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May 4, 2016

To: Ms. Dilan Roe  
Alameda County Department of Environmental Health  
Health Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: Perjury Statement  
1<sup>st</sup> Quarter 2016 Quarterly Groundwater Monitoring and  
System Evaluation Report  
Bill Chun Service Station  
2301 Santa Clara Avenue  
Alameda, California 94501  
SLIC # RO0000382  
Geotracker Global ID # T0600100980

I declare, under penalty of perjury, that the information or recommendations contained in the attached report are true and correct to best of my knowledge.

*Carolyn Fong, Trustee*

Ms. Carolyn Fong  
Trustee for Lily A. Chun 1991 Trust  
711 E. Hermosa Drive  
San Gabriel, California 91775

**1<sup>ST</sup> QUARTER 2016 GROUNDWATER MONITORING AND  
SYSTEM EVALUATION REPORT  
BILL CHUN SERVICE STATION  
2301 SANTA CLARA AVENUE  
ALAMEDA, CALIFORNIA  
FUEL LEAK CASE # RO0000382  
GEOTRACKER GLOBAL ID # T0600100980**

**PREPARED FOR:**

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May 4, 2016  
Project No. 401896004

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Ms. Carolyn C. Fong  
Trustee, Lily A. Chun 1991 Trust  
720 East Hermosa Drive  
San Gabriel, California 91775

Subject: 1<sup>st</sup> Quarter 2016 Groundwater Monitoring and System Evaluation Report  
2301 Santa Clara Avenue  
Alameda, California  
Fuel Leak Case # RO0000382  
GeoTracker Global ID # T0600100980

Dear Ms. Fong:

Ninyo & Moore is pleased to present this 1<sup>st</sup> Quarter 2016 Groundwater Monitoring and System Evaluation Report for the above-referenced site. This report discusses the results and presents conclusions and recommendations of our groundwater monitoring activities, and provides details of the groundwater remediation system operations and maintenance. We appreciate the opportunity to be of service to you on this project.


Sincerely,  
**NINYO & MOORE**



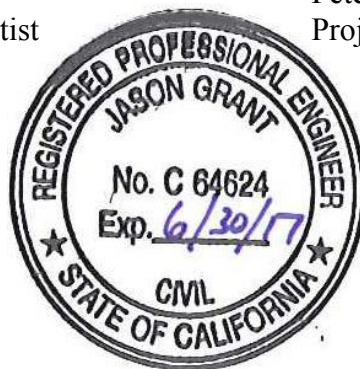
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## **1. INTRODUCTION**

Ninyo & Moore has conducted groundwater monitoring and remediation system operations and maintenance (O&M) activities at the Bill Chun Service Station property located at 2301 Santa Clara Avenue in Alameda, California (site). These activities are performed to address the site's subsurface petroleum hydrocarbon impact. This 1<sup>st</sup> Quarter 2016 Groundwater Monitoring and System Evaluation Report was prepared in general accordance with the proposed methodology presented in the Corrective Action Plan (CAP) dated August 1, 2013 (Ninyo & Moore, 2013a). The CAP was approved in the Alameda County Environmental Health (ACEH) directive letter dated March 17, 2014.

### **1.1. Purpose**

The purpose of this report is to document the field activities performed during the 1<sup>st</sup> Quarter 2016 relating to the site's remediation system O&M, and present the findings for the groundwater sample collection and analysis of the site's contaminants of concern (COCs), which primarily include total petroleum hydrocarbons as gasoline (TPHg) and benzene. This report also discusses the COC groundwater plumes and bioattenuation parameter trends.

### **1.2. Site Description**

The site is located at 2301 Santa Clara Avenue in the City and County of Alameda, California, as presented on Figure 1. The rectangular lot measures approximately 85 feet long by 40 feet wide. The site is occupied by a small vacant kiosk, a canopy, and a garage. The site is located in a mostly commercial area with some residential buildings, and is bordered by Oak Street to the northwest, a meeting hall and residences to the northeast and east, a retail store to the southeast (formerly Towata Flowers), and by Santa Clara Avenue to the southwest. The site vicinity is presented on Figure 2, with the site plan and adjacent properties presented on Figure 3.

### **1.3. Site Background**

The site is a former gasoline service station, and has been the subject of subsurface assessments, remedial actions, groundwater monitoring, and closure petitions since 1993, when three underground storage tanks (USTs) were removed. The site is listed as a Leaking

Underground Storage Tank (LUST) facility in the State Water Resources Control Board (SWRCB) GeoTracker database and as a Leaking Underground Fuel Tank (LUFT) and Spills, Leaks, Investigation and Cleanup (SLIC) facility in the ACEH database.

Several groundwater monitoring wells were installed on the site in separate occasions during 1993 and 2005. All wells installed in 1993 were either properly abandoned or redeveloped in 2012 for monitoring purposes. Injection wells were installed in 2002, 2004, and 2014, with all 2004 and one 2002 well redeveloped in 2014. The remaining 2002 wells were abandoned. Extraction wells were installed in 2014. An inventory of all of the site's wells is presented in Table 1. Between October and November 2014, the remediation system was installed at the site (Figures 3, 4, and 5). The remediation system started operating on November 21, 2014.

## **2. HISTORICAL CONSTITUENT OF CONCERN CONCENTRATIONS IN GROUNDWATER**

In a directive letter dated September 8, 2011, ACEH requested historical groundwater concentrations in each well be presented in a clear and concise manner. As part of the June 2012 *Well Installation and Groundwater Sampling Report*, Ninyo & Moore obtained historical data from reports found in the online GeoTracker database. Appendix A provides historical groundwater concentrations presented in separate tables for each well through 2011.

## **3. REMEDIATION SYSTEM OPERATIONS AND MAINTENANCE**

O&M activities conducted on the site's remediation system include both biweekly and monthly events, which for the 1<sup>st</sup> Quarter 2016 were performed by Ninyo & Moore from January 13, 2016 through March 24, 2016. Remediation system O&M field forms are provided in Appendix B. O&M sampling laboratory analytical reports are provided in Appendix C. Remediation system flow meter readings are presented in Table 2. The analytical laboratory results for the O&M samples collected from the remediation system are presented in Table 4.

### **3.1. Biweekly O&M**

During each biweekly O&M event, the remediation system was checked for proper operation. Pressure gauge and flow meter readings were recorded on field forms. In addition, five gallons of EZT-EA biosurfactant and 50 pounds of Custom Blend Nutrient (CBN) nutrient mix were added to the mixing tank during each biweekly O&M event in January and March 2016. In order to increase nutrient availability for bioattenuation and mobilize contaminants remaining adsorbed to soil, the amount of CBN nutrient mix and EZT-EA surfactant added to the mixing tank in February 2016 O&M events were increased. In February 2016, a total of 400 pounds of CBN nutrient mix and 40 gallons of EZT-EA surfactant were added to the mixing tank. Ninyo & Moore continues to add biosurfactant to the remediation system in order to desorb and mobilize contaminants.

### **3.2. Monthly O&M**

On January 28, February 25, and March 24, 2016, in addition to the tasks described in Section 3.1, monthly O&M activities included collection of water samples from the remediation system. Influent (INF), GAC vessel (GAC), and effluent (EFF) samples were collected from the remediation system at the sample ports shown on Figure 5. The INF sample was collected from the sample port after the bag filter assembly to determine the cumulative concentrations of COCs in water entering the remediation system. The GAC sample was collected from the sample port between the lead and lag GAC vessels to evaluate whether breakthrough of COCs occurred in the lead GAC vessel. The EFF sample was collected from the sample port after the lag GAC vessel to evaluate breakthrough of COCs in the lag GAC vessel.

#### **3.2.1. Remediation System Sample Collection**

Samples collected from the remediation system sample ports were transferred directly into the appropriate laboratory supplied containers, labeled with the location ID, covered with bubble wrap for protection, placed into a cooler containing ice, and transported under chain-of-custody documentation to TestAmerica, a State of California ELAP certified analytical laboratory located in Pleasanton, California.



### **3.2.2. Remediation System Sample Analysis**

Remediation system samples were analyzed by TestAmerica for TPHg and volatile organic compounds (VOCs), which includes benzene, using United States Environmental Protection Agency (USEPA) Method 8260B.

### **3.2.3. Remediation System Sample Analytical Results**

The analytical results for remediation system samples are presented in Table 4. Concentrations of TPHg in samples collected at INF increased in January and February and decreased slightly in March. Concentrations of benzene in samples collected at INF remained stable in January, decreased in February, and increased in March. The increasing trends are likely caused by the dilute hydrogen peroxide injection that took place in December 2015 and the increased amount of EZT-EA surfactant added to the mixing tank in February 2016, both of which were intended to mobilize contaminants remaining adsorbed to soil. Desorption of contaminants from soil generates increased concentrations of dissolved contaminants in groundwater, which are captured by the remediation system.

The samples collected at GAC and EFF were non-detect for the site COCs analyzed. This indicates the lead GAC vessel is effectively treating the influent water, and the amended water pumped back into the subsurface contains no detectable concentrations of site COCs. In addition, change out of the granulated carbon in the lead GAC vessel is not yet needed.

### **3.3. Bag Filter Change Out and Remediation System Maintenance**

The remediation system's bag filters were changed out on January 15 and 22, February 10 and 23, and March 7, 2016, due to elevated pressure readings. During these change outs, a reddish-brown bacterial slime was observed in the bag filters, which is evidence of biofouling. The slimy consistency is attributed to bacterial growth and the reddish brown color signifies ferric iron precipitate. Biofouling in the bag filters is expected and indicates the remediation system is operating properly by encouraging bacterial growth. The used bag

filters are securely stored in the site's garage pending proper waste characterization and offsite disposal.

On January 22, 2016, Northstate Earth and Water disassembled and cleaned the EW-20 flow meter, which had been biofouled with reddish-brown bacterial growth. The EW-20 extraction pump was removed from the well casing, disassembled, and cleaned of reddish-brown bacterial growth as well. With the EW-20 flow meter and extraction pump cleaned and reassembled, proper groundwater extraction resumed immediately. The initial groundwater extracted from EW-20 after cleaning was reddish-brown, but after a short period became clear indicating that the cleaning was successful in removing the biofouling.

#### **4. GROUNDWATER MONITORING**

Ninyo & Moore conducted the 1<sup>st</sup> Quarter 2016 groundwater monitoring event on February 2 and 3, 2016. The following wells were included in the groundwater monitoring program: MW-4R, MW-5R, MW-6R, MW-7R, MW-8, MW-9, MW-10, MW-11R, MW-12, MW-13, MW-14, MW-15, and MW-16.

##### **4.1. Depth to Groundwater Measurement**

Prior to groundwater sampling, depth-to-groundwater measurements were obtained from each well. In order to allow the groundwater level to reach equilibrium, the well caps were removed approximately 20 minutes prior to measurement. The depth to static groundwater was measured from the top of casing using a water level meter accurate to 0.01 feet. The water-level meter was decontaminated between wells. The remediation system continued operating during collection of depth to groundwater measurements. Therefore, shallow groundwater elevation contours illustrated on Figure 6 show the influence the remediation system is exerting on groundwater gradients at the site and its surrounding vicinity.

##### **4.2. Groundwater Sampling**

Prior to sample collection, a minimum of three casing volumes of groundwater were purged from each monitoring well using a peristaltic pump or disposable bailer. Dedicated pump tubing and/or new disposable bailers were used in each well to minimize the likelihood of

cross contamination between wells. Groundwater parameters (pH, temperature, electrical conductivity, dissolved oxygen, and oxidation-reduction potential) and physical characteristics (odor and color) were recorded during purging. Copies of the groundwater sampling field data sheets are provided in Appendix D.

Subsequent to purging, groundwater samples were collected from each well using a peristaltic pump or disposable bailer. During sample collection, the pump was operated at low speed to minimize disturbance of groundwater. The groundwater samples were collected in the appropriate laboratory-provided sample containers, labeled with the well ID, covered with bubble wrap for protection, placed into a cooler containing ice, and transported under chain-of-custody documentation to TestAmerica.

#### **4.3. Decontamination Procedures**

Reusable equipment that came into contact with groundwater was decontaminated to assure the quality of samples collected and reduce potential cross contamination. Dedicated pump tubing or new disposable bailers were employed at each well during purging to prevent cross contamination. Disposable equipment intended for one-time use and disposal was not decontaminated. Decontamination occurred prior to and after each use of a piece of reusable equipment which came in contact with groundwater. Decontamination was performed using a triple rinse consisting of an initial rinse with a non-phosphate based detergent solution, a secondary rinse in distilled water, and a final rinse in distilled water. Nitrile gloves were changed between each sample collection to minimize the likelihood of cross contamination.

#### **4.4. Investigation Derived Waste**

Investigation-derived waste (IDW) consisting of purged groundwater and decontamination rinsate water was stored in properly labeled 55-gallon steel drums, which were left in a secure location on the site. Following waste profiling, the 55-gallon drums of IDW are transported by a California licensed waste hauler to an appropriate facility for disposal as non-hazardous waste. Copies of the waste disposal documentation are maintained in the project files. Disposable equipment intended for one time use (nitrile gloves, bailers, etc.) were disposed of as municipal waste.

#### **4.5. Laboratory Analysis**

The groundwater samples collected from each well were analyzed by TestAmerica for:

- TPHg by USEPA Method 8015B;
- VOCs by USEPA Method 8260B;
- iron, manganese, and potassium by USEPA Method 200.7;
- nitrate, nitrite, phosphate, and sulfate by USEPA Method 300.0;
- ferric iron by calculation;
- ferrous iron by Standard Method (SM) 3500-Fe D; and
- nitrogen as ammonia by SM 4500-NH3 D.

### **5. GROUNDWATER SAMPLING RESULTS**

The following section summarizes the results of the 1<sup>st</sup> Quarter 2016 Groundwater Monitoring event, and presents a discussion of the groundwater monitoring trends. Groundwater elevation contours are illustrated on Figure 6, and detected concentrations of TPHg and benzene are illustrated on Figures 7 and 8, respectively. Groundwater elevation data is summarized in Table 3, and groundwater sample analytical results are presented in Table 4 and Table 5. Trends in TPHg concentrations in groundwater for select wells are presented on Graph 1. Trends in benzene concentrations in groundwater for select wells are presented on Graph 2.

#### **5.1. Depth to Groundwater and Groundwater Flow Direction**

The groundwater level measurements and the calculated groundwater elevations are presented in Table 3. Groundwater elevation contours are shown on Figure 6. Based on the contours shown on Figure 6, the groundwater gradient appears to be strongly influenced by the operation of the remediation system. Groundwater elevation has been historically highest at MW-7R since the remediation system began operation, and continues to be highest during the 1<sup>st</sup> Quarter 2016 Groundwater Monitoring event. The high groundwater elevations on the site are caused by the injection of amended water into the subsurface via the horizontal injection piping (injection piping IN-1 through IN-3) and vertical injection wells (injection wells EW-14 through EW-19). The groundwater elevation gradient slopes downward most steeply to the southwest towards extraction well EW-20, demonstrating the effect of the remediation system on influencing and controlling groundwater flow beneath the site.

## 5.2. Groundwater Sample Laboratory Results

A summary of the groundwater sample analytical results are presented in Tables 4 and 5, and a copy of the certified TestAmerica analytical laboratory report is provided in Appendix C. The laboratory results are compared against the San Francisco Bay Regional Water Quality Control Board (RWQCB) Tier 1 Environmental Screening Levels (ESLs), dated February 2016 (Revision 2)<sup>1</sup>. As discussed in Section 7, the remedial action objectives are to meet the criteria established in the SWRCB *Low-Threat Underground Storage Tank Case Closure Policy*, adopted May 1, 2012.

### 5.2.1. Total Petroleum Hydrocarbons as Gasoline in Groundwater

Concentrations of TPHg in shallow groundwater are presented on Figure 7. The ESL for TPHg is 100 micrograms per liter ( $\mu\text{g/L}$ ). TPHg was not detected above the laboratory reporting limit of 50  $\mu\text{g/L}$  in wells MW-9, MW-10, MW-13, MW-15, and MW-16. TPHg was reported at concentrations ranging from not detected above the laboratory reporting limit to 58,000  $\mu\text{g/L}$  (well MW-5R).

Trends in TPHg concentrations in groundwater samples collected from wells MW-4R, MW-5R, MW-6R, MW-7R, MW-11R, and MW-14 are presented on Graph 1, and are discussed below:

- TPHg concentrations in groundwater samples collected from wells MW-5R, MW-8, MW-12, and MW-14 have increased since the 4<sup>th</sup> Quarter 2015 (previous) monitoring event. On December 12, 2015, a dilute solution of hydrogen peroxide was added to the system in order to further desorb contaminant mass from the soil. The increase in TPHg concentrations in groundwater is likely due to desorption from the soil caused by the dilute hydrogen peroxide injection.
- TPHg concentrations in groundwater samples collected from wells MW-4R, MW-6R, and MW-11R have decreased since the previous monitoring event. MW-4R and MW-6R represent wells on the edge of the contaminated groundwater plume.

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<sup>1</sup> Previous groundwater monitoring results were compared against earlier versions of the ESLs.

Decreases in TPHg concentrations in these wells are indicative that progress is being made in shrinking the overall size of the plume.

- The TPHg concentration in the groundwater sample collected from well MW-7R has remained constant from the previous monitoring event. Monitoring well MW-7R historically represents the most contaminated area of the site and generally has steadily decreased in TPHg concentration. While TPHg concentration did not decrease during this monitoring event, it is expected to decrease in future monitoring events as the recently desorbed TPHg mass is remediated.

### **5.2.2. Benzene in Groundwater**

Benzene concentrations in shallow groundwater are presented on Figure 8. The ESL for benzene is 1.0 µg/L. Benzene was not detected above the laboratory reporting limit in wells MW-9, MW-10, MW-13, MW-15, and MW-16. Benzene was reported at concentrations ranging from not detected above the laboratory reporting limit to 1,200 µg/L (well MW-7R).

Trends in benzene concentrations in groundwater samples collected from wells MW-4R, MW-5R, MW-6R, MW-7R, MW-11R, and MW-14 are presented on Graph 2, and are discussed below:

- Benzene concentrations in groundwater samples collected from wells, MW-7R, MW-12, and MW-14 have increased since the previous monitoring event. On December 12, 2015, a dilute solution of hydrogen peroxide was added to the system in order to further desorb contaminant mass from the soil. The increase in benzene concentrations in groundwater is likely due to desorption from the soil caused by the dilute hydrogen peroxide injection.
- Benzene concentrations in groundwater samples collected from wells MW-4R, MW-5R, MW-6R, and MW-11R have decreased since the previous monitoring event. The decrease in concentration since the last quarter at these monitoring wells indicates that the remediation system is successfully treating the plume.

### **5.2.3. Other VOCs in Groundwater**

Other VOCs detected in the groundwater samples at concentrations which exceeded their respective ESLs included toluene, ethylbenzene, total xylenes, naphthalene, and 1,2-dichloroethane.

- The concentrations of toluene reported ranged from not detected above the laboratory reporting limit to 14,000 µg/L in MW-7R.
- The concentrations of ethylbenzene reported ranged from not detected above the laboratory reporting limit to 2,700 µg/L in MW-5R.
- The concentrations of total xylenes reported ranged from not detected above the laboratory reporting limit to 18,000 µg/L in MW-5R.
- The concentrations of naphthalene reported ranged from not detected above the laboratory reporting limit to 640 µg/L in MW-5R.
- The concentrations of 1,2-dichloroethane reported ranged from not detected above the laboratory reporting limit to 2.8 µg/L in MW-12.

#### **5.2.4. Bioattenuation Parameters**

Groundwater samples were submitted for laboratory analysis of iron, manganese, potassium, nitrate, nitrite, phosphate, sulfate, ferric iron, ferrous iron, and nitrogen as ammonia. Groundwater temperature, conductivity, pH, oxidation-reduction potential (ORP), and dissolved oxygen (DO) were measured in the field using a hand-held Horriba U-53.

The bioattenuation process remediating the site's groundwater plume can occur in either aerobic or anaerobic conditions, which is generally indicated by positive or negative ORP values, respectively. Aerobic bioattenuation takes place as aerobic respiration and is evaluated by DO concentrations. Anaerobic bioattenuation takes place as anaerobic respiration and occurs in five typical stages: denitrification, manganese reduction, ferric iron reduction, sulfate reduction, and methanogenesis.

##### **5.2.4.1. Oxidation Reduction Potential**

ORP is a measure of electron activity and is an indicator of the relative tendency of a solute species to gain or lose electrons. ORP values in groundwater generally range from -400 millivolts (mV) to 800 mV (USEPA, 2004). Positive ORP values in groundwater are generally indicative of aerobic reducing conditions and negative ORP values are generally indicative of anaerobic reducing conditions. ORP values

recorded during the 1<sup>st</sup> Quarter 2016 monitoring event ranged from -117 mV to 195 mv. Since the remediation system startup, ORP values have overall remained positive or trended toward more positive values. This is likely the result of the addition of dissolved oxygen in the amended water supplied to the subsurface by the remediation system. Notably, ORP values for MW-5R and MW-7R at 57 and 170 mV, respectively, were positive for the first time since Ninyo & Moore began monitoring in June 2014.

#### **5.2.4.2. Dissolved Oxygen**

DO is the most thermodynamically favored electron acceptor in the bioattenuation of petroleum hydrocarbons. Because water monitored for DO is easily oxygenated, it is difficult to accurately quantify DO. Therefore, individual DO concentrations are evaluated relative to the range of DO concentrations recorded during a groundwater monitoring event (USEPA, 2004). DO concentrations recorded during the 1<sup>st</sup> Quarter 2016 monitoring event ranged from 3.27 milligrams per liter (mg/L) to 8.84 mg/L. All of the measured levels of DO are relatively high and considered favorable to aerobic respiration and oxidation of petroleum hydrocarbons. The measured levels of DO have increased from the previous quarter indicating that the remediation system has increased the area where DO is available for use as the primary electron acceptor in the bioattenuation of petroleum hydrocarbons.

#### **5.2.4.3. Nitrate**

Nitrate can be consumed during the anaerobic biodegradation of petroleum hydrocarbons after DO has been depleted in groundwater. In this process, called denitrification, nitrate is reduced to nitrite and ultimately nitrogen gas (USEPA, 2004). Addition of the CBN to the amended water injected into the subsurface by the remediation system has increased the concentration of nitrate in groundwater from background levels collected during the June 25 and 26, 2014, monitoring



event prior to remediation system startup. Nitrite<sup>2</sup> concentrations observed since the previous monitoring event have generally decreased or remained stable. Nitrogen concentrations have increased relative to the previous monitoring event in monitoring wells MW-5R, MW-6R, and MW-11R, MW-13, while nitrogen concentrations in the remaining wells have decreased or remained stable. The increasing nitrate concentrations are due to the addition of CBN to the groundwater remediation system, while reductions of nitrate concentrations represent microbial utilization.

#### **5.2.4.4. Ferric Iron**

Ferric iron can be reduced to ferrous iron after DO and nitrate are depleted in anaerobic reducing conditions in groundwater. Ferrous iron is soluble in water and its presence in groundwater samples is an indication that reduction of ferric iron has occurred (USEPA, 2004). The concentration of ferrous iron reported in wells ranged from non-detect to concentrations of 2.8 mg/l in MW-11R and 11 mg/l in MW-8. Generally, the concentration of ferric iron is higher in relation to the concentrations reported of ferrous iron. The presence of detectable ferrous iron concentrations indicate that ferric iron is being reduced to ferrous iron due to microbial utilization in the subsurface.

#### **5.2.4.5. Manganese**

Manganese (IV) oxide can be reduced to manganese (II) by anaerobic bioattenuation after DO, nitrate, and ferric iron are depleted. The presence of manganese (II) in groundwater samples is an indication that reduction of manganese (IV) oxide has occurred (USEPA, 2004). The concentrations of manganese (II) reported in wells ranged from 0.28 mg/L in MW-10 to 2.0 mg/L in

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<sup>2</sup> Nitrite is generated from nitrate under anaerobic reducing conditions. Given the presence of DO, nitrite generation would not be expected.

MW-7R. The detected manganese (II) concentrations indicate that manganese (IV) oxide is being reduced to manganese (II) due to microbial utilization. However, at this time, an inverse relationship between manganese and petroleum hydrocarbon concentrations has not been established indicating that aerobic reducing conditions dominate, followed by the more preferential anaerobic reducing mechanisms (nitrate and ferric iron reduction).

#### **5.2.4.6. Sulfate**

Sulfate can be consumed by anaerobic bioattenuation after DO, nitrate, ferric iron, and manganese are depleted. Sulfate concentrations that vary inversely with petroleum hydrocarbon concentrations are indicative of anaerobic bioattenuation (USEPA, 2004). However, the addition of DO and nitrate to the subsurface via the amended injection water is expected to inhibit the use of sulfate as an electron acceptor. At this time, an inverse relationship between sulfate and petroleum hydrocarbon concentrations has not been established indicating that aerobic reducing conditions dominate, followed by the more preferential anaerobic reducing mechanisms (nitrate and ferric iron reduction).

#### **5.2.4.7. Methane**

Methanogenesis is the final step in the anaerobic bioattenuation process. When all soluble electron acceptors (DO, nitrate, ferric iron, manganese, and sulfate) are depleted, groundwater conditions become conducive to generation of methane due to reduction of carbon dioxide. Similarly to sulfate, an inverse relationship between methane and petroleum hydrocarbon concentrations would be indicative of anaerobic bioattenuation of carbon dioxide (USEPA, 2004). Because sulfate reducing conditions have not been observed, it is unlikely that carbon dioxide is being reduced, and therefore, methane is not currently included in the monitored bioattenuation analytes.

#### **5.2.4.8. Bioattenuation Summary**

Overall, the monitored wells are trending toward ORP values that remain positive or are trending toward more positive indicating a gradual shift toward stronger aerobic bioattenuation. A good example of this trend is well MW-5R. The wells exhibiting negative or trends to negative values generally are outside the area in which the remediation system is injecting amended water (e.g. MW-8). In addition, wells located in areas that had relatively lower recorded DO levels likely represent microbial consumption of DO at a rate exceeding that at which it is replenished by the remediation system. Anaerobic reducing conditions appears to be taking place across the site, though less strongly in the center of the site than before where aerobic bioattenuation appears to be becoming stronger. Continued microbial growth in the subsurface appears to be taking place, as evidenced by biofouling in the bag filters. During future O&M events, Ninyo & Moore will continue to evaluate the oxygen injection rates and injection pressures of the remediation system with the goal of producing positive ORP values and higher concentrations of DO in all wells in future groundwater monitoring events.

## **6. QUALITY ASSURANCE/QUALITY CONTROL**

Upon collection, groundwater samples were immediately placed on ice for storage during field activities, pending transportation to the laboratory. At the conclusion of the sampling event, the samples were transferred to TestAmerica, a California ELAP certified laboratory, in Pleasanton, California, under the appropriate chain-of-custody documentation.

### **6.1. Laboratory QA/QC Samples**

The laboratory analyses followed the approved methods. Laboratory QA/QC samples included method blanks, laboratory control samples (LCS), matrix spikes (MS), and matrix spike duplicates (MSD). The percentage recoveries were within the specific acceptance limits for these types of samples. Groundwater MS and MSD recoveries were outside of the acceptance limit so the analytical batch was validated by the LCS. Therefore the relevant QA/QC results were satisfactory and acceptable.

## 6.2. Sample Dilutions

Due to the high concentrations of petroleum constituents and/or possible matrix interference in some of the samples, dilution factors ranging from 5 to 500 were required prior to analysis of groundwater samples. Because of the required sample dilution, detection limits were increased.

## 6.3. QA/QC Conclusions

No outstanding issues were identified during the course of the QA/QC review. Overall, the presented data are reliable and useable for project decision making.

## 7. REMEDIAL ACTION OBJECTIVES

The ultimate objectives of remedial activities in the plume area are to reduce the concentrations of COCs in soil, soil vapor, indoor air, and groundwater to less than the RWQCB ESLs, and to ensure that the risk to human health and the environment is less than risk thresholds. The immediate objective of the remedial activities is to reduce the concentrations of COCs in groundwater such that the regulatory limits will be achieved through natural attenuation processes within a reasonable time frame and pose a low threat to human health and the environment as specified in the *Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy)*, adopted May 1, 2012, established by the SWRCB.

### 7.1. Low-Threat Closure

The *Low-Threat Closure Policy* conditions that remain to be met at the time of the preparation of the *CAP*, as well as progress meeting those conditions, are discussed below:

- **Secondary source must be removed to the extent practicable** – Secondary source continues to be removed through operation of the remediation system in order to meet this condition.
- **Groundwater affected by the unauthorized release, defined as the contaminant plume that exceeds water quality objectives, must be stable or decreasing in areal extent** – The areal extent of the contaminated groundwater plume has decreased in size in the east-west direction as evidenced by wells MW-10, MW-15, and MW-16 that formerly had detectable concentrations of COCs, which have been non-detect since at least January 2015. The areal extent of the contaminated groundwater has appeared to

decrease in the north-south direction based on separation of the plume between MW-4R and MW-8, which is influenced by the groundwater extraction occurring at well EW-20. Reductions in overall concentrations of COCs in the contaminated groundwater plume are expected to continue to lead to an overall decrease in the area of the plume in the future in order to meet this condition.

- **The contaminant plume that exceeds water quality objectives (RWQCB ESLs) must be less than 100 feet in length** – The contaminated groundwater plume is currently approximately 180 feet long. Operation of the remediation system appears to have cut off the southern end of the plume between MW-4R and MW-8, thereby reducing the total length of the plume. Continued reductions in overall concentrations of COCs in the contaminated groundwater plume are expected to lead to overall decreases in the length of the plume in the future in order to meet this condition.
- **Benzene concentrations in groundwater in the remaining contaminant plume will be less than 1,000 µg/L** – The maximum concentration of benzene detected in the contaminated groundwater plume has decreased from 18,000 µg/L in June 2014, to 1,200 µg/L in November 2015. This greater than tenfold reduction in the maximum concentration of benzene shows significant progress toward meeting this condition.
- **Benzene, ethylbenzene, and naphthalene concentrations in soil 5 to 10 feet below ground surface (bgs) will be less than the concentrations presented in Table 8 of the CAP (Ninyo & Moore, 2013a)** – Continued operation of the remediation system is expected to meet this condition. Confirmation soil samples will be collected following the completion of the remedial action to evaluate this criterion.

## 8. CONCLUSIONS

Ninyo & Moore presents the following conclusions:

- Remediation system O&M activities were performed biweekly between January 13 and March 24, 2016. Biweekly and monthly O&M activities included monitoring the remediation system for proper operation and adding biological amendments (CBN nutrient mix and EZT-EA surfactant) to the remediation system. In order to increase nutrients available for bioattenuation and mobilize contaminants remaining adsorbed to soil, the amount of CBN nutrient mix and EZT-EA surfactant added to the mixing tank in February 2016 O&M was increased. In February 2016, a total of 400 pounds of CBN nutrient mix and 40 gallons of EZT-EA surfactant were added to the mixing tank. Because of elevated pressure readings observed on the bag filter assembly due to biofouling, the bag filters were changed out on January 15, January 22, February 10, February 23, and March 7, 2016. On January 22, 2016, the EW-20 flow meter and extraction pump were disassembled and cleaned of biofouling.

- Collection of remediation system samples was performed monthly on January 28, February 25, and March 24, 2016. Analysis of remediation system samples indicated that the remediation system is operating properly and the lead GAC vessel does not yet require change out.
- 1<sup>st</sup> Quarter 2016 groundwater monitoring and sample collection was performed on February 2 and 3, 2015.
  - Based on depth to water measurements collected during the 1<sup>st</sup> Quarter 2016 groundwater monitoring event, groundwater appears to be flowing to the east-northeast and southwest due to the influence of groundwater extraction wells EW-20, EW-21, and EW-22. Groundwater elevations indicate that groundwater has mounded at the site due to injection of amended water through the vertical injection wells and horizontal injection piping.
  - Dissolved phase TPHg and/or VOC concentrations in groundwater exceed their respective ESLs in wells MW-4R through MW-7R, MW-8, MW-11R, MW-12, MW-13, MW-14, MW-15, and MW-16.
  - Monitoring wells MW-4R, MW-6R, MW-7R, MW-11R, and have decreased or stable TPHg concentrations; MW-5R, MW-8, MW-12, and MW-14 have increased or stable TPHg concentrations; and MW-9, MW-10, MW-13, MW-15, and MW-16 remained non-detect for TPHg.
  - Monitoring wells and MW-4R, MW-5R, MW-6R, MW-8, MW-11R, MW-12, and MW-14 have decreased or stable benzene concentrations; MW-7R, MW-12, and MW-14 have increased benzene concentrations; and MW-9, MW-10, MW-13, MW-15, and MW-16 remained non-detect for benzene.
  - Reductions in the TPHg and benzene concentrations detected in groundwater samples and the reduction in total area of the plume indicate the groundwater plume is being remediated. The area of the TPHg and benzene dissolved phase groundwater plume reduced in the north-south direction and in the east-west direction compared to the groundwater monitoring event performed before remediation system startup in June of 2014. Concentrations of TPHg and benzene in wells still remain relatively high indicating that operation of the remediation system should continue.
  - Aerobic bioattenuation is the main driver of the remediation process in the groundwater plume. Anaerobic bioattenuation is occurring secondarily. Since the remediation system is supplying DO and nitrate to the subsurface through amended water injection, and DO reduction is thermodynamically preferred followed by nitrate reduction, the remediation system is operating as expected.

## **9. RECOMMENDATIONS**

Based on the conclusions discussed above, Ninyo & Moore recommends continued implementation of the preferred remedial alternative (groundwater recirculation and enhanced bioremediation) presented in the *CAP*, dated August 1, 2013, including ongoing O&M activities and groundwater monitoring as detailed in the *O&M Plan*, dated December 24, 2013. However, because of the continued addition of DO to the subsurface, anaerobic reducing conditions are increasingly unlikely. These conditions are indicated by analysis of groundwater samples for sulfate and manganese as well as the bacterial nutrients potassium and phosphate. Sulfate and manganese reduction do not appear to be significant contributors to the bioattenuation of site COCs in groundwater. Therefore, Ninyo & Moore recommends that future quarterly groundwater monitoring should exclude analysis of groundwater samples for sulfate, manganese, potassium, and phosphate.

During future O&M events, Ninyo & Moore will continue evaluating the oxygen injection rates and injection pressures of the remediation system with the goal of producing positive ORP values and higher concentrations of DO in all wells. The impact on the groundwater plume of the increased amounts of CBN nutrient mix (400 pounds) and EZT-EA surfactant (40 gallons) added to the remediation system in February 2016 will be evaluated in the 2<sup>nd</sup> Quarter 2016 Groundwater Monitoring Report.

## **10. LIMITATIONS**

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this assessment did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Ninyo & Moore's conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.



This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than those noted is undertaken at said parties' sole risk.

## 11. REFERENCES

- Ninyo & Moore, 2013a, Corrective Action Plan, Bill Chun Service Station, 2301 Santa Clara Avenue, Alameda, California, dated August 1.
- Ninyo & Moore, 2013b, Operations and Maintenance Plan, Bill Chun Service Station, 2301 Santa Clara Avenue, Alameda, California, dated December 24.
- Ninyo & Moore, 2015, Initial Groundwater Monitoring and System Evaluation Report, 2301 Santa Clara Avenue, Alameda, California, dated June 5.
- San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels, Interim Final, Oakland, California, December 2013.
- SWRCB, 2012, Low-Threat UST Case Closure Policy, dated May 1.
- USEPA, 2004, How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites, EPA 510-R-04-002, dated May.

**TABLE 1 – MONITORING WELL INVENTORY**

Monitoring Well ID	Date Installed	Total Depth bgs	Riser Interval bgs	Screened Interval bgs <sup>(1)</sup>	Casing Diameter	Notes
MW-1	1/1993	25.0	0-10	10-25	2"	Abandoned 5/2012 because the riser was too deep
MW-2	1/1993	25.0	0-10	10-25	2"	Abandoned 5/2012 because the riser was too deep and an ORC sock was stuck in the well
MW-2R	5/2012	25.0	0-5	5-25	2"	Replaced MW-2
MW-3	1/1993	25.0	0-10	10-25	2"	Abandoned 5/2012 because the riser was too deep
MW-4	9/1993	25.0	0-7	7-25	2"	Abandoned 5/2012 because the riser was too deep
MW-4R	5/2012	25.0	0-5	5-25	2"	Replaced MW-4
MW-5	9/1993	25.0	0-7	7-25	2"	Abandoned 5/2012 because the riser was too deep
MW-5R	5/2012	25.0	0-5	5-25	2"	Replaced MW-5
MW-6	9/1993	25.0	0-7	7-25	2"	Abandoned 5/2012 because the riser was too deep
MW-6R	5/2012	25.0	0-5	5-25	2"	Replaced MW-6
MW-7	9/1993	25.0	0-7	7-25	2"	Abandoned 5/2012 because the casing was damaged and an ORC sock was stuck in the well
MW-7R	5/2012	25.0	0-5	5-25	2"	Replaced MW-7
MW-8	11/1995	14.0	0-5	5-14	2"	Redeveloped in 5/2012
MW-9	11/1995	20.0	0-5	5-20	2"	Redeveloped in 5/2012
MW-10	11/1995	16.5	0-6.5	6.5-16.5	2"	Redeveloped in 5/2012
MW-11	11/1995	20.0	0-5	5-20	2"	Abandoned 5/2012 because the well casing was not schedule 40 PVC (too thin)
MW-11R	5/2012	25.0	0-5	5-25	2"	Replaced MW-11
BJ	5/2005	13.0	0-8	8-13	--	The well could not be located during the May 22, 2012 well survey or any time since
BK	5/2005	11.0	0-6	6-11	--	The well could not be located during the May 22, 2012 well survey or any time since
MW-12 (former BL)	5/2005	24.0	0-14	14-24	2"	Well ID was changed from BL to MW-12 to conform with site well identification scheme
MW-13 (former BG)	5/2005	20.0	0-15	15-20	2"	Well ID was changed from BG to MW-13 to conform with site well identification scheme
MW-14 (former BF)	5/2005	15.0	0-5	5-15	2"	Well ID was changed from BF to MW-14 to conform with site well identification scheme
MW-15 (former BH)	5/2005	30.0	0-20	20-30	2"	Well ID was changed from BH to MW-15 to conform with site well identification scheme
MW-16 (former BM)	5/2005	30.0	0-20	20-30	2"	Well ID was changed from BM to MW-16 to conform with site well identification scheme
EW-12	10/2002	25.0 <sup>(2)</sup>	0-7	7-25	4"	Abandoned 5/2012 because the riser was too deep
EW-13	10/2002	25.0 <sup>(2)</sup>	0-7	7-25	4"	Abandoned 5/2012 because the seal is cracked
EW-14	10/2002	25.0 <sup>(2)</sup>	0-7	7-25	4"	TOC was cut down to fit in well box, redeveloped in 5/2012; converted to injection well in 11/2014
EW-15	1/2004	25.0 <sup>(2)</sup>	0-7	7-25	4"	Redeveloped in 5/2012; converted to injection well in 11/2014
EW-16	1/2004	25.0 <sup>(2)</sup>	0-7	7-25	4"	Redeveloped in 5/2012; converted to injection well in 11/2014
EW-17	1/2004	25.0 <sup>(2)</sup>	0-7	7-25	4"	Redeveloped in 5/2012; converted to injection well in 11/2014
EW-18	4/2014	15.0	0-5	5-15	4"	Converted to injection well in 11/2014

**TABLE 1 – MONITORING WELL INVENTORY**

Monitoring Well ID	Date Installed	Total Depth bgs	Riser Interval bgs	Screened Interval bgs <sup>(1)</sup>	Casing Diameter	Notes
EW-19	4/2014	15.0	0-5	5-15	4"	Converted to injection well in 11/2014
EW-20	4/2014	25.0	0-5	5-25	4"	Converted to extraction well in 11/2014
EW-21	4/2014	25.0	0-5	5-25	4"	Converted to extraction well in 11/2014
EW-22	4/2014	25.0	0-5	5-25	4"	Converted to extraction well in 11/2014

**Notes:**

DTW = depth to water measured from TOC on May 10, 2012.  
bgs = feet below ground surface  
TOC = top of casing  
(1) Screened interval data for wells installed prior to May 2012 is based on historical documents in databases.  
(2) Reported as 22 feet bgs on GeoTracker and 25 feet bgs in historical reports. Field measurements indicate the total well depths are approximately 25 feet from TOC.

TABLE 2 - REMEDIATION SYSTEM OPERATIONS & MAINTENANCE SUMMARY

Date/Time	Elapsed Time	Extraction Flow Rate	Extraction Total	Totalizer	Products Added		Comments
	(min)	(gpm)	(gal)	(gal)	CBN (pounds)	PS (gal)	
11/21/14 14:00	0	--	0	0	0	0	System startup and test for 3 hours/cycles to evaluate leaks, etc.. Shut down system at 5 pm. Will start up 24/7 tomorrow.
11/22/14 8:00	1,080	0.8	870	700	250	0	System startup. BT onsite. Product addition started.
11/23/14 8:50	1,490	1.7	2,480	2,900	250	0	Slight surfacing at IN-18, reduced flow and injection time to 1 min.
11/24/14 7:30	1,360	1.6	2,130	5,010	50	50	950 lbs CBN left onsite, lots of PS remaining.
12/2/14 12:30	11,820	--	--	--	100	10	Connected 18 and 19 together. 19 was surfacing a little. Flow meter taken out for 18.
12/4/14 9:00	14,490	1.2	17,570	23,110	50	5	
12/10/14 10:50	8,750	1.0	8,370	31,410	50	5	
12/18/14 16:12	11,842	1.0	11,900	42,870	50	5	
1/2/15 11:12	21,300	1.2	24,970	65,390	50	5	
1/6/15 13:07	5,875	1.3	7,410	71,890	100	5	
1/16/15 9:50	14,203	1.2	17,460	87,090	50	5	
1/30/15 17:15	20,605	1.0	21,000	104,720	50	5	Mixing tank pH = 6.90.
2/6/15 15:00	9,945	1.1	10,630	113,350	50	5	Mixing tank pH = 7.30.
2/12/15 7:00	8,160	1.1	8,830	120,440	50	5	Mixing tank pH = 7.51 and holding tank pH = 7.67.
2/19/15 11:16	10,336	1.1	11,440	129,550	50	5	
2/27/15 9:55	11,439	1.1	12,590	139,800	50	5	Mixing tank pH = 7.07 and holding tank pH = 6.99.
3/5/15 15:35	8,980	1.1	9,990	147,850	50	5	Mixing tank pH = 7.10 and holding tank pH = 7.04.
3/13/15 12:00	11,305	1.1	12,580	157,900	50	5	Mixing tank pH = 7.05 and holding tank pH = 7.01.
3/25/15 12:43	17,323	1.1	18,280	172,300	50	5	Mixing tank pH = 7.30 and holding tank pH = 7.17. Dilute hydrogen peroxide injection was performed on March 18 through 21, 2015.
4/9/15 14:20	21,697	1.2	26,140	190,650	0	0	5 gallons of EZT-A2 TPH bacterial consortium added to remediation system. Mixing Tank pH = 7.83.
4/23/15 15:30	20,230	1.5	29,910	208,070	0	0	
5/8/15 9:30	21,240	1.4	29,460	228,260	50	0	
5/21/15 15:40	19,090	1.9	35,680	248,880	50	0	
6/4/15 9:05	19,765	1.8	36,260	270,030	50	0	Bag filters changed out on May 28, 2015.
6/18/15 8:25	20,120	2.1	41,810	294,370	50	0	Bag filters changed out on June 11, 2015
7/1/15 16:15	19,190	2.7	52,130	320,500	50	0	Bag filters changed out on June 25, 2015.
7/16/15 11:32	21,317	2.9	61,830	320,500	50	0	Bag filters changed out on July 8, 2015.
7/29/15 8:24	18,532	2.9	54,610	375,000	50	0	Bag filters changed out on July 30, 2015.
8/11/15 14:00	19,056	2.9	55,210	399,720	50	0	
8/27/15 16:00	23,160	3.0	69,430	429,540	50	0	Bag filters changed out on August 27, 2015
9/10/15 16:00	20,160	3.1	62,370	455,560	50	0	Bag filters changed out on September 11, 2015
9/24/15 15:30	20,130	3.4	68,180	482,680	50	0	
10/8/15 15:45	20,175	2.4	48,260	503,000	50	0	Bag filters changed out on October 8, 2015
10/22/15 15:30	20,145	1.1	22,010	525,970	50	0	
10/27/15 11:53	6,983	1.1	7,870	534,290	0	0	
10/29/15 9:37	2,744	0.7	1,850	536,070	50	5	Bag filters changed out and extraction pump and flow meter EW-20 cleaned of biofouling on October 29, 2015.
10/30/15 11:53	1,576	1.8	2,840	538,360	0	0	
11/5/15 15:45	8,872	1.8	15,850	550,480	50	10	Bag filters changed out on November 8, 2015.
11/19/15 8:52	19,747	1.7	34,380	576,920	50	5	Bag filters changed out on November 24, 2015.
12/3/15 16:30	20,618	1.8	36,640	604,550	50	5	Bag filters changed out on December 8, 2015. Dilute hydrogen peroxide injection was performed on December 12, 2015.
12/17/15 14:20	20,030	1.7	33,510	630,030	50	5	Bag filters changed out on December 21, 2015.
12/31/15 10:08	19,908	0.8	16,370	641,970	50	10	
1/13/16 15:30	19,042	1.9	36,560	667,700	50	5	Bag filters changed out on January 15 and 22, 2016. EW-20 extraction pump and flow meter cleaned of biofouling on January 22, 2016.
1/28/16 9:00	21,210	2.0	43,240	695,990	100	5	Bag filters changed out on February 10, 2016
2/11/16 15:00	20,520	1.4	29,530	714,020	100	5	Bag filters changed out on February 23, 2016
2/25/16 8:30	19,770	1.9	36,950	732,050	100	5	Bag filters changed out on March 7, 2016
3/10/16 9:00	20,190	0.6	12,320	745,710	100	5	
3/24/16 15:00	20,520	2.3	47,980	773,600	50	5	
<b>Totals</b>	<b>716,040</b>		<b>1,247,680</b>		<b>2,850</b>	<b>200</b>	



**TABLE 2 - REMEDIATION SYSTEM OPERATIONS & MAINTENANCE SUMMARY**

Date/Time	Elapsed Time	EXTRACTION WELLS								
		EW-20			EW-22			EW-21		
		Reading	Volume	Rate	Reading	Volume	Rate	Reading	Volume	Rate
(min)	(gal)	(gal)	(gpm)	(gal)	(gal)	(gpm)	(gal)	(gal)	(gpm)	
11/21/14 14:00	0	0	--	--	0	--	--	0	--	--
11/22/14 8:00	1,080	420	420	0.39	250	250	0.23	200	200	0.19
11/23/14 8:50	1,490	1,750	1,330	0.89	930	680	0.46	670	470	0.32
11/24/14 7:30	1,360	2,750	1,000	0.74	1,450	520	0.38	1,280	610	0.45
12/2/14 12:30	11,820	--	--	--	--	--	--	--	--	--
12/4/14 9:00	14,490	13,130	10,380	0.72	2,210	760	0.05	7,710	6,430	0.44
12/10/14 10:50	8,750	16,720	3,590	0.41	4,320	2,110	0.24	10,380	2,670	0.31
12/18/14 16:12	11,842	21,310	4,590	0.39	7,540	3,220	0.27	14,470	4,090	0.35
1/2/15 11:12	21,300	32,170	10,860	0.51	13,900	6,360	0.30	22,220	7,750	0.36
1/6/15 13:07	5,875	35,590	3,420	0.58	15,660	1,760	0.30	24,450	2,230	0.38
1/16/15 9:50	14,203	43,480	7,890	0.56	20,010	4,350	0.31	29,670	5,220	0.37
1/30/15 17:15	20,605	53,090	9,610	0.47	24,740	4,730	0.23	36,330	6,660	0.32
2/6/15 15:00	9,945	58,110	5,020	0.50	27,160	2,420	0.24	39,520	3,190	0.32
2/12/15 7:00	8,160	62,180	4,070	0.50	29,170	2,010	0.25	42,270	2,750	0.34
2/19/15 11:16	10,336	67,480	5,300	0.51	31,830	2,660	0.26	45,750	3,480	0.34
2/27/15 9:55	11,439	73,460	5,980	0.52	34,990	3,160	0.28	49,200	3,450	0.30
3/5/15 15:35	8,980	78,160	4,700	0.52	37,610	2,620	0.29	51,870	2,670	0.30
3/13/15 12:00	11,305	84,030	5,870	0.52	40,990	3,380	0.30	55,200	3,330	0.29
3/25/15 12:43	17,323	92,520	8,490	0.49	45,660	4,670	0.27	60,320	5,120	0.30
4/9/15 14:20	21,697	105,020	12,500	0.58	51,780	6,120	0.28	67,840	7,520	0.35
4/23/15 15:30	20,230	118,220	13,200	0.65	58,050	6,270	0.31	78,280	10,440	0.52
5/8/15 9:30	21,240	134,470	16,250	0.77	65,210	7,160	0.34	84,330	6,050	0.28
5/21/15 15:40	19,090	153,100	18,630	0.98	72,510	7,300	0.38	94,080	9,750	0.51
6/4/15 9:05	19,765	171,210	18,110	0.92	79,820	7,310	0.37	104,920	10,840	0.55
6/18/15 8:25	20,120	192,250	21,040	1.05	88,080	8,260	0.41	117,430	12,510	0.62
7/1/15 16:15	19,190	222,140	29,890	1.56	97,150	9,070	0.47	130,600	13,170	0.69
7/16/15 11:32	21,317	259,080	36,940	1.73	107,650	10,500	0.49	144,990	14,390	0.68
7/29/15 8:24	18,532	291,890	32,810	1.77	116,490	8,840	0.48	157,950	12,960	0.70
8/11/15 14:00	19,056	325,290	33,400	1.75	125,280	8,790	0.46	170,970	13,020	0.68
8/27/15 16:00	23,160	368,880	43,590	1.88	135,900	10,620	0.46	186,190	15,220	0.66
9/10/15 16:00	20,160	408,090	39,210	1.94	145,590	9,690	0.48	199,660	13,470	0.67
9/24/15 15:30	20,130	451,090	43,000	2.14	156,180	10,590	0.53	214,250	14,590	0.72
10/8/15 15:45	20,175	480,760	29,670	1.47	163,900	7,720	0.38	225,120	10,870	0.54
10/22/15 15:30	20,145	480,760	0	0.00	173,450	9,550	0.47	237,580	12,460	0.62
10/27/15 11:53	6,983	480,760	0	0.00	176,910	3,460	0.50	241,990	4,410	0.63
10/29/15 9:37	2,744	480,770	10	0.00	177,720	810	0.30	243,020	1,030	0.38
10/30/15 11:53	1,576	481,800	1,030	0.65	178,530	810	0.51	244,020	1,000	0.63
11/5/15 15:45	8,872	487,470	5,670	0.64	183,120	4,590	0.52	249,610	5,590	0.63
11/19/15 8:52	19,747	499,880	12,410	0.63	193,220	10,100	0.51	261,480	11,870	0.60
12/3/15 16:30	20,618	514,040	14,160	0.69	203,800	10,580	0.51	273,380	11,900	0.58
12/17/15 14:20	20,030	528,270	14,230	0.71	212,080	8,280	0.41	284,380	11,000	0.55
12/31/15 10:08	19,908	534,710	6,440	0.32	216,450	4,370	0.22	289,940	5,560	0.28
1/13/16 15:30	19,042	549,690	14,980	0.79	225,910	9,460	0.50	302,060	12,120	0.64
1/28/16 9:00	21,210	566,690	17,000	0.80	237,340	11,430	0.54	316,870	14,810	0.70
2/11/16 15:00	20,520	578,140	11,450	0.56	245,110	7,770	0.38	327,180	10,310	0.50
2/25/16 8:30	19,770	593,780	15,640	0.79	254,080	8,970	0.45	339,520	12,340	0.62
3/10/16 9:00	20,190	599,210	5,430	0.27	257,020	2,940	0.15	343,470	3,950	0.20
3/24/16 15:00	20,520	618,100	18,890	0.92	268,550	11,530	0.56	361,030	17,560	0.86

**Notes:**

Remediation system startup: NOV 21, 2014.

Product addition began: NOV 22, 2014

min = minutes

gpm = gallons per minute

gal = gallons

CBN = Nutrients Added

A2 = bacterial consortium added

PS = Surfactant Added

**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)		Comments
MW-2R	05/10/12	28.56	25.18	7.81	7.81	0.00	20.75	NA	NA	2" Diameter well
MW-2R	11/14/12	28.56	NM	NM	NM	ND	NA	NA	NA	Not Sampled and only gauged for LPH
MW-2R	04/17/13	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	06/25/14	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	12/04/14	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	12/31/14	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	01/22/15	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	02/19/15	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	6/11/15	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	08/11/15	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	11/10/15	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-2R	02/02/16	28.56	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
MW-4R	05/10/12	28.45	25.13	7.86	7.86	0.00	20.59	NA	NA	2" Diameter well
MW-4R	11/14/12	28.45	25.12	8.58	8.58	0.00	19.87	Decrease	-0.72	
MW-4R	04/17/13	28.45	25.10	8.13	8.13	0.00	20.32	Rise	0.45	
MW-4R	06/25/14	28.45	24.87	8.84	8.84	0.00	19.61	Decrease	-0.71	
MW-4R	12/04/14	28.45	24.90	9.00	9.00	0.00	19.45	Decrease	-0.16	slight hydrocarbon odor
MW-4R	12/31/14	28.45	24.90	7.45	7.45	0.00	21.00	Rise	1.55	
MW-4R	01/22/15	28.45	24.90	8.25	8.25	0.00	20.20	Decrease	-0.80	
MW-4R	02/19/15	28.45	24.90	8.15	8.15	0.00	20.30	Rise	0.10	
MW-4R	06/11/15	28.45	29.18	9.08	9.08	0.00	19.37	Decrease	-0.93	
MW-4R	08/11/15	28.45	25.19	9.98	9.98	0.00	18.47	Decrease	-0.90	
MW-4R	11/10/15	28.45	25.17	10.24	10.24	0.00	18.21	Decrease	-0.26	
MW-4R	02/02/16	28.45	24.89	8.65	8.65	0.00	19.80	Rise	1.59	
MW-5R	05/10/12	28.25	23.79	7.46	7.46	0.00	20.79	NA	NA	2" Diameter well
MW-5R	11/14/12	28.25	23.78	8.41	8.41	0.00	19.84	Decrease	-0.95	
MW-5R	04/17/13	28.25	23.70	7.65	7.65	0.00	20.60	Rise	0.76	
MW-5R	06/25/14	28.25	23.50	8.57	8.57	0.00	19.68	Decrease	-0.92	
MW-5R	12/04/14	28.25	23.50	7.40	7.40	0.00	20.85	Rise	1.17	
MW-5R	12/31/14	28.25	23.50	6.20	6.20	0.00	22.05	Rise	1.20	
MW-5R	01/22/15	28.25	23.50	7.05	7.05	0.00	21.20	Decrease	-0.85	
MW-5R	02/19/15	28.25	23.50	7.10	7.10	0.00	21.15	Decrease	-0.05	
MW-5R	06/11/15	28.25	23.79	7.84	7.84	0.00	20.42	Decrease	-0.73	Brown water, has distinct hydrocarbon odor
MW-5R	08/11/15	28.25	24.79	8.11	8.11	0.00	20.14	Decrease	-0.27	
MW-5R	11/10/15	28.25	23.78	8.58	8.58	0.00	19.67	Decrease	-0.47	
MW-5R	02/02/16	28.25	23.50	6.62	6.62	0.00	21.63	Rise	1.96	



**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)		Comments
MW-6R	05/10/12	28.07	25.22	7.21	7.21	0.00	20.86	NA	NA	2" Diameter well
MW-6R	11/14/12	28.07	25.20	8.31	8.31	0.00	19.76	Decrease	-1.10	
MW-6R	04/17/13	28.07	24.90	7.60	7.60	0.00	20.47	Rise	0.71	
MW-6R	06/25/14	28.07	24.87	8.49	8.49	0.00	19.58	Decrease	-0.89	
MW-6R	12/04/14	28.07	24.90	7.40	7.40	0.00	20.67	Rise	1.09	
MW-6R	12/31/14	28.07	24.90	6.00	6.00	0.00	22.07	Rise	1.40	
MW-6R	01/22/15	28.07	24.90	7.00	7.00	0.00	21.07	Decrease	-1.00	
MW-6R	02/19/15	28.07	24.90	7.05	7.05	0.00	21.02	Decrease	-0.05	
MW-6R	06/11/15	28.07	25.18	7.78	7.78	0.00	20.29	Decrease	-0.73	
MW-6R	08/11/15	28.07	25.18	8.20	8.20	0.00	19.87	Decrease	-0.42	
MW-6R	11/10/15	28.07	25.13	8.74	8.74	0.00	19.33	Decrease	-0.54	
MW-6R	02/02/16	28.07	24.94	6.05	6.05	0.00	22.02	Rise	2.69	
MW-7R	05/10/12	28.41	25.33	7.63	7.63	0.00	20.78	NA	NA	2" Diameter well
MW-7R	11/14/12	28.41	25.30	8.68	8.68	0.00	19.73	Decrease	-2.48	
MW-7R	04/17/13	28.41	24.95	7.85	7.85	0.00	20.56	Rise	0.83	
MW-7R	06/25/14	28.41	24.97	8.79	8.79	0.00	19.62	Decrease	-0.94	
MW-7R	12/04/14	28.41	24.95	7.65	7.65	0.00	20.76	Rise	1.14	
MW-7R	12/31/14	28.41	24.95	6.15	6.15	0.00	22.26	Rise	1.50	
MW-7R	01/22/15	28.41	24.95	7.05	7.05	0.00	21.36	Decrease	-0.90	
MW-7R	02/19/15	28.41	24.95	7.10	7.10	0.00	21.31	Decrease	-0.05	
MW-7R	06/11/15	28.41	25.28	7.84	7.84	0.00	20.57	Decrease	-0.74	
MW-7R	08/11/15	28.41	25.29	8.25	8.25	0.00	20.16	Decrease	-0.41	
MW-7R	11/10/15	28.41	25.22	9.77	9.77	0.00	18.64	Decrease	-1.52	
MW-7R	02/02/16	28.41	24.96	6.27	6.27	0.00	22.14	Rise	3.50	
MW-8	05/10/12	28.01	14.16	7.74	7.74	0.00	20.27	NA	NA	2" Diameter well
MW-8	11/14/12	28.01	14.15	8.09	8.09	0.00	19.92	Decrease	-0.35	
MW-8	04/17/13	28.01	14.00	7.68	7.68	0.00	20.33	Rise	0.41	
MW-8	06/25/14	28.01	13.84	8.25	8.25	0.00	19.76	Decrease	-0.57	
MW-8	12/05/14	28.01	13.85	7.45	7.45	0.00	20.56	Rise	0.80	
MW-8	12/31/14	28.01	14.00	7.55	7.55	0.00	20.46	Decrease	-0.10	
MW-8	01/22/15	28.01	14.00	7.90	7.90	0.00	20.11	Decrease	-0.35	
MW-8	02/19/15	28.01	14.00	7.85	7.85	0.00	20.16	Rise	0.05	
MW-8	06/11/15	28.01	14.26	8.34	8.34	0.00	19.67	Decrease	-0.49	
MW-8	08/11/15	28.01	14.24	8.69	8.69	0.00	19.32	Decrease	-0.35	
MW-8	11/10/15	28.01	14.19	9.02	9.02	0.00	18.99	Decrease	-0.33	
MW-8	02/02/16	28.01	13.89	7.78	7.78	0.00	20.23	Rise	1.24	

**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)		Comments
MW-9	05/10/12	27.23	15.09	6.25	6.25	0.00	20.98	NA	NA	2" Diameter well
MW-9	11/14/12	27.23	NM	NM	NM	NM	NA	NA	NA	Not gauged nor sampled
MW-9	04/17/13	27.23	NM	NM	NM	NM	NA	NA	NA	Not gauged nor sampled
MW-9	06/26/14	27.23	14.82	7.78	7.78	0.00	19.45	NA	NA	
MW-9	12/05/14	27.23	14.84	7.10	7.10	0.00	20.13	Rise	0.68	
MW-9	12/31/14	27.23	14.8	5.80	5.80	0.00	21.43	Rise	1.30	
MW-9	01/22/15	27.23	14.8	6.45	6.45	0.00	20.78	Decrease	-0.65	
MW-9	02/19/15	27.23	14.75	6.55	6.55	0.00	20.68	Decrease	-0.10	
MW-9	06/11/15	27.23	15.06	7.59	7.59	0.00	19.64	Decrease	-1.04	
MW-9	08/10/15	27.23	15.03	8.21	8.21	0.00	19.02	Decrease	-0.62	
MW-9	11/10/15	27.23	15.03	8.76	8.76	0.00	18.47	Decrease	-0.55	
MW-9	02/02/16	27.23	14.66	6.05	6.05	0.00	21.18	Rise	2.71	
MW-10	05/10/12	27.45	13.12	6.49	6.49	0.00	20.96	NA	NA	2" Diameter well
MW-10	11/14/12	27.45	13.12	7.31	7.31	0.00	20.14	Decrease	-0.82	
MW-10	04/18/13	27.45	12.95	7.04	7.04	0.00	20.41	Rise	0.27	
MW-10	06/26/14	27.45	12.86	7.86	7.86	0.00	19.59	Decrease	-0.82	
MW-10	12/05/14	27.45	12.81	6.89	6.89	0.00	20.56	Rise	0.97	Slow-moving water, copious bubbles
MW-10	12/31/14	27.45	12.95	5.80	5.80	0.00	21.65	Rise	1.09	
MW-10	01/22/15	27.45	12.95	6.60	6.60	0.00	20.85	Decrease	-0.80	
MW-10	02/19/15	27.45	12.95	6.75	6.75	0.00	20.70	Decrease	-0.15	
MW-10	06/11/15	27.45	13.19	7.62	7.62	0.00	19.83	Decrease	-0.87	
MW-10	08/10/15	27.45	13.16	8.19	8.19	0.00	19.26	Decrease	-0.57	Turb flashed 1,000
MW-10	11/10/15	27.45	13.15	8.73	8.73	0.00	18.72	Decrease	-0.54	
MW-10	02/02/16	27.45	12.81	6.22	6.22	0.00	21.23	Rise	2.51	
MW-11R	05/10/12	28.92	23.87	8.02	8.02	0.00	20.90	NA	NA	2" Diameter well
MW-11R	11/14/12	28.92	23.95	9.18	9.18	0.00	19.74	Decrease	-1.16	
MW-11R	04/17/13	28.92	24.4	8.14	8.14	0.00	20.78	Rise	1.04	
MW-11R	06/26/14	28.92	23.64	9.30	9.30	0.00	19.62	Decrease	-1.16	
MW-11R	12/04/14	28.92	23.65	8.90	8.90	0.00	20.02	Rise	0.40	
MW-11R	12/31/14	28.92	23.65	8.15	8.15	0.00	20.77	Rise	0.75	
MW-11R	01/23/15	28.92	23.65	8.40	8.40	0.00	20.52	Decrease	-0.25	Turbidity reading repeatedly flashed "0.00"
MW-11R	02/20/15	28.92	23.65	8.60	8.60	0.00	20.32	Decrease	-0.20	
MW-11R	06/12/15	28.92	23.89	10.06	10.06	0.00	18.86	Decrease	-1.46	
MW-11R	08/10/15	28.92	23.91	10.92	10.92	0.00	18.00	Decrease	-0.86	
MW-11R	11/11/15	28.92	23.87	11.20	11.20	0.00	17.72	Decrease	-0.28	
MW-11R	02/03/16	28.92	23.61	7.95	7.95	0.00	20.97	Rise	3.25	

