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October 22, 2010

Mr. Jerry Wickham
Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Fuel Leak Case#RO0458
Site Located at 3820 Manila Avenue, Oakland, California
Former Glovatorium Facility

Dear Mr. Wickham:

SOMA's "Second Semi-Annual 2010 Groundwater Monitoring Report" for the subject property has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have any questions or comments.

Sincerely,

Mansour Sepehr, Ph.D., PE
Principal Hydrogeologist

cc: Mr. Albert M. Cohen, LOEB&LOEB LLP w/enclosure
Mr. Peter W. McGaw, ARCHER NORRIS w/enclosure
Mr. John Kortum, ARCHER NORRIS w/enclosure
Dr. Bruce Page, Bruce W. Page Consulting w/enclosure
Mr. Stuart Depper w/enclosure
Ms. Betty Graham, Regional Water Quality Control Board w/o enclosure

Second Semi-Annual 2010
Groundwater Monitoring Report

Former Glovatorium Facility
3820 Manila Avenue
Oakland, California

October 22, 2010

Project 2511

Prepared for:

Loeb & Loeb LLP
10100 Santa Monica Boulevard, Suite 2200
Los Angeles, California 90067-4164

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Perjury Statement

Stuart Depper	Responsible Party
Name	Title

3820 Manila Avenue	Oakland	94609
Street Address	City	Zip

I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report were prepared under my direction and to the best of my knowledge true and correct.

Steve Depper

Signature

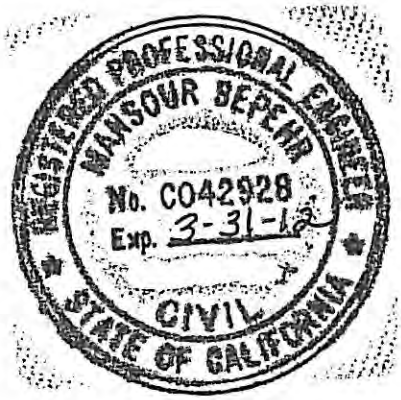
10-21-2010

Date

CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report for the law offices of Loeb & Loeb LLP, to comply with Alameda County Department of Environmental Health requirements for the groundwater monitoring event and provide information necessary to defend claims brought against the owners by Earl Thompson and Grace Johnson.

Mansour Sepehr, PhD, PE
Principal Hydrogeologist



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1. INTRODUCTION

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report for the law offices of Loeb & Loeb LLP on behalf of their client, owners of the former Glovatorium located at 3820 Manila Avenue (formerly known as 3815 Broadway), Oakland, California (Figure 1). The site is located in an area of primarily commercial and residential development.

This report summarizes results of the groundwater monitoring event conducted at the site from August 4 to 6, 2010 and includes laboratory results for the groundwater samples.

In addition to the above laboratory analyses, the natural attenuation study initiated by Levine-Fricke Recon (LFR) in Third Quarter 2000 was continued during this monitoring event. The objective of the study was to evaluate whether perchloroethylene (PCE) and other volatile organic compounds (VOCs) found in the groundwater were biodegrading. Therefore, groundwater samples collected during this monitoring event were analyzed for common electron acceptors and other geochemical indicators. Results of these analyses are presented in this report.

All activities were performed in accordance with general guidelines of the California Regional Water Quality Control Board (CRWQCB) and the Alameda County Environmental Health Services (ACEHS). Appendix A details procedures followed by SOMA during this monitoring event.

This work is intended to determine the nature and extent of environmental contamination and whether contamination is affecting the neighboring Thompson property. This information is pertinent to the claim Mr. Thompson brought against the Deppers, owners of the Glovatorium. Data gathered by this work may also help determine when releases occurred, significant information that is pertinent to the defense against claims brought by Ms. Johnson, a former owner of the property.

1.1 Site Description

The site is located between Manila Avenue and Broadway, near the intersection with 38th Street in Oakland, California. Surface elevation ranges from approximately 78 to 84 feet above mean sea level.

A 54-inch inside-diameter storm drain culvert passes under the property, from Manila Avenue on the west to 38th Street on the south (Figure 2). The depth of the storm drain invert is approximately 8.5 feet under the sidewalk on the eastern side of Manila Avenue and approximately 13.2 feet below ground surface (bgs) at the far end, approximately 60 feet south of well GW-4.

A 10-inch-diameter cast iron sanitary sewer conduit runs westerly from the on-site building and discharges into the sanitary sewer line, which runs north to south along Manila Avenue. Figure 2 shows locations of the storm drain and sanitary sewer system.

Six underground storage tanks (USTs) were formerly on the site. Two were located under the sidewalk on 38th Street and four inside the building. UST capacities have been variously reported as ranging from 800 to 5,000 gallons. They reportedly contained Stoddard solvent (TPH-ss), fuel oil and possibly waste oil. In 1997, the six USTs were abandoned in place by backfilling with either cement-sand slurry or pea gravel. In addition, three USTs which were located under the sidewalk on 38th Street, adjacent to property owned by Earl Thompson, Sr., were decommissioned in November 2008.

Surrounding properties are primarily commercial and residential. TOSCO Marketing Company is located north and upgradient of the site, at 40th Street and Broadway, and contains a number of groundwater monitoring wells. Figure 2 shows locations of the subject site's main building, UST areas, and on- and off-site groundwater monitoring wells.

1.2 Background

In June 1997, the six USTs were abandoned in place by backfilling with either a cement-sand slurry or pea gravel. HK2, Inc. of San Mateo, California conducted the tank closure and reporting. The report indicates the presence of holes in UST-2 and UST-3, which contained TPH-ss, and also indicates that on June 11, 1997, HK2 pumped out groundwater that had recharged into UST-1 through UST-4. This indirectly indicates the presence of holes in UST-1 and UST-4 also. Eighty-one drums containing diesel fuel, TPH-ss, oil, and various wastes were removed from the site and properly disposed of.

Geosolv, LLC (Geosolv) initiated the first soil and groundwater investigation in August 1997. Using the direct push method, Geosolv drilled 14 soil borings to approximate depths of 10 to 24 feet bgs. Seven borings (B-2, B-3, B-7 through B-10 and B-13 [Figure 2]) were converted to temporary groundwater monitoring wells, where grab groundwater samples were collected. In September 1998, Geosolv conducted further soil and groundwater investigations by drilling 12 additional soil borings to approximate depths of 19 to 25 feet bgs. All 12 borings were converted to temporary groundwater sampling points, labeled E-15 through E-26. After collection of grab groundwater samples from temporary "E" sampling points, these borings were abandoned and grouted.

In July 1999, an investigation of potential groundwater preferential flow paths was initiated by LFR. LFR drilled 10 soil borings (GW-1 through GW-8, GW-5A,

and GW-6A [Figure 2]) primarily along the 54-inch-diameter storm drain and sanitary sewer systems, to depths ranging from 8 to 20 feet bgs. During drilling, soil samples were collected from various depth intervals. In August 1999, LFR collected grab groundwater samples from seven of the nine "GW" wells. GW-1 to GW-6A are shown in Figure 2. GW-6, GW-7, and GW-8 were decommissioned between July 1999 and July 2000.

LFR conducted groundwater monitoring events in January, April, October, and November 2000, and installed four groundwater monitoring wells, LFR-1 through LFR-4, in July and August 2000 (Figure 2).

In January 2001, LFR conducted a groundwater monitoring event that suggested strong anaerobic conditions and dechlorination of PCE beneath the site. On April 26 to 27, 2001, SOMA began its initial groundwater monitoring events. Results of the Second Quarter 2001 monitoring event indicated strong dechlorination of PCE occurring in the subsurface.

SOMA's June 2001 workplan contained a recommendation to replace the existing small-diameter monitoring wells, B-7 and B-10, with larger-diameter wells, to better evaluate bioattenuation parameters. On October 4, 11, and 12, 2001, SOMA installed monitoring wells SOMA-1 through SOMA-5 (Figure 2). During installation, boreholes were continuously logged and soil samples collected at 5-foot depth intervals to delineate vertical extent of soil and groundwater contamination.

Phase I of SOMA's workplan included installing additional groundwater monitoring wells, soil and groundwater sampling, hydraulic testing, and a sensitive receptor survey. Phase II of the workplan included defining site regulatory status by conducting groundwater flow, chemical fate and transport modeling, and a risk-based corrective action (RBCA). SOMA's "Report on Conducting Additional Field Investigation to Evaluate the Site's Conceptual Model," dated January 3, 2002, describes results of investigations conducted in Phase I.

The modeling aspect of Phase II used results collected in Phase I and analytical data from quarterly monitoring events. The main objective of groundwater flow and chemical transport modeling was to predict groundwater chemical concentrations downgradient of the site, beneath the nearest residential neighboring property, in order to assess site regulatory status and restore groundwater quality conditions to acceptable levels specified by the RBCA.

Groundwater flow, chemical transport, and bioattenuation modeling for the site was conducted by SOMA in First Quarter 2003. Modeling results confirmed occurrence of biodegradation beneath the site and indicated that bioattenuation processes could remove PCE in the groundwater in approximately 7 to 10 years, trichloroethylene (TCE) in approximately 3 to 9 years, and cis-1,2-dichloroethene

(cis-1,2-DCE) in approximately 4 to 13 years. SOMA's March 7, 2003 report entitled "Groundwater Flow, Chemical Transport and Bioattenuation Modeling" describes the study in detail.

Based on ACEHS approval, groundwater monitoring events have been conducted semi-annually since First Quarter 2003.

1.3 Site Geology and Hydrogeology

The site is located on the alluvial plain between the San Francisco Bay shoreline and the Oakland hills. Surface sediments in the site vicinity consist of Holocene alluvial deposits representative of an alluvial fan depositional environment. These deposits consist of brown, medium-dense sand that fines upward to sandy or silty clay. The pattern of stream channel deposition results in a three-dimensional network of coarse-grained sediments interspersed with finer-grained silts and clays. The individual units tend to be discontinuous lenses aligned parallel to the axis of the former stream flow direction.

Sediments encountered in soil borings are predominantly fine grained, consisting of clay, silty clay, sandy clay, gravelly clay and clayey silt. Discontinuous layers of coarse-grained sediments (clayey sand, silty sand, and clayey gravel) generally also contain relatively high percentages of silt and clay, which tend to reduce their permeability. Based on previous investigations conducted by Geosolv and LFR, a relatively coarse-grained layer of silty sand, clayey sand, and clayey gravel was encountered in soil borings E-23, E-25, E-26, GW-2, GW-3, GW-7, and GW-8 at depths of approximately 4.5 to 14 feet bgs. A discontinuous layer of silty to clayey sand was encountered in borings B-11, E-23, E-25, GW-7 and GW-8 at depths of 17 to 21 feet bgs.

Based on SOMA's October 2001 field investigation, no deeper major water-bearing zone was encountered. However, as lithologic logs of the newly installed groundwater monitoring wells indicate, the water-bearing zone is composed of fine-grained, clayey silt sediments separated by very low-permeability intervening clay layers, which are unsaturated in some locations. For instance, SOMA-5, which has been screened within a significantly thick clay layer beneath the first water-bearing zone, from 21 to 26 feet bgs using the dual tubing method, was a dry well until the First Quarter 2002 sampling event. Due to the presence of unsaturated and low-permeability intervening clay layers between the shallow and deep layers, there is a significant vertical downward gradient between the shallow and deep wells.

Based on quarterly monitoring activities, depths of groundwater have ranged from 4 to 14 feet bgs at gradients ranging from 0.019 ft/ft to 0.035 ft/ft. Groundwater flow has been predominantly northeast to southwest across the site. Slug test results indicate that hydraulic conductivity of the saturated

sediments ranges between 1.2 x 10^{-4} and 6.9 x 10^{-4} cm/sec. Using the average groundwater flow gradient of 0.027 and aquifer porosity of 0.32, the groundwater flow velocity ranges between 10.5 and 60.1 ft/year.

1.4 Previous Activities

In order to demonstrate the fate and transport of PCE and other VOCs, SOMA conducted groundwater flow and chemical transport modeling and compared results with those of routine groundwater monitoring data. Results of groundwater fate and transport modeling were used to conduct a human health risk assessment in order to evaluate site cleanup levels. Analyses showed that conditions are conducive to biodegradation and that, in fact, biodegradation is occurring. In general, PCE trends appeared generally consistent with SOMA's model, indicating that passive remediation has been effective. However, one obstacle to closing the site was the presence of free product (FP). Alameda County environmental regulatory guidelines do not permit closure as long as FP is present. As a result, over the past several years SOMA has been removing FP from the site. As of March 2008, approximately 1,895 gallons had been removed. Levels of FP in the wells were dropping fairly consistently over the past several years and, as noted above, PCE trends were decreasing consistent with SOMA's model.

FP or sheen has been reported sporadically in monitoring wells at the site since 1997. Past attempts to delineate the extent and sources of FP have been problematic due to variability and complexity of the subsurface soil and water table characteristics, access limited by buildings, and presence of potential preferential pathways for contaminant migration related to underground storm drain and sanitary sewer lines.

