Initial Depth 92.48
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 In)
One Casing Volume = D*SWH 15.7
Three Casing Volumes = 47.2

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2003-018

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	1510
15:09	93.32	16:00	93.33	Time of Reinstallation	1555

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

Oct 15 09 03:40p

Topock Sampling Log

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/12/09
Sampler Abbott Field Team 1 Field Conditions Cloudy, ~73F, wind from South, ~4-5 mph Page 1 of

BPC

Well/Sample Number OW-01S-022 **QC Sample ID** OW-91-022 **QC Sample Time** 1232
Purge Start Time 1611 - 1629 Purge Method Temp. Ded. Pump No
Flow Cell: (Y) N Min. Purge Volume (gal)/(L) 10.1 Purge Rate (gpm)/(mLpm) 1 GPM

Water Level	Time	Vol. Purged (gallon) / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
93.74	1613	2	7.56	3.900	94	4.38	27.50	2.02	2.488	89.4	
93.75	1615	4	7.61	3.560	29	4.80	27.95	1.84	2.288	85.4	
93.75	1617	86	7.62	3.322	6	4.99	28.13	1.73	2.155	81.1	
93.75	1619	8	7.64	3.230	3	5.13	28.16	1.67	2.090	77.0	
93.75	1621	10.1	7.65	3.143	3	5.27	28.20	1.63	2.050	74.8	
93.75	1623	12	7.62	3.103	2	5.29	28.20	1.61	2.015	73.0	
93.75	1625	14	7.65	3.070	2	5.34	28.22	1.59	2.000	72.2	

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 Stablize prior to sampling?	Y	Y	Y	Y	NA	Y		Y
Previous Field measurement (7/8/2009)	7.56	3540	1.4	4.27	30.24	0.23		53.9
Are measurements consistent with previous?	Y	Y	Y	Y	NA	Higher		Y

Sample Time 1629 Sample Location: pump tubing X well port spigot bailer other
Comments: Pump set at ~1 foot above Total Depth.
1648 Collect Equipment Blank OW-87-022.

Initial Depth to Water (ft BTOC): 93.61 Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-01B
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (113.5)
SWH (Standing Water Height) = WD-Initial Depth 19.89
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 3.38
Three Casing Volumes = — 10.1

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 16:05
16:04	93.61	1641	93.65	Time of Reinstallation 16:36

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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Oct 15 09 03:41p

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Project Name PGE Topock GMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/13/09
Sampler Abbott Field Team 1 Field Conditions Sunny, 85°F, wind fair East ~ 3mph
Page 1 of 1

Well/Sample Number OW-02D-022 QC Sample ID NA QC Sample Time N/A
Purge Start Time 11:55 Purge Method Temp. Pump Ded. Pump No
Flow Cell (Y) N Min. Purge Volume (gal)/(L) 127 Purge Rate (gpm)/(mL pm) 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
91.61	12:02	21	7.62	7.361	2	8.47	28.46	4.03	4.785	98.4	
91.61	12:09	42	7.64	7.427	1	9.34	27.92	4.09	4.861	97.2	Air in line
91.66	12:16	63	7.63	7.810	1	9.23	27.78	4.30	5.077	98.5	"
91.68	12:23	84	7.63	7.813	1	9.25	27.78	4.30	5.079	97.4	"
91.66	12:30	105	7.63	7.817	1	9.24	27.77	4.30	5.081	96.4	"
91.66	12:37	127	7.63	7.817	1	9.26	27.77	4.30	5.081	96.4	"
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA ± 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	lots of air in line
Previous Field measurement (7/8/2009)			7.51	7450	0.4		30.63	0.48		91.7	
Are measurements consistent with previous?			Y	higher	—	higher	lower ~~NA~~	—	—	Y	

Sample Time 12:40 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 91.33
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (340)
SWH (Standing Water Height) = WD-Initial Depth 248.67
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 42.3
Three Casing Volumes = 127

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-018

Initial DTW / Before Removal		If Transducer		
Time	Initial DTW	Approx. 5 min After Reinstallation Time	Final DTW	Time of Removal 1150 / Time of Reinstallation 1247
11:48	91.33	12:56	91.38	

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

Oct 15 09 03:41p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/13/09
Sampler Abbott Field Team 1 Field Conditions cloudy, Wind from East, ~85°F
Page 1 of 1
BEC