**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)		Comments
MW-12	05/10/12	28.73	24.37	7.96	7.96	0.00	20.77	NA	NA	2" Diameter well
MW-12	11/14/12	28.73	24.35	9.37	9.37	0.00	19.36	Decrease	-1.41	
MW-12	04/17/13	28.73	24.30	9.10	9.10	0.00	19.63	Rise	0.27	
MW-12	06/26/12	28.73	24.33	8.86	8.86	0.00	19.87	Rise	0.24	
MW-12	12/04/14	28.73	24.35	9.95	9.95	0.00	18.78	Decrease	-1.09	
MW-12	12/31/14	28.73	24.35	8.20	8.20	0.00	20.53	Rise	1.75	
MW-12	01/23/15	28.73	24.35	8.80	8.80	0.00	19.93	Decrease	-0.60	
MW-12	02/16/15	28.73	24.35	9.50	9.50	0.00	19.23	Decrease	-0.70	
MW-12	06/12/15	28.73	24.56	10.03	10.03	0.00	18.70	Decrease	-0.53	
MW-12	08/10/15	28.73	24.59	10.82	10.82	0.00	17.91	Decrease	-0.79	
MW-12	11/11/15	28.73	24.58	11.12	11.12	0.00	17.61	Decrease	-0.30	
MW-12	02/03/16	28.73	24.31	8.14	8.14	0.00	20.59	Rise	2.98	
MW-13	05/10/12	29.21	20.02	8.57	8.57	0.00	20.64	NA	NA	2" Diameter well
MW-13	11/14/12	29.21	NM	NM	NM	NM	NA	NA	NA	Not gauged nor sampled
MW-13	04/17/13	29.21	NM	NM	NM	NM	NA	NA	NA	Not gauged nor sampled
MW-13	06/26/14	29.21	20.02	9.87	9.87	0.00	19.34	NA	NA	
MW-13	12/04/14	29.21	20.00	9.25	9.25	0.00	19.96	Rise	0.62	
MW-13	12/31/14	29.21	NM	NM	NM	NM	NA	NA	NA	Property closed, couldn't access well.
MW-13	01/23/15	29.21	20.00	11.20	11.20	0.00	18.01	Decrease	-1.95	
MW-13	02/20/15	29.21	20.00	11.55	11.55	0.00	17.66	Decrease	-0.35	
MW-13	06/12/15	29.21	20.28	9.39	9.39	0.00	19.82	Rise	2.16	
MW-13	08/10/15	29.21	20.32	9.87	9.87	0.00	19.34	Decrease	-0.48	Turbidity flashed 0.0
MW-13	11/11/15	29.21	20.32	10.26	10.26	0.00	18.95	Decrease	-0.39	
MW-13	02/03/16	29.21	20.02	9.29	9.29	0.00	19.92	Rise	0.97	
MW-14	05/10/12	29.02	11.62	8.28	8.28	0.00	20.74	NA	NA	2" Diameter well
MW-14	11/14/12	29.02	11.71	9.20	9.20	0.00	19.82	Decrease	-0.92	
MW-14	04/17/13	29.02	11.60	8.45	8.45	0.00	20.57	Rise	0.75	
MW-14	06/26/14	29.02	11.38	9.34	9.34	0.00	19.68	Decrease	-0.89	
MW-14	12/04/14	29.02	11.40	8.30	8.30	0.00	20.72	Rise	1.04	
MW-14	12/31/14	29.02	NM	NM	NM	NM	NA	NA	NA	Property closed, couldn't access well.
MW-14	01/23/15	29.02	11.50	8.25	8.25	0.00	20.77	Rise	0.05	
MW-14	02/20/15	29.02	11.40	8.30	8.30	0.00	20.72	Decrease	-0.05	
MW-14	06/12/15	29.02	10.67	9.18	9.18	0.00	19.84	Decrease	-0.88	
MW-14	08/10/15	29.02	11.66	9.65	9.65	0.00	19.37	Decrease	-0.47	
MW-14	11/11/15	29.02	11.68	10.07	10.07	0.00	18.95	Decrease	-0.42	
MW-14	02/03/16	29.02	11.37	7.98	7.98	0.00	21.04	Rise	2.09	

**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)		Comments
MW-15	05/10/12	28.53	29.70	7.90	7.90	0.00	20.63	NA	NA	2" Diameter well
MW-15	11/14/12	28.53	NM	NM	NM	NM	NA	NA	NA	Not gauged nor sampled
MW-15	04/17/13	28.53	NM	NM	NM	NM	NA	NA	NA	Not gauged nor sampled
MW-15	06/26/14	28.53	29.39	9.85	9.85	0.00	18.68	NA	NA	
MW-15	12/05/14	28.53	29.57	9.39	9.39	0.00	19.14	Rise	0.46	
MW-15	12/31/14	28.53	29.4	7.95	7.95	0.00	20.58	Rise	1.44	
MW-15	01/23/15	28.53	29.4	8.85	8.85	0.00	19.68	Decrease	-0.90	
MW-15	02/20/15	28.53	29.4	9.05	9.05	0.00	19.48	Decrease	-0.20	
MW-15	06/12/15	28.53	29.64	9.85	9.85	0.00	18.68	Decrease	-0.80	
MW-15	08/10/15	28.53	29.69	10.38	10.38	0.00	18.15	Decrease	-0.53	Turbidity flashed "0.0"
MW-15	11/11/15	28.53	29.68	11.38	11.38	0.00	17.15	Decrease	-1.00	
MW-15	02/03/16	28.53	29.36	8.04	8.04	0.00	20.49	Rise	3.34	
MW-16	05/10/12	28.52	29.38	7.86	7.86	0.00	20.66	NA	NA	2" Diameter well
MW-16	11/14/12	28.52	29.37	8.92	8.92	0.00	19.60	Decrease	-1.06	
MW-16	04/17/13	28.52	24.75	7.63	7.63	0.00	20.89	Rise	1.29	
MW-16	06/26/14	28.52	29.37	9.04	9.04	0.00	19.48	Decrease	-1.41	
MW-16	12/05/14	28.52	29.4	8.20	8.20	0.00	20.32	Rise	0.84	
MW-16	12/31/14	28.52	29.4	7.65	7.65	0.00	20.87	Rise	0.55	
MW-16	01/23/15	28.52	29.4	8.45	8.45	0.00	20.07	Decrease	-0.80	
MW-16	02/20/15	28.52	29.4	8.50	8.50	0.00	20.02	Decrease	-0.05	
MW-16	06/12/15	28.52	29.67	9.33	9.33	0.00	19.19	Decrease	-0.83	
MW-16	08/10/15	28.52	26.5	9.88	9.88	0.00	18.64	Decrease	-0.55	
MW-16	11/11/15	28.52	29.63	10.34	10.34	0.00	18.18	Decrease	-0.46	
MW-16	02/03/16	28.52	29.36	7.91	7.91	0.00	20.61	Rise	2.43	
EW-14	05/10/12	28.89	24.80	8.15	8.15	0.00	20.74	NA	NA	4" Diameter well
EW-14	11/14/12	28.89	NM	NM	NM	ND	NA	NA	NA	Not Sampled and only gauged for LPH
EW-14	04/17/13	29.89	NM	NM	NM	ND	NA	NA	NA	Not gauged nor sampled
EW-14	06/25/14	29.89	24.41	9.24	9.24	0.00	20.65	NA	NA	
EW-14	12/05/14	29.89	NM	NM	NM	ND	NA	NA	NA	Converted to an injection well
EW-14	12/31/14	29.89	NM	NM	NM	ND	NA	NA	NA	
EW-14	01/23/15	29.89	NM	NM	NM	ND	NA	NA	NA	
EW-14	02/20/15	29.89	NM	NM	NM	ND	NA	NA	NA	
EW-14	06/11/15	29.89	NM	NM	NM	ND	NA	NA	NA	
EW-14	08/10/15	29.89	NM	NM	NM	ND	NA	NA	NA	
EW-14	11/11/15	29.89	NM	NM	NM	ND	NA	NA	NA	
EW-14	02/03/16	29.89	NM	NM	NM	ND	NA	NA	NA	

**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)	Comments
EW-15	05/10/12	28.66	24.50	8.06	8.06	0.00	20.60	NA NA	4" Diameter well
EW-15	11/14/12	28.66	NM	NM	NM	ND	NA	NA NA	Not Sampled and only gauged for LPH
EW-15	04/17/13	28.66	NM	NM	NM	ND	NA	NA NA	Not gauged nor sampled
EW-15	06/25/14	28.66	24.14	9.03	9.03	0.00	19.63	NA NA	
EW-15	12/05/14	28.66	NM	NM	NM	ND	NA	NA NA	Converted to an injection well
EW-15	12/31/14	28.66	NM	NM	NM	ND	NA	NA NA	
EW-15	01/23/15	28.66	NM	NM	NM	ND	NA	NA NA	
EW-15	02/20/15	28.66	NM	NM	NM	ND	NA	NA NA	
EW-15	06/11/15	28.66	NM	NM	NM	ND	NA	NA NA	
EW-15	08/10/15	28.66	NM	NM	NM	ND	NA	NA NA	
EW-15	11/11/15	28.66	NM	NM	NM	ND	NA	NA NA	
EW-15	02/03/16	28.66	NM	NM	NM	ND	NA	NA NA	
EW-16	05/10/12	28.99	24.80	8.37	8.37	0.00	20.62	NA NA	4" Diameter well
EW-16	11/14/12	28.99	NM	NM	NM	ND	NA	NA NA	Not Sampled and only gauged for LPH
EW-16	04/17/13	28.99	NM	NM	NM	ND	NA	NA NA	Not gauged nor sampled
EW-16	06/26/14	28.99	22.74	9.29	9.29	0.00	19.70	NA NA	
EW-16	12/05/14	28.99	NM	NM	NM	ND	NA	NA NA	Converted to an injection well
EW-16	12/31/14	28.99	NM	NM	NM	ND	NA	NA NA	
EW-16	01/23/15	28.99	NM	NM	NM	ND	NA	NA NA	
EW-16	02/20/15	28.99	NM	NM	NM	ND	NA	NA NA	
EW-16	06/11/15	28.99	NM	NM	NM	ND	NA	NA NA	
EW-16	08/10/15	28.99	NM	NM	NM	ND	NA	NA NA	
EW-16	11/11/15	28.99	NM	NM	NM	ND	NA	NA NA	
EW-16	02/03/16	28.99	NM	NM	NM	ND	NA	NA NA	
EW-17	05/10/12	28.89	25.29	8.19	8.19	0.00	20.70	NA NA	4" Diameter well
EW-17	11/14/12	28.89	NM	NM	NM	ND	NA	NA NA	Not Sampled and only gauged for LPH
EW-17	04/17/13	28.89	NM	NM	NM	ND	NA	NA NA	Not gauged nor sampled
EW-17	06/25/14	28.89	24.12	9.27	9.27	0.00	19.62	NA NA	
EW-17	12/05/14	28.89	NM	NM	NM	ND	NA	NA NA	Converted to an injection well
EW-17	12/31/14	28.89	NM	NM	NM	ND	NA	NA NA	
EW-17	01/23/15	28.89	NM	NM	NM	ND	NA	NA NA	
EW-17	02/20/15	28.89	NM	NM	NM	ND	NA	NA NA	
EW-17	06/11/15	28.89	NM	NM	NM	ND	NA	NA NA	
EW-17	08/10/15	28.89	NM	NM	NM	ND	NA	NA NA	
EW-17	11/11/15	28.89	NM	NM	NM	ND	NA	NA NA	
EW-17	02/03/16	28.89	NM	NM	NM	ND	NA	NA NA	

**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)	Comments
EW-18	06/25/14	28.47	14.74	8.91	8.91	0.00	19.56	NA NA	4" Diameter well
EW-18	12/05/14	28.47	NM	NM	NM	ND	NA	NA NA	Converted to an injection well
EW-18	12/31/14	28.47	NM	NM	NM	ND	NA	NA NA	
EW-18	01/23/15	28.47	NM	NM	NM	ND	NA	NA NA	
EW-18	02/20/15	28.47	NM	NM	NM	ND	NA	NA NA	
EW-18	06/11/15	28.47	NM	NM	NM	ND	NA	NA NA	
EW-18	08/10/15	28.47	NM	NM	NM	ND	NA	NA NA	
EW-18	11/11/15	28.47	NM	NM	NM	ND	NA	NA NA	
EW-18	02/03/16	28.47	NM	NM	NM	ND	NA	NA NA	
EW-19	06/25/14	28.34	14.56	8.74	8.74	0.00	19.60	NA NA	4" Diameter well
EW-19	12/05/14	28.34	NM	NM	NM	ND	NA	NA NA	Converted to an injection well
EW-19	12/31/14	28.34	NM	NM	NM	ND	NA	NA NA	
EW-19	01/23/15	28.34	NM	NM	NM	ND	NA	NA NA	
EW-19	02/20/15	28.34	NM	NM	NM	ND	NA	NA NA	
EW-19	06/11/15	28.34	NM	NM	NM	ND	NA	NA NA	
EW-19	08/10/15	28.34	NM	NM	NM	ND	NA	NA NA	
EW-19	11/11/15	28.34	NM	NM	NM	ND	NA	NA NA	
EW-19	02/03/16	28.34	NM	NM	NM	ND	NA	NA NA	
EW-20	06/25/14	28.52	24.2	8.90	8.90	0.00	19.62	NA NA	4" Diameter well
EW-20	12/05/14	28.52	NM	NM	NM	ND	NA	NA NA	Converted to an extraction well
EW-20	12/31/14	28.52	NM	NM	NM	ND	NA	NA NA	
EW-20	01/23/15	28.52	NM	NM	NM	ND	NA	NA NA	
EW-20	02/20/15	28.52	NM	NM	NM	ND	NA	NA NA	
EW-20	06/11/15	28.52	NM	NM	NM	ND	NA	NA NA	
EW-20	08/10/15	28.52	NM	NM	NM	ND	NA	NA NA	
EW-20	11/11/15	28.52	NM	NM	NM	ND	NA	NA NA	
EW-20	02/03/16	28.52	NM	NM	NM	ND	NA	NA NA	
EW-21	06/26/14	29.09	24.54	9.75	9.75	0.00	19.34	NA NA	4" Diameter well
EW-21	12/05/14	29.09	NM	NM	NM	ND	NA	NA NA	Converted to an extraction well
EW-21	12/31/14	29.09	NM	NM	NM	ND	NA	NA NA	
EW-21	01/23/15	29.09	NM	NM	NM	ND	NA	NA NA	
EW-21	02/20/15	29.09	NM	NM	NM	ND	NA	NA NA	
EW-21	06/11/15	29.09	NM	NM	NM	ND	NA	NA NA	
EW-21	08/10/15	29.09	NM	NM	NM	ND	NA	NA NA	
EW-21	11/11/15	29.09	NM	NM	NM	ND	NA	NA NA	
EW-21	02/03/16	29.09	NM	NM	NM	ND	NA	NA NA	

**TABLE 3 - GROUNDWATER ELEVATION DATA**

Monitoring Well ID	Date	TOC Elevation (feet MSL)	Total Well Depth (feet)	Depth to Liquid (feet)	Depth to Water (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)	Change in Groundwater Elevation (feet)		Comments
EW-22	06/26/14	28.47	23.86	8.91	8.91	0.00	19.56	NA	NA	4" Diameter well
EW-22	12/05/14	28.47	NM	NM	NM	ND	NA	NA	NA	Converted to an extraction well
EW-22	12/31/14	28.47	NM	NM	NM	ND	NA	NA	NA	
EW-22	01/23/15	28.47	NM	NM	NM	ND	NA	NA	NA	
EW-22	02/20/15	28.47	NM	NM	NM	ND	NA	NA	NA	
EW-22	06/11/15	28.47	NM	NM	NM	ND	NA	NA	NA	
EW-22	08/10/15	28.47	NM	NM	NM	ND	NA	NA	NA	
EW-22	11/11/15	28.47	NM	NM	NM	ND	NA	NA	NA	
EW-22	02/03/16	28.47	NM	NM	NM	ND	NA	NA	NA	
	<b>Date</b>	<b>Gradient and Groundwater Flow Direction</b>		<b>Average Groundwater Elevation (feet MSL)</b>		<b>Change in Average GW Elevation (feet)</b>				
	05/10/12	0.002	SW	20.72		NA				
	11/14/12	0.004	NE	19.78		-0.94				
	04/17/13	0.005/ 0.012	WSW/ NE	20.46		0.68				
	06/26/14	Varies	Varies	19.60		-0.85				
	12/05/14	Varies	Varies	20.15		0.55				
	12/31/14	Varies	Varies	21.24		1.10				
	01/23/15	Varies	Varies	20.35		-0.89				
	02/20/15	Varies	Varies	20.21		-0.14				
	06/12/15	Varies	Varies	19.61		-0.61				
	08/10/15	Varies	Varies	19.05		-0.56				
	11/11/15	Varies	Varies	18.51		-0.54				
	2/3/2016	Varies	Varies	20.91		2.40				
<b>Notes:</b>										
Top-of-Casing (TOC) elevations were surveyed by Virgil Chavez Land Surveying on May 10, 2012.										
MSL=Mean Sea Level										
NM = Not Measured										
NA = Not Applicable										
ND = Not Detected										













**TABLE 4 - SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
TPHg and VOCs

Monitoring Well/Sample ID	Sample Date	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	Vinyl Acetate	Naphthalene	MTBE	1,2-Dichloroethane	cis-1,2-Dichloroethene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Bromodichloromethane	Bromoform	Chloroform	2-Chlorotoluene	Di-isopropylether	Hexachlorobutadiene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	
		Analytical Results (ug/L)																											
EW-15	5/10/2012	34,000	6,300	6,500	1,200	5,600	<500	160	<25	<25	<25	<25	690	180	<25	<25	<25	<25	<25	<25	<25	<25	41	<25	110	<25	<25	<25	<25
EW-15	11/14/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	4/17/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	6/25/2014	35,000	8,000	850	630	1,700	<500	460	<25	<25	<25	<25	420	110	<25	<25	<25	<25	<25	<25	<25	63	16J	170	<25	<25	<25	<25	
EW-15	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	1/23/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	2/20/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	8/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-15	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	5/10/2012	360	40	1.6	1.3	11.4	<10	10	0.86	0.60	<0.50	<0.50	3.5	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	9.3	<0.5	5.8	1.6	<0.50	<25	<25	
EW-16	11/14/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	4/17/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	6/25/2014	<50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
EW-16	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	1/23/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	2/20/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	8/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-16	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	5/10/2012	11,000	2,800	1,600	240	1,280	<500	210	<25	<25	<25	<27	160	50	<25	<25	<25	<25	<25	<25	<25	52	<25	140	<25	<25	<25	<25	
EW-17	11/14/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	4/17/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	6/25/2014	12,000	1,900	100	330	500	<100	720	<5.0	<5.0	<5.0	<5.0	200	64	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	79	23	210	13	<5.0	<5.0	<5.0	
EW-17	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	1/23/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	2/20/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	8/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EW-17	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**TABLE 4 - SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
TPHg and VOCs

Monitoring Well/Sample ID	Sample Date	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	Vinyl Acetate	Naphthalene	MTBE	1,2-Dichloroethane	cis-1,2-Dichloroethene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Bromodichloromethane	Bromoform	Chloroform	2-Chlorotoluene	Di-isopropylether	Hexachlorobutadiene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene		
		Analytical Results (ug/L)																												
EW-18	6/25/2014	21,000	140	23	1,100	3,960	<50	480	<2.5	<2.5	<2.5	<2.5	730	240	23	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	140	58	370	23	<2.5	<2.5	<2.5	
EW-18	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	1/23/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	2/20/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	8/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	6/25/2014	12,000	620	160	460	1,770	<20	480	<1.0	<1.0	<1.0	<1.0	360	110	9.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	120	40	310	22	<1.0	<1.0	<1.0	
EW-19	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	1/23/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	2/20/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	8/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	6/25/2014	3,900	400	8.1	24	79	<20	190	<1.0	2.7	<1.0	<1.0	12	4.2	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	82	9.6	120	14	<1.0	0.94J	<1.0	
EW-20	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	1/23/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	2/20/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	8/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	6/25/2014	60	0.46J	0.25J	0.31J	0.7	<10	0.4J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<0.50	<0.50	<0.50
EW-21	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	1/23/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	2/20/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	8/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	



**TABLE 4 - SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
TPHg and VOCs

Monitoring Well/Sample ID	Sample Date	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	Vinyl Acetate	Naphthalene	MTBE	1,2-Dichloroethane	cis-1,2-Dichloroethene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Bromodichloromethane	Bromoform	Chloroform	2-Chlorotoluene	Di-isopropylether	Hexachlorobutadiene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	
		Analytical Results (ug/L)																											
GAC	12/17/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
GAC	1/28/2016	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
GAC	2/25/2016	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
GAC	3/24/2016	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50



**TABLE 4 - SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
TPHg and VOCs

Monitoring Well/Sample ID	Sample Date	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	Vinyl Acetate	Naphthalene	MTBE	1,2-Dichloroethane	cis-1,2-Dichloroethene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Bromodichloromethane	Bromoform	Chloroform	2-Chlorotoluene	Di-isopropylether	Hexachlorobutadiene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	
		Analytical Results (ug/L)																											
EFF	12/4/2014	<2500	<25	<25	<25	<50	<500	<50	<25	<25	<25	<25	<25	<25	<50	<25	<50	<50	<25	--	<50	<25	<50	<50	<50	<25	<50	<25	
EFF	1/2/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	1/22/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	2/19/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	3/25/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	4/23/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	5/21/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	6/18/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	7/16/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	8/27/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	9/24/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	10/22/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	11/19/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	12/17/2015	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	1/28/2016	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	2/25/2016	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
EFF	3/24/2016	<50	<0.50	<0.50	<0.50	<1.0	<10	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<1.0	<0.50	--	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	
ESLs		100	1.0	40	13	20	NE	0.17	5.0	0.5	6.0	62	NE	NE	NE	80	80	2.3	NE	NE	0.14	NE	NE	NE	NE	NE	10	NE	3.0

**Notes:**

Only constituents with a concentration above laboratory detection limits are presented.

Total Petroleum Hydrocarbons as gasoline was analyzed using EPA Method 8015B.

Volatile Organic Compounds were analyzed using EPA Method 8260B.

ug/L = micrograms per liter

ESLs = Regional Water Quality Control Board, Residential Land Use, Tier 1 Environmental Screening Levels

**BOLD** indicates concentration exceeds the ESL.

NE = ESL not established.

< X = indicates not detected above laboratory detection limit of x (detection limits vary, see lab report).

J = Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.

<sup>1</sup> - The GAC sample collected on 1/22/15 was mistakenly collected from the INF sample port and therefore these results do not represent breakthrough of COCs in the lead GAC vessel.

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
MW-2R	5/10/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	11/14/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	4/17/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	6/25/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2R	2/2/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4R	6/25/2014	4.90	1.4	0.91	0.50	<0.20	<0.10	9.70	4.90	<0.10	0.22	20.60	603.0	6.72	--	--	--	
MW-4R	12/4/2014	25.00	7.8	1.10	730	<1.0	0.27	13	1.0	24	<0.20	21.99	1560.0	7.39	--	-71	*	
MW-4R	12/30/2014	1.87	1.6	<1.0	80	<1.0	<0.020	22	1.4	0.47	<0.20	21.02	422.0	4.81	214	5	*	
MW-4R	1/22/2015	1.60	1.6	<1.0	82	2.0	<0.020	27	1.6	<0.10	<0.20	20.10	544.0	4.72	32.4	83	6.44	
MW-4R	2/19/2015	<0.20	1.7	<1.0	83	2.2	<0.020	32	<0.10	<0.10	<0.20	19.74	639.0	6.79	1.56	15	1.18	
MW-4R	6/11/2015	<0.20	1.4	<1.0	64	2.0	0.024	32	<0.10	<0.10	1.5	20.25	639.0	6.90 <sup>1</sup>	0.28	196	3.62	
MW-4R	8/11/2015	1.2	1.3	1.00	5.0	<1.0	0.061	33	0.43	0.77	4.5	21.72	570.0	6.58	2.64	-22	1.06	
MW-4R	11/10/2015	50	2.0	4.0	6.1	<1.0	0.065	10	23	27	9.5	21.61	697.0	6.19	1,000	-58	6.97	
MW-4R	2/2/2016	0.80	0.64	<1.0	26	<1.0	0.14	30	0.27	0.53	4.3	18.39	458.0	6.84	3.40	-15	4.14	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
MW-5R	6/25/2014	<0.50	<0.50	1.5	<0.20	<0.20	<0.10	8.40	<0.50	<0.10	0.17	20.00	434.4	10.62	--	-230.5	*	
MW-5R	12/4/2014	15.6	4.1	1.1	210	5.7	0.51	16	15	0.6	0.24	21.23	1200.0	7.39	--	-118.0	*	
MW-5R	12/30/2014	19.3	4.8	1.3	560	7.5	0.42	55	16	3.3	<0.20	19.82	1540.0	4.54	64.7	-111.0	7.53	
MW-5R	1/22/2015	9.74	2.8	<1.0	310	32	0.28	50	9.5	0.24	<0.20	18.67	1260.0	4.58	28.9	-95.0	5.67	
MW-5R	2/19/2015	11.14	2.8	<1.0	210	17	0.32	47	11	0.14	0.22	18.39	1140.0	6.94	28.2	-109.0	2.91	
MW-5R	6/11/2015	3.79	0.99	<1.0	1.5	18	0.15	35	3	0.99	0.28	20.40	460.0	--	49.9	-52.0	48.00	
MW-5R	8/11/2015	3.8	0.88	<1.0	19	1.3	0.35	31	2.6	1.2	<0.20	22.91	739.0	6.92	50.1	-98.0	0.95	
MW-5R	11/10/2015	3.4	0.8	<1.0	4.8	1.3	0.22	23	2.8	0.64	0.33	20.87	712.0	6.63	61.6	-72.0	4.81	
MW-5R	2/2/2016	1.35	0.86	1.1	12	1.8	0.074	48	1.2	0.15	0.44	18.05	764.0	7.12	34.1	57.0	4.91	
MW-6R	6/25/2014	2.9	1.3	0.71	<0.20	<0.20	<0.10	12	2.9	<0.10	0.45	20.20	530.7	6.87	--	-114.1	*	
MW-6R	12/4/2014	2.84	3.1	<1.0	150	3.4	0.21	26	2.5	0.34	0.24	21.77	909.0	7.24	--	-66.0	*	
MW-6R	12/30/2014	<0.20	1.2	3.7	250	56	4.1	33	<0.10	<0.10	7.2	20.32	971.0	4.80	34.2	47.0	6.99	
MW-6R	1/22/2015	<0.20	2.7	1	200	32	0.93	74	<0.10	<0.10	2.1	19.70	929.0	4.55	0.4	93.0	5.19	
MW-6R	2/19/2015	<0.20	2.2	1.3	270	24	1.4	69	<0.10	<0.10	4.6	19.42	1050.0	6.72	0.15	80.0	2.16	
MW-6R	6/11/2015	0.73	0.93	1.5	350	2.2	1.6	44	0.73	<0.10	1.8	21.56	975.0	7.03 <sup>1</sup>	2.05	121.0	2.98	
MW-6R	8/11/2015	0.91	1.1	1.1	240	1.4	1.7	43	0.91	<0.10	0.69	23.96	678.0	5.89	22.1	101.0	1.04	
MW-6R	11/10/2015	<0.50	1.4	<1.0	270	2.8	0.88	39	<0.10	<0.10	0.43	22.77	823.0	5.65	14.6	124.0	0.58	
MW-6R	2/2/2016	<0.20	1.6	4.4	540	<1.0	1.80	36	<0.10	<0.10	6.9	18.16	1180.0	5.31	2.91	195.0	3.44	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
MW-7R	6/25/2014	35	3.4	2	<0.20	<0.20	<0.10	<2.0	35	<.010	0.39	19.60	774.0	6.61	--	-87.2	*	
MW-7R	12/4/2014	29	3	<1.0	28	<1.0	0.16	<0.1	<0.10	29	0.5	20.62	695.0	7.13	--	-78.0	*	
MW-7R	12/30/2014	15.2	3.3	<1.0	250	<1.0	0.13	28	3.2	12	<0.20	19.56	777.0	5.00	20.9	-41.0	6.65	
MW-7R	1/22/2015	18.56	3.9	<1.0	330	10	0.038	31	18	0.56	0.34	18.69	1050.0	4.62	11.1	-37.0	4.82	
MW-7R	2/19/2015	17	3.5	<1.0	330	10	0.1	27	14	3	<0.20	18.53	986.0	6.54	21.1	-51.0	1.29	
MW-7R	6/11/2015	19.9	2.9	1.7	350	2.7	<0.020	31	15	4.9	1.0	22.96	943.0	6.14 <sup>1</sup>	11.9	-24.0	1.89	
MW-7R	8/11/2015	8.9	2.1	1.7	270	3	0.083	25	4.5	4.4	1.2	22.57	850.0	6.01	8.07	-20.0	0.95	
MW-7R	11/10/2015	24	1.8	2.1	190	3.8	0.025	24	24	0.35	1.5	22.08	716.0	5.87	49.5	1.0	0.34	
MW-7R	2/2/2016	1.9	2.0	1.8	200	13	<0.020	34	1.9	<0.10	1.2	17.96	737.0	6.37	42.9	170.0	3.27	
MW-8	6/25/2014	6.1	1.1	0.71	<0.20	<0.20	<0.10	4.1	6.1	<0.10	0.34	22.60	444.9	6.77	--	-112.0	*	
MW-8	12/5/2014	5.6	1	<1.0	<1.0	<1.0	0.83	1.7	0.7	4.9	0.24	22.73	321.0	7.20	--	-96.0	*	
MW-8	12/30/2014	8.3	0.89	<1.0	<1.0	<1.0	0.2	12	3.1	5.2	<0.20	19.67	328.0	4.98	334	-40.0	6.2	
MW-8	1/22/2015	7.8	0.83	<1.0	<1.0	<1.0	0.18	12	3	4.8	<0.20	19.86	400.0	4.68	259	-49.0	4.6	
MW-8	2/19/2015	14	1	1.5	2.1	<1.0	0.14	13	8	6	0.26	19.85	401.0	6.97	366	-66.0	4.53	
MW-8	6/11/2015	21	1.5	1.7	2.4	<1.0	0.032	12	9	12	0.28	0.93	240.0	6.65 <sup>1</sup>	249	-88.0	2.35	
MW-8	8/11/2015	29	1.7	3	<1.0	<1.0	0.25	1.2	10	19	0.28	18.82	313.0	8.18	477	-150.0	5.93	
MW-8	11/10/2015	81	1.8	6.5	<1.0	<1.0	0.044	2.7	63	18	0.3	21.90	462.0	6.56	805	-96.0	7.06	
MW-8	2/2/2016	39	1.6	3.5	<1.0	<1.0	<0.020	8.3	28	11	0.33	18.01	402.0	6.93	453	-117.0	5.99	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
MW-9	6/26/2014	44	10	4	0.5	<0.20	<0.10	28	44	<0.10	0.04	19.60	495.5	6.71	--	142.3	*	
MW-9	12/5/2014	51	9.7	4.6	4.1	<1.0	0.075	38	51	<0.10	<0.20	19.91	456.0	6.94	--	43.0	*	
MW-9	12/30/2014	5.20	0.95	1.1	3.2	<1.0	0.06	35	5.2	<0.10	<0.20	18.66	401.0	4.93	557	151.0	6.82	
MW-9	1/22/2015	9.40	1.3	1	3	<1.0	0.057	42	9.4	<0.10	<0.20	18.40	478.0	4.67	441	132.0	5.55	
MW-9	2/19/2015	66	5.3	5.7	4.1	<1.0	0.088	47	66	<0.10	<0.20	18.67	490.0	7.11	816	55.0	4.12	
MW-9	6/11/2015	45.16	4.7	3.6	12	<1.0	<0.020	33	45	0.16	<0.20	25.29	162.0	6.92 <sup>1</sup>	814	84.0	5.54	
MW-9	8/10/2015	38	4.1	3.2	3.4	<1.0	0.063	52	37	1.2	<0.20	22.15	365.0	7.23	611	111.0	3.89	
MW-9	11/10/2015	23	4	1.8	<1.0	<1.0	0.064	87	22	0.93	<0.20	22.14	138.0	6.82	956	71.0	4.75	
MW-9	2/2/2016	22	1.8	2.7	18	<1.0	0.038	63	22	<0.10	<0.20	18.23	364.0	7.08	899	135.0	7.37	
MW-10	6/26/2014	42	0.65	4.5	2.1	<0.20	0.4	11	42	<0.10	<0.03	20.30	306.7	6.24	--	131.3	*	
MW-10	12/5/2014	<0.20	<0.020	<1.0	10	<1.0	0.021	14	<0.10	<0.10	<0.20	20.80	271.0	7.35	--	73.0	*	
MW-10	12/30/2014	3.7	0.2	<1.0	12	<1.0	<0.020	13	3.7	<0.10	<0.20	18.90	292.0	4.73	147	127.0	8.73	
MW-10	1/22/2015	5.3	0.18	<1.0	12	<1.0	0.032	13	5.3	<0.10	<0.20	18.88	306.0	4.74	414	192.0	5.11	
MW-10	2/19/2015	35	0.47	3.5	12	<1.0	0.05	13	35	<0.10	<0.20	18.59	303.0	6.80	936	133.0	4.72	
MW-10	6/11/2015	67.11	0.82	5.4	11	<1.0	<0.020	19	67	0.11	<0.20	21.99	0.0	6.60 <sup>1</sup>	34.1	115.0	6.23	
MW-10	8/10/2015	40	0.59	4.3	7.6	<1.0	0.035	28	40	<0.10	<0.20	21.72	272.0	6.79	1000	129.0	3.92	
MW-10	11/10/2015	43	0.67	4.5	25	<1.0	0.024	32	43	<0.10	<0.20	21.56	242.0	6.77	0	133.0	6.00	
MW-10	2/2/2016	21	0.28	2.6	27	<1.0	<0.020	31	21	<0.10	<0.20	17.41	234.0	6.99	622	131.0	6.08	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
MW-11R	6/26/2014	120	2	10	0.66	<0.20	<0.10	<2.0	120	<0.10	0.03	18.70	153.3	7.01	--	-80.3	*	
MW-11R	12/4/2014	0.91	0.78	<1.0	1.4	<1.0	0.14	4.2	<0.1	0.91	<0.20	19.78	185.0	7.14	--	-46.0	*	
MW-11R	12/31/2014	13	1.6	1.3	2.4	<1.0	0.089	6.4	4.4	8.6	<0.20	17.90	288.0	5.27	1000	-32.0	9.39	
MW-11R	1/23/2015	20	1.3	1.3	<1.0	<1.0	0.027	2.8	8	12	<0.20	16.10	223.0	5.78	0	162.0	10.15	
MW-11R	2/20/2015	3.1	0.55	<1.0	<1.0	<1.0	0.11	2	2	1.1	<0.20	17.63	161.0	6.98	131	-35.0	3.18	
MW-11R	6/12/2015	1.4	0.81	<1.0	<1.0	<1.0	0.15	1.2	<0.10	1.4	<0.20	20.51	186.0	6.94 <sup>1</sup>	2.46	-14.0	1.83	
MW-11R	8/10/2015	2.2	1.5	<1.0	1.3	<1.0	0.12	1.1	<0.10	2.2	<0.20	20.17	332.0	5.94	7.25	-45.0	1.53	
MW-11R	11/11/2015	2.9	1.8	<1.0	<1.0	<1.0	0.11	6.6	0.40	2.5	<0.20	20.28	341.0	6.69	45.3	-61.0	4.08	
MW-11R	2/3/2016	4.1	1.6	<1.0	2.1	<1.0	<0.020	5.7	1.3	2.8	0.20	17.62	293.0	6.75	7.88	-58.0	3.67	
MW-12	6/26/2014	15	1.7	2.2	2	<0.20	<0.10	2.2	15	<0.10	<0.03	19.20	544.4	6.39	--	5.4	*	
MW-12	12/4/2014	0.69	1	<1.0	29	<1.0	<0.020	10	0.32	0.37	<0.20	20.13	393.0	7.05	--	26.0	*	
MW-12	12/31/2014	6.21	1.5	<1.0	13	<1.0	0.028	8.6	5.7	0.51	<0.20	18.71	362.0	5.32	136	91.0	8.40	
MW-12	1/23/2015	7.3	1.5	<1.0	12	<1.0	<0.020	9.3	6.2	1.1	<0.20	17.75	425.0	4.72	789	19.0	6.54	
MW-12	2/19/2015	96.91	3.1	8.0	2.3	<1.0	0.034	7.6	96	0.91	<0.20	19.07	422.0	6.75	567	8.0	4.56	
MW-12	6/12/2015	1.1	1.3	<1.0	2.2	<1.0	0.035	9.3	<0.10	1.1	2.20	19.94	522.0	6.75 <sup>1</sup>	271	27.0	3.93	
MW-12	8/10/2015	0.85	1.1	<1.0	<1.0	<1.0	0.035	15	<0.10	0.78	<0.20	20.70	536.0	6.03	7.09	-8.0	3.41	
MW-12	11/11/2015	1.0	1.4	<1.0	<1.0	<1.0	0.033	9.8	<0.10	0.91	<0.20	20.35	526.0	6.67	9.82	-7.0	0.43	
MW-12	2/3/2016	1.2	1.4	<1.0	<1.0	<1.0	<0.020	7.4	0.28	0.92	<0.20	18.59	523.0	6.68	0.93	3.0	3.41	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
MW-13	6/26/2014	3.8	<0.5	1.2	1.2	<0.20	0.14	10	3.8	<0.10	0.04	18.50	242.2	6.62	--	124.4	*	
MW-13	12/4/2014	170.19	2.7	11	17	<1.0	0.19	13	170	0.19	0.27	19.85	308.0	6.80	--	55.0	*	
MW-13	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	1/23/2015	23	0.71	2.3	6.8	<1.0	0.081	12	23	<0.10	<0.20	17.66	291.0	6.75	808	149.0	9.02	
MW-13	2/20/2015	29	1.2	3.1	4.4	<1.0	0.082	12	29	<0.10	<0.20	18.72	366.0	6.84	475	181.0	5.41	
MW-13	6/12/2015	53.14	1.8	7.4	<1.0	5.6	<0.020	12	53	0.14	<0.20	21.73	5.0	--	17.5	86.0	6.04	
MW-13	8/10/2015	29	0.95	3.7	38	1.2	0.086	16	29	<0.10	<0.20	20.25	643.0	6.51	0	171.0	7.91	
MW-13	11/11/2015	2.7	1.2	21	130	6.0	0.086	24	2.7	<0.10	<0.20	16.61	859.0	6.76	890	114.0	9.93	
MW-13	2/3/2016	3.3	0.66	6.1	170	4.8	0.040	26	2.0	1.3	<0.20	18.21	904.0	6.81	0	159.0	5.55	
MW-14	6/26/2014	28	1.2	2.3	7.7	<0.20	<0.10	15	28	<0.10	0.06	17.70	251.6	6.69	--	142.2	*	
MW-14	12/4/2014	26.19	1.1	1.8	49	<1.0	0.046	20	26	0.19	<0.20	19.54	187.0	6.70	--	44.5	*	
MW-14	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-14	1/23/2015	29.14	1	2.2	6.2	<1.0	<0.020	13	29	0.14	<0.20	17.58	385.0	6.86	503	187.0	10.3	
MW-14	2/20/2015	23.19	1.9	1.9	21	<1.0	<0.020	12	23	0.19	<0.20	17.78	617.0	6.82	246	191.0	5.99	
MW-14	6/12/2015	34.1	1.8	2.7	<1.0	<1.0	<0.020	11	28	6.1	<0.20	25.76	0.0	--	9.53	8.0	6.18	
MW-14	8/10/2015	27.3	1.7	2.5	<1.0	<1.0	0.031	11	21	6.3	<0.20	19.15	1.0	7.50	10.7	28.0	8.84	
MW-14	11/11/2015	7.0	1.6	<1.0	<1.0	<1.0	0.035	9.7	3.6	3.4	<0.20	16.33	0.0	7.83	23.3	-32.0	9.70	
MW-14	2/3/2016	28.4	1.3	2.1	8.1	<1.0	<0.020	9.3	26.0	2.4	<0.20	16.59	17.0	7.82	766	92.0	8.79	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
MW-15	6/26/2014	54	0.77	5.2	<0.20	<0.20	<0.10	3.9	54	<0.10	<0.03	19.00	260.1	6.87	--	-76.1	*	
MW-15	12/5/2014	1.3	0.36	<1.0	<1.0	<1.0	0.095	5.5	<0.10	1.3	<0.20	19.95	250.0	7.32	--	-59.0	*	
MW-15	12/31/2014	0.78	0.22	<1.0	<1.0	<1.0	0.082	5.3	<0.10	0.78	<0.20	19.93	208.0	5.38	24.2	-41.0	7.82	
MW-15	1/23/2015	29.8	0.58	3.3	<1.0	<1.0	0.035	16	26	3.8	<0.20	19.89	329.0	7.09	932	-3.0	7.65	
MW-15	2/20/2015	28.6	0.6	3.3	<1.0	<1.0	0.029	23	25	3.6	<0.20	19.81	425.0	6.99	551	8.0	5.02	
MW-15	6/12/2015	55.4	0.8	5	4.3	4.3	<0.020	42	54	1.4	<0.20	20.88	299.0	--	575	119.0	3.12	
MW-15	8/10/2015	46	0.72	5.3	13	1.6	0.036	50	45	0.77	<0.20	21.39	600.0	6.69	0	100.0	5.62	
MW-15	11/11/2015	10	0.40	1.3	25	1.5	0.059	57	9.5	0.48	<0.20	20.47	638.0	6.97	1000	72.0	5.91	
MW-15	2/3/2016	42.26	0.74	4.6	20	<1.0	<0.020	60	42.0	0.26	<0.20	18.42	665.0	7.18	721	142.0	8.84	
MW-16	6/26/2014	<0.5	<0.5	<0.5	<0.20	<0.20	<0.10	3.1	<0.5	<0.10	<0.03	18.30	401.5	6.68	--	-70.7	*	
MW-16	12/5/2014	2.64	0.3	<1.0	<1.0	<1.0	0.037	6.5	2.5	0.14	<0.20	19.01	330.0	7.30	--	9.0	*	
MW-16	12/31/2014	2.15	0.29	<1.0	<1.0	<1.0	0.038	8.1	1.6	0.55	<0.20	16.51	272.0	5.06	309	58.0	8.25	
MW-16	1/23/2015	5.49	0.27	<1.0	<1.0	<1.0	<0.020	9.5	5.3	0.19	<0.20	18.11	300.0	6.77	202	133.0	10.10	
MW-16	2/20/2015	4.86	0.31	<1.0	<1.0	<1.0	<0.020	10	4.7	0.16	<0.20	17.77	337.0	6.82	88.9	102.0	3.66	
MW-16	6/12/2015	3.44	0.29	<1.0	<1.0	<1.0	0.040	10	3.3	0.14	<0.20	19.37	312.0	6.84 <sup>1</sup>	90.6	130.0	2.95	
MW-16	8/10/2015	2.5	0.21	<1.0	1.40	<1.0	0.040	9.7	2.5	<0.10	<0.20	19.72	287.0	5.98	68.8	149.0	5.02	
MW-16	11/11/2015	0.74	0.22	<1.0	2.0	<1.0	0.039	8.0	0.74	<0.10	<0.20	18.10	276.0	6.77	142	91.0	6.11	
MW-16	2/3/2016	4.9	0.33	<1.0	7.3	<1.0	0.028	6.9	4.9	<0.10	<0.20	17.86	312.0	6.79	81.5	159.0	8.67	



**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
EW-14	6/25/2014	6.2	1.0	3.2	<0.20	<0.20	<0.10	4.0	6.2	<0.10	0.54	19.3	1,258.0	6.98	--	-122.8	*	
EW-14	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-14	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-14	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-14	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-14	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-14	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-14	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-14	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	6/25/2014	21	2.9	1.6	<0.20	<0.20	<0.10	<2.0	21	<0.10	<0.15	19.3	870.0	6.81	--	-96.1	*	
EW-15	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-15	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
EW-16	6/26/2014	3.5	1.4	0.77	<.020	<.020	15	19	3.5	<.10	<.15	20.1	916.0	6.80	--	-89.3	*	
EW-16	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-16	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-16	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-16	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-16	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-16	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-16	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-16	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	6/25/2014	31	1.6	0.75	<.020	<.020	<.10	3.4	31	<.10	0.34	19.5	1,494.0	7.09	--	-119.0	*	
EW-17	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-17	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
EW-18	6/25/2014	73	2.9	9.5	<0.20	<0.20	<0.10	<2.0	73	<0.10	0.3	21.2	870.0	6.82	--	-101.4	*	
EW-18	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-18	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	6/25/2014	43	3.3	7.1	<0.20	<0.20	0.17	<2.0	43	<0.10	0.5	20.5	926.0	6.66	--	-91.1	*	
EW-19	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-19	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
EW-20	6/25/2014	110	2.6	9.1	0.22	<0.20	0.14	7	110	<0.10	0.36	21.0	750.0	6.85	--	-107.2	*	
EW-20	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-20	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	6/26/2014	1.6	<0.5	6.1	6.1	<0.20	<0.10	15	1.60	<0.10	<0.03	20.0	422.2	6.90	--	10.0	*	
EW-21	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-21	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

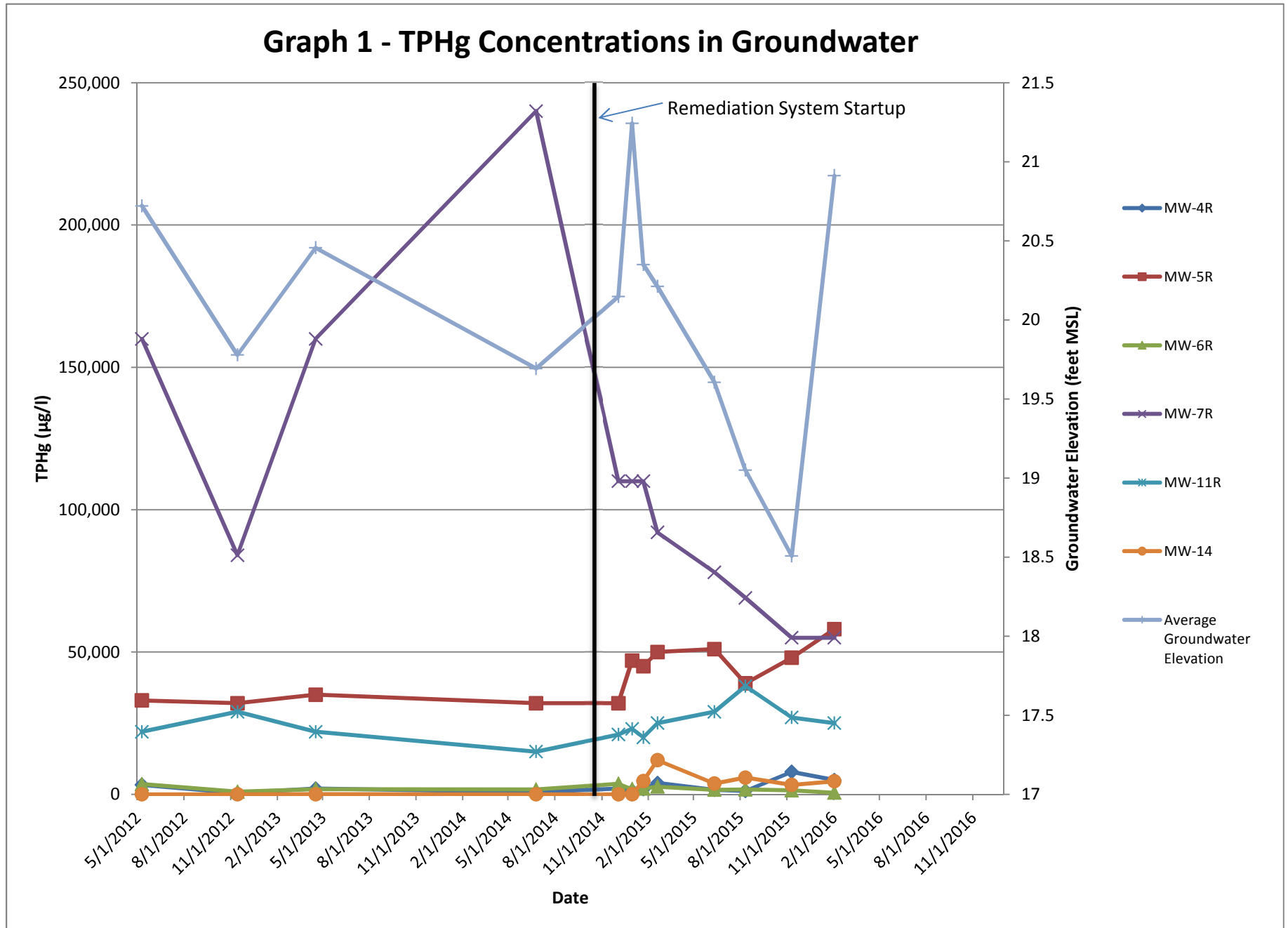
**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							
EW-22	6/26/2014	23	<0.5	3.6	0.47	<0.20	<0.10	8.6	23	<0.10	0.03	18.8	173.7	6.63	--	141.3	*	
EW-22	12/4/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-22	12/31/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-22	1/22/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-22	2/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-22	6/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-22	8/11/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-22	11/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-22	2/3/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

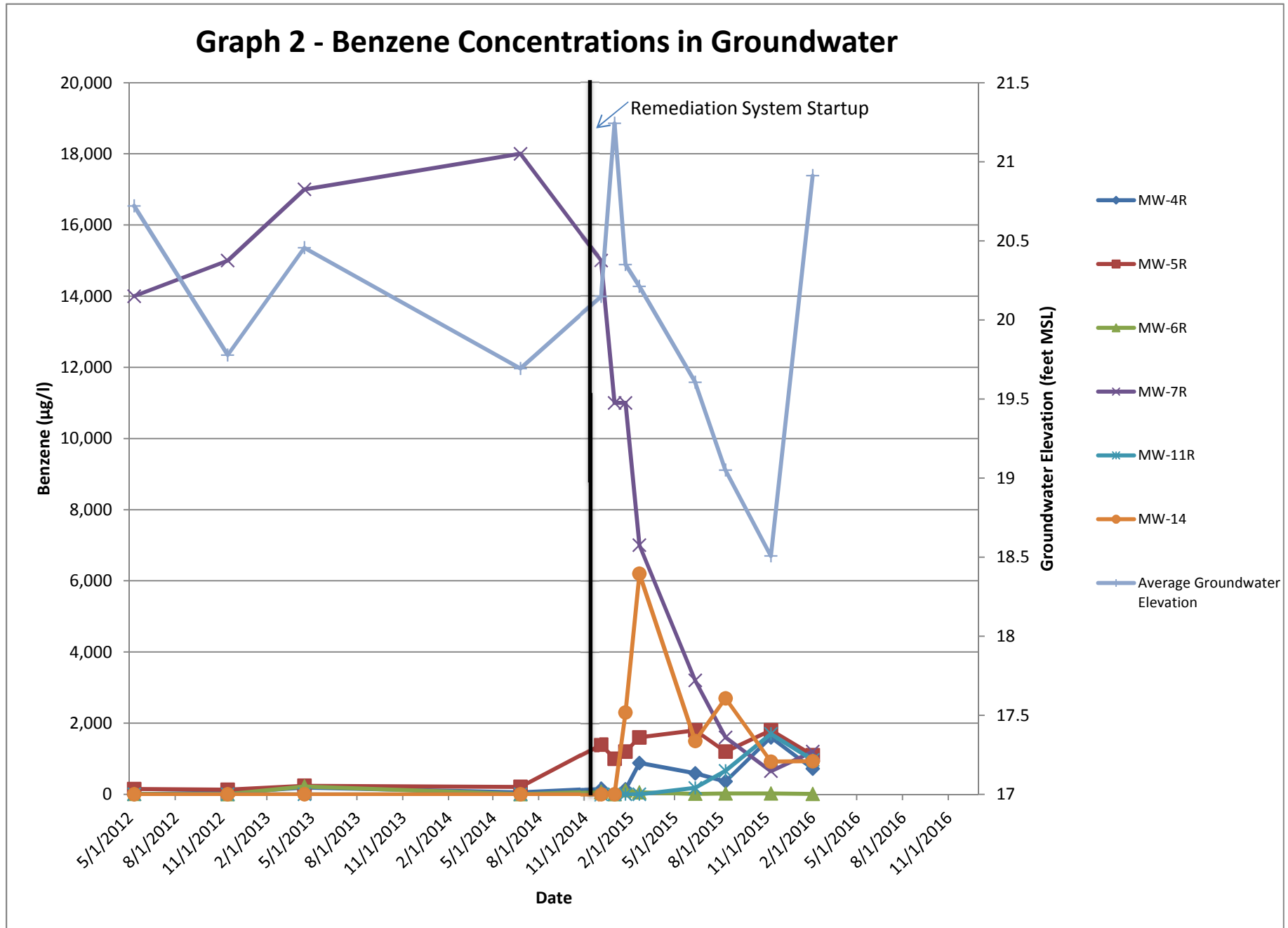
**TABLE 5 – BIOATTENUATION MONITORING**

Monitoring Well/Sample ID	Sample Date	EPA 200.7			EPA Method 300.0				Ferric Iron by Calculation	SM 3500-Fe D	SM 4500-NH3 D	Field Instrument						
		(mg/l)											Temperature (°C)	Conductivity (µs/cm)	pH	Turbidity (NTU)	ORP (mV)	Dissolved Oxygen* mg/L
		Iron	Manganese	Potassium	Nitrate	Nitrite	Phosphate	Sulfate	Ferric Iron	Ferrous Iron	Nitrogen, Ammonia							

**Notes:**  
 ID – identification  
 EPA – United States Environmental Protection Agency  
 mg/l – milligrams per liter  
 SM – Standard Method  
 °C - degrees centigrade  
 µs/cm – microsiemens  
 NTU - nephelometric turbidity units  
 ORP – oxidation-reduction potential  
 mV – millivolts  
 % - percent  
 <X - not detected at or above the laboratory reporting limit of X  
 1 - pH readings taken on 6/22/15 and not on sample date.  
 -- – Not analyzed or not applicable  
 \*- Dissolved oxygen content was measured mistakenly measured in percent (%) during the 6/25/14 and 6/26/14 sampling event as well as the 12/4/14 and 12/5/14 sampling event. These results are hidden to avoid confusion. Samples taken on and after 12/30/2014 are measured in mg/L



Graph 1







REFERENCE: METRO AREAS OF ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO, AND SANTA CLARA COUNTIES, THOMAS GUIDE, 2008.



SCALE IN FEET



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

**Ninyo & Moore**

**SITE LOCATION**

FIGURE

PROJECT NO.  
401896004

DATE  
4/16

2301 SANTA CLARA AVENUE  
ALAMEDA, CALIFORNIA

**1**

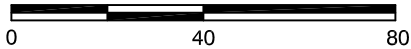
401896004-FIG1.dwg, Apr 22, 2016, 2:43pm, singuyen



REFERENCE: GOOGLE EARTH, 2012.



SCALE IN FEET



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

**LEGEND**

APPROXIMATE SITE BOUNDARY

**Ninyo & Moore**

**SITE VICINITY**

FIGURE

PROJECT NO.

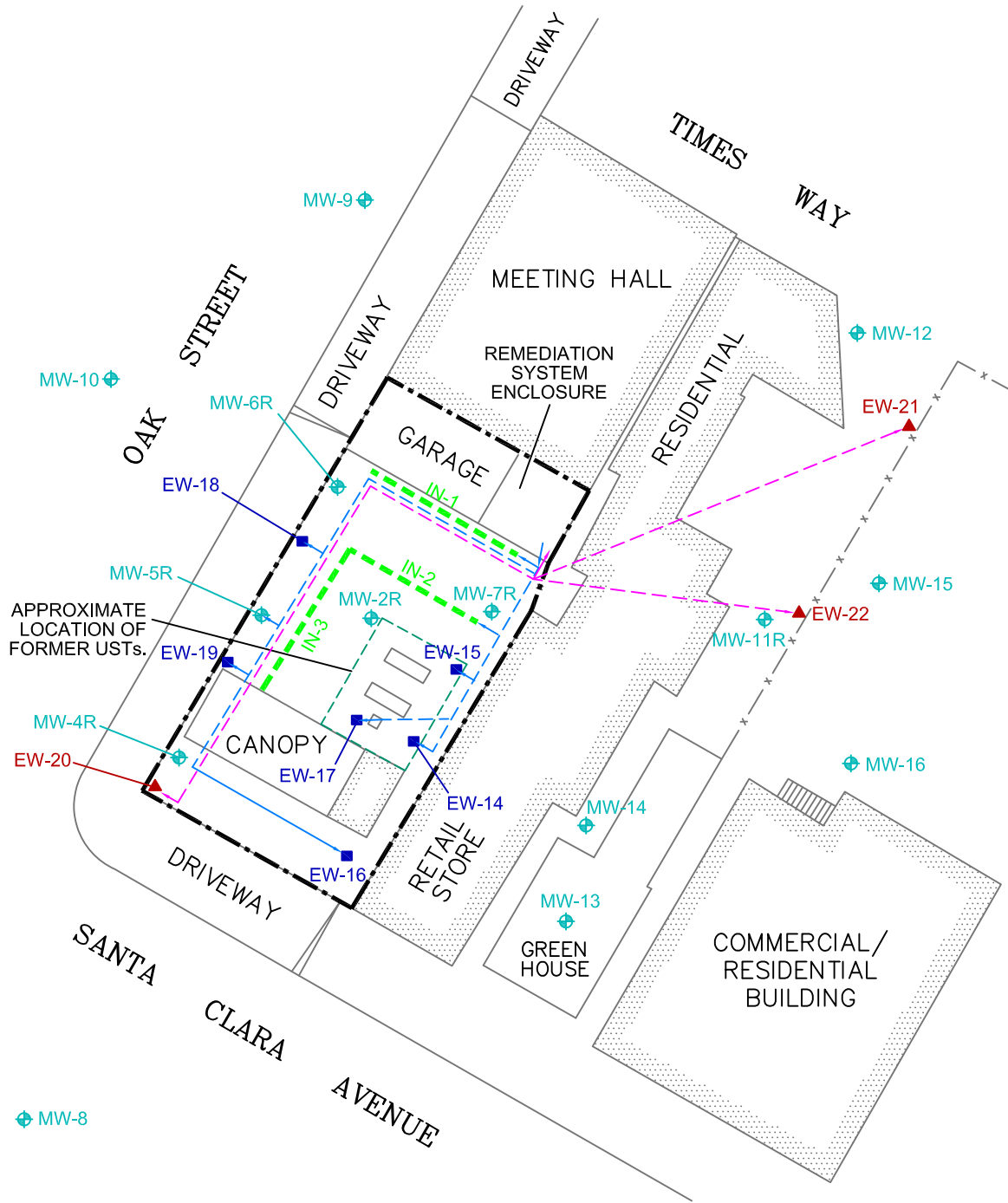
DATE

2301 SANTA CLARA AVENUE  
ALAMEDA, CALIFORNIA

**2**

401896004

4/16



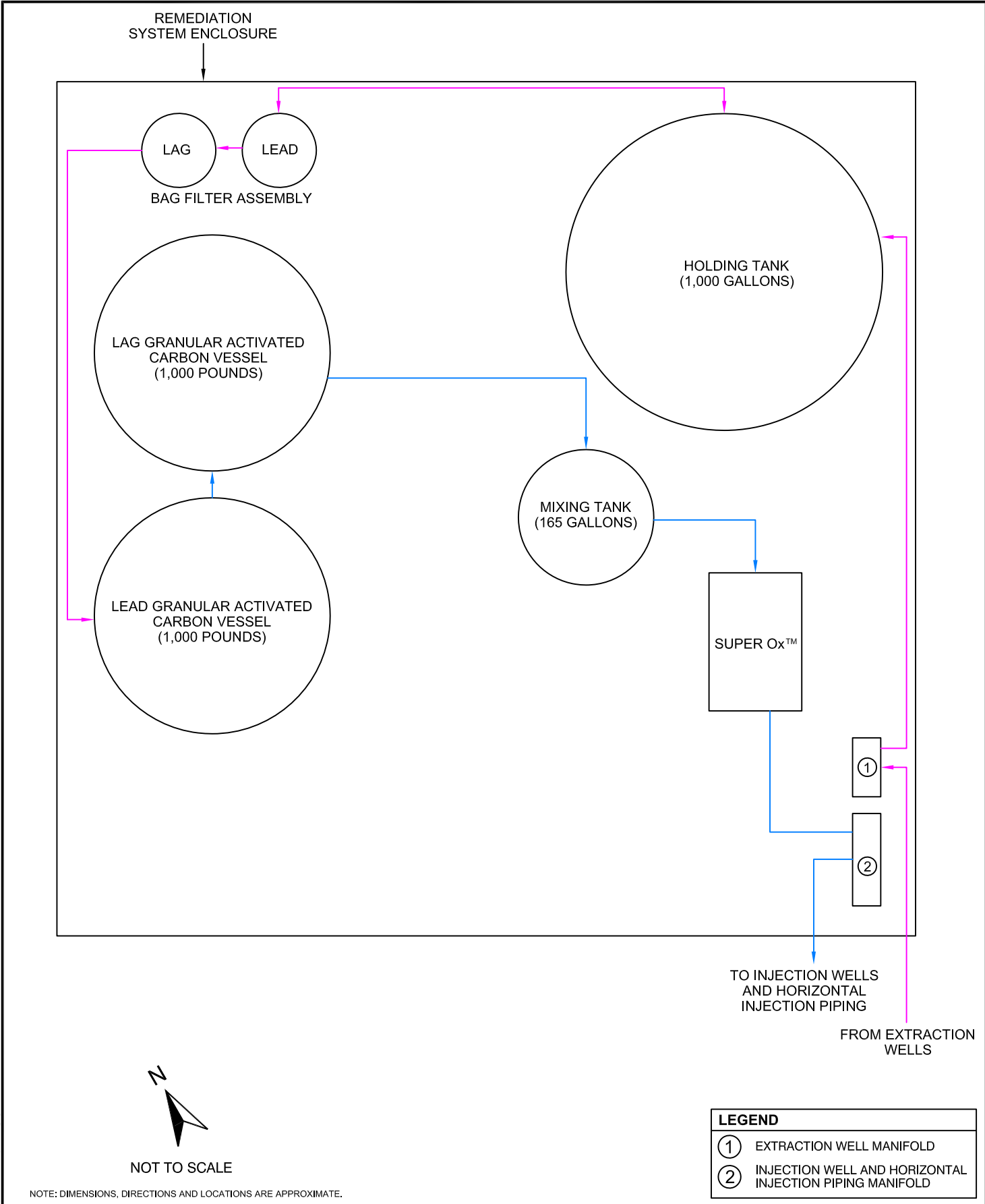
NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND	
	APPROXIMATE SITE BOUNDARY
	FENCE
	EXTRACTION WATER SUPPLY LINE AND POWER CONDUIT
	INJECTION WATER SUPPLY LINE
	SLOTTED HORIZONTAL INJECTION PIPING
	GROUNDWATER MONITORING WELL
	GROUNDWATER EXTRACTION WELL
	GROUNDWATER INJECTION WELL

REFERENCE: VIRGIL CHAVEZ LAND SURVEYING, 2012.

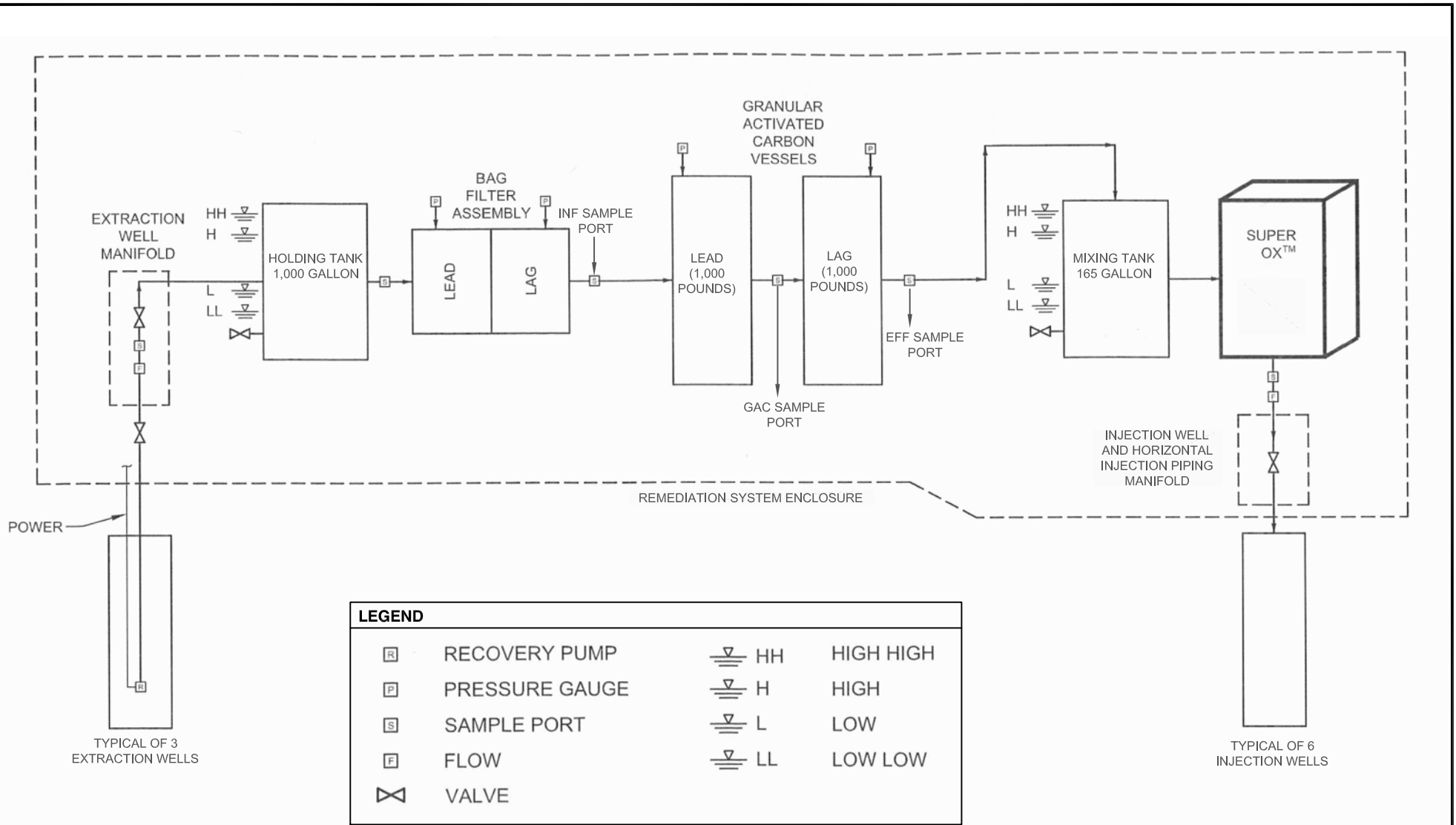
		<b>SITE PLAN</b> 2301 SANTA CLARA AVENUE ALAMEDA, CALIFORNIA		FIGURE <b>3</b>
401896004	4/16			

401896004-FIG3.dwg, Apr 22, 2016, 2:44pm, singuyen



401896004-FIG4.dwg, Apr 22, 2016, 2:44pm, singuyen

		<b>REMEDIAL SYSTEM PLAN</b>		FIGURE <b>4</b>



LEGEND			
Ⓡ	RECOVERY PUMP	≡	HH HIGH HIGH
Ⓟ	PRESSURE GAUGE	≡	H HIGH
Ⓢ	SAMPLE PORT	≡	L LOW
Ⓣ	FLOW	≡	LL LOW LOW
⋈	VALVE		

REFERENCE: KENNEDY/JENKS CONSULTANTS, FIGURE 12, JANUARY 2010.