FP was located primarily in the vicinity of SOMA-4 and B-8 (Figure 2). As a result, SOMA instituted an FP removal program for those wells in 2002. As of March 2008, 1,895 gallons of FP and contaminated groundwater had been removed from SOMA-4 and B-8. By summer 2007, FP levels had been reduced significantly and SOMA was optimistic that it would be in a position to request closure. However, during First Semi-Annual 2008 groundwater monitoring, FP was unexpectedly observed for the first time in SOMA-2 and B-10, which are located approximately 40 feet east-southeast and northeast of SOMA-4 and B-8. Approximately 0.71 feet of FP was detected in SOMA-2 and 2.76 feet in B-10. During Second Semi-Annual 2008 groundwater monitoring, FP was observed in B-10 at 0.17 feet and in SOMA-2 and SOMA-4 at 0.60 feet each.

Results from the First Semi-Annual 2008 sampling event showed significant increases in PCE levels in wells with newly discovered FP (B-10 and SOMA-2). SOMA believes that the presence of elevated levels of FP in these wells for the first time contributed to the presence of elevated levels of dissolved solvents at this location. The FP consisted primarily of TPH-ss, which has the potential to

dissolve PCE and TCE. Thus, it is suspected that FP in the area of SOMA-2 and B-10 caused dissolution and mobilization of PCE in the subsurface.

Beginning September 2, 2008, SOMA conducted a 45-day multi-phase extraction (MPE) pilot test at the site. Test results indicated that MPE technology is highly effective in removing FP, chemically impacted groundwater and soil vapor from the subsurface. Pilot tests were conducted using SOMA-4, SOMA-2, B-8 and B-10. Significantly, the pilot test showed that MPE can effectively remove contamination from the smear zone, thereby preventing creation of FP.

From May 4 through May 22, 2009, SOMA advanced 16 soil and groundwater borings at the site to delineate the groundwater plume and smear zone. Based on results of soil and groundwater analysis, five new MPE wells (MPE-1 through MPE-5) were installed and SOMA-4, B-8, and B-10 were reconstructed as 2-inch wells (SOMA-4R, B-8R, and B-10R) with a screening interval from 5 to 20 feet bgs.

Continued MPE pilot testing was conducted from December 17, 2008 to December 14, 2009 and was resumed on August 16, 2010.

2. RESULTS

This section describes results of the current groundwater monitoring event, including groundwater flow conditions, status of groundwater contamination, and occurrence of bioattenuation in the subsurface.

2.1 Groundwater Flow Conditions

Table 2 presents groundwater elevations in each well, calculated using depths to water and the elevation at the top of the well casings. Elevations ranged from 57.02 feet in SOMA-5 to 76.22 feet in MW-8. Refer to Table 2 for detailed groundwater elevation trends.

In evaluating groundwater flow direction and gradient, water level data from all “B” wells (except B-3, B-8R, and B-10R) and from GW-4, SOMA-1, SOMA-3, and SOMA-5 were not utilized for the following reasons:

1. No accurate information about construction details of the “B” wells installed by Geosolv is available, and water-level data from these wells are questionable. B-3, B-8R, and B-10R were reconstructed by SOMA into 2-inch wells.
2. GW-4 was installed adjacent to the storm drain system in order to evaluate whether the system is leaking. This well was installed in the shallow formation and may partially penetrate into the underlying water-

bearing zone. Therefore, the water level elevation recorded inside GW-4 may not be representative of the underlying water-bearing zone.

3. SOMA-1, SOMA-3 and SOMA-5 have been completed in the deeper layer of the water-bearing zone, and due to the strong vertical gradient, the water level elevation in this layer is significantly lower than in the shallow layer.

Figure 3 displays a contour map of groundwater elevations. In general, groundwater flows from northeast to southwest at an average gradient of 0.024 ft/ft. Groundwater flow direction has remained consistent and the gradient has increased since the previous monitoring event.

Groundwater elevations in wells MPE-2 and MPE-3 were corrected for presence of FP. That correction is detailed below. Depth to groundwater and corresponding groundwater elevations and corrected groundwater elevations are shown in Table 2.

- Corrected Depth to Groundwater: During monitoring, 2.44 feet of FP was observed in MPE-2, and 0.84 feet in MPE-3. Depth to groundwater and the corresponding groundwater elevation were corrected for product thickness. The correction factor was calculated by multiplying the specific gravity of gasoline (0.68) by the FP thickness. This resulted in correction factors of 1.66-foot for MPE-2 and 0.57-foot for MPE-3 from the actual measured groundwater column at each well. The correction factor was subtracted from the actual measured depth to water. The resulting corrected groundwater elevation was slightly higher than the field measured value. Values reflecting the correction for the FP thickness are shown in Table 2.

Field measurements of some physical and chemical parameters of the groundwater samples are presented in detail in Appendix B field notes, and summarized in Table 3 along with their historical values. Water temperatures ranged from 16.39°C in MPE-5 to 20.74°C in GW-2. The temperature variation may reflect changes in air temperature during sampling. Measurements of pH ranged from 6.21 in SOMA-1 to 6.71 in GW-2. Electrical conductivity (EC) ranged from 479 µS/cm in LFR-3 to 1,411 µS/cm in B-8R.

2.2 Groundwater Quality

FP was observed in MPE-2 and MPE-3. A sample of FP was collected from these two wells to determine whether chlorinated solvents are present, per ACEHS directive dated August 25, 2010. Analysis results are presented in section 3.1.

Based on ACEHS directive dated September 17, 2009, wells GW-5 and LFR-4 were monitored and sampled as a part of the soil and groundwater investigation conducted for the adjacent property, located at 316 38th street and owned by Earl Thompson, Sr. Also, data collected in the field and laboratory analytical results for these two wells have been utilized and presented in this report.

Table 4 presents laboratory analysis results for the following: TPH-ss and TPH as gasoline (TPH-g); methyl tertiary-butyl ether (MtBE); and benzene, toluene, ethylbenzene, total xylenes (collectively termed BTEX).

TPH-ss was below the laboratory-reporting limit in GW-2, GW-5, MW-11, LFR-1, LFR-3, and SOMA-1. Detectable TPH-ss levels ranged from 66 µg/L in GW-3 to 60,000 µg/L in LFR-2. Figure 4 shows the contour map of TPH-ss concentrations in groundwater. Since the previous monitoring event (First Semi-Annual 2010), TPH-ss decreased in B-8R, LFR-2, SOMA-2, SOMA-3, SOMA-4R, MPE-4, and MPE-5 and increased in B-10R, GW-3, and MPE-1.

TPH-g was below the laboratory-reporting limit in GW-2, GW-5, MW-11, LFR-1, and LFR-3. Detectable TPH-g concentrations ranged from 54 µg/L in SOMA-1 to 93,000 µg/L in LFR-2. All groundwater samples with detectable concentrations exhibited a chromatographic pattern that did not resemble the standard gasoline pattern. Figure 5 shows the contour map of TPH-g concentrations in groundwater. Since the previous monitoring event (First Semi-Annual 2010), TPH-g increased in B-10R, GW-3, SOMA-1, and MPE-1 and decreased in B-8R, LFR-2, SOMA-2, SOMA-3, SOMA-4R, MPE-4 and MPE-5.

MtBE was below the laboratory-reporting limit in B-8R, B-10R, GW-2, GW-3, GW-4, GW-5, MW-11, LFR-1, LFR-2, LFR-3, SOMA-2 and MPE-1 and was detected in concentrations ranging from 0.8 µg/L in LFR-4 to 400 µg/L in SOMA-1. However, there is no known on-site source of MtBE. Figure 6 shows the contour map of MtBE concentrations in groundwater.

In general, BTEX constituents were below laboratory-reporting limits throughout the site, except for B-10R, SOMA-4R, MPE-4, and MPE-5. Figure 7 shows the map of benzene concentrations in groundwater.

- Ethylbenzene and total xylenes were below laboratory-reporting limits in B-10R and benzene and toluene were detected at low levels.
- In SOMA-4R, all BTEX analytes except toluene were below laboratory-reporting limits; toluene was detected at 3.5 µg/L.
- In MPE-4, toluene and ethylbenzene were below laboratory-reporting limits and benzene and total xylenes were detected at low levels.
- In MPE-5, all BTEX analytes except benzene were below laboratory-reporting limits; benzene was detected at 0.5 µg/L.

Table 5 shows historical concentrations of VOCs in the groundwater, discussed below.

PCE was below the laboratory-reporting limit in groundwater samples from B-8R, GW-5, MW-11, LFR-2, LFR-3, LFR-4, SOMA-2, SOMA-3, SOMA-4R, SOMA-5, MPE-4, and MPE-5. Detectable PCE concentrations ranged from 17 µg/L in MPE-1 to 180 µg/L in GW-3. Figure 8 shows the contour map of PCE concentrations in groundwater. Since the previous monitoring event (First Semi-Annual 2010), PCE has decreased in B-8R, B-10R, GW-2, LFR-1, LFR-3, MPE-1, and MPE-4 and increased in GW-3, and SOMA-1.

TCE was below the laboratory-reporting limit in groundwater samples from B-8R, MW-11, LFR-2, LFR-3, LFR-4, SOMA-2, SOMA-3, SOMA-4R, SOMA-5, and MPE-5. Detectable TCE concentrations ranged from 0.7 µg/L in MPE-4 to 55 µg/L in B-10R. Figure 9 shows the contour map of TCE concentrations in groundwater. Since the previous monitoring event (First Semi-Annual 2010), TCE has decreased in B-10R, GW-2, SOMA-1, MPE-1, MPE-4, and MPE-5 and increased in GW-3 and LFR-1.

Cis-1,2-DCE was below the laboratory-reporting limit in groundwater samples from GW-2, MW-11, LFR-3, LFR-4, and SOMA-5. Detectable cis-1,2-DCE concentrations ranged from 6.3 µg/L in GW-3 to 3,900 µg/L in B-10R. Figure 10 shows the contour map of cis-1,2-DCE concentrations in groundwater. Since the previous monitoring event (First Semi-Annual 2010), cis-1,2-DCE concentrations have decreased in SOMA-1, SOMA-4R, MPE-1, MPE-4, and MPE-5 and increased in B-8R, B-10R, GW-3, LFR-1, LFR-2, SOMA-2, and SOMA-3.

Trans-1,2-dichloroethene (trans-1,2-DCE) was below the laboratory-reporting limit in all groundwater samples except at B-10R, LFR-1, SOMA-2, MPE-1, MPE-4, and MPE-5. Detectable trans-1,2-DCE concentrations ranged from 1.7 µg/L in MPE-4 to 48 µg/L in B-10R. Figure 11 shows the contour map of trans-1,2-DCE concentrations in groundwater.

Vinyl chloride (VC) was reported in B-10R and LFR-2 at 12 µg/L and 8.5 µg/L, respectively. 1,2-dichloropropane (1,2-DCP) was below the laboratory-reporting limit throughout the site. Due to generally low or non-detectable levels of these constituents throughout the site, no iso-concentration figures were drawn for VC and 1,2-DCP.

Appendix C includes chain of custody forms and laboratory analytical reports for this groundwater monitoring event.

2.3 Bioattenuation Parameter Analysis Results

Results of the bioattenuation study indicated that subsurface conditions are favorable for occurrence of intrinsic bioremediation processes in soil and groundwater. Results of this study indicated that PCE and other dissolved organic compounds are biodegrading beneath the site. For example, PCE levels in LFR-1 dropped from 2,800 µg/L in 2000 to 74 µg/L as of the current monitoring event. SOMA's field crew measured bioattenuation parameters in situ. Dissolved methane was measured in the laboratory. Field measurements were taken in situ, within each well, to avoid introducing oxygen into the groundwater sample, which could result in erroneous readings.

Naturally occurring biological processes can enhance the removal rate of contaminants in the subsurface. During the degradation process, indigenous bacteria in the subsurface utilize energy released from the transfer of electrons to drive redox reactions that remove organic mass from contaminated groundwater. The more positive the redox potential of an electron acceptor, the more energetically favorable is the reaction utilizing that electron acceptor. Based on thermodynamic considerations, the most energetically preferred electron acceptor for redox reactions is dissolved oxygen (DO), followed by nitrate, manganese, ferric iron, sulfate, and carbon dioxide, in descending order of preference. Evaluating distribution of these electron acceptors can provide evidence of where, and to what extent, chlorinated and aliphatic hydrocarbon biodegradation is occurring. Byproducts of biodegradation processes are nitrite, ferrous iron, alkalinity, sulfide, methane, and carbon dioxide. Groundwater samples were tested to evaluate the extent of bioattenuation processes beneath the site.

Table 6 summarizes trends in bioattentuation parameters, discussed below.

Dissolved Oxygen: DO is the most favored electron acceptor used by microbes for biodegrading organic compounds. A DO concentration lower than 0.5 mg/L indicates anaerobic conditions. DO levels ranged from 0.29 mg/L in LFR-2 to 1.31 mg/L in GW-3. The contour map of DO concentrations in the groundwater is illustrated in Figure 12.