Well/Sample Number OW-02M-022 **QC Sample ID** NA **QC Sample Time** N/A
Purge Start Time 1311 - 1349 Purge Method Temp. Pump Ded. Pump No
Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 60.6 Purge Rate (gpm)/(mLpm) ~~3~~ 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
91.58	1316	10	7.65	7.333	0.3	7.84	28.03	4.01	4.767	90.0	
91.58	1321	20	7.50	7.399	0.2	9.74	28.66	4.05	4.808	85.0	Air in line
91.58	1326	30	7.57	7.390	0.7	9.97	28.75	4.06	4.819	96.4	"
91.58	1331	40	7.53	7.419	0.9	9.97	28.79	4.06	4.815	86.8	"
91.58	~~1334~~ 1336	50	7.63	7.391	0.4	10.00	28.82	4.04	4.804	90.8	"
91.58	~~1341~~ 1341	60	7.66	7.410	0.3	10.00	28.90	4.06	4.814	87.7	"
91.58	1344	66	7.65	7.402	0.4	9.98	28.88	4.05	4.803	86.3	"
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ ±2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	lots of Air in line
Previous Field measurement (7/8/2009)			7.58	7390	0.3		28.89	0.48		137	
Are measurements consistent with previous?			Y	Y	Y	higher	NA	—	—	Y	

Sample Time 1346 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: Pump set ~8 feet below water.

Initial Depth to Water (ft BTOC): 91.46
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (210.3000)
SWH (Standing Water Height) = WD-Initial Depth 118.84
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 20.2
Three Casing Volumes = 60.6

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

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 1302 / Time of Reinstallation 1401
12:59	91.46	14:06	91.41	

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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Oct 15 09 03:42p

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/13/2009
Sampler Abbott Field Team 1 Field Conditions Cloudy, wind from E, SE, ~7mph, ~80°F Page 1 of 1
BEC

Well/Sample Number OW-02S-022 **QC Sample ID** NA QC Sample Time N/A
Purge Start Time 16:20 - 19:20 Purge Method Temp. Pump Ded. Pump No
Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 4.4 Purge Rate (gpm)/(ml.pm) 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
92.76	1621	1.0	8.33	1.775	43	8.37	26.77	0.89	1.149	67.1	
92.76	1622	2.0	8.20	1.764	11	8.20	27.49	0.89	1.146	67.0	
92.76	1623	3.0	8.17	1.761	5	8.15	27.68	0.89	1.145	66.2	
92.76	1624	4.0	8.17	1.761	4	8.16	27.76	0.89	1.144	65.6	
92.76	1625	5.0	8.16	1.759	2	8.10	27.92	0.88	1.143	65.1	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/- 2°C	NA	NA	+/- 10 mV	
Did Parameters Stabilize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	–	–	Y	
Previous Field measurement (8/5/2009)			7.94	1640	2	7.6	29.32			61.5	
Are measurements consistent with previous?			Y	Y	Y	Y	~~NA~~ lower	–	–	Y	

Sample Time 14:26 Sample Location: pump tubing X well port ___ spigot ___ bailer ___ other ___
Comments: Pump set ~ 1 foot above Total Depth.

Initial Depth to Water (ft BTOC): 92.42
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (101)
SWH (Standing Water Height) = WD-Initial Depth 8.58
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 1.45
Three Casing Volumes = 4.4

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

Initial DTW / Before Removal		If Transducer		
Time	Initial DTW	Approx. 5 min After Reinstallation Time	Final DTW	Time of Removal 1413 / Time of Reinstallation 14:33
1410	92.42	14:39	92.43	

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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Oct 15 09 03:42p

Topock Sampling Log

Project Name PGE Topock CMP
Job Number 370367.MP.02.CM.01
Sampling Event 2009-CMP-022
Date 10/13/09
Sampler Abbott Field Team 1 Field Conditions Sunny, ~75°F (~78°F), calm
Page 1 of 1
BEC

Well/Sample Number OW-05D-022
QC Sample ID NA QC Sample Time N/A
Purge Start Time 0823 - 9:11
Purge Method Temp. Pump Ded. Pump No
Flow Cell (Y) / N
Min. Purge Volume (gal)/(L) 130 Purge Rate (gpm)/(mL pm) 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
95.61	0830	21	7.74	7.330	2	6.43	28.30	4.02	4.767	173.1	
95.61	0837	42	7.73	7.342	1	6.76	28.84	4.02	4.772	157.5	
95.61	0845	~~63~~ 66	7.73	7.347	1	7.19	28.91	4.02	4.776	135.0	
95.61	0852	~~84~~ 87	7.72	7.352	1	7.22	28.96	4.02	4.778	128.9	
95.61	0859	~~105~~ 108	7.72	7.356	1	7.22	28.97	4.02	4.780	125.5	
95.61	0907	132	7.71	7.358	1	7.22	29.00	4.03	4.783	121.0	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/- 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (7/8/2009)			7.58	7480	0.4	8.76	29.31	0.48		104.1	
Are measurements consistent with previous?			Y	Y	Y	Y	NA Y	—	—	higher (4)	