**Ninyo & Moore**

**REMEDIATION SYSTEM SCHEMATIC**

FIGURE

NOT TO SCALE

PROJECT NO.

DATE

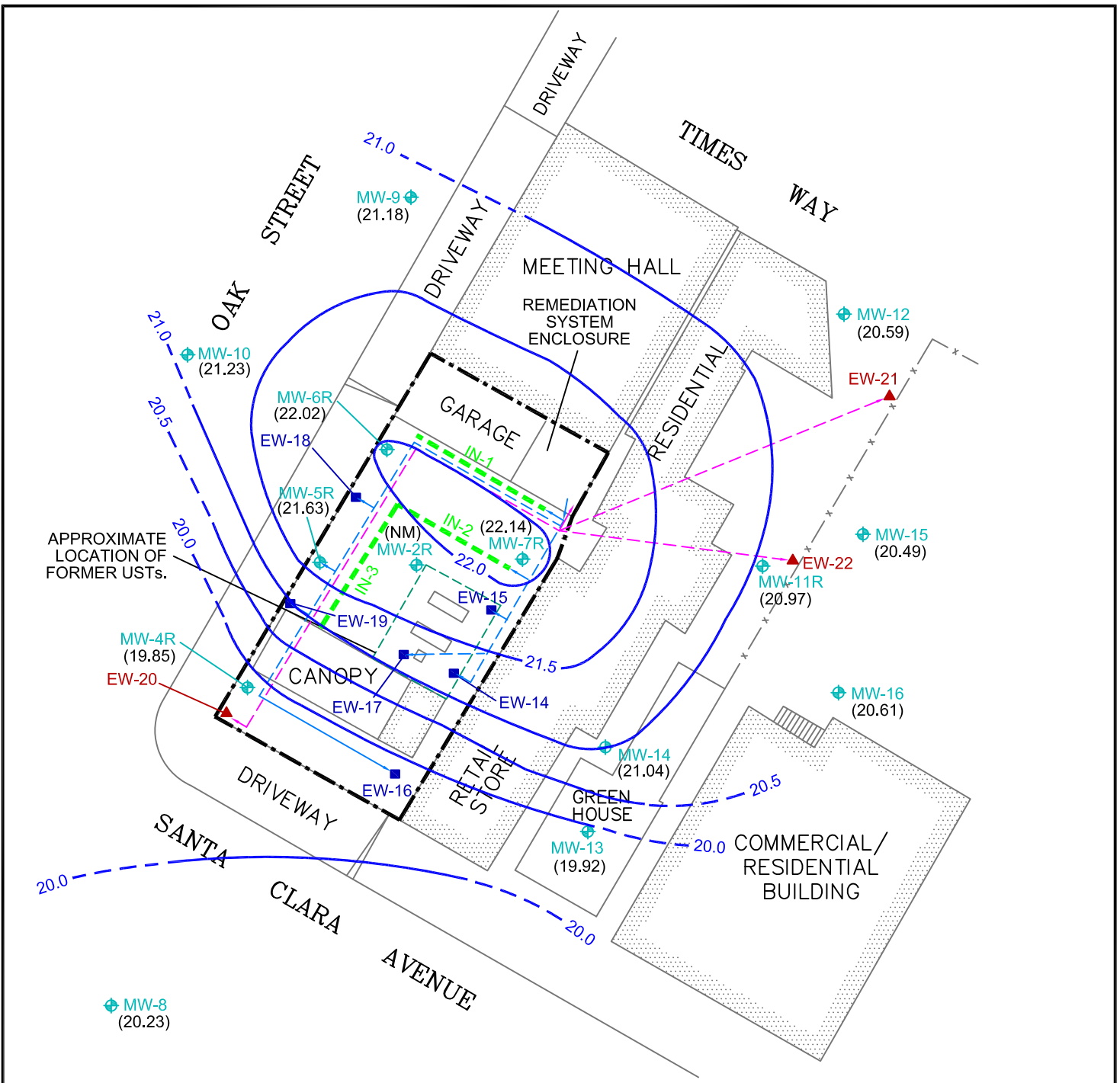
2301 SANTA CLARA AVENUE  
ALAMEDA, CALIFORNIA

401896004

4/16

**5**

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

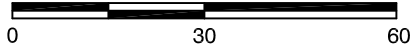


APPROXIMATE LOCATION OF FORMER USTs.

MW-8 (20.23)



SCALE IN FEET



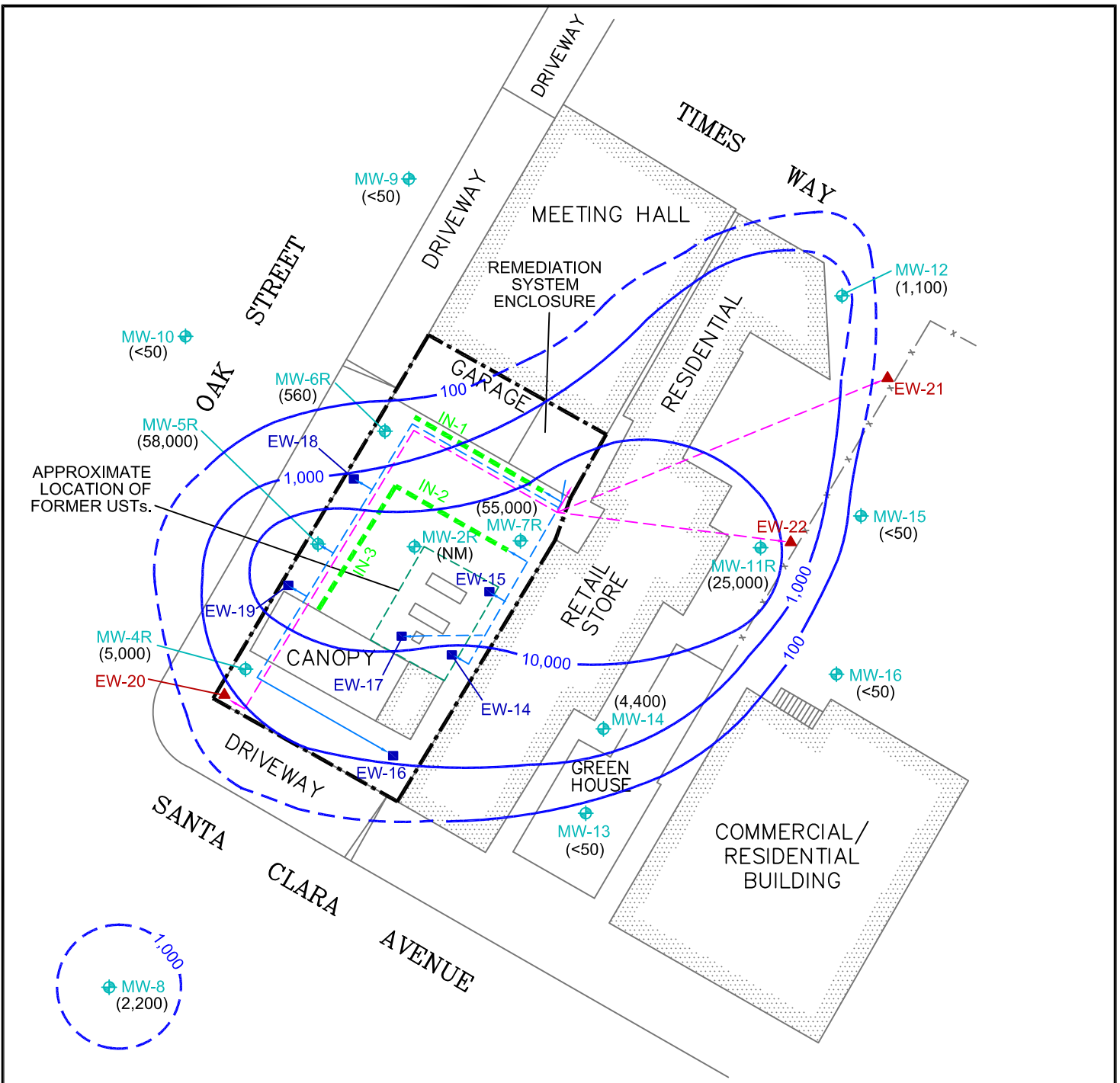
NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND	
	APPROXIMATE SITE BOUNDARY
	FENCE
	EXTRACTION WATER SUPPLY LINE AND POWER CONDUIT
	INJECTION WATER SUPPLY LINE
	SLOTTED HORIZONTAL INJECTION PIPING CONTOUR
	CONTOUR
	GROUNDWATER MONITORING WELL
	GROUNDWATER EXTRACTION WELL
	GROUNDWATER INJECTION WELL

REFERENCE: VIRGIL CHAVEZ LAND SURVEYING, 2012.

		<b>GROUNDWATER ELEVATION CONTOUR</b> <b>2/2/16 - 2/3/16</b>		FIGURE <b>6</b>
		PROJECT NO.	DATE	
401896004		4/16		

401896004-FIG6.dwg, Apr 22, 2016, 2:44 pm, singuyen



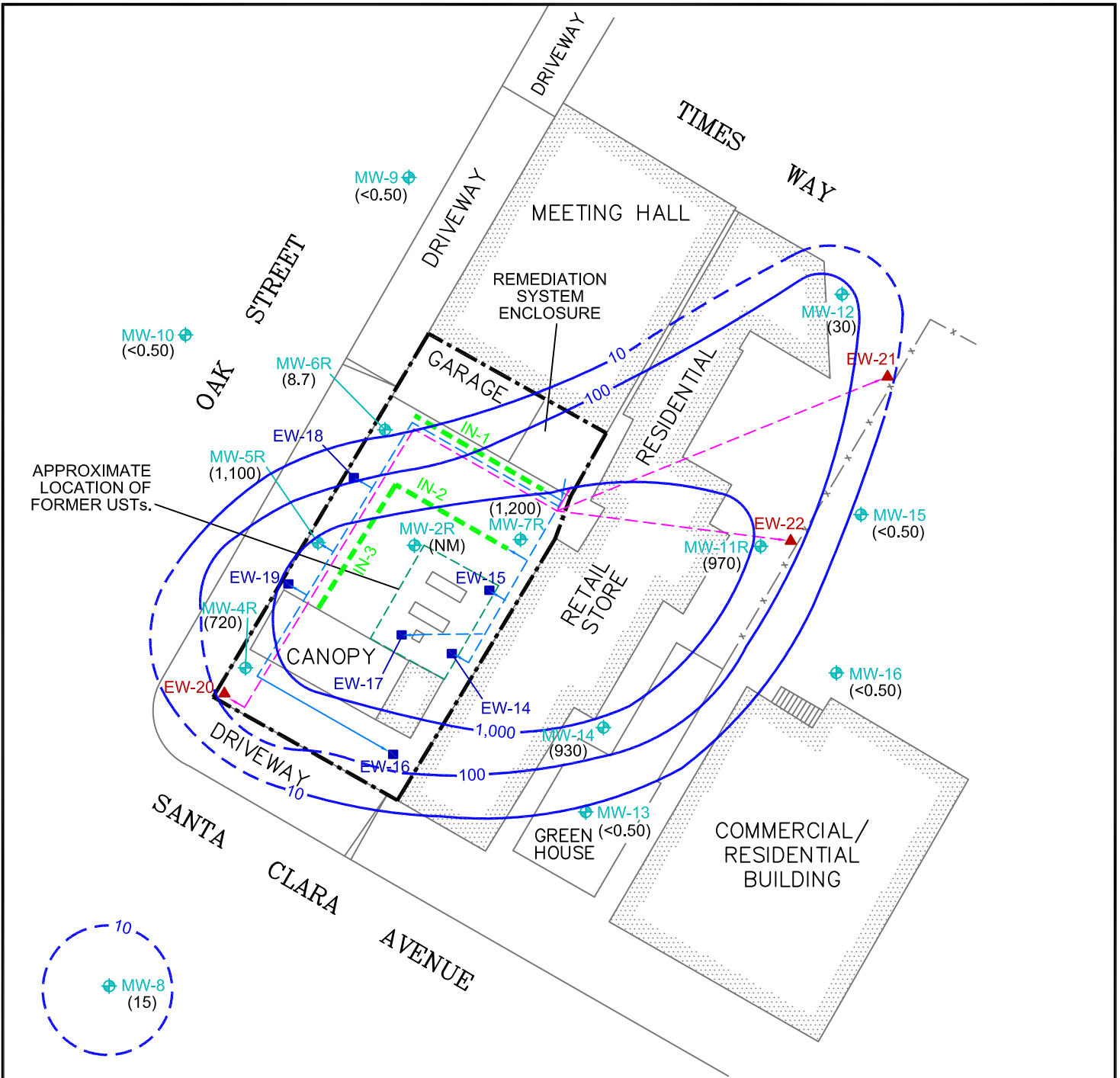
LEGEND	
	APPROXIMATE SITE BOUNDARY
	FENCE
	EXTRACTION WATER SUPPLY LINE AND POWER CONDUIT
	INJECTION WATER SUPPLY LINE
	SLOTTED HORIZONTAL INJECTION PIPING CONTOUR
	CONTOUR
	GROUNDWATER MONITORING WELL
	GROUNDWATER EXTRACTION WELL
	GROUNDWATER INJECTION WELL

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: VIRGIL CHAVEZ LAND SURVEYING, 2012.

		<b>TOTAL PETROLEUM HYDROCARBONS AS GASOLINE CONCENTRATIONS IN GROUNDWATER 2/2/16 - 2/3/16</b>		FIGURE  <b>7</b>
		2301 SANTA CLARA AVENUE ALAMEDA, CALIFORNIA		

401896004-FIG7.dwg, Apr 22, 2016, 2:44 pm, singuyen



LEGEND	
	APPROXIMATE SITE BOUNDARY
	FENCE
	EXTRACTION WATER SUPPLY LINE AND POWER CONDUIT
	INJECTION WATER SUPPLY LINE
	SLOTTED HORIZONTAL INJECTION PIPING CONTOUR
	CONTOUR
	GROUNDWATER MONITORING WELL
	GROUNDWATER EXTRACTION WELL
	GROUNDWATER INJECTION WELL

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: VIRGIL CHAVEZ LAND SURVEYING, 2012.

		<b>BENZENE CONCENTRATIONS IN GROUNDWATER</b> <b>2/2/16 - 2/3/16</b>		FIGURE <b>8</b>
		2301 SANTA CLARA AVENUE ALAMEDA, CALIFORNIA		
PROJECT NO.	DATE			
401896004	4/16			

401896004-FIG8.dwg, Apr 22, 2016, 2:42pm, singuyen



## **APPENDIX A**

### **HISTORICAL CONSTITUENTS OF CONCERN CONCENTRATIONS**

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-1  
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	E <sub>2</sub> BE	M <sub>2</sub> BE	Naphthalene	1,3,5- Trimethylbenzene	1,2,4- Trimethylbenzene
9/17/2000	65,000	15,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/4/2002	43,000	7,200													
9/20/2003	19,000	4,900													
12/25/2003	12,000	3,400													
4/24/2004	33,000	8,000													
8/8/2004	29,000	9,700													
8/20/2005	35,000	14,000	6,500	1,600	5,000	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/13/2006	72,000	17,000	16,000	3,000	10,400	ND	ND	ND	ND	ND	ND	ND			
6/11/2006	65,000	21,000	16,000	2,900	9,900	ND	ND	ND	ND	ND	ND	ND			
9/5/2006	62,000	17,000	12,000	2,300	8,600	ND	ND	ND	ND	ND	ND	ND			
1/4/2007	46,000	6,500	4,200	980	4,890	ND	ND	ND	ND	ND	ND	ND			
7/8/2007	57,000	11,000	11,000	2,200	9,600	ND	ND	ND	ND	ND	ND	ND			
9/23/2007	22,000	4,700	4,100	950	4,100	ND	ND	ND	ND	ND	ND	2.7	390	140	640
9/6/2008	8,300	2,300	740	160	700	ND	ND	ND	ND	ND	ND	ND	200	34	130
9/26/2009	4,100	1,600	310	150	610	ND	ND	ND	ND	ND	ND	ND	75	32	120
2/27/2010	1,600	1,200	110	9.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/21/2010	3,100	1,300	54	ND	640	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	12,000	5,200	1,700	270	1,790	ND	ND	ND	ND	ND	ND	ND	230	68	230

**Notes:**

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was abandoned in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-2**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	140,000	21,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/4/2002	41,000	5,600													
9/21/2003	27,000	2,400													
12/25/2003	46,000	6,100													
4/24/2004	44,000	8,400													
8/8/2004	21,000	6,800													
8/20/2005	31,000	10,000	5,100	1,400	7,100	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/13/2006	50,000	15,000	5,200	970	4,400	ND	ND	ND	ND	ND	ND	ND			
6/11/2006	37,000	12,000	8,500	1,700	6,200	ND	ND	ND	ND	ND	ND	ND			
9/5/2006	24,000	8,100	1,400	840	3,090	ND	ND	ND	ND	ND	ND	ND			
1/4/2007	17,000	4,300	2,400	590	2,100	ND	ND	ND	ND	ND	ND	ND			
7/8/2007	ND	5,400	170	320	750	ND	ND	ND	ND	ND	ND	ND			
9/23/2007	2,500	6,700	540	300	940	ND	ND	ND	3.3	ND	ND	6.6	310	97	260
9/6/2008	6,300	3,000	440	10	290	ND	ND	ND	ND	ND	ND	ND	120	22	12
9/26/2009	5,500	1,800	610	140	680	ND	ND	ND	ND	ND	ND	ND	90	52	180
2/27/2010	3,600	2,500	430	42	6.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/21/2010	4,700	1,500	550	ND	860	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	11,000	6,300	790	ND	1,230	ND	ND	ND	ND	ND	ND	ND	210	69	170

**Notes:**

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was replaced with well MW-2R in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-3**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	9,300	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/4/2002	10,000	2,300													
9/21/2003	2,700	320													
12/25/2003	3,300	290													
4/24/2004	3,100	1,000													
8/8/2004	2,500	400													
8/20/2005	5,500	3,000	27	140	740	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/13/2006	6,400	2,100	19	150	530	ND	ND	ND	ND	ND	ND	ND			
6/11/2006	7,000	2,000	52	380	940	ND	ND	ND	31	ND	ND	ND			
9/5/2006	6,000	1,500	31	180	720	ND	ND	ND	27	ND	ND	ND			
1/4/2007	5,500	1,400	ND	77	297	ND	ND	ND	ND	ND	ND	ND			
7/8/2007	5,600	1,500	87	180	740	ND	ND	ND	38	ND	ND	ND			
9/22/2007	5,600	1,300	35	57	189	ND	ND	ND	28	ND	ND	ND	120	8.6	30
9/6/2008	2,600	500	13	19	125	ND	ND	ND	20	ND	ND	ND	33	4.1	11
9/26/2009	2,200	240	12	14	104	ND	ND	ND	4.6	ND	ND	ND	69	3.0	11
2/27/2010	7,270	120	5.4	7.9	44	ND	ND	ND	4.6	ND	ND	ND	38	1.3	2.1
8/21/2010	100	ND	ND	ND	4.6	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	1,100	120	2.4	2.4	88	ND	ND	ND	ND	ND	ND	ND	54	7.2	7.2

**Notes:**

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was abandoned in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-4**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/4/2002	ND	ND													
9/20/2003	ND	ND													
12/25/2003	ND	ND													
4/24/2004	3,000	1.0													
8/8/2004	ND	ND													
8/20/2005	1,100	1.5	ND	ND	63	ND	ND	ND	ND	ND	ND	ND			
3/13/2006	320	ND	ND	1.4	17	ND	ND	ND	ND	ND	ND	ND			
6/12/2006	1,500	0.9	3.8	78	236	ND	ND	ND	ND	ND	ND	ND			
9/5/2006	760	ND	ND	1.6	60	ND	ND	ND	ND	ND	ND	ND			
1/4/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
7/8/2007	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	13	ND	ND
9/23/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/5/2008	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/26/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.7	ND	2.6
2/27/2010	130	ND	0.6	3.6	27	ND	ND	ND	ND	ND	ND	ND	ND	1.8	3.2
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was replaced with well MW-4R in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-5**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	44,000	490	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/4/2002	16,000	89													
9/21/2003	8,700	ND													
12/25/2003	2,300	140													
4/24/2004	13,000	97													
8/8/2004	13,000	82													
8/20/2005	19,000	130	750	1,000	4,400	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/14/2006	21,000	61	350	700	3,330	ND	ND	ND	ND	ND	ND	ND			
6/12/2006	14,000	91	620	1,000	4,340	ND	ND	ND	ND	ND	ND	ND			
9/5/2006	15,000	56	550	890	3,910	ND	ND	ND	ND	ND	ND	ND			
1/4/2007	20,000	110	680	1,200	4,250	ND	ND	ND	ND	ND	ND	ND			
7/8/2007	23,000	72	1,200	ND	5,300	ND	ND	ND	ND	ND	ND	ND			
9/24/2007	6,100	490	770	950	4,140	ND	ND	ND	ND	ND	ND	ND	360	250	1,300
9/5/2008	740	ND	1.1	0.8	22	ND	ND	ND	ND	ND	ND	ND	27	22	1.2
9/27/2009	4,000	7.9	47	120	670	ND	ND	ND	ND	ND	ND	ND	86	86	370
2/27/2010	2,100	5.8	34	86	400	ND	ND	ND	ND	ND	ND	ND	92	26	130
8/20/2010	840	0.7	0.5	ND	162	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	2,500	6.8	32	13	431	ND	ND	ND	ND	ND	ND	ND	93	45	69

**Notes:**

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was replaced with well MW-5R in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-6**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	10,000	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/4/2002	3,900	29													
9/20/2003	500	15													
12/25/2003	1,200	18													
4/24/2004	110	3.6													
8/8/2004	320	2.7													
8/20/2005	810	ND	ND	ND	180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6/12/2006	9,140	3.3	13	46	173	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/5/2006	1,100	4.4	10	50	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1/4/2007	390	2.0	14	23	85	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7/8/2007	720	2.8	3.2	33	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/23/2007	1,200	2.8	7.3	56	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/5/2008	730	2.0	4.0	16	116	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/26/2009	170	0.7	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/27/2010	230	1.3	1.0	5.8	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/21/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/21/2011	360	1.2	1.6	ND	9.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was replaced with well MW-6R in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-7**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	220,000	32,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/4/2002	140,000	15,000													
9/21/2003	110,000	4,200													
12/25/2003	110,000	12,000													
4/24/2004	100,000	10,000													
8/8/2004	92,000	9,300													

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was replaced with well MW-7R in May 2012.



**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-8**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	ND	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/3/2002	ND	1.1													
9/20/2003	ND	ND													
12/25/2003	ND	ND													
4/24/2004	ND	ND													
8/8/2004	NA	NA													
8/22/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6/12/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/6/2006	ND	1.4	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1/6/2007	390	4.4	4.7	0.9	5.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/21/2007	ND	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/5/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/26/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-9**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/3/2002	ND	ND													
9/20/2003	ND	ND													
12/25/2003	ND	ND													
4/24/2004	ND	ND													
8/22/2005	ND	ND													
3/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6/13/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/7/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1/6/2007	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/21/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/5/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/26/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-10**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/17/2000	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/3/2002	ND	ND													
9/20/2003	ND	ND													
12/25/2003	ND	ND													
4/24/2004	ND	ND													
8/22/2004	ND	ND													
8/22/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
3/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
6/13/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
9/7/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1/6/2007	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
9/21/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
9/5/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2/26/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

**Notes:**

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-11**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
10/24/2002	59,000	5,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/22/2003	46,000	1,700													
12/25/2003	14,000	1,400													
4/24/2004	38,000	5,000													
8/8/2004	29,000	3,100													
8/20/2005	31,000	5,100	1,500	3,400	17,800	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/14/2006	47,000	5,600	2,400	1,900	10,100	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
6/12/2006	44,000	5,900	2,200	3,600	15,700	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
9/6/2006	36,000	5,900	2,100	3,000	16,000	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
1/5/2007	50,000	2,200	450.0	2,100	13,300	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
7/7/2007	54,000	2,800	1,200.0	3,100	16,400	ND	ND	ND	ND	ND	ND	ND	610	750	2900
9/22/2007	21,000	2,000	1,000	3,100	9,700	ND	ND	ND	ND	ND	ND	ND	490	310	2,700
9/5/2008	11,000	770	160	940	3,100	ND	ND	ND	ND	ND	ND	ND	440	160	1,300
9/26/2009	14,000	280	2,900	560	4,800	ND	ND	ND	ND	ND	ND	ND	150	170	690
2/27/2010	13,000	53	860	700	4,900	ND	ND	ND	ND	ND	ND	ND	180	150	670
8/20/2010	57,000	ND	97	190	2,120	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/22/2011	19,000	ND	29	30	6,500	ND	ND	ND	ND	ND	ND	ND	410	380	1,500

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was replaced with well MW-11R in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-12 (formerly BL)**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
8/22/2005	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/14/2006	400	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	11			
6/12/2006	ND	6.8	ND	ND	ND	ND	ND	ND	2.2	ND	ND	2.9			
9/7/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
1/5/2007	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	0.92	ND	ND	ND	ND	ND	ND
9/22/2007	ND	8.6	ND	ND	ND	ND	ND	ND	2.8	ND	ND	3.5	ND	ND	ND
9/4/2008	ND	ND	ND	ND	ND	ND	21	ND	3.6	ND	ND	5.0	ND	ND	ND
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/27/2010	ND	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-13 (formerly BG)  
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
8/22/2005	100	5.9	ND	ND	ND	ND	ND	ND	13	ND	ND	39	NA	NA	NA
3/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.7			
6/12/2006	110	7.6	ND	ND	ND	ND	31	ND	16	ND	ND	48			
9/7/2006	ND	3.3	ND	ND	ND	ND	ND	ND	20	ND	ND	40			
1/5/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40			
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	30	ND	ND	ND
9/22/2007	ND	ND	ND	ND	ND	ND	ND	ND	21	ND	ND	37	ND	ND	ND
9/5/2008	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	31	ND	ND	ND
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND	ND	6.2	ND	ND	ND
2/28/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	NA	NA	NA
4/22/2011	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	6.8	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-14 (formerly BF)**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
8/20/2005	3,800	89	4.7	150	3.4	ND	80	ND	19	ND	ND	42	NA	NA	NA
3/14/2006	ND	5,300	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
6/12/2006	14,000	11,000	ND	600	ND	ND	ND	ND	ND	ND	ND	ND			
9/6/2006	ND	6,500	ND	170	ND	ND	ND	ND	ND	ND	ND	ND			
1/5/2007	13,000	5,200	5.7	190	71	ND	ND	ND	ND	ND	ND	ND	97	48	73
7/7/2007	6,900	3,700	54	550	582	ND	ND	ND	ND	ND	ND	ND	49	22	14
9/22/2007	3,200	2,600	19	310	160	ND	ND	ND	ND	ND	ND	3.9	11	ND	3.2
9/5/2008	690	280	ND	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/25/2009	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/28/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/22/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-15 (formerly BH)**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
8/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	31	NA	NA	NA
3/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	38			
6/12/2006	ND	0.93	ND	ND	ND	ND	130	ND	6.0	ND	ND	55			
9/6/2006	ND	ND	ND	ND	ND	ND	31	ND	3.8	ND	ND	38			
1/5/2007	140	12	44	3.6	19.9	ND	ND	ND	ND	ND	ND	ND			
7/7/2007	ND	ND	ND	ND	ND	ND	90	ND	4.8	ND	ND	60	ND	ND	ND
9/22/2007	ND	ND	ND	ND	ND	ND	29	ND	2.5	ND	ND	27	ND	ND	ND
9/4/2008	ND	1.1	ND	ND	ND	ND	ND	ND	3.0	ND	ND	20	ND	ND	ND
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/26/2010	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND	3.6	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.



**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - MW-16 (formerly BM)**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
8/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.0	NA	NA	NA
3/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10			
6/12/2006	ND	ND	ND	ND	ND	ND	29	ND	5.0	ND	ND	14			
9/6/2006	ND	ND	ND	ND	ND	ND	12	ND	5.8	ND	ND	4.7			
1/6/2007	ND	ND	ND	ND	ND	ND	ND	ND	4.1	ND	ND	11			
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	3.4	ND	ND	4.5	ND	ND	ND
9/22/2007	ND	ND	ND	ND	ND	ND	ND	ND	4.2	ND	ND	6.8	ND	ND	ND
9/4/2008	ND	ND	ND	ND	ND	ND	ND	ND	3.5	ND	ND	9.1	ND	ND	ND
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/27/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - EW-12**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
10/31/2002	5,840	76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/21/2003	19,000	590													
12/25/2003	9,900	790													
4/24/2004	12,000	920													

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was abandoned in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - EW-13**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
10/31/2002	109,200	9,120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/21/2003	71,000	10,000													
12/25/2003	110,000	17,000													
4/24/2004	100,000	19,000													
8/8/2004	NA	NA													
8/22/2005	130,000	27,000	5,500	4,200	21,700	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/13/2006	140,000	16,000	46,000	3,300	19,300	ND	ND	ND	ND	ND	ND	1,400	NA	NA	NA
6/11/2006	130,000	23,000	48,000	3,000	18,800	ND	ND	ND	ND	ND	ND	ND			
9/5/2006	120,000	12,000	40,000	3,200	17,800	ND	ND	ND	ND	ND	ND	ND			
1/5/2007	410,000	57,000	43,000	17,000	75,000	ND	ND	ND	ND	ND	ND	ND			
7/9/2007	140,000	10,000	45,000	4,400	22,800	ND	ND	ND	ND	ND	ND	ND			
9/24/2007	27,000	5,400	35,000	3,600	18,600	ND	ND	ND	ND	ND	ND	ND	410	280	1,700
9/6/2008	73,000	7,900	21,000	730	11,300	ND	ND	ND	ND	ND	ND	ND	ND	210	860
9/27/2009	12,000	1,200	3,900	440	2,630	ND	ND	ND	ND	ND	ND	ND	74	71	300
2/27/2010	11,000	3,500	4,300	380	730	ND	ND	ND	ND	ND	ND	ND	57	ND	ND
8/22/2010	14,000	2,600	2,400	30	2,180	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	44,000	7,900	13,000	350	9,500	ND	ND	ND	ND	ND	ND	ND	240	210	890

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This well was abandoned in May 2012.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - EW-14**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
9/22/2003	68,000	4,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/25/2003	26,000	5,300													
4/24/2004	9,400	4,100													
8/8/2004	14,000	6,300													
8/22/2005	26,000	7,100													
3/13/2006	1,300	360	110	35	119	13	ND	ND	ND	ND	ND	ND	NA	NA	NA
6/11/2006	2,300	1,100	260	45	198	ND	ND	ND	3.3	ND	ND	ND			
9/6/2006	20,000	4,700	4,200	980	3,800	ND	ND	ND	ND	ND	ND	ND			
1/4/2007	30,000	7,000	4,500	1,100	5,000	ND	ND	ND	ND	ND	ND	ND			
7/9/2007	54,000	14,000	8,800	2,400	10,000	ND	ND	ND	ND	ND	ND	ND			
9/23/2007	19,000	9,900	7,700	2,100	9,300	ND	ND	ND	ND	ND	ND	12	290	220	1,100
9/6/2008	12,000	4,000	900	66	1,980	ND	ND	ND	ND	ND	ND	ND	110	53	220
9/27/2009	1,700	520	49	41	373	ND	ND	ND	ND	ND	ND	ND	19	15	64
2/27/2010	ND	ND	ND	2.2	373	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.9
8/21/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - EW-15**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
1/21/2004	72,000	8,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/8/2004	36,000	3,300													
8/22/2005	670,000	11,000													
3/13/2006	12,000	1,900													
6/11/2006	25,000	2,900	11,000	2,300	11,200	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
9/6/2006	51,000	8,200													
1/5/2007	30,000	9,700													
7/9/2007	46,000	5,200	3,800	2,500	11,500	ND	ND	ND	ND	ND	ND	ND	500	630	2,300
9/23/2007	59,000	14,000	5,800	3,600	16,000	ND	ND	ND	4.1	ND	ND	2.5	660	440	2,400
9/6/2008	19,000	7,100	1,000	57	2,730	ND	ND	ND	3.1	ND	ND	4.4	180	130	280
9/26/2009	8,800	1,400	530	280	2,650	ND	ND	ND	ND	ND	ND	ND	96	140	480
2/27/2010	720	250	57	50	113	ND	ND	ND	ND	ND	ND	ND	6.3	1.6	1.5
8/22/2010	1,600	200	4.1	ND	357	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	3,600	680	870	27	780	ND	ND	ND	ND	ND	ND	ND	25	21	31

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - EW-16**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MEBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
1/21/2004	1,500	290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/8/2004	2,500	590													
8/20/2005	1,600	410	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
3/13/2006	900	400	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND			
6/11/2006	1,400	680	4.1	13	23	ND	ND	ND	ND	ND	ND	ND			
9/5/2006	2,100	210	ND	2.6	ND	ND	ND	ND	14	ND	ND	ND			
1/4/2007	370	2.9	ND	ND	ND	ND	ND	ND	6.6	ND	ND	ND			
7/9/2007	2,300	53	ND	ND	ND	ND	ND	ND	2.0	ND	ND	ND	59	ND	ND
9/22/2007	680	4.2	ND	1.1	1.5	ND	ND	ND	ND	ND	ND	ND	29	ND	ND
9/5/2008	310	ND	ND	ND	ND	ND	ND	ND	2.4	ND	ND	ND	7.3	ND	ND
9/26/2009	390	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.4	ND	ND
2/27/2010	220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/21/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	190	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - EW-17**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
1/21/2004	18,000	2,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/8/2004	30,000	6,800													
8/22/2005	42,000	13,000	9,300	1,700	8,100	ND	ND	ND	ND	ND	ND	ND			
3/13/2006	29,000	6,500	6,500	1,100	5,500	ND	ND	ND	ND	ND	ND	ND			
6/11/2006	38,000	9,700	9,500	1,600	7,300	ND	ND	ND	ND	ND	ND	ND			
9/6/2006	26,000	8,900	6,900	1,300	6,200	ND	ND	ND	ND	ND	ND	ND			
1/4/2007	27,000	8,100	3,200	890	3,410	ND	ND	ND	ND	ND	ND	ND			
7/9/2007	40,000	7,600	6,400	1,400	7,000	ND	ND	ND	ND	ND	ND	ND	430	220	940
9/23/2007	6,800	5,300	5,300	1,300	5,700	ND	ND	ND	4.2	ND	ND	2.0	210	180	920
9/6/2008	7,500	3,200	530	18	680	ND	ND	ND	ND	ND	ND	ND	87	26	85
9/27/2009	4,200	1,400	580	110	730	ND	ND	ND	ND	ND	ND	ND	64	26	130
2/27/2010	2,600	1,500	400	56	614	ND	ND	ND	ND	ND	ND	ND	50	ND	ND
8/21/2010	2,900	1,200	110	ND	570	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/21/2011	6,500	3,000	110	ND	1,300	ND	ND	ND	ND	ND	ND	ND	100	51	150

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - Monitoring Well BJ**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
8/22/2005	1500	14	100	38	224	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/13/2006	790	ND	6.6	6.5	57	ND	ND	ND	ND	ND	ND	ND			
6/11/2006	ND	ND	0.9	0.6	4.5	ND	ND	ND	ND	ND	ND	ND			
9/7/2006	ND	1.4	3.8	1.5	9.1	ND	ND	ND	ND	ND	ND	ND			
1/6/2007	ND	ND	2.4	1.4	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/22/2007	150	4.0	2.2	0.5	8.9	ND	ND	ND	ND	ND	ND	ND	ND	1.3	4.2
9/5/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/25/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/28/2010	ND	ND	ND	1.1	3.4	ND	ND	ND	ND	ND	ND	ND	3.3	ND	0.9
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/22/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Notes:**

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This monitoring well was not located in May 2012



**HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS - Monitoring Well BK**  
**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND VOLATILE ORGANIC COMPOUNDS**

Date	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	EDB	EDC	DIPE	EtBE	MtBE	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Analytical Results (µg/L)														
8/22/2005	3,600	22	61	64	330	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
3/13/2006	1,800	ND	14	41	276	ND	ND	ND	ND	ND	ND	28			
6/11/2006	700	ND	0.91	9.8	59	ND	ND	ND	ND	ND	ND	ND			
9/7/2006	1100	0.54	4.9	8.5	70	ND	ND	ND	ND	ND	ND	ND			
1/6/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
7/7/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/22/2007	ND	ND	ND	ND	7.8	ND	ND	ND	ND	ND	ND	ND	ND	1.8	1.5
9/5/2008	450	18	45	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/25/2009	ND	0.67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/28/2010	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/20/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4/22/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter

NA = not analyzed

ND = concentration not detected above laboratory reporting limits

Analytical data was taken from historical monitoring reports in Geotracker.

This monitoring well was not located in May 2012.

## **APPENDIX B**

### **OPERATIONS AND MAINTENANCE FIELD FORMS**

# Field Form for Treatment System Operations and Maintenance

Enhanced Biodegradation and Groundwater Recirculation Project

Former Bill Chun Facility, Alameda, CA

Visit Type:  bi-weekly    monthly    quarterly    unplanned

Date: 1 / 13 / 14

Field Tech: Emily Dirksen

Time: 15 :30

## Wells

Well ID	Meter Reading (gal)	Pressure (psi)	O2 Flow (scfh)	Comments
<b>Extraction</b>				
EX-20	549690	--	--	
EX-22	225910	--	--	
EX-21	302000	--	--	
<b>Injection</b>				
#N-18	-	-	-	
IN-19   18	31570	44	0	
IN-16	75380	28	3.4	
Trenches 2+3	190170	19	4.8	
Trench 1 + IN 17	191400	20	<del>5.0</del>	
IN 14 +15	148760	24	0.2	

## Treatment System

Totalizer (digital): 667700 gal  
 DO-IT System Pressure: - psi (analog)  
 O2 Flow: - scfh

GAC Lead Pressure: 12 psi  
 GAC Polish Pressure: 0 psi  
 Bag Filter 1 Pressure: 60 psi  
 Bag Filter 2 Pressure: 26 psi  
 Mixing Tank pH: -  
 Holding Tank pH: -

## Weekly Maintenance Checklist

- Check O2 Flow
- Check All Flow Meters and Pressure Gauges
- Add Amendment to Holding Tank  
 \_\_\_\_\_ cups soda ash pH buffer

- Add Amendment to Mixing Tank  
50 lbs CBN nutrient mix  
5 gal EZT-EA biosurfactant  
 \_\_\_\_\_ cups soda ash pH buffer

## Quarterly Maintenance Checklist

- Clean Mixing Tank
- Clean Flow Meters
- Y Strainer
- Bag Filters
- Check GW Extraction Flow Rate
- Check Grundfos Extraction Pumps

# Field Form for Treatment System Operations and Maintenance

Enhanced Biodegradation and Groundwater Recirculation Project

Former Bill Chun Facility, Alameda, CA

Visit Type:  bi-weekly    monthly    quarterly    unplanned

Date: 1/28/14

Field Tech: CRD

Time: 09:00

## Wells

Well ID	Meter Reading (gal)	Pressure (psi)	O2 Flow (scfh)	Comments
<b>Extraction</b>				
EX-20	566690	--	--	
EX-22	237340	--	--	
EX-21	314870	--	--	
<b>Injection</b>				
IN-18				
IN-19/18	32040	42	0.0	
IN-16	24730	32	2.0	
Trenches 2+3	205,270	22	6.4	
Trench 1 + IN 17	200,140	24	6.0	
IN 14 +15	156,630	24	5.2	

## Treatment System

Totalizer (digital): 69599 gal  
 DO-IT System Pressure: \_\_\_\_\_ psi (analog)  
 O2 Flow: \_\_\_\_\_ scfh

GAC Lead Pressure: 14 psi  
 GAC Polish Pressure: — psi  
 Bag Filter 1 Pressure: 41 psi  
 Bag Filter 2 Pressure: 27 psi  
 Mixing Tank pH: —  
 Holding Tank pH: —

## Weekly Maintenance Checklist

- Check O2 Flow
- Check All Flow Meters and Pressure Gauges
- Add Amendment to Holding Tank  
 \_\_\_\_\_ cups soda ash pH buffer

- Add Amendment to Mixing Tank  
100 lbs CBN nutrient mix  
5 gal EZT-EA biosurfactant  
— cups soda ash pH buffer

## Quarterly Maintenance Checklist

- Clean Mixing Tank
- Clean Flow Meters
- Y Strainer
- Bag Filters
- Check GW Extraction Flow Rate
- Check Grundfos Extraction Pumps

# Field Form for Treatment System Operations and Maintenance

Enhanced Biodegradation and Groundwater Recirculation Project

Former Bill Chun Facility, Alameda, CA

Visit Type:  Bi-weekly    monthly    quarterly    unplanned

Date: 2/11/14

Field Tech: GRW

Time: 15:00

## Wells

Well ID	Meter Reading (gal)	Pressure (psi)	O2 Flow (scfh)	Comments
<b>Extraction</b>				
EX-20	578140	--	--	
EX-22	245110	--	--	
EX-21	327180	--	--	
<b>Injection</b>				
<del>IN-18</del>	<del>143030</del>	<del>14</del>	<del>6.8</del>	
IN-19	32380	40	0	
IN-16	77440	20	2.0	
Trenches 2+3	209910	20	2.0	
Trench 1 + IN 17	206520	18	2.0	
IN 14 +15	163030	14	6.8	O <sub>2</sub> @ first, then to 22

## Treatment System

Totalizer (digital): 714820 gal  
 DO-IT System Pressure: \_\_\_\_\_ psi (analog)  
 O2 Flow: \_\_\_\_\_ scfh

GAC Lead Pressure: 14 psi  
 GAC Polish Pressure: 0 psi  
 Bag Filter 1 Pressure: 24 psi  
 Bag Filter 2 Pressure: 20 psi  
 Mixing Tank pH: -  
 Holding Tank pH: -

## Weekly Maintenance Checklist

- Check O2 Flow
- Check All Flow Meters and Pressure Gauges
- Add Amendment to Holding Tank  
 \_\_\_\_\_ cups soda ash pH buffer

- Add Amendment to Mixing Tank  
50 lbs CBN nutrient mix  
5 gal EZT-EA biosurfactant  
 \_\_\_\_\_ cups soda ash pH buffer

## Quarterly Maintenance Checklist

- Clean Mixing Tank
- Clean Flow Meters
- Y Strainer
- Bag Filters
- Check GW Extraction Flow Rate
- Check Grundfos Extraction Pumps

# Field Form for Treatment System Operations and Maintenance

Enhanced Biodegradation and Groundwater Recirculation Project

Former Bill Chun Facility, Alameda, CA

Visit Type:  bi-weekly    monthly    quarterly    unplanned

Date: 2/25/16

Field Tech: CVD

Time: 08:30

## Wells

Well ID	Meter Reading (gal)	Pressure (psi)	O2 Flow (scfh)	Comments
<b>Extraction</b>				
EX-20	593780	--	--	
EX-22	254080	--	--	
EX-21	339520	--	--	
<b>Injection</b>				
IN-18	-	-	-	
IN-19 / 18	32780	40	0	
IN-16	78460	21	3.0	
Trenches 2+3	21580	20	3.0	
Trench 1 + IN 17	214250	19	6.8	
IN 14 +15	171100	17	8.0	

## Treatment System

Totalizer (digital): \_\_\_\_\_ gal  
 DO-IT System Pressure: \_\_\_\_\_ psi (analog)  
 O2 Flow: \_\_\_\_\_ scfh

GAC Lead Pressure: 16 psi  
 GAC Polish Pressure: 0 psi  
 Bag Filter 1 Pressure: 36 psi  
 Bag Filter 2 Pressure: 38 psi  
 Mixing Tank pH: -  
 Holding Tank pH: -

## Weekly Maintenance Checklist

- Check O2 Flow
- Check All Flow Meters and Pressure Gauges
- Add Amendment to Holding Tank  
 \_\_\_\_\_ cups soda ash pH buffer

- Add Amendment to Mixing Tank  
50 lbs CBN nutrient mix  
5 gal EZT-EA biosurfactant  
- cups soda ash pH buffer

## Quarterly Maintenance Checklist

- Clean Mixing Tank
- Clean Flow Meters
- Y Strainer
- Bag Filters
- Check GW Extraction Flow Rate
- Check Grundfos Extraction Pumps

# Field Form for Treatment System Operations and Maintenance

Enhanced Biodegradation and Groundwater Recirculation Project

Former Bill Chun Facility, Alameda, CA

Visit Type:  bi-weekly    monthly    quarterly    unplanned

Date: 3 / 10 / 16

Field Tech: Emily Dirksen

Time: 09 : 00

## Wells

Well ID	Meter Reading (gal)	Pressure (psi)	O2 Flow (scfh)	Comments
<b>Extraction</b>				
EX-20	<u>59921</u>	--	--	
EX-22	<u>257020</u>	--	--	
EX-21	<u>343470</u>	--	--	
<b>Injection</b>				
IN-18	<u>-</u>	<u>-</u>	<u>-</u>	
IN-19 <u>118</u>	<u>32940</u>	<u>35</u>	<u>0</u>	
IN-16	<u>78850</u>	<u>20</u>	<u>2.0</u>	<u>- Trench 2/3 still slowly running</u>
Trenches 2+3	<u>217980</u>	<u>24</u>	<u>2.4</u>	
Trench 1 + IN 17	<u>214620</u>	<u>20</u>	<u>2.8</u>	
IN 14 +15	<u>173580</u>	<u>20</u>	<u>2.8</u>	

## Treatment System

Totalizer (digital): 745710 gal  
 DO-IT System Pressure: - psi (analog)  
 O2 Flow: - scfh

GAC Lead Pressure: 17 psi  
 GAC Polish Pressure: 0 psi  
 Bag Filter 1 Pressure: 17 psi  
 Bag Filter 2 Pressure: 20 psi  
 Mixing Tank pH: \_\_\_\_\_  
 Holding Tank pH: \_\_\_\_\_

## Weekly Maintenance Checklist

- Check O2 Flow
- Check All Flow Meters and Pressure Gauges
- Add Amendment to Holding Tank  
- cups soda ash pH buffer

- Add Amendment to Mixing Tank  
50 lbs CBN nutrient mix  
5 gal EZT-EA biosurfactant  
- cups soda ash pH buffer

## Quarterly Maintenance Checklist

- Clean Mixing Tank
- Clean Flow Meters
- Y Strainer
- Bag Filters
- Check GW Extraction Flow Rate
- Check Grundfos Extraction Pumps

# Field Form for Treatment System Operations and Maintenance

Enhanced Biodegradation and Groundwater Recirculation Project  
Former Bill Chun Facility, Alameda, CA

Visit Type:  bi-weekly    monthly    quarterly    unplanned

Date: 3/24/16

Field Tech: Emily Dirksen

Time: 15:00

## Wells

Well ID	Meter Reading (gal)	Pressure (psi)	O2 Flow (scfh)	Comments
<b>Extraction</b>				
EX-20	618100	--	--	
EX-22	268550	--	--	
EX-21	361030	--	--	
<b>Injection</b>				
IN-18				
IN-19/18	33630	40	0	
IN-16	80280	24	3.8	
Trenches 2+3	226240	18	5.8	
Trench 1 + IN 17	225010	22	5.2	
IN 14 +15	181920	22	5.4	

## Treatment System

Totalizer (digital): 773600 gal  
 DO-IT System Pressure: — psi (analog)  
 O2 Flow: — scfh

GAC Lead Pressure: 14 psi  
 GAC Polish Pressure: 0 psi  
 Bag Filter 1 Pressure: 38 psi  
 Bag Filter 2 Pressure: 32 psi  
 Mixing Tank pH: —  
 Holding Tank pH: —

## Weekly Maintenance Checklist

- Check O2 Flow
- Check All Flow Meters and Pressure Gauges
- Add Amendment to Holding Tank  
— cups soda ash pH buffer

- Add Amendment to Mixing Tank  
50 lbs CBN nutrient mix  
5 gal EZT-EA biosurfactant  
— cups soda ash pH buffer

## Quarterly Maintenance Checklist

- Clean Mixing Tank
- Clean Flow Meters
- Y Strainer
- Bag Filters
- Check GW Extraction Flow Rate
- Check Grundfos Extraction Pumps



**APPENDIX C**

**LABORATORY ANALYTICAL REPORTS**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

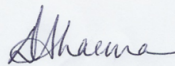
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Pleasanton  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

TestAmerica Job ID: 720-70141-1  
Client Project/Site: Chun

For:  
Ninyo & Moore  
1956 Webster Street  
Suite 400  
Oakland, California 94612

Attn: Mr. Peter D. Sims



Authorized for release by:  
2/18/2016 4:20:50 PM

Dimple Sharma, Senior Project Manager  
(925)484-1919  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Job ID: 720-70141-1**

**Laboratory: TestAmerica Pleasanton**

## Narrative

### Job Narrative 720-70141-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/2/2016 5:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

#### Receipt Exceptions

COC says page 1 of 2--only received page 1.

#### GC/MS VOA

Method 8260B: The following sample were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: MW-7R (720-70141-4).

Method 8260B: The continuing calibration verification (CCV) associated with batch 720-196721 recovered above the upper control limit for Acetone. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-4R (720-70141-1), MW-5R (720-70141-2), MW-6R (720-70141-3) and MW-7R (720-70141-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Client Sample ID: MW-4R

## Lab Sample ID: 720-70141-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	720		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	200		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	32		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Naphthalene	160		20		ug/L	20		8260B/CA_LUFT MS	Total/NA
N-Propylbenzene	26		20		ug/L	20		8260B/CA_LUFT MS	Total/NA
Toluene	710		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	210		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	42		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	1000		20		ug/L	20		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	5000		1000		ug/L	20		8260B/CA_LUFT MS	Total/NA
Sulfate	30		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	26		10		mg/L	10		300.0	Total/NA
Manganese	0.64		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	0.27		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	0.53	HF	0.10		mg/L	1		SM 3500 Fe B	Total/NA
Ammonia	4.3		0.40		mg/L	2		SM 4500 NH3 G	Total/NA
Orthophosphate as P	0.14		0.020		mg/L	1		SM 4500 P E	Total/NA

## Client Sample ID: MW-5R

## Lab Sample ID: 720-70141-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1100		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	2700		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	92		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Naphthalene	640		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
N-Propylbenzene	230		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Toluene	9300		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	2300		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	510		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	18000		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	58000		5000		ug/L	100		8260B/CA_LUFT MS	Total/NA
Nitrite as NO2	1.8		1.0		mg/L	1		300.0	Total/NA
Sulfate	48		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	12		1.0		mg/L	1		300.0	Total/NA
Manganese	0.86		0.020		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Client Sample ID: MW-5R (Continued)

## Lab Sample ID: 720-70141-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	1.1		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	1.2		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	0.15	HF	0.10		mg/L	1		SM 3500 Fe B	Total/NA
Ammonia	0.44		0.20		mg/L	1		SM 4500 NH3 G	Total/NA
Orthophosphate as P	0.074		0.020		mg/L	1		SM 4500 P E	Total/NA

## Client Sample ID: MW-6R

## Lab Sample ID: 720-70141-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	8.7		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	20		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Naphthalene	6.3		5.0		ug/L	5		8260B/CA_LUFT MS	Total/NA
Toluene	81		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	21		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	160		5.0		ug/L	5		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	560		250		ug/L	5		8260B/CA_LUFT MS	Total/NA
Sulfate	36		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	540		100		mg/L	100		300.0	Total/NA
Manganese	1.6		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.4		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ammonia	6.9		0.40		mg/L	2		SM 4500 NH3 G	Total/NA
Orthophosphate as P	1.8		0.20		mg/L	10		SM 4500 P E	Total/NA

## Client Sample ID: MW-7R

## Lab Sample ID: 720-70141-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1200		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	1700		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Toluene	14000		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	1200		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	14000		500		ug/L	500		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	55000		25000		ug/L	500		8260B/CA_LUFT MS	Total/NA
Nitrite as NO2	13		1.0		mg/L	1		300.0	Total/NA
Sulfate	34		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	200		100		mg/L	100		300.0	Total/NA
Manganese	2.0		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.8		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	1.9		0.10		mg/L	1		SM 3500	Total/NA
Ammonia	1.2		0.20		mg/L	1		SM 4500 NH3 G	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Client Sample ID: MW-8

## Lab Sample ID: 720-70141-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	15		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
n-Butylbenzene	1.7		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
sec-Butylbenzene	3.0		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	3.7		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	18		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Naphthalene	74		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
N-Propylbenzene	19		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	12		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	0.73		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	20		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO)	2200		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
-C5-C12 Sulfate	8.3		1.0		mg/L	1		300.0	Total/NA
Manganese	1.6		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.5		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	28		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	11	HF	2.0		mg/L	20		SM 3500 Fe B	Total/NA
Ammonia	0.33		0.20		mg/L	1		SM 4500 NH3 G	Total/NA

## Client Sample ID: MW-9

## Lab Sample ID: 720-70141-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	63		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	18		1.0		mg/L	1		300.0	Total/NA
Manganese	1.8		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.7		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	22		0.10		mg/L	1		SM 3500	Total/NA
Orthophosphate as P	0.038		0.020		mg/L	1		SM 4500 P E	Total/NA

## Client Sample ID: MW-10

## Lab Sample ID: 720-70141-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	31		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	27		10		mg/L	10		300.0	Total/NA
Manganese	0.28		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.6		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	21		0.10		mg/L	1		SM 3500	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton



# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-4R**  
**Date Collected: 02/02/16 10:35**  
**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		10		ug/L			02/03/16 02:00	20
Acetone	ND		1000		ug/L			02/03/16 02:00	20
<b>Benzene</b>	<b>720</b>		10		ug/L			02/03/16 02:00	20
Dichlorobromomethane	ND		10		ug/L			02/03/16 02:00	20
Bromobenzene	ND		20		ug/L			02/03/16 02:00	20
Chlorobromomethane	ND		20		ug/L			02/03/16 02:00	20
Bromoform	ND		20		ug/L			02/03/16 02:00	20
Bromomethane	ND		20		ug/L			02/03/16 02:00	20
2-Butanone (MEK)	ND		1000		ug/L			02/03/16 02:00	20
n-Butylbenzene	ND		20		ug/L			02/03/16 02:00	20
sec-Butylbenzene	ND		20		ug/L			02/03/16 02:00	20
tert-Butylbenzene	ND		20		ug/L			02/03/16 02:00	20
Carbon disulfide	ND		100		ug/L			02/03/16 02:00	20
Carbon tetrachloride	ND		10		ug/L			02/03/16 02:00	20
Chlorobenzene	ND		10		ug/L			02/03/16 02:00	20
Chloroethane	ND		20		ug/L			02/03/16 02:00	20
Chloroform	ND		20		ug/L			02/03/16 02:00	20
Chloromethane	ND		20		ug/L			02/03/16 02:00	20
2-Chlorotoluene	ND		10		ug/L			02/03/16 02:00	20
4-Chlorotoluene	ND		10		ug/L			02/03/16 02:00	20
Chlorodibromomethane	ND		10		ug/L			02/03/16 02:00	20
1,2-Dichlorobenzene	ND		10		ug/L			02/03/16 02:00	20
1,3-Dichlorobenzene	ND		10		ug/L			02/03/16 02:00	20
1,4-Dichlorobenzene	ND		10		ug/L			02/03/16 02:00	20
1,3-Dichloropropane	ND		20		ug/L			02/03/16 02:00	20
1,1-Dichloropropene	ND		10		ug/L			02/03/16 02:00	20
1,2-Dibromo-3-Chloropropane	ND		20		ug/L			02/03/16 02:00	20
Ethylene Dibromide	ND		10		ug/L			02/03/16 02:00	20
Dibromomethane	ND		10		ug/L			02/03/16 02:00	20
Dichlorodifluoromethane	ND		10		ug/L			02/03/16 02:00	20
1,1-Dichloroethane	ND		10		ug/L			02/03/16 02:00	20
1,2-Dichloroethane	ND		10		ug/L			02/03/16 02:00	20
1,1-Dichloroethene	ND		10		ug/L			02/03/16 02:00	20
cis-1,2-Dichloroethene	ND		10		ug/L			02/03/16 02:00	20
trans-1,2-Dichloroethene	ND		10		ug/L			02/03/16 02:00	20
1,2-Dichloropropane	ND		10		ug/L			02/03/16 02:00	20
cis-1,3-Dichloropropene	ND		10		ug/L			02/03/16 02:00	20
trans-1,3-Dichloropropene	ND		10		ug/L			02/03/16 02:00	20
<b>Ethylbenzene</b>	<b>200</b>		10		ug/L			02/03/16 02:00	20
Hexachlorobutadiene	ND		20		ug/L			02/03/16 02:00	20
2-Hexanone	ND		1000		ug/L			02/03/16 02:00	20
<b>Isopropylbenzene</b>	<b>32</b>		10		ug/L			02/03/16 02:00	20
4-Isopropyltoluene	ND		20		ug/L			02/03/16 02:00	20
Methylene Chloride	ND		100		ug/L			02/03/16 02:00	20
4-Methyl-2-pentanone (MIBK)	ND		1000		ug/L			02/03/16 02:00	20
<b>Naphthalene</b>	<b>160</b>		20		ug/L			02/03/16 02:00	20
<b>N-Propylbenzene</b>	<b>26</b>		20		ug/L			02/03/16 02:00	20
Styrene	ND		10		ug/L			02/03/16 02:00	20
1,1,1,2-Tetrachloroethane	ND		10		ug/L			02/03/16 02:00	20

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-4R**

**Lab Sample ID: 720-70141-1**

**Date Collected: 02/02/16 10:35**

**Matrix: Water**

**Date Received: 02/02/16 17:55**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		10		ug/L			02/03/16 02:00	20
Tetrachloroethene	ND		10		ug/L			02/03/16 02:00	20
<b>Toluene</b>	<b>710</b>		10		ug/L			02/03/16 02:00	20
1,2,3-Trichlorobenzene	ND		20		ug/L			02/03/16 02:00	20
1,2,4-Trichlorobenzene	ND		20		ug/L			02/03/16 02:00	20
1,1,1-Trichloroethane	ND		10		ug/L			02/03/16 02:00	20
1,1,2-Trichloroethane	ND		10		ug/L			02/03/16 02:00	20
Trichloroethene	ND		10		ug/L			02/03/16 02:00	20
Trichlorofluoromethane	ND		20		ug/L			02/03/16 02:00	20
1,2,3-Trichloropropane	ND		10		ug/L			02/03/16 02:00	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/L			02/03/16 02:00	20
<b>1,2,4-Trimethylbenzene</b>	<b>210</b>		10		ug/L			02/03/16 02:00	20
<b>1,3,5-Trimethylbenzene</b>	<b>42</b>		10		ug/L			02/03/16 02:00	20
Vinyl acetate	ND		200		ug/L			02/03/16 02:00	20
Vinyl chloride	ND		10		ug/L			02/03/16 02:00	20
<b>Xylenes, Total</b>	<b>1000</b>		20		ug/L			02/03/16 02:00	20
2,2-Dichloropropane	ND		10		ug/L			02/03/16 02:00	20
<b>Gasoline Range Organics (GRO)</b>	<b>5000</b>		1000		ug/L			02/03/16 02:00	20
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		02/03/16 02:00	20
1,2-Dichloroethane-d4 (Surr)	97		72 - 130		02/03/16 02:00	20
Toluene-d8 (Surr)	100		70 - 130		02/03/16 02:00	20

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/02/16 21:38	1
<b>Sulfate</b>	<b>30</b>		10		mg/L			02/02/16 21:55	10
<b>Nitrate as NO3</b>	<b>26</b>		10		mg/L			02/02/16 21:55	10

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.64</b>		0.020		mg/L		02/04/16 17:58	02/16/16 15:50	1
Potassium	ND		1.0		mg/L		02/04/16 17:58	02/16/16 15:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>0.27</b>		0.10		mg/L			02/17/16 16:06	1
<b>Ferrous Iron</b>	<b>0.53</b>	HF	0.10		mg/L			02/02/16 18:41	1
<b>Ammonia</b>	<b>4.3</b>		0.40		mg/L		02/04/16 16:16	02/04/16 21:16	2
<b>Orthophosphate as P</b>	<b>0.14</b>		0.020		mg/L			02/03/16 16:46	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-5R**

**Date Collected: 02/02/16 11:30**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-2**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		50		ug/L			02/03/16 02:29	100
Acetone	ND		5000		ug/L			02/03/16 02:29	100
<b>Benzene</b>	<b>1100</b>		50		ug/L			02/03/16 02:29	100
Dichlorobromomethane	ND		50		ug/L			02/03/16 02:29	100
Bromobenzene	ND		100		ug/L			02/03/16 02:29	100
Chlorobromomethane	ND		100		ug/L			02/03/16 02:29	100
Bromoform	ND		100		ug/L			02/03/16 02:29	100
Bromomethane	ND		100		ug/L			02/03/16 02:29	100
2-Butanone (MEK)	ND		5000		ug/L			02/03/16 02:29	100
n-Butylbenzene	ND		100		ug/L			02/03/16 02:29	100
sec-Butylbenzene	ND		100		ug/L			02/03/16 02:29	100
tert-Butylbenzene	ND		100		ug/L			02/03/16 02:29	100
Carbon disulfide	ND		500		ug/L			02/03/16 02:29	100
Carbon tetrachloride	ND		50		ug/L			02/03/16 02:29	100
Chlorobenzene	ND		50		ug/L			02/03/16 02:29	100
Chloroethane	ND		100		ug/L			02/03/16 02:29	100
Chloroform	ND		100		ug/L			02/03/16 02:29	100
Chloromethane	ND		100		ug/L			02/03/16 02:29	100
2-Chlorotoluene	ND		50		ug/L			02/03/16 02:29	100
4-Chlorotoluene	ND		50		ug/L			02/03/16 02:29	100
Chlorodibromomethane	ND		50		ug/L			02/03/16 02:29	100
1,2-Dichlorobenzene	ND		50		ug/L			02/03/16 02:29	100
1,3-Dichlorobenzene	ND		50		ug/L			02/03/16 02:29	100
1,4-Dichlorobenzene	ND		50		ug/L			02/03/16 02:29	100
1,3-Dichloropropane	ND		100		ug/L			02/03/16 02:29	100
1,1-Dichloropropene	ND		50		ug/L			02/03/16 02:29	100
1,2-Dibromo-3-Chloropropane	ND		100		ug/L			02/03/16 02:29	100
Ethylene Dibromide	ND		50		ug/L			02/03/16 02:29	100
Dibromomethane	ND		50		ug/L			02/03/16 02:29	100
Dichlorodifluoromethane	ND		50		ug/L			02/03/16 02:29	100
1,1-Dichloroethane	ND		50		ug/L			02/03/16 02:29	100
1,2-Dichloroethane	ND		50		ug/L			02/03/16 02:29	100
1,1-Dichloroethene	ND		50		ug/L			02/03/16 02:29	100
cis-1,2-Dichloroethene	ND		50		ug/L			02/03/16 02:29	100
trans-1,2-Dichloroethene	ND		50		ug/L			02/03/16 02:29	100
1,2-Dichloropropane	ND		50		ug/L			02/03/16 02:29	100
cis-1,3-Dichloropropene	ND		50		ug/L			02/03/16 02:29	100
trans-1,3-Dichloropropene	ND		50		ug/L			02/03/16 02:29	100
<b>Ethylbenzene</b>	<b>2700</b>		50		ug/L			02/03/16 02:29	100
Hexachlorobutadiene	ND		100		ug/L			02/03/16 02:29	100
2-Hexanone	ND		5000		ug/L			02/03/16 02:29	100
<b>Isopropylbenzene</b>	<b>92</b>		50		ug/L			02/03/16 02:29	100
4-Isopropyltoluene	ND		100		ug/L			02/03/16 02:29	100
Methylene Chloride	ND		500		ug/L			02/03/16 02:29	100
4-Methyl-2-pentanone (MIBK)	ND		5000		ug/L			02/03/16 02:29	100
<b>Naphthalene</b>	<b>640</b>		100		ug/L			02/03/16 02:29	100
<b>N-Propylbenzene</b>	<b>230</b>		100		ug/L			02/03/16 02:29	100
Styrene	ND		50		ug/L			02/03/16 02:29	100
1,1,1,2-Tetrachloroethane	ND		50		ug/L			02/03/16 02:29	100