It should be noted that due to limitations of drilling equipment, SOMA-3 is still a 0.75-inch-diameter well that was installed in the deeper zone, within the suspected chemical source area inside the building. Although DO was measured in SOMA-3 at 1.23 mg/L, results might not be representative of overall subsurface conditions.

Nitrate: After DO has been depleted, nitrate may be used as an electron acceptor for anaerobic biodegradation. Nitrate concentrations lower than 1.0 mg/L may indicate that reductive dechlorination is occurring. Nitrate was below the minimum equipment tolerance level in B-8R, MW-11, LFR-3, LFR-4,

SOMA-1, SOMA-3, MPE-1, and MPE-5 and detectable concentrations ranged from 1.10 mg/L in GW-3 to 5.80 mg/L in LFR-1. The contour map of nitrate concentrations in groundwater is illustrated in Figure 13.

Manganese: After DO and nitrate have been depleted, manganese may be used as an electron acceptor for anaerobic biodegradation. Therefore, increased dissolved manganese concentrations in groundwater indicate reductive dechlorination. Soluble manganese was detected in all groundwater samples except that from MW-11. Detectable manganese concentrations ranged from 0.5 mg/L in SOMA-3 to 27.6 mg/L in SOMA-4R. The contour map of dissolved manganese concentrations in the groundwater is illustrated in Figure 14.

Sulfate: After DO, nitrate, and manganese have been depleted, sulfate may be used as an electron acceptor for anaerobic biodegradation. This process is termed sulfate reduction, and results in production of sulfide. Sulfate concentrations lower than 20 mg/L indicate reductive dechlorination (EPA 1998). Sulfate was not detected in B-8R, LFR-4, SOMA-2, or MPE-5. Detectable sulfate levels ranged from 3 mg/L in SOMA-4R to the equipment maximum allowable tolerance level of 80 mg/L in MW-11. The contour map of sulfate concentrations in the groundwater is illustrated in Figure 15.

Ferrous Iron: Increased ferrous iron concentrations often accompany anaerobic degradation. Ferric iron can be used as an electron acceptor during anaerobic biodegradation. During this process, ferric iron is reduced to ferrous iron, which may be soluble in water. Ferrous iron concentrations can thus be used as an indicator of anaerobic biodegradation. Detectable ferrous iron concentrations ranged from 0.07 mg/L in MW-11 to 3.30 mg/L in SOMA-2 and SOMA-4R. Ferrous iron concentrations were not detected in GW-2, GW-3, LFR-3, or SOMA-1. The contour map of ferrous iron concentrations in the groundwater is illustrated in Figure 16.

Methane: The presence of methane in groundwater indicates strongly reduced conditions and suggests reductive dechlorination by the process of methanogenesis. Methane was below the laboratory-reporting limit in GW-2, GW-3, MW-11, LFR-1, and LFR-3. Detectable methane concentrations ranged from 0.02 mg/L in MPE-1 to 6.2 mg/L in B-8R. Higher concentrations of methane indicate conditions conducive to anaerobic biodegradation. The contour map of methane concentrations in groundwater is illustrated in Figure 17.

Oxygen Reduction Potential (ORP): The ORP of groundwater is a measure of electron activity and an indicator of the relative tendency of a solution to accept or transfer electrons. ORP may range from greater than 800 mV to less than -400 mV, with lower values expected in areas where anaerobic processes are occurring. ORP measurements obtained in this sampling event ranged from -114.6 mV in SOMA-4R to +67.10 mV in MW-11.

Negative ORP values, detected in B-8R, B-10R, LFR-2, LFR-4, SOMA-2, SOMA-3, SOMA-4R, MPE-1, MPE-4, and MPE-5, indicate that conditions in and near the apparent source area are conducive to anaerobic biodegradation. Positive redox potentials, detected in GW-2, GW-3, MW-11, LFR-1, LFR-3, and SOMA-1, are more energetically favorable in utilizing electron acceptors during chemical reactions. This promotes removal of organic mass from the contaminated groundwater by indigenous bacteria in the subsurface. Refer to Table 6 for detailed bioattentuation parameter trends.

2.4 Other Parameters

Table 3 summarizes pH, temperature, conductivity and other parameters discussed below.

Alkalinity: Alkalinity is a general water quality parameter. High alkalinity levels are a result of interaction between carbon dioxide (a product of several biodegradation processes) and aquifer minerals. Due to the inconclusive data collected during previous groundwater monitoring events in connection with the bioattenuation process, no alkalinity data was collected during the current or previous groundwater monitoring events.

Chloride: Chloride is the final product of the reduction of chlorinated solvents, and also a general water quality parameter. Due to the inconclusive data collected during previous groundwater monitoring events in connection with the bioattenuation process, no chloride data was collected during this or previous groundwater monitoring events.

Carbon Dioxide: Carbon dioxide is a product of several biodegradation processes. Due to the inconclusive data collected during previous groundwater monitoring events in connection with the bioattenuation process, no carbon dioxide data was collected during recent groundwater monitoring events.

Iron: Ferric iron may be used as an electron acceptor during anaerobic biodegradation. During this process, ferric iron is reduced to ferrous iron that may be soluble in water. Ferric iron concentrations may be obtained by subtracting ferrous iron concentrations from total iron concentrations. Total iron was detected in all sampled wells except GW-2. Detectable total iron concentrations ranged from 0.05 mg/L in GW-3 to the equipment maximum allowable tolerance level of 3.30 mg/L in B-8R, B-10R, LFR-4, SOMA-2, SOMA-4R, MPE-1, and MPE-5.

Nitrite: Nitrate may reduce to nitrite during the process of anaerobic biodegradation. Nitrite was below the equipment minimal tolerance level in B-8R, LFR-1, LFR-4, SOMA-2, MPE-1, and MPE-5. Detectable nitrite concentrations ranged from 0.003 in LFR-3 to 0.188 mg/L in MPE-4.

Sulfide: When sulfate is used as an electron acceptor for anaerobic biodegradation it is reduced to sulfide. Due to the inconclusive data collected during previous groundwater monitoring events in connection with the bioattenuation process, sulfide data was not collected during the current groundwater monitoring event.

pH, Temperature, and Conductivity: The pH of groundwater affects activity of microbial populations in the groundwater, with optimal pH values ranging from 6 to 8 standard units for microbes capable of degrading PCE and other chlorinated aliphatic hydrocarbons. Groundwater temperature affects metabolic activity of bacteria, and groundwater conductivity is directly related to the concentration of ions in solution. The pH, temperature, and conductivity values are included in Table 3.

3. FREE PRODUCT REMOVAL ACTIVITIES

3.1 Overview

Prior to installation of a skimmer pump in SOMA-4 on January 28, 2004, over 9 feet of FP was on the surface of groundwater in this well. On February 6, 2004, SOMA installed a flexible axial peristaltic pump (FAP system) in SOMA-4 to remove FP.

Borings B-3 and B-8 were converted into wells in August 2004 and the FAP system was installed in B-8. The FAP was operational till March 2008 and removed approximately 1,895 gallons of FP and contaminated groundwater from SOMA-4 and B-8.

During the First Semi-Annual 2008 monitoring event, FP was unexpectedly observed in B-10 and SOMA-2 at 2.76 feet and 0.71 feet, respectively.

During MPE pilot testing (September-October 2008), an additional 60 gallons of FP was removed from the extraction wells.

During the current monitoring event, FP was observed in MPE-2 and MPE-3 at 2.44 feet and 0.84 feet, respectively. No FP was observed in other wells. Table 7 shows field observations for SOMA-4, B-8, B-10, SOMA-2, and MPE wells.

Figure 18 illustrates historical FP thickness measured in extraction wells.

3.2 Free-Product Analysis Summary

As mentioned earlier, a sample of FP was collected from MPE-2 and MPE-3 and sent to Friedman & Bruya, Inc (F&BI) for analysis in order to determine whether

chlorinated solvents are present, per ACEHS directive dated August 25. The following presents a summary of findings as suggested by the laboratory. Appendix D includes the chain of custody forms and laboratory analytical reports for FP analysis.

1. Material present in samples MPE-2 and MPE-3 is indicative of TPH-ss. Results of the Hydrocarbon Fuel Scan (HFS) as well as Paraffin, Isoparaffin, Aromatic, Naphthene, and Olefin (PIANO) analyses, indicates that it has undergone some, although not extensive biological degradation. This is based on the level of paraffins (or alkanes) present in these samples compared to both that expected in typical TPH-ss as well as prior samples analyzed by F&BI for this site.

2. Material present in samples MPE-2 and MPE-3 was compared to the previous samples submitted to F&BI from this site. This comparison yielded the results below.

    a. The TPH-ss present in samples MPE-2 and MPE-3 is not consistent with that previously identified in samples PD-1, PD-2, PD-3, and "Product" submitted in 2007.

    b. The TPH-ss present in samples MPE-2 and MPE-3 is consistent with that previously identified in SOMA-4 samples submitted in 2005 and 2007. However, samples MPE-2 and MPE-3 contain a reduced level of alkanes relative to the SOMA-4 samples. This indicates that samples MPE-2 and MPE-3 have undergone additional biological degradation.

3. Evaluation of results generated by F&BI as well as the site information provided indicates that the light non-aqueous phase liquids (LNAPL) appearing in the MPE-2 and MPE-3 locations does not appear to be from a new release event at the site.

4. CONTINUED MULTI PHASE EXTRACTION PILOT TESTING

During MPE pilot testing, soil vapor and groundwater are extracted from the subsurface. Both extracted soil vapor and groundwater are treated on-site with granular activated carbon (GAC). Two vessels capable of holding 1,000 pounds of GAC are used to process the vapor and liquid stream separately. Two 55-gallon drums, holding 200 pounds of GAC each, are used as polishing vessels prior to discharge. Treatment and discharge of the vapor stream to the atmosphere operates under valid BAAQMD discharge permitting for plant number 19199. Treatment and discharge of extracted groundwater to the local sanitary sewer (manhole location shown in Figure 2) operates under valid EBMUD discharge permit 50638151.

Following evaluation of the initial 45-day testing between September 2, 2008 and October 24, 2008, based on the Alameda County directive dated April 6, 2009 SOMA resumed MPE pilot testing between December 17, 2008 and December 14, 2009. Per a phone conversation with Alameda County and in accordance with the directive issued in August 2010, SOMA resumed interim remedial actions, MPE pilot testing, at the site on August 16, 2010. Existing monitoring wells and borings SOMA-2, B-8R, B-10R, and MPE-1 (Figure 2) were used as extraction and observation wells when pilot testing resumed in August 2010. Induced vacuum and groundwater levels were monitored, measured and recorded from existing wells used as observation wells.

MPE operational data is presented in Table 8, and extraction data and mass removal rate in Table 9.

4.1 MPE Pilot Testing Duration

The MPE pilot test data presented in this report began on Monday, August 16, 2010 at 10:30 and extends through Thursday, October 7, 2010 at 13:00. Total MPE time during this phase at extraction wells was 35,790 minutes, or 5,96.5 hours, or 24.85 days. MPE pilot testing is ongoing at the site.

4.2 MPE Pilot Test Results August 2010 to Present

VOC concentrations in the extracted soil vapor stream ranged from 130 to 1,393 parts per million vapor (ppmv) as TPH-ss or between 800 and 8,555 ppmv as hexane (Tables 8 and 9). A total of 3,752 gallons of groundwater was extracted (Table 8) at a rate of 0.10 gallons per minute.

The estimated mass of VOCs removed from the soil vapor extracted from extraction wells was 320.85 lbs. The estimated VOC mass removal rate was 0.97 lbs/day.

4.3 MPE Conclusions

As of October 7, 2010, the cumulative total mass of VOCs (as TPH-ss) extracted by MPE from extraction wells is 3,935.49 lbs (Table 9).