Sample Time 09:08 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 95.28
Field measured confirmation of Well Depth (ft btoc): —
WD (Well Depth - from database) ft btoc (350)
SWH (Standing Water Height) = WD-Initial Depth 254.72
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 43.3
Three Casing Volumes = 130

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

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	0876
813	95.28	9:20	95.21	Time of Reinstallation	0915

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

p.17
Oct 15 09 03:43p

Project Name PGE Topock CMP — **Sampling Event** 2009-CMP-022

Job Number 370367.MP.02.CM.01 — Date 10/13/09

Sampler Abbott — Field Team 1 — Field Conditions Sunny; few high clouds, wind from East ~3 mph, ~15°F — Page 1 of 1

BEL

Well/Sample Number OW-05M-022 (XX) — **QC Sample ID** NA — QC Sample Time N/A

Purge Start Time 9:39 — 10:~~04~~10 — Purge Method Temp. Pump — Ded. Pump NO

Flow Cell (Y) / N — Min. Purge Volume (gal)/(L) 79.3 — Purge Rate (gpm)/(ml pm) 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
95.15	9:43	12	7.61	7.405	2	5.83	28.44	4.06	4.812	115.1	
95.14	0948	27	7.65	7.406	0.4	6.30	28.36	4.06	4.814	110.5	
95.14	0952	39	7.66	7.405	0.4	6.20	28.34	4.06	4.813	107.7	
95.14	0957	54	7.66	7.407	0.3	6.40	28.34	4.06	4.813	104.8	
95.14	1001	66	7.65	7.407	0.4	6.40	28.33	4.06	4.814	102.2	
95.14	1006	81	7.66	7.407	0.5	6.41	28.37	4.06	4.816	100.2	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ ± 2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (7/8/2009)			7.55	7460	0.4	7.81	28.68	0.48		102.8	
Are measurements consistent with previous?			lower	Y	Y	Y	~~NA~~ Y	—	—	Y	

Sample Time 10:07 — Sample Location: pump tubing X — well port ____ — spigot ____ — bailer ____ — other ____

Comments: ____

Initial Depth to Water (ft BTOC): 94.71 — Measure Point: (Well TOC) Steel Casing — WATER LEVEL METER SERIAL NUMBER: PGE-2005-018

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (250.25)

SWH (Standing Water Height) = WD-Initial Depth 155.54

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 26.44

Three Casing Volumes = 79.3

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	9:32
9:31	94.71	10:21	94.71	Time of Reinstallation	10:16

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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Oct 15 09 03:43p

Project Name PGE Topock CMP | **Sampling Event** 2009-CMP-022
Job Number 370367.MP.02.CM.01 | **Date** 10/13/09
Sampler Abbott | Field Team 1 | Field Conditions Sunny, ~75, wind from East gust up to 10 mph | Page 1 of 1

Well/Sample Number OW-05S-022 | QC Sample ID NA | QC Sample Time N/A
Purge Start Time 10:42 - 1058 | Purge Method Temp. Pump | Ded. Pump No
Flow Cell (Y) N | Min. Purge Volume (gal)/(L) 8 | 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
95.44	1044	2	8.02	2.062	67	7.05	27.17	1.05	1.340	92.3	
95.44	1046	4	7.96	2.055	35	6.89	27.81	1.04	1.332	85.7	
95.44	1048	6	7.95	2.033	13	6.92	27.90	1.03	1.320	81.9	
95.44	1050	8	7.95	2.067	9	6.92	27.98	1.02	1.304	80.3	
95.44	1052	10	7.90	1.970	7	6.96	27.93	0.99	1.278	78.8	
95.44	1054	12	7.90	1.952	3	6.99	28.00	0.99	1.267	78.6	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	~~NA~~ +/-2°C	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	~~NA~~ Y	—	—	Y	
Previous Field measurement (7/8/2009)			7.79	1990	1.9	7.65	29.56	0.13		130.3	
Are measurements consistent with previous?			Y	Y	Y	Y	~~NA~~ lower	—	—	Y	

Sample Time 1055 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____

Comments: Pump set at ~1 foot above Total Depth.
1113 Collect equipment blank. OW-88-022

Initial Depth to Water (ft BTOC): 95.32 | Measure Point: (Well TOC) Steel Casing | WATER LEVEL METER SERIAL NUMBER: PGE-2005-01B

Field measured confirmation of Well Depth (ft btoc): ~~#~~
WD (Well Depth - from database) ft btoc (110.25)
SWH (Standing Water Height) = WD-Initial Depth 14.93
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 2.6
Three Casing Volumes = 7.7

Initial DTW / Before Removal		Approx. 5 min After Reinstallation	
Time	Initial DTW	Time	Final DTW
1028	95.32	11:09	95.33

Comments:

If Transducer
Time of Removal 10:29
Time of Reinstallation 11:04

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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