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-5R**

**Lab Sample ID: 720-70141-2**

**Date Collected: 02/02/16 11:30**

**Matrix: Water**

**Date Received: 02/02/16 17:55**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		50		ug/L			02/03/16 02:29	100
Tetrachloroethene	ND		50		ug/L			02/03/16 02:29	100
<b>Toluene</b>	<b>9300</b>		50		ug/L			02/03/16 02:29	100
1,2,3-Trichlorobenzene	ND		100		ug/L			02/03/16 02:29	100
1,2,4-Trichlorobenzene	ND		100		ug/L			02/03/16 02:29	100
1,1,1-Trichloroethane	ND		50		ug/L			02/03/16 02:29	100
1,1,2-Trichloroethane	ND		50		ug/L			02/03/16 02:29	100
Trichloroethene	ND		50		ug/L			02/03/16 02:29	100
Trichlorofluoromethane	ND		100		ug/L			02/03/16 02:29	100
1,2,3-Trichloropropane	ND		50		ug/L			02/03/16 02:29	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50		ug/L			02/03/16 02:29	100
<b>1,2,4-Trimethylbenzene</b>	<b>2300</b>		50		ug/L			02/03/16 02:29	100
<b>1,3,5-Trimethylbenzene</b>	<b>510</b>		50		ug/L			02/03/16 02:29	100
Vinyl acetate	ND		1000		ug/L			02/03/16 02:29	100
Vinyl chloride	ND		50		ug/L			02/03/16 02:29	100
<b>Xylenes, Total</b>	<b>18000</b>		100		ug/L			02/03/16 02:29	100
2,2-Dichloropropane	ND		50		ug/L			02/03/16 02:29	100
<b>Gasoline Range Organics (GRO)</b>	<b>58000</b>		5000		ug/L			02/03/16 02:29	100
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 130		02/03/16 02:29	100
1,2-Dichloroethane-d4 (Surr)	95		72 - 130		02/03/16 02:29	100
Toluene-d8 (Surr)	101		70 - 130		02/03/16 02:29	100

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Nitrite as NO2</b>	<b>1.8</b>		1.0		mg/L			02/02/16 22:12	1
<b>Sulfate</b>	<b>48</b>		10		mg/L			02/02/16 22:30	10
<b>Nitrate as NO3</b>	<b>12</b>		1.0		mg/L			02/02/16 22:12	1

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.86</b>		0.020		mg/L		02/04/16 17:58	02/16/16 15:55	1
<b>Potassium</b>	<b>1.1</b>		1.0		mg/L		02/04/16 17:58	02/16/16 15:55	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>1.2</b>		0.10		mg/L			02/17/16 16:06	1
<b>Ferrous Iron</b>	<b>0.15</b>	HF	0.10		mg/L			02/02/16 18:41	1
<b>Ammonia</b>	<b>0.44</b>		0.20		mg/L		02/04/16 16:16	02/04/16 21:18	1
<b>Orthophosphate as P</b>	<b>0.074</b>		0.020		mg/L			02/03/16 16:46	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-6R**

**Date Collected: 02/02/16 12:20**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-3**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		2.5		ug/L			02/03/16 02:59	5
Acetone	ND		250		ug/L			02/03/16 02:59	5
<b>Benzene</b>	<b>8.7</b>		2.5		ug/L			02/03/16 02:59	5
Dichlorobromomethane	ND		2.5		ug/L			02/03/16 02:59	5
Bromobenzene	ND		5.0		ug/L			02/03/16 02:59	5
Chlorobromomethane	ND		5.0		ug/L			02/03/16 02:59	5
Bromoform	ND		5.0		ug/L			02/03/16 02:59	5
Bromomethane	ND		5.0		ug/L			02/03/16 02:59	5
2-Butanone (MEK)	ND		250		ug/L			02/03/16 02:59	5
n-Butylbenzene	ND		5.0		ug/L			02/03/16 02:59	5
sec-Butylbenzene	ND		5.0		ug/L			02/03/16 02:59	5
tert-Butylbenzene	ND		5.0		ug/L			02/03/16 02:59	5
Carbon disulfide	ND		25		ug/L			02/03/16 02:59	5
Carbon tetrachloride	ND		2.5		ug/L			02/03/16 02:59	5
Chlorobenzene	ND		2.5		ug/L			02/03/16 02:59	5
Chloroethane	ND		5.0		ug/L			02/03/16 02:59	5
Chloroform	ND		5.0		ug/L			02/03/16 02:59	5
Chloromethane	ND		5.0		ug/L			02/03/16 02:59	5
2-Chlorotoluene	ND		2.5		ug/L			02/03/16 02:59	5
4-Chlorotoluene	ND		2.5		ug/L			02/03/16 02:59	5
Chlorodibromomethane	ND		2.5		ug/L			02/03/16 02:59	5
1,2-Dichlorobenzene	ND		2.5		ug/L			02/03/16 02:59	5
1,3-Dichlorobenzene	ND		2.5		ug/L			02/03/16 02:59	5
1,4-Dichlorobenzene	ND		2.5		ug/L			02/03/16 02:59	5
1,3-Dichloropropane	ND		5.0		ug/L			02/03/16 02:59	5
1,1-Dichloropropane	ND		2.5		ug/L			02/03/16 02:59	5
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/03/16 02:59	5
Ethylene Dibromide	ND		2.5		ug/L			02/03/16 02:59	5
Dibromomethane	ND		2.5		ug/L			02/03/16 02:59	5
Dichlorodifluoromethane	ND		2.5		ug/L			02/03/16 02:59	5
1,1-Dichloroethane	ND		2.5		ug/L			02/03/16 02:59	5
1,2-Dichloroethane	ND		2.5		ug/L			02/03/16 02:59	5
1,1-Dichloroethene	ND		2.5		ug/L			02/03/16 02:59	5
cis-1,2-Dichloroethene	ND		2.5		ug/L			02/03/16 02:59	5
trans-1,2-Dichloroethene	ND		2.5		ug/L			02/03/16 02:59	5
1,2-Dichloropropane	ND		2.5		ug/L			02/03/16 02:59	5
cis-1,3-Dichloropropene	ND		2.5		ug/L			02/03/16 02:59	5
trans-1,3-Dichloropropene	ND		2.5		ug/L			02/03/16 02:59	5
<b>Ethylbenzene</b>	<b>20</b>		2.5		ug/L			02/03/16 02:59	5
Hexachlorobutadiene	ND		5.0		ug/L			02/03/16 02:59	5
2-Hexanone	ND		250		ug/L			02/03/16 02:59	5
Isopropylbenzene	ND		2.5		ug/L			02/03/16 02:59	5
4-Isopropyltoluene	ND		5.0		ug/L			02/03/16 02:59	5
Methylene Chloride	ND		25		ug/L			02/03/16 02:59	5
4-Methyl-2-pentanone (MIBK)	ND		250		ug/L			02/03/16 02:59	5
<b>Naphthalene</b>	<b>6.3</b>		5.0		ug/L			02/03/16 02:59	5
N-Propylbenzene	ND		5.0		ug/L			02/03/16 02:59	5
Styrene	ND		2.5		ug/L			02/03/16 02:59	5
1,1,1,2-Tetrachloroethane	ND		2.5		ug/L			02/03/16 02:59	5

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-6R**

**Lab Sample ID: 720-70141-3**

Date Collected: 02/02/16 12:20

Matrix: Water

Date Received: 02/02/16 17:55

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			02/03/16 02:59	5
Tetrachloroethene	ND		2.5		ug/L			02/03/16 02:59	5
<b>Toluene</b>	<b>81</b>		2.5		ug/L			02/03/16 02:59	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			02/03/16 02:59	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			02/03/16 02:59	5
1,1,1-Trichloroethane	ND		2.5		ug/L			02/03/16 02:59	5
1,1,2-Trichloroethane	ND		2.5		ug/L			02/03/16 02:59	5
Trichloroethene	ND		2.5		ug/L			02/03/16 02:59	5
Trichlorofluoromethane	ND		5.0		ug/L			02/03/16 02:59	5
1,2,3-Trichloropropane	ND		2.5		ug/L			02/03/16 02:59	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5		ug/L			02/03/16 02:59	5
<b>1,2,4-Trimethylbenzene</b>	<b>21</b>		2.5		ug/L			02/03/16 02:59	5
1,3,5-Trimethylbenzene	ND		2.5		ug/L			02/03/16 02:59	5
Vinyl acetate	ND		50		ug/L			02/03/16 02:59	5
Vinyl chloride	ND		2.5		ug/L			02/03/16 02:59	5
<b>Xylenes, Total</b>	<b>160</b>		5.0		ug/L			02/03/16 02:59	5
2,2-Dichloropropane	ND		2.5		ug/L			02/03/16 02:59	5
<b>Gasoline Range Organics (GRO)</b>	<b>560</b>		250		ug/L			02/03/16 02:59	5
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 130		02/03/16 02:59	5
1,2-Dichloroethane-d4 (Surr)	94		72 - 130		02/03/16 02:59	5
Toluene-d8 (Surr)	99		70 - 130		02/03/16 02:59	5

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/02/16 22:47	1
<b>Sulfate</b>	<b>36</b>		10		mg/L			02/02/16 23:04	10
<b>Nitrate as NO3</b>	<b>540</b>		100		mg/L			02/03/16 14:50	100

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.6</b>		0.020		mg/L		02/04/16 17:58	02/16/16 16:11	1
<b>Potassium</b>	<b>4.4</b>		1.0		mg/L		02/04/16 17:58	02/16/16 16:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferric Iron	ND		0.10		mg/L			02/17/16 16:06	1
Ferrous Iron	ND	HF	0.10		mg/L			02/02/16 18:41	1
<b>Ammonia</b>	<b>6.9</b>		0.40		mg/L		02/04/16 16:16	02/04/16 21:21	2
<b>Orthophosphate as P</b>	<b>1.8</b>		0.20		mg/L			02/03/16 16:46	10

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-7R**

**Date Collected: 02/02/16 12:55**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-4**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		250		ug/L			02/03/16 03:28	500
Acetone	ND		25000		ug/L			02/03/16 03:28	500
<b>Benzene</b>	<b>1200</b>		250		ug/L			02/03/16 03:28	500
Dichlorobromomethane	ND		250		ug/L			02/03/16 03:28	500
Bromobenzene	ND		500		ug/L			02/03/16 03:28	500
Chlorobromomethane	ND		500		ug/L			02/03/16 03:28	500
Bromoform	ND		500		ug/L			02/03/16 03:28	500
Bromomethane	ND		500		ug/L			02/03/16 03:28	500
2-Butanone (MEK)	ND		25000		ug/L			02/03/16 03:28	500
n-Butylbenzene	ND		500		ug/L			02/03/16 03:28	500
sec-Butylbenzene	ND		500		ug/L			02/03/16 03:28	500
tert-Butylbenzene	ND		500		ug/L			02/03/16 03:28	500
Carbon disulfide	ND		2500		ug/L			02/03/16 03:28	500
Carbon tetrachloride	ND		250		ug/L			02/03/16 03:28	500
Chlorobenzene	ND		250		ug/L			02/03/16 03:28	500
Chloroethane	ND		500		ug/L			02/03/16 03:28	500
Chloroform	ND		500		ug/L			02/03/16 03:28	500
Chloromethane	ND		500		ug/L			02/03/16 03:28	500
2-Chlorotoluene	ND		250		ug/L			02/03/16 03:28	500
4-Chlorotoluene	ND		250		ug/L			02/03/16 03:28	500
Chlorodibromomethane	ND		250		ug/L			02/03/16 03:28	500
1,2-Dichlorobenzene	ND		250		ug/L			02/03/16 03:28	500
1,3-Dichlorobenzene	ND		250		ug/L			02/03/16 03:28	500
1,4-Dichlorobenzene	ND		250		ug/L			02/03/16 03:28	500
1,3-Dichloropropane	ND		500		ug/L			02/03/16 03:28	500
1,1-Dichloropropene	ND		250		ug/L			02/03/16 03:28	500
1,2-Dibromo-3-Chloropropane	ND		500		ug/L			02/03/16 03:28	500
Ethylene Dibromide	ND		250		ug/L			02/03/16 03:28	500
Dibromomethane	ND		250		ug/L			02/03/16 03:28	500
Dichlorodifluoromethane	ND		250		ug/L			02/03/16 03:28	500
1,1-Dichloroethane	ND		250		ug/L			02/03/16 03:28	500
1,2-Dichloroethane	ND		250		ug/L			02/03/16 03:28	500
1,1-Dichloroethene	ND		250		ug/L			02/03/16 03:28	500
cis-1,2-Dichloroethene	ND		250		ug/L			02/03/16 03:28	500
trans-1,2-Dichloroethene	ND		250		ug/L			02/03/16 03:28	500
1,2-Dichloropropane	ND		250		ug/L			02/03/16 03:28	500
cis-1,3-Dichloropropene	ND		250		ug/L			02/03/16 03:28	500
trans-1,3-Dichloropropene	ND		250		ug/L			02/03/16 03:28	500
<b>Ethylbenzene</b>	<b>1700</b>		250		ug/L			02/03/16 03:28	500
Hexachlorobutadiene	ND		500		ug/L			02/03/16 03:28	500
2-Hexanone	ND		25000		ug/L			02/03/16 03:28	500
Isopropylbenzene	ND		250		ug/L			02/03/16 03:28	500
4-Isopropyltoluene	ND		500		ug/L			02/03/16 03:28	500
Methylene Chloride	ND		2500		ug/L			02/03/16 03:28	500
4-Methyl-2-pentanone (MIBK)	ND		25000		ug/L			02/03/16 03:28	500
Naphthalene	ND		500		ug/L			02/03/16 03:28	500
N-Propylbenzene	ND		500		ug/L			02/03/16 03:28	500
Styrene	ND		250		ug/L			02/03/16 03:28	500
1,1,1,2-Tetrachloroethane	ND		250		ug/L			02/03/16 03:28	500

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-7R**

**Lab Sample ID: 720-70141-4**

**Date Collected: 02/02/16 12:55**

**Matrix: Water**

**Date Received: 02/02/16 17:55**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		250		ug/L			02/03/16 03:28	500
Tetrachloroethene	ND		250		ug/L			02/03/16 03:28	500
<b>Toluene</b>	<b>14000</b>		250		ug/L			02/03/16 03:28	500
1,2,3-Trichlorobenzene	ND		500		ug/L			02/03/16 03:28	500
1,2,4-Trichlorobenzene	ND		500		ug/L			02/03/16 03:28	500
1,1,1-Trichloroethane	ND		250		ug/L			02/03/16 03:28	500
1,1,2-Trichloroethane	ND		250		ug/L			02/03/16 03:28	500
Trichloroethene	ND		250		ug/L			02/03/16 03:28	500
Trichlorofluoromethane	ND		500		ug/L			02/03/16 03:28	500
1,2,3-Trichloropropane	ND		250		ug/L			02/03/16 03:28	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250		ug/L			02/03/16 03:28	500
<b>1,2,4-Trimethylbenzene</b>	<b>1200</b>		250		ug/L			02/03/16 03:28	500
1,3,5-Trimethylbenzene	ND		250		ug/L			02/03/16 03:28	500
Vinyl acetate	ND		5000		ug/L			02/03/16 03:28	500
Vinyl chloride	ND		250		ug/L			02/03/16 03:28	500
<b>Xylenes, Total</b>	<b>14000</b>		500		ug/L			02/03/16 03:28	500
2,2-Dichloropropane	ND		250		ug/L			02/03/16 03:28	500
<b>Gasoline Range Organics (GRO)</b>	<b>55000</b>		25000		ug/L			02/03/16 03:28	500
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 130		02/03/16 03:28	500
1,2-Dichloroethane-d4 (Surr)	94		72 - 130		02/03/16 03:28	500
Toluene-d8 (Surr)	99		70 - 130		02/03/16 03:28	500

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Nitrite as NO2</b>	<b>13</b>		1.0		mg/L			02/02/16 23:55	1
<b>Sulfate</b>	<b>34</b>		10		mg/L			02/03/16 00:12	10
<b>Nitrate as NO3</b>	<b>200</b>		100		mg/L			02/03/16 15:07	100

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>2.0</b>		0.020		mg/L		02/04/16 17:58	02/16/16 16:16	1
<b>Potassium</b>	<b>1.8</b>		1.0		mg/L		02/04/16 17:58	02/16/16 16:16	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>1.9</b>		0.10		mg/L			02/17/16 16:06	1
Ferrous Iron	ND	HF	0.10		mg/L			02/02/16 18:41	1
<b>Ammonia</b>	<b>1.2</b>		0.20		mg/L		02/04/16 16:16	02/04/16 21:24	1
Orthophosphate as P	ND		0.020		mg/L			02/03/16 16:46	1



# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-8**  
**Date Collected: 02/02/16 15:25**  
**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-5**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/04/16 18:18	1
Acetone	ND		50		ug/L			02/04/16 18:18	1
<b>Benzene</b>	<b>15</b>		0.50		ug/L			02/04/16 18:18	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/16 18:18	1
Bromobenzene	ND		1.0		ug/L			02/04/16 18:18	1
Chlorobromomethane	ND		1.0		ug/L			02/04/16 18:18	1
Bromoform	ND		1.0		ug/L			02/04/16 18:18	1
Bromomethane	ND		1.0		ug/L			02/04/16 18:18	1
2-Butanone (MEK)	ND		50		ug/L			02/04/16 18:18	1
<b>n-Butylbenzene</b>	<b>1.7</b>		1.0		ug/L			02/04/16 18:18	1
<b>sec-Butylbenzene</b>	<b>3.0</b>		1.0		ug/L			02/04/16 18:18	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/16 18:18	1
Carbon disulfide	ND		5.0		ug/L			02/04/16 18:18	1
Carbon tetrachloride	ND		0.50		ug/L			02/04/16 18:18	1
Chlorobenzene	ND		0.50		ug/L			02/04/16 18:18	1
Chloroethane	ND		1.0		ug/L			02/04/16 18:18	1
Chloroform	ND		1.0		ug/L			02/04/16 18:18	1
Chloromethane	ND		1.0		ug/L			02/04/16 18:18	1
2-Chlorotoluene	ND		0.50		ug/L			02/04/16 18:18	1
4-Chlorotoluene	ND		0.50		ug/L			02/04/16 18:18	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/16 18:18	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/04/16 18:18	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/04/16 18:18	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/04/16 18:18	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/16 18:18	1
1,1-Dichloropropane	ND		0.50		ug/L			02/04/16 18:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/04/16 18:18	1
Ethylene Dibromide	ND		0.50		ug/L			02/04/16 18:18	1
Dibromomethane	ND		0.50		ug/L			02/04/16 18:18	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/04/16 18:18	1
1,1-Dichloroethane	ND		0.50		ug/L			02/04/16 18:18	1
1,2-Dichloroethane	ND		0.50		ug/L			02/04/16 18:18	1
1,1-Dichloroethene	ND		0.50		ug/L			02/04/16 18:18	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 18:18	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 18:18	1
1,2-Dichloropropane	ND		0.50		ug/L			02/04/16 18:18	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 18:18	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 18:18	1
<b>Ethylbenzene</b>	<b>3.7</b>		0.50		ug/L			02/04/16 18:18	1
Hexachlorobutadiene	ND		1.0		ug/L			02/04/16 18:18	1
2-Hexanone	ND		50		ug/L			02/04/16 18:18	1
<b>Isopropylbenzene</b>	<b>18</b>		0.50		ug/L			02/04/16 18:18	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/16 18:18	1
Methylene Chloride	ND		5.0		ug/L			02/04/16 18:18	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/04/16 18:18	1
<b>Naphthalene</b>	<b>74</b>		1.0		ug/L			02/04/16 18:18	1
<b>N-Propylbenzene</b>	<b>19</b>		1.0		ug/L			02/04/16 18:18	1
Styrene	ND		0.50		ug/L			02/04/16 18:18	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 18:18	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-8**

**Lab Sample ID: 720-70141-5**

Date Collected: 02/02/16 15:25

Matrix: Water

Date Received: 02/02/16 17:55

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 18:18	1
Tetrachloroethene	ND		0.50		ug/L			02/04/16 18:18	1
<b>Toluene</b>	<b>12</b>		0.50		ug/L			02/04/16 18:18	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/16 18:18	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/16 18:18	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/04/16 18:18	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/04/16 18:18	1
Trichloroethene	ND		0.50		ug/L			02/04/16 18:18	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/16 18:18	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/04/16 18:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/04/16 18:18	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/04/16 18:18	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.73</b>		0.50		ug/L			02/04/16 18:18	1
Vinyl acetate	ND		10		ug/L			02/04/16 18:18	1
Vinyl chloride	ND		0.50		ug/L			02/04/16 18:18	1
<b>Xylenes, Total</b>	<b>20</b>		1.0		ug/L			02/04/16 18:18	1
2,2-Dichloropropane	ND		0.50		ug/L			02/04/16 18:18	1
<b>Gasoline Range Organics (GRO)</b>	<b>2200</b>		50		ug/L			02/04/16 18:18	1
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		67 - 130		02/04/16 18:18	1
1,2-Dichloroethane-d4 (Surr)	104		72 - 130		02/04/16 18:18	1
Toluene-d8 (Surr)	106		70 - 130		02/04/16 18:18	1

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 00:30	1
<b>Sulfate</b>	<b>8.3</b>		1.0		mg/L			02/03/16 00:30	1
Nitrate as NO3	ND		1.0		mg/L			02/03/16 00:30	1

## Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.6</b>		0.020		mg/L		02/04/16 17:58	02/16/16 16:21	1
<b>Potassium</b>	<b>3.5</b>		1.0		mg/L		02/04/16 17:58	02/16/16 16:21	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>28</b>		0.10		mg/L			02/17/16 16:06	1
<b>Ferrous Iron</b>	<b>11</b>	HF	2.0		mg/L			02/02/16 18:41	20
<b>Ammonia</b>	<b>0.33</b>		0.20		mg/L		02/04/16 16:16	02/04/16 21:27	1
Orthophosphate as P	ND		0.020		mg/L			02/03/16 16:46	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-9**  
**Date Collected: 02/02/16 14:15**  
**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-6**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/04/16 17:20	1
Acetone	ND		50		ug/L			02/04/16 17:20	1
Benzene	ND		0.50		ug/L			02/04/16 17:20	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/16 17:20	1
Bromobenzene	ND		1.0		ug/L			02/04/16 17:20	1
Chlorobromomethane	ND		1.0		ug/L			02/04/16 17:20	1
Bromoform	ND		1.0		ug/L			02/04/16 17:20	1
Bromomethane	ND		1.0		ug/L			02/04/16 17:20	1
2-Butanone (MEK)	ND		50		ug/L			02/04/16 17:20	1
n-Butylbenzene	ND		1.0		ug/L			02/04/16 17:20	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/16 17:20	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/16 17:20	1
Carbon disulfide	ND		5.0		ug/L			02/04/16 17:20	1
Carbon tetrachloride	ND		0.50		ug/L			02/04/16 17:20	1
Chlorobenzene	ND		0.50		ug/L			02/04/16 17:20	1
Chloroethane	ND		1.0		ug/L			02/04/16 17:20	1
Chloroform	ND		1.0		ug/L			02/04/16 17:20	1
Chloromethane	ND		1.0		ug/L			02/04/16 17:20	1
2-Chlorotoluene	ND		0.50		ug/L			02/04/16 17:20	1
4-Chlorotoluene	ND		0.50		ug/L			02/04/16 17:20	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/16 17:20	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/04/16 17:20	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/04/16 17:20	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/04/16 17:20	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/16 17:20	1
1,1-Dichloropropane	ND		0.50		ug/L			02/04/16 17:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/04/16 17:20	1
Ethylene Dibromide	ND		0.50		ug/L			02/04/16 17:20	1
Dibromomethane	ND		0.50		ug/L			02/04/16 17:20	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/04/16 17:20	1
1,1-Dichloroethane	ND		0.50		ug/L			02/04/16 17:20	1
1,2-Dichloroethane	ND		0.50		ug/L			02/04/16 17:20	1
1,1-Dichloroethene	ND		0.50		ug/L			02/04/16 17:20	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 17:20	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 17:20	1
1,2-Dichloropropane	ND		0.50		ug/L			02/04/16 17:20	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 17:20	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 17:20	1
Ethylbenzene	ND		0.50		ug/L			02/04/16 17:20	1
Hexachlorobutadiene	ND		1.0		ug/L			02/04/16 17:20	1
2-Hexanone	ND		50		ug/L			02/04/16 17:20	1
Isopropylbenzene	ND		0.50		ug/L			02/04/16 17:20	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/16 17:20	1
Methylene Chloride	ND		5.0		ug/L			02/04/16 17:20	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/04/16 17:20	1
Naphthalene	ND		1.0		ug/L			02/04/16 17:20	1
N-Propylbenzene	ND		1.0		ug/L			02/04/16 17:20	1
Styrene	ND		0.50		ug/L			02/04/16 17:20	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 17:20	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-9**

**Lab Sample ID: 720-70141-6**

**Date Collected: 02/02/16 14:15**

**Matrix: Water**

**Date Received: 02/02/16 17:55**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 17:20	1
Tetrachloroethene	ND		0.50		ug/L			02/04/16 17:20	1
Toluene	ND		0.50		ug/L			02/04/16 17:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/16 17:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/16 17:20	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/04/16 17:20	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/04/16 17:20	1
Trichloroethene	ND		0.50		ug/L			02/04/16 17:20	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/16 17:20	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/04/16 17:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/04/16 17:20	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/04/16 17:20	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/04/16 17:20	1
Vinyl acetate	ND		10		ug/L			02/04/16 17:20	1
Vinyl chloride	ND		0.50		ug/L			02/04/16 17:20	1
Xylenes, Total	ND		1.0		ug/L			02/04/16 17:20	1
2,2-Dichloropropane	ND		0.50		ug/L			02/04/16 17:20	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/04/16 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130					02/04/16 17:20	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130					02/04/16 17:20	1
Toluene-d8 (Surr)	101		70 - 130					02/04/16 17:20	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 01:04	1
<b>Sulfate</b>	<b>63</b>		10		mg/L			02/03/16 01:21	10
<b>Nitrate as NO3</b>	<b>18</b>		1.0		mg/L			02/03/16 01:04	1

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.8</b>		0.020		mg/L		02/04/16 17:58	02/16/16 16:26	1
<b>Potassium</b>	<b>2.7</b>		1.0		mg/L		02/04/16 17:58	02/16/16 16:26	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>22</b>		0.10		mg/L			02/17/16 16:06	1
Ferrous Iron	ND	HF	0.10		mg/L			02/02/16 18:41	1
Ammonia	ND		0.20		mg/L		02/04/16 16:16	02/04/16 21:35	1
<b>Orthophosphate as P</b>	<b>0.038</b>		0.020		mg/L			02/03/16 16:46	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-10**  
**Date Collected: 02/02/16 14:50**  
**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-7**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/04/16 17:49	1
Acetone	ND		50		ug/L			02/04/16 17:49	1
Benzene	ND		0.50		ug/L			02/04/16 17:49	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/16 17:49	1
Bromobenzene	ND		1.0		ug/L			02/04/16 17:49	1
Chlorobromomethane	ND		1.0		ug/L			02/04/16 17:49	1
Bromoform	ND		1.0		ug/L			02/04/16 17:49	1
Bromomethane	ND		1.0		ug/L			02/04/16 17:49	1
2-Butanone (MEK)	ND		50		ug/L			02/04/16 17:49	1
n-Butylbenzene	ND		1.0		ug/L			02/04/16 17:49	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/16 17:49	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/16 17:49	1
Carbon disulfide	ND		5.0		ug/L			02/04/16 17:49	1
Carbon tetrachloride	ND		0.50		ug/L			02/04/16 17:49	1
Chlorobenzene	ND		0.50		ug/L			02/04/16 17:49	1
Chloroethane	ND		1.0		ug/L			02/04/16 17:49	1
Chloroform	ND		1.0		ug/L			02/04/16 17:49	1
Chloromethane	ND		1.0		ug/L			02/04/16 17:49	1
2-Chlorotoluene	ND		0.50		ug/L			02/04/16 17:49	1
4-Chlorotoluene	ND		0.50		ug/L			02/04/16 17:49	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/16 17:49	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/04/16 17:49	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/04/16 17:49	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/04/16 17:49	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/16 17:49	1
1,1-Dichloropropane	ND		0.50		ug/L			02/04/16 17:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/04/16 17:49	1
Ethylene Dibromide	ND		0.50		ug/L			02/04/16 17:49	1
Dibromomethane	ND		0.50		ug/L			02/04/16 17:49	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/04/16 17:49	1
1,1-Dichloroethane	ND		0.50		ug/L			02/04/16 17:49	1
1,2-Dichloroethane	ND		0.50		ug/L			02/04/16 17:49	1
1,1-Dichloroethene	ND		0.50		ug/L			02/04/16 17:49	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 17:49	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 17:49	1
1,2-Dichloropropane	ND		0.50		ug/L			02/04/16 17:49	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 17:49	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 17:49	1
Ethylbenzene	ND		0.50		ug/L			02/04/16 17:49	1
Hexachlorobutadiene	ND		1.0		ug/L			02/04/16 17:49	1
2-Hexanone	ND		50		ug/L			02/04/16 17:49	1
Isopropylbenzene	ND		0.50		ug/L			02/04/16 17:49	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/16 17:49	1
Methylene Chloride	ND		5.0		ug/L			02/04/16 17:49	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/04/16 17:49	1
Naphthalene	ND		1.0		ug/L			02/04/16 17:49	1
N-Propylbenzene	ND		1.0		ug/L			02/04/16 17:49	1
Styrene	ND		0.50		ug/L			02/04/16 17:49	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 17:49	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-10**  
**Date Collected: 02/02/16 14:50**  
**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-7**  
**Matrix: Water**

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 17:49	1
Tetrachloroethene	ND		0.50		ug/L			02/04/16 17:49	1
Toluene	ND		0.50		ug/L			02/04/16 17:49	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/16 17:49	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/16 17:49	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/04/16 17:49	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/04/16 17:49	1
Trichloroethene	ND		0.50		ug/L			02/04/16 17:49	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/16 17:49	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/04/16 17:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/04/16 17:49	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/04/16 17:49	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/04/16 17:49	1
Vinyl acetate	ND		10		ug/L			02/04/16 17:49	1
Vinyl chloride	ND		0.50		ug/L			02/04/16 17:49	1
Xylenes, Total	ND		1.0		ug/L			02/04/16 17:49	1
2,2-Dichloropropane	ND		0.50		ug/L			02/04/16 17:49	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/04/16 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					02/04/16 17:49	1
1,2-Dichloroethane-d4 (Surr)	98		72 - 130					02/04/16 17:49	1
Toluene-d8 (Surr)	100		70 - 130					02/04/16 17:49	1

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 01:38	1
<b>Sulfate</b>	<b>31</b>		10		mg/L			02/03/16 01:55	10
<b>Nitrate as NO3</b>	<b>27</b>		10		mg/L			02/03/16 01:55	10

## Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.28</b>		0.020		mg/L		02/04/16 17:58	02/16/16 16:31	1
<b>Potassium</b>	<b>2.6</b>		1.0		mg/L		02/04/16 17:58	02/16/16 16:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>21</b>		0.10		mg/L			02/17/16 16:06	1
Ferrous Iron	ND	HF	0.10		mg/L			02/02/16 18:41	1
Ammonia	ND		0.20		mg/L		02/04/16 16:16	02/04/16 21:38	1
Orthophosphate as P	ND		0.020		mg/L			02/03/16 16:46	1

TestAmerica Pleasanton

# Surrogate Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (67-130)	12DCE (72-130)	TOL (70-130)
720-70141-1	MW-4R	99	97	100
720-70141-2	MW-5R	100	95	101
720-70141-3	MW-6R	94	94	99
720-70141-4	MW-7R	97	94	99
720-70141-5	MW-8	111	104	106
720-70141-6	MW-9	96	100	101
720-70141-7	MW-10	98	98	100
LCS 720-196721/5	Lab Control Sample	103	93	104
LCS 720-196721/7	Lab Control Sample	100	98	102
LCS 720-196853/5	Lab Control Sample	101	95	102
LCS 720-196853/7	Lab Control Sample	102	96	101
LCSD 720-196721/6	Lab Control Sample Dup	102	95	104
LCSD 720-196721/8	Lab Control Sample Dup	100	98	101
LCSD 720-196853/6	Lab Control Sample Dup	100	92	102
LCSD 720-196853/8	Lab Control Sample Dup	101	98	101
MB 720-196721/4	Method Blank	95	96	99
MB 720-196853/4	Method Blank	98	100	98

### Surrogate Legend

BFB = 4-Bromofluorobenzene

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

**Lab Sample ID: MB 720-196721/4**

**Matrix: Water**

**Analysis Batch: 196721**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/02/16 19:11	1
Acetone	ND		50		ug/L			02/02/16 19:11	1
Benzene	ND		0.50		ug/L			02/02/16 19:11	1
Dichlorobromomethane	ND		0.50		ug/L			02/02/16 19:11	1
Bromobenzene	ND		1.0		ug/L			02/02/16 19:11	1
Chlorobromomethane	ND		1.0		ug/L			02/02/16 19:11	1
Bromoform	ND		1.0		ug/L			02/02/16 19:11	1
Bromomethane	ND		1.0		ug/L			02/02/16 19:11	1
2-Butanone (MEK)	ND		50		ug/L			02/02/16 19:11	1
n-Butylbenzene	ND		1.0		ug/L			02/02/16 19:11	1
sec-Butylbenzene	ND		1.0		ug/L			02/02/16 19:11	1
tert-Butylbenzene	ND		1.0		ug/L			02/02/16 19:11	1
Carbon disulfide	ND		5.0		ug/L			02/02/16 19:11	1
Carbon tetrachloride	ND		0.50		ug/L			02/02/16 19:11	1
Chlorobenzene	ND		0.50		ug/L			02/02/16 19:11	1
Chloroethane	ND		1.0		ug/L			02/02/16 19:11	1
Chloroform	ND		1.0		ug/L			02/02/16 19:11	1
Chloromethane	ND		1.0		ug/L			02/02/16 19:11	1
2-Chlorotoluene	ND		0.50		ug/L			02/02/16 19:11	1
4-Chlorotoluene	ND		0.50		ug/L			02/02/16 19:11	1
Chlorodibromomethane	ND		0.50		ug/L			02/02/16 19:11	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/02/16 19:11	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/02/16 19:11	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/02/16 19:11	1
1,3-Dichloropropane	ND		1.0		ug/L			02/02/16 19:11	1
1,1-Dichloropropene	ND		0.50		ug/L			02/02/16 19:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/02/16 19:11	1
Ethylene Dibromide	ND		0.50		ug/L			02/02/16 19:11	1
Dibromomethane	ND		0.50		ug/L			02/02/16 19:11	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/02/16 19:11	1
1,1-Dichloroethane	ND		0.50		ug/L			02/02/16 19:11	1
1,2-Dichloroethane	ND		0.50		ug/L			02/02/16 19:11	1
1,1-Dichloroethene	ND		0.50		ug/L			02/02/16 19:11	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/02/16 19:11	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/02/16 19:11	1
1,2-Dichloropropane	ND		0.50		ug/L			02/02/16 19:11	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/02/16 19:11	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/02/16 19:11	1
Ethylbenzene	ND		0.50		ug/L			02/02/16 19:11	1
Hexachlorobutadiene	ND		1.0		ug/L			02/02/16 19:11	1
2-Hexanone	ND		50		ug/L			02/02/16 19:11	1
Isopropylbenzene	ND		0.50		ug/L			02/02/16 19:11	1
4-Isopropyltoluene	ND		1.0		ug/L			02/02/16 19:11	1
Methylene Chloride	ND		5.0		ug/L			02/02/16 19:11	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/02/16 19:11	1
Naphthalene	ND		1.0		ug/L			02/02/16 19:11	1
N-Propylbenzene	ND		1.0		ug/L			02/02/16 19:11	1
Styrene	ND		0.50		ug/L			02/02/16 19:11	1

TestAmerica Pleasanton



# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: MB 720-196721/4**  
**Matrix: Water**  
**Analysis Batch: 196721**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/02/16 19:11	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/02/16 19:11	1
Tetrachloroethene	ND		0.50		ug/L			02/02/16 19:11	1
Toluene	ND		0.50		ug/L			02/02/16 19:11	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/02/16 19:11	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/02/16 19:11	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/02/16 19:11	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/02/16 19:11	1
Trichloroethene	ND		0.50		ug/L			02/02/16 19:11	1
Trichlorofluoromethane	ND		1.0		ug/L			02/02/16 19:11	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/02/16 19:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/02/16 19:11	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/02/16 19:11	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/02/16 19:11	1
Vinyl acetate	ND		10		ug/L			02/02/16 19:11	1
Vinyl chloride	ND		0.50		ug/L			02/02/16 19:11	1
Xylenes, Total	ND		1.0		ug/L			02/02/16 19:11	1
2,2-Dichloropropane	ND		0.50		ug/L			02/02/16 19:11	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/02/16 19:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 130		02/02/16 19:11	1
1,2-Dichloroethane-d4 (Surr)	96		72 - 130		02/02/16 19:11	1
Toluene-d8 (Surr)	99		70 - 130		02/02/16 19:11	1

**Lab Sample ID: LCS 720-196721/5**  
**Matrix: Water**  
**Analysis Batch: 196721**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	21.0		ug/L		84	62 - 130
Acetone	100	117		ug/L		117	26 - 180
Benzene	25.0	22.2		ug/L		89	79 - 130
Dichlorobromomethane	25.0	21.2		ug/L		85	70 - 130
Bromobenzene	25.0	21.7		ug/L		87	70 - 130
Chlorobromomethane	25.0	21.3		ug/L		85	70 - 130
Bromoform	25.0	23.7		ug/L		95	68 - 136
Bromomethane	25.0	20.3		ug/L		81	43 - 151
2-Butanone (MEK)	100	103		ug/L		103	54 - 130
n-Butylbenzene	25.0	21.6		ug/L		86	70 - 142
sec-Butylbenzene	25.0	21.8		ug/L		87	70 - 134
tert-Butylbenzene	25.0	22.8		ug/L		91	70 - 135
Carbon disulfide	25.0	17.6		ug/L		70	58 - 130
Carbon tetrachloride	25.0	20.9		ug/L		84	70 - 146
Chlorobenzene	25.0	23.0		ug/L		92	70 - 130
Chloroethane	25.0	21.2		ug/L		85	62 - 138
Chloroform	25.0	20.4		ug/L		82	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-196721/5**

**Matrix: Water**

**Analysis Batch: 196721**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	25.0	19.2		ug/L		77	52 - 175
2-Chlorotoluene	25.0	20.8		ug/L		83	70 - 130
4-Chlorotoluene	25.0	21.1		ug/L		84	70 - 130
Chlorodibromomethane	25.0	21.7		ug/L		87	70 - 145
1,2-Dichlorobenzene	25.0	21.0		ug/L		84	70 - 130
1,3-Dichlorobenzene	25.0	21.3		ug/L		85	70 - 130
1,4-Dichlorobenzene	25.0	21.3		ug/L		85	70 - 130
1,3-Dichloropropane	25.0	21.8		ug/L		87	70 - 130
1,1-Dichloropropene	25.0	20.4		ug/L		82	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	20.5		ug/L		82	70 - 136
Ethylene Dibromide	25.0	22.2		ug/L		89	70 - 130
Dibromomethane	25.0	19.7		ug/L		79	70 - 130
Dichlorodifluoromethane	25.0	14.5		ug/L		58	34 - 132
1,1-Dichloroethane	25.0	21.2		ug/L		85	70 - 130
1,2-Dichloroethane	25.0	21.2		ug/L		85	61 - 132
1,1-Dichloroethene	25.0	18.6		ug/L		74	64 - 128
cis-1,2-Dichloroethene	25.0	20.1		ug/L		80	70 - 130
trans-1,2-Dichloroethene	25.0	21.3		ug/L		85	68 - 130
1,2-Dichloropropane	25.0	22.0		ug/L		88	70 - 130
cis-1,3-Dichloropropene	25.0	22.0		ug/L		88	70 - 130
trans-1,3-Dichloropropene	25.0	23.3		ug/L		93	70 - 140
Ethylbenzene	25.0	20.9		ug/L		84	80 - 120
Hexachlorobutadiene	25.0	23.0		ug/L		92	70 - 130
2-Hexanone	100	94.0		ug/L		94	60 - 164
Isopropylbenzene	25.0	21.7		ug/L		87	70 - 130
4-Isopropyltoluene	25.0	21.4		ug/L		85	70 - 130
Methylene Chloride	25.0	22.4		ug/L		90	70 - 147
4-Methyl-2-pentanone (MIBK)	100	101		ug/L		101	58 - 130
Naphthalene	25.0	21.3		ug/L		85	70 - 130
N-Propylbenzene	25.0	21.9		ug/L		87	70 - 130
Styrene	25.0	21.8		ug/L		87	70 - 130
1,1,1,2-Tetrachloroethane	25.0	22.5		ug/L		90	70 - 130
1,1,1,2-Tetrachloroethane	25.0	20.2		ug/L		81	70 - 130
Tetrachloroethene	25.0	22.5		ug/L		90	70 - 130
Toluene	25.0	22.1		ug/L		88	78 - 120
1,2,3-Trichlorobenzene	25.0	21.2		ug/L		85	70 - 130
1,2,4-Trichlorobenzene	25.0	22.2		ug/L		89	70 - 130
1,1,1-Trichloroethane	25.0	20.2		ug/L		81	70 - 130
1,1,2-Trichloroethane	25.0	22.1		ug/L		89	70 - 130
Trichloroethene	25.0	22.4		ug/L		90	70 - 130
Trichlorofluoromethane	25.0	22.9		ug/L		92	66 - 132
1,2,3-Trichloropropane	25.0	21.9		ug/L		87	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.3		ug/L		77	42 - 162
1,2,4-Trimethylbenzene	25.0	21.1		ug/L		84	70 - 132
1,3,5-Trimethylbenzene	25.0	21.2		ug/L		85	70 - 130
Vinyl acetate	25.0	21.8		ug/L		87	43 - 163
Vinyl chloride	25.0	17.9		ug/L		72	54 - 135

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-196721/5**  
**Matrix: Water**  
**Analysis Batch: 196721**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	25.0	21.9		ug/L		88	70 - 142
o-Xylene	25.0	20.9		ug/L		84	70 - 130
2,2-Dichloropropane	25.0	21.1		ug/L		85	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	93		72 - 130
Toluene-d8 (Surr)	104		70 - 130

**Lab Sample ID: LCS 720-196721/7**  
**Matrix: Water**  
**Analysis Batch: 196721**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	522		ug/L		104	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: LCSD 720-196721/6**  
**Matrix: Water**  
**Analysis Batch: 196721**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	21.6		ug/L		86	62 - 130	3	20
Acetone	100	112		ug/L		112	26 - 180	4	30
Benzene	25.0	21.6		ug/L		87	79 - 130	3	20
Dichlorobromomethane	25.0	21.1		ug/L		84	70 - 130	1	20
Bromobenzene	25.0	21.7		ug/L		87	70 - 130	0	20
Chlorobromomethane	25.0	21.1		ug/L		84	70 - 130	1	20
Bromoform	25.0	24.5		ug/L		98	68 - 136	3	20
Bromomethane	25.0	20.2		ug/L		81	43 - 151	0	20
2-Butanone (MEK)	100	112		ug/L		112	54 - 130	8	20
n-Butylbenzene	25.0	21.1		ug/L		84	70 - 142	2	20
sec-Butylbenzene	25.0	21.4		ug/L		86	70 - 134	1	20
tert-Butylbenzene	25.0	22.6		ug/L		90	70 - 135	1	20
Carbon disulfide	25.0	17.0		ug/L		68	58 - 130	3	20
Carbon tetrachloride	25.0	20.2		ug/L		81	70 - 146	3	20
Chlorobenzene	25.0	22.7		ug/L		91	70 - 130	1	20
Chloroethane	25.0	20.9		ug/L		84	62 - 138	1	20
Chloroform	25.0	20.1		ug/L		80	70 - 130	2	20
Chloromethane	25.0	19.1		ug/L		76	52 - 175	0	20
2-Chlorotoluene	25.0	21.1		ug/L		85	70 - 130	2	20
4-Chlorotoluene	25.0	21.0		ug/L		84	70 - 130	0	20
Chlorodibromomethane	25.0	21.6		ug/L		86	70 - 145	1	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-196721/6

Matrix: Water

Analysis Batch: 196721

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	25.0	21.0		ug/L		84	70 - 130	0	20
1,3-Dichlorobenzene	25.0	21.1		ug/L		84	70 - 130	1	20
1,4-Dichlorobenzene	25.0	21.3		ug/L		85	70 - 130	0	20
1,3-Dichloropropane	25.0	21.9		ug/L		88	70 - 130	1	20
1,1-Dichloropropene	25.0	20.0		ug/L		80	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	25.0	21.9		ug/L		88	70 - 136	7	20
Ethylene Dibromide	25.0	22.2		ug/L		89	70 - 130	0	20
Dibromomethane	25.0	20.0		ug/L		80	70 - 130	2	20
Dichlorodifluoromethane	25.0	14.5		ug/L		58	34 - 132	0	20
1,1-Dichloroethane	25.0	20.6		ug/L		82	70 - 130	3	20
1,2-Dichloroethane	25.0	21.2		ug/L		85	61 - 132	0	20
1,1-Dichloroethene	25.0	18.0		ug/L		72	64 - 128	3	20
cis-1,2-Dichloroethene	25.0	19.9		ug/L		80	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	20.5		ug/L		82	68 - 130	3	20
1,2-Dichloropropane	25.0	21.9		ug/L		88	70 - 130	0	20
cis-1,3-Dichloropropene	25.0	21.8		ug/L		87	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	23.3		ug/L		93	70 - 140	0	20
Ethylbenzene	25.0	20.5		ug/L		82	80 - 120	2	20
Hexachlorobutadiene	25.0	23.1		ug/L		92	70 - 130	0	20
2-Hexanone	100	101		ug/L		101	60 - 164	7	20
Isopropylbenzene	25.0	21.1		ug/L		85	70 - 130	3	20
4-Isopropyltoluene	25.0	21.1		ug/L		84	70 - 130	1	20
Methylene Chloride	25.0	22.0		ug/L		88	70 - 147	2	20
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	58 - 130	9	20
Naphthalene	25.0	22.8		ug/L		91	70 - 130	7	20
N-Propylbenzene	25.0	21.5		ug/L		86	70 - 130	1	20
Styrene	25.0	21.4		ug/L		86	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	22.5		ug/L		90	70 - 130	0	20
1,1,2,2-Tetrachloroethane	25.0	21.1		ug/L		84	70 - 130	4	20
Tetrachloroethene	25.0	21.8		ug/L		87	70 - 130	3	20
Toluene	25.0	21.5		ug/L		86	78 - 120	3	20
1,2,3-Trichlorobenzene	25.0	21.8		ug/L		87	70 - 130	3	20
1,2,4-Trichlorobenzene	25.0	22.6		ug/L		90	70 - 130	2	20
1,1,1-Trichloroethane	25.0	19.6		ug/L		78	70 - 130	3	20
1,1,2-Trichloroethane	25.0	22.6		ug/L		90	70 - 130	2	20
Trichloroethene	25.0	21.9		ug/L		88	70 - 130	2	20
Trichlorofluoromethane	25.0	22.8		ug/L		91	66 - 132	0	20
1,2,3-Trichloropropane	25.0	22.7		ug/L		91	70 - 130	4	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.6		ug/L		74	42 - 162	4	20
1,2,4-Trimethylbenzene	25.0	20.7		ug/L		83	70 - 132	2	20
1,3,5-Trimethylbenzene	25.0	20.8		ug/L		83	70 - 130	2	20
Vinyl acetate	25.0	22.7		ug/L		91	43 - 163	4	20
Vinyl chloride	25.0	17.8		ug/L		71	54 - 135	0	20
m-Xylene & p-Xylene	25.0	21.6		ug/L		86	70 - 142	2	20
o-Xylene	25.0	20.6		ug/L		82	70 - 130	1	20
2,2-Dichloropropane	25.0	20.0		ug/L		80	70 - 140	6	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-196721/6**  
**Matrix: Water**  
**Analysis Batch: 196721**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
Toluene-d8 (Surr)	104		70 - 130

**Lab Sample ID: LCSD 720-196721/8**  
**Matrix: Water**  
**Analysis Batch: 196721**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	504		ug/L		101	62 - 120	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: MB 720-196853/4**  
**Matrix: Water**  
**Analysis Batch: 196853**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/04/16 11:05	1
Acetone	ND		50		ug/L			02/04/16 11:05	1
Benzene	ND		0.50		ug/L			02/04/16 11:05	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/16 11:05	1
Bromobenzene	ND		1.0		ug/L			02/04/16 11:05	1
Chlorobromomethane	ND		1.0		ug/L			02/04/16 11:05	1
Bromoform	ND		1.0		ug/L			02/04/16 11:05	1
Bromomethane	ND		1.0		ug/L			02/04/16 11:05	1
2-Butanone (MEK)	ND		50		ug/L			02/04/16 11:05	1
n-Butylbenzene	ND		1.0		ug/L			02/04/16 11:05	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/16 11:05	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/16 11:05	1
Carbon disulfide	ND		5.0		ug/L			02/04/16 11:05	1
Carbon tetrachloride	ND		0.50		ug/L			02/04/16 11:05	1
Chlorobenzene	ND		0.50		ug/L			02/04/16 11:05	1
Chloroethane	ND		1.0		ug/L			02/04/16 11:05	1
Chloroform	ND		1.0		ug/L			02/04/16 11:05	1
Chloromethane	ND		1.0		ug/L			02/04/16 11:05	1
2-Chlorotoluene	ND		0.50		ug/L			02/04/16 11:05	1
4-Chlorotoluene	ND		0.50		ug/L			02/04/16 11:05	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/16 11:05	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/04/16 11:05	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/04/16 11:05	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/04/16 11:05	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/16 11:05	1
1,1-Dichloropropene	ND		0.50		ug/L			02/04/16 11:05	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: MB 720-196853/4**  
**Matrix: Water**  
**Analysis Batch: 196853**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/04/16 11:05	1
Ethylene Dibromide	ND		0.50		ug/L			02/04/16 11:05	1
Dibromomethane	ND		0.50		ug/L			02/04/16 11:05	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/04/16 11:05	1
1,1-Dichloroethane	ND		0.50		ug/L			02/04/16 11:05	1
1,2-Dichloroethane	ND		0.50		ug/L			02/04/16 11:05	1
1,1-Dichloroethene	ND		0.50		ug/L			02/04/16 11:05	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 11:05	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/04/16 11:05	1
1,2-Dichloropropane	ND		0.50		ug/L			02/04/16 11:05	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 11:05	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/04/16 11:05	1
Ethylbenzene	ND		0.50		ug/L			02/04/16 11:05	1
Hexachlorobutadiene	ND		1.0		ug/L			02/04/16 11:05	1
2-Hexanone	ND		50		ug/L			02/04/16 11:05	1
Isopropylbenzene	ND		0.50		ug/L			02/04/16 11:05	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/16 11:05	1
Methylene Chloride	ND		5.0		ug/L			02/04/16 11:05	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/04/16 11:05	1
Naphthalene	ND		1.0		ug/L			02/04/16 11:05	1
N-Propylbenzene	ND		1.0		ug/L			02/04/16 11:05	1
Styrene	ND		0.50		ug/L			02/04/16 11:05	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 11:05	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/16 11:05	1
Tetrachloroethene	ND		0.50		ug/L			02/04/16 11:05	1
Toluene	ND		0.50		ug/L			02/04/16 11:05	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/16 11:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/16 11:05	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/04/16 11:05	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/04/16 11:05	1
Trichloroethene	ND		0.50		ug/L			02/04/16 11:05	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/16 11:05	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/04/16 11:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/04/16 11:05	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/04/16 11:05	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/04/16 11:05	1
Vinyl acetate	ND		10		ug/L			02/04/16 11:05	1
Vinyl chloride	ND		0.50		ug/L			02/04/16 11:05	1
Xylenes, Total	ND		1.0		ug/L			02/04/16 11:05	1
2,2-Dichloropropane	ND		0.50		ug/L			02/04/16 11:05	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/04/16 11:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130		02/04/16 11:05	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		02/04/16 11:05	1
Toluene-d8 (Surr)	98		70 - 130		02/04/16 11:05	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-196853/5

Matrix: Water

Analysis Batch: 196853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	23.7		ug/L		95	62 - 130
Acetone	100	106		ug/L		106	26 - 180
Benzene	25.0	24.6		ug/L		98	79 - 130
Dichlorobromomethane	25.0	22.7		ug/L		91	70 - 130
Bromobenzene	25.0	22.8		ug/L		91	70 - 130
Chlorobromomethane	25.0	22.9		ug/L		92	70 - 130
Bromoform	25.0	24.7		ug/L		99	68 - 136
Bromomethane	25.0	21.1		ug/L		85	43 - 151
2-Butanone (MEK)	100	102		ug/L		102	54 - 130
n-Butylbenzene	25.0	22.9		ug/L		91	70 - 142
sec-Butylbenzene	25.0	22.8		ug/L		91	70 - 134
tert-Butylbenzene	25.0	23.8		ug/L		95	70 - 135
Carbon disulfide	25.0	23.1		ug/L		93	58 - 130
Carbon tetrachloride	25.0	23.0		ug/L		92	70 - 146
Chlorobenzene	25.0	24.5		ug/L		98	70 - 130
Chloroethane	25.0	21.4		ug/L		86	62 - 138
Chloroform	25.0	22.3		ug/L		89	70 - 130
Chloromethane	25.0	23.7		ug/L		95	52 - 175
2-Chlorotoluene	25.0	22.0		ug/L		88	70 - 130
4-Chlorotoluene	25.0	22.4		ug/L		90	70 - 130
Chlorodibromomethane	25.0	22.8		ug/L		91	70 - 145
1,2-Dichlorobenzene	25.0	22.2		ug/L		89	70 - 130
1,3-Dichlorobenzene	25.0	22.5		ug/L		90	70 - 130
1,4-Dichlorobenzene	25.0	22.6		ug/L		90	70 - 130
1,3-Dichloropropane	25.0	23.1		ug/L		92	70 - 130
1,1-Dichloropropene	25.0	22.8		ug/L		91	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	21.8		ug/L		87	70 - 136
Ethylene Dibromide	25.0	23.5		ug/L		94	70 - 130
Dibromomethane	25.0	21.3		ug/L		85	70 - 130
Dichlorodifluoromethane	25.0	25.4		ug/L		101	34 - 132
1,1-Dichloroethane	25.0	23.6		ug/L		94	70 - 130
1,2-Dichloroethane	25.0	23.2		ug/L		93	61 - 132
1,1-Dichloroethene	25.0	22.4		ug/L		90	64 - 128
cis-1,2-Dichloroethene	25.0	22.3		ug/L		89	70 - 130
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	68 - 130
1,2-Dichloropropane	25.0	23.7		ug/L		95	70 - 130
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	70 - 130
trans-1,3-Dichloropropene	25.0	24.6		ug/L		98	70 - 140
Ethylbenzene	25.0	22.3		ug/L		89	80 - 120
Hexachlorobutadiene	25.0	24.0		ug/L		96	70 - 130
2-Hexanone	100	87.9		ug/L		88	60 - 164
Isopropylbenzene	25.0	22.8		ug/L		91	70 - 130
4-Isopropyltoluene	25.0	22.5		ug/L		90	70 - 130
Methylene Chloride	25.0	24.8		ug/L		99	70 - 147
4-Methyl-2-pentanone (MIBK)	100	93.7		ug/L		94	58 - 130
Naphthalene	25.0	21.8		ug/L		87	70 - 130
N-Propylbenzene	25.0	23.3		ug/L		93	70 - 130
Styrene	25.0	23.0		ug/L		92	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-196853/5**  
**Matrix: Water**  
**Analysis Batch: 196853**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	23.6		ug/L		95	70 - 130
1,1,2,2-Tetrachloroethane	25.0	21.4		ug/L		85	70 - 130
Tetrachloroethene	25.0	24.3		ug/L		97	70 - 130
Toluene	25.0	23.5		ug/L		94	78 - 120
1,2,3-Trichlorobenzene	25.0	22.2		ug/L		89	70 - 130
1,2,4-Trichlorobenzene	25.0	23.2		ug/L		93	70 - 130
1,1,1-Trichloroethane	25.0	22.3		ug/L		89	70 - 130
1,1,2-Trichloroethane	25.0	23.7		ug/L		95	70 - 130
Trichloroethene	25.0	24.4		ug/L		98	70 - 130
Trichlorofluoromethane	25.0	22.6		ug/L		90	66 - 132
1,2,3-Trichloropropane	25.0	22.8		ug/L		91	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.0		ug/L		92	42 - 162
1,2,4-Trimethylbenzene	25.0	22.2		ug/L		89	70 - 132
1,3,5-Trimethylbenzene	25.0	22.5		ug/L		90	70 - 130
Vinyl acetate	25.0	21.9		ug/L		88	43 - 163
Vinyl chloride	25.0	20.2		ug/L		81	54 - 135
m-Xylene & p-Xylene	25.0	23.5		ug/L		94	70 - 142
o-Xylene	25.0	22.3		ug/L		89	70 - 130
2,2-Dichloropropane	25.0	23.8		ug/L		95	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: LCS 720-196853/7**  
**Matrix: Water**  
**Analysis Batch: 196853**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	455		ug/L		91	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: LCSD 720-196853/6**  
**Matrix: Water**  
**Analysis Batch: 196853**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	24.5		ug/L		98	62 - 130	4	20
Acetone	100	127		ug/L		127	26 - 180	18	30
Benzene	25.0	25.6		ug/L		102	79 - 130	4	20
Dichlorobromomethane	25.0	23.8		ug/L		95	70 - 130	5	20

TestAmerica Pleasanton



# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-196853/6  
Matrix: Water  
Analysis Batch: 196853

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	25.0	24.2		ug/L		97	70 - 130	6	20
Chlorobromomethane	25.0	24.2		ug/L		97	70 - 130	5	20
Bromoform	25.0	26.2		ug/L		105	68 - 136	6	20
Bromomethane	25.0	22.8		ug/L		91	43 - 151	8	20
2-Butanone (MEK)	100	105		ug/L		105	54 - 130	3	20
n-Butylbenzene	25.0	24.6		ug/L		98	70 - 142	7	20
sec-Butylbenzene	25.0	24.4		ug/L		98	70 - 134	7	20
tert-Butylbenzene	25.0	25.6		ug/L		102	70 - 135	7	20
Carbon disulfide	25.0	24.1		ug/L		96	58 - 130	4	20
Carbon tetrachloride	25.0	24.2		ug/L		97	70 - 146	5	20
Chlorobenzene	25.0	25.8		ug/L		103	70 - 130	5	20
Chloroethane	25.0	23.2		ug/L		93	62 - 138	8	20
Chloroform	25.0	23.1		ug/L		93	70 - 130	4	20
Chloromethane	25.0	25.9		ug/L		104	52 - 175	9	20
2-Chlorotoluene	25.0	24.2		ug/L		97	70 - 130	10	20
4-Chlorotoluene	25.0	24.0		ug/L		96	70 - 130	7	20
Chlorodibromomethane	25.0	23.8		ug/L		95	70 - 145	4	20
1,2-Dichlorobenzene	25.0	23.6		ug/L		94	70 - 130	6	20
1,3-Dichlorobenzene	25.0	24.1		ug/L		96	70 - 130	7	20
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	7	20
1,3-Dichloropropane	25.0	23.9		ug/L		96	70 - 130	4	20
1,1-Dichloropropane	25.0	23.9		ug/L		95	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	23.8		ug/L		95	70 - 136	9	20
Ethylene Dibromide	25.0	24.3		ug/L		97	70 - 130	3	20
Dibromomethane	25.0	22.2		ug/L		89	70 - 130	4	20
Dichlorodifluoromethane	25.0	27.1		ug/L		108	34 - 132	7	20
1,1-Dichloroethane	25.0	24.5		ug/L		98	70 - 130	4	20
1,2-Dichloroethane	25.0	24.4		ug/L		98	61 - 132	5	20
1,1-Dichloroethene	25.0	23.4		ug/L		94	64 - 128	4	20
cis-1,2-Dichloroethene	25.0	23.1		ug/L		92	70 - 130	4	20
trans-1,2-Dichloroethene	25.0	25.1		ug/L		100	68 - 130	4	20
1,2-Dichloropropane	25.0	24.8		ug/L		99	70 - 130	5	20
cis-1,3-Dichloropropene	25.0	24.4		ug/L		98	70 - 130	4	20
trans-1,3-Dichloropropene	25.0	25.2		ug/L		101	70 - 140	2	20
Ethylbenzene	25.0	23.4		ug/L		94	80 - 120	5	20
Hexachlorobutadiene	25.0	25.2		ug/L		101	70 - 130	5	20
2-Hexanone	100	98.2		ug/L		98	60 - 164	11	20
Isopropylbenzene	25.0	24.2		ug/L		97	70 - 130	6	20
4-Isopropyltoluene	25.0	24.1		ug/L		96	70 - 130	7	20
Methylene Chloride	25.0	25.7		ug/L		103	70 - 147	3	20
4-Methyl-2-pentanone (MIBK)	100	102		ug/L		102	58 - 130	8	20
Naphthalene	25.0	24.0		ug/L		96	70 - 130	9	20
N-Propylbenzene	25.0	24.8		ug/L		99	70 - 130	6	20
Styrene	25.0	24.3		ug/L		97	70 - 130	6	20
1,1,1,2-Tetrachloroethane	25.0	25.1		ug/L		100	70 - 130	6	20
1,1,2,2-Tetrachloroethane	25.0	22.8		ug/L		91	70 - 130	7	20
Tetrachloroethene	25.0	25.3		ug/L		101	70 - 130	4	20
Toluene	25.0	25.0		ug/L		100	78 - 120	6	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-196853/6**  
**Matrix: Water**  
**Analysis Batch: 196853**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichlorobenzene	25.0	23.9		ug/L		96	70 - 130	8	20
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		100	70 - 130	8	20
1,1,1-Trichloroethane	25.0	23.5		ug/L		94	70 - 130	5	20
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	70 - 130	4	20
Trichloroethene	25.0	25.4		ug/L		101	70 - 130	4	20
Trichlorofluoromethane	25.0	24.7		ug/L		99	66 - 132	9	20
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	70 - 130	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.1		ug/L		96	42 - 162	5	20
1,2,4-Trimethylbenzene	25.0	23.6		ug/L		95	70 - 132	7	20
1,3,5-Trimethylbenzene	25.0	24.0		ug/L		96	70 - 130	6	20
Vinyl acetate	25.0	23.3		ug/L		93	43 - 163	6	20
Vinyl chloride	25.0	21.8		ug/L		87	54 - 135	7	20
m-Xylene & p-Xylene	25.0	24.7		ug/L		99	70 - 142	5	20
o-Xylene	25.0	23.6		ug/L		94	70 - 130	6	20
2,2-Dichloropropane	25.0	26.0		ug/L		104	70 - 140	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	92		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: LCSD 720-196853/8**  
**Matrix: Water**  
**Analysis Batch: 196853**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	480		ug/L		96	62 - 120	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		72 - 130
Toluene-d8 (Surr)	101		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 720-196692/17**  
**Matrix: Water**  
**Analysis Batch: 196692**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/02/16 17:03	1
Nitrate as NO3	ND		1.0		mg/L			02/02/16 17:03	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 720-196692/18**

**Matrix: Water**

**Analysis Batch: 196692**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as NO2	10.0	9.96		mg/L		100	90 - 110
Nitrate as NO3	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID: MB 720-196693/17**

**Matrix: Water**

**Analysis Batch: 196693**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0		mg/L			02/02/16 17:03	1

**Lab Sample ID: LCS 720-196693/18**

**Matrix: Water**

**Analysis Batch: 196693**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID: MB 720-196790/4**

**Matrix: Water**

**Analysis Batch: 196790**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 13:42	1
Nitrate as NO3	ND		1.0		mg/L			02/03/16 13:42	1

**Lab Sample ID: LCS 720-196790/5**

**Matrix: Water**

**Analysis Batch: 196790**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as NO2	10.0	10.4		mg/L		104	90 - 110
Nitrate as NO3	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID: 720-70141-4 MS**

**Matrix: Water**

**Analysis Batch: 196790**

**Client Sample ID: MW-7R**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as NO2	ND		1000	1040		mg/L		104	80 - 120
Nitrate as NO3	200		1000	1200		mg/L		100	80 - 120

**Lab Sample ID: 720-70141-4 MSD**

**Matrix: Water**

**Analysis Batch: 196790**

**Client Sample ID: MW-7R**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as NO2	ND		1000	1020		mg/L		102	80 - 120	2	20
Nitrate as NO3	200		1000	1140		mg/L		94	80 - 120	5	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 720-196791/4**  
**Matrix: Water**  
**Analysis Batch: 196791**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0		mg/L			02/03/16 13:42	1

**Lab Sample ID: LCS 720-196791/5**  
**Matrix: Water**  
**Analysis Batch: 196791**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.97		mg/L		100	90 - 110