5. FINDINGS REGARDING CURRENT ENVIRONMENTAL CONDITIONS, AND RECOMMENDATIONS

5.1 Current Environmental Conditions

Based on data obtained during the Second Semi-Annual 2010 groundwater monitoring event, current environmental conditions at the site are as follows:

1. All analyzed constituents in the farthest downgradient well, LFR-3, were below laboratory-reporting limits. Results are consistent with modeling performed by SOMA which predicted that PCE would barely reach LFR-3. Furthermore, all analyzed constituents in the farthest upgradient well, MW-11, were below laboratory-reporting limits.
2. Data collected to date regarding distribution of PCE and other VOCs in groundwater demonstrate that PCE has degraded into some of its breakdown products in certain groundwater monitoring wells.
3. During the current event, FP was observed in MPE-2 and MPE-3. A sample of FP was collected from these two wells. Based on the summary of findings provided by the analytical laboratory, the material present in these samples is indicative of TPH-ss.
4. The highest TPH-ss and TPH-g concentrations were detected in LFR-2 at 60,000 µg/L and 93,000 µg/L, respectively. Since the previous monitoring event (First Semi-Annual 2010), TPH-ss has decreased in B-8R, LFR-2, SOMA-2, SOMA-3, SOMA-4R, MPE-4, and MPE-5 and increased in B-10R, GW-3, and MPE-1; TPH-g has decreased in B-8R, LFR-2, SOMA-2, SOMA-3, SOMA-4R, MPE-4 and MPE-5 and increased in B-10R, GW-3, SOMA-1, and MPE-1.
5. Results of this sampling event showed a significant decrease in PCE and TCE levels in B-10R, since the sampling event of February and March 2008 when FP was discovered for the first time in B-10 and SOMA-2. Since the previous monitoring event (First Semi-Annual 2010), PCE has decreased in B-8R, B-10R, MPE-1, and MPE-4 and TCE has decreased in B-10R, MPE-1, MPE-4, and MPE-5.
6. PCE typically degrades into TCE, then cis-1,2-DCE and then trans-1,2-DCE (at much lower concentrations than cis-1,2-DCE), then to VC, ethane and ethene and, finally, to carbon dioxide, water, and chloride. This sequence of degradation would be anticipated where biological reductive dehalogenation of PCE is occurring. The presence of TCE in B-10R, GW-2, GW-3, LFR-1, SOMA-1, MPE-1 and MPE-4 demonstrates that PCE degradation is occurring. The presence of cis-1,2-DCE in B-8R, B-10R, GW-3, LFR-1, LFR-2, SOMA-1, SOMA-2, SOMA-3, SOMA-4R, MPE-1, MPE-4, and MPE-5 indicates the occurrence of dechlorination of PCE in the subsurface. In addition, VC was detected in B-10R and LFR-2, which indicates final stages of biodegradation activities in subsurface.
7. Results of DO, nitrate, manganese, sulfate, ferrous iron, methane, and ORP measurements demonstrate that conditions in the apparent source area are conducive to reductive dechlorination processes.
8. In general, the region near B-10R, SOMA-2, GW-3, LFR-1, LFR-2, MPE-2, and MPE-3 appears to be more impacted by chemicals of potential concern.

9. As of October 7, 2010, the cumulative total mass of VOCs (as TPH-ss) extracted by MPE from extraction wells is 3,935.49 lbs.

5.2 Recommendations

Results of the current groundwater monitoring event show significant reduction in chlorinated solvent concentrations throughout the site. This is due largely to MPE pilot testing. However, due to financial constraints, the MPE system was inoperative from December 14, 2009 to August 16, 2010.

Results of the current groundwater monitoring event show that elevated concentrations of TPH-ss and TPH-g remain in the subsurface. In addition, following termination of pilot testing in December 2009, FP was reported at MPE-2 and MPE-3 during February 2010 and the current monitoring event. Although reported chlorinated solvent concentrations have approached risk-based closure levels, presence of FP and elevated groundwater concentrations of TPH-ss and TPH-g remain a concern. As such, SOMA recommends continuing MPE pilot testing at the site, utilizing modified wells B-8R, B-10R, SOMA-4R and MPE wells, to remove TPH-g, TPH-ss and remaining VOCs from the smear zone. Due to the low concentrations of chlorinated solvents in the subsurface, SOMA recommends use of a catalytic oxidizer as a preferred and economical option for treating off-gas from the MPE unit. In addition, due to widespread and significant TPH-g and TPH-ss levels in soil and groundwater, SOMA recommends considering additional MPE units to the existing system for timely, efficient, and cost-effective removal of contaminants from soil and groundwater.

TABLES

Table 1
Construction Data for Temporary Sampling Points and Monitoring Wells
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Location	Date Installed	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)	Total Depth (feet)	Screen Interval Depth (feet)	Screen Interval Elevation (feet)
Temporary Sampling Points Installed by Geosolv, LLC						
B-2	19-Aug-97	82.20	82.09	21	5 to 21	77.2 to 61.2
B-3[1]	19-Aug-97	82.60	82.57	18	5 to 18	77.6 to 64.6
B-7	20-Aug-97	77.33	76.96	17.5	5 to 17.5	72.3 to 59.8
B-8	20-Aug-97	82.06	81.82	24	9 to 24	73.1 to 58.1
B-9	21-Aug-97	77.57	77.37	19.5	4.5 to 19.5	73.1 to 58.1
B-10	21-Aug-97	81.65	81.50	19	4 to 9	77.7 to 62.7
B-13	22-Aug-97	85.12	84.58	20	5 to 20	80.1 to 65.1
Temporary Sampling Points Installed by LFR						
GW-1	16-Jul-99	80.24	79.94	8	3 to 8	77.2 to 72.2
GW-2	16-Jul-99	79.44	79.14	20	10 to 20	69.4 to 59.4
GW-3	15-Jul-99	78.48	77.92	20	10 to 20	68.5 to 58.5
GW-4	16-Jul-99	82.55	82.37	12	7 to 12	75.6 to 70.6
GW-5	15-Jul-99	81.31	81.01	13	8 to 13	73.3 to 68.3
GW-6[2]	15-Jul-99	81.91	81.65	13.5	7.5 to 13.5	74.4 to 68.4
GW-6A[2]	16-Jul-99	81.93	81.61	15	5 to 15	76.9 to 66.9
GW-7[2]	15-Jul-99	81.30	NS	20	10 to 20	71.3 to 61.3
GW-8[2]	16-Jul-99	80.28	80.10	20	10 to 20	70.3 to 60.3
Temporary Sampling Points Installed by TOSCO						
MW-8	unknown	NS	87.44	unknown	unknown	unknown
MW-9	unknown	NS	86.56	unknown	unknown	unknown
MW-11	unknown	NS	84.13	unknown	unknown	unknown
Groundwater Monitoring Wells Installed by LFR						
LFR-1	28-Jul-00	NS	79.97	19	9 to 19	unknown
LFR-2	27-Jul-00	NS	81.89	19	9 to 19	unknown
LFR-3	27-Jul-00	NS	77.96	22	12 to 22	unknown
LFR-4	28-Jul-00	NS	81.65	19	9 to 19	unknown
Groundwater Monitoring Wells Installed by SOMA						
SOMA-1	4-Oct-01	82.31	81.64	40	25 to 40	42.31 to 57.71
SOMA-2 *	11-Oct-01	84.61	84.38	20	10 to 20	61.62 to 71.62
SOMA-3	11-Oct-01	81.65	81.42	30	21 to 26	60.65 to 71.51
SOMA-4	12-Oct-01	81.51	81.09	20	10 to 20	61.51 to 71.51
SOMA-5	12-Oct-01	61.68	81.50	26	21 to 26	55.68 to 60.68
B-8R	19-May-09	85.07	84.66	20	5 to 20	79.66 to 64.66
B-10R	18-May-09	84.60	83.98	20	5 to 20	78.98 to 63.98
SOMA-4R	18-May-09	84.49	83.95	20	5 to 20	78.95 to 63.95
MPE-1	21-May-09	84.65	84.41	20	2.5 to 20	81.91 to 64.41
MPE-2	21-May-09	85.09	84.66	20	2.5 to 20	82.16 to 64.66
MPE-3	22-May-09	85.14	84.87	20	2.5 to 20	82.37 to 64.87
MPE-4	21-May-09	84.80	84.45	20	2.5 to 20	81.95 to 64.45
MPE-5	19-May-09	85.23	84.64	20	2.5 to 20	82.14 to 64.64

Notes:

[1] Top of casing surveyed on south side on January 21, 2000, because the casing was broken.

[2] GW-7 was abandoned on July 15, 1999, in accordance with LFR's workplan dated May 6, 1999. GW-6 and GW-8 were abandoned on July 26, 2000, in accordance with LFR's workplan dated June 14, 2000.

NS = Not surveyed.

* SOMA-2 was resurveyed along with the new MPE wells in July 2009

Table 2
Historical Groundwater Elevation Data (feet)
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Date	B-2	B-3	B-7	B-8	B-8R	B-9	B-10	B-10R	B-13
4-Aug-10	**71.50**	**71.62**	**DRY**		**71.23**	**65.83**		**72.21**	**DRY**
1-Feb-10	73.71	73.72	DRY		74.14	67.39		73.55	DRY
11-Aug-09	72.11	72.03	DRY		73.01	64.79		71.79	DRY
9-Feb-09	73.46	73.72	DRY	70.52		66.72	70.63		DRY
21-Aug-08	71.98	72.65	DRY	68.80		66.64	70.47		DRY
19-Feb-08	78.05	74.51	DRY	68.27		68.33	69.75		64.58
23-Aug-07	70.45	71.54	DRY	64.66		63.89	67.76		75.59
28-Feb-07	78.13	76.18	Dry	70.80		70.14	74.18		75.77
05-Jul-06	74.24	74.86	68.78	62.47		68.81	72.70		75.66
05-Jan-06	79.72	77.85	71.76	74.02		71.28	74.91		NM
05-Jul-05	74.49	75.23	69.05	NM		69.05	72.91		DRY
1-Feb-05	75.67	76.19	72.85	NM		69.76	73.54		75.90
03-Aug-04	73.52	73.46	68.03	73.90		68.22	72.13		75.57
29-Jan-04	74.99	75.31	70.01	NM		69.24	73.07		75.66
29-Jul-03	73.99	73.83	68.53	72.39		68.67	72.58		75.80
18-Feb-03	75.83	75.55	69.94	73.01		70.00	73.87		75.77
22-Oct-02	73.29	73.06	67.98	71.43		68.10	72.09		NM
17-Jul-02	74.02	73.82	NM	72.37		68.59	72.51		NM
16-Apr-02	75.16	75.34	69.41	73.54		69.38	73.21		NM
31-Jan-02	77.35 (FP)	77.16 (FP 0.5')	70.79	75.03 (FP 0.5')		70.43	74.14		77.53 (FP 0.7')
18-Oct-01	73.26 (0.25' FP)	73.24 (1' FP)	67.89	69.51 (2.1' FP)		67.98	71.96		DRY
26-Jul-01	73.86	73.17	68.69	70.41		68.73	72.61		DRY
26-Apr-01	75.26	74.00	69.60	73.19		69.80	73.61		
29-Jan-01	74.63	75.06	69.11	74.23		69.33	73.20		
2-Nov-00									
31-Oct-00									
30-Oct-00	74.34	74.84 (FP)	69.01	73.32		69.42	73.35		DRY
10-Aug-00									
9-Aug-00	73.9 (FP)	74.55 (FP)	68.61	72.8 (FP)		68.82	72.65		75.23
27-Apr-00	75.41 (FP)	75.86 (FP)	69.85 (FP)	74.14 (FP)		69.96	73.70		75.87
25-Jan-00									
24-Jan-00	75.93 (FP)	75.83	69.66 (FP)	72.84		70.25 (FP)	74.15(FP)		
21-Jan-00									76.32
20-Jan-00									
19-Jan-00	73.97 (FP)	73.22 (2)	68.6 (FP)	71.81 (FP)		68.91(FP)	73.02(FP)		74.18
27-Aug-99									
18-Feb-98	78.16 (1)	78.04 (1)	71.57 (1)	76.64 (1)		71.44(1)	75.13(1)		78.51(1)
26-Oct-97	72.66 (1)	73.64 (1)	68.09 (1)	71.11 (1)		68.39(1)	72.26(1)		73.02(1)

Table 2
Historical Groundwater Elevation Data (feet)
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Date	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6A	GW-8	MW-8	MW-9	MW-11
4-Aug-10	**DRY**	**65.46**	**67.15**	**DRY**	**68.68**	**DRY**	**NM**	**76.22**	**75.60**	**68.49**
1-Feb-10	72.11	66.66	68.04	74.53	71.08	68.03	NM	78.49	77.71	71.53
11-Aug-09	DRY	67.60	67.45	DRY	68.65	67.67	NM	76.54	75.99	72.43
9-Feb-09	DRY	67.28	68.01	74.87	68.59	67.76	NM	77.23	76.83	71.64
21-Aug-08	DRY	66.59	67.88	DRY	68.88	67.70	NM	76.38	75.94	68.43
19-Feb-08	DRY	60.89	67.15	74.81	69.10	67.94	NM	76.70	76.00	69.82
22-Aug-07	DRY	DRY	66.71	DRY	68.54	67.89	NM	75.98	75.15	70.70
28-Feb-07	72.31	69.95	68.39	74.90	69.73	68.13	NM	79.05	78.64	71.30
05-Jul-06	71.94	69.74	66.49	70.37	68.96	68.01	NM	77.74	77.72	72.47
05-Jan-06	72.13	70.29	68.06	75.08	70.59	69.01	NM	80.66	79.96	71.51
5-Jul-05	DRY	69.38	67.03	73.57	69.53	68.03	NM	77.81	77.73	70.21
1-Feb-05	72.13	68.72	67.91	74.40	69.89	68.04	NM	78.46	78.42	71.68
3-Aug-04	72.13	68.19	67.54	72.54	69.46	67.93	NM	NM	NM	73.22
29-Jan-04	NM	68.37	68.05	74.69	68.71	68.00	NM	77.82	78.76	74.08
29-Jul-03	NM*	68.69	67.67	72.61	68.82	67.97	NM	77.44	77.11	73.78
18-Feb-03	NM*	69.02	68.26	74.75	70.35	67.97	NM	78.82	78.59	74.68
22-Oct-02	NM*	67.92	67.78	71.70	68.67	67.85	NM	76.89	76.51	73.12
17-Jul-02	NM*	68.61	67.78	72.65	68.76	67.95	NM	77.27	77.12	73.90
16-Apr-02	NM	69.76	68.14	74.11	68.68	68.07	NM	77.97	NM	74.98
31-Jan-02	-	69.77	68.28	74.83	68.78	68.06		78.86	79.41	75.48
18-Oct-01	NM	67.91	67.67	74.22	68.41	67.81		76.81	76.46	72.97
26-Jul-01	NM	68.55	67.84	73.85	68.77	68.00		77.40	77.03	73.73
26-Apr-01	NM	69.41	67.93	74.59	68.43	68.43				74.81
29-Jan-01	71.99	68.62	67.89	74.92	68.61	67.90		78.14	77.95	73.79
2-Nov-00								78.38	78.31	
31-Oct-00										
30-Oct-00		68.45	67.95	74.55	68.64	68.16				73.62
10-Aug-00								77.26	77.14	
9-Aug-00	DRY	69.11	66.54	DRY	68.71	67.88				74.12
27-Apr-00	DRY	70.59	68.16	73.97	68.70	68.00	71.34	79.15	77.25	75.35
25-Jan-00										73.48
24-Jan-00										
21-Jan-00		68.32		74.33						
20-Jan-00			67.93		68.61		70.42			
19-Jan-00	DRY	68.24	67.86	74.71	68.61	67.63	70.44			
27-Aug-99	DRY	68.46	67.66	NM	68.71	67.71	70.60			
18-Feb-98										
26-Oct-97										

Table 2
Historical Groundwater Elevation Data (feet)
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Date	LFR-1	LFR-2	LFR-3	LFR-4	SOMA-1	SOMA-2	SOMA-3	SOMA-4	SOMA-4R	SOMA-5
4-Aug-10	**69.73**	**69.42**	**64.01**	**64.76**	**64.17**	**70.81**	**66.74**		**69.89**	**57.02**
1-Feb-10	70.38	72.31	65.57	NM	65.60	72.47	67.61		71.66	56.98
11-Aug-09	69.95	69.44	66.17	67.09	66.79	71.69	68.59		71.80	56.92
9-Feb-09	70.42	70.74	66.37	67.51	66.86	70.69	67.97	69.00		59.28
21-Aug-08	69.81	69.57	65.20	66.02	65.63	70.63	67.24	67.27		56.49
19-Feb-08	69.94	70.90	61.64	62.35	61.04	71.39	64.87	64.51		56.51
23-Aug-07	69.64	69.18	60.03	62.52	59.51	69.72	63.23	63.05		DRY
28-Feb-07	70.98	73.41	67.90	69.99	69.10	73.73	70.96	71.63		61.57
05-Jul-06	70.36	71.29	67.60	69.33	68.99	72.59	71.02	71.11		78.70
05-Jan-06	70.97	74.56	69.04	NM	70.11	77.59	71.99	FP		76.78
5-Jul-05	70.26	71.52	67.45	69.31	68.55	75.77	70.65	FP		78.66
1-Feb-05	70.61	72.64	68.09	NM	69.08	73.20	71.05	NM		78.92
3-Aug-04	70.13	70.70	66.42	NM	67.24	69.34	72.03	NM		62.18
28-Jan-04	70.41	NM	67.44	69.13	68.33	73.34	73.00	FP		58.50
29-Jul-03	70.18	70.96	66.71	68.37	67.84	69.84	72.48	FP		57.18
18-Feb-03	70.63	73.08	67.61	69.44	68.77	70.74	73.77	NM		56.59
22-Oct-02	70.00	70.48	66.13	67.85	66.92	69.00	72.01	NM		59.43
17-Jul-02	70.18	70.98	67.67	68.33	67.62	72.40	69.64	NM		59.53
16-Apr-02	70.36	71.71	67.60	69.27	68.85	73.06	70.90	68.56		59.48
31-Jan-02	70.56	71.92	67.72	NM	69.36	73.98	71.46	69.79[(FP 2.5')]		57.38
18-Oct-01	70.04	70.53	66.09	67.74	67.89	71.86	68.32	69.77		NM
26-Jul-01	70.16	70.92	66.56	68.33						
26-Apr-01	70.23	71.90	67.62	68.87						
29-Jan-01	70.44	72.04	66.96	67.92						
2-Nov-00										
31-Oct-00				68.14						
30-Oct-00	70.22	71.62	66.99							
10-Aug-00										
9-Aug-00	70.16	69.99	66.76	68.39						
27-Apr-00										
25-Jan-00										
24-Jan-00										
21-Jan-00										
20-Jan-00										
19-Jan-00										
27-Aug-99										
18-Feb-98										
26-Oct-97										

Table 2
Historical Groundwater Elevation Data (feet)
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Date	MPE-1	MPE-2	*FP (feet)*	*MPE-2 corr. FP*	MPE-3	*FP (feet)*	*MPE-3 corr. FP*	MPE-4	MPE-5
4-Aug-10	**71.79**	**70.09**	2.44	71.75	**72.36**	0.84	72.93	**72.91**	**74.05**
1-Feb-10	74.75	73.77	0.24	73.93	75.56	0.34	75.79	75.33	76.15
11-Aug-09	72.31	72.22	-	-	73.54	-	-	72.71	74.45

Notes:

1= Survey elevation and water-level measurement taken at concrete surface. Elevations and water levels without a "1" in Notes Column were measured from top of casing.

2= Top of the casing was re-surveyed because it was broken.

"-" Not applicable or Not available

* Monitoring well GW-1 was dry

Monitoring wells MW-8, MW-9, and LFR-4 were inaccessible in Third Quarter 2004

MPE-1 through MPE-5 were installed May 2009

FP= Floating product or sheen was observed.

* Depth to groundwater corrected for product thickness:

Therefore, corrected depth to groundwater is equal to (measured depth to water)- 0.68x(free product thickness)

Therefore, corrected groundwater elevation is shown using both (measured and corrected) groundwater elevations

The correction factor is derived by the following: specific gravity of gas at 20^{o}C is 0.68, then specific gravity is multiplied by the thickness of free product

The specific gravity is defined as the ratio of water density to determined substance density. Water density is equal to one

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
Temporary Sampling Points Installed by Geosolv, LLC												
B-7	11-Aug-00	760	39	202				<0.0005	<0.0005	6.86	17.55	1279
B-7 field	11-Aug-00					-1.00	0.05					
	31-Oct-00	760	42	200	14.00	<0.1	<2.0					
B-7 field	31-Oct-00				17.22	-1.00	-1.00			6.16	16.05	1454
	31-Jan-00	720	43	170	12.00	<0.1	<2.0					
B-7 field	31-Jan-00									6.79	13.90	1424
	26-Apr-01				>3.3	0.24				6.59	16.30	1340
	26-Jul-01				15.30	0.02				6.39	15.97	1400
B-8R	12-Aug-09	NM	NM	NM	1.00	0.043	NM	NM	NM	6.48	18.17	1222
	2-Feb-10	NM	NM	NM	3.30	0.015	NM	NM	NM	6.00	16.85	1307
	6-Aug-10	**NM**	**NM**	**NM**	**3.30**	**0.000**	**NM**	**NM**	**NM**	**6.34**	**17.54**	**1411**
B-10 field	10-Aug-00					0.02	0.06					
B-10	31-Oct-00	500	76	120	6.60	<0.1	<2.0					
	31-Oct-00				8.35	0.00	0.00			6.21	16.62	1051
	31-Jan-01	480	81	72	6.10	<0.1	<2.0					
	31-Jan-01				1.44	0.07				6.81	14.66	1117
	11-Jun-01				1.31					6.65	16.70	1090
	26-Jul-01				6.50	0.00				6.38	16.09	1160
	10-Aug-01	520	74	145	6.00	<0.05	<0.04	<0.0005	0.00	6.86	16.80	1130
	6-Jul-05	NM	NM	NM	3.30	0.348	NM	<0.005	<0.005	6.70	16.55	1420
	9-Jan-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	6.68	16.48	1410
	6-Jul-06	NM	NM	NM	3.30	0.122	NM	<0.005	<0.005	7.19	15.80	1170
	1-Mar-07	NM	NM	NM	3.20	0.000	NM	<0.005	<0.005	7.12	10.79	776
	23-Aug-07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	20-Feb-08	NM	NM	NM	3.30	0.244	NM	NM	NM	NM	NM	NM
	21-Aug-08	NM	NM	NM	3.30	0.196	NM	NM	NM	6.83	20.43	380
	10-Feb-09	NM	NM	NM	3.30	0.012	NM	NM	NM	6.89	14.33	7
B-10R	12-Aug-09	NM	NM	NM	3.30	0.070	NM	NM	NM	6.21	18.89	1083
	2-Feb-10	NM	NM	NM	3.30	0.001	NM	NM	NM	5.93	18.50	1173
	6-Aug-10	**NM**	**NM**	**NM**	**3.30**	**0.017**	**NM**	**NM**	**NM**	**6.52**	**17.00**	**1163**
Temporary Sampling Points Installed by LFR												
GW-2	01-Nov-00									6.31	18.97	1218
	30-Jan-01			63								
GW-2 field	31-Jan-01									6.82	13.75	846
	26-Apr-01				0.02					6.80	19.50	874
	26-Jul-01				0.03	0.02				6.74	20.30	803
	19-Oct-01	NM	NM	NM	NM	NM	NM	NM	NM	6.84	21.30	786

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
GW-2 cont.	31-Jan-02	NM	NM	NM	1.05	0.01	NM	NM	NM	6.70	17.70	797
	16,17-Apr-02	NM	NM	NM	0.65	0.02	NM	NM	NM	6.38	17.00	707
	17,18-Jul-02	NM	NM	NM	1.39	0.00	NM	NM	NM	6.35	17.75	798
	23-Oct-02	NM	NM	NM	0.12	0.04	NM	NM	NM	6.73	19.78	670
	19-Feb-03	NM	NM	NM	0.10	0.02	NM	NM	NM	6.86	18.10	607
	29-Jul-03	NM	NM	NM	0.00	0.00	NM	NM	NM	7.26	20.10	651
	29-Jan-04	NM	NM	NM	0.00	0.00	NM	NM	NM	6.72	18.00	542
	4-Aug-04	NM	NM	NM	0.00	0.00	NM	NM	NM	6.85	19.92	561
	2-Feb-05	NM	NM	NM	0.00	0.00	NM	NM	NM	6.82	18.34	503
	6-Jul-05	NM	NM	NM	0.00	0.00	NM	<0.005	<0.005	6.78	19.07	529
	6-Jan-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.88	17.89	510
	6-Jul-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.99	17.80	657
	28-Feb-07	NM	NM	NM	0.37	0.024	NM	<0.005	<0.005	6.27	16.70	544
	22-Aug-07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	20-Feb-08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	22-Aug-08	NM	NM	NM	0.30	0.032	NM	NM	NM	6.55	22.66	422
	9-Feb-09	NM	NM	NM	0.22	0.004	NM	NM	NM	6.59	17.40	614
	11-Aug-09	NM	NM	NM	0.07	0.000	NM	NM	NM	6.46	20.21	585
	1-Feb-10	NM	NM	NM	0.06	0.005	NM	NM	NM	6.13	17.75	473
	5-Aug-10	**NM**	**NM**	**NM**	**0.00**	**0.007**	**NM**	**NM**	**NM**	**6.71**	**20.74**	**661**
GW-3	11-Aug-00	340	25	54				<0.0005	<0.0005	7.05	21.43	860
GW-3 field	11-Aug-00					0.05	-1.00					
GW-3 field	1-Nov-00									6.52	18.83	967
	1-Feb-01			54								
GW-3 field	29-Jan-01									6.89	17.29	602
	11-Jun-01				0.00	0.70				5.68	16.20	673
	26-Jul-01				0.14	0.00				6.53	22.25	547
	19-Oct-01	NM	NM	NM	0.00	NM	NM	NM	NM	6.84	22.56	590
	31-Jan-02	NM	NM	NM	0.14	0.01	NM	NM	NM	6.70	18.40	593
	16,17-Apr-02	NM	NM	NM	0.00	0.00	NM	NM	NM	6.64	16.61	526
	17,18-Jul-02	NM	NM	NM	1.08	0.01	NM	NM	NM	6.32	17.10	545
	23-Oct-02	NM	NM	NM	0.00	0.00	NM	NM	NM	6.36	19.80	425
	19-Feb-03	NM	NM	NM	0.08	0.01	NM	NM	NM	6.77	17.80	412
	29-Jul-03	NM	NM	NM	0.00	0.00	NM	NM	NM	7.07	19.40	490
	29-Jan-04	NM	NM	NM	0.00	0.00	NM	NM	NM	6.65	18.20	450
	3-Aug-04	NM	NM	NM	0.00	0.00	NM	NM	NM	6.74	20.20	436
	2-Feb-05	NM	NM	NM	0.00	0.00	NM	NM	NM	6.28	19.39	445
	6-Jul-05	NM	NM	NM	0.00	0.00	NM	<0.005	<0.005	6.90	18.99	415
	6-Jan-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.89	18.75	471
	6-Jul-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.90	17.30	560
	1-Mar-07	NM	NM	NM	0.14	0.010	NM	<0.005	<0.005	6.59	16.15	518
	23-Aug-07	NM	NM	NM	0.07	0.210	NM	<0.005	<0.005	6.58	19.71	412
	20-Feb-08	NM	NM	NM	0.00	0.000	NM	NM	NM	6.62	18.66	275
	22-Aug-08	NM	NM	NM	0.00	0.000	NM	NM	NM	6.10	21.52	463
	9-Feb-09	NM	NM	NM	0.10	0.009	NM	NM	NM	6.38	17.90	440
	11-Aug-09	NM	NM	NM	0.13	0.014	NM	NM	NM	6.30	20.47	505
	1-Feb-10	NM	NM	NM	1.37	0.012	NM	NM	NM	6.08	17.73	469
	5-Aug-10	**NM**	**NM**	**NM**	**0.05**	**0.015**	**NM**	**NM**	**NM**	**6.46**	**19.03**	**525**