**Lab Sample ID: 720-70141-4 MS**  
**Matrix: Water**  
**Analysis Batch: 196791**

**Client Sample ID: MW-7R**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	ND		1000	1020		mg/L		102	80 - 120

**Lab Sample ID: 720-70141-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 196791**

**Client Sample ID: MW-7R**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	ND		1000	973		mg/L		97	80 - 120	4	20

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 720-196910/1-A**  
**Matrix: Water**  
**Analysis Batch: 197162**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 196910**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.020		mg/L		02/04/16 17:58	02/16/16 15:10	1
Potassium	ND		1.0		mg/L		02/04/16 17:58	02/16/16 15:10	1

**Lab Sample ID: LCS 720-196910/2-A**  
**Matrix: Water**  
**Analysis Batch: 197162**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 196910**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	1.00	0.992		mg/L		99	85 - 115
Potassium	10.0	10.2		mg/L		102	85 - 115

## Method: SM 3500 Fe B - Iron, Ferrous

**Lab Sample ID: MB 720-196732/8**  
**Matrix: Water**  
**Analysis Batch: 196732**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10		mg/L			02/02/16 18:41	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: SM 3500 Fe B - Iron, Ferrous (Continued)

Lab Sample ID: LCS 720-196732/9  
Matrix: Water  
Analysis Batch: 196732

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: 720-70141-7 MS  
Matrix: Water  
Analysis Batch: 196732

Client Sample ID: MW-10  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	ND	HF	1.00	1.02		mg/L		102	75 - 125

Lab Sample ID: 720-70141-7 MSD  
Matrix: Water  
Analysis Batch: 196732

Client Sample ID: MW-10  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ferrous Iron	ND	HF	1.00	1.02		mg/L		102	75 - 125	0	20

## Method: SM 4500 NH3 G - Ammonia

Lab Sample ID: MB 500-321978/1-A  
Matrix: Water  
Analysis Batch: 322004

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 321978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		02/04/16 16:16	02/04/16 20:27	1

Lab Sample ID: LCS 500-321978/2-A  
Matrix: Water  
Analysis Batch: 322004

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 321978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.51		mg/L		100	80 - 120

## Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 720-196821/11  
Matrix: Water  
Analysis Batch: 196821

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Orthophosphate as P	ND		0.020		mg/L			02/03/16 16:46	1

Lab Sample ID: LCS 720-196821/12  
Matrix: Water  
Analysis Batch: 196821

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Orthophosphate as P	0.200	0.185		mg/L		93	90 - 110

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# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Method: SM 4500 P E - Orthophosphate (Continued)

Lab Sample ID: 720-70141-3 MS  
Matrix: Water  
Analysis Batch: 196821

Client Sample ID: MW-6R  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Orthophosphate as P	1.8		2.00	3.79		mg/L		100	75 - 125

Lab Sample ID: 720-70141-3 MSD  
Matrix: Water  
Analysis Batch: 196821

Client Sample ID: MW-6R  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Orthophosphate as P	1.8		2.00	3.93		mg/L		107	75 - 125	4	20

# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## GC/MS VOA

### Analysis Batch: 196721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	8260B/CA_LUFT MS	
720-70141-2	MW-5R	Total/NA	Water	8260B/CA_LUFT MS	
720-70141-3	MW-6R	Total/NA	Water	8260B/CA_LUFT MS	
720-70141-4	MW-7R	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-196721/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-196721/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-196721/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-196721/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-196721/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

### Analysis Batch: 196853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-5	MW-8	Total/NA	Water	8260B/CA_LUFT MS	
720-70141-6	MW-9	Total/NA	Water	8260B/CA_LUFT MS	
720-70141-7	MW-10	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-196853/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-196853/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-196853/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-196853/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-196853/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

## HPLC/IC

### Analysis Batch: 196692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	300.0	
720-70141-1	MW-4R	Total/NA	Water	300.0	
720-70141-2	MW-5R	Total/NA	Water	300.0	
720-70141-3	MW-6R	Total/NA	Water	300.0	
720-70141-4	MW-7R	Total/NA	Water	300.0	
720-70141-5	MW-8	Total/NA	Water	300.0	
720-70141-6	MW-9	Total/NA	Water	300.0	
720-70141-7	MW-10	Total/NA	Water	300.0	
720-70141-7	MW-10	Total/NA	Water	300.0	
LCS 720-196692/18	Lab Control Sample	Total/NA	Water	300.0	
MB 720-196692/17	Method Blank	Total/NA	Water	300.0	

TestAmerica Pleasanton

# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## HPLC/IC (Continued)

### Analysis Batch: 196693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	300.0	
720-70141-2	MW-5R	Total/NA	Water	300.0	
720-70141-3	MW-6R	Total/NA	Water	300.0	
720-70141-4	MW-7R	Total/NA	Water	300.0	
720-70141-5	MW-8	Total/NA	Water	300.0	
720-70141-6	MW-9	Total/NA	Water	300.0	
720-70141-7	MW-10	Total/NA	Water	300.0	
LCS 720-196693/18	Lab Control Sample	Total/NA	Water	300.0	
MB 720-196693/17	Method Blank	Total/NA	Water	300.0	

### Analysis Batch: 196790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-3	MW-6R	Total/NA	Water	300.0	
720-70141-4	MW-7R	Total/NA	Water	300.0	
720-70141-4 MS	MW-7R	Total/NA	Water	300.0	
720-70141-4 MSD	MW-7R	Total/NA	Water	300.0	
LCS 720-196790/5	Lab Control Sample	Total/NA	Water	300.0	
MB 720-196790/4	Method Blank	Total/NA	Water	300.0	

### Analysis Batch: 196791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-4	MW-7R	Total/NA	Water	300.0	
720-70141-4 MS	MW-7R	Total/NA	Water	300.0	
720-70141-4 MSD	MW-7R	Total/NA	Water	300.0	
LCS 720-196791/5	Lab Control Sample	Total/NA	Water	300.0	
MB 720-196791/4	Method Blank	Total/NA	Water	300.0	

## Metals

### Prep Batch: 196910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	200.7	
720-70141-2	MW-5R	Total/NA	Water	200.7	
720-70141-3	MW-6R	Total/NA	Water	200.7	
720-70141-4	MW-7R	Total/NA	Water	200.7	
720-70141-5	MW-8	Total/NA	Water	200.7	
720-70141-6	MW-9	Total/NA	Water	200.7	
720-70141-7	MW-10	Total/NA	Water	200.7	
LCS 720-196910/2-A	Lab Control Sample	Total/NA	Water	200.7	
MB 720-196910/1-A	Method Blank	Total/NA	Water	200.7	

### Analysis Batch: 197162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	200.7 Rev 4.4	196910
720-70141-2	MW-5R	Total/NA	Water	200.7 Rev 4.4	196910
720-70141-3	MW-6R	Total/NA	Water	200.7 Rev 4.4	196910
720-70141-4	MW-7R	Total/NA	Water	200.7 Rev 4.4	196910
720-70141-5	MW-8	Total/NA	Water	200.7 Rev 4.4	196910
720-70141-6	MW-9	Total/NA	Water	200.7 Rev 4.4	196910
720-70141-7	MW-10	Total/NA	Water	200.7 Rev 4.4	196910

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# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Metals (Continued)

### Analysis Batch: 197162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-196910/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	196910
MB 720-196910/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	196910

## General Chemistry

### Analysis Batch: 196732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	SM 3500 Fe B	
720-70141-2	MW-5R	Total/NA	Water	SM 3500 Fe B	
720-70141-3	MW-6R	Total/NA	Water	SM 3500 Fe B	
720-70141-4	MW-7R	Total/NA	Water	SM 3500 Fe B	
720-70141-5	MW-8	Total/NA	Water	SM 3500 Fe B	
720-70141-6	MW-9	Total/NA	Water	SM 3500 Fe B	
720-70141-7	MW-10	Total/NA	Water	SM 3500 Fe B	
720-70141-7 MS	MW-10	Total/NA	Water	SM 3500 Fe B	
720-70141-7 MSD	MW-10	Total/NA	Water	SM 3500 Fe B	
LCS 720-196732/9	Lab Control Sample	Total/NA	Water	SM 3500 Fe B	
MB 720-196732/8	Method Blank	Total/NA	Water	SM 3500 Fe B	

### Analysis Batch: 196821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	SM 4500 P E	
720-70141-2	MW-5R	Total/NA	Water	SM 4500 P E	
720-70141-3	MW-6R	Total/NA	Water	SM 4500 P E	
720-70141-3 MS	MW-6R	Total/NA	Water	SM 4500 P E	
720-70141-3 MSD	MW-6R	Total/NA	Water	SM 4500 P E	
720-70141-4	MW-7R	Total/NA	Water	SM 4500 P E	
720-70141-5	MW-8	Total/NA	Water	SM 4500 P E	
720-70141-6	MW-9	Total/NA	Water	SM 4500 P E	
720-70141-7	MW-10	Total/NA	Water	SM 4500 P E	
LCS 720-196821/12	Lab Control Sample	Total/NA	Water	SM 4500 P E	
MB 720-196821/11	Method Blank	Total/NA	Water	SM 4500 P E	

### Analysis Batch: 197190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	SM 3500	
720-70141-2	MW-5R	Total/NA	Water	SM 3500	
720-70141-3	MW-6R	Total/NA	Water	SM 3500	
720-70141-4	MW-7R	Total/NA	Water	SM 3500	
720-70141-5	MW-8	Total/NA	Water	SM 3500	
720-70141-6	MW-9	Total/NA	Water	SM 3500	
720-70141-7	MW-10	Total/NA	Water	SM 3500	

### Prep Batch: 321978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	SM 4500 NH3 B	
720-70141-2	MW-5R	Total/NA	Water	SM 4500 NH3 B	
720-70141-3	MW-6R	Total/NA	Water	SM 4500 NH3 B	
720-70141-4	MW-7R	Total/NA	Water	SM 4500 NH3 B	
720-70141-5	MW-8	Total/NA	Water	SM 4500 NH3 B	

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# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## General Chemistry (Continued)

### Prep Batch: 321978 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-6	MW-9	Total/NA	Water	SM 4500 NH3 B	
720-70141-7	MW-10	Total/NA	Water	SM 4500 NH3 B	
LCS 500-321978/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
MB 500-321978/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	

### Analysis Batch: 322004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70141-1	MW-4R	Total/NA	Water	SM 4500 NH3 G	321978
720-70141-2	MW-5R	Total/NA	Water	SM 4500 NH3 G	321978
720-70141-3	MW-6R	Total/NA	Water	SM 4500 NH3 G	321978
720-70141-4	MW-7R	Total/NA	Water	SM 4500 NH3 G	321978
720-70141-5	MW-8	Total/NA	Water	SM 4500 NH3 G	321978
720-70141-6	MW-9	Total/NA	Water	SM 4500 NH3 G	321978
720-70141-7	MW-10	Total/NA	Water	SM 4500 NH3 G	321978
LCS 500-321978/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	321978
MB 500-321978/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	321978

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-4R**

**Date Collected: 02/02/16 10:35**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		20	196721	02/03/16 02:00	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196692	02/02/16 21:38	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196692	02/02/16 21:55	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196693	02/02/16 21:55	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 15:50	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:06	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196732	02/02/16 18:41	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			321978	02/04/16 16:16	JBj	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		2	322004	02/04/16 21:16	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196821	02/03/16 16:46	EYT	TAL PLS

**Client Sample ID: MW-5R**

**Date Collected: 02/02/16 11:30**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		100	196721	02/03/16 02:29	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196692	02/02/16 22:12	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196693	02/02/16 22:30	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 15:55	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:06	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196732	02/02/16 18:41	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			321978	02/04/16 16:16	JBj	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322004	02/04/16 21:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196821	02/03/16 16:46	EYT	TAL PLS

**Client Sample ID: MW-6R**

**Date Collected: 02/02/16 12:20**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	196721	02/03/16 02:59	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196692	02/02/16 22:47	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196693	02/02/16 23:04	MJK	TAL PLS
Total/NA	Analysis	300.0		100	196790	02/03/16 14:50	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 16:11	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:06	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196732	02/02/16 18:41	MJK	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-6R**

**Date Collected: 02/02/16 12:20**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM 4500 NH3 B			321978	02/04/16 16:16	JBJ	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		2	322004	02/04/16 21:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		10	196821	02/03/16 16:46	EYT	TAL PLS

**Client Sample ID: MW-7R**

**Date Collected: 02/02/16 12:55**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		500	196721	02/03/16 03:28	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196692	02/02/16 23:55	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196693	02/03/16 00:12	MJK	TAL PLS
Total/NA	Analysis	300.0		100	196790	02/03/16 15:07	MJK	TAL PLS
Total/NA	Analysis	300.0		100	196791	02/03/16 15:07	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 16:16	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:06	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196732	02/02/16 18:41	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			321978	02/04/16 16:16	JBJ	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322004	02/04/16 21:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196821	02/03/16 16:46	EYT	TAL PLS

**Client Sample ID: MW-8**

**Date Collected: 02/02/16 15:25**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	196853	02/04/16 18:18	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196692	02/03/16 00:30	MJK	TAL PLS
Total/NA	Analysis	300.0		1	196693	02/03/16 00:30	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 16:21	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:06	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		20	196732	02/02/16 18:41	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			321978	02/04/16 16:16	JBJ	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322004	02/04/16 21:27	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196821	02/03/16 16:46	EYT	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

**Client Sample ID: MW-9**

**Date Collected: 02/02/16 14:15**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	196853	02/04/16 17:20	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196692	02/03/16 01:04	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196693	02/03/16 01:21	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 16:26	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:06	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196732	02/02/16 18:41	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			321978	02/04/16 16:16	JBj	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322004	02/04/16 21:35	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196821	02/03/16 16:46	EYT	TAL PLS

**Client Sample ID: MW-10**

**Date Collected: 02/02/16 14:50**

**Date Received: 02/02/16 17:55**

**Lab Sample ID: 720-70141-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	196853	02/04/16 17:49	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196692	02/03/16 01:38	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196692	02/03/16 01:55	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196693	02/03/16 01:55	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 16:31	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:06	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196732	02/02/16 18:41	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			321978	02/04/16 16:16	JBj	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322004	02/04/16 21:38	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196821	02/03/16 16:46	EYT	TAL PLS

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Certification Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

## Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-17

Analysis Method	Prep Method	Matrix	Analyte

## Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-16
California	State Program	9	2903	04-30-16
Georgia	State Program	4	N/A	04-30-16
Georgia	State Program	4	939	04-30-16
Hawaii	State Program	9	N/A	04-30-16
Illinois	NELAP	5	100201	04-30-16
Indiana	State Program	5	C-IL-02	04-30-16
Iowa	State Program	7	82	05-01-16
Kansas	NELAP	7	E-10161	05-31-16 *
Kentucky (UST)	State Program	4	66	04-30-16
Kentucky (WW)	State Program	4	KY90023	12-31-16
Massachusetts	State Program	1	M-IL035	06-30-16
Mississippi	State Program	4	N/A	04-30-16
New York	NELAP	2	IL00035	04-01-16
North Carolina (WW/SW)	State Program	4	291	12-31-16
North Dakota	State Program	8	R-194	04-30-16
Oklahoma	State Program	6	8908	08-31-16
South Carolina	State Program	4	77001	04-30-16
USDA	Federal		P330-15-00038	02-11-18
Wisconsin	State Program	5	999580010	08-31-16
Wyoming	State Program	8	8TMS-Q	04-30-16

\* Certification renewal pending - certification considered valid.

# Method Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS
300.0	Anions, Ion Chromatography	MCAWW	TAL PLS
200.7 Rev 4.4	Metals (ICP)	EPA	TAL PLS
SM 3500	Iron, Ferric	SM	TAL PLS
SM 3500 Fe B	Iron, Ferrous	SM	TAL PLS
SM 4500 NH3 G	Ammonia	SM	TAL CHI
SM 4500 P E	Orthophosphate	SM	TAL PLS

#### Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Sample Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70141-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-70141-1	MW-4R	Water	02/02/16 10:35	02/02/16 17:55
720-70141-2	MW-5R	Water	02/02/16 11:30	02/02/16 17:55
720-70141-3	MW-6R	Water	02/02/16 12:20	02/02/16 17:55
720-70141-4	MW-7R	Water	02/02/16 12:55	02/02/16 17:55
720-70141-5	MW-8	Water	02/02/16 15:25	02/02/16 17:55
720-70141-6	MW-9	Water	02/02/16 14:15	02/02/16 17:55
720-70141-7	MW-10	Water	02/02/16 14:50	02/02/16 17:55

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**720-70141**

Report To					Analysis Request														
Attn: <u>Peter Sims</u>					Volatile Organics GC/MS (VOCs) <input checked="" type="checkbox"/> EPA 8260B <input checked="" type="checkbox"/> TPH <sub>3</sub> HVOCs by <input type="checkbox"/> EPA 8260B EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> 6 Oxygenates <input type="checkbox"/> DCA, ED8 <input type="checkbox"/> Ethanol TEPH EPA 8016B <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other SemiVolatile Organics GC/MS <input type="checkbox"/> EPA 8270C PNA/PAH's by <input type="checkbox"/> 8270C <input type="checkbox"/> 8270C SIM Oil and Grease (EPA 1664/9071) <input type="checkbox"/> Total Pesticides <input type="checkbox"/> EPA 8081 PCBs <input type="checkbox"/> EPA 8082 CAM17 Metals (EPA 6010/7470/7471) Metals: <input type="checkbox"/> 6010B <input type="checkbox"/> 200.7 <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRRA <input type="checkbox"/> Other: Metals: <input type="checkbox"/> 6020 <input type="checkbox"/> 200.8 (ICP-MS): <u>200.7</u> <u>Potassium + manganese</u> <input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP <input type="checkbox"/> W.E.T (DI) Hex. Chrom by <input type="checkbox"/> EPA 7196 <input type="checkbox"/> or EPA 7199 pH <input type="checkbox"/> 9040 <input type="checkbox"/> SM4500 <input type="checkbox"/> Spec. Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> SS <input type="checkbox"/> TDS Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub> <u>Ammonia SM 1500</u> <input type="checkbox"/> Perchlorate by EPA 314.0 COD <input type="checkbox"/> EPA 410.4 <input type="checkbox"/> SM5220D <input type="checkbox"/> Turbidity Iron Iron by calc Number of Containers														
Company: <u>Ningo + Moore</u>																			
Address: <u>1956 Webster St, Oakland, CA</u>																			
Email: <u>psims@ningoandmoore.com</u>																			
Bill To: <u>Same</u> Sampled By: <u>GED</u>																			
Attn: <u>Same</u> Phone: <u>510.343.3000</u>																			
Sample ID	Date	Time	Mat rix	Preserv															
MW-4R	2/2	1035	6W																
MW-5R		1130																	
MW-6R		1220																	
MW-7R		1255																	
MW-8		1525																	
MW-9		1415																	
MW-10		1450																	



Project Info.		Sample Receipt	
Project Name / #: <u>401911004/ Chun</u>	# of Containers:	Head Space:	Temp: <u>2.0°C</u>
PO#:	Credit Card Y/N: <input type="checkbox"/> If yes, please call with payment information ASAP		
T A T	10 Day	5 Day	4 Day
	3 Day	2 Day	1 Day
	Other:		
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input checked="" type="checkbox"/> EDD <input type="checkbox"/> EDF Special Instructions / Comments: <input type="checkbox"/> Global ID <u>TD 00100980</u>			

1) Relinquished by:  
 Signature: [Signature] Time: 10:42  
 Printed Name: Enrik Duxsa Date: 2/2/16  
 Company: Ningo and Moore

1) Received by:  
 Signature: Mathew Rivera Time: 10:42  
 Printed Name: Mathew Rivera Date: 2/2/16  
 Company: Ultraex

2) Relinquished by:  
 Signature: Mathew Rivera Time: 17:55  
 Printed Name: Mathew Rivera Date: 2/2/16  
 Company: Ultraex

2) Received by:  
 Signature: [Signature] Time: 17:55  
 Printed Name: T. Bullock Date: 2/2/16  
 Company: [Signature]

3) Relinquished by:  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Company: \_\_\_\_\_

3) Received by:  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Company: \_\_\_\_\_

**TestAmerica Pleasanton**

1220 Quarry Lane  
 Pleasanton, CA 94566  
 Phone (925) 484-1919 Fax (925) 600-3002

**Chain of Custody Record**



**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b>		Sampler:		Lab PM: Sharma, Dimple		Carrier Tracking No(s):		COC No: 720-27603.1	
Client Contact: Shipping/Receiving		Phone:		E-Mail: dimple.sharma@testamericainc.com				Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.				<b>Analysis Requested</b>				Job #: 720-70141-1	
Address: 2417 Bond Street, City: University Park State, Zip: IL, 60484		Due Date Requested: 2/8/2016				Field Filtered Sample (Yes or No) Before MS/MSD (Yes or No) SM4500NH3_G/SM4500NH3_B Ammonia		Total Number of Containers: Preservation Codes: A - HCL                      M - Hexane B - NaOH                    N - None C - Zn Acetate            O - AsNaO2 D - Nitric Acid            P - Na2O4S E - NaHSO4                Q - Na2SO3 F - MeOH                    R - Na2S2SO3 G - Amchlor                S - H2SO4 H - Ascorbic Acid        T - TSP Dodecahydrate I - Ice                        U - Acetone J - DI Water                V - MCAA K - EDTA                    W - ph 4-5 L - EDA                      Z - other (specify)	
Project Name: Chun		Project #: 72010606							
Site:		SSOW#: 720-70141 COC							
PO #:		WO #:							
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Sample Type (C=comp, G=grab)</b>		<b>Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)</b>	
								<b>Special Instructions/Note:</b>	
MW-4R (720-70141-1)		2/2/16		10:35 Pacific		Water		X	
MW-5R (720-70141-2)		2/2/16		11:30 Pacific		Water		X	
MW-6R (720-70141-3)		2/2/16		12:20 Pacific		Water		X	
MW-7R (720-70141-4)		2/2/16		12:55 Pacific		Water		X	
MW-8 (720-70141-5)		2/2/16		15:25 Pacific		Water		X	
MW-9 (720-70141-6)		2/2/16		14:15 Pacific		Water		X	
MW-10 (720-70141-7)		2/2/16		14:50 Pacific		Water		X	
<b>Possible Hazard Identification</b>					<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>				
Unconfirmed					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For                    Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>J. Gu...</i>		Date/Time: 2/2/16 14:55		Company: JA		Received by: <i>Chun Sharma</i>		Date/Time: 02/04/16 09:40	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.1					



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-70141-1

**Login Number: 70141**

**List Number: 1**

**Creator: Mullen, Joan**

**List Source: TestAmerica Pleasanton**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-70141-1

**Login Number: 70141**  
**List Number: 2**  
**Creator: Sanchez, Ariel M**

**List Source: TestAmerica Chicago**  
**List Creation: 02/04/16 10:47 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

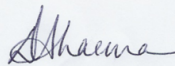
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Pleasanton  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

TestAmerica Job ID: 720-70170-1  
Client Project/Site: Chun

For:  
Ninyo & Moore  
1956 Webster Street  
Suite 400  
Oakland, California 94612

Attn: Mr. Peter D. Sims



Authorized for release by:  
2/18/2016 4:34:51 PM

Dimple Sharma, Senior Project Manager  
(925)484-1919  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

### General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Job ID: 720-70170-1**

**Laboratory: TestAmerica Pleasanton**

## Narrative

### Job Narrative 720-70170-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/3/2016 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control duplicate (LCSD) recoveries and precision for Dichlorodifluoromethane and Trichlorofluoromethane for analytical batch 720-197019 were outside control limits. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 720-197031 recovered outside control limits for the following analyte: Dichlorodifluoromethane. Those analyte was biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Client Sample ID: MW-11R

## Lab Sample ID: 720-70170-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	970		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	900		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	57		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Naphthalene	280		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
N-Propylbenzene	150		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Toluene	1600		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	1700		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	430		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	5800		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO)	25000		5000		ug/L	100		8260B/CA_LUFT MS	Total/NA
-C5-C12 Sulfate	5.7		1.0		mg/L	1		300.0	Total/NA
Nitrate as NO3	2.1		1.0		mg/L	1		300.0	Total/NA
Manganese	1.6		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	1.3		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	2.8	HF	0.10		mg/L	1		SM 3500 Fe B	Total/NA
Ammonia	0.20		0.20		mg/L	1		SM 4500 NH3 G	Total/NA

## Client Sample ID: MW-12

## Lab Sample ID: 720-70170-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Benzene	130		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
sec-Butylbenzene	1.6		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2-Dichloroethane	2.8		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	9.0		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	4.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Naphthalene	4.1		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	26		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	9.4		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	2.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	74		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO)	1100		50		ug/L	1		8260B/CA_LUFT MS	Total/NA
-C5-C12 Sulfate	7.4		1.0		mg/L	1		300.0	Total/NA
Manganese	1.4		0.020		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Client Sample ID: MW-12 (Continued)

## Lab Sample ID: 720-70170-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ferric Iron	0.28		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	0.92	HF	0.10		mg/L	1		SM 3500 Fe B	Total/NA

## Client Sample ID: MW-13

## Lab Sample ID: 720-70170-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	4.0		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2-Dichloroethane	2.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Nitrite as NO2	4.8		1.0		mg/L	1		300.0	Total/NA
Sulfate	26		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	170		10		mg/L	10		300.0	Total/NA
Manganese	0.66		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.1		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	2.0		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	1.3	HF	0.10		mg/L	1		SM 3500 Fe B	Total/NA
Orthophosphate as P	0.040		0.020		mg/L	1		SM 4500 P E	Total/NA

## Client Sample ID: MW-14

## Lab Sample ID: 720-70170-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	930		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	270		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	19		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Naphthalene	110		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
N-Propylbenzene	33		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Toluene	220		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	280		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	44		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	780		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	4600		500		ug/L	10		8260B/CA_LUFT MS	Total/NA
Sulfate	9.3		1.0		mg/L	1		300.0	Total/NA
Nitrate as NO3	8.1		1.0		mg/L	1		300.0	Total/NA
Manganese	1.3		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.1		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	26		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	2.4	HF	0.10		mg/L	1		SM 3500 Fe B	Total/NA

## Client Sample ID: MW-15

## Lab Sample ID: 720-70170-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	5.8		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Client Sample ID: MW-15 (Continued)

## Lab Sample ID: 720-70170-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	1.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Sulfate	60		10		mg/L	10		300.0	Total/NA
Nitrate as NO3	20		10		mg/L	10		300.0	Total/NA
Manganese	0.74		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.6		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	42		0.10		mg/L	1		SM 3500	Total/NA
Ferrous Iron	0.26	HF	0.10		mg/L	1		SM 3500 Fe B	Total/NA

## Client Sample ID: MW-16

## Lab Sample ID: 720-70170-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.94		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2-Dichloroethane	0.92		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Sulfate	6.9		1.0		mg/L	1		300.0	Total/NA
Nitrate as NO3	7.3		1.0		mg/L	1		300.0	Total/NA
Manganese	0.33		0.020		mg/L	1		200.7 Rev 4.4	Total/NA
Ferric Iron	4.9		0.10		mg/L	1		SM 3500	Total/NA
Orthophosphate as P	0.028		0.020		mg/L	1		SM 4500 P E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-11R**

**Date Collected: 02/03/16 14:10**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-1**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		50		ug/L			02/12/16 21:32	100
Acetone	ND		5000		ug/L			02/12/16 21:32	100
<b>Benzene</b>	<b>970</b>		50		ug/L			02/12/16 21:32	100
Dichlorobromomethane	ND		50		ug/L			02/12/16 21:32	100
Bromobenzene	ND		100		ug/L			02/12/16 21:32	100
Chlorobromomethane	ND		100		ug/L			02/12/16 21:32	100
Bromoform	ND		100		ug/L			02/12/16 21:32	100
Bromomethane	ND		100		ug/L			02/12/16 21:32	100
2-Butanone (MEK)	ND		5000		ug/L			02/12/16 21:32	100
n-Butylbenzene	ND		100		ug/L			02/12/16 21:32	100
sec-Butylbenzene	ND		100		ug/L			02/12/16 21:32	100
tert-Butylbenzene	ND		100		ug/L			02/12/16 21:32	100
Carbon disulfide	ND		500		ug/L			02/12/16 21:32	100
Carbon tetrachloride	ND		50		ug/L			02/12/16 21:32	100
Chlorobenzene	ND		50		ug/L			02/12/16 21:32	100
Chloroethane	ND		100		ug/L			02/12/16 21:32	100
Chloroform	ND		100		ug/L			02/12/16 21:32	100
Chloromethane	ND		100		ug/L			02/12/16 21:32	100
2-Chlorotoluene	ND		50		ug/L			02/12/16 21:32	100
4-Chlorotoluene	ND		50		ug/L			02/12/16 21:32	100
Chlorodibromomethane	ND		50		ug/L			02/12/16 21:32	100
1,2-Dichlorobenzene	ND		50		ug/L			02/12/16 21:32	100
1,3-Dichlorobenzene	ND		50		ug/L			02/12/16 21:32	100
1,4-Dichlorobenzene	ND		50		ug/L			02/12/16 21:32	100
1,3-Dichloropropane	ND		100		ug/L			02/12/16 21:32	100
1,1-Dichloropropene	ND		50		ug/L			02/12/16 21:32	100
1,2-Dibromo-3-Chloropropane	ND		100		ug/L			02/12/16 21:32	100
Ethylene Dibromide	ND		50		ug/L			02/12/16 21:32	100
Dibromomethane	ND		50		ug/L			02/12/16 21:32	100
Dichlorodifluoromethane	ND *		50		ug/L			02/12/16 21:32	100
1,1-Dichloroethane	ND		50		ug/L			02/12/16 21:32	100
1,2-Dichloroethane	ND		50		ug/L			02/12/16 21:32	100
1,1-Dichloroethene	ND		50		ug/L			02/12/16 21:32	100
cis-1,2-Dichloroethene	ND		50		ug/L			02/12/16 21:32	100
trans-1,2-Dichloroethene	ND		50		ug/L			02/12/16 21:32	100
1,2-Dichloropropane	ND		50		ug/L			02/12/16 21:32	100
cis-1,3-Dichloropropene	ND		50		ug/L			02/12/16 21:32	100
trans-1,3-Dichloropropene	ND		50		ug/L			02/12/16 21:32	100
<b>Ethylbenzene</b>	<b>900</b>		50		ug/L			02/12/16 21:32	100
Hexachlorobutadiene	ND		100		ug/L			02/12/16 21:32	100
2-Hexanone	ND		5000		ug/L			02/12/16 21:32	100
<b>Isopropylbenzene</b>	<b>57</b>		50		ug/L			02/12/16 21:32	100
4-Isopropyltoluene	ND		100		ug/L			02/12/16 21:32	100
Methylene Chloride	ND		500		ug/L			02/12/16 21:32	100
4-Methyl-2-pentanone (MIBK)	ND		5000		ug/L			02/12/16 21:32	100
<b>Naphthalene</b>	<b>280</b>		100		ug/L			02/12/16 21:32	100
<b>N-Propylbenzene</b>	<b>150</b>		100		ug/L			02/12/16 21:32	100
Styrene	ND		50		ug/L			02/12/16 21:32	100
1,1,1,2-Tetrachloroethane	ND		50		ug/L			02/12/16 21:32	100

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-11R**

**Lab Sample ID: 720-70170-1**

**Date Collected: 02/03/16 14:10**

**Matrix: Water**

**Date Received: 02/03/16 17:40**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		50		ug/L			02/12/16 21:32	100
Tetrachloroethene	ND		50		ug/L			02/12/16 21:32	100
<b>Toluene</b>	<b>1600</b>		50		ug/L			02/12/16 21:32	100
1,2,3-Trichlorobenzene	ND		100		ug/L			02/12/16 21:32	100
1,2,4-Trichlorobenzene	ND		100		ug/L			02/12/16 21:32	100
1,1,1-Trichloroethane	ND		50		ug/L			02/12/16 21:32	100
1,1,2-Trichloroethane	ND		50		ug/L			02/12/16 21:32	100
Trichloroethene	ND		50		ug/L			02/12/16 21:32	100
Trichlorofluoromethane	ND *		100		ug/L			02/12/16 21:32	100
1,2,3-Trichloropropane	ND		50		ug/L			02/12/16 21:32	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50		ug/L			02/12/16 21:32	100
<b>1,2,4-Trimethylbenzene</b>	<b>1700</b>		50		ug/L			02/12/16 21:32	100
<b>1,3,5-Trimethylbenzene</b>	<b>430</b>		50		ug/L			02/12/16 21:32	100
Vinyl acetate	ND		1000		ug/L			02/12/16 21:32	100
Vinyl chloride	ND		50		ug/L			02/12/16 21:32	100
<b>Xylenes, Total</b>	<b>5800</b>		100		ug/L			02/12/16 21:32	100
2,2-Dichloropropane	ND		50		ug/L			02/12/16 21:32	100
<b>Gasoline Range Organics (GRO)</b>	<b>25000</b>		5000		ug/L			02/12/16 21:32	100
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		02/12/16 21:32	100
1,2-Dichloroethane-d4 (Surr)	111		72 - 130		02/12/16 21:32	100
Toluene-d8 (Surr)	97		70 - 130		02/12/16 21:32	100

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 20:09	1
<b>Sulfate</b>	<b>5.7</b>		1.0		mg/L			02/03/16 20:09	1
<b>Nitrate as NO3</b>	<b>2.1</b>		1.0		mg/L			02/03/16 20:09	1

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.6</b>		0.020		mg/L		02/04/16 17:58	02/16/16 16:51	1
Potassium	ND		1.0		mg/L		02/04/16 17:58	02/16/16 16:51	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>1.3</b>		0.10		mg/L			02/17/16 16:18	1
<b>Ferrous Iron</b>	<b>2.8</b>	HF	0.10		mg/L			02/04/16 08:38	1
<b>Ammonia</b>	<b>0.20</b>		0.20		mg/L		02/05/16 17:20	02/05/16 21:24	1
Orthophosphate as P	ND		0.020		mg/L			02/04/16 22:22	1

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-12**  
**Date Collected: 02/03/16 15:05**  
**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-2**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>3.2</b>		0.50		ug/L			02/12/16 22:00	1
Acetone	ND		50		ug/L			02/12/16 22:00	1
<b>Benzene</b>	<b>130</b>		0.50		ug/L			02/12/16 22:00	1
Dichlorobromomethane	ND		0.50		ug/L			02/12/16 22:00	1
Bromobenzene	ND		1.0		ug/L			02/12/16 22:00	1
Chlorobromomethane	ND		1.0		ug/L			02/12/16 22:00	1
Bromoform	ND		1.0		ug/L			02/12/16 22:00	1
Bromomethane	ND		1.0		ug/L			02/12/16 22:00	1
2-Butanone (MEK)	ND		50		ug/L			02/12/16 22:00	1
n-Butylbenzene	ND		1.0		ug/L			02/12/16 22:00	1
<b>sec-Butylbenzene</b>	<b>1.6</b>		1.0		ug/L			02/12/16 22:00	1
tert-Butylbenzene	ND		1.0		ug/L			02/12/16 22:00	1
Carbon disulfide	ND		5.0		ug/L			02/12/16 22:00	1
Carbon tetrachloride	ND		0.50		ug/L			02/12/16 22:00	1
Chlorobenzene	ND		0.50		ug/L			02/12/16 22:00	1
Chloroethane	ND		1.0		ug/L			02/12/16 22:00	1
Chloroform	ND		1.0		ug/L			02/12/16 22:00	1
Chloromethane	ND		1.0		ug/L			02/12/16 22:00	1
2-Chlorotoluene	ND		0.50		ug/L			02/12/16 22:00	1
4-Chlorotoluene	ND		0.50		ug/L			02/12/16 22:00	1
Chlorodibromomethane	ND		0.50		ug/L			02/12/16 22:00	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/12/16 22:00	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/12/16 22:00	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/12/16 22:00	1
1,3-Dichloropropane	ND		1.0		ug/L			02/12/16 22:00	1
1,1-Dichloropropene	ND		0.50		ug/L			02/12/16 22:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/12/16 22:00	1
Ethylene Dibromide	ND		0.50		ug/L			02/12/16 22:00	1
Dibromomethane	ND		0.50		ug/L			02/12/16 22:00	1
Dichlorodifluoromethane	ND *		0.50		ug/L			02/12/16 22:00	1
1,1-Dichloroethane	ND		0.50		ug/L			02/12/16 22:00	1
<b>1,2-Dichloroethane</b>	<b>2.8</b>		0.50		ug/L			02/12/16 22:00	1
1,1-Dichloroethene	ND		0.50		ug/L			02/12/16 22:00	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 22:00	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 22:00	1
1,2-Dichloropropane	ND		0.50		ug/L			02/12/16 22:00	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 22:00	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 22:00	1
<b>Ethylbenzene</b>	<b>9.0</b>		0.50		ug/L			02/12/16 22:00	1
Hexachlorobutadiene	ND		1.0		ug/L			02/12/16 22:00	1
2-Hexanone	ND		50		ug/L			02/12/16 22:00	1
<b>Isopropylbenzene</b>	<b>4.2</b>		0.50		ug/L			02/12/16 22:00	1
4-Isopropyltoluene	ND		1.0		ug/L			02/12/16 22:00	1
Methylene Chloride	ND		5.0		ug/L			02/12/16 22:00	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/12/16 22:00	1
<b>Naphthalene</b>	<b>4.1</b>		1.0		ug/L			02/12/16 22:00	1
N-Propylbenzene	ND		1.0		ug/L			02/12/16 22:00	1
Styrene	ND		0.50		ug/L			02/12/16 22:00	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 22:00	1

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# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-12**

**Lab Sample ID: 720-70170-2**

**Date Collected: 02/03/16 15:05**

**Matrix: Water**

**Date Received: 02/03/16 17:40**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 22:00	1
Tetrachloroethene	ND		0.50		ug/L			02/12/16 22:00	1
<b>Toluene</b>	<b>26</b>		0.50		ug/L			02/12/16 22:00	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/12/16 22:00	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/12/16 22:00	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/12/16 22:00	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/12/16 22:00	1
Trichloroethene	ND		0.50		ug/L			02/12/16 22:00	1
Trichlorofluoromethane	ND *		1.0		ug/L			02/12/16 22:00	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/12/16 22:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/12/16 22:00	1
<b>1,2,4-Trimethylbenzene</b>	<b>9.4</b>		0.50		ug/L			02/12/16 22:00	1
<b>1,3,5-Trimethylbenzene</b>	<b>2.2</b>		0.50		ug/L			02/12/16 22:00	1
Vinyl acetate	ND		10		ug/L			02/12/16 22:00	1
Vinyl chloride	ND		0.50		ug/L			02/12/16 22:00	1
<b>Xylenes, Total</b>	<b>74</b>		1.0		ug/L			02/12/16 22:00	1
2,2-Dichloropropane	ND		0.50		ug/L			02/12/16 22:00	1
<b>Gasoline Range Organics (GRO)</b>	<b>1100</b>		50		ug/L			02/12/16 22:00	1
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		02/12/16 22:00	1
1,2-Dichloroethane-d4 (Surr)	113		72 - 130		02/12/16 22:00	1
Toluene-d8 (Surr)	100		70 - 130		02/12/16 22:00	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 20:43	1
<b>Sulfate</b>	<b>7.4</b>		1.0		mg/L			02/03/16 20:43	1
Nitrate as NO3	ND		1.0		mg/L			02/03/16 20:43	1

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.4</b>		0.020		mg/L		02/04/16 17:58	02/16/16 16:56	1
Potassium	ND		1.0		mg/L		02/04/16 17:58	02/16/16 16:56	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>0.28</b>		0.10		mg/L			02/17/16 16:18	1
<b>Ferrous Iron</b>	<b>0.92</b>	HF	0.10		mg/L			02/04/16 08:38	1
Ammonia	ND		0.20		mg/L		02/05/16 17:20	02/05/16 21:27	1
Orthophosphate as P	ND		0.020		mg/L			02/04/16 22:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-13**

**Date Collected: 02/03/16 11:35**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-3**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>4.0</b>		0.50		ug/L			02/12/16 22:28	1
Acetone	ND		50		ug/L			02/12/16 22:28	1
Benzene	ND		0.50		ug/L			02/12/16 22:28	1
Dichlorobromomethane	ND		0.50		ug/L			02/12/16 22:28	1
Bromobenzene	ND		1.0		ug/L			02/12/16 22:28	1
Chlorobromomethane	ND		1.0		ug/L			02/12/16 22:28	1
Bromoform	ND		1.0		ug/L			02/12/16 22:28	1
Bromomethane	ND		1.0		ug/L			02/12/16 22:28	1
2-Butanone (MEK)	ND		50		ug/L			02/12/16 22:28	1
n-Butylbenzene	ND		1.0		ug/L			02/12/16 22:28	1
sec-Butylbenzene	ND		1.0		ug/L			02/12/16 22:28	1
tert-Butylbenzene	ND		1.0		ug/L			02/12/16 22:28	1
Carbon disulfide	ND		5.0		ug/L			02/12/16 22:28	1
Carbon tetrachloride	ND		0.50		ug/L			02/12/16 22:28	1
Chlorobenzene	ND		0.50		ug/L			02/12/16 22:28	1
Chloroethane	ND		1.0		ug/L			02/12/16 22:28	1
Chloroform	ND		1.0		ug/L			02/12/16 22:28	1
Chloromethane	ND		1.0		ug/L			02/12/16 22:28	1
2-Chlorotoluene	ND		0.50		ug/L			02/12/16 22:28	1
4-Chlorotoluene	ND		0.50		ug/L			02/12/16 22:28	1
Chlorodibromomethane	ND		0.50		ug/L			02/12/16 22:28	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/12/16 22:28	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/12/16 22:28	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/12/16 22:28	1
1,3-Dichloropropane	ND		1.0		ug/L			02/12/16 22:28	1
1,1-Dichloropropane	ND		0.50		ug/L			02/12/16 22:28	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/12/16 22:28	1
Ethylene Dibromide	ND		0.50		ug/L			02/12/16 22:28	1
Dibromomethane	ND		0.50		ug/L			02/12/16 22:28	1
Dichlorodifluoromethane	ND *		0.50		ug/L			02/12/16 22:28	1
1,1-Dichloroethane	ND		0.50		ug/L			02/12/16 22:28	1
<b>1,2-Dichloroethane</b>	<b>2.2</b>		0.50		ug/L			02/12/16 22:28	1
1,1-Dichloroethene	ND		0.50		ug/L			02/12/16 22:28	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 22:28	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 22:28	1
1,2-Dichloropropane	ND		0.50		ug/L			02/12/16 22:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 22:28	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 22:28	1
Ethylbenzene	ND		0.50		ug/L			02/12/16 22:28	1
Hexachlorobutadiene	ND		1.0		ug/L			02/12/16 22:28	1
2-Hexanone	ND		50		ug/L			02/12/16 22:28	1
Isopropylbenzene	ND		0.50		ug/L			02/12/16 22:28	1
4-Isopropyltoluene	ND		1.0		ug/L			02/12/16 22:28	1
Methylene Chloride	ND		5.0		ug/L			02/12/16 22:28	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/12/16 22:28	1
Naphthalene	ND		1.0		ug/L			02/12/16 22:28	1
N-Propylbenzene	ND		1.0		ug/L			02/12/16 22:28	1
Styrene	ND		0.50		ug/L			02/12/16 22:28	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 22:28	1

TestAmerica Pleasanton



# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-13**

**Lab Sample ID: 720-70170-3**

**Date Collected: 02/03/16 11:35**

**Matrix: Water**

**Date Received: 02/03/16 17:40**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 22:28	1
Tetrachloroethene	ND		0.50		ug/L			02/12/16 22:28	1
Toluene	ND		0.50		ug/L			02/12/16 22:28	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/12/16 22:28	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/12/16 22:28	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/12/16 22:28	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/12/16 22:28	1
Trichloroethene	ND		0.50		ug/L			02/12/16 22:28	1
Trichlorofluoromethane	ND *		1.0		ug/L			02/12/16 22:28	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/12/16 22:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/12/16 22:28	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/12/16 22:28	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/12/16 22:28	1
Vinyl acetate	ND		10		ug/L			02/12/16 22:28	1
Vinyl chloride	ND		0.50		ug/L			02/12/16 22:28	1
Xylenes, Total	ND		1.0		ug/L			02/12/16 22:28	1
2,2-Dichloropropane	ND		0.50		ug/L			02/12/16 22:28	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/12/16 22:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					02/12/16 22:28	1
1,2-Dichloroethane-d4 (Surr)	118		72 - 130					02/12/16 22:28	1
Toluene-d8 (Surr)	98		70 - 130					02/12/16 22:28	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	4.8		1.0		mg/L			02/03/16 21:17	1
Sulfate	26		10		mg/L			02/03/16 21:34	10
Nitrate as NO3	170		10		mg/L			02/03/16 21:34	10

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.66		0.020		mg/L		02/04/16 17:58	02/16/16 17:11	1
Potassium	6.1		1.0		mg/L		02/04/16 17:58	02/16/16 17:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferric Iron	2.0		0.10		mg/L			02/17/16 16:18	1
Ferrous Iron	1.3	HF	0.10		mg/L			02/04/16 08:38	1
Ammonia	ND		0.20		mg/L		02/05/16 17:20	02/05/16 21:30	1
Orthophosphate as P	0.040		0.020		mg/L			02/04/16 22:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-14**

**Date Collected: 02/03/16 12:05**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-4**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			02/15/16 15:45	10
Acetone	ND		500		ug/L			02/15/16 15:45	10
<b>Benzene</b>	<b>930</b>		5.0		ug/L			02/15/16 15:45	10
Dichlorobromomethane	ND		5.0		ug/L			02/15/16 15:45	10
Bromobenzene	ND		10		ug/L			02/15/16 15:45	10
Chlorobromomethane	ND		10		ug/L			02/15/16 15:45	10
Bromoform	ND		10		ug/L			02/15/16 15:45	10
Bromomethane	ND		10		ug/L			02/15/16 15:45	10
2-Butanone (MEK)	ND		500		ug/L			02/15/16 15:45	10
n-Butylbenzene	ND		10		ug/L			02/15/16 15:45	10
sec-Butylbenzene	ND		10		ug/L			02/15/16 15:45	10
tert-Butylbenzene	ND		10		ug/L			02/15/16 15:45	10
Carbon disulfide	ND		50		ug/L			02/15/16 15:45	10
Carbon tetrachloride	ND		5.0		ug/L			02/15/16 15:45	10
Chlorobenzene	ND		5.0		ug/L			02/15/16 15:45	10
Chloroethane	ND		10		ug/L			02/15/16 15:45	10
Chloroform	ND		10		ug/L			02/15/16 15:45	10
Chloromethane	ND		10		ug/L			02/15/16 15:45	10
2-Chlorotoluene	ND		5.0		ug/L			02/15/16 15:45	10
4-Chlorotoluene	ND		5.0		ug/L			02/15/16 15:45	10
Chlorodibromomethane	ND		5.0		ug/L			02/15/16 15:45	10
1,2-Dichlorobenzene	ND		5.0		ug/L			02/15/16 15:45	10
1,3-Dichlorobenzene	ND		5.0		ug/L			02/15/16 15:45	10
1,4-Dichlorobenzene	ND		5.0		ug/L			02/15/16 15:45	10
1,3-Dichloropropane	ND		10		ug/L			02/15/16 15:45	10
1,1-Dichloropropene	ND		5.0		ug/L			02/15/16 15:45	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			02/15/16 15:45	10
Ethylene Dibromide	ND		5.0		ug/L			02/15/16 15:45	10
Dibromomethane	ND		5.0		ug/L			02/15/16 15:45	10
Dichlorodifluoromethane	ND *		5.0		ug/L			02/15/16 15:45	10
1,1-Dichloroethane	ND		5.0		ug/L			02/15/16 15:45	10
1,2-Dichloroethane	ND		5.0		ug/L			02/15/16 15:45	10
1,1-Dichloroethene	ND		5.0		ug/L			02/15/16 15:45	10
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/15/16 15:45	10
trans-1,2-Dichloroethene	ND		5.0		ug/L			02/15/16 15:45	10
1,2-Dichloropropane	ND		5.0		ug/L			02/15/16 15:45	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			02/15/16 15:45	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			02/15/16 15:45	10
<b>Ethylbenzene</b>	<b>270</b>		5.0		ug/L			02/15/16 15:45	10
Hexachlorobutadiene	ND		10		ug/L			02/15/16 15:45	10
2-Hexanone	ND		500		ug/L			02/15/16 15:45	10
<b>Isopropylbenzene</b>	<b>19</b>		5.0		ug/L			02/15/16 15:45	10
4-Isopropyltoluene	ND		10		ug/L			02/15/16 15:45	10
Methylene Chloride	ND		50		ug/L			02/15/16 15:45	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			02/15/16 15:45	10
<b>Naphthalene</b>	<b>110</b>		10		ug/L			02/15/16 15:45	10
<b>N-Propylbenzene</b>	<b>33</b>		10		ug/L			02/15/16 15:45	10
Styrene	ND		5.0		ug/L			02/15/16 15:45	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			02/15/16 15:45	10

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-14**

**Lab Sample ID: 720-70170-4**

**Date Collected: 02/03/16 12:05**

**Matrix: Water**

**Date Received: 02/03/16 17:40**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			02/15/16 15:45	10
Tetrachloroethene	ND		5.0		ug/L			02/15/16 15:45	10
<b>Toluene</b>	<b>220</b>		5.0		ug/L			02/15/16 15:45	10
1,2,3-Trichlorobenzene	ND		10		ug/L			02/15/16 15:45	10
1,2,4-Trichlorobenzene	ND		10		ug/L			02/15/16 15:45	10
1,1,1-Trichloroethane	ND		5.0		ug/L			02/15/16 15:45	10
1,1,2-Trichloroethane	ND		5.0		ug/L			02/15/16 15:45	10
Trichloroethene	ND		5.0		ug/L			02/15/16 15:45	10
Trichlorofluoromethane	ND		10		ug/L			02/15/16 15:45	10
1,2,3-Trichloropropane	ND		5.0		ug/L			02/15/16 15:45	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			02/15/16 15:45	10
<b>1,2,4-Trimethylbenzene</b>	<b>280</b>		5.0		ug/L			02/15/16 15:45	10
<b>1,3,5-Trimethylbenzene</b>	<b>44</b>		5.0		ug/L			02/15/16 15:45	10
Vinyl acetate	ND		100		ug/L			02/15/16 15:45	10
Vinyl chloride	ND		5.0		ug/L			02/15/16 15:45	10
<b>Xylenes, Total</b>	<b>780</b>		10		ug/L			02/15/16 15:45	10
2,2-Dichloropropane	ND		5.0		ug/L			02/15/16 15:45	10
<b>Gasoline Range Organics (GRO)</b>	<b>4600</b>		500		ug/L			02/15/16 15:45	10
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 130		02/15/16 15:45	10
1,2-Dichloroethane-d4 (Surr)	113		72 - 130		02/15/16 15:45	10
Toluene-d8 (Surr)	97		70 - 130		02/15/16 15:45	10

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 21:51	1
<b>Sulfate</b>	<b>9.3</b>		1.0		mg/L			02/03/16 21:51	1
<b>Nitrate as NO3</b>	<b>8.1</b>		1.0		mg/L			02/03/16 21:51	1

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.3</b>		0.020		mg/L		02/04/16 17:58	02/16/16 17:16	1
<b>Potassium</b>	<b>2.1</b>		1.0		mg/L		02/04/16 17:58	02/16/16 17:16	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>26</b>		0.10		mg/L			02/17/16 16:18	1
<b>Ferrous Iron</b>	<b>2.4</b>	HF	0.10		mg/L			02/04/16 08:38	1
Ammonia	ND		0.20		mg/L		02/05/16 17:20	02/05/16 21:32	1
Orthophosphate as P	ND		0.020		mg/L			02/04/16 22:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-15**  
**Date Collected: 02/03/16 09:55**  
**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-5**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>5.8</b>		0.50		ug/L			02/12/16 23:24	1
Acetone	ND		50		ug/L			02/12/16 23:24	1
Benzene	ND		0.50		ug/L			02/12/16 23:24	1
Dichlorobromomethane	ND		0.50		ug/L			02/12/16 23:24	1
Bromobenzene	ND		1.0		ug/L			02/12/16 23:24	1
Chlorobromomethane	ND		1.0		ug/L			02/12/16 23:24	1
Bromoform	ND		1.0		ug/L			02/12/16 23:24	1
Bromomethane	ND		1.0		ug/L			02/12/16 23:24	1
2-Butanone (MEK)	ND		50		ug/L			02/12/16 23:24	1
n-Butylbenzene	ND		1.0		ug/L			02/12/16 23:24	1
sec-Butylbenzene	ND		1.0		ug/L			02/12/16 23:24	1
tert-Butylbenzene	ND		1.0		ug/L			02/12/16 23:24	1
Carbon disulfide	ND		5.0		ug/L			02/12/16 23:24	1
Carbon tetrachloride	ND		0.50		ug/L			02/12/16 23:24	1
Chlorobenzene	ND		0.50		ug/L			02/12/16 23:24	1
Chloroethane	ND		1.0		ug/L			02/12/16 23:24	1
Chloroform	ND		1.0		ug/L			02/12/16 23:24	1
Chloromethane	ND		1.0		ug/L			02/12/16 23:24	1
2-Chlorotoluene	ND		0.50		ug/L			02/12/16 23:24	1
4-Chlorotoluene	ND		0.50		ug/L			02/12/16 23:24	1
Chlorodibromomethane	ND		0.50		ug/L			02/12/16 23:24	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/12/16 23:24	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/12/16 23:24	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/12/16 23:24	1
1,3-Dichloropropane	ND		1.0		ug/L			02/12/16 23:24	1
1,1-Dichloropropene	ND		0.50		ug/L			02/12/16 23:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/12/16 23:24	1
Ethylene Dibromide	ND		0.50		ug/L			02/12/16 23:24	1
Dibromomethane	ND		0.50		ug/L			02/12/16 23:24	1
Dichlorodifluoromethane	ND *		0.50		ug/L			02/12/16 23:24	1
1,1-Dichloroethane	ND		0.50		ug/L			02/12/16 23:24	1
<b>1,2-Dichloroethane</b>	<b>1.2</b>		0.50		ug/L			02/12/16 23:24	1
1,1-Dichloroethene	ND		0.50		ug/L			02/12/16 23:24	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 23:24	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 23:24	1
1,2-Dichloropropane	ND		0.50		ug/L			02/12/16 23:24	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 23:24	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 23:24	1
Ethylbenzene	ND		0.50		ug/L			02/12/16 23:24	1
Hexachlorobutadiene	ND		1.0		ug/L			02/12/16 23:24	1
2-Hexanone	ND		50		ug/L			02/12/16 23:24	1
Isopropylbenzene	ND		0.50		ug/L			02/12/16 23:24	1
4-Isopropyltoluene	ND		1.0		ug/L			02/12/16 23:24	1
Methylene Chloride	ND		5.0		ug/L			02/12/16 23:24	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/12/16 23:24	1
Naphthalene	ND		1.0		ug/L			02/12/16 23:24	1
N-Propylbenzene	ND		1.0		ug/L			02/12/16 23:24	1
Styrene	ND		0.50		ug/L			02/12/16 23:24	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 23:24	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-15**

**Lab Sample ID: 720-70170-5**

**Date Collected: 02/03/16 09:55**

**Matrix: Water**

**Date Received: 02/03/16 17:40**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 23:24	1
Tetrachloroethene	ND		0.50		ug/L			02/12/16 23:24	1
Toluene	ND		0.50		ug/L			02/12/16 23:24	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/12/16 23:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/12/16 23:24	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/12/16 23:24	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/12/16 23:24	1
Trichloroethene	ND		0.50		ug/L			02/12/16 23:24	1
Trichlorofluoromethane	ND *		1.0		ug/L			02/12/16 23:24	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/12/16 23:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/12/16 23:24	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/12/16 23:24	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/12/16 23:24	1
Vinyl acetate	ND		10		ug/L			02/12/16 23:24	1
Vinyl chloride	ND		0.50		ug/L			02/12/16 23:24	1
Xylenes, Total	ND		1.0		ug/L			02/12/16 23:24	1
2,2-Dichloropropane	ND		0.50		ug/L			02/12/16 23:24	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/12/16 23:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130					02/12/16 23:24	1
1,2-Dichloroethane-d4 (Surr)	121		72 - 130					02/12/16 23:24	1
Toluene-d8 (Surr)	96		70 - 130					02/12/16 23:24	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 23:00	1
<b>Sulfate</b>	<b>60</b>		10		mg/L			02/03/16 23:21	10
<b>Nitrate as NO3</b>	<b>20</b>		10		mg/L			02/03/16 23:21	10

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.74</b>		0.020		mg/L		02/04/16 17:58	02/16/16 17:21	1
<b>Potassium</b>	<b>4.6</b>		1.0		mg/L		02/04/16 17:58	02/16/16 17:21	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>42</b>		0.10		mg/L			02/17/16 16:18	1
<b>Ferrous Iron</b>	<b>0.26</b>	<b>HF</b>	0.10		mg/L			02/04/16 08:38	1
Ammonia	ND		0.20		mg/L		02/05/16 17:20	02/05/16 21:41	1
Orthophosphate as P	ND		0.020		mg/L			02/04/16 22:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-16**

**Date Collected: 02/03/16 10:40**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-6**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>0.94</b>		0.50		ug/L			02/12/16 23:52	1
Acetone	ND		50		ug/L			02/12/16 23:52	1
Benzene	ND		0.50		ug/L			02/12/16 23:52	1
Dichlorobromomethane	ND		0.50		ug/L			02/12/16 23:52	1
Bromobenzene	ND		1.0		ug/L			02/12/16 23:52	1
Chlorobromomethane	ND		1.0		ug/L			02/12/16 23:52	1
Bromoform	ND		1.0		ug/L			02/12/16 23:52	1
Bromomethane	ND		1.0		ug/L			02/12/16 23:52	1
2-Butanone (MEK)	ND		50		ug/L			02/12/16 23:52	1
n-Butylbenzene	ND		1.0		ug/L			02/12/16 23:52	1
sec-Butylbenzene	ND		1.0		ug/L			02/12/16 23:52	1
tert-Butylbenzene	ND		1.0		ug/L			02/12/16 23:52	1
Carbon disulfide	ND		5.0		ug/L			02/12/16 23:52	1
Carbon tetrachloride	ND		0.50		ug/L			02/12/16 23:52	1
Chlorobenzene	ND		0.50		ug/L			02/12/16 23:52	1
Chloroethane	ND		1.0		ug/L			02/12/16 23:52	1
Chloroform	ND		1.0		ug/L			02/12/16 23:52	1
Chloromethane	ND		1.0		ug/L			02/12/16 23:52	1
2-Chlorotoluene	ND		0.50		ug/L			02/12/16 23:52	1
4-Chlorotoluene	ND		0.50		ug/L			02/12/16 23:52	1
Chlorodibromomethane	ND		0.50		ug/L			02/12/16 23:52	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/12/16 23:52	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/12/16 23:52	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/12/16 23:52	1
1,3-Dichloropropane	ND		1.0		ug/L			02/12/16 23:52	1
1,1-Dichloropropene	ND		0.50		ug/L			02/12/16 23:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/12/16 23:52	1
Ethylene Dibromide	ND		0.50		ug/L			02/12/16 23:52	1
Dibromomethane	ND		0.50		ug/L			02/12/16 23:52	1
Dichlorodifluoromethane	ND *		0.50		ug/L			02/12/16 23:52	1
1,1-Dichloroethane	ND		0.50		ug/L			02/12/16 23:52	1
<b>1,2-Dichloroethane</b>	<b>0.92</b>		0.50		ug/L			02/12/16 23:52	1
1,1-Dichloroethene	ND		0.50		ug/L			02/12/16 23:52	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 23:52	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 23:52	1
1,2-Dichloropropane	ND		0.50		ug/L			02/12/16 23:52	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 23:52	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 23:52	1
Ethylbenzene	ND		0.50		ug/L			02/12/16 23:52	1
Hexachlorobutadiene	ND		1.0		ug/L			02/12/16 23:52	1
2-Hexanone	ND		50		ug/L			02/12/16 23:52	1
Isopropylbenzene	ND		0.50		ug/L			02/12/16 23:52	1
4-Isopropyltoluene	ND		1.0		ug/L			02/12/16 23:52	1
Methylene Chloride	ND		5.0		ug/L			02/12/16 23:52	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/12/16 23:52	1
Naphthalene	ND		1.0		ug/L			02/12/16 23:52	1
N-Propylbenzene	ND		1.0		ug/L			02/12/16 23:52	1
Styrene	ND		0.50		ug/L			02/12/16 23:52	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 23:52	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-16**

**Lab Sample ID: 720-70170-6**

**Date Collected: 02/03/16 10:40**

**Matrix: Water**

**Date Received: 02/03/16 17:40**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 23:52	1
Tetrachloroethene	ND		0.50		ug/L			02/12/16 23:52	1
Toluene	ND		0.50		ug/L			02/12/16 23:52	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/12/16 23:52	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/12/16 23:52	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/12/16 23:52	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/12/16 23:52	1
Trichloroethene	ND		0.50		ug/L			02/12/16 23:52	1
Trichlorofluoromethane	ND *		1.0		ug/L			02/12/16 23:52	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/12/16 23:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/12/16 23:52	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/12/16 23:52	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/12/16 23:52	1
Vinyl acetate	ND		10		ug/L			02/12/16 23:52	1
Vinyl chloride	ND		0.50		ug/L			02/12/16 23:52	1
Xylenes, Total	ND		1.0		ug/L			02/12/16 23:52	1
2,2-Dichloropropane	ND		0.50		ug/L			02/12/16 23:52	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/12/16 23:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130					02/12/16 23:52	1
1,2-Dichloroethane-d4 (Surr)	115		72 - 130					02/12/16 23:52	1
Toluene-d8 (Surr)	97		70 - 130					02/12/16 23:52	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 23:38	1
<b>Sulfate</b>	<b>6.9</b>		1.0		mg/L			02/03/16 23:38	1
<b>Nitrate as NO3</b>	<b>7.3</b>		1.0		mg/L			02/03/16 23:38	1

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.33</b>		0.020		mg/L		02/04/16 17:58	02/16/16 17:26	1
Potassium	ND		1.0		mg/L		02/04/16 17:58	02/16/16 17:26	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ferric Iron</b>	<b>4.9</b>		0.10		mg/L			02/17/16 16:18	1
Ferrous Iron	ND	HF	0.10		mg/L			02/04/16 08:38	1
Ammonia	ND		0.20		mg/L		02/05/16 17:20	02/05/16 21:44	1
<b>Orthophosphate as P</b>	<b>0.028</b>		0.020		mg/L			02/04/16 22:22	1

TestAmerica Pleasanton

# Surrogate Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (67-130)	12DCE (72-130)	TOL (70-130)
720-70170-1	MW-11R	99	111	97
720-70170-2	MW-12	99	113	100
720-70170-3	MW-13	98	118	98
720-70170-4	MW-14	100	113	97
720-70170-5	MW-15	96	121	96
720-70170-6	MW-16	96	115	97
LCS 720-197019/6	Lab Control Sample	102	110	101
LCS 720-197019/8	Lab Control Sample	102	113	102
LCS 720-197031/6	Lab Control Sample	99	116	100
LCS 720-197031/8	Lab Control Sample	103	111	102
LCSD 720-197019/7	Lab Control Sample Dup	101	112	100
LCSD 720-197019/9	Lab Control Sample Dup	105	113	101
LCSD 720-197031/7	Lab Control Sample Dup	103	112	101
LCSD 720-197031/9	Lab Control Sample Dup	101	110	99
MB 720-197019/5	Method Blank	99	113	99
MB 720-197031/5	Method Blank	99	118	98

### Surrogate Legend

BFB = 4-Bromofluorobenzene

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)



# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

**Lab Sample ID: MB 720-197019/5**

**Matrix: Water**

**Analysis Batch: 197019**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/12/16 14:05	1
Acetone	ND		50		ug/L			02/12/16 14:05	1
Benzene	ND		0.50		ug/L			02/12/16 14:05	1
Dichlorobromomethane	ND		0.50		ug/L			02/12/16 14:05	1
Bromobenzene	ND		1.0		ug/L			02/12/16 14:05	1
Chlorobromomethane	ND		1.0		ug/L			02/12/16 14:05	1
Bromoform	ND		1.0		ug/L			02/12/16 14:05	1
Bromomethane	ND		1.0		ug/L			02/12/16 14:05	1
2-Butanone (MEK)	ND		50		ug/L			02/12/16 14:05	1
n-Butylbenzene	ND		1.0		ug/L			02/12/16 14:05	1
sec-Butylbenzene	ND		1.0		ug/L			02/12/16 14:05	1
tert-Butylbenzene	ND		1.0		ug/L			02/12/16 14:05	1
Carbon disulfide	ND		5.0		ug/L			02/12/16 14:05	1
Carbon tetrachloride	ND		0.50		ug/L			02/12/16 14:05	1
Chlorobenzene	ND		0.50		ug/L			02/12/16 14:05	1
Chloroethane	ND		1.0		ug/L			02/12/16 14:05	1
Chloroform	ND		1.0		ug/L			02/12/16 14:05	1
Chloromethane	ND		1.0		ug/L			02/12/16 14:05	1
2-Chlorotoluene	ND		0.50		ug/L			02/12/16 14:05	1
4-Chlorotoluene	ND		0.50		ug/L			02/12/16 14:05	1
Chlorodibromomethane	ND		0.50		ug/L			02/12/16 14:05	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/12/16 14:05	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/12/16 14:05	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/12/16 14:05	1
1,3-Dichloropropane	ND		1.0		ug/L			02/12/16 14:05	1
1,1-Dichloropropene	ND		0.50		ug/L			02/12/16 14:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/12/16 14:05	1
Ethylene Dibromide	ND		0.50		ug/L			02/12/16 14:05	1
Dibromomethane	ND		0.50		ug/L			02/12/16 14:05	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/12/16 14:05	1
1,1-Dichloroethane	ND		0.50		ug/L			02/12/16 14:05	1
1,2-Dichloroethane	ND		0.50		ug/L			02/12/16 14:05	1
1,1-Dichloroethene	ND		0.50		ug/L			02/12/16 14:05	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 14:05	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/12/16 14:05	1
1,2-Dichloropropane	ND		0.50		ug/L			02/12/16 14:05	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 14:05	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/12/16 14:05	1
Ethylbenzene	ND		0.50		ug/L			02/12/16 14:05	1
Hexachlorobutadiene	ND		1.0		ug/L			02/12/16 14:05	1
2-Hexanone	ND		50		ug/L			02/12/16 14:05	1
Isopropylbenzene	ND		0.50		ug/L			02/12/16 14:05	1
4-Isopropyltoluene	ND		1.0		ug/L			02/12/16 14:05	1
Methylene Chloride	ND		5.0		ug/L			02/12/16 14:05	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/12/16 14:05	1
Naphthalene	ND		1.0		ug/L			02/12/16 14:05	1
N-Propylbenzene	ND		1.0		ug/L			02/12/16 14:05	1
Styrene	ND		0.50		ug/L			02/12/16 14:05	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: MB 720-197019/5**  
**Matrix: Water**  
**Analysis Batch: 197019**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 14:05	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/12/16 14:05	1
Tetrachloroethene	ND		0.50		ug/L			02/12/16 14:05	1
Toluene	ND		0.50		ug/L			02/12/16 14:05	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/12/16 14:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/12/16 14:05	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/12/16 14:05	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/12/16 14:05	1
Trichloroethene	ND		0.50		ug/L			02/12/16 14:05	1
Trichlorofluoromethane	ND		1.0		ug/L			02/12/16 14:05	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/12/16 14:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/12/16 14:05	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/12/16 14:05	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/12/16 14:05	1
Vinyl acetate	ND		10		ug/L			02/12/16 14:05	1
Vinyl chloride	ND		0.50		ug/L			02/12/16 14:05	1
Xylenes, Total	ND		1.0		ug/L			02/12/16 14:05	1
2,2-Dichloropropane	ND		0.50		ug/L			02/12/16 14:05	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/12/16 14:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		02/12/16 14:05	1
1,2-Dichloroethane-d4 (Surr)	113		72 - 130		02/12/16 14:05	1
Toluene-d8 (Surr)	99		70 - 130		02/12/16 14:05	1

**Lab Sample ID: LCS 720-197019/6**  
**Matrix: Water**  
**Analysis Batch: 197019**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	25.4		ug/L		101	62 - 130
Acetone	100	85.6		ug/L		86	26 - 180
Benzene	25.0	22.4		ug/L		90	79 - 130
Dichlorobromomethane	25.0	26.8		ug/L		107	70 - 130
Bromobenzene	25.0	23.6		ug/L		94	70 - 130
Chlorobromomethane	25.0	26.4		ug/L		105	70 - 130
Bromoform	25.0	28.0		ug/L		112	68 - 136
Bromomethane	25.0	31.5		ug/L		126	43 - 151
2-Butanone (MEK)	100	97.3		ug/L		97	54 - 130
n-Butylbenzene	25.0	20.2		ug/L		81	70 - 142
sec-Butylbenzene	25.0	21.6		ug/L		87	70 - 134
tert-Butylbenzene	25.0	22.3		ug/L		89	70 - 135
Carbon disulfide	25.0	21.6		ug/L		86	58 - 130
Carbon tetrachloride	25.0	29.6		ug/L		119	70 - 146
Chlorobenzene	25.0	24.0		ug/L		96	70 - 130
Chloroethane	25.0	26.8		ug/L		107	62 - 138
Chloroform	25.0	25.8		ug/L		103	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-197019/6

Matrix: Water

Analysis Batch: 197019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	25.0	27.7		ug/L		111	52 - 175
2-Chlorotoluene	25.0	22.6		ug/L		90	70 - 130
4-Chlorotoluene	25.0	21.9		ug/L		88	70 - 130
Chlorodibromomethane	25.0	27.5		ug/L		110	70 - 145
1,2-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130
1,3-Dichlorobenzene	25.0	23.5		ug/L		94	70 - 130
1,4-Dichlorobenzene	25.0	23.4		ug/L		94	70 - 130
1,3-Dichloropropane	25.0	22.7		ug/L		91	70 - 130
1,1-Dichloropropene	25.0	24.0		ug/L		96	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.3		ug/L		89	70 - 136
Ethylene Dibromide	25.0	23.9		ug/L		96	70 - 130
Dibromomethane	25.0	25.0		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	36.5	*	ug/L		146	34 - 132
1,1-Dichloroethane	25.0	22.5		ug/L		90	70 - 130
1,2-Dichloroethane	25.0	26.9		ug/L		108	61 - 132
1,1-Dichloroethene	25.0	21.5		ug/L		86	64 - 128
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	70 - 130
trans-1,2-Dichloroethene	25.0	23.2		ug/L		93	68 - 130
1,2-Dichloropropane	25.0	21.2		ug/L		85	70 - 130
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 140
Ethylbenzene	25.0	21.1		ug/L		84	80 - 120
Hexachlorobutadiene	25.0	25.0		ug/L		100	70 - 130
2-Hexanone	100	87.9		ug/L		88	60 - 164
Isopropylbenzene	25.0	22.6		ug/L		90	70 - 130
4-Isopropyltoluene	25.0	21.9		ug/L		87	70 - 130
Methylene Chloride	25.0	24.2		ug/L		97	70 - 147
4-Methyl-2-pentanone (MIBK)	100	89.4		ug/L		89	58 - 130
Naphthalene	25.0	20.5		ug/L		82	70 - 130
N-Propylbenzene	25.0	22.2		ug/L		89	70 - 130
Styrene	25.0	21.5		ug/L		86	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.4		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	25.0	19.4		ug/L		77	70 - 130
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130
Toluene	25.0	21.1		ug/L		84	78 - 120
1,2,3-Trichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,2,4-Trichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,1,1-Trichloroethane	25.0	27.8		ug/L		111	70 - 130
1,1,2-Trichloroethane	25.0	22.3		ug/L		89	70 - 130
Trichloroethene	25.0	25.9		ug/L		103	70 - 130
Trichlorofluoromethane	25.0	33.5	*	ug/L		134	66 - 132
1,2,3-Trichloropropane	25.0	22.0		ug/L		88	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.1		ug/L		108	42 - 162
1,2,4-Trimethylbenzene	25.0	23.1		ug/L		92	70 - 132
1,3,5-Trimethylbenzene	25.0	21.6		ug/L		86	70 - 130
Vinyl acetate	25.0	20.3		ug/L		81	43 - 163
Vinyl chloride	25.0	29.9		ug/L		120	54 - 135

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-197019/6**  
**Matrix: Water**  
**Analysis Batch: 197019**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	25.0	23.8		ug/L		95	70 - 142
o-Xylene	25.0	23.9		ug/L		96	70 - 130
2,2-Dichloropropane	25.0	26.6		ug/L		107	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	110		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: LCS 720-197019/8**  
**Matrix: Water**  
**Analysis Batch: 197019**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	548		ug/L		110	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	113		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: LCSD 720-197019/7**  
**Matrix: Water**  
**Analysis Batch: 197019**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	26.0		ug/L		104	62 - 130	3	20
Acetone	100	89.1		ug/L		89	26 - 180	4	30
Benzene	25.0	22.6		ug/L		90	79 - 130	1	20
Dichlorobromomethane	25.0	26.8		ug/L		107	70 - 130	0	20
Bromobenzene	25.0	23.6		ug/L		95	70 - 130	0	20
Chlorobromomethane	25.0	26.2		ug/L		105	70 - 130	1	20
Bromoform	25.0	28.8		ug/L		115	68 - 136	3	20
Bromomethane	25.0	31.7		ug/L		127	43 - 151	1	20
2-Butanone (MEK)	100	106		ug/L		106	54 - 130	9	20
n-Butylbenzene	25.0	20.2		ug/L		81	70 - 142	0	20
sec-Butylbenzene	25.0	21.4		ug/L		86	70 - 134	1	20
tert-Butylbenzene	25.0	22.1		ug/L		88	70 - 135	1	20
Carbon disulfide	25.0	21.5		ug/L		86	58 - 130	1	20
Carbon tetrachloride	25.0	29.5		ug/L		118	70 - 146	0	20
Chlorobenzene	25.0	24.3		ug/L		97	70 - 130	1	20
Chloroethane	25.0	26.7		ug/L		107	62 - 138	0	20
Chloroform	25.0	26.2		ug/L		105	70 - 130	1	20
Chloromethane	25.0	27.4		ug/L		110	52 - 175	1	20
2-Chlorotoluene	25.0	22.3		ug/L		89	70 - 130	1	20
4-Chlorotoluene	25.0	21.8		ug/L		87	70 - 130	0	20
Chlorodibromomethane	25.0	27.6		ug/L		111	70 - 145	0	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-197019/7

Matrix: Water

Analysis Batch: 197019

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	70 - 130	1	20
1,3-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130	1	20
1,4-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130	2	20
1,3-Dichloropropane	25.0	23.0		ug/L		92	70 - 130	1	20
1,1-Dichloropropene	25.0	24.1		ug/L		97	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	70 - 136	7	20
Ethylene Dibromide	25.0	24.4		ug/L		98	70 - 130	2	20
Dibromomethane	25.0	25.5		ug/L		102	70 - 130	2	20
Dichlorodifluoromethane	25.0	36.4	*	ug/L		146	34 - 132	0	20
1,1-Dichloroethane	25.0	22.8		ug/L		91	70 - 130	1	20
1,2-Dichloroethane	25.0	27.2		ug/L		109	61 - 132	1	20
1,1-Dichloroethene	25.0	21.3		ug/L		85	64 - 128	1	20
cis-1,2-Dichloroethene	25.0	23.4		ug/L		94	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	23.4		ug/L		93	68 - 130	1	20
1,2-Dichloropropane	25.0	21.5		ug/L		86	70 - 130	2	20
cis-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	27.4		ug/L		110	70 - 140	2	20
Ethylbenzene	25.0	21.4		ug/L		86	80 - 120	2	20
Hexachlorobutadiene	25.0	25.0		ug/L		100	70 - 130	0	20
2-Hexanone	100	90.8		ug/L		91	60 - 164	3	20
Isopropylbenzene	25.0	22.6		ug/L		90	70 - 130	0	20
4-Isopropyltoluene	25.0	21.7		ug/L		87	70 - 130	1	20
Methylene Chloride	25.0	24.9		ug/L		99	70 - 147	3	20
4-Methyl-2-pentanone (MIBK)	100	94.6		ug/L		95	58 - 130	6	20
Naphthalene	25.0	21.7		ug/L		87	70 - 130	5	20
N-Propylbenzene	25.0	22.0		ug/L		88	70 - 130	1	20
Styrene	25.0	21.9		ug/L		88	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	25.3		ug/L		101	70 - 130	0	20
1,1,2,2-Tetrachloroethane	25.0	20.2		ug/L		81	70 - 130	4	20
Tetrachloroethene	25.0	24.9		ug/L		100	70 - 130	2	20
Toluene	25.0	21.3		ug/L		85	78 - 120	1	20
1,2,3-Trichlorobenzene	25.0	24.1		ug/L		97	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		98	70 - 130	0	20
1,1,1-Trichloroethane	25.0	27.6		ug/L		110	70 - 130	1	20
1,1,2-Trichloroethane	25.0	22.4		ug/L		90	70 - 130	0	20
Trichloroethene	25.0	25.9		ug/L		104	70 - 130	0	20
Trichlorofluoromethane	25.0	32.9		ug/L		132	66 - 132	2	20
1,2,3-Trichloropropane	25.0	22.8		ug/L		91	70 - 130	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.4		ug/L		106	42 - 162	3	20
1,2,4-Trimethylbenzene	25.0	23.0		ug/L		92	70 - 132	1	20
1,3,5-Trimethylbenzene	25.0	21.4		ug/L		86	70 - 130	1	20
Vinyl acetate	25.0	21.2		ug/L		85	43 - 163	4	20
Vinyl chloride	25.0	30.1		ug/L		120	54 - 135	1	20
m-Xylene & p-Xylene	25.0	23.7		ug/L		95	70 - 142	0	20
o-Xylene	25.0	24.0		ug/L		96	70 - 130	0	20
2,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 140	10	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-197019/7**  
**Matrix: Water**  
**Analysis Batch: 197019**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	112		72 - 130
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: LCSD 720-197019/9**  
**Matrix: Water**  
**Analysis Batch: 197019**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	560		ug/L		112	62 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	113		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: MB 720-197031/5**  
**Matrix: Water**  
**Analysis Batch: 197031**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/15/16 09:14	1
Acetone	ND		50		ug/L			02/15/16 09:14	1
Benzene	ND		0.50		ug/L			02/15/16 09:14	1
Dichlorobromomethane	ND		0.50		ug/L			02/15/16 09:14	1
Bromobenzene	ND		1.0		ug/L			02/15/16 09:14	1
Chlorobromomethane	ND		1.0		ug/L			02/15/16 09:14	1
Bromoform	ND		1.0		ug/L			02/15/16 09:14	1
Bromomethane	ND		1.0		ug/L			02/15/16 09:14	1
2-Butanone (MEK)	ND		50		ug/L			02/15/16 09:14	1
n-Butylbenzene	ND		1.0		ug/L			02/15/16 09:14	1
sec-Butylbenzene	ND		1.0		ug/L			02/15/16 09:14	1
tert-Butylbenzene	ND		1.0		ug/L			02/15/16 09:14	1
Carbon disulfide	ND		5.0		ug/L			02/15/16 09:14	1
Carbon tetrachloride	ND		0.50		ug/L			02/15/16 09:14	1
Chlorobenzene	ND		0.50		ug/L			02/15/16 09:14	1
Chloroethane	ND		1.0		ug/L			02/15/16 09:14	1
Chloroform	ND		1.0		ug/L			02/15/16 09:14	1
Chloromethane	ND		1.0		ug/L			02/15/16 09:14	1
2-Chlorotoluene	ND		0.50		ug/L			02/15/16 09:14	1
4-Chlorotoluene	ND		0.50		ug/L			02/15/16 09:14	1
Chlorodibromomethane	ND		0.50		ug/L			02/15/16 09:14	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/15/16 09:14	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/15/16 09:14	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/15/16 09:14	1
1,3-Dichloropropane	ND		1.0		ug/L			02/15/16 09:14	1
1,1-Dichloropropene	ND		0.50		ug/L			02/15/16 09:14	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: MB 720-197031/5**  
**Matrix: Water**  
**Analysis Batch: 197031**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/15/16 09:14	1
Ethylene Dibromide	ND		0.50		ug/L			02/15/16 09:14	1
Dibromomethane	ND		0.50		ug/L			02/15/16 09:14	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/15/16 09:14	1
1,1-Dichloroethane	ND		0.50		ug/L			02/15/16 09:14	1
1,2-Dichloroethane	ND		0.50		ug/L			02/15/16 09:14	1
1,1-Dichloroethene	ND		0.50		ug/L			02/15/16 09:14	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/15/16 09:14	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/15/16 09:14	1
1,2-Dichloropropane	ND		0.50		ug/L			02/15/16 09:14	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/15/16 09:14	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/15/16 09:14	1
Ethylbenzene	ND		0.50		ug/L			02/15/16 09:14	1
Hexachlorobutadiene	ND		1.0		ug/L			02/15/16 09:14	1
2-Hexanone	ND		50		ug/L			02/15/16 09:14	1
Isopropylbenzene	ND		0.50		ug/L			02/15/16 09:14	1
4-Isopropyltoluene	ND		1.0		ug/L			02/15/16 09:14	1
Methylene Chloride	ND		5.0		ug/L			02/15/16 09:14	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/15/16 09:14	1
Naphthalene	ND		1.0		ug/L			02/15/16 09:14	1
N-Propylbenzene	ND		1.0		ug/L			02/15/16 09:14	1
Styrene	ND		0.50		ug/L			02/15/16 09:14	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/15/16 09:14	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/15/16 09:14	1
Tetrachloroethene	ND		0.50		ug/L			02/15/16 09:14	1
Toluene	ND		0.50		ug/L			02/15/16 09:14	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/15/16 09:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/15/16 09:14	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/15/16 09:14	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/15/16 09:14	1
Trichloroethene	ND		0.50		ug/L			02/15/16 09:14	1
Trichlorofluoromethane	ND		1.0		ug/L			02/15/16 09:14	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/15/16 09:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/15/16 09:14	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/15/16 09:14	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/15/16 09:14	1
Vinyl acetate	ND		10		ug/L			02/15/16 09:14	1
Vinyl chloride	ND		0.50		ug/L			02/15/16 09:14	1
Xylenes, Total	ND		1.0		ug/L			02/15/16 09:14	1
2,2-Dichloropropane	ND		0.50		ug/L			02/15/16 09:14	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/15/16 09:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		02/15/16 09:14	1
1,2-Dichloroethane-d4 (Surr)	118		72 - 130		02/15/16 09:14	1
Toluene-d8 (Surr)	98		70 - 130		02/15/16 09:14	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-197031/6

Matrix: Water

Analysis Batch: 197031

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	25.0		ug/L		100	62 - 130
Acetone	100	86.7		ug/L		87	26 - 180
Benzene	25.0	21.7		ug/L		87	79 - 130
Dichlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Bromobenzene	25.0	22.8		ug/L		91	70 - 130
Chlorobromomethane	25.0	25.8		ug/L		103	70 - 130
Bromoform	25.0	27.7		ug/L		111	68 - 136
Bromomethane	25.0	29.9		ug/L		119	43 - 151
2-Butanone (MEK)	100	102		ug/L		102	54 - 130
n-Butylbenzene	25.0	20.1		ug/L		80	70 - 142
sec-Butylbenzene	25.0	20.7		ug/L		83	70 - 134
tert-Butylbenzene	25.0	21.6		ug/L		86	70 - 135
Carbon disulfide	25.0	20.5		ug/L		82	58 - 130
Carbon tetrachloride	25.0	28.3		ug/L		113	70 - 146
Chlorobenzene	25.0	23.4		ug/L		93	70 - 130
Chloroethane	25.0	24.2		ug/L		97	62 - 138
Chloroform	25.0	25.1		ug/L		100	70 - 130
Chloromethane	25.0	24.9		ug/L		100	52 - 175
2-Chlorotoluene	25.0	21.7		ug/L		87	70 - 130
4-Chlorotoluene	25.0	21.3		ug/L		85	70 - 130
Chlorodibromomethane	25.0	26.6		ug/L		107	70 - 145
1,2-Dichlorobenzene	25.0	22.7		ug/L		91	70 - 130
1,3-Dichlorobenzene	25.0	22.8		ug/L		91	70 - 130
1,4-Dichlorobenzene	25.0	23.1		ug/L		92	70 - 130
1,3-Dichloropropane	25.0	21.7		ug/L		87	70 - 130
1,1-Dichloropropene	25.0	23.2		ug/L		93	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.8		ug/L		91	70 - 136
Ethylene Dibromide	25.0	23.2		ug/L		93	70 - 130
Dibromomethane	25.0	24.6		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	33.6 *		ug/L		134	34 - 132
1,1-Dichloroethane	25.0	21.7		ug/L		87	70 - 130
1,2-Dichloroethane	25.0	26.4		ug/L		106	61 - 132
1,1-Dichloroethene	25.0	20.1		ug/L		81	64 - 128
cis-1,2-Dichloroethene	25.0	22.7		ug/L		91	70 - 130
trans-1,2-Dichloroethene	25.0	22.3		ug/L		89	68 - 130
1,2-Dichloropropane	25.0	20.5		ug/L		82	70 - 130
cis-1,3-Dichloropropene	25.0	24.5		ug/L		98	70 - 130
trans-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 140
Ethylbenzene	25.0	20.6		ug/L		82	80 - 120
Hexachlorobutadiene	25.0	25.0		ug/L		100	70 - 130
2-Hexanone	100	87.3		ug/L		87	60 - 164
Isopropylbenzene	25.0	21.7		ug/L		87	70 - 130
4-Isopropyltoluene	25.0	21.4		ug/L		86	70 - 130
Methylene Chloride	25.0	21.6		ug/L		86	70 - 147
4-Methyl-2-pentanone (MIBK)	100	89.2		ug/L		89	58 - 130
Naphthalene	25.0	20.9		ug/L		84	70 - 130
N-Propylbenzene	25.0	21.5		ug/L		86	70 - 130
Styrene	25.0	21.2		ug/L		85	70 - 130

TestAmerica Pleasanton



# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-197031/6**  
**Matrix: Water**  
**Analysis Batch: 197031**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	24.6		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	25.0	19.2		ug/L		77	70 - 130
Tetrachloroethene	25.0	24.2		ug/L		97	70 - 130
Toluene	25.0	20.8		ug/L		83	78 - 120
1,2,3-Trichlorobenzene	25.0	24.3		ug/L		97	70 - 130
1,2,4-Trichlorobenzene	25.0	24.9		ug/L		99	70 - 130
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	70 - 130
1,1,2-Trichloroethane	25.0	20.9		ug/L		84	70 - 130
Trichloroethene	25.0	25.3		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	31.2		ug/L		125	66 - 132
1,2,3-Trichloropropane	25.0	21.4		ug/L		86	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.4		ug/L		102	42 - 162
1,2,4-Trimethylbenzene	25.0	22.5		ug/L		90	70 - 132
1,3,5-Trimethylbenzene	25.0	21.0		ug/L		84	70 - 130
Vinyl acetate	25.0	20.5		ug/L		82	43 - 163
Vinyl chloride	25.0	27.7		ug/L		111	54 - 135
m-Xylene & p-Xylene	25.0	23.2		ug/L		93	70 - 142
o-Xylene	25.0	23.3		ug/L		93	70 - 130
2,2-Dichloropropane	25.0	24.0		ug/L		96	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	116		72 - 130
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: LCS 720-197031/8**  
**Matrix: Water**  
**Analysis Batch: 197031**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	529		ug/L		106	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	111		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: LCSD 720-197031/7**  
**Matrix: Water**  
**Analysis Batch: 197031**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	25.0		ug/L		100	62 - 130	0	20
Acetone	100	88.7		ug/L		89	26 - 180	2	30
Benzene	25.0	21.7		ug/L		87	79 - 130	0	20
Dichlorobromomethane	25.0	26.4		ug/L		106	70 - 130	1	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-197031/7

Matrix: Water

Analysis Batch: 197031

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	25.0	22.6		ug/L		91	70 - 130	1	20
Chlorobromomethane	25.0	25.7		ug/L		103	70 - 130	1	20
Bromoform	25.0	28.6		ug/L		114	68 - 136	3	20
Bromomethane	25.0	31.4		ug/L		126	43 - 151	5	20
2-Butanone (MEK)	100	104		ug/L		104	54 - 130	2	20
n-Butylbenzene	25.0	20.0		ug/L		80	70 - 142	1	20
sec-Butylbenzene	25.0	20.7		ug/L		83	70 - 134	0	20
tert-Butylbenzene	25.0	21.4		ug/L		86	70 - 135	1	20
Carbon disulfide	25.0	21.1		ug/L		84	58 - 130	3	20
Carbon tetrachloride	25.0	28.8		ug/L		115	70 - 146	2	20
Chlorobenzene	25.0	23.5		ug/L		94	70 - 130	1	20
Chloroethane	25.0	25.8		ug/L		103	62 - 138	6	20
Chloroform	25.0	25.2		ug/L		101	70 - 130	0	20
Chloromethane	25.0	25.5		ug/L		102	52 - 175	2	20
2-Chlorotoluene	25.0	21.6		ug/L		87	70 - 130	0	20
4-Chlorotoluene	25.0	21.0		ug/L		84	70 - 130	2	20
Chlorodibromomethane	25.0	27.5		ug/L		110	70 - 145	3	20
1,2-Dichlorobenzene	25.0	22.6		ug/L		90	70 - 130	0	20
1,3-Dichlorobenzene	25.0	22.6		ug/L		90	70 - 130	1	20
1,4-Dichlorobenzene	25.0	22.9		ug/L		92	70 - 130	1	20
1,3-Dichloropropane	25.0	22.4		ug/L		90	70 - 130	3	20
1,1-Dichloropropane	25.0	23.2		ug/L		93	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	23.6		ug/L		94	70 - 136	3	20
Ethylene Dibromide	25.0	23.3		ug/L		93	70 - 130	0	20
Dibromomethane	25.0	24.4		ug/L		98	70 - 130	1	20
Dichlorodifluoromethane	25.0	35.4 *		ug/L		141	34 - 132	5	20
1,1-Dichloroethane	25.0	21.7		ug/L		87	70 - 130	0	20
1,2-Dichloroethane	25.0	26.4		ug/L		106	61 - 132	0	20
1,1-Dichloroethene	25.0	20.8		ug/L		83	64 - 128	3	20
cis-1,2-Dichloroethene	25.0	22.5		ug/L		90	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	22.4		ug/L		90	68 - 130	1	20
1,2-Dichloropropane	25.0	20.7		ug/L		83	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	24.8		ug/L		99	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	26.8		ug/L		107	70 - 140	2	20
Ethylbenzene	25.0	20.7		ug/L		83	80 - 120	1	20
Hexachlorobutadiene	25.0	24.8		ug/L		99	70 - 130	1	20
2-Hexanone	100	89.6		ug/L		90	60 - 164	3	20
Isopropylbenzene	25.0	22.2		ug/L		89	70 - 130	2	20
4-Isopropyltoluene	25.0	21.2		ug/L		85	70 - 130	1	20
Methylene Chloride	25.0	22.2		ug/L		89	70 - 147	3	20
4-Methyl-2-pentanone (MIBK)	100	90.7		ug/L		91	58 - 130	2	20
Naphthalene	25.0	21.6		ug/L		87	70 - 130	3	20
N-Propylbenzene	25.0	21.2		ug/L		85	70 - 130	1	20
Styrene	25.0	21.6		ug/L		86	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	24.8		ug/L		99	70 - 130	1	20
1,1,2,2-Tetrachloroethane	25.0	18.9		ug/L		76	70 - 130	1	20
Tetrachloroethene	25.0	24.6		ug/L		98	70 - 130	2	20
Toluene	25.0	20.8		ug/L		83	78 - 120	0	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-197031/7**  
**Matrix: Water**  
**Analysis Batch: 197031**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichlorobenzene	25.0	24.1		ug/L		96	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	24.8		ug/L		99	70 - 130	0	20
1,1,1-Trichloroethane	25.0	27.2		ug/L		109	70 - 130	1	20
1,1,2-Trichloroethane	25.0	21.7		ug/L		87	70 - 130	3	20
Trichloroethene	25.0	25.2		ug/L		101	70 - 130	0	20
Trichlorofluoromethane	25.0	32.0		ug/L		128	66 - 132	3	20
1,2,3-Trichloropropane	25.0	21.3		ug/L		85	70 - 130	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.7		ug/L		107	42 - 162	5	20
1,2,4-Trimethylbenzene	25.0	22.2		ug/L		89	70 - 132	1	20
1,3,5-Trimethylbenzene	25.0	20.6		ug/L		83	70 - 130	2	20
Vinyl acetate	25.0	20.0		ug/L		80	43 - 163	2	20
Vinyl chloride	25.0	29.3		ug/L		117	54 - 135	6	20
m-Xylene & p-Xylene	25.0	23.3		ug/L		93	70 - 142	0	20
o-Xylene	25.0	23.6		ug/L		94	70 - 130	1	20
2,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 140	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	112		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: LCSD 720-197031/9**  
**Matrix: Water**  
**Analysis Batch: 197031**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	534		ug/L		107	62 - 120	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	110		72 - 130
Toluene-d8 (Surr)	99		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 720-196790/4**  
**Matrix: Water**  
**Analysis Batch: 196790**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as NO2	ND		1.0		mg/L			02/03/16 13:42	1
Nitrate as NO3	ND		1.0		mg/L			02/03/16 13:42	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID:** LCS 720-196790/5  
**Matrix:** Water  
**Analysis Batch:** 196790

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as NO2	10.0	10.4		mg/L		104	90 - 110
Nitrate as NO3	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID:** MB 720-196791/4  
**Matrix:** Water  
**Analysis Batch:** 196791

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0		mg/L			02/03/16 13:42	1

**Lab Sample ID:** LCS 720-196791/5  
**Matrix:** Water  
**Analysis Batch:** 196791

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.97		mg/L		100	90 - 110

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID:** MB 720-196910/1-A  
**Matrix:** Water  
**Analysis Batch:** 197162

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 196910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.020		mg/L		02/04/16 17:58	02/16/16 15:10	1
Potassium	ND		1.0		mg/L		02/04/16 17:58	02/16/16 15:10	1

**Lab Sample ID:** LCS 720-196910/2-A  
**Matrix:** Water  
**Analysis Batch:** 197162

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 196910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	1.00	0.992		mg/L		99	85 - 115
Potassium	10.0	10.2		mg/L		102	85 - 115

## Method: SM 3500 Fe B - Iron, Ferrous

**Lab Sample ID:** MB 720-196849/8  
**Matrix:** Water  
**Analysis Batch:** 196849

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10		mg/L			02/04/16 08:38	1

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# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: SM 3500 Fe B - Iron, Ferrous (Continued)

Lab Sample ID: LCS 720-196849/9  
Matrix: Water  
Analysis Batch: 196849

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: 720-70170-1 MS  
Matrix: Water  
Analysis Batch: 196849

Client Sample ID: MW-11R  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	2.8	HF	1.00	3.91		mg/L		106	75 - 125

Lab Sample ID: 720-70170-1 MSD  
Matrix: Water  
Analysis Batch: 196849

Client Sample ID: MW-11R  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ferrous Iron	2.8	HF	1.00	4.06		mg/L		122	75 - 125	4	20

## Method: SM 4500 NH3 G - Ammonia

Lab Sample ID: MB 500-322118/1-A  
Matrix: Water  
Analysis Batch: 322123

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 322118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		02/05/16 17:20	02/05/16 20:33	1

Lab Sample ID: LCS 500-322118/2-A  
Matrix: Water  
Analysis Batch: 322123

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 322118

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.56		mg/L		102	80 - 120

## Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 720-196915/7  
Matrix: Water  
Analysis Batch: 196915

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Orthophosphate as P	ND		0.020		mg/L			02/04/16 22:22	1

Lab Sample ID: LCS 720-196915/8  
Matrix: Water  
Analysis Batch: 196915

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Orthophosphate as P	0.200	0.194		mg/L		97	90 - 110

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Method: SM 4500 P E - Orthophosphate (Continued)

**Lab Sample ID: 720-70170-1 MS**  
**Matrix: Water**  
**Analysis Batch: 196915**

**Client Sample ID: MW-11R**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Orthophosphate as P	ND		2.00	2.10		mg/L		105	75 - 125

**Lab Sample ID: 720-70170-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 196915**

**Client Sample ID: MW-11R**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Orthophosphate as P	ND		2.00	2.14		mg/L		107	75 - 125	2	20



# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## GC/MS VOA

### Analysis Batch: 197019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	8260B/CA_LUFT MS	
720-70170-2	MW-12	Total/NA	Water	8260B/CA_LUFT MS	
720-70170-3	MW-13	Total/NA	Water	8260B/CA_LUFT MS	
720-70170-5	MW-15	Total/NA	Water	8260B/CA_LUFT MS	
720-70170-6	MW-16	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-197019/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-197019/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-197019/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-197019/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-197019/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

### Analysis Batch: 197031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-4	MW-14	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-197031/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-197031/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-197031/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-197031/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-197031/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

## HPLC/IC

### Analysis Batch: 196790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	300.0	
720-70170-2	MW-12	Total/NA	Water	300.0	
720-70170-3	MW-13	Total/NA	Water	300.0	
720-70170-3	MW-13	Total/NA	Water	300.0	
720-70170-4	MW-14	Total/NA	Water	300.0	
720-70170-5	MW-15	Total/NA	Water	300.0	
720-70170-5	MW-15	Total/NA	Water	300.0	
720-70170-6	MW-16	Total/NA	Water	300.0	
LCS 720-196790/5	Lab Control Sample	Total/NA	Water	300.0	
MB 720-196790/4	Method Blank	Total/NA	Water	300.0	

### Analysis Batch: 196791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	300.0	

TestAmerica Pleasanton

# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## HPLC/IC (Continued)

### Analysis Batch: 196791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-2	MW-12	Total/NA	Water	300.0	
720-70170-3	MW-13	Total/NA	Water	300.0	
720-70170-4	MW-14	Total/NA	Water	300.0	
720-70170-5	MW-15	Total/NA	Water	300.0	
720-70170-6	MW-16	Total/NA	Water	300.0	
LCS 720-196791/5	Lab Control Sample	Total/NA	Water	300.0	
MB 720-196791/4	Method Blank	Total/NA	Water	300.0	

## Metals

### Prep Batch: 196910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	200.7	
720-70170-2	MW-12	Total/NA	Water	200.7	
720-70170-3	MW-13	Total/NA	Water	200.7	
720-70170-4	MW-14	Total/NA	Water	200.7	
720-70170-5	MW-15	Total/NA	Water	200.7	
720-70170-6	MW-16	Total/NA	Water	200.7	
LCS 720-196910/2-A	Lab Control Sample	Total/NA	Water	200.7	
MB 720-196910/1-A	Method Blank	Total/NA	Water	200.7	

### Analysis Batch: 197162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	200.7 Rev 4.4	196910
720-70170-2	MW-12	Total/NA	Water	200.7 Rev 4.4	196910
720-70170-3	MW-13	Total/NA	Water	200.7 Rev 4.4	196910
720-70170-4	MW-14	Total/NA	Water	200.7 Rev 4.4	196910
720-70170-5	MW-15	Total/NA	Water	200.7 Rev 4.4	196910
720-70170-6	MW-16	Total/NA	Water	200.7 Rev 4.4	196910
LCS 720-196910/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	196910
MB 720-196910/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	196910

## General Chemistry

### Analysis Batch: 196849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	SM 3500 Fe B	
720-70170-1 MS	MW-11R	Total/NA	Water	SM 3500 Fe B	
720-70170-1 MSD	MW-11R	Total/NA	Water	SM 3500 Fe B	
720-70170-2	MW-12	Total/NA	Water	SM 3500 Fe B	
720-70170-3	MW-13	Total/NA	Water	SM 3500 Fe B	
720-70170-4	MW-14	Total/NA	Water	SM 3500 Fe B	
720-70170-5	MW-15	Total/NA	Water	SM 3500 Fe B	
720-70170-6	MW-16	Total/NA	Water	SM 3500 Fe B	
LCS 720-196849/9	Lab Control Sample	Total/NA	Water	SM 3500 Fe B	
MB 720-196849/8	Method Blank	Total/NA	Water	SM 3500 Fe B	

### Analysis Batch: 196915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	SM 4500 P E	

TestAmerica Pleasanton



# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## General Chemistry (Continued)

### Analysis Batch: 196915 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	SM 4500 P E	
720-70170-1 MS	MW-11R	Total/NA	Water	SM 4500 P E	
720-70170-1 MSD	MW-11R	Total/NA	Water	SM 4500 P E	
720-70170-2	MW-12	Total/NA	Water	SM 4500 P E	
720-70170-3	MW-13	Total/NA	Water	SM 4500 P E	
720-70170-4	MW-14	Total/NA	Water	SM 4500 P E	
720-70170-5	MW-15	Total/NA	Water	SM 4500 P E	
720-70170-6	MW-16	Total/NA	Water	SM 4500 P E	
LCS 720-196915/8	Lab Control Sample	Total/NA	Water	SM 4500 P E	
MB 720-196915/7	Method Blank	Total/NA	Water	SM 4500 P E	

### Analysis Batch: 197190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	SM 3500	
720-70170-2	MW-12	Total/NA	Water	SM 3500	
720-70170-3	MW-13	Total/NA	Water	SM 3500	
720-70170-4	MW-14	Total/NA	Water	SM 3500	
720-70170-5	MW-15	Total/NA	Water	SM 3500	
720-70170-6	MW-16	Total/NA	Water	SM 3500	

### Prep Batch: 322118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	SM 4500 NH3 B	
720-70170-2	MW-12	Total/NA	Water	SM 4500 NH3 B	
720-70170-3	MW-13	Total/NA	Water	SM 4500 NH3 B	
720-70170-4	MW-14	Total/NA	Water	SM 4500 NH3 B	
720-70170-5	MW-15	Total/NA	Water	SM 4500 NH3 B	
720-70170-6	MW-16	Total/NA	Water	SM 4500 NH3 B	
LCS 500-322118/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
MB 500-322118/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	

### Analysis Batch: 322123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70170-1	MW-11R	Total/NA	Water	SM 4500 NH3 G	322118
720-70170-2	MW-12	Total/NA	Water	SM 4500 NH3 G	322118
720-70170-3	MW-13	Total/NA	Water	SM 4500 NH3 G	322118
720-70170-4	MW-14	Total/NA	Water	SM 4500 NH3 G	322118
720-70170-5	MW-15	Total/NA	Water	SM 4500 NH3 G	322118
720-70170-6	MW-16	Total/NA	Water	SM 4500 NH3 G	322118
LCS 500-322118/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	322118
MB 500-322118/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	322118

TestAmerica Pleasanton

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-11R**

**Date Collected: 02/03/16 14:10**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		100	197019	02/12/16 21:32	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196790	02/03/16 20:09	MJK	TAL PLS
Total/NA	Analysis	300.0		1	196791	02/03/16 20:09	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 16:51	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:18	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196849	02/04/16 08:38	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			322118	02/05/16 17:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322123	02/05/16 21:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196915	02/04/16 22:22	EYT	TAL PLS
Total/NA	Analysis	SM 4500 P E		10	196915	02/04/16 22:22	EYT	TAL PLS

**Client Sample ID: MW-12**

**Date Collected: 02/03/16 15:05**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	197019	02/12/16 22:00	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196790	02/03/16 20:43	MJK	TAL PLS
Total/NA	Analysis	300.0		1	196791	02/03/16 20:43	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 16:56	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:18	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196849	02/04/16 08:38	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			322118	02/05/16 17:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322123	02/05/16 21:27	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196915	02/04/16 22:22	EYT	TAL PLS

**Client Sample ID: MW-13**

**Date Collected: 02/03/16 11:35**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	197019	02/12/16 22:28	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196790	02/03/16 21:17	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196790	02/03/16 21:34	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196791	02/03/16 21:34	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 17:11	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:18	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196849	02/04/16 08:38	MJK	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-13**

**Date Collected: 02/03/16 11:35**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM 4500 NH3 B			322118	02/05/16 17:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322123	02/05/16 21:30	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196915	02/04/16 22:22	EYT	TAL PLS

**Client Sample ID: MW-14**

**Date Collected: 02/03/16 12:05**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	197031	02/15/16 15:45	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196790	02/03/16 21:51	MJK	TAL PLS
Total/NA	Analysis	300.0		1	196791	02/03/16 21:51	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 17:16	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:18	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196849	02/04/16 08:38	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			322118	02/05/16 17:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322123	02/05/16 21:32	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196915	02/04/16 22:22	EYT	TAL PLS

**Client Sample ID: MW-15**

**Date Collected: 02/03/16 09:55**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	197019	02/12/16 23:24	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196790	02/03/16 23:00	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196790	02/03/16 23:21	MJK	TAL PLS
Total/NA	Analysis	300.0		10	196791	02/03/16 23:21	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 17:21	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:18	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196849	02/04/16 08:38	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			322118	02/05/16 17:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322123	02/05/16 21:41	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196915	02/04/16 22:22	EYT	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

**Client Sample ID: MW-16**

**Date Collected: 02/03/16 10:40**

**Date Received: 02/03/16 17:40**

**Lab Sample ID: 720-70170-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	197019	02/12/16 23:52	YB1	TAL PLS
Total/NA	Analysis	300.0		1	196790	02/03/16 23:38	MJK	TAL PLS
Total/NA	Analysis	300.0		1	196791	02/03/16 23:38	MJK	TAL PLS
Total/NA	Prep	200.7			196910	02/04/16 17:58	ASB	TAL PLS
Total/NA	Analysis	200.7 Rev 4.4		1	197162	02/16/16 17:26	CAM	TAL PLS
Total/NA	Analysis	SM 3500		1	197190	02/17/16 16:18	MJK	TAL PLS
Total/NA	Analysis	SM 3500 Fe B		1	196849	02/04/16 08:38	MJK	TAL PLS
Total/NA	Prep	SM 4500 NH3 B			322118	02/05/16 17:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	322123	02/05/16 21:44	HMW	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	196915	02/04/16 22:22	EYT	TAL PLS

#### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Certification Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

## Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-17

Analysis Method	Prep Method	Matrix	Analyte

## Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-16
California	State Program	9	2903	04-30-16
Georgia	State Program	4	N/A	04-30-16
Georgia	State Program	4	939	04-30-16
Hawaii	State Program	9	N/A	04-30-16
Illinois	NELAP	5	100201	04-30-16
Indiana	State Program	5	C-IL-02	04-30-16
Iowa	State Program	7	82	05-01-16
Kansas	NELAP	7	E-10161	05-31-16 *
Kentucky (UST)	State Program	4	66	04-30-16
Kentucky (WW)	State Program	4	KY90023	12-31-16
Massachusetts	State Program	1	M-IL035	06-30-16
Mississippi	State Program	4	N/A	04-30-16
New York	NELAP	2	IL00035	04-01-16
North Carolina (WW/SW)	State Program	4	291	12-31-16
North Dakota	State Program	8	R-194	04-30-16
Oklahoma	State Program	6	8908	08-31-16
South Carolina	State Program	4	77001	04-30-16
USDA	Federal		P330-15-00038	02-11-18
Wisconsin	State Program	5	999580010	08-31-16
Wyoming	State Program	8	8TMS-Q	04-30-16

\* Certification renewal pending - certification considered valid.

# Method Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS
300.0	Anions, Ion Chromatography	MCAWW	TAL PLS
200.7 Rev 4.4	Metals (ICP)	EPA	TAL PLS
SM 3500	Iron, Ferric	SM	TAL PLS
SM 3500 Fe B	Iron, Ferrous	SM	TAL PLS
SM 4500 NH3 G	Ammonia	SM	TAL CHI
SM 4500 P E	Orthophosphate	SM	TAL PLS

#### Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Sample Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70170-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-70170-1	MW-11R	Water	02/03/16 14:10	02/03/16 17:40
720-70170-2	MW-12	Water	02/03/16 15:05	02/03/16 17:40
720-70170-3	MW-13	Water	02/03/16 11:35	02/03/16 17:40
720-70170-4	MW-14	Water	02/03/16 12:05	02/03/16 17:40
720-70170-5	MW-15	Water	02/03/16 09:55	02/03/16 17:40
720-70170-6	MW-16	Water	02/03/16 10:40	02/03/16 17:40

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## 720-70170

TESTAMERICA Pleasanton Chain of Custody  
 1220 Quarry Lane • Pleasanton CA 94566-4756  
 Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 166536

Date 2/3/15 Page 1 of 1

2/18/2016

### Report To Analysis Request

Attn: Peter Sims  
 Company: Ningo + Moore  
 Address: 1956 Webster St, Oakland, CA  
 Email: psims@ningoandmoore.com  
 Bill To: Same Sampled By: EXD  
 Attn: Same Phone: 510.243.3000

- Volatile Organics GC/MS (VOCs)
- EPA 8260B **+ TPHs**
- HVOCs by  EPA 8260B
- EPA 8260B:  Gas  BTEX
- 5 Oxygenates  DCA, EDBE, Ethanol
- TEPH EPA 6015B  Silica Gel
- Diesel  Motor Oil  Other
- SemiVolatile Organics GC/MS
- EPA 8270C
- PNAPAH's by  8270C  SIM
- Oil and Grease  Petroleum (EPA 1664/9071)  Total
- Pesticides  EPA-8081  PCBs  EPA 8082
- CAM17 Metals (EPA 6010/7470/7471)
- Metals:  6010B  200.7  Lead  LUFT  RCRA  Other
- Metals:  6020  200.8 (ICP-MS): 200.7  
**potassium + manganese**
- W.E.T (STLC)  TCLP
- Hex. Chrom by  EPA 7196  or EPA 7198
- pH  9040  SM4500
- Spec. Cond.  Alkalinity  TSS  SS  TDS
- Anions:  Cl  SO<sub>4</sub>  NO<sub>3</sub>  F  Br  NO<sub>2</sub>  PO<sub>4</sub>  
**ammonia - sm 4500**
- Perchlorate by EPA 314.0
- COD  EPA 410.4  SM5220D  Turbidity
- Iron
- Iron by calc
- Number of Containers

Sample ID	Date	Time	Mat. rx	Preserv	Volatile Organics GC/MS (VOCs)	HVOCs by EPA 8260B	EPA 8260B: Gas BTEX	5 Oxygenates DCA, EDBE, Ethanol	TEPH EPA 6015B Silica Gel Diesel Motor Oil Other	SemiVolatile Organics GC/MS EPA 8270C	PNAPAH's by 8270C SIM	Oil and Grease Petroleum (EPA 1664/9071) Total	Pesticides EPA-8081 PCBs EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: 6010B 200.7 Lead LUFT RCRA Other	Metals: 6020 200.8 (ICP-MS): 200.7 potassium + manganese	W.E.T (STLC) TCLP	Hex. Chrom by EPA 7196 or EPA 7198	pH 9040 SM4500	Spec. Cond. Alkalinity TSS SS TDS	Anions: Cl SO <sub>4</sub> NO <sub>3</sub> F Br NO <sub>2</sub> PO <sub>4</sub>	Perchlorate by EPA 314.0	COD EPA 410.4 SM5220D Turbidity	Iron	Iron by calc	Number of Containers	
MW-11R	2/3	1110	GW		X										X							X			X	X	1
MW-12		1508			X										X							X			X	X	2
MW-13		1135			X										X							X			X	X	2
MW-14		1205			X										X							X			X	X	2
MW-15		0935			X										X							X			X	X	2
MW-16		1040			X										X							X			X	X	2

**Project Info.**  
 Project Name/ #: 4018910 004 / Chun  
 PO#: \_\_\_\_\_  
 Credit Card Y/N: \_\_\_\_\_ If yes, please call with payment information ASAP

**Sample Receipt**  
 # of Containers: \_\_\_\_\_  
 Head Space: \_\_\_\_\_  
 Temp: 3.2°C

TAT: 10 Day  5 Day  4 Day  3 Day  2 Day  1 Day  Other: \_\_\_\_\_

1) Relinquished by: [Signature] 11625  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: Sam Banquerio Date: 2/3/16  
 Company: Ningo and Moore

2) Relinquished by: [Signature] 1740  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: Sam Banquerio Date: 2/3/16  
 Company: TA

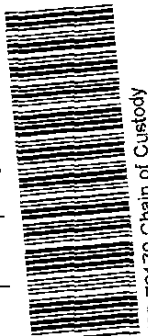
3) Relinquished by: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Company: \_\_\_\_\_

1) Received by: [Signature] 11625  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: Sam Banquerio Date: 2/3/16  
 Company: TA

2) Received by: [Signature] 1740  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: Dennis Aranz Date: 2/3/16  
 Company: TA

3) Received by: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Company: \_\_\_\_\_

Report:  Routine  Level 3  Level 4  EDD  EDF  
 Special Instructions / Comments:  Global ID ID: 001000180



720-70170 Chain of Custody

See Terms and Conditions on reverse





## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-70170-1

**Login Number: 70170**

**List Number: 1**

**Creator: Arauz, Dennis**

**List Source: TestAmerica Pleasanton**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-70170-1

**Login Number: 70170**  
**List Number: 2**  
**Creator: James, Jeff A**

**List Source: TestAmerica Chicago**  
**List Creation: 02/08/16 09:17 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

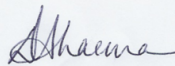
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Pleasanton  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

TestAmerica Job ID: 720-70052-1  
Client Project/Site: Chun

For:  
Ninyo & Moore  
1956 Webster Street  
Suite 400  
Oakland, California 94612

Attn: Mr. Peter D. Sims



Authorized for release by:  
2/2/2016 12:52:55 PM

Dimple Sharma, Senior Project Manager  
(925)484-1919  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

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**Job ID: 720-70052-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative  
720-70052-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 1/28/2016 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

**GC/MS VOA**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Client Sample ID: EFF

Lab Sample ID: 720-70052-1

No Detections.

## Client Sample ID: INF

Lab Sample ID: 720-70052-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.63		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Benzene	2.6		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
n-Butylbenzene	1.0		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Chloroform	1.3		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Naphthalene	2.9		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	3.3		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	4.4		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	20		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	86		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	530		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

## Client Sample ID: GAC

Lab Sample ID: 720-70052-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton



# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Client Sample ID: EFF**  
**Date Collected: 01/28/16 09:45**  
**Date Received: 01/28/16 15:30**

**Lab Sample ID: 720-70052-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/01/16 15:13	1
Acetone	ND		50		ug/L			02/01/16 15:13	1
Benzene	ND		0.50		ug/L			02/01/16 15:13	1
Dichlorobromomethane	ND		0.50		ug/L			02/01/16 15:13	1
Bromobenzene	ND		1.0		ug/L			02/01/16 15:13	1
Chlorobromomethane	ND		1.0		ug/L			02/01/16 15:13	1
Bromoform	ND		1.0		ug/L			02/01/16 15:13	1
Bromomethane	ND		1.0		ug/L			02/01/16 15:13	1
2-Butanone (MEK)	ND		50		ug/L			02/01/16 15:13	1
n-Butylbenzene	ND		1.0		ug/L			02/01/16 15:13	1
sec-Butylbenzene	ND		1.0		ug/L			02/01/16 15:13	1
tert-Butylbenzene	ND		1.0		ug/L			02/01/16 15:13	1
Carbon disulfide	ND		5.0		ug/L			02/01/16 15:13	1
Carbon tetrachloride	ND		0.50		ug/L			02/01/16 15:13	1
Chlorobenzene	ND		0.50		ug/L			02/01/16 15:13	1
Chloroethane	ND		1.0		ug/L			02/01/16 15:13	1
Chloroform	ND		1.0		ug/L			02/01/16 15:13	1
Chloromethane	ND		1.0		ug/L			02/01/16 15:13	1
2-Chlorotoluene	ND		0.50		ug/L			02/01/16 15:13	1
4-Chlorotoluene	ND		0.50		ug/L			02/01/16 15:13	1
Chlorodibromomethane	ND		0.50		ug/L			02/01/16 15:13	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/01/16 15:13	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/01/16 15:13	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/01/16 15:13	1
1,3-Dichloropropane	ND		1.0		ug/L			02/01/16 15:13	1
1,1-Dichloropropene	ND		0.50		ug/L			02/01/16 15:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/01/16 15:13	1
Ethylene Dibromide	ND		0.50		ug/L			02/01/16 15:13	1
Dibromomethane	ND		0.50		ug/L			02/01/16 15:13	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/01/16 15:13	1
1,1-Dichloroethane	ND		0.50		ug/L			02/01/16 15:13	1
1,2-Dichloroethane	ND		0.50		ug/L			02/01/16 15:13	1
1,1-Dichloroethene	ND		0.50		ug/L			02/01/16 15:13	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 15:13	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 15:13	1
1,2-Dichloropropane	ND		0.50		ug/L			02/01/16 15:13	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 15:13	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 15:13	1
Ethylbenzene	ND		0.50		ug/L			02/01/16 15:13	1
Hexachlorobutadiene	ND		1.0		ug/L			02/01/16 15:13	1
2-Hexanone	ND		50		ug/L			02/01/16 15:13	1
Isopropylbenzene	ND		0.50		ug/L			02/01/16 15:13	1
4-Isopropyltoluene	ND		1.0		ug/L			02/01/16 15:13	1
Methylene Chloride	ND		5.0		ug/L			02/01/16 15:13	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/01/16 15:13	1
Naphthalene	ND		1.0		ug/L			02/01/16 15:13	1
N-Propylbenzene	ND		1.0		ug/L			02/01/16 15:13	1
Styrene	ND		0.50		ug/L			02/01/16 15:13	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 15:13	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Client Sample ID: EFF**  
**Date Collected: 01/28/16 09:45**  
**Date Received: 01/28/16 15:30**

**Lab Sample ID: 720-70052-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 15:13	1
Tetrachloroethene	ND		0.50		ug/L			02/01/16 15:13	1
Toluene	ND		0.50		ug/L			02/01/16 15:13	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/01/16 15:13	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/01/16 15:13	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/01/16 15:13	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/01/16 15:13	1
Trichloroethene	ND		0.50		ug/L			02/01/16 15:13	1
Trichlorofluoromethane	ND		1.0		ug/L			02/01/16 15:13	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/01/16 15:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/01/16 15:13	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/01/16 15:13	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/01/16 15:13	1
Vinyl acetate	ND		10		ug/L			02/01/16 15:13	1
Vinyl chloride	ND		0.50		ug/L			02/01/16 15:13	1
Xylenes, Total	ND		1.0		ug/L			02/01/16 15:13	1
2,2-Dichloropropane	ND		0.50		ug/L			02/01/16 15:13	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/01/16 15:13	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	97		67 - 130					02/01/16 15:13	1
1,2-Dichloroethane-d4 (Surr)	118		72 - 130					02/01/16 15:13	1
Toluene-d8 (Surr)	95		70 - 130					02/01/16 15:13	1

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Client Sample ID: INF**

**Date Collected: 01/28/16 09:45**

**Date Received: 01/28/16 15:30**

**Lab Sample ID: 720-70052-2**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>0.63</b>		0.50		ug/L			02/01/16 16:37	1
Acetone	ND		50		ug/L			02/01/16 16:37	1
<b>Benzene</b>	<b>2.6</b>		0.50		ug/L			02/01/16 16:37	1
Dichlorobromomethane	ND		0.50		ug/L			02/01/16 16:37	1
Bromobenzene	ND		1.0		ug/L			02/01/16 16:37	1
Chlorobromomethane	ND		1.0		ug/L			02/01/16 16:37	1
Bromoform	ND		1.0		ug/L			02/01/16 16:37	1
Bromomethane	ND		1.0		ug/L			02/01/16 16:37	1
2-Butanone (MEK)	ND		50		ug/L			02/01/16 16:37	1
<b>n-Butylbenzene</b>	<b>1.0</b>		1.0		ug/L			02/01/16 16:37	1
sec-Butylbenzene	ND		1.0		ug/L			02/01/16 16:37	1
tert-Butylbenzene	ND		1.0		ug/L			02/01/16 16:37	1
Carbon disulfide	ND		5.0		ug/L			02/01/16 16:37	1
Carbon tetrachloride	ND		0.50		ug/L			02/01/16 16:37	1
Chlorobenzene	ND		0.50		ug/L			02/01/16 16:37	1
Chloroethane	ND		1.0		ug/L			02/01/16 16:37	1
<b>Chloroform</b>	<b>1.3</b>		1.0		ug/L			02/01/16 16:37	1
Chloromethane	ND		1.0		ug/L			02/01/16 16:37	1
2-Chlorotoluene	ND		0.50		ug/L			02/01/16 16:37	1
4-Chlorotoluene	ND		0.50		ug/L			02/01/16 16:37	1
Chlorodibromomethane	ND		0.50		ug/L			02/01/16 16:37	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/01/16 16:37	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/01/16 16:37	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/01/16 16:37	1
1,3-Dichloropropane	ND		1.0		ug/L			02/01/16 16:37	1
1,1-Dichloropropane	ND		0.50		ug/L			02/01/16 16:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/01/16 16:37	1
Ethylene Dibromide	ND		0.50		ug/L			02/01/16 16:37	1
Dibromomethane	ND		0.50		ug/L			02/01/16 16:37	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/01/16 16:37	1
1,1-Dichloroethane	ND		0.50		ug/L			02/01/16 16:37	1
1,2-Dichloroethane	ND		0.50		ug/L			02/01/16 16:37	1
1,1-Dichloroethene	ND		0.50		ug/L			02/01/16 16:37	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 16:37	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 16:37	1
1,2-Dichloropropane	ND		0.50		ug/L			02/01/16 16:37	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 16:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 16:37	1
Ethylbenzene	ND		0.50		ug/L			02/01/16 16:37	1
Hexachlorobutadiene	ND		1.0		ug/L			02/01/16 16:37	1
2-Hexanone	ND		50		ug/L			02/01/16 16:37	1
Isopropylbenzene	ND		0.50		ug/L			02/01/16 16:37	1
4-Isopropyltoluene	ND		1.0		ug/L			02/01/16 16:37	1
Methylene Chloride	ND		5.0		ug/L			02/01/16 16:37	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/01/16 16:37	1
<b>Naphthalene</b>	<b>2.9</b>		1.0		ug/L			02/01/16 16:37	1
N-Propylbenzene	ND		1.0		ug/L			02/01/16 16:37	1
Styrene	ND		0.50		ug/L			02/01/16 16:37	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 16:37	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Client Sample ID: INF**

**Lab Sample ID: 720-70052-2**

**Date Collected: 01/28/16 09:45**

**Matrix: Water**

**Date Received: 01/28/16 15:30**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 16:37	1
Tetrachloroethene	ND		0.50		ug/L			02/01/16 16:37	1
<b>Toluene</b>	<b>3.3</b>		0.50		ug/L			02/01/16 16:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/01/16 16:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/01/16 16:37	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/01/16 16:37	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/01/16 16:37	1
Trichloroethene	ND		0.50		ug/L			02/01/16 16:37	1
Trichlorofluoromethane	ND		1.0		ug/L			02/01/16 16:37	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/01/16 16:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/01/16 16:37	1
<b>1,2,4-Trimethylbenzene</b>	<b>4.4</b>		0.50		ug/L			02/01/16 16:37	1
<b>1,3,5-Trimethylbenzene</b>	<b>20</b>		0.50		ug/L			02/01/16 16:37	1
Vinyl acetate	ND		10		ug/L			02/01/16 16:37	1
Vinyl chloride	ND		0.50		ug/L			02/01/16 16:37	1
<b>Xylenes, Total</b>	<b>86</b>		1.0		ug/L			02/01/16 16:37	1
2,2-Dichloropropane	ND		0.50		ug/L			02/01/16 16:37	1
<b>Gasoline Range Organics (GRO)</b>	<b>530</b>		50		ug/L			02/01/16 16:37	1
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130		02/01/16 16:37	1
1,2-Dichloroethane-d4 (Surr)	118		72 - 130		02/01/16 16:37	1
Toluene-d8 (Surr)	100		70 - 130		02/01/16 16:37	1

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Client Sample ID: GAC**

**Date Collected: 01/28/16 09:45**

**Date Received: 01/28/16 15:30**

**Lab Sample ID: 720-70052-3**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/01/16 17:05	1
Acetone	ND		50		ug/L			02/01/16 17:05	1
Benzene	ND		0.50		ug/L			02/01/16 17:05	1
Dichlorobromomethane	ND		0.50		ug/L			02/01/16 17:05	1
Bromobenzene	ND		1.0		ug/L			02/01/16 17:05	1
Chlorobromomethane	ND		1.0		ug/L			02/01/16 17:05	1
Bromoform	ND		1.0		ug/L			02/01/16 17:05	1
Bromomethane	ND		1.0		ug/L			02/01/16 17:05	1
2-Butanone (MEK)	ND		50		ug/L			02/01/16 17:05	1
n-Butylbenzene	ND		1.0		ug/L			02/01/16 17:05	1
sec-Butylbenzene	ND		1.0		ug/L			02/01/16 17:05	1
tert-Butylbenzene	ND		1.0		ug/L			02/01/16 17:05	1
Carbon disulfide	ND		5.0		ug/L			02/01/16 17:05	1
Carbon tetrachloride	ND		0.50		ug/L			02/01/16 17:05	1
Chlorobenzene	ND		0.50		ug/L			02/01/16 17:05	1
Chloroethane	ND		1.0		ug/L			02/01/16 17:05	1
Chloroform	ND		1.0		ug/L			02/01/16 17:05	1
Chloromethane	ND		1.0		ug/L			02/01/16 17:05	1
2-Chlorotoluene	ND		0.50		ug/L			02/01/16 17:05	1
4-Chlorotoluene	ND		0.50		ug/L			02/01/16 17:05	1
Chlorodibromomethane	ND		0.50		ug/L			02/01/16 17:05	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/01/16 17:05	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/01/16 17:05	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/01/16 17:05	1
1,3-Dichloropropane	ND		1.0		ug/L			02/01/16 17:05	1
1,1-Dichloropropene	ND		0.50		ug/L			02/01/16 17:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/01/16 17:05	1
Ethylene Dibromide	ND		0.50		ug/L			02/01/16 17:05	1
Dibromomethane	ND		0.50		ug/L			02/01/16 17:05	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/01/16 17:05	1
1,1-Dichloroethane	ND		0.50		ug/L			02/01/16 17:05	1
1,2-Dichloroethane	ND		0.50		ug/L			02/01/16 17:05	1
1,1-Dichloroethene	ND		0.50		ug/L			02/01/16 17:05	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 17:05	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 17:05	1
1,2-Dichloropropane	ND		0.50		ug/L			02/01/16 17:05	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 17:05	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 17:05	1
Ethylbenzene	ND		0.50		ug/L			02/01/16 17:05	1
Hexachlorobutadiene	ND		1.0		ug/L			02/01/16 17:05	1
2-Hexanone	ND		50		ug/L			02/01/16 17:05	1
Isopropylbenzene	ND		0.50		ug/L			02/01/16 17:05	1
4-Isopropyltoluene	ND		1.0		ug/L			02/01/16 17:05	1
Methylene Chloride	ND		5.0		ug/L			02/01/16 17:05	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/01/16 17:05	1
Naphthalene	ND		1.0		ug/L			02/01/16 17:05	1
N-Propylbenzene	ND		1.0		ug/L			02/01/16 17:05	1
Styrene	ND		0.50		ug/L			02/01/16 17:05	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 17:05	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Client Sample ID: GAC**

**Lab Sample ID: 720-70052-3**

**Date Collected: 01/28/16 09:45**

**Matrix: Water**

**Date Received: 01/28/16 15:30**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 17:05	1
Tetrachloroethene	ND		0.50		ug/L			02/01/16 17:05	1
Toluene	ND		0.50		ug/L			02/01/16 17:05	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/01/16 17:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/01/16 17:05	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/01/16 17:05	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/01/16 17:05	1
Trichloroethene	ND		0.50		ug/L			02/01/16 17:05	1
Trichlorofluoromethane	ND		1.0		ug/L			02/01/16 17:05	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/01/16 17:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/01/16 17:05	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/01/16 17:05	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/01/16 17:05	1
Vinyl acetate	ND		10		ug/L			02/01/16 17:05	1
Vinyl chloride	ND		0.50		ug/L			02/01/16 17:05	1
Xylenes, Total	ND		1.0		ug/L			02/01/16 17:05	1
2,2-Dichloropropane	ND		0.50		ug/L			02/01/16 17:05	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/01/16 17:05	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	97		67 - 130					02/01/16 17:05	1
1,2-Dichloroethane-d4 (Surr)	117		72 - 130					02/01/16 17:05	1
Toluene-d8 (Surr)	97		70 - 130					02/01/16 17:05	1

# Surrogate Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	12DCE	TOL
		(67-130)	(72-130)	(70-130)
720-70052-1	EFF	97	118	95
720-70052-1 MS	EFF	103	119	100
720-70052-1 MSD	EFF	101	114	100
720-70052-2	INF	103	118	100
720-70052-3	GAC	97	117	97
LCS 720-196582/5	Lab Control Sample	98	110	100
LCS 720-196582/8	Lab Control Sample	104	114	101
LCSD 720-196582/6	Lab Control Sample Dup	101	106	99
LCSD 720-196582/9	Lab Control Sample Dup	97	110	100
MB 720-196582/4	Method Blank	98	115	100