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
GW-4	30-Jan-01									6.60	13.48	479
	26-Jul-01				2.00	0.04				6.45	19.44	827
	19-Oct-01	NM	NM	NM	11.00	NM	NM	NM	NM	6.79	18.36	732
	31-Jan-02	NM	NM	NM	12.70	0.01	NM	NM	NM	6.50	12.00	414
	16,17-Apr-02	NM	NM	NM	6.40	0.03	NM	NM	NM	6.34	13.98	467
	17,18-Jul-02	NM	NM	NM	>3.3	0.03	NM	NM	NM	6.49	21.93	572
	23-Oct-02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	19-Feb-03	NM	NM	NM	3.30	0.00	NM	NM	NM	6.67	13.60	466
	30-Jul-03	NM	NM	NM	3.30	0.00	NM	NM	NM	7.30	18.70	430
	29-Jan-04	NM	NM	NM	3.30	0.00	NM	NM	NM	6.85	13.00	534
	3-Aug-04	NM	NM	NM	3.30	0.00	NM	NM	NM	6.96	22.62	509
	1-Feb-05	NM	NM	NM	3.30	0.00	NM	NM	NM	6.80	13.25	382
	6-Jul-05	NM	NM	NM	3.30	0.028	NM	<0.005	<0.005	6.98	18.71	403
	5-Jan-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	6.72	17.98	610
	28-Feb-07	NM	NM	NM	3.30	0.000	NM	<0.01	<0.01	6.70	12.63	369
	22-Aug-07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	20-Feb-08	NM	NM	NM	1.18	0.000	NM	NM	NM	6.54	13.42	248
	21-Aug-08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10-Feb-09	NM	NM	NM	3.30	0.000	NM	NM	NM	6.45	17.67	487
	11-Aug-09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1-Feb-10	NM	NM	NM	3.30	0.019	NM	NM	NM	6.02	13.59	398
	4-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**
Monitoring Wells Owned by TOSCO												
MW-11	10-Aug-00	360	110	216	0.13	<0.05	<0.04	<0.0005	<0.0005	6.47	21.00	1
MW-11 field	10-Aug-00					0.04	0.00					
	1-Nov-00	300	120	190	<0.05	<0.1	<2.0					
MW-11 field	1-Nov-00				0.01	0.00	-1.00			5.83	20.13	1
	31-Jan-01	330	130	150	<0.05	<0.1	<2.0					
MW-11 field	31-Jan-01									6.35	13.67	1
	26-Apr-01				0.01					5.67	18.00	1210
	26-Jul-01				0.00	0.02				6.02	19.85	1120
	19-Oct-01	NM	NM	NM	0.00	NM	NM	NM	NM	6.41	21.25	130
	31-Jan-02	NM	NM	NM	0.05	0.04	NM	NM	NM	6.60	18.50	1090
	16,17-Apr-02	NM	NM	NM	0.00	0.00	NM	NM	NM	5.87	18.70	1150
	17,18-Jul-02	NM	NM	NM	0.00	0.02	NM	NM	NM	6.27	18.37	1180
	23-Oct-02	NM	NM	NM	0.00	0.04	NM	NM	NM	6.62	20.81	1220
	18-Feb-03	NM	NM	NM	0.00	0.04	NM	NM	NM	6.49	19.50	1170
	30-Jul-03	NM	NM	NM	0.00	0.00	NM	NM	NM	6.92	19.70	941
	29-Jan-04	NM	NM	NM	0.00	1.80	NM	NM	NM	6.61	19.00	1000
	3-Aug-04	NM	NM	NM	0.00	0.00	NM	NM	NM	8.86	21.70	825
	1-Feb-05	NM	NM	NM	0.00	0.00	NM	NM	NM	6.43	20.55	856
	5-Jul-05	NM	NM	NM	0.13	0.00	NM	<0.005	<0.005	6.16	20.25	1130
	5-Jan-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.39	20.61	817
	5-Jul-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.61	19.10	1120
	28-Feb-07	NM	NM	NM	0.74	0.000	NM	<0.005	<0.005	6.71	16.34	1100
	22-Aug-07	NM	NM	NM	0.01	0.000	NM	<0.005	<0.005	5.46	19.97	865
	19-Feb-08	NM	NM	NM	0.00	0.000	NM	NM	NM	6.51	19.36	1081
	22-Aug-08	NM	NM	NM	0.00	0.000	NM	NM	NM	6.61	22.07	676
	10-Feb-09	NM	NM	NM	0.23	0.007	NM	NM	NM	6.39	21.73	1130
	12-Aug-09	NM	NM	NM	0.16	0.003	NM	NM	NM	6.00	19.91	1008
	1-Feb-10	NM	NM	NM	0.15	0.005	NM	NM	NM	6.16	18.93	1001

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (^{o}C)	Electrical Conductivity (µS/cm)
	5-Aug-10	NM	NM	NM	0.45	0.005	NM	NM	NM	6.29	19.21	1007

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Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
Monitoring Wells Installed by LFR												
LFR-1	11-Aug-00	250	110					<0.0005	<0.0005	6.97	19.73	936
LFR-1 field	09-Aug-00			51		0.02	-1.00					
	30-Oct-00	240	100	25	<0.05	<0.1	<2					
LFR-1 field/sp	30-Oct-00				0.01/0.01	0.031/0.036	0.001/0.001			6.38	17.94	697
LFR-1-spl	30-Oct-00	220	100	40	<0.05	<0.1	<2					
	29-Jan-01	150	76	28	<0.05	<0.1	<2					
LFR-1 field	29-Jan-01				0.00	0.04				6.82	15.00	870
LFR-1 Dup	29-Jan-01	150	75	26	<0.05	<0.1	<2					
	26-Apr-01				0.00					5.76	16.80	980
	26-Jul-01				0.05	0.01				6.48	19.38	772
	26-Jul-01	NM	NM	NM	0.42	NM	NM	NM	NM	6.73	20.83	661
	31-Jan-02	NM	NM	NM	0.03	0.01	NM	NM	NM	6.50	16.50	879
	16,17-Apr-02	NM	NM	NM	0.75	0.02	NM	NM	NM	5.88	16.37	1120
	17,18-Jul-02	NM	NM	NM	0.22	0.01	NM	NM	NM	6.40	17.02	832
	23-Oct-02	NM	NM	NM	0.30	0.00	NM	NM	NM	6.54	20.09	803
	18-Feb-03	NM	NM	NM	0.40	0.00	NM	NM	NM	6.47	16.90	607
	30-Jul-03	NM	NM	NM	0.02	0.00	NM	NM	NM	6.92	19.20	1330
	29-Jan-04	NM	NM	NM	0.00	5.10	NM	NM	NM	6.62	18.00	830
	4-Aug-04	NM	NM	NM	0.47	0.00	NM	NM	NM	6.39	19.01	1260
	2-Jan-05	NM	NM	NM	0.00	0.00	NM	NM	NM	6.73	17.80	744
	6-Jul-05	NM	NM	NM	0.09	0.002	NM	<0.005	<0.005	6.69	18.26	1360
	6-Jan-06	NM	NM	NM	0.03	0.000	NM	<0.005	<0.005	6.31	19.06	1260
	6-Jul-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.59	17.10	1270
	1-Mar-07	NM	NM	NM	0.45	0.000	NM	<0.005	<0.005	6.15	14.51	787
	23-Aug-07	NM	NM	NM	0.22	0.011	NM	<0.005	<0.005	5.45	19.42	642
	19-Feb-08	NM	NM	NM	0.08	0.000	NM	NM	NM	6.50	17.29	690
	22-Aug-08	NM	NM	NM	0.00	0.000	NM	NM	NM	6.50	21.13	432
	9-Feb-09	NM	NM	NM	0.00	0.000	NM	NM	NM	6.32	16.20	482
	11-Aug-09	NM	NM	NM	0.41	0.009	NM	NM	NM	6.18	18.72	652
	1-Feb-10	NM	NM	NM	0.89	0.000	NM	NM	NM	5.95	17.43	510
	5-Aug-10	**NM**	**NM**	**NM**	**0.63**	**0.000**	**NM**	**NM**	**NM**	**6.66**	**19.14**	**547**
LFR-2	11-Aug-00	590	33	174				<0.0005	0.00	7.15	19.87	1088
LFR-2 field	11-Aug-00				2.95	-1.00	0.01					
	02-Nov-00	550	40	180	6.20	<0.1	<2					
LFR-2 field	02-Nov-00				7.45	0.01	0.00			6.19	19.67	1306
	30-Jan-01	480	21	130	4.60	<0.1	<2					
LFR-2 field	30-Jan-01				1.04	0.01				6.60	12.73	945
	27-Apr-01				2.97					5.64	16.40	921
	26-Jul-01				4.60	0.01				6.31	18.66	970
	18-Oct-01	NM	NM	NM	8.20	NM	NM	NM	NM	6.78	19.56	109

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
LFR-2 cont.	31-Jan-02	NM	NM	NM	1.97	0.05	NM	NM	NM	6.50	16.60	644
	16,17-Apr- 02	NM	NM	NM	7.60	0.06	NM	NM	NM	6.19	16.43	845
	17,18-Jul-02	NM	NM	NM	8.80	0.00	NM	NM	NM	6.52	16.24	986
	23-Oct-02	NM	NM	NM	3.30	0.06	NM	NM	NM	6.84	18.09	812
	18-Feb-03	NM	NM	NM	3.30	0.00	NM	NM	NM	6.50	16.90	617
	30-Jul-03	NM	NM	NM	3.30	0.00	NM	NM	NM	7.15	17.30	861
	29-Jan-04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4-Aug-04	NM	NM	NM	3.30	0.00	NM	NM	NM	6.76	17.39	795
	1-Feb-05	NM	NM	NM	2.25	0.00	NM	NM	NM	6.46	17.68	559
	5-Jul-05	NM	NM	NM	3.30	0.00	NM	<0.005	<0.005	6.56	18.18	712
	5-Jan-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	6.58	18.23	721
	6-Jul-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	6.91	17.90	679
	28-Feb-07	NM	NM	NM	3.30	0.000	NM	<0.025	<0.025	6.41	16.54	782
	22-Aug-07	NM	NM	NM	3.30	0.000	NM	<0.025	<0.025	6.05	17.60	814
	20-Feb-08	NM	NM	NM	1.77	0.000	NM	NM	NM	6.58	17.52	616
	21-Aug-08	NM	NM	NM	3.30	0.092	NM	NM	NM	6.68	23.60	610
	10-Feb-09	NM	NM	NM	3.30	0.009	NM	NM	NM	6.53	17.41	980
	11-Aug-09	NM	NM	NM	3.30	0.057	NM	NM	NM	6.45	18.56	943
	1-Feb-10	NM	NM	NM	3.30	0.000	NM	NM	NM	6.12	17.76	836
	5-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**6.60**	**17.03**	**928**
LFR-3	10-Aug-00	310	85	162	<0.1	0.15	0.04	<0.0005	<0.0005	6.57	19.92	951
LFR-3 split	10-Aug-00	300	85	152				<0.0005	<0.0005			
LFR-3 field	10-Aug-00					0.06	-1.00					
	01-Nov-00	350	66	160	<0.05	<0.1	<2					
LFR-3 field	01-Nov-00				0.01	0.01	0.00			6.16	17.71	1164
	30-Jan-01	250	31	71	<0.05	<0.1	<2					
LFR-3 field	30-Jan-01				0.03					6.64	17.29	541
	11-Jun-01				0.01					5.43	18.00	613
	26-Jul-01				0.70	0.03				6.25	20.50	602
	18-Oct-01	NM	NM	NM	0.12	NM	NM	NM	NM	6.50	21.39	645
	31-Jan-02	NM	NM	NM	0.06	0.02	NM	NM	NM	6.30	19.10	566
	16,17-Apr-02	NM	NM	NM	1.20	0.04	NM	NM	NM	5.78	18.68	566
	17,18-Jul-02	NM	NM	NM	0.08	0.01	NM	NM	NM	6.17	18.42	585
	23-Oct-02	NM	NM	NM	1.35	0.00	NM	NM	NM	6.32	20.65	457
	19-Feb-03	NM	NM	NM	0.74	0.00	NM	NM	NM	6.34	19.30	497
	30-Jul-03	NM	NM	NM	0.00	0.00	NM	NM	NM	6.87	19.80	457
	29-Jan-04	NM	NM	NM	1.70	0.00	NM	NM	NM	6.60	20.00	393
	3-Aug-04	NM	NM	NM	0.34	0.00	NM	NM	NM	6.24	19.96	415
	2-Feb-05	NM	NM	NM	0.12	0.00	NM	NM	NM	6.17	20.06	381
	5-Jul-05	NM	NM	NM	3.30	0.205	NM	<0.005	<0.005	6.39	20.01	463
	9-Dec-05	NM	NM	NM	NM	NM	NM	<0.005	<0.005	NM	NM	NM
	6-Jan-06	NM	NM	NM	2.16	0.001	NM	<0.005	<0.005	6.27	20.42	461
	5-Jul-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.56	20.10	640
	1-Mar-07	NM	NM	NM	1.03	0.005	NM	<0.005	<0.005	6.17	17.44	514
	22-Aug-07	NM	NM	NM	0.84	0.000	NM	<0.005	<0.005	5.45	20.36	547
	20-Feb-08	NM	NM	NM	0.20	0.000	NM	NM	NM	6.38	19.55	607
	22-Aug-08	NM	NM	NM	0.00	0.000	NM	NM	NM	6.63	21.09	406
	9-Feb-09	NM	NM	NM	0.00	0.002	NM	NM	NM	6.21	17.30	453
	11-Aug-09	NM	NM	NM	0.12	0.007	NM	NM	NM	6.11	19.66	482
	1-Feb-10	NM	NM	NM	2.13	0.009	NM	NM	NM	5.84	19.57	554
	5-Aug-10	**NM**	**NM**	**NM**	**0.10**	**0.003**	**NM**	**NM**	**NM**	**6.32**	**19.41**	**479**