### Surrogate Legend

BFB = 4-Bromofluorobenzene

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

**Lab Sample ID: MB 720-196582/4**

**Matrix: Water**

**Analysis Batch: 196582**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/01/16 09:37	1
Acetone	ND		50		ug/L			02/01/16 09:37	1
Benzene	ND		0.50		ug/L			02/01/16 09:37	1
Dichlorobromomethane	ND		0.50		ug/L			02/01/16 09:37	1
Bromobenzene	ND		1.0		ug/L			02/01/16 09:37	1
Chlorobromomethane	ND		1.0		ug/L			02/01/16 09:37	1
Bromoform	ND		1.0		ug/L			02/01/16 09:37	1
Bromomethane	ND		1.0		ug/L			02/01/16 09:37	1
2-Butanone (MEK)	ND		50		ug/L			02/01/16 09:37	1
n-Butylbenzene	ND		1.0		ug/L			02/01/16 09:37	1
sec-Butylbenzene	ND		1.0		ug/L			02/01/16 09:37	1
tert-Butylbenzene	ND		1.0		ug/L			02/01/16 09:37	1
Carbon disulfide	ND		5.0		ug/L			02/01/16 09:37	1
Carbon tetrachloride	ND		0.50		ug/L			02/01/16 09:37	1
Chlorobenzene	ND		0.50		ug/L			02/01/16 09:37	1
Chloroethane	ND		1.0		ug/L			02/01/16 09:37	1
Chloroform	ND		1.0		ug/L			02/01/16 09:37	1
Chloromethane	ND		1.0		ug/L			02/01/16 09:37	1
2-Chlorotoluene	ND		0.50		ug/L			02/01/16 09:37	1
4-Chlorotoluene	ND		0.50		ug/L			02/01/16 09:37	1
Chlorodibromomethane	ND		0.50		ug/L			02/01/16 09:37	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/01/16 09:37	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/01/16 09:37	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/01/16 09:37	1
1,3-Dichloropropane	ND		1.0		ug/L			02/01/16 09:37	1
1,1-Dichloropropene	ND		0.50		ug/L			02/01/16 09:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/01/16 09:37	1
Ethylene Dibromide	ND		0.50		ug/L			02/01/16 09:37	1
Dibromomethane	ND		0.50		ug/L			02/01/16 09:37	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/01/16 09:37	1
1,1-Dichloroethane	ND		0.50		ug/L			02/01/16 09:37	1
1,2-Dichloroethane	ND		0.50		ug/L			02/01/16 09:37	1
1,1-Dichloroethene	ND		0.50		ug/L			02/01/16 09:37	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 09:37	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/01/16 09:37	1
1,2-Dichloropropane	ND		0.50		ug/L			02/01/16 09:37	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 09:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/01/16 09:37	1
Ethylbenzene	ND		0.50		ug/L			02/01/16 09:37	1
Hexachlorobutadiene	ND		1.0		ug/L			02/01/16 09:37	1
2-Hexanone	ND		50		ug/L			02/01/16 09:37	1
Isopropylbenzene	ND		0.50		ug/L			02/01/16 09:37	1
4-Isopropyltoluene	ND		1.0		ug/L			02/01/16 09:37	1
Methylene Chloride	ND		5.0		ug/L			02/01/16 09:37	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/01/16 09:37	1
Naphthalene	ND		1.0		ug/L			02/01/16 09:37	1
N-Propylbenzene	ND		1.0		ug/L			02/01/16 09:37	1
Styrene	ND		0.50		ug/L			02/01/16 09:37	1

TestAmerica Pleasanton



# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: MB 720-196582/4**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 09:37	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/01/16 09:37	1
Tetrachloroethene	ND		0.50		ug/L			02/01/16 09:37	1
Toluene	ND		0.50		ug/L			02/01/16 09:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/01/16 09:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/01/16 09:37	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/01/16 09:37	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/01/16 09:37	1
Trichloroethene	ND		0.50		ug/L			02/01/16 09:37	1
Trichlorofluoromethane	ND		1.0		ug/L			02/01/16 09:37	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/01/16 09:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/01/16 09:37	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/01/16 09:37	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/01/16 09:37	1
Vinyl acetate	ND		10		ug/L			02/01/16 09:37	1
Vinyl chloride	ND		0.50		ug/L			02/01/16 09:37	1
Xylenes, Total	ND		1.0		ug/L			02/01/16 09:37	1
2,2-Dichloropropane	ND		0.50		ug/L			02/01/16 09:37	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/01/16 09:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130		02/01/16 09:37	1
1,2-Dichloroethane-d4 (Surr)	115		72 - 130		02/01/16 09:37	1
Toluene-d8 (Surr)	100		70 - 130		02/01/16 09:37	1

**Lab Sample ID: LCS 720-196582/5**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	23.5		ug/L		94	62 - 130
Acetone	100	81.1		ug/L		81	26 - 180
Benzene	25.0	20.6		ug/L		82	79 - 130
Dichlorobromomethane	25.0	25.2		ug/L		101	70 - 130
Bromobenzene	25.0	23.2		ug/L		93	70 - 130
Chlorobromomethane	25.0	24.6		ug/L		98	70 - 130
Bromoform	25.0	25.7		ug/L		103	68 - 136
Bromomethane	25.0	26.9		ug/L		108	43 - 151
2-Butanone (MEK)	100	88.5		ug/L		89	54 - 130
n-Butylbenzene	25.0	18.6		ug/L		75	70 - 142
sec-Butylbenzene	25.0	20.5		ug/L		82	70 - 134
tert-Butylbenzene	25.0	21.5		ug/L		86	70 - 135
Carbon disulfide	25.0	18.9		ug/L		75	58 - 130
Carbon tetrachloride	25.0	27.4		ug/L		110	70 - 146
Chlorobenzene	25.0	22.7		ug/L		91	70 - 130
Chloroethane	25.0	23.9		ug/L		96	62 - 138
Chloroform	25.0	24.1		ug/L		96	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-196582/5

Matrix: Water

Analysis Batch: 196582

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	25.0	20.0		ug/L		80	52 - 175
2-Chlorotoluene	25.0	22.0		ug/L		88	70 - 130
4-Chlorotoluene	25.0	21.3		ug/L		85	70 - 130
Chlorodibromomethane	25.0	26.0		ug/L		104	70 - 145
1,2-Dichlorobenzene	25.0	22.0		ug/L		88	70 - 130
1,3-Dichlorobenzene	25.0	22.4		ug/L		90	70 - 130
1,4-Dichlorobenzene	25.0	22.7		ug/L		91	70 - 130
1,3-Dichloropropane	25.0	21.1		ug/L		85	70 - 130
1,1-Dichloropropene	25.0	22.3		ug/L		89	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	20.9		ug/L		84	70 - 136
Ethylene Dibromide	25.0	22.4		ug/L		90	70 - 130
Dibromomethane	25.0	23.0		ug/L		92	70 - 130
Dichlorodifluoromethane	25.0	25.5		ug/L		102	34 - 132
1,1-Dichloroethane	25.0	21.0		ug/L		84	70 - 130
1,2-Dichloroethane	25.0	25.3		ug/L		101	61 - 132
1,1-Dichloroethene	25.0	19.3		ug/L		77	64 - 128
cis-1,2-Dichloroethene	25.0	21.7		ug/L		87	70 - 130
trans-1,2-Dichloroethene	25.0	21.7		ug/L		87	68 - 130
1,2-Dichloropropane	25.0	19.6		ug/L		78	70 - 130
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	70 - 130
trans-1,3-Dichloropropene	25.0	25.1		ug/L		100	70 - 140
Ethylbenzene	25.0	19.9		ug/L		80	80 - 120
Hexachlorobutadiene	25.0	24.2		ug/L		97	70 - 130
2-Hexanone	100	78.5		ug/L		79	60 - 164
Isopropylbenzene	25.0	21.2		ug/L		85	70 - 130
4-Isopropyltoluene	25.0	20.6		ug/L		82	70 - 130
Methylene Chloride	25.0	21.1		ug/L		84	70 - 147
4-Methyl-2-pentanone (MIBK)	100	80.7		ug/L		81	58 - 130
Naphthalene	25.0	18.5		ug/L		74	70 - 130
N-Propylbenzene	25.0	21.4		ug/L		86	70 - 130
Styrene	25.0	20.4		ug/L		81	70 - 130
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,1,2-Tetrachloroethane	25.0	17.9		ug/L		72	70 - 130
Tetrachloroethene	25.0	23.6		ug/L		95	70 - 130
Toluene	25.0	20.1		ug/L		81	78 - 120
1,2,3-Trichlorobenzene	25.0	22.0		ug/L		88	70 - 130
1,2,4-Trichlorobenzene	25.0	22.8		ug/L		91	70 - 130
1,1,1-Trichloroethane	25.0	26.1		ug/L		104	70 - 130
1,1,2-Trichloroethane	25.0	20.0		ug/L		80	70 - 130
Trichloroethene	25.0	24.3		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	29.8		ug/L		119	66 - 132
1,2,3-Trichloropropane	25.0	21.4		ug/L		86	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.0		ug/L		96	42 - 162
1,2,4-Trimethylbenzene	25.0	21.9		ug/L		88	70 - 132
1,3,5-Trimethylbenzene	25.0	21.0		ug/L		84	70 - 130
Vinyl acetate	25.0	18.9		ug/L		75	43 - 163
Vinyl chloride	25.0	23.6		ug/L		94	54 - 135

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-196582/5**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	25.0	22.4		ug/L		89	70 - 142
o-Xylene	25.0	22.6		ug/L		90	70 - 130
2,2-Dichloropropane	25.0	26.1		ug/L		104	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	110		72 - 130
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: LCS 720-196582/8**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	523		ug/L		105	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	114		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: LCSD 720-196582/6**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	22.5		ug/L		90	62 - 130	4	20
Acetone	100	76.7		ug/L		77	26 - 180	6	30
Benzene	25.0	20.5		ug/L		82	79 - 130	0	20
Dichlorobromomethane	25.0	24.6		ug/L		98	70 - 130	2	20
Bromobenzene	25.0	22.5		ug/L		90	70 - 130	3	20
Chlorobromomethane	25.0	24.3		ug/L		97	70 - 130	1	20
Bromoform	25.0	26.1		ug/L		104	68 - 136	2	20
Bromomethane	25.0	29.1		ug/L		116	43 - 151	8	20
2-Butanone (MEK)	100	88.1		ug/L		88	54 - 130	0	20
n-Butylbenzene	25.0	19.1		ug/L		76	70 - 142	2	20
sec-Butylbenzene	25.0	20.6		ug/L		83	70 - 134	1	20
tert-Butylbenzene	25.0	21.4		ug/L		86	70 - 135	0	20
Carbon disulfide	25.0	19.2		ug/L		77	58 - 130	2	20
Carbon tetrachloride	25.0	27.2		ug/L		109	70 - 146	1	20
Chlorobenzene	25.0	23.0		ug/L		92	70 - 130	1	20
Chloroethane	25.0	23.5		ug/L		94	62 - 138	2	20
Chloroform	25.0	24.0		ug/L		96	70 - 130	0	20
Chloromethane	25.0	21.6		ug/L		86	52 - 175	7	20
2-Chlorotoluene	25.0	21.5		ug/L		86	70 - 130	2	20
4-Chlorotoluene	25.0	20.8		ug/L		83	70 - 130	2	20
Chlorodibromomethane	25.0	25.1		ug/L		101	70 - 145	3	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-196582/6

Matrix: Water

Analysis Batch: 196582

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	25.0	22.1		ug/L		88	70 - 130	0	20
1,3-Dichlorobenzene	25.0	22.2		ug/L		89	70 - 130	1	20
1,4-Dichlorobenzene	25.0	22.4		ug/L		90	70 - 130	1	20
1,3-Dichloropropane	25.0	20.6		ug/L		82	70 - 130	3	20
1,1-Dichloropropene	25.0	22.2		ug/L		89	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	20.2		ug/L		81	70 - 136	4	20
Ethylene Dibromide	25.0	21.6		ug/L		86	70 - 130	4	20
Dibromomethane	25.0	22.6		ug/L		90	70 - 130	2	20
Dichlorodifluoromethane	25.0	27.1		ug/L		108	34 - 132	6	20
1,1-Dichloroethane	25.0	20.7		ug/L		83	70 - 130	1	20
1,2-Dichloroethane	25.0	24.6		ug/L		98	61 - 132	3	20
1,1-Dichloroethene	25.0	19.7		ug/L		79	64 - 128	2	20
cis-1,2-Dichloroethene	25.0	21.6		ug/L		86	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	21.6		ug/L		87	68 - 130	0	20
1,2-Dichloropropane	25.0	19.5		ug/L		78	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	23.0		ug/L		92	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 140	3	20
Ethylbenzene	25.0	20.1		ug/L		80	80 - 120	1	20
Hexachlorobutadiene	25.0	24.4		ug/L		98	70 - 130	1	20
2-Hexanone	100	75.1		ug/L		75	60 - 164	4	20
Isopropylbenzene	25.0	21.7		ug/L		87	70 - 130	3	20
4-Isopropyltoluene	25.0	20.6		ug/L		82	70 - 130	0	20
Methylene Chloride	25.0	20.9		ug/L		83	70 - 147	1	20
4-Methyl-2-pentanone (MIBK)	100	77.2		ug/L		77	58 - 130	4	20
Naphthalene	25.0	18.5		ug/L		74	70 - 130	0	20
N-Propylbenzene	25.0	21.0		ug/L		84	70 - 130	2	20
Styrene	25.0	20.8		ug/L		83	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130	2	20
1,1,2,2-Tetrachloroethane	25.0	17.6		ug/L		71	70 - 130	2	20
Tetrachloroethene	25.0	23.3		ug/L		93	70 - 130	2	20
Toluene	25.0	20.2		ug/L		81	78 - 120	0	20
1,2,3-Trichlorobenzene	25.0	22.0		ug/L		88	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	22.9		ug/L		92	70 - 130	0	20
1,1,1-Trichloroethane	25.0	25.9		ug/L		103	70 - 130	1	20
1,1,2-Trichloroethane	25.0	20.0		ug/L		80	70 - 130	0	20
Trichloroethene	25.0	24.2		ug/L		97	70 - 130	0	20
Trichlorofluoromethane	25.0	30.4		ug/L		122	66 - 132	2	20
1,2,3-Trichloropropane	25.0	20.2		ug/L		81	70 - 130	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.4		ug/L		102	42 - 162	6	20
1,2,4-Trimethylbenzene	25.0	21.9		ug/L		88	70 - 132	0	20
1,3,5-Trimethylbenzene	25.0	20.6		ug/L		82	70 - 130	2	20
Vinyl acetate	25.0	18.3		ug/L		73	43 - 163	3	20
Vinyl chloride	25.0	25.4		ug/L		101	54 - 135	7	20
m-Xylene & p-Xylene	25.0	22.5		ug/L		90	70 - 142	1	20
o-Xylene	25.0	23.1		ug/L		92	70 - 130	2	20
2,2-Dichloropropane	25.0	24.0		ug/L		96	70 - 140	8	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-196582/6**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	106		72 - 130
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: LCSD 720-196582/9**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Gasoline Range Organics (GRO) -C5-C12	500	493		ug/L		99	62 - 120	6	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	97		67 - 130
1,2-Dichloroethane-d4 (Surr)	110		72 - 130
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: 720-70052-1 MS**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: EFF**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Methyl tert-butyl ether	ND		25.0	23.9		ug/L		95	60 - 138
Acetone	ND		100	73.2		ug/L		73	60 - 140
Benzene	ND		25.0	20.4		ug/L		82	60 - 140
Dichlorobromomethane	ND		25.0	25.5		ug/L		102	60 - 140
Bromobenzene	ND		25.0	23.5		ug/L		94	60 - 140
Chlorobromomethane	ND		25.0	24.9		ug/L		99	60 - 140
Bromoform	ND		25.0	27.5		ug/L		110	56 - 140
Bromomethane	ND		25.0	27.2		ug/L		109	23 - 140
2-Butanone (MEK)	ND		100	93.2		ug/L		93	60 - 140
n-Butylbenzene	ND		25.0	18.5		ug/L		74	60 - 140
sec-Butylbenzene	ND		25.0	20.4		ug/L		82	60 - 140
tert-Butylbenzene	ND		25.0	21.7		ug/L		87	60 - 140
Carbon disulfide	ND		25.0	18.9		ug/L		76	38 - 140
Carbon tetrachloride	ND		25.0	28.0		ug/L		112	60 - 140
Chlorobenzene	ND		25.0	22.6		ug/L		90	60 - 140
Chloroethane	ND		25.0	23.5		ug/L		94	51 - 140
Chloroform	ND		25.0	24.0		ug/L		96	60 - 140
Chloromethane	ND		25.0	20.1		ug/L		80	52 - 140
2-Chlorotoluene	ND		25.0	22.0		ug/L		88	60 - 140
4-Chlorotoluene	ND		25.0	21.4		ug/L		85	60 - 140
Chlorodibromomethane	ND		25.0	26.4		ug/L		106	60 - 140
1,2-Dichlorobenzene	ND		25.0	22.1		ug/L		88	60 - 140
1,3-Dichlorobenzene	ND		25.0	22.4		ug/L		89	60 - 140
1,4-Dichlorobenzene	ND		25.0	22.3		ug/L		89	60 - 140
1,3-Dichloropropane	ND		25.0	21.0		ug/L		84	60 - 140
1,1-Dichloropropene	ND		25.0	22.3		ug/L		89	60 - 140

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: 720-70052-1 MS

Matrix: Water

Analysis Batch: 196582

Client Sample ID: EFF

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	ND		25.0	21.6		ug/L		87	60 - 140
Ethylene Dibromide	ND		25.0	23.1		ug/L		92	60 - 140
Dibromomethane	ND		25.0	23.6		ug/L		94	60 - 140
Dichlorodifluoromethane	ND		25.0	25.3		ug/L		101	38 - 140
1,1-Dichloroethane	ND		25.0	20.6		ug/L		83	60 - 140
1,2-Dichloroethane	ND		25.0	25.9		ug/L		104	60 - 140
1,1-Dichloroethene	ND		25.0	18.7		ug/L		75	60 - 140
cis-1,2-Dichloroethene	ND		25.0	22.2		ug/L		89	60 - 140
trans-1,2-Dichloroethene	ND		25.0	21.6		ug/L		86	60 - 140
1,2-Dichloropropane	ND		25.0	19.6		ug/L		78	60 - 140
cis-1,3-Dichloropropene	ND		25.0	23.3		ug/L		93	60 - 140
trans-1,3-Dichloropropene	ND		25.0	25.2		ug/L		101	60 - 140
Ethylbenzene	ND		25.0	19.9		ug/L		80	60 - 140
Hexachlorobutadiene	ND		25.0	23.5		ug/L		94	60 - 140
2-Hexanone	ND		100	81.7		ug/L		82	60 - 140
Isopropylbenzene	ND		25.0	21.3		ug/L		85	60 - 140
4-Isopropyltoluene	ND		25.0	20.5		ug/L		82	60 - 140
Methylene Chloride	ND		25.0	21.5		ug/L		86	40 - 140
4-Methyl-2-pentanone (MIBK)	ND		100	86.2		ug/L		86	58 - 130
Naphthalene	ND		25.0	18.8		ug/L		75	56 - 140
N-Propylbenzene	ND		25.0	21.3		ug/L		85	60 - 140
Styrene	ND		25.0	20.1		ug/L		80	60 - 140
1,1,1,2-Tetrachloroethane	ND		25.0	24.4		ug/L		98	60 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	18.9		ug/L		76	60 - 140
Tetrachloroethene	ND		25.0	23.5		ug/L		94	60 - 140
Toluene	ND		25.0	20.0		ug/L		80	60 - 140
1,2,3-Trichlorobenzene	ND		25.0	21.3		ug/L		85	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	21.8		ug/L		87	60 - 140
1,1,1-Trichloroethane	ND		25.0	27.7		ug/L		111	60 - 140
1,1,2-Trichloroethane	ND		25.0	20.9		ug/L		84	60 - 140
Trichloroethene	ND		25.0	24.2		ug/L		97	60 - 140
Trichlorofluoromethane	ND		25.0	30.9		ug/L		123	60 - 140
1,2,3-Trichloropropane	ND		25.0	21.9		ug/L		88	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.3		ug/L		97	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	21.9		ug/L		88	60 - 140
1,3,5-Trimethylbenzene	ND		25.0	20.8		ug/L		83	60 - 140
Vinyl acetate	ND		25.0	19.5		ug/L		78	40 - 140
Vinyl chloride	ND		25.0	24.0		ug/L		96	58 - 140
m-Xylene & p-Xylene	ND		25.0	22.2		ug/L		89	60 - 140
o-Xylene	ND		25.0	22.7		ug/L		91	60 - 140
2,2-Dichloropropane	ND		25.0	26.5		ug/L		106	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	119		72 - 130
Toluene-d8 (Surr)	100		70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: 720-70052-1 MSD**

**Matrix: Water**

**Analysis Batch: 196582**

**Client Sample ID: EFF**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	ND		25.0	23.7		ug/L		95	60 - 138	1	20
Acetone	ND		100	70.4		ug/L		70	60 - 140	4	20
Benzene	ND		25.0	20.6		ug/L		82	60 - 140	1	20
Dichlorobromomethane	ND		25.0	25.1		ug/L		100	60 - 140	1	20
Bromobenzene	ND		25.0	23.5		ug/L		94	60 - 140	0	20
Chlorobromomethane	ND		25.0	24.5		ug/L		98	60 - 140	1	20
Bromoform	ND		25.0	27.7		ug/L		111	56 - 140	1	20
Bromomethane	ND		25.0	27.4		ug/L		110	23 - 140	1	20
2-Butanone (MEK)	ND		100	91.8		ug/L		92	60 - 140	2	20
n-Butylbenzene	ND		25.0	18.5		ug/L		74	60 - 140	0	20
sec-Butylbenzene	ND		25.0	20.5		ug/L		82	60 - 140	1	20
tert-Butylbenzene	ND		25.0	22.0		ug/L		88	60 - 140	1	20
Carbon disulfide	ND		25.0	19.0		ug/L		76	38 - 140	1	20
Carbon tetrachloride	ND		25.0	27.7		ug/L		111	60 - 140	1	20
Chlorobenzene	ND		25.0	22.8		ug/L		91	60 - 140	1	20
Chloroethane	ND		25.0	23.4		ug/L		94	51 - 140	1	20
Chloroform	ND		25.0	24.2		ug/L		97	60 - 140	1	20
Chloromethane	ND		25.0	21.0		ug/L		84	52 - 140	4	20
2-Chlorotoluene	ND		25.0	22.0		ug/L		88	60 - 140	0	20
4-Chlorotoluene	ND		25.0	21.3		ug/L		85	60 - 140	0	20
Chlorodibromomethane	ND		25.0	26.5		ug/L		106	60 - 140	0	20
1,2-Dichlorobenzene	ND		25.0	22.0		ug/L		88	60 - 140	0	20
1,3-Dichlorobenzene	ND		25.0	22.3		ug/L		89	60 - 140	0	20
1,4-Dichlorobenzene	ND		25.0	22.4		ug/L		90	60 - 140	1	20
1,3-Dichloropropane	ND		25.0	20.9		ug/L		83	60 - 140	1	20
1,1-Dichloropropene	ND		25.0	22.2		ug/L		89	60 - 140	0	20
1,2-Dibromo-3-Chloropropane	ND		25.0	22.1		ug/L		88	60 - 140	2	20
Ethylene Dibromide	ND		25.0	22.5		ug/L		90	60 - 140	3	20
Dibromomethane	ND		25.0	23.5		ug/L		94	60 - 140	0	20
Dichlorodifluoromethane	ND		25.0	24.6		ug/L		98	38 - 140	3	20
1,1-Dichloroethane	ND		25.0	20.8		ug/L		83	60 - 140	1	20
1,2-Dichloroethane	ND		25.0	25.6		ug/L		103	60 - 140	1	20
1,1-Dichloroethene	ND		25.0	19.1		ug/L		76	60 - 140	2	20
cis-1,2-Dichloroethene	ND		25.0	22.0		ug/L		88	60 - 140	1	20
trans-1,2-Dichloroethene	ND		25.0	21.7		ug/L		87	60 - 140	0	20
1,2-Dichloropropane	ND		25.0	19.5		ug/L		78	60 - 140	0	20
cis-1,3-Dichloropropene	ND		25.0	23.5		ug/L		94	60 - 140	1	20
trans-1,3-Dichloropropene	ND		25.0	25.5		ug/L		102	60 - 140	1	20
Ethylbenzene	ND		25.0	19.9		ug/L		79	60 - 140	0	20
Hexachlorobutadiene	ND		25.0	23.3		ug/L		93	60 - 140	1	20
2-Hexanone	ND		100	79.3		ug/L		79	60 - 140	3	20
Isopropylbenzene	ND		25.0	21.2		ug/L		85	60 - 140	1	20
4-Isopropyltoluene	ND		25.0	20.4		ug/L		82	60 - 140	1	20
Methylene Chloride	ND		25.0	22.0		ug/L		88	40 - 140	3	20
4-Methyl-2-pentanone (MIBK)	ND		100	84.1		ug/L		84	58 - 130	2	20
Naphthalene	ND		25.0	19.0		ug/L		76	56 - 140	1	20
N-Propylbenzene	ND		25.0	21.4		ug/L		86	60 - 140	0	20
Styrene	ND		25.0	20.2		ug/L		81	60 - 140	1	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: 720-70052-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 196582**

**Client Sample ID: EFF**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,1,1,2-Tetrachloroethane	ND		25.0	24.6		ug/L		98	60 - 140	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	19.2		ug/L		77	60 - 140	1	20
Tetrachloroethene	ND		25.0	23.8		ug/L		95	60 - 140	1	20
Toluene	ND		25.0	19.9		ug/L		80	60 - 140	0	20
1,2,3-Trichlorobenzene	ND		25.0	21.6		ug/L		86	60 - 140	1	20
1,2,4-Trichlorobenzene	ND		25.0	21.7		ug/L		87	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	27.0		ug/L		108	60 - 140	3	20
1,1,2-Trichloroethane	ND		25.0	21.1		ug/L		84	60 - 140	1	20
Trichloroethene	ND		25.0	23.9		ug/L		96	60 - 140	1	20
Trichlorofluoromethane	ND		25.0	30.3		ug/L		121	60 - 140	2	20
1,2,3-Trichloropropane	ND		25.0	22.2		ug/L		89	60 - 140	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.9		ug/L		96	60 - 140	1	20
1,2,4-Trimethylbenzene	ND		25.0	22.0		ug/L		88	60 - 140	0	20
1,3,5-Trimethylbenzene	ND		25.0	20.9		ug/L		83	60 - 140	0	20
Vinyl acetate	ND		25.0	19.3		ug/L		77	40 - 140	1	20
Vinyl chloride	ND		25.0	24.4		ug/L		97	58 - 140	1	20
m-Xylene & p-Xylene	ND		25.0	22.3		ug/L		89	60 - 140	1	20
o-Xylene	ND		25.0	22.7		ug/L		91	60 - 140	0	20
2,2-Dichloropropane	ND		25.0	25.0		ug/L		100	60 - 140	6	20
<b>Surrogate</b>		<b>MSD</b>	<b>MSD</b>								
		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
4-Bromofluorobenzene		101		67 - 130							
1,2-Dichloroethane-d4 (Surr)		114		72 - 130							
Toluene-d8 (Surr)		100		70 - 130							



# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## GC/MS VOA

### Analysis Batch: 196582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70052-1	EFF	Total/NA	Water	8260B/CA_LUFT MS	
720-70052-1 MS	EFF	Total/NA	Water	8260B/CA_LUFT MS	
720-70052-1 MSD	EFF	Total/NA	Water	8260B/CA_LUFT MS	
720-70052-2	INF	Total/NA	Water	8260B/CA_LUFT MS	
720-70052-3	GAC	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-196582/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-196582/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-196582/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-196582/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-196582/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

**Client Sample ID: EFF**  
**Date Collected: 01/28/16 09:45**  
**Date Received: 01/28/16 15:30**

**Lab Sample ID: 720-70052-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	196582	02/01/16 15:13	YB1	TAL PLS

**Client Sample ID: INF**  
**Date Collected: 01/28/16 09:45**  
**Date Received: 01/28/16 15:30**

**Lab Sample ID: 720-70052-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	196582	02/01/16 16:37	YB1	TAL PLS

**Client Sample ID: GAC**  
**Date Collected: 01/28/16 09:45**  
**Date Received: 01/28/16 15:30**

**Lab Sample ID: 720-70052-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	196582	02/01/16 17:05	YB1	TAL PLS

## Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Certification Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

## Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-17

Analysis Method	Prep Method	Matrix	Analyte
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# Method Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



# Sample Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70052-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-70052-1	EFF	Water	01/28/16 09:45	01/28/16 15:30
720-70052-2	INF	Water	01/28/16 09:45	01/28/16 15:30
720-70052-3	GAC	Water	01/28/16 09:45	01/28/16 15:30

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Report To					Analysis Request																					
Attn: <u>Peter Sims</u>																										
Company: <u>Ningo + Moore</u>																										
Address: <u>1950 Webster St, Oakland</u>																										
Email: <u>pim@ningoandmoore.com</u>																										
Bill To: <u>P. Sims</u>																										
Attn: <u>E. Dirksen</u>																										
Sampled By: <u>E. Dirksen</u>																										
Phone: <u>510 343 3000</u>																										
Sample ID	Date	Time	Mat rix	Preserv	Volatile Organics GC/MS (VOCs) <input checked="" type="checkbox"/> EPA 8260B <u>5 PPS</u>	HVOCs by <input type="checkbox"/> EPA 8260B	EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> 5 Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	TEPH EPA 8015B <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	SemiVolatile Organics GC/MS <input type="checkbox"/> EPA 8270C	PNA/PAH's by <input type="checkbox"/> 8270C <input type="checkbox"/> 8270C SIM	Oil and Grease (EPA 1664/9071) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 PCBs <input type="checkbox"/> EPA 8082	CAM17 Metals (EPA 60107/4707/471)	Metals: <input type="checkbox"/> 6010B <input type="checkbox"/> 200.7 <input type="checkbox"/> Lead <input type="checkbox"/> LUET, <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	Metals: <input type="checkbox"/> 6020 <input type="checkbox"/> 200.8 (ICP-MS):	<input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> W.E.T (DI) <input type="checkbox"/> TCLP	Hex. Chrom by <input type="checkbox"/> EPA 7196 <input type="checkbox"/> or EPA 7199	pH <input type="checkbox"/> 9040 <input type="checkbox"/> SM4500	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> SS <input type="checkbox"/> TDS	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>	<input type="checkbox"/> Perchlorate by EPA 314.0	COD <input type="checkbox"/> EPA 410.4 <input type="checkbox"/> SM5220D <input type="checkbox"/> Turbidity	Number of Containers			
<u>CFF</u>	<u>1/28/16</u>	<u>0945</u>	<u>6V</u>	<u>HL</u>	<input checked="" type="checkbox"/>																					
<u>INF</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<input checked="" type="checkbox"/>																					
<u>GAC</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<input checked="" type="checkbox"/>																					

Project Info		Sample Receipt	
Project Name/ #: <u>401894004</u>	# of Containers:	Head Space:	Temp: <u>1.9°C</u>
PO#: <u>Chun</u>	If yes, please call with payment information ASAP		
Credit Card Y/N:	Other:		
T 10 Day	5 Day	4 Day	3 Day
A Day	2 Day	1 Day	Other:
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD <input type="checkbox"/> EDF			
Special Instructions / Comments: <input type="checkbox"/> Global ID			
See Terms and Conditions on reverse			

1) Relinquished by:

[Signature] 1415  
 Signature Time  
Emik Dirksen 1/28  
 Printed Name Date  
ningo and moore  
 Company

2) Received by:

[Signature] 1415  
 Signature Time  
Sam Bangerigo 1/28/16  
 Printed Name Date  
TA  
 Company

2) Relinquished by:

[Signature] 1530  
 Signature Time  
Sam Bangerigo 1/28/16  
 Printed Name Date  
TA  
 Company

3) Received by:

[Signature] 1530  
 Signature Time  
Dennis Aranz 1/28/16  
 Printed Name Date  
TA  
 Company

3) Relinquished by:

Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company \_\_\_\_\_

3) Received by:

Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company \_\_\_\_\_



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-70052-1

**Login Number: 70052**  
**List Number: 1**  
**Creator: Arauz, Dennis**

**List Source: TestAmerica Pleasanton**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Pleasanton  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

TestAmerica Job ID: 720-70492-1  
Client Project/Site: Chun

For:  
Ninyo & Moore  
1956 Webster Street  
Suite 400  
Oakland, California 94612

Attn: Mr. Peter D. Sims



Authorized for release by:  
2/29/2016 4:13:31 PM  
Micah Smith, Project Manager II  
(925)484-1919  
[micah.smith@testamericainc.com](mailto:micah.smith@testamericainc.com)

Designee for  
Dimple Sharma, Senior Project Manager  
(925)484-1919  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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# Definitions/Glossary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

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**Job ID: 720-70492-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative  
720-70492-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 2/25/2016 2:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.3° C.

**GC/MS VOA**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Client Sample ID: EFF

Lab Sample ID: 720-70492-1

No Detections.

## Client Sample ID: INF

Lab Sample ID: 720-70492-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.84		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Benzene	1.7		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
n-Butylbenzene	1.2		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Chloroform	1.4		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2-Dichloroethane	0.57		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Naphthalene	2.8		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	1.9		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	9.4		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	28		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	95		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	750		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

## Client Sample ID: GAC

Lab Sample ID: 720-70492-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

**Client Sample ID: EFF**  
**Date Collected: 02/25/16 09:25**  
**Date Received: 02/25/16 14:25**

**Lab Sample ID: 720-70492-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/27/16 18:23	1
Acetone	ND		50		ug/L			02/27/16 18:23	1
Benzene	ND		0.50		ug/L			02/27/16 18:23	1
Dichlorobromomethane	ND		0.50		ug/L			02/27/16 18:23	1
Bromobenzene	ND		1.0		ug/L			02/27/16 18:23	1
Chlorobromomethane	ND		1.0		ug/L			02/27/16 18:23	1
Bromoform	ND		1.0		ug/L			02/27/16 18:23	1
Bromomethane	ND		1.0		ug/L			02/27/16 18:23	1
2-Butanone (MEK)	ND		50		ug/L			02/27/16 18:23	1
n-Butylbenzene	ND		1.0		ug/L			02/27/16 18:23	1
sec-Butylbenzene	ND		1.0		ug/L			02/27/16 18:23	1
tert-Butylbenzene	ND		1.0		ug/L			02/27/16 18:23	1
Carbon disulfide	ND		5.0		ug/L			02/27/16 18:23	1
Carbon tetrachloride	ND		0.50		ug/L			02/27/16 18:23	1
Chlorobenzene	ND		0.50		ug/L			02/27/16 18:23	1
Chloroethane	ND		1.0		ug/L			02/27/16 18:23	1
Chloroform	ND		1.0		ug/L			02/27/16 18:23	1
Chloromethane	ND		1.0		ug/L			02/27/16 18:23	1
2-Chlorotoluene	ND		0.50		ug/L			02/27/16 18:23	1
4-Chlorotoluene	ND		0.50		ug/L			02/27/16 18:23	1
Chlorodibromomethane	ND		0.50		ug/L			02/27/16 18:23	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/27/16 18:23	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/27/16 18:23	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/27/16 18:23	1
1,3-Dichloropropane	ND		1.0		ug/L			02/27/16 18:23	1
1,1-Dichloropropene	ND		0.50		ug/L			02/27/16 18:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/27/16 18:23	1
Ethylene Dibromide	ND		0.50		ug/L			02/27/16 18:23	1
Dibromomethane	ND		0.50		ug/L			02/27/16 18:23	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/27/16 18:23	1
1,1-Dichloroethane	ND		0.50		ug/L			02/27/16 18:23	1
1,2-Dichloroethane	ND		0.50		ug/L			02/27/16 18:23	1
1,1-Dichloroethene	ND		0.50		ug/L			02/27/16 18:23	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 18:23	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 18:23	1
1,2-Dichloropropane	ND		0.50		ug/L			02/27/16 18:23	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 18:23	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 18:23	1
Ethylbenzene	ND		0.50		ug/L			02/27/16 18:23	1
Hexachlorobutadiene	ND		1.0		ug/L			02/27/16 18:23	1
2-Hexanone	ND		50		ug/L			02/27/16 18:23	1
Isopropylbenzene	ND		0.50		ug/L			02/27/16 18:23	1
4-Isopropyltoluene	ND		1.0		ug/L			02/27/16 18:23	1
Methylene Chloride	ND		5.0		ug/L			02/27/16 18:23	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/27/16 18:23	1
Naphthalene	ND		1.0		ug/L			02/27/16 18:23	1
N-Propylbenzene	ND		1.0		ug/L			02/27/16 18:23	1
Styrene	ND		0.50		ug/L			02/27/16 18:23	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 18:23	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

**Client Sample ID: EFF**  
**Date Collected: 02/25/16 09:25**  
**Date Received: 02/25/16 14:25**

**Lab Sample ID: 720-70492-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 18:23	1
Tetrachloroethene	ND		0.50		ug/L			02/27/16 18:23	1
Toluene	ND		0.50		ug/L			02/27/16 18:23	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/27/16 18:23	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/27/16 18:23	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/27/16 18:23	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/27/16 18:23	1
Trichloroethene	ND		0.50		ug/L			02/27/16 18:23	1
Trichlorofluoromethane	ND		1.0		ug/L			02/27/16 18:23	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/27/16 18:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/27/16 18:23	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/27/16 18:23	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/27/16 18:23	1
Vinyl acetate	ND		10		ug/L			02/27/16 18:23	1
Vinyl chloride	ND		0.50		ug/L			02/27/16 18:23	1
Xylenes, Total	ND		1.0		ug/L			02/27/16 18:23	1
2,2-Dichloropropane	ND		0.50		ug/L			02/27/16 18:23	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/27/16 18:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130					02/27/16 18:23	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 130					02/27/16 18:23	1
Toluene-d8 (Surr)	97		70 - 130					02/27/16 18:23	1

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

**Client Sample ID: INF**

**Date Collected: 02/25/16 09:25**

**Date Received: 02/25/16 14:25**

**Lab Sample ID: 720-70492-2**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>0.84</b>		0.50		ug/L			02/27/16 18:52	1
Acetone	ND		50		ug/L			02/27/16 18:52	1
<b>Benzene</b>	<b>1.7</b>		0.50		ug/L			02/27/16 18:52	1
Dichlorobromomethane	ND		0.50		ug/L			02/27/16 18:52	1
Bromobenzene	ND		1.0		ug/L			02/27/16 18:52	1
Chlorobromomethane	ND		1.0		ug/L			02/27/16 18:52	1
Bromoform	ND		1.0		ug/L			02/27/16 18:52	1
Bromomethane	ND		1.0		ug/L			02/27/16 18:52	1
2-Butanone (MEK)	ND		50		ug/L			02/27/16 18:52	1
<b>n-Butylbenzene</b>	<b>1.2</b>		1.0		ug/L			02/27/16 18:52	1
sec-Butylbenzene	ND		1.0		ug/L			02/27/16 18:52	1
tert-Butylbenzene	ND		1.0		ug/L			02/27/16 18:52	1
Carbon disulfide	ND		5.0		ug/L			02/27/16 18:52	1
Carbon tetrachloride	ND		0.50		ug/L			02/27/16 18:52	1
Chlorobenzene	ND		0.50		ug/L			02/27/16 18:52	1
Chloroethane	ND		1.0		ug/L			02/27/16 18:52	1
<b>Chloroform</b>	<b>1.4</b>		1.0		ug/L			02/27/16 18:52	1
Chloromethane	ND		1.0		ug/L			02/27/16 18:52	1
2-Chlorotoluene	ND		0.50		ug/L			02/27/16 18:52	1
4-Chlorotoluene	ND		0.50		ug/L			02/27/16 18:52	1
Chlorodibromomethane	ND		0.50		ug/L			02/27/16 18:52	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/27/16 18:52	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/27/16 18:52	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/27/16 18:52	1
1,3-Dichloropropane	ND		1.0		ug/L			02/27/16 18:52	1
1,1-Dichloropropane	ND		0.50		ug/L			02/27/16 18:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/27/16 18:52	1
Ethylene Dibromide	ND		0.50		ug/L			02/27/16 18:52	1
Dibromomethane	ND		0.50		ug/L			02/27/16 18:52	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/27/16 18:52	1
1,1-Dichloroethane	ND		0.50		ug/L			02/27/16 18:52	1
<b>1,2-Dichloroethane</b>	<b>0.57</b>		0.50		ug/L			02/27/16 18:52	1
1,1-Dichloroethene	ND		0.50		ug/L			02/27/16 18:52	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 18:52	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 18:52	1
1,2-Dichloropropane	ND		0.50		ug/L			02/27/16 18:52	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 18:52	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 18:52	1
Ethylbenzene	ND		0.50		ug/L			02/27/16 18:52	1
Hexachlorobutadiene	ND		1.0		ug/L			02/27/16 18:52	1
2-Hexanone	ND		50		ug/L			02/27/16 18:52	1
Isopropylbenzene	ND		0.50		ug/L			02/27/16 18:52	1
4-Isopropyltoluene	ND		1.0		ug/L			02/27/16 18:52	1
Methylene Chloride	ND		5.0		ug/L			02/27/16 18:52	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/27/16 18:52	1
<b>Naphthalene</b>	<b>2.8</b>		1.0		ug/L			02/27/16 18:52	1
N-Propylbenzene	ND		1.0		ug/L			02/27/16 18:52	1
Styrene	ND		0.50		ug/L			02/27/16 18:52	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 18:52	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

**Client Sample ID: INF**

**Lab Sample ID: 720-70492-2**

**Date Collected: 02/25/16 09:25**

**Matrix: Water**

**Date Received: 02/25/16 14:25**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 18:52	1
Tetrachloroethene	ND		0.50		ug/L			02/27/16 18:52	1
<b>Toluene</b>	<b>1.9</b>		0.50		ug/L			02/27/16 18:52	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/27/16 18:52	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/27/16 18:52	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/27/16 18:52	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/27/16 18:52	1
Trichloroethene	ND		0.50		ug/L			02/27/16 18:52	1
Trichlorofluoromethane	ND		1.0		ug/L			02/27/16 18:52	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/27/16 18:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/27/16 18:52	1
<b>1,2,4-Trimethylbenzene</b>	<b>9.4</b>		0.50		ug/L			02/27/16 18:52	1
<b>1,3,5-Trimethylbenzene</b>	<b>28</b>		0.50		ug/L			02/27/16 18:52	1
Vinyl acetate	ND		10		ug/L			02/27/16 18:52	1
Vinyl chloride	ND		0.50		ug/L			02/27/16 18:52	1
<b>Xylenes, Total</b>	<b>95</b>		1.0		ug/L			02/27/16 18:52	1
2,2-Dichloropropane	ND		0.50		ug/L			02/27/16 18:52	1
<b>Gasoline Range Organics (GRO)</b>	<b>750</b>		50		ug/L			02/27/16 18:52	1
<b>-C5-C12</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	105		67 - 130					02/27/16 18:52	1
1,2-Dichloroethane-d4 (Surr)	112		72 - 130					02/27/16 18:52	1
Toluene-d8 (Surr)	99		70 - 130					02/27/16 18:52	1



# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

**Client Sample ID: GAC**  
**Date Collected: 02/25/16 09:25**  
**Date Received: 02/25/16 14:25**

**Lab Sample ID: 720-70492-3**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/27/16 19:22	1
Acetone	ND		50		ug/L			02/27/16 19:22	1
Benzene	ND		0.50		ug/L			02/27/16 19:22	1
Dichlorobromomethane	ND		0.50		ug/L			02/27/16 19:22	1
Bromobenzene	ND		1.0		ug/L			02/27/16 19:22	1
Chlorobromomethane	ND		1.0		ug/L			02/27/16 19:22	1
Bromoform	ND		1.0		ug/L			02/27/16 19:22	1
Bromomethane	ND		1.0		ug/L			02/27/16 19:22	1
2-Butanone (MEK)	ND		50		ug/L			02/27/16 19:22	1
n-Butylbenzene	ND		1.0		ug/L			02/27/16 19:22	1
sec-Butylbenzene	ND		1.0		ug/L			02/27/16 19:22	1
tert-Butylbenzene	ND		1.0		ug/L			02/27/16 19:22	1
Carbon disulfide	ND		5.0		ug/L			02/27/16 19:22	1
Carbon tetrachloride	ND		0.50		ug/L			02/27/16 19:22	1
Chlorobenzene	ND		0.50		ug/L			02/27/16 19:22	1
Chloroethane	ND		1.0		ug/L			02/27/16 19:22	1
Chloroform	ND		1.0		ug/L			02/27/16 19:22	1
Chloromethane	ND		1.0		ug/L			02/27/16 19:22	1
2-Chlorotoluene	ND		0.50		ug/L			02/27/16 19:22	1
4-Chlorotoluene	ND		0.50		ug/L			02/27/16 19:22	1
Chlorodibromomethane	ND		0.50		ug/L			02/27/16 19:22	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/27/16 19:22	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/27/16 19:22	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/27/16 19:22	1
1,3-Dichloropropane	ND		1.0		ug/L			02/27/16 19:22	1
1,1-Dichloropropene	ND		0.50		ug/L			02/27/16 19:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/27/16 19:22	1
Ethylene Dibromide	ND		0.50		ug/L			02/27/16 19:22	1
Dibromomethane	ND		0.50		ug/L			02/27/16 19:22	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/27/16 19:22	1
1,1-Dichloroethane	ND		0.50		ug/L			02/27/16 19:22	1
1,2-Dichloroethane	ND		0.50		ug/L			02/27/16 19:22	1
1,1-Dichloroethene	ND		0.50		ug/L			02/27/16 19:22	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 19:22	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 19:22	1
1,2-Dichloropropane	ND		0.50		ug/L			02/27/16 19:22	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 19:22	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 19:22	1
Ethylbenzene	ND		0.50		ug/L			02/27/16 19:22	1
Hexachlorobutadiene	ND		1.0		ug/L			02/27/16 19:22	1
2-Hexanone	ND		50		ug/L			02/27/16 19:22	1
Isopropylbenzene	ND		0.50		ug/L			02/27/16 19:22	1
4-Isopropyltoluene	ND		1.0		ug/L			02/27/16 19:22	1
Methylene Chloride	ND		5.0		ug/L			02/27/16 19:22	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/27/16 19:22	1
Naphthalene	ND		1.0		ug/L			02/27/16 19:22	1
N-Propylbenzene	ND		1.0		ug/L			02/27/16 19:22	1
Styrene	ND		0.50		ug/L			02/27/16 19:22	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 19:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

**Client Sample ID: GAC**

**Lab Sample ID: 720-70492-3**

**Date Collected: 02/25/16 09:25**

**Matrix: Water**

**Date Received: 02/25/16 14:25**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 19:22	1
Tetrachloroethene	ND		0.50		ug/L			02/27/16 19:22	1
Toluene	ND		0.50		ug/L			02/27/16 19:22	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/27/16 19:22	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/27/16 19:22	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/27/16 19:22	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/27/16 19:22	1
Trichloroethene	ND		0.50		ug/L			02/27/16 19:22	1
Trichlorofluoromethane	ND		1.0		ug/L			02/27/16 19:22	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/27/16 19:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/27/16 19:22	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/27/16 19:22	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/27/16 19:22	1
Vinyl acetate	ND		10		ug/L			02/27/16 19:22	1
Vinyl chloride	ND		0.50		ug/L			02/27/16 19:22	1
Xylenes, Total	ND		1.0		ug/L			02/27/16 19:22	1
2,2-Dichloropropane	ND		0.50		ug/L			02/27/16 19:22	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/27/16 19:22	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	96		67 - 130					02/27/16 19:22	1
1,2-Dichloroethane-d4 (Surr)	112		72 - 130					02/27/16 19:22	1
Toluene-d8 (Surr)	95		70 - 130					02/27/16 19:22	1

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-197761/5

Matrix: Water

Analysis Batch: 197761

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			02/27/16 13:01	1
Acetone	ND		50		ug/L			02/27/16 13:01	1
Benzene	ND		0.50		ug/L			02/27/16 13:01	1
Dichlorobromomethane	ND		0.50		ug/L			02/27/16 13:01	1
Bromobenzene	ND		1.0		ug/L			02/27/16 13:01	1
Chlorobromomethane	ND		1.0		ug/L			02/27/16 13:01	1
Bromoform	ND		1.0		ug/L			02/27/16 13:01	1
Bromomethane	ND		1.0		ug/L			02/27/16 13:01	1
2-Butanone (MEK)	ND		50		ug/L			02/27/16 13:01	1
n-Butylbenzene	ND		1.0		ug/L			02/27/16 13:01	1
sec-Butylbenzene	ND		1.0		ug/L			02/27/16 13:01	1
tert-Butylbenzene	ND		1.0		ug/L			02/27/16 13:01	1
Carbon disulfide	ND		5.0		ug/L			02/27/16 13:01	1
Carbon tetrachloride	ND		0.50		ug/L			02/27/16 13:01	1
Chlorobenzene	ND		0.50		ug/L			02/27/16 13:01	1
Chloroethane	ND		1.0		ug/L			02/27/16 13:01	1
Chloroform	ND		1.0		ug/L			02/27/16 13:01	1
Chloromethane	ND		1.0		ug/L			02/27/16 13:01	1
2-Chlorotoluene	ND		0.50		ug/L			02/27/16 13:01	1
4-Chlorotoluene	ND		0.50		ug/L			02/27/16 13:01	1
Chlorodibromomethane	ND		0.50		ug/L			02/27/16 13:01	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/27/16 13:01	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/27/16 13:01	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/27/16 13:01	1
1,3-Dichloropropane	ND		1.0		ug/L			02/27/16 13:01	1
1,1-Dichloropropene	ND		0.50		ug/L			02/27/16 13:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/27/16 13:01	1
Ethylene Dibromide	ND		0.50		ug/L			02/27/16 13:01	1
Dibromomethane	ND		0.50		ug/L			02/27/16 13:01	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/27/16 13:01	1
1,1-Dichloroethane	ND		0.50		ug/L			02/27/16 13:01	1
1,2-Dichloroethane	ND		0.50		ug/L			02/27/16 13:01	1
1,1-Dichloroethene	ND		0.50		ug/L			02/27/16 13:01	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 13:01	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/27/16 13:01	1
1,2-Dichloropropane	ND		0.50		ug/L			02/27/16 13:01	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 13:01	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/27/16 13:01	1
Ethylbenzene	ND		0.50		ug/L			02/27/16 13:01	1
Hexachlorobutadiene	ND		1.0		ug/L			02/27/16 13:01	1
2-Hexanone	ND		50		ug/L			02/27/16 13:01	1
Isopropylbenzene	ND		0.50		ug/L			02/27/16 13:01	1
4-Isopropyltoluene	ND		1.0		ug/L			02/27/16 13:01	1
Methylene Chloride	ND		5.0		ug/L			02/27/16 13:01	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/27/16 13:01	1
Naphthalene	ND		1.0		ug/L			02/27/16 13:01	1
N-Propylbenzene	ND		1.0		ug/L			02/27/16 13:01	1
Styrene	ND		0.50		ug/L			02/27/16 13:01	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: MB 720-197761/5**  
**Matrix: Water**  
**Analysis Batch: 197761**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 13:01	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/27/16 13:01	1
Tetrachloroethene	ND		0.50		ug/L			02/27/16 13:01	1
Toluene	ND		0.50		ug/L			02/27/16 13:01	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/27/16 13:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/27/16 13:01	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/27/16 13:01	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/27/16 13:01	1
Trichloroethene	ND		0.50		ug/L			02/27/16 13:01	1
Trichlorofluoromethane	ND		1.0		ug/L			02/27/16 13:01	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/27/16 13:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/27/16 13:01	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/27/16 13:01	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/27/16 13:01	1
Vinyl acetate	ND		10		ug/L			02/27/16 13:01	1
Vinyl chloride	ND		0.50		ug/L			02/27/16 13:01	1
Xylenes, Total	ND		1.0		ug/L			02/27/16 13:01	1
2,2-Dichloropropane	ND		0.50		ug/L			02/27/16 13:01	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/27/16 13:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130		02/27/16 13:01	1
1,2-Dichloroethane-d4 (Surr)	110		72 - 130		02/27/16 13:01	1
Toluene-d8 (Surr)	96		70 - 130		02/27/16 13:01	1

**Lab Sample ID: LCS 720-197761/6**  
**Matrix: Water**  
**Analysis Batch: 197761**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	24.6		ug/L		99	62 - 130
Acetone	125	101		ug/L		81	26 - 180
Benzene	25.0	23.4		ug/L		93	79 - 130
Dichlorobromomethane	25.0	24.7		ug/L		99	70 - 130
Bromobenzene	25.0	23.1		ug/L		92	70 - 130
Chlorobromomethane	25.0	23.0		ug/L		92	70 - 130
Bromoform	25.0	25.0		ug/L		100	68 - 136
Bromomethane	25.0	22.6		ug/L		90	43 - 151
2-Butanone (MEK)	125	119		ug/L		95	54 - 130
n-Butylbenzene	25.0	25.9		ug/L		104	70 - 142
sec-Butylbenzene	25.0	26.1		ug/L		104	70 - 134
tert-Butylbenzene	25.0	25.3		ug/L		101	70 - 135
Carbon disulfide	25.0	19.5		ug/L		78	58 - 130
Carbon tetrachloride	25.0	23.9		ug/L		96	70 - 146
Chlorobenzene	25.0	23.7		ug/L		95	70 - 130
Chloroethane	25.0	23.1		ug/L		92	62 - 138
Chloroform	25.0	23.9		ug/L		96	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-197761/6

Matrix: Water

Analysis Batch: 197761

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	25.0	26.2		ug/L		105	52 - 175
2-Chlorotoluene	25.0	25.0		ug/L		100	70 - 130
4-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130
Chlorodibromomethane	25.0	24.4		ug/L		97	70 - 145
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	70 - 130
1,3-Dichlorobenzene	25.0	23.4		ug/L		94	70 - 130
1,4-Dichlorobenzene	25.0	22.9		ug/L		91	70 - 130
1,3-Dichloropropane	25.0	24.5		ug/L		98	70 - 130
1,1-Dichloropropene	25.0	23.8		ug/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.3		ug/L		97	70 - 136
Ethylene Dibromide	25.0	24.2		ug/L		97	70 - 130
Dibromomethane	25.0	24.0		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	29.3		ug/L		117	32 - 158
1,1-Dichloroethane	25.0	24.2		ug/L		97	70 - 130
1,2-Dichloroethane	25.0	24.7		ug/L		99	61 - 132
1,1-Dichloroethene	25.0	19.9		ug/L		80	64 - 128
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 130
trans-1,2-Dichloroethene	25.0	22.3		ug/L		89	68 - 130
1,2-Dichloropropane	25.0	24.5		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	25.6		ug/L		102	70 - 130
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	70 - 140
Ethylbenzene	25.0	25.0		ug/L		100	80 - 120
Hexachlorobutadiene	25.0	20.7		ug/L		83	70 - 130
2-Hexanone	125	138		ug/L		110	60 - 164
Isopropylbenzene	25.0	26.1		ug/L		105	70 - 130
4-Isopropyltoluene	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	23.6		ug/L		94	70 - 147
4-Methyl-2-pentanone (MIBK)	125	151		ug/L		121	58 - 130
Naphthalene	25.0	24.0		ug/L		96	70 - 130
N-Propylbenzene	25.0	26.0		ug/L		104	70 - 130
Styrene	25.0	25.4		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.6		ug/L		98	70 - 130
Tetrachloroethene	25.0	21.9		ug/L		88	70 - 130
Toluene	25.0	23.9		ug/L		96	78 - 120
1,2,3-Trichlorobenzene	25.0	21.8		ug/L		87	70 - 130
1,2,4-Trichlorobenzene	25.0	22.5		ug/L		90	70 - 130
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,2-Trichloroethane	25.0	24.1		ug/L		96	70 - 130
Trichloroethene	25.0	22.9		ug/L		92	70 - 130
Trichlorofluoromethane	25.0	24.5		ug/L		98	66 - 132
1,2,3-Trichloropropane	25.0	26.0		ug/L		104	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	20.2		ug/L		81	42 - 162
1,2,4-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 132
1,3,5-Trimethylbenzene	25.0	25.6		ug/L		102	70 - 130
Vinyl acetate	25.0	24.3		ug/L		97	43 - 163
Vinyl chloride	25.0	25.1		ug/L		100	54 - 135

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-197761/6**  
**Matrix: Water**  
**Analysis Batch: 197761**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	25.0	24.7		ug/L		99	70 - 142
o-Xylene	25.0	25.0		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	23.3		ug/L		93	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	105		72 - 130
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: LCS 720-197761/8**  
**Matrix: Water**  
**Analysis Batch: 197761**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	599		ug/L		120	71 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		72 - 130
Toluene-d8 (Surr)	97		70 - 130

**Lab Sample ID: LCSD 720-197761/7**  
**Matrix: Water**  
**Analysis Batch: 197761**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	24.3		ug/L		97	62 - 130	1	20
Acetone	125	108		ug/L		86	26 - 180	6	30
Benzene	25.0	23.4		ug/L		94	79 - 130	0	20
Dichlorobromomethane	25.0	24.7		ug/L		99	70 - 130	0	20
Bromobenzene	25.0	23.4		ug/L		94	70 - 130	1	20
Chlorobromomethane	25.0	22.7		ug/L		91	70 - 130	2	20
Bromoform	25.0	25.3		ug/L		101	68 - 136	1	20
Bromomethane	25.0	23.2		ug/L		93	43 - 151	3	20
2-Butanone (MEK)	125	114		ug/L		91	54 - 130	4	20
n-Butylbenzene	25.0	26.3		ug/L		105	70 - 142	2	20
sec-Butylbenzene	25.0	26.5		ug/L		106	70 - 134	1	20
tert-Butylbenzene	25.0	25.6		ug/L		102	70 - 135	1	20
Carbon disulfide	25.0	19.8		ug/L		79	58 - 130	2	20
Carbon tetrachloride	25.0	24.3		ug/L		97	70 - 146	2	20
Chlorobenzene	25.0	24.0		ug/L		96	70 - 130	1	20
Chloroethane	25.0	23.3		ug/L		93	62 - 138	1	20
Chloroform	25.0	24.1		ug/L		96	70 - 130	1	20
Chloromethane	25.0	27.4		ug/L		110	52 - 175	4	20
2-Chlorotoluene	25.0	25.4		ug/L		101	70 - 130	1	20
4-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130	2	20
Chlorodibromomethane	25.0	24.3		ug/L		97	70 - 145	0	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-197761/7

Matrix: Water

Analysis Batch: 197761

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	70 - 130	0	20
1,3-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130	0	20
1,4-Dichlorobenzene	25.0	22.9		ug/L		92	70 - 130	0	20
1,3-Dichloropropane	25.0	24.1		ug/L		97	70 - 130	2	20
1,1-Dichloropropene	25.0	23.9		ug/L		96	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	23.7		ug/L		95	70 - 136	2	20
Ethylene Dibromide	25.0	24.0		ug/L		96	70 - 130	1	20
Dibromomethane	25.0	23.7		ug/L		95	70 - 130	1	20
Dichlorodifluoromethane	25.0	29.2		ug/L		117	32 - 158	0	20
1,1-Dichloroethane	25.0	24.3		ug/L		97	70 - 130	0	20
1,2-Dichloroethane	25.0	24.8		ug/L		99	61 - 132	0	20
1,1-Dichloroethene	25.0	20.4		ug/L		82	64 - 128	2	20
cis-1,2-Dichloroethene	25.0	24.3		ug/L		97	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	22.4		ug/L		90	68 - 130	0	20
1,2-Dichloropropane	25.0	24.7		ug/L		99	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	25.4		ug/L		102	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	70 - 140	0	20
Ethylbenzene	25.0	25.5		ug/L		102	80 - 120	2	20
Hexachlorobutadiene	25.0	20.8		ug/L		83	70 - 130	1	20
2-Hexanone	125	132		ug/L		106	60 - 164	4	20
Isopropylbenzene	25.0	26.5		ug/L		106	70 - 130	1	20
4-Isopropyltoluene	25.0	25.4		ug/L		102	70 - 130	1	20
Methylene Chloride	25.0	23.8		ug/L		95	70 - 147	1	20
4-Methyl-2-pentanone (MIBK)	125	144		ug/L		115	58 - 130	5	20
Naphthalene	25.0	24.1		ug/L		96	70 - 130	0	20
N-Propylbenzene	25.0	26.2		ug/L		105	70 - 130	1	20
Styrene	25.0	25.8		ug/L		103	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	24.0		ug/L		96	70 - 130	1	20
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	3	20
Tetrachloroethene	25.0	22.3		ug/L		89	70 - 130	2	20
Toluene	25.0	24.4		ug/L		98	78 - 120	2	20
1,2,3-Trichlorobenzene	25.0	21.8		ug/L		87	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	22.3		ug/L		89	70 - 130	1	20
1,1,1-Trichloroethane	25.0	24.2		ug/L		97	70 - 130	2	20
1,1,2-Trichloroethane	25.0	23.8		ug/L		95	70 - 130	1	20
Trichloroethene	25.0	23.1		ug/L		93	70 - 130	1	20
Trichlorofluoromethane	25.0	24.5		ug/L		98	66 - 132	0	20
1,2,3-Trichloropropane	25.0	25.5		ug/L		102	70 - 130	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	20.3		ug/L		81	42 - 162	0	20
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		104	70 - 132	1	20
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 130	1	20
Vinyl acetate	25.0	23.6		ug/L		94	43 - 163	3	20
Vinyl chloride	25.0	25.3		ug/L		101	54 - 135	1	20
m-Xylene & p-Xylene	25.0	25.3		ug/L		101	70 - 142	2	20
o-Xylene	25.0	25.4		ug/L		101	70 - 130	1	20
2,2-Dichloropropane	25.0	23.9		ug/L		96	70 - 140	2	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-197761/7**  
**Matrix: Water**  
**Analysis Batch: 197761**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

<i>Surrogate</i>	<i>LCS D %Recovery</i>	<i>LCS D Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	100		72 - 130
Toluene-d8 (Surr)	98		70 - 130

**Lab Sample ID: LCSD 720-197761/9**  
**Matrix: Water**  
**Analysis Batch: 197761**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS D Result</i>	<i>LCS D Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Gasoline Range Organics (GRO) -C5-C12	500	595		ug/L		119	71 - 125	1	20

<i>Surrogate</i>	<i>LCS D %Recovery</i>	<i>LCS D Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		72 - 130
Toluene-d8 (Surr)	97		70 - 130



# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## GC/MS VOA

### Analysis Batch: 197761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-70492-1	EFF	Total/NA	Water	8260B/CA_LUFT MS	
720-70492-2	INF	Total/NA	Water	8260B/CA_LUFT MS	
720-70492-3	GAC	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-197761/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-197761/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-197761/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-197761/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-197761/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

**Client Sample ID: EFF**  
**Date Collected: 02/25/16 09:25**  
**Date Received: 02/25/16 14:25**

**Lab Sample ID: 720-70492-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	197761	02/27/16 18:23	YB1	TAL PLS

**Client Sample ID: INF**  
**Date Collected: 02/25/16 09:25**  
**Date Received: 02/25/16 14:25**

**Lab Sample ID: 720-70492-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	197761	02/27/16 18:52	YB1	TAL PLS

**Client Sample ID: GAC**  
**Date Collected: 02/25/16 09:25**  
**Date Received: 02/25/16 14:25**

**Lab Sample ID: 720-70492-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	197761	02/27/16 19:22	YB1	TAL PLS

## Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Certification Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

## Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-17

Analysis Method	Prep Method	Matrix	Analyte
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# Method Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

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Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS

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**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



# Sample Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-70492-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-70492-1	EFF	Water	02/25/16 09:25	02/25/16 14:25
720-70492-2	INF	Water	02/25/16 09:25	02/25/16 14:25
720-70492-3	GAC	Water	02/25/16 09:25	02/25/16 14:25

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# Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-70492-1

**Login Number: 70492**

**List Number: 1**

**Creator: Bullock, Tracy**

**List Source: TestAmerica Pleasanton**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

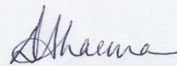
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Pleasanton  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

TestAmerica Job ID: 720-71134-1  
Client Project/Site: Chun

For:  
Ninyo & Moore  
1956 Webster Street  
Suite 400  
Oakland, California 94612

Attn: Mr. Peter D. Sims



Authorized for release by:  
3/29/2016 9:03:18 AM

Dimple Sharma, Senior Project Manager  
(925)484-1919  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

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**Job ID: 720-71134-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
**720-71134-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 3/25/2016 3:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

**GC/MS VOA**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Client Sample ID: EFF

Lab Sample ID: 720-71134-1

No Detections.