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
LFR-4	11-Aug-00	630	71	161				<0.0005	<0.0005	6.90	20.11	1240
LFR-4 FB	10-Aug-00							<0.0005	<0.0005			
LFR-4 field	11-Aug-00				0.22	0.02	0.00					
	31-Oct-00	490	28	130	1.00	<0.1	<2					
LFR-4 field	31-Oct-00				0.67	0.02	0.00			6.21	18.11	830
	01-Feb-01	460	25	120	1.30	<0.1	<2					
LFR-4 field	01-Feb-01				1.43	0.02				6.55	15.28	916
	27-Apr-01				1.44					5.79	18.30	1060
	26-Jul-01				0.95	0.00				6.26	19.23	866
	16,17-Apr-02	NM	NM	NM	5.10	0.03	NM	NM	NM	6.19	18.04	925
	17,18-Jul-02	NM	NM	NM	>3.3	0.01	NM	NM	NM	5.92	17.28	878
	23-Oct-02	NM	NM	NM	3.30	0.00	NM	NM	NM	6.69	19.90	602
	19-Feb-03	NM	NM	NM	3.30	0.00	NM	NM	NM	6.38	19.10	994
	29-Jul-03	NM	NM	NM	3.30	0.00	NM	NM	NM	6.94	19.00	994
	29-Jan-04	NM	NM	NM	0.71	0.00	NM	NM	NM	6.53	19.50	689
	5-Jul-05	NM	NM	NM	3.30	0.00	NM	<0.005	<0.005	6.49	19.20	772
	5-Jan-06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	5-Jul-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	6.75	18.90	912
	1-Mar-07	NM	NM	NM	3.30	0.000	NM	<0.01	<0.01	6.46	15.75	972
	22-Aug-07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	19-Feb-08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	21-Aug-08	NM	NM	NM	3.30	0.00	NM	NM	NM	6.13	21.38	353
	10-Feb-09	NM	NM	NM	3.30	0.00	NM	NM	NM	6.38	20.16	591
	11-Aug-09	NM	NM	NM	3.30	0.07	NM	NM	NM	6.22	17.62	536
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	5-Aug-10	**NM**	**NM**	**NM**	**3.30**	**0.00**	**NM**	**NM**	**NM**	**6.36**	**17.99**	**511**
Monitoring Wells Installed by SOMA												
SOMA-1	19-Oct-01	NM	NM	NM	0.75	NM	NM	NM	NM	6.77	18.15	146
	31-Jan-02	NM	NM	NM	0.00	0.00	NM	NM	NM	6.70	17.50	1160
	16,17-Apr-02	NM	NM	NM	0.17	0.03	NM	NM	NM	6.01	17.98	1280
	17,18-Jul-02	NM	NM	NM	0.11	0.01	NM	NM	NM	6.52	16.21	1270
	23-Oct-02	NM	NM	NM	0.24	0.01	NM	NM	NM	6.60	17.77	1270
	19-Feb-03	NM	NM	NM	0.00	0.01	NM	NM	NM	6.33	17.40	1350
	30-Jul-03	NM	NM	NM	0.00	0.00	NM	NM	NM	6.90	17.80	1300
	29-Jan-04	NM	NM	NM	2.10	0.00	NM	NM	NM	6.51	17.60	959
	3-Aug-04	NM	NM	NM	0.00	0.00	NM	NM	NM	6.42	17.89	956
	1-Feb-05	NM	NM	NM	0.00	0.00	NM	NM	NM	6.26	17.70	985
	5-Jul-05	NM	NM	NM	0.19	0.00	NM	<0.005	<0.005	6.36	19.36	1220
	5-Jan-06	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.54	18.02	926
	5-Jul-06	NM	NM	NM	0.30	0.011	NM	<0.005	<0.005	6.68	18.40	1150
	28-Feb-07	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	6.10	17.17	1140
	22-Aug-07	NM	NM	NM	0.00	0.000	NM	<0.005	<0.005	5.73	17.75	939
	20-Feb-08	NM	NM	NM	0.00	0.006	NM	NM	NM	6.53	17.93	791
	21-Aug-08	NM	NM	NM	0.00	0.000	NM	NM	NM	6.21	19.33	834
	10-Feb-09	NM	NM	NM	0.28	0.011	NM	NM	NM	6.42	19.31	779
	11-Aug-09	NM	NM	NM	0.10	0.009	NM	NM	NM	6.20	17.91	1102
	2-Feb-10	NM	NM	NM	0.03	0.003	NM	NM	NM	5.80	17.64	1088
	5-Aug-10	**NM**	**NM**	**NM**	**0.17**	**0.006**	**NM**	**NM**	**NM**	**6.21**	**17.60**	**1093**

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
SOMA-2	19-Oct-01	NM	NM	NM	44.00	NM	NM	NM	NM	6.87	16.93	122
	31-Jan-02	NM	NM	NM	10.50	0.34	NM	NM	NM	6.90	15.20	1140
	16,17-Apr-02	NM	NM	NM	8.70	0.01	NM	NM	NM	6.30	15.25	1170
	17,18-Jul-02	NM	NM	NM	>3.3	0.00	NM	NM	NM	6.86	14.19	1170
	23-Oct-02	NM	NM	NM	3.30	0.00	NM	NM	NM	6.97	16.47	1380
	19-Feb-03	NM	NM	NM	2.93	0.01	NM	NM	NM	6.86	15.70	1420
	29-Jul-03	NM	NM	NM	1.37	0.00	NM	NM	NM	7.91	16.80	1290
	28-Jan-04	NM	NM	NM	0.00	0.00	NM	NM	NM	6.65	16.60	835
	4-Aug-04	NM	NM	NM	0.34	0.00	NM	NM	NM	6.78	16.76	1180
	2-Feb-05	NM	NM	NM	3.30	0.00	NM	NM	NM	6.52	15.96	1310
	6-Jul-05	NM	NM	NM	3.30	0.00	NM	<0.005	<0.005	6.64	16.12	1290
	9-Jan-06	NM	NM	NM	3.30	0.001	NM	<0.005	<0.005	6.92	16.30	982
	6-Jul-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	7.08	16.00	1170
	1-Mar-07	NM	NM	NM	3.30	0.000	NM	<0.025	<0.025	7.24	10.16	1288
	23-Aug-07	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	6.20	15.98	764
	20-Feb-08	NM	NM	NM	3.30	0.000	NM	NM	NM	6.85	13.37	1434
	21-Aug-08	NM	NM	NM	3.30	0.000	NM	NM	NM	7.19	17.59	834
	10-Feb-09	NM	NM	NM	3.30	0.000	NM	NM	NM	6.86	19.33	912
	11-Aug-09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Feb-10	NM	NM	NM	3.30	0.000	NM	NM	NM	6.13	18.01	1150
	6-Aug-10	**NM**	**NM**	**NM**	**3.30**	**0.000**	**NM**	**NM**	**NM**	**6.41**	**17.37**	**1041**
SOMA-3	19-Oct-01	NM	NM	NM	0.40	NM	NM	NM	NM	6.91	17.09	158
	31-Jan-02	NM	NM	NM	0.78	0.38	NM	NM	NM	6.50	14.90	1320
	16,17-Apr-02	NM	NM	NM	1.03	0.00	NM	NM	NM	6.23	15.83	1260
	17,18-Jul-02	NM	NM	NM	>3.3	0.00	NM	NM	NM	6.77	15.03	1290
	23-Oct-02	NM	NM	NM	3.30	0.03	NM	NM	NM	7.02	16.44	970
	19-Feb-03	NM	NM	NM	3.30	0.00	NM	NM	NM	6.87	15.80	1350
	29-Jul-03	NM	NM	NM	3.30	0.00	NM	NM	NM	7.27	16.20	1200
	29-Jan-04	NM	NM	NM	3.30	0.00	NM	NM	NM	6.75	16.20	925
	4-Aug-04	NM	NM	NM	3.30	0.00	NM	NM	NM	6.79	16.43	956
	2-Feb-05	NM	NM	NM	0.15	0.00	NM	NM	NM	6.62	16.64	968
	6-Jul-05	NM	NM	NM	1.12	0.00	NM	<0.005	<0.005	6.56	16.79	935
	6-Jan-06	NM	NM	NM	0.49	0.000	NM	<0.005	<0.005	6.38	16.84	1120
	6-Jul-06	NM	NM	NM	0.53	0.000	NM	<0.005	<0.005	7.11	16.00	1020
	1-Mar-07	NM	NM	NM	0.69	0.000	NM	<0.005	<0.005	6.78	14.34	528
	23-Aug-07	NM	NM	NM	1.20	0.000	NM	<0.005	<0.005	6.45	17.13	495
	20-Feb-08	NM	NM	NM	3.21	0.158	NM	NM	NM	6.98	14.19	31
	21-Aug-08	NM	NM	NM	0.27	0.000	NM	NM	NM	6.62	19.87	341
	10-Feb-09	NM	NM	NM	0.90	0.008	NM	NM	NM	6.75	16.30	1149
	12-Aug-09	NM	NM	NM	0.75	0.028	NM	NM	NM	6.48	19.26	682
	2-Feb-10	NM	NM	NM	3.30	0.000	NM	NM	NM	6.01	17.32	1185
	6-Aug-10	**NM**	**NM**	**NM**	**1.40**	**0.013**	**NM**	**NM**	**NM**	**6.69**	**17.42**	**1118**
SOMA-4	Oct-19-01	NM	NM	NM	0.26	NM	NM	NM	NM	6.53	16.88	145
	23-Oct-02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	19-Feb-03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	29-Jul-03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	5-Jul-05	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (^{o}C)	Electrical Conductivity (µS/cm)
	5-Jan-06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10-Feb-09	NM	NM	NM	3.10	0.003	NM	NM	NM	6.61	19.42	1071

Table 3

Historical Analytical Results and Field Measurements for

Dissolved Ions and Gas, pH, Temperature, and Electrical Conductivity in Groundwater Samples