## Client Sample ID: INF

Lab Sample ID: 720-71134-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.74		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Benzene	10		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Chloroform	1.2		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2-Dichloroethane	0.53		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Naphthalene	9.1		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	7.4		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	11		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	23		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	140		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	600		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

## Client Sample ID: GAC

Lab Sample ID: 720-71134-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

**Client Sample ID: EFF**  
**Date Collected: 03/24/16 15:15**  
**Date Received: 03/25/16 15:50**

**Lab Sample ID: 720-71134-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/25/16 22:44	1
Acetone	ND		50		ug/L			03/25/16 22:44	1
Benzene	ND		0.50		ug/L			03/25/16 22:44	1
Dichlorobromomethane	ND		0.50		ug/L			03/25/16 22:44	1
Bromobenzene	ND		1.0		ug/L			03/25/16 22:44	1
Chlorobromomethane	ND		1.0		ug/L			03/25/16 22:44	1
Bromoform	ND		1.0		ug/L			03/25/16 22:44	1
Bromomethane	ND		1.0		ug/L			03/25/16 22:44	1
2-Butanone (MEK)	ND		50		ug/L			03/25/16 22:44	1
n-Butylbenzene	ND		1.0		ug/L			03/25/16 22:44	1
sec-Butylbenzene	ND		1.0		ug/L			03/25/16 22:44	1
tert-Butylbenzene	ND		1.0		ug/L			03/25/16 22:44	1
Carbon disulfide	ND		5.0		ug/L			03/25/16 22:44	1
Carbon tetrachloride	ND		0.50		ug/L			03/25/16 22:44	1
Chlorobenzene	ND		0.50		ug/L			03/25/16 22:44	1
Chloroethane	ND		1.0		ug/L			03/25/16 22:44	1
Chloroform	ND		1.0		ug/L			03/25/16 22:44	1
Chloromethane	ND		1.0		ug/L			03/25/16 22:44	1
2-Chlorotoluene	ND		0.50		ug/L			03/25/16 22:44	1
4-Chlorotoluene	ND		0.50		ug/L			03/25/16 22:44	1
Chlorodibromomethane	ND		0.50		ug/L			03/25/16 22:44	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/25/16 22:44	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/25/16 22:44	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/25/16 22:44	1
1,3-Dichloropropane	ND		1.0		ug/L			03/25/16 22:44	1
1,1-Dichloropropene	ND		0.50		ug/L			03/25/16 22:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			03/25/16 22:44	1
Ethylene Dibromide	ND		0.50		ug/L			03/25/16 22:44	1
Dibromomethane	ND		0.50		ug/L			03/25/16 22:44	1
Dichlorodifluoromethane	ND		0.50		ug/L			03/25/16 22:44	1
1,1-Dichloroethane	ND		0.50		ug/L			03/25/16 22:44	1
1,2-Dichloroethane	ND		0.50		ug/L			03/25/16 22:44	1
1,1-Dichloroethene	ND		0.50		ug/L			03/25/16 22:44	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/25/16 22:44	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/25/16 22:44	1
1,2-Dichloropropane	ND		0.50		ug/L			03/25/16 22:44	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/25/16 22:44	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			03/25/16 22:44	1
Ethylbenzene	ND		0.50		ug/L			03/25/16 22:44	1
Hexachlorobutadiene	ND		1.0		ug/L			03/25/16 22:44	1
2-Hexanone	ND		50		ug/L			03/25/16 22:44	1
Isopropylbenzene	ND		0.50		ug/L			03/25/16 22:44	1
4-Isopropyltoluene	ND		1.0		ug/L			03/25/16 22:44	1
Methylene Chloride	ND		5.0		ug/L			03/25/16 22:44	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			03/25/16 22:44	1
Naphthalene	ND		1.0		ug/L			03/25/16 22:44	1
N-Propylbenzene	ND		1.0		ug/L			03/25/16 22:44	1
Styrene	ND		0.50		ug/L			03/25/16 22:44	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			03/25/16 22:44	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

**Client Sample ID: EFF**  
**Date Collected: 03/24/16 15:15**  
**Date Received: 03/25/16 15:50**

**Lab Sample ID: 720-71134-1**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/25/16 22:44	1
Tetrachloroethene	ND		0.50		ug/L			03/25/16 22:44	1
Toluene	ND		0.50		ug/L			03/25/16 22:44	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/25/16 22:44	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/25/16 22:44	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/25/16 22:44	1
1,1,2-Trichloroethane	ND		0.50		ug/L			03/25/16 22:44	1
Trichloroethene	ND		0.50		ug/L			03/25/16 22:44	1
Trichlorofluoromethane	ND		1.0		ug/L			03/25/16 22:44	1
1,2,3-Trichloropropane	ND		0.50		ug/L			03/25/16 22:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			03/25/16 22:44	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			03/25/16 22:44	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			03/25/16 22:44	1
Vinyl acetate	ND		10		ug/L			03/25/16 22:44	1
Vinyl chloride	ND		0.50		ug/L			03/25/16 22:44	1
Xylenes, Total	ND		1.0		ug/L			03/25/16 22:44	1
2,2-Dichloropropane	ND		0.50		ug/L			03/25/16 22:44	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/25/16 22:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 130		03/25/16 22:44	1
1,2-Dichloroethane-d4 (Surr)	97		72 - 130		03/25/16 22:44	1
Toluene-d8 (Surr)	88		70 - 130		03/25/16 22:44	1

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

**Client Sample ID: INF**

**Date Collected: 03/24/16 15:15**

**Date Received: 03/25/16 15:50**

**Lab Sample ID: 720-71134-2**

**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>0.74</b>		0.50		ug/L			03/26/16 00:11	1
Acetone	ND		50		ug/L			03/26/16 00:11	1
<b>Benzene</b>	<b>10</b>		0.50		ug/L			03/26/16 00:11	1
Dichlorobromomethane	ND		0.50		ug/L			03/26/16 00:11	1
Bromobenzene	ND		1.0		ug/L			03/26/16 00:11	1
Chlorobromomethane	ND		1.0		ug/L			03/26/16 00:11	1
Bromoform	ND		1.0		ug/L			03/26/16 00:11	1
Bromomethane	ND		1.0		ug/L			03/26/16 00:11	1
2-Butanone (MEK)	ND		50		ug/L			03/26/16 00:11	1
n-Butylbenzene	ND		1.0		ug/L			03/26/16 00:11	1
sec-Butylbenzene	ND		1.0		ug/L			03/26/16 00:11	1
tert-Butylbenzene	ND		1.0		ug/L			03/26/16 00:11	1
Carbon disulfide	ND		5.0		ug/L			03/26/16 00:11	1
Carbon tetrachloride	ND		0.50		ug/L			03/26/16 00:11	1
Chlorobenzene	ND		0.50		ug/L			03/26/16 00:11	1
Chloroethane	ND		1.0		ug/L			03/26/16 00:11	1
<b>Chloroform</b>	<b>1.2</b>		1.0		ug/L			03/26/16 00:11	1
Chloromethane	ND		1.0		ug/L			03/26/16 00:11	1
2-Chlorotoluene	ND		0.50		ug/L			03/26/16 00:11	1
4-Chlorotoluene	ND		0.50		ug/L			03/26/16 00:11	1
Chlorodibromomethane	ND		0.50		ug/L			03/26/16 00:11	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/26/16 00:11	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/26/16 00:11	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/26/16 00:11	1
1,3-Dichloropropane	ND		1.0		ug/L			03/26/16 00:11	1
1,1-Dichloropropane	ND		0.50		ug/L			03/26/16 00:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			03/26/16 00:11	1
Ethylene Dibromide	ND		0.50		ug/L			03/26/16 00:11	1
Dibromomethane	ND		0.50		ug/L			03/26/16 00:11	1
Dichlorodifluoromethane	ND		0.50		ug/L			03/26/16 00:11	1
1,1-Dichloroethane	ND		0.50		ug/L			03/26/16 00:11	1
<b>1,2-Dichloroethane</b>	<b>0.53</b>		0.50		ug/L			03/26/16 00:11	1
1,1-Dichloroethene	ND		0.50		ug/L			03/26/16 00:11	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/26/16 00:11	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/26/16 00:11	1
1,2-Dichloropropane	ND		0.50		ug/L			03/26/16 00:11	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/26/16 00:11	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			03/26/16 00:11	1
Ethylbenzene	ND		0.50		ug/L			03/26/16 00:11	1
Hexachlorobutadiene	ND		1.0		ug/L			03/26/16 00:11	1
2-Hexanone	ND		50		ug/L			03/26/16 00:11	1
Isopropylbenzene	ND		0.50		ug/L			03/26/16 00:11	1
4-Isopropyltoluene	ND		1.0		ug/L			03/26/16 00:11	1
Methylene Chloride	ND		5.0		ug/L			03/26/16 00:11	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			03/26/16 00:11	1
<b>Naphthalene</b>	<b>9.1</b>		1.0		ug/L			03/26/16 00:11	1
N-Propylbenzene	ND		1.0		ug/L			03/26/16 00:11	1
Styrene	ND		0.50		ug/L			03/26/16 00:11	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			03/26/16 00:11	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

**Client Sample ID: INF**

**Lab Sample ID: 720-71134-2**

**Date Collected: 03/24/16 15:15**

**Matrix: Water**

**Date Received: 03/25/16 15:50**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/26/16 00:11	1
Tetrachloroethene	ND		0.50		ug/L			03/26/16 00:11	1
<b>Toluene</b>	<b>7.4</b>		0.50		ug/L			03/26/16 00:11	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/26/16 00:11	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/26/16 00:11	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/26/16 00:11	1
1,1,2-Trichloroethane	ND		0.50		ug/L			03/26/16 00:11	1
Trichloroethene	ND		0.50		ug/L			03/26/16 00:11	1
Trichlorofluoromethane	ND		1.0		ug/L			03/26/16 00:11	1
1,2,3-Trichloropropane	ND		0.50		ug/L			03/26/16 00:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			03/26/16 00:11	1
<b>1,2,4-Trimethylbenzene</b>	<b>11</b>		0.50		ug/L			03/26/16 00:11	1
<b>1,3,5-Trimethylbenzene</b>	<b>23</b>		0.50		ug/L			03/26/16 00:11	1
Vinyl acetate	ND		10		ug/L			03/26/16 00:11	1
Vinyl chloride	ND		0.50		ug/L			03/26/16 00:11	1
<b>Xylenes, Total</b>	<b>140</b>		1.0		ug/L			03/26/16 00:11	1
2,2-Dichloropropane	ND		0.50		ug/L			03/26/16 00:11	1
<b>Gasoline Range Organics (GRO)</b>	<b>600</b>		50		ug/L			03/26/16 00:11	1
<b>-C5-C12</b>									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 130		03/26/16 00:11	1
1,2-Dichloroethane-d4 (Surr)	93		72 - 130		03/26/16 00:11	1
Toluene-d8 (Surr)	91		70 - 130		03/26/16 00:11	1



# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

**Client Sample ID: GAC**  
**Date Collected: 03/24/16 15:15**  
**Date Received: 03/25/16 15:50**

**Lab Sample ID: 720-71134-3**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/26/16 00:41	1
Acetone	ND		50		ug/L			03/26/16 00:41	1
Benzene	ND		0.50		ug/L			03/26/16 00:41	1
Dichlorobromomethane	ND		0.50		ug/L			03/26/16 00:41	1
Bromobenzene	ND		1.0		ug/L			03/26/16 00:41	1
Chlorobromomethane	ND		1.0		ug/L			03/26/16 00:41	1
Bromoform	ND		1.0		ug/L			03/26/16 00:41	1
Bromomethane	ND		1.0		ug/L			03/26/16 00:41	1
2-Butanone (MEK)	ND		50		ug/L			03/26/16 00:41	1
n-Butylbenzene	ND		1.0		ug/L			03/26/16 00:41	1
sec-Butylbenzene	ND		1.0		ug/L			03/26/16 00:41	1
tert-Butylbenzene	ND		1.0		ug/L			03/26/16 00:41	1
Carbon disulfide	ND		5.0		ug/L			03/26/16 00:41	1
Carbon tetrachloride	ND		0.50		ug/L			03/26/16 00:41	1
Chlorobenzene	ND		0.50		ug/L			03/26/16 00:41	1
Chloroethane	ND		1.0		ug/L			03/26/16 00:41	1
Chloroform	ND		1.0		ug/L			03/26/16 00:41	1
Chloromethane	ND		1.0		ug/L			03/26/16 00:41	1
2-Chlorotoluene	ND		0.50		ug/L			03/26/16 00:41	1
4-Chlorotoluene	ND		0.50		ug/L			03/26/16 00:41	1
Chlorodibromomethane	ND		0.50		ug/L			03/26/16 00:41	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/26/16 00:41	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/26/16 00:41	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/26/16 00:41	1
1,3-Dichloropropane	ND		1.0		ug/L			03/26/16 00:41	1
1,1-Dichloropropene	ND		0.50		ug/L			03/26/16 00:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			03/26/16 00:41	1
Ethylene Dibromide	ND		0.50		ug/L			03/26/16 00:41	1
Dibromomethane	ND		0.50		ug/L			03/26/16 00:41	1
Dichlorodifluoromethane	ND		0.50		ug/L			03/26/16 00:41	1
1,1-Dichloroethane	ND		0.50		ug/L			03/26/16 00:41	1
1,2-Dichloroethane	ND		0.50		ug/L			03/26/16 00:41	1
1,1-Dichloroethene	ND		0.50		ug/L			03/26/16 00:41	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/26/16 00:41	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/26/16 00:41	1
1,2-Dichloropropane	ND		0.50		ug/L			03/26/16 00:41	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/26/16 00:41	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			03/26/16 00:41	1
Ethylbenzene	ND		0.50		ug/L			03/26/16 00:41	1
Hexachlorobutadiene	ND		1.0		ug/L			03/26/16 00:41	1
2-Hexanone	ND		50		ug/L			03/26/16 00:41	1
Isopropylbenzene	ND		0.50		ug/L			03/26/16 00:41	1
4-Isopropyltoluene	ND		1.0		ug/L			03/26/16 00:41	1
Methylene Chloride	ND		5.0		ug/L			03/26/16 00:41	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			03/26/16 00:41	1
Naphthalene	ND		1.0		ug/L			03/26/16 00:41	1
N-Propylbenzene	ND		1.0		ug/L			03/26/16 00:41	1
Styrene	ND		0.50		ug/L			03/26/16 00:41	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			03/26/16 00:41	1

TestAmerica Pleasanton

# Client Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

**Client Sample ID: GAC**

**Lab Sample ID: 720-71134-3**

**Date Collected: 03/24/16 15:15**

**Matrix: Water**

**Date Received: 03/25/16 15:50**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/26/16 00:41	1
Tetrachloroethene	ND		0.50		ug/L			03/26/16 00:41	1
Toluene	ND		0.50		ug/L			03/26/16 00:41	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/26/16 00:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/26/16 00:41	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/26/16 00:41	1
1,1,2-Trichloroethane	ND		0.50		ug/L			03/26/16 00:41	1
Trichloroethene	ND		0.50		ug/L			03/26/16 00:41	1
Trichlorofluoromethane	ND		1.0		ug/L			03/26/16 00:41	1
1,2,3-Trichloropropane	ND		0.50		ug/L			03/26/16 00:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			03/26/16 00:41	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			03/26/16 00:41	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			03/26/16 00:41	1
Vinyl acetate	ND		10		ug/L			03/26/16 00:41	1
Vinyl chloride	ND		0.50		ug/L			03/26/16 00:41	1
Xylenes, Total	ND		1.0		ug/L			03/26/16 00:41	1
2,2-Dichloropropane	ND		0.50		ug/L			03/26/16 00:41	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/26/16 00:41	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	91		67 - 130					03/26/16 00:41	1
1,2-Dichloroethane-d4 (Surr)	98		72 - 130					03/26/16 00:41	1
Toluene-d8 (Surr)	89		70 - 130					03/26/16 00:41	1

# Surrogate Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Matrix: Water

Prep Type: Total/NA

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (67-130)	12DCE (72-130)	TOL (70-130)
720-71134-1	EFF	91	97	88
720-71134-1 MS	EFF	95	93	94
720-71134-1 MSD	EFF	93	93	92
720-71134-2	INF	94	93	91
720-71134-3	GAC	91	98	89
LCS 720-199408/5	Lab Control Sample	93	92	92
LCS 720-199408/7	Lab Control Sample	93	95	91
LCSD 720-199408/6	Lab Control Sample Dup	91	92	92
LCSD 720-199408/8	Lab Control Sample Dup	94	93	91
MB 720-199408/4	Method Blank	92	98	88

### Surrogate Legend

BFB = 4-Bromofluorobenzene

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-199408/4

Matrix: Water

Analysis Batch: 199408

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/25/16 19:19	1
Acetone	ND		50		ug/L			03/25/16 19:19	1
Benzene	ND		0.50		ug/L			03/25/16 19:19	1
Dichlorobromomethane	ND		0.50		ug/L			03/25/16 19:19	1
Bromobenzene	ND		1.0		ug/L			03/25/16 19:19	1
Chlorobromomethane	ND		1.0		ug/L			03/25/16 19:19	1
Bromoform	ND		1.0		ug/L			03/25/16 19:19	1
Bromomethane	ND		1.0		ug/L			03/25/16 19:19	1
2-Butanone (MEK)	ND		50		ug/L			03/25/16 19:19	1
n-Butylbenzene	ND		1.0		ug/L			03/25/16 19:19	1
sec-Butylbenzene	ND		1.0		ug/L			03/25/16 19:19	1
tert-Butylbenzene	ND		1.0		ug/L			03/25/16 19:19	1
Carbon disulfide	ND		5.0		ug/L			03/25/16 19:19	1
Carbon tetrachloride	ND		0.50		ug/L			03/25/16 19:19	1
Chlorobenzene	ND		0.50		ug/L			03/25/16 19:19	1
Chloroethane	ND		1.0		ug/L			03/25/16 19:19	1
Chloroform	ND		1.0		ug/L			03/25/16 19:19	1
Chloromethane	ND		1.0		ug/L			03/25/16 19:19	1
2-Chlorotoluene	ND		0.50		ug/L			03/25/16 19:19	1
4-Chlorotoluene	ND		0.50		ug/L			03/25/16 19:19	1
Chlorodibromomethane	ND		0.50		ug/L			03/25/16 19:19	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/25/16 19:19	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/25/16 19:19	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/25/16 19:19	1
1,3-Dichloropropane	ND		1.0		ug/L			03/25/16 19:19	1
1,1-Dichloropropene	ND		0.50		ug/L			03/25/16 19:19	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			03/25/16 19:19	1
Ethylene Dibromide	ND		0.50		ug/L			03/25/16 19:19	1
Dibromomethane	ND		0.50		ug/L			03/25/16 19:19	1
Dichlorodifluoromethane	ND		0.50		ug/L			03/25/16 19:19	1
1,1-Dichloroethane	ND		0.50		ug/L			03/25/16 19:19	1
1,2-Dichloroethane	ND		0.50		ug/L			03/25/16 19:19	1
1,1-Dichloroethene	ND		0.50		ug/L			03/25/16 19:19	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/25/16 19:19	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/25/16 19:19	1
1,2-Dichloropropane	ND		0.50		ug/L			03/25/16 19:19	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/25/16 19:19	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			03/25/16 19:19	1
Ethylbenzene	ND		0.50		ug/L			03/25/16 19:19	1
Hexachlorobutadiene	ND		1.0		ug/L			03/25/16 19:19	1
2-Hexanone	ND		50		ug/L			03/25/16 19:19	1
Isopropylbenzene	ND		0.50		ug/L			03/25/16 19:19	1
4-Isopropyltoluene	ND		1.0		ug/L			03/25/16 19:19	1
Methylene Chloride	ND		5.0		ug/L			03/25/16 19:19	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			03/25/16 19:19	1
Naphthalene	ND		1.0		ug/L			03/25/16 19:19	1
N-Propylbenzene	ND		1.0		ug/L			03/25/16 19:19	1
Styrene	ND		0.50		ug/L			03/25/16 19:19	1

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: MB 720-199408/4**  
**Matrix: Water**  
**Analysis Batch: 199408**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			03/25/16 19:19	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/25/16 19:19	1
Tetrachloroethene	ND		0.50		ug/L			03/25/16 19:19	1
Toluene	ND		0.50		ug/L			03/25/16 19:19	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/25/16 19:19	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/25/16 19:19	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/25/16 19:19	1
1,1,2-Trichloroethane	ND		0.50		ug/L			03/25/16 19:19	1
Trichloroethene	ND		0.50		ug/L			03/25/16 19:19	1
Trichlorofluoromethane	ND		1.0		ug/L			03/25/16 19:19	1
1,2,3-Trichloropropane	ND		0.50		ug/L			03/25/16 19:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			03/25/16 19:19	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			03/25/16 19:19	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			03/25/16 19:19	1
Vinyl acetate	ND		10		ug/L			03/25/16 19:19	1
Vinyl chloride	ND		0.50		ug/L			03/25/16 19:19	1
Xylenes, Total	ND		1.0		ug/L			03/25/16 19:19	1
2,2-Dichloropropane	ND		0.50		ug/L			03/25/16 19:19	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/25/16 19:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		67 - 130		03/25/16 19:19	1
1,2-Dichloroethane-d4 (Surr)	98		72 - 130		03/25/16 19:19	1
Toluene-d8 (Surr)	88		70 - 130		03/25/16 19:19	1

**Lab Sample ID: LCS 720-199408/5**  
**Matrix: Water**  
**Analysis Batch: 199408**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	25.5		ug/L		102	62 - 130
Acetone	125	98.0		ug/L		78	26 - 180
Benzene	25.0	24.6		ug/L		98	79 - 130
Dichlorobromomethane	25.0	25.9		ug/L		104	70 - 130
Bromobenzene	25.0	24.7		ug/L		99	70 - 130
Chlorobromomethane	25.0	24.4		ug/L		97	70 - 130
Bromoform	25.0	22.0		ug/L		88	68 - 136
Bromomethane	25.0	25.4		ug/L		102	43 - 151
2-Butanone (MEK)	125	100		ug/L		80	54 - 130
n-Butylbenzene	25.0	25.2		ug/L		101	70 - 142
sec-Butylbenzene	25.0	25.2		ug/L		101	70 - 134
tert-Butylbenzene	25.0	25.1		ug/L		101	70 - 135
Carbon disulfide	25.0	23.5		ug/L		94	58 - 130
Carbon tetrachloride	25.0	25.7		ug/L		103	70 - 146
Chlorobenzene	25.0	24.5		ug/L		98	70 - 130
Chloroethane	25.0	24.5		ug/L		98	62 - 138
Chloroform	25.0	25.1		ug/L		100	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-199408/5

Matrix: Water

Analysis Batch: 199408

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	25.0	26.0		ug/L		104	52 - 175
2-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130
4-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130
Chlorodibromomethane	25.0	24.0		ug/L		96	70 - 145
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,3-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
1,1-Dichloropropene	25.0	24.3		ug/L		97	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.9		ug/L		92	70 - 136
Ethylene Dibromide	25.0	25.6		ug/L		103	70 - 130
Dibromomethane	25.0	25.0		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	30.0		ug/L		120	32 - 158
1,1-Dichloroethane	25.0	24.5		ug/L		98	70 - 130
1,2-Dichloroethane	25.0	25.5		ug/L		102	61 - 132
1,1-Dichloroethene	25.0	22.1		ug/L		88	64 - 128
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130
trans-1,2-Dichloroethene	25.0	24.1		ug/L		97	68 - 130
1,2-Dichloropropane	25.0	26.3		ug/L		105	70 - 130
cis-1,3-Dichloropropene	25.0	26.1		ug/L		105	70 - 130
trans-1,3-Dichloropropene	25.0	25.4		ug/L		102	70 - 140
Ethylbenzene	25.0	25.0		ug/L		100	80 - 120
Hexachlorobutadiene	25.0	22.6		ug/L		91	70 - 130
2-Hexanone	125	102		ug/L		82	60 - 164
Isopropylbenzene	25.0	25.6		ug/L		102	70 - 130
4-Isopropyltoluene	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	23.6		ug/L		94	70 - 147
4-Methyl-2-pentanone (MIBK)	125	105		ug/L		84	58 - 130
Naphthalene	25.0	22.2		ug/L		89	70 - 130
N-Propylbenzene	25.0	25.7		ug/L		103	70 - 130
Styrene	25.0	26.2		ug/L		105	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.1		ug/L		100	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	70 - 130
Tetrachloroethene	25.0	23.5		ug/L		94	70 - 130
Toluene	25.0	24.9		ug/L		100	78 - 120
1,2,3-Trichlorobenzene	25.0	22.3		ug/L		89	70 - 130
1,2,4-Trichlorobenzene	25.0	23.6		ug/L		95	70 - 130
1,1,1-Trichloroethane	25.0	25.6		ug/L		102	70 - 130
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	70 - 130
Trichloroethene	25.0	23.8		ug/L		95	70 - 130
Trichlorofluoromethane	25.0	25.9		ug/L		103	66 - 132
1,2,3-Trichloropropane	25.0	24.7		ug/L		99	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.7		ug/L		91	42 - 162
1,2,4-Trimethylbenzene	25.0	25.8		ug/L		103	70 - 132
1,3,5-Trimethylbenzene	25.0	25.8		ug/L		103	70 - 130
Vinyl acetate	25.0	23.0		ug/L		92	43 - 163
Vinyl chloride	25.0	23.2		ug/L		93	54 - 135

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-199408/5**  
**Matrix: Water**  
**Analysis Batch: 199408**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	25.0	25.2		ug/L		101	70 - 142
o-Xylene	25.0	24.9		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	25.1		ug/L		100	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	93		67 - 130
1,2-Dichloroethane-d4 (Surr)	92		72 - 130
Toluene-d8 (Surr)	92		70 - 130

**Lab Sample ID: LCS 720-199408/7**  
**Matrix: Water**  
**Analysis Batch: 199408**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	514		ug/L		103	71 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	93		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
Toluene-d8 (Surr)	91		70 - 130

**Lab Sample ID: LCSD 720-199408/6**  
**Matrix: Water**  
**Analysis Batch: 199408**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	27.1		ug/L		108	62 - 130	6	20
Acetone	125	105		ug/L		84	26 - 180	7	30
Benzene	25.0	25.0		ug/L		100	79 - 130	1	20
Dichlorobromomethane	25.0	26.7		ug/L		107	70 - 130	3	20
Bromobenzene	25.0	25.2		ug/L		101	70 - 130	2	20
Chlorobromomethane	25.0	25.1		ug/L		101	70 - 130	3	20
Bromoform	25.0	23.1		ug/L		92	68 - 136	5	20
Bromomethane	25.0	25.6		ug/L		102	43 - 151	1	20
2-Butanone (MEK)	125	111		ug/L		88	54 - 130	10	20
n-Butylbenzene	25.0	24.7		ug/L		99	70 - 142	2	20
sec-Butylbenzene	25.0	25.2		ug/L		101	70 - 134	0	20
tert-Butylbenzene	25.0	24.9		ug/L		100	70 - 135	1	20
Carbon disulfide	25.0	23.5		ug/L		94	58 - 130	0	20
Carbon tetrachloride	25.0	25.8		ug/L		103	70 - 146	1	20
Chlorobenzene	25.0	24.6		ug/L		98	70 - 130	0	20
Chloroethane	25.0	24.7		ug/L		99	62 - 138	1	20
Chloroform	25.0	25.5		ug/L		102	70 - 130	1	20
Chloromethane	25.0	25.7		ug/L		103	52 - 175	1	20
2-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130	0	20
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130	1	20
Chlorodibromomethane	25.0	25.4		ug/L		102	70 - 145	5	20

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-199408/6**  
**Matrix: Water**  
**Analysis Batch: 199408**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	2	20
1,3-Dichlorobenzene	25.0	24.4		ug/L		98	70 - 130	2	20
1,4-Dichlorobenzene	25.0	24.3		ug/L		97	70 - 130	1	20
1,3-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	4	20
1,1-Dichloropropene	25.0	24.5		ug/L		98	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	24.5		ug/L		98	70 - 136	7	20
Ethylene Dibromide	25.0	27.3		ug/L		109	70 - 130	6	20
Dibromomethane	25.0	26.2		ug/L		105	70 - 130	5	20
Dichlorodifluoromethane	25.0	29.4		ug/L		118	32 - 158	2	20
1,1-Dichloroethane	25.0	24.8		ug/L		99	70 - 130	2	20
1,2-Dichloroethane	25.0	26.5		ug/L		106	61 - 132	4	20
1,1-Dichloroethene	25.0	22.4		ug/L		89	64 - 128	1	20
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	68 - 130	1	20
1,2-Dichloropropane	25.0	26.6		ug/L		107	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	27.1		ug/L		108	70 - 130	3	20
trans-1,3-Dichloropropene	25.0	26.6		ug/L		106	70 - 140	4	20
Ethylbenzene	25.0	25.0		ug/L		100	80 - 120	0	20
Hexachlorobutadiene	25.0	22.1		ug/L		88	70 - 130	2	20
2-Hexanone	125	115		ug/L		92	60 - 164	12	20
Isopropylbenzene	25.0	25.0		ug/L		100	70 - 130	2	20
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130	0	20
Methylene Chloride	25.0	24.0		ug/L		96	70 - 147	2	20
4-Methyl-2-pentanone (MIBK)	125	116		ug/L		93	58 - 130	10	20
Naphthalene	25.0	23.4		ug/L		94	70 - 130	6	20
N-Propylbenzene	25.0	25.8		ug/L		103	70 - 130	0	20
Styrene	25.0	26.2		ug/L		105	70 - 130	0	20
1,1,1,2-Tetrachloroethane	25.0	25.2		ug/L		101	70 - 130	0	20
1,1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L		105	70 - 130	7	20
Tetrachloroethene	25.0	23.5		ug/L		94	70 - 130	0	20
Toluene	25.0	24.6		ug/L		98	78 - 120	1	20
1,2,3-Trichlorobenzene	25.0	22.6		ug/L		90	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	23.4		ug/L		94	70 - 130	1	20
1,1,1-Trichloroethane	25.0	25.7		ug/L		103	70 - 130	1	20
1,1,2-Trichloroethane	25.0	26.5		ug/L		106	70 - 130	6	20
Trichloroethene	25.0	24.2		ug/L		97	70 - 130	2	20
Trichlorofluoromethane	25.0	26.0		ug/L		104	66 - 132	1	20
1,2,3-Trichloropropane	25.0	26.4		ug/L		106	70 - 130	7	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.6		ug/L		91	42 - 162	0	20
1,2,4-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 132	0	20
1,3,5-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130	0	20
Vinyl acetate	25.0	23.8		ug/L		95	43 - 163	3	20
Vinyl chloride	25.0	22.6		ug/L		90	54 - 135	2	20
m-Xylene & p-Xylene	25.0	25.1		ug/L		100	70 - 142	0	20
o-Xylene	25.0	24.8		ug/L		99	70 - 130	1	20
2,2-Dichloropropane	25.0	24.4		ug/L		98	70 - 140	3	20

TestAmerica Pleasanton



# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-199408/6

Matrix: Water

Analysis Batch: 199408

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	91		67 - 130
1,2-Dichloroethane-d4 (Surr)	92		72 - 130
Toluene-d8 (Surr)	92		70 - 130

Lab Sample ID: LCSD 720-199408/8

Matrix: Water

Analysis Batch: 199408

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	524		ug/L		105	71 - 125	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	94		67 - 130
1,2-Dichloroethane-d4 (Surr)	93		72 - 130
Toluene-d8 (Surr)	91		70 - 130

Lab Sample ID: 720-71134-1 MS

Matrix: Water

Analysis Batch: 199408

Client Sample ID: EFF

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	ND		25.0	26.6		ug/L		106	60 - 138
Acetone	ND		125	87.5		ug/L		70	60 - 140
Benzene	ND		25.0	24.9		ug/L		100	60 - 140
Dichlorobromomethane	ND		25.0	26.8		ug/L		107	60 - 140
Bromobenzene	ND		25.0	24.9		ug/L		100	60 - 140
Chlorobromomethane	ND		25.0	25.1		ug/L		100	60 - 140
Bromoform	ND		25.0	25.6		ug/L		103	56 - 140
Bromomethane	ND		25.0	25.0		ug/L		100	23 - 140
2-Butanone (MEK)	ND		125	103		ug/L		82	60 - 140
n-Butylbenzene	ND		25.0	24.7		ug/L		99	60 - 140
sec-Butylbenzene	ND		25.0	24.8		ug/L		99	60 - 140
tert-Butylbenzene	ND		25.0	24.6		ug/L		98	60 - 140
Carbon disulfide	ND		25.0	23.5		ug/L		94	38 - 140
Carbon tetrachloride	ND		25.0	26.1		ug/L		104	60 - 140
Chlorobenzene	ND		25.0	24.8		ug/L		99	60 - 140
Chloroethane	ND		25.0	24.6		ug/L		98	51 - 140
Chloroform	ND		25.0	25.3		ug/L		101	60 - 140
Chloromethane	ND		25.0	25.3		ug/L		101	52 - 140
2-Chlorotoluene	ND		25.0	25.3		ug/L		101	60 - 140
4-Chlorotoluene	ND		25.0	25.4		ug/L		102	60 - 140
Chlorodibromomethane	ND		25.0	26.3		ug/L		105	60 - 140
1,2-Dichlorobenzene	ND		25.0	24.6		ug/L		98	60 - 140
1,3-Dichlorobenzene	ND		25.0	24.3		ug/L		97	60 - 140
1,4-Dichlorobenzene	ND		25.0	24.4		ug/L		98	60 - 140
1,3-Dichloropropane	ND		25.0	26.2		ug/L		105	60 - 140
1,1-Dichloropropene	ND		25.0	24.4		ug/L		97	60 - 140

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: 720-71134-1 MS**

**Matrix: Water**

**Analysis Batch: 199408**

**Client Sample ID: EFF**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	ND		25.0	23.7		ug/L		95	60 - 140
Ethylene Dibromide	ND		25.0	27.7		ug/L		111	60 - 140
Dibromomethane	ND		25.0	25.8		ug/L		103	60 - 140
Dichlorodifluoromethane	ND		25.0	29.2		ug/L		117	38 - 140
1,1-Dichloroethane	ND		25.0	24.9		ug/L		100	60 - 140
1,2-Dichloroethane	ND		25.0	26.5		ug/L		106	60 - 140
1,1-Dichloroethene	ND		25.0	21.7		ug/L		87	60 - 140
cis-1,2-Dichloroethene	ND		25.0	26.0		ug/L		104	60 - 140
trans-1,2-Dichloroethene	ND		25.0	24.5		ug/L		98	60 - 140
1,2-Dichloropropane	ND		25.0	26.8		ug/L		107	60 - 140
cis-1,3-Dichloropropene	ND		25.0	27.4		ug/L		110	60 - 140
trans-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	60 - 140
Ethylbenzene	ND		25.0	24.9		ug/L		99	60 - 140
Hexachlorobutadiene	ND		25.0	22.8		ug/L		91	60 - 140
2-Hexanone	ND		125	107		ug/L		86	60 - 140
Isopropylbenzene	ND		25.0	25.5		ug/L		102	60 - 140
4-Isopropyltoluene	ND		25.0	24.8		ug/L		99	60 - 140
Methylene Chloride	ND		25.0	23.9		ug/L		96	40 - 140
4-Methyl-2-pentanone (MIBK)	ND		125	110		ug/L		88	58 - 130
Naphthalene	ND		25.0	22.7		ug/L		91	56 - 140
N-Propylbenzene	ND		25.0	25.5		ug/L		102	60 - 140
Styrene	ND		25.0	25.6		ug/L		102	60 - 140
1,1,1,2-Tetrachloroethane	ND		25.0	25.8		ug/L		103	60 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	25.2		ug/L		101	60 - 140
Tetrachloroethene	ND		25.0	23.5		ug/L		94	60 - 140
Toluene	ND		25.0	24.3		ug/L		97	60 - 140
1,2,3-Trichlorobenzene	ND		25.0	22.9		ug/L		92	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	23.9		ug/L		96	60 - 140
1,1,1-Trichloroethane	ND		25.0	26.2		ug/L		105	60 - 140
1,1,2-Trichloroethane	ND		25.0	25.9		ug/L		104	60 - 140
Trichloroethene	ND		25.0	24.0		ug/L		96	60 - 140
Trichlorofluoromethane	ND		25.0	26.7		ug/L		107	60 - 140
1,2,3-Trichloropropane	ND		25.0	25.1		ug/L		100	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.2		ug/L		93	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.6		ug/L		103	60 - 140
1,3,5-Trimethylbenzene	ND		25.0	25.3		ug/L		101	60 - 140
Vinyl acetate	ND		25.0	22.8		ug/L		91	40 - 140
Vinyl chloride	ND		25.0	23.0		ug/L		92	58 - 140
m-Xylene & p-Xylene	ND		25.0	25.0		ug/L		100	60 - 140
o-Xylene	ND		25.0	24.9		ug/L		100	60 - 140
2,2-Dichloropropane	ND		25.0	24.6		ug/L		98	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	93		72 - 130
Toluene-d8 (Surr)	94		70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: 720-71134-1 MSD**

**Matrix: Water**

**Analysis Batch: 199408**

**Client Sample ID: EFF**

**Prep Type: Total/NA**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result			Result					Limits		
Methyl tert-butyl ether	ND		25.0	26.4		ug/L		106	60 - 138	1	20
Acetone	ND		125	93.4		ug/L		75	60 - 140	7	20
Benzene	ND		25.0	24.7		ug/L		99	60 - 140	1	20
Dichlorobromomethane	ND		25.0	27.0		ug/L		108	60 - 140	0	20
Bromobenzene	ND		25.0	25.0		ug/L		100	60 - 140	0	20
Chlorobromomethane	ND		25.0	24.8		ug/L		99	60 - 140	1	20
Bromoform	ND		25.0	25.1		ug/L		100	56 - 140	2	20
Bromomethane	ND		25.0	24.1		ug/L		96	23 - 140	4	20
2-Butanone (MEK)	ND		125	102		ug/L		81	60 - 140	1	20
n-Butylbenzene	ND		25.0	24.6		ug/L		98	60 - 140	1	20
sec-Butylbenzene	ND		25.0	24.8		ug/L		99	60 - 140	0	20
tert-Butylbenzene	ND		25.0	24.8		ug/L		99	60 - 140	1	20
Carbon disulfide	ND		25.0	22.9		ug/L		91	38 - 140	3	20
Carbon tetrachloride	ND		25.0	25.7		ug/L		103	60 - 140	2	20
Chlorobenzene	ND		25.0	24.5		ug/L		98	60 - 140	1	20
Chloroethane	ND		25.0	24.0		ug/L		96	51 - 140	2	20
Chloroform	ND		25.0	25.2		ug/L		101	60 - 140	1	20
Chloromethane	ND		25.0	23.8		ug/L		95	52 - 140	6	20
2-Chlorotoluene	ND		25.0	25.3		ug/L		101	60 - 140	0	20
4-Chlorotoluene	ND		25.0	25.4		ug/L		102	60 - 140	0	20
Chlorodibromomethane	ND		25.0	25.6		ug/L		102	60 - 140	3	20
1,2-Dichlorobenzene	ND		25.0	24.7		ug/L		99	60 - 140	1	20
1,3-Dichlorobenzene	ND		25.0	24.2		ug/L		97	60 - 140	0	20
1,4-Dichlorobenzene	ND		25.0	24.5		ug/L		98	60 - 140	0	20
1,3-Dichloropropane	ND		25.0	25.8		ug/L		103	60 - 140	2	20
1,1-Dichloropropene	ND		25.0	23.9		ug/L		96	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	ND		25.0	24.4		ug/L		98	60 - 140	3	20
Ethylene Dibromide	ND		25.0	26.7		ug/L		107	60 - 140	4	20
Dibromomethane	ND		25.0	26.0		ug/L		104	60 - 140	1	20
Dichlorodifluoromethane	ND		25.0	28.3		ug/L		113	38 - 140	3	20
1,1-Dichloroethane	ND		25.0	24.7		ug/L		99	60 - 140	1	20
1,2-Dichloroethane	ND		25.0	26.1		ug/L		104	60 - 140	2	20
1,1-Dichloroethene	ND		25.0	21.5		ug/L		86	60 - 140	1	20
cis-1,2-Dichloroethene	ND		25.0	25.6		ug/L		102	60 - 140	2	20
trans-1,2-Dichloroethene	ND		25.0	23.9		ug/L		95	60 - 140	3	20
1,2-Dichloropropane	ND		25.0	26.7		ug/L		107	60 - 140	1	20
cis-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	60 - 140	1	20
trans-1,3-Dichloropropene	ND		25.0	26.5		ug/L		106	60 - 140	2	20
Ethylbenzene	ND		25.0	24.6		ug/L		99	60 - 140	1	20
Hexachlorobutadiene	ND		25.0	21.8		ug/L		87	60 - 140	4	20
2-Hexanone	ND		125	104		ug/L		83	60 - 140	3	20
Isopropylbenzene	ND		25.0	24.7		ug/L		99	60 - 140	3	20
4-Isopropyltoluene	ND		25.0	24.8		ug/L		99	60 - 140	0	20
Methylene Chloride	ND		25.0	23.6		ug/L		94	40 - 140	1	20
4-Methyl-2-pentanone (MIBK)	ND		125	109		ug/L		87	58 - 130	1	20
Naphthalene	ND		25.0	22.6		ug/L		90	56 - 140	0	20
N-Propylbenzene	ND		25.0	25.4		ug/L		102	60 - 140	0	20
Styrene	ND		25.0	24.9		ug/L		100	60 - 140	3	20

TestAmerica Pleasanton



# QC Association Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## GC/MS VOA

### Analysis Batch: 199408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-71134-1	EFF	Total/NA	Water	8260B/CA_LUFT MS	
720-71134-1 MS	EFF	Total/NA	Water	8260B/CA_LUFT MS	
720-71134-1 MSD	EFF	Total/NA	Water	8260B/CA_LUFT MS	
720-71134-2	INF	Total/NA	Water	8260B/CA_LUFT MS	
720-71134-3	GAC	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-199408/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-199408/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-199408/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-199408/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-199408/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

# Lab Chronicle

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Client Sample ID: EFF

Date Collected: 03/24/16 15:15

Date Received: 03/25/16 15:50

## Lab Sample ID: 720-71134-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	199408	03/25/16 22:44	LPL	TAL PLS

## Client Sample ID: INF

Date Collected: 03/24/16 15:15

Date Received: 03/25/16 15:50

## Lab Sample ID: 720-71134-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	199408	03/26/16 00:11	LPL	TAL PLS

## Client Sample ID: GAC

Date Collected: 03/24/16 15:15

Date Received: 03/25/16 15:50

## Lab Sample ID: 720-71134-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	199408	03/26/16 00:41	LPL	TAL PLS

### Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Certification Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

## Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-17

Analysis Method	Prep Method	Matrix	Analyte
-----------------	-------------	--------	---------

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Method Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919





# Sample Summary

Client: Ninyo & Moore  
Project/Site: Chun

TestAmerica Job ID: 720-71134-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-71134-1	EFF	Water	03/24/16 15:15	03/25/16 15:50
720-71134-2	INF	Water	03/24/16 15:15	03/25/16 15:50
720-71134-3	GAC	Water	03/24/16 15:15	03/25/16 15:50

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

**Report To** **Analysis Request**

Attn: Peter Sims  
 Company: Ningo & Moore  
 Address: 1956 Webster St 400, Oakland  
 Email: psims@ningoandmoore.com  
 Bill To: P. Sims Sampled By: C. Duxson  
 Attn: P. Sims Phone: 510 3433002

Sample ID	Date	Time	Mat rix	Preserv	Volatile Organics GC/MS (VOCs) <input checked="" type="checkbox"/> EPA 8260B <input checked="" type="checkbox"/> EPA 8260B	HVOCs by <input type="checkbox"/> EPA 8260B	EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> 5 Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	TEPH EPA 8015B <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	SemiVolatile Organics GC/MS <input type="checkbox"/> EPA 8270C	PNA/PAHs by <input type="checkbox"/> 8270C <input type="checkbox"/> 8270C SIM	Oil and Grease (EPA 1664/9071) <input type="checkbox"/> Petroleum <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 PCBs <input type="checkbox"/> EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: <input type="checkbox"/> 60105 <input type="checkbox"/> 200.7 <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	Metals: <input type="checkbox"/> 8020 <input type="checkbox"/> 200.8 (ICP-MS):	<input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> W.E.T (DI) <input type="checkbox"/> TCLP	Hex. Chrom by <input type="checkbox"/> EPA 7196 <input type="checkbox"/> or EPA 7199	pH <input type="checkbox"/> 9040 <input type="checkbox"/> SM4500	Spec. Cond <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> SS <input type="checkbox"/> TDS	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>	<input type="checkbox"/> Perchlorate by EPA 314.0	COD <input type="checkbox"/> EPA 410.4 <input type="checkbox"/> SM5220D <input type="checkbox"/> Turbidity	Number of Containers			
GFF	3/24	1515	GU	HCl	X																				3	
INF	3/24	1515	↓	HCl	X																					3
GAC	3/24	1515	↓	HCl	X																					3

**Project Info**      **Sample Receipt**

Project Name/ #: Chon 401894001      # of Containers: \_\_\_\_\_  
 Head Space: \_\_\_\_\_  
 PO#: \_\_\_\_\_      Temp: 0.9°C  
 Credit Card Y/N: \_\_\_\_\_      If yes, please call with payment information ASAP

T 10 Day    5 Day    4 Day    3 Day    2 Day    1 Day    Other: \_\_\_\_\_

1) Relinquished by:  
 Signature: [Signature]      Time: 1415  
 Printed Name: Samy Duxson      Date: 3/25/16  
 Company: ningo and moore

2) Relinquished by:  
 Signature: [Signature]      Time: 1650  
 Printed Name: Sam Benquerigo      Date: 3/25/16  
 Company: TA

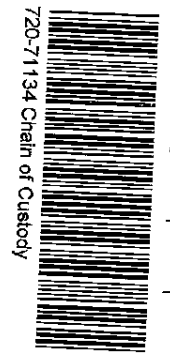
3) Relinquished by:  
 Signature: \_\_\_\_\_      Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_      Date: \_\_\_\_\_  
 Company: \_\_\_\_\_

Report:  Routine     Level 3     Level 4     EDD     EDF  
 Special Instructions / Comments:  Global ID \_\_\_\_\_

1) Received by:  
 Signature: [Signature]      Time: 1415  
 Printed Name: Sam Benquerigo      Date: 3/25/16  
 Company: TA

2) Received by:  
 Signature: [Signature]      Time: 1550  
 Printed Name: Debra S Aranz      Date: 3/25/16  
 Company: \_\_\_\_\_

3) Receiver:  
 Signature: \_\_\_\_\_      Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_      Date: \_\_\_\_\_  
 Company: \_\_\_\_\_



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-71134-1

**Login Number: 71134**  
**List Number: 1**  
**Creator: Arauz, Dennis**

**List Source: TestAmerica Pleasanton**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



**APPENDIX D**

**GROUNDWATER MONITORING DATA SHEETS**

**MONITORING WELL SAMPLING FORM**

Date: 2/2/10

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone: 510. 3433000  
 City/State: Alameda, CA Technician Gauging/Sampling: ced

Note: All measurements from top of casing.

Well Location:

WELL NO. <u>mw-4R</u>	Depth to Liquid (DL): <u>8.05</u>
Casing Material: <u>PVC</u>	Depth to Water (DW1): <u>8.05</u>
Diameter: <u>2"</u>	Product Thickness (PT=DW1-DL): <u>0</u>
Well Head Condition: <u>good</u>	Total Well Depth (TD): <u>24.89</u>
Well Box Condition: <u>good</u>	Total head (TH=TD-DW1): <u>16.24</u>
Purge Method: <u>p. pump</u>	Casing Volume (TH*Factor): <u>2.0</u>
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023 <u>7.2 gal purge</u>	

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>1007</u>	<u>2.5 gal</u>	<u>17.98</u>	<u>429</u>	<u>6.74</u>	<u>4.25</u>	<u>32</u>	<u>88.4</u>	
<u>1020</u>	<u>5 gal</u>	<u>18.04</u>	<u>434</u>	<u>6.78</u>	<u>4.30</u>	<u>14</u>	<u>3.48</u>	
<u>1033</u>	<u>7.5 gal</u>	<u>18.39</u>	<u>458</u>	<u>6.84</u>	<u>4.14</u>	<u>-15</u>	<u>3.40</u>	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-p	BTEX /MTBE	8260	8010	OTHER
<u>1033</u>	<u>mw-4R</u>										

Additional Comments


**MONITORING WELL SAMPLING FORM**

Date: 2/2/14

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone: 510. 343. 3000  
 City/State: Alameda, CA Technician Gauging/Sampling: CURP

Note: All measurements from top of casing.

Well Location:

WELL NO. MU-SR Depth to Liquid (DL): ~~17.10~~ SR 6.62  
 Casing Material: PVC Depth to Water (DW1): 6.62  
 Diameter: 2" Product Thickness (PT=DW1-DL): ~~23.50~~  
 Well Head Condition: good Total Well Depth (TD): 23.50  
 Well Box Condition: good Total head (TH=TD-DW1): 16.88  
 Purge Method: p pump Casing Volume (TH\*Factor): 2.7 x 3  
 Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft.  
 1/2" = 0.01; 3/4" = 0.023 8.10 gal avg

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>1100</u>	<u>7.75</u>	<u>18.70</u>	<u>590</u>	<u>6.97</u>	<u>5.65</u>	<u>72</u>	<u>27.2</u>	<u>Clear water</u>
<u>1115</u>	<u>8.5</u>	<u>18.10</u>	<u>704</u>	<u>7.13</u>	<u>3.73</u>	<u>83</u>	<u>27.5</u>	<u>Clear water</u>
<u>1129</u>	<u>8.25</u>	<u>18.05</u>	<u>744</u>	<u>7.12</u>	<u>4.91</u>	<u>57</u>	<u>34.1</u>	<u>Some schmutz came out</u>

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MIBE	8260	8010	OTHER
<u>1130</u>	<u>MU-SR</u>										

Additional Comments

**MONITORING WELL SAMPLING FORM**

Date: 2/2/16

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone: 510.343.3000  
 City/State: Alameda, CA Technician Gauging/Sampling: WED

Note: All measurements from top of casing. Well Location:

WELL NO. mw-612 Depth to Liquid (DL): 6.05  
 Casing Material: PVC Depth to Water (DW1): 10.05  
 Diameter: 2" Product Thickness (PT=DW1-DL): ∅  
 Well Head Condition: good Total Well Depth (TD): 24.94  
 Well Box Condition: good Total head (TH=TD-DW1): 18.89  
 Purge Method: p. pump Casing Volume (TH\*Factor): 3.0  
 Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft.  
 1/2" = 0.01; 3/4" = 0.023 9 gal wd

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>1150</u>	<u>3 gal</u>	<u>18.19</u>	<u>1130</u>	<u>5.34</u>	<u>3.52</u>	<u>194</u>	<u>34.1</u>	
<u>1202</u>	<u>4 gal</u>	<u>18.04</u>	<u>1180</u>	<u>5.33</u>	<u>3.52</u>	<u>192</u>	<u>1.24</u>	<u>clear water, no odor</u>
<u>1215</u>	<u>4 gal</u>	<u>18.16</u>	<u>1180</u>	<u>5.31</u>	<u>3.44</u>	<u>195</u>	<u>2.91</u>	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MIBE	8260	8010	OTHER
<u>1220</u>	<u>mw-612</u>										

Additional Comments

**MONITORING WELL SAMPLING FORM**

Date: 2/2/14

Project Name: <u>Chun</u>	Client: <u>Lily A. Chun Trust 1991</u>	Job No: <u>401896004</u>
Address: <u>2301 Santa Clara Avenue</u>	Contact/Phone: <u>510-343-3000</u>	
City/State: <u>Alameda, CA</u>	Technician Gauging/Sampling: <u>CMD</u>	

Note: All measurements from top of casing.

Well Location:

WELL NO. <u>MW-7R</u>	Depth to Liquid (DL): <u>6.27</u>
Casing Material: <u>PVC</u>	Depth to Water (DW1): <u>6.27</u>
Diameter: <u>2"</u>	Product Thickness (PT=DW1-DL): <u>0</u>
Well Head Condition: <u>good</u>	Total Well Depth (TD): <u>24.96</u>
Well Box Condition: <u>good</u>	Total head (TH=TD-DW1): <u>18.69</u>
Purge Method: <u>p-pump</u>	Casing Volume (TH*Factor): <u>2.99</u>
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023	

9 gal purge

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>1233</u>	<u>3gal</u>	<u>18.47</u>	<u>970</u>	<u>5.74</u>	<u>4.11</u>	<u>256</u>	<u>39.4</u>	<u>Slight foam on water, slight odor</u>
<u>1243</u>	<u>4gal</u>	<u>18.33</u>	<u>754</u>	<u>6.1</u>	<u>4.19</u>	<u>256</u>	<u>43.0</u>	<u>ph=6.32</u>
<u>1255</u>	<u>9gal</u>	<u>17.96</u>	<u>737</u>	<u>6.37</u>	<u>3.27</u>	<u>170</u>	<u>42.9</u>	<u>Slightly cloudy, faint odor</u>

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MIBE	8260	8010	OTHER
<u>1255</u>	<u>MW-7R</u>										

Additional Comments




**MONITORING WELL SAMPLING FORM**

Date: 2/2/14

Project Name: <u>Chun</u>	Client: <u>Lily A. Chun Trust 1991</u>	Job No: <u>401896004</u>
Address: <u>2301 Santa Clara Avenue</u>	Contact/Phone: <u>510. 343.3000</u>	
City/State: <u>Alameda, CA</u>	Technician Gauging/Sampling: <u>E. Dirksen</u>	

Note: All measurements from top of casing.

Well Location:

WELL NO. <u>mw-8</u>	Depth to Liquid (DL): <u>7.78</u>
Casing Material: <u>PVC</u>	Depth to Water (DW1): <u>7.98</u>
Diameter: <u>2"</u>	Product Thickness (PT=DW1-DL): <u>0</u>
Well Head Condition: <u>good</u>	Total Well Depth (TD): <u>13.89</u>
Well Box Condition: <u>good</u>	Total head (TH=TD-DW1): <u>6.11</u>
Purge Method: <u>bailed</u>	Casing Volume (TH*Factor): <u>0.9774</u>
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023	

~3 gal purge

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>1516</u>	<u>1 gal</u>	<u>17.31</u>	<u>313</u>	<u>6.91</u>	<u>6.11</u>	<u>50</u>	<u>122</u>	<u>clear 1st, then cloudy</u>
<u>1517</u>	<u>2 gal</u>	<u>17.15</u>	<u>253</u>	<u>7.10</u>	<u>5.66</u>	<u>-111</u>	<u>683</u>	<u>cloudy</u>
<u>1520</u>	<u>3 gal</u>	<u>18.01</u>	<u>402</u>	<u>6.93</u>	<u>5.99</u>	<u>-117</u>	<u>453</u>	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100
<u>1525</u>		

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTX /MITBE	8260	8010	OTHER
<u>1525</u>	<u>MW-8</u>										

Additional Comments


**MONITORING WELL SAMPLING FORM**

Date: 2/2/14

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone: 510.343.3000  
 City/State: Alameda, CA Technician Gauging/Sampling: CWN

Note: All measurements from top of casing.

Well Location:

WELL NO. MW-9 Depth to Liquid (DL): 6.05  
 Casing Material: PVC Depth to Water (DW1): ~~14.06~~ 6.05  
 Diameter: 2" Product Thickness (PT=DW1-DL): -  
 Well Head Condition: good Total Well Depth (TD): 14.06  
 Well Box Condition: good Total head (TH=TD-DW1): 8.01  
 Purge Method: bailer Casing Volume (TH\*Factor): 1.4  
 Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft.  
 1/2" = 0.01; 3/4" = 0.023 ~4.2 gal purge

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
1404	1.5g	18.09	378	7.48	20.13	102	283	
1407	3g	18.31	279	7.03	6.608	134	632	
1410	4.5g	18.23	364	7.08	7.37	135	899	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MIBE	8260	8010	OTHER
1415	MW-9										

Additional Comments

Additional Comments

**MONITORING WELL SAMPLING FORM**

Date: 2/2/14

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone: 510.343.3000  
 City/State: Alameda, CA Technician Gauging/Sampling: CUD

Note: All measurements from top of casing.

Well Location:

WELL NO. MW-10	Depth to Liquid (DL): 6.22
Casing Material: PVC	Depth to Water (DW1): <del>12.81</del> 6.22
Diameter: 2"	Product Thickness (PT=DW1-DL): 0
Well Head Condition: good	Total Well Depth (TD): 12.81
Well Box Condition: good	Total head (TH=TD-DW1): 6.59
Purge Method: bailer	Casing Volume (TH*Factor): 1.05
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023 3.2 gal	

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
1443	1 gal	17.97	291	7.00	6.64	136	140	
1445	2 gal	17.28	172	6.26	6.26	128	834	
1448	2 gal	17.41	234	6.99	6.08	131	622	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MTBE	8260	8010	OTHER
1450	MW-10										

Additional Comments


**MONITORING WELL SAMPLING FORM**

Date: **2/3/16**

Project Name: **Chun**  
 Address: **2301 Santa Clara Avenue**  
 City/State: **Alameda, CA**

Client: **Lily A. Chun Trust 1991** Job No: **401896004**  
 Contact/Phone: **947**  
 Technician Gauging/Sampling: **510.343.700**

Note: All measurements from top of casing.

Well Location:

WELL NO. <b>MW-11R</b>	Depth to Liquid (DL): <b>7.95</b>
Casing Material: <b>PVC</b>	Depth to Water (DW1): <b>7.95</b>
Diameter: <b>2"</b>	Product Thickness (PT=DW1-DL): <b>0</b>
Well Head Condition: <b>good</b>	Total Well Depth (TD): <b>23.61</b>
Well Box Condition: <b>good</b>	Total head (TH=TD-DW1): <b>15.66</b>
Purge Method: <b>r. pump</b>	Casing Volume (TH*Factor): <b>2.5</b>
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023 <b>7.5 gal purge</b>	

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<b>1340</b>	<b>2.5gal</b>	<b>17.33</b>	<b>276</b>	<b>6.82</b>	<b>7.73</b>	<b>-76</b>	<b>153</b>	<b>fairly clear GW</b>
<b>1354</b>	<b>5gal</b>	<b>17.44</b>	<b>277</b>	<b>6.80</b>	<b>5.74</b>	<b>-65</b>	<b>31.0</b>	
<b>1406</b>	<b>7.5gal</b>	<b>17.62</b>	<b>293</b>	<b>6.75</b>	<b>3.67</b>	<b>-58</b>	<b>7.88</b>	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MTBE	8260	8010	OTHER
<b>1410</b>	<b>MW-11R</b>										

Additional Comments


**MONITORING WELL SAMPLING FORM**

Date: 2/3/14

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone: 510.343.3000  
 City/State: Alameda, CA Technician Gauging/Sampling: gmp

Note: All measurements from top of casing.

Well Location:

WELL NO. <u>MW-12</u>	Depth to Liquid (DL): <u>8.14</u>
Casing Material: <u>PVC</u>	Depth to Water (DW1): <u>8.14</u>
Diameter: <u>2"</u>	Product Thickness (PT=DW1-DL): <u>0</u>
Well Head Condition: <u>good</u>	Total Well Depth (TD): <u>24.71</u>
Well Box Condition: <u>good</u>	Total head (TH=TD-DW1): <u>16.17</u>
Purge Method: <u>p. pump</u>	Casing Volume (TH*Factor): <u>2.6</u>
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023 <span style="float: right;"><u>7.8 gal purge</u></span>	

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>1437</u>	<u>2.5 gal</u>	<u>17.90</u>	<u>404</u>	<u>6.70</u>	<u>3.37</u>	<u>-24</u>	<u>60.4</u>	
<u>1449</u>	<u>5 gal</u>	<u>18.42</u>	<u>533</u>	<u>6.60</u>	<u>3.38</u>	<u>17</u>	<u>4.87</u>	
<u>1502</u>	<u>7.5 gal</u>	<u>18.59</u>	<u>523</u>	<u>6.48</u>	<u>3.41</u>	<u>3</u>	<u>0.93</u>	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MITBE	8260	8010	OTHER
<u>1505</u>	<u>MW-12</u>										

Additional Comments


**MONITORING WELL SAMPLING FORM**

Date: 2/3/14

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone: 510.343.3000  
 City/State: Alameda, CA Technician Gauging/Sampling: ewd

Note: All measurements from top of casing.

Well Location:

WELL NO. <u>mw-13</u>	Depth to Liquid (DL): <u>9.29</u>
Casing Material: <u>PVC</u>	Depth to Water (DW1): <u>9.29</u>
Diameter: <u>2"</u>	Product Thickness (PT=DW1-DL): <u>0</u>
Well Head Condition: <u>good</u>	Total Well Depth (TD): <u>20.02</u>
Well Box Condition: <u>good</u>	Total head (TH=TD-DW1): <u>10.73</u>
Purge Method: <u>bauler</u>	Casing Volume (TH*Factor): <u>1.7</u>
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023 <u>5.15</u>	

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>112</u>	<u>2gal</u>	<u>18.4</u>	<u>811</u>	<u>6.74</u>	<u>7.83</u>	<u>154</u>	<u>44.9</u>	<u>EW is cloudy w/ brown tint</u>
<u>117</u>	<u>4gal</u>	<u>18.4</u>	<u>900</u>	<u>6.78</u>	<u>5.10</u>	<u>160</u>	<u>41.0</u>	
<u>1133</u>	<u>4gal</u>	<u>18.21</u>	<u>904</u>	<u>6.81</u>	<u>5.55</u>	<u>159</u>	<u>0.00</u>	<u>← flushed</u>

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MITBE	8260	8010	OTHER
<u>1135</u>	<u>mw-13</u>										

Additional Comments


**MONITORING WELL SAMPLING FORM**

Date: 2/3/10

Project Name: Chun	Client: Lily A. Chun Trust 1991	Job No: 401896004
Address: 2301 Santa Clara Avenue	Contact/Phone: 510. 343. 3000	
City/State: Alameda, CA	Technician Gauging/Sampling: E. Dinesen	

Note: All measurements from top of casing.

Well Location:

WELL NO. MW-14	Depth to Liquid (DL): 7.98
Casing Material: PVC	Depth to Water (DW1): 2.98
Diameter: 2"	Product Thickness (PT=DW1-DL): 0
Well Head Condition: good	Total Well Depth (TD): 11.37
Well Box Condition: good	Total head (TH=TD-DW1): 3.39
Purge Method: bailer	Casing Volume (TH*Factor): 0.54
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023	

1.6 gal purge

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
1157	1 gal	17.30	739	7.22	4.57	145	301	cloudy, brown in color
1159	2 gal	16.67	233	7.77	7.57	116	783	hydro carb odor
1202	3 gal	16.54	17	7.82	8.79	92	True	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MITBE	8260	8010	OTHER
1205	MW14										

Additional Comments


**MONITORING WELL SAMPLING FORM**

Date: 2/3/14

Project Name: Chun Client: Lily A. Chun Trust 1991 Job No: 401896004  
 Address: 2301 Santa Clara Avenue Contact/Phone:  
 City/State: Alameda, CA Technician Gauging/Sampling: CRD

Note: All measurements from top of casing. Well Location:  
 WELL NO. MW-15 Depth to Liquid (DL): 8.04  
 Casing Material: PVC Depth to Water (DW1): 8.04  
 Diameter: 2" Product Thickness (PT=DW1-DL): 0  
 Well Head Condition: good Total Well Depth (TD): 29.36  
 Well Box Condition: good Total head (TH=TD-DW1): 21.32  
 Purge Method: boiler Casing Volume (TH\*Factor): 3.4  
 Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft.  
 1/2" = 0.01; 3/4" = 0.023 10.23 gal purge

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<u>0933</u>	<u>3.5gal</u>	<u>17.03</u>	<u>659</u>	<u>7.26</u>	<u>7.02</u>	<u>123</u>	<u>300</u>	<u>slightly cloudy aw</u>
<u>0939</u>	<u>7gal</u>	<u>18.11</u>	<u>659</u>	<u>7.25</u>	<u>5.75</u>	<u>134</u>	<u>117</u>	
<u>0949</u>	<u>10.5gal</u>	<u>18.42</u>	<u>665</u>	<u>7.18</u>	<u>6.84</u>	<u>142</u>	<u>721</u>	

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BTEX /MTBE	8260	8010	OTHER
<u>0955</u>	<u>MW15</u>										

Additional Comments

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**MONITORING WELL SAMPLING FORM**

Date: **2/3/14**

Project Name: **Chun** Client: **Lily A. Chun Trust 1991** Job No: **401896004**  
 Address: **2301 Santa Clara Avenue** Contact/Phone: **510. 343. 3000**  
 City/State: **Alameda, CA** Technician Gauging/Sampling: **cmj**

Note: All measurements from top of casing.

Well Location:

WELL NO. <b>MW-14</b>	Depth to Liquid (DL): <b>7.91</b>
Casing Material: <b>PVC</b>	Depth to Water (DW1): <b>7.91</b>
Diameter: <b>2"</b>	Product Thickness (PT=DW1-DL): <b>0</b>
Well Head Condition: <b>good</b>	Total Well Depth (TD): <b>29.36</b>
Well Box Condition: <b>good</b>	Total head (TH=TD-DW1): <b>21.45</b>
Purge Method: <b>vacuor</b>	Casing Volume (TH*Factor): <b>3.4</b>
Casing Vol. Conv. Factors: 2" = 0.16; 3" = 0.36; 4" = 0.65; 6" = 1.5 gal/ft. 1/2" = 0.01; 3/4" = 0.023 <b>10.3 gal purge</b>	

Time	Vol. Purged	Temp (°F/°C)	Cond (uS/cm)	pH	DO (mg/l)	ORP (mV)	Turb (NTU)	Remarks
<b>1018</b>	<b>3.5 gal</b>	<b>16.96</b>	<b>305</b>	<b>6.82</b>	<b>8.40</b>	<b>144</b>	<b>15.5</b>	<b>Slightly cloudy GW</b>
<b>1024</b>	<b>7 gal</b>	<b>17.82</b>	<b>312</b>	<b>6.81</b>	<b>5.16</b>	<b>149</b>	<b>76.7</b>	<b>" "</b>
<b>1034</b>	<b>10.5 gal</b>	<b>17.86</b>	<b>312</b>	<b>6.79</b>	<b>8.67</b>	<b>159</b>	<b>81.5</b>	<b>" "</b>

Well Recovery Data

Time	Depth to Water (DW2)	% Recovery (1-[DW2-DW1]/DW1)*100

Sample Information

Time	Sample ID	Temp (°F)	PH	Cond (uS/cm)	Turb (NTU)	TPH-g	TPH-d	BIEX /MTBE	8260	8010	OTHER
<b>1040</b>	<b>mw-10</b>										

Additional Comments