Former Glovatorium Site

3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Alkalinity (mg/L)	Chloride (mg/L)	Carbon Dioxide (mg/L)	Total Iron (mg/L)	Nitrite (mg/L)	Sulfide (mg/L)	Ethane (mg/L)	Ethene (mg/L)	pH	Temp (°C)	Electrical Conductivity (µS/cm)
SOMA-4R	12-Aug-09	NM	NM	NM	2.93	0.008	NM	NM	NM	6.25	17.86	1023
	2-Feb-10	NM	NM	NM	3.30	0.000	NM	NM	NM	6.04	18.61	1573
	6-Aug-10	**NM**	**NM**	**NM**	**3.30**	**0.040**	**NM**	**NM**	**NM**	**6.42**	**17.17**	**1403**
SOMA-5	4-Aug-04	NM	NM	NM	3.30	0.00	NM	NM	NM	7.14	16.98	773
	2-Feb-05	NM	NM	NM	3.30	0.00	NM	NM	NM	7.20	15.99	549
	6-Jul-05	NM	NM	NM	3.30	0.00	NM	<0.005	<0.005	6.75	16.99	1150
	9-Jan-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	6.78	16.72	1200
	6-Jul-06	NM	NM	NM	3.30	0.000	NM	<0.005	<0.005	7.81	16.30	454
	1-Mar-07	NM	NM	NM	NM	NM	NM	<0.025	<0.025	NM	NM	NM
	23-Aug-07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	20-Feb-08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	21-Aug-08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10-Feb-09	NM	NM	NM	3.30	0.000	NM	NM	NM	7.07	15.80	538
	12-Aug-09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	6-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**
MPE-1	12-Aug-09	NM	NM	NM	NM	NM	NM	NM	NM	6.60	16.89	557
	2-Feb-10	NM	NM	NM	3.30	0.000	NM	NM	NM	5.94	16.73	672
	6-Aug-10	**NM**	**NM**	**NM**	**3.30**	**0.000**	**NM**	**NM**	**NM**	**6.33**	**16.73**	**545**
MPE-2	12-Aug-09	NM	NM	NM	NM	NM	NM	NM	NM	6.46	18.23	1043
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	5-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**
MPE-3	12-Aug-09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	5-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**
MPE-4	12-Aug-09	NM	NM	NM	1.87	0.004	NM	NM	NM	6.39	19.06	839
	2-Feb-10	NM	NM	NM	3.30	0.000	NM	NM	NM	6.33	16.74	1279
	6-Aug-10	**NM**	**NM**	**NM**	**NM**	**0.188**	**NM**	**NM**	**NM**	**6.60**	**16.51**	**639**
MPE-5	12-Aug-09	NM	NM	NM	2.85	0.00	NM	NM	NM	6.41	17.11	1077
	2-Feb-10	NM	NM	NM	3.30	0.00	NM	NM	NM	6.16	16.46	1078
	6-Aug-10	**NM**	**NM**	**NM**	**3.30**	**0.00**	**NM**	**NM**	**NM**	**6.32**	**16.39**	**988**

Notes

Samples with "field" in the well ID indicate that the results are from field measurements obtained using a Hach spectrometer or a Hydrolab Quanta flow-through instrument.

since April 2001, field measurements have been performed using a Hach Calorimeter

NM= not measured

MPE-1 through MPE-5 were installed May 2009

Table 4
Historical Analytical Results for Total Petroleum Hydrocarbon, BTEX and MtBE in Groundwater Samples
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	TPH-ss (mg/L)	TPH-g (mg/L)	MtBE (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)
Temporary Sampling Points Installed by Geosolv, LLC								
B-2	24-Jan-00	20 J	31 YJ	<0.05	<0.013	<0.013	0.11 C	0.22 C
B-3	24-Jan-00	4.9 J	8.8 YJ	<0.01	0.0048	<0.0025	<0.0025	0.0714
B-7	24-Jan-00	19	30 J	<0.05	<0.013	0.062	<0.013	0.207
	11-Aug-00	3.7 J	6.8 YHJ	0.02	0.0077 J	0.047 J	0.007 J	0.065 CJ
	31-Oct-00	62 J	98 YHJ	0.01 J	0.0091 J	0.061 J	<0.0005	0.237 J
	27-Jul-01	2.5	5.2 HY	0.0057	0.0070	0.051	0.0082	0.0740
	31-Jan-01	5.3	7.9	0.0100	0.0089	0.059	0.0097	0.0870
	26-Apr-01	4.5	8.9 H	0.0069	0.0110	0.071	0.077 C	0.2080
B-8	24-Jan-00	11 J	19 YJ	<0.01	<0.0025	<0.0025	<0.0025	0.17 C
B-8R	12-Aug-09	22	39 Y	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	2-Feb-10	8.2	13 Y	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Aug-10	**1.3**	**2 Y**	**<0.0007**	**<0.0007**	**<0.0007**	**<0.0007**	**<0.0007**
B-9	24-Jan-00	1 YJ	1.8 YHJ	<0.002	<0.0005	<0.0005	0.01 C	0.0089 C
B-10	24-Jan-00	2.4 Y	4.2	0.0140 c	0.0072	0.027	0.025 C	0.032
	10-Aug-00	2.8 Y	6.1 Y	0.1600	0.0073	0.012	<0.005	0.0241
	31-Oct-00	2.2 YZ	3.5 Z	<0.002	0.0038	0.011	<0.0005	0.0182
	27-Jul-01	1.7	3.6 H	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	31-Jan-01	2.4 Z	3.6 HYZ	<0.002	0.0031	0.010	0.00076 c	0.0197
	26-Apr-01	2.4 Z	4.7 Z	0.0025	0.0041	0.013	ND	0.0290
	6-Jul-05	3.4 H	4.5 HY	<0.1	<0.1	<0.1	<0.1	<0.1
	9-Jan-06	11 Y	15	<0.1	<0.1	<0.1	<0.1	<0.1
	6-Jul-06	1.3	2.2 HY	<0.1	<0.1	<0.1	<0.1	<0.1
	1-Mar-07	0.5 L	0.810 HY	<0.1	<0.1	<0.1	<0.1	<0.1
	23-Aug-07	NA	NA	NA	NA	NA	NA	NA
	20-Feb-08	860	1,100 Y	<0.25	<0.25	<0.25	<0.25	<0.25
	25-Mar-08	2,000	43 Yb	<0.36	<0.36	0.75	0.42	2.12
	21-Aug-08	760	1,200 Y	<0.083	<0.083	<0.083	<0.083	<0.083
	10-Feb-09	1.5	2.3 Y	<0.02	<0.02	<0.02	<0.02	<0.02
B-10R	12-Aug-09	50	88 Y	0.067	<0.013	<0.013	<0.013	<0.013
	2-Feb-10	9.3	15 Y	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063
	6-Aug-10	**37**	**58 Y**	**<0.001**	**0.0012**	**0.0013**	**<0.001**	**<0.001**
B-13	24-Jan-00	1.7 J	3 YJ	<0.01	<0.0025	<0.0025	<0.0025	0.0200
Temporary Sampling Points Installed by LFR								
GW-2	19-Jul-99	<0.05	<0.05	0.0025	<0.0005	0.00071	<0.0005	0.00074
	20-Jan-00	0.15	0.25 Y	0.0044	<0.0005	<0.0005	0.00097 C	0.0013
	28-Apr-00	<0.05	0.095 YZ	<0.0021	<0.0005	<0.0005	<0.0005	<0.0005
	2-Nov-00	<0.05	<0.05	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-01	<0.05	ND	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005
	27-Apr-01	<0.05	0.086 YZ	0.0022	<0.0005	0.0240	<0.0005	<0.0005
	27-Jul-01	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	19-Oct-01	<0.05	<0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

Table 4
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Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	TPH-ss (mg/L)	TPH-g (mg/L)	MtBE (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)
GW-2 cont.	31-Jan-02	<0.05	<0.05	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]
	16,17-Apr-02	<0.05	<0.05	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	22-Oct-02	<0.05	<0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	19-Feb-03	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	29-Jul-03	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	28-Jan-04	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	4-Aug-04	0.054 [YZ]	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	2-Feb-05	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	6-Jul-05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jan-06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jul-06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	28-Feb-07	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	NA	NA	NA	NA	NA	NA	NA
	20-Feb-08	NA	NA	NA	NA	NA	NA	NA
	22-Aug-08	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	9-Feb-09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	11-Aug-09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	<0.05	<0.05	<0.0005	0.0046	<0.0005	<0.0005	<0.0005
	5-Aug-10	**<0.05**	**<0.05**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
GW-3	19-Jul-99	0.070 [Z]	0.100 [Z]	<0.0020	<0.0005	<0.0005	<0.0005	0.00064
	20-Jan-00	0.15	0.260 [Y]	<0.0020	<0.0005	<0.0005	<0.0005	0.00130 [C]
	27-Apr-00	0.20 [YZ]	0.380 [YZ]	<0.0020	<0.0005	<0.0005	<0.0005	<0.00050
	27-Apr-00	0.30 [Z]	0.570 [YZ]	<0.0020	<0.0005	<0.0005	<0.0005	<0.00050
	11-Aug-00	<0.05	0.077 [YZ]	<0.0020	<0.0005	<0.0005	<0.0005	0.00051
	2-Nov-00	<0.05	0.050 [YZ]	0.0026	<0.0005	<0.0005	<0.0005	<0.00050
	1-Feb-01	<0.05	<0.05	<.0020	<.0005	<0.0005	<0.0005	<0.00050
	27-Apr-01	<0.05	0.062 [YZ]	0.0056	<0.0005	<0.0005	<0.0005	<0.00050
	27-Jul-01	<0.05	<0.05	0.0008	<0.0005	<0.0005	<0.0005	<0.00050
	19-Oct-01	0.054	0.11	<0.0100	<0.0100	<0.0100	<0.0100	<0.02000
	31-Jan-02	<0.05	0.070 [YZ]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.00500 [b]
	16,17-Apr-02	<0.05	0.055 [YZ]	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	22,23-Oct-02	0.11 [YZ]	0.140 [YZ]	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071
	19-Feb-03	0.068 [YZ]	0.100 [YZ]	<0.005	<0.005	<0.005	<0.005	<0.005
	29-Jul-03	0.120 [YZ]	0.180 [YZ]	<0.010	<0.010	<0.010	<0.010	<0.010
	28-Jan-04	0.051 [YZ]	0.086 [YZ]	<0.005	<0.005	<0.005	<0.005	<0.005
	3-Aug-04	0.170 [YZ]	0.150 [YZ]	<0.017	<0.017	<0.017	<0.017	<0.017
	2-Feb-05	0.190 [Z]	0.250 [HYZ]	<0.031	<0.031	<0.031	<0.031	<0.031
	6-Jul-05	0.084 [YZ]	0.11 [YZ]	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	6-Jan-06	0.063 [YZ]	0.088 [YZ]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jul-06	0.091 [YZ]	.140 [YZ]	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	1-Mar-07	0.088 [YZ]	0.140 [YZ]	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
	23-Aug-07	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	20-Feb-08	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-08	0.079 [Y]	0.120 [YZ]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	9-Feb-09	0.070 [Y]	0.084 [YZ]	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	11-Aug-09	0.075 [Y]	0.085 [YZ]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**0.066 [YZ]**	**0.10 [YZ]**	**<0.0017**	**<0.0017**	**<0.0017**	**<0.0017**	**<0.0017**

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Well Name	Date Sampled	TPH-ss (mg/L)	TPH-g (mg/L)	MtBE (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)
GW-4	21-Jul-99	6.80 J	10 YHJ	0.0022	<0.0005	<0.0005	<0.0005	0.0029 J
	20-Jan-00	0.97 J	1.60 YJ	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Split	20-Jan-00	0.85 J	1.50 YJ	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	27-Apr-00	0.31	0.60 Y	<0.0020	<0.0005	<0.0005	<0.0005	0.0027
	30-Jan-01	0.39	0.58 HY	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005
	27-Jul-01	0.42	0.86 HY	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	19-Oct-01	0.83	1.60	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100
	31-Jan-02	0.92	1.70 HY	<0.0050 b	<0.0050 b	<0.0050 b	<0.0050 b	<0.0050 b
	16,17-Apr-02	0.40	0.67 HY	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	0.97	1.7 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	22,23-Oct-02	0.55	0.700 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	19-Feb-03	0.58	0.880 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	30-Jul-03	0.39	0.580 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	28-Jan-04	0.31	0.520 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	3-Aug-04	0.71	0.640 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	1-Feb-05	0.28	0.370 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	6-Jul-05	0.12	0.16 HY	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jan-06	0.54	0.75 HY	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	28-Feb-07	0.56	0.90 HY	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	NA	NA	NA	NA	NA	NA	NA
	20-Feb-08	0.50	0.63 Y	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	21-Aug-08	NA	NA	NA	NA	NA	NA	NA
	10-Feb-09	0.49	0.58 Y	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	11-Aug-09	NA	NA	NA	NA	NA	NA	NA
	1-Feb-10	0.25	0.42 Y	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	4-Aug-10	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
GW-5	27-Aug-99	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
	20-Jan-00	<0.05	0.057 Y	0.0007	<0.0005	<0.0005	<0.0005	<0.0005
	27-Apr-00	0.05 Y	0.096 Y	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**<0.05**	**<0.05**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
GW-6A	27-Aug-99	<0.05	0.054 Y	0.0089	<0.0005	<0.0005	<0.0005	<0.0005
Split	27-Aug-99	<0.05	0.057 Y	0.0087	<0.0005	<0.0005	<0.0005	<0.0005
	25-Jan-00	<0.05	<0.05	0.0022	<0.0005	<0.0005	<0.0005	<0.0005
	27-Apr-00	<0.05	0.087 Y	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
GW-7	15-Jul-99	NA	NA	<0.0025	0.05 J	<0.0005	0.000727	0.00313 J
Split	15-Jul-99	NA	NA	NA	NA	NA	NA	NA
	15-Jul-99	NA	NA	NA	0.0567 J	<0.002	<0.002	<0.002
Split	15-Jul-99	NA	NA	NA	0.0755 J	<0.002	<0.002	<0.002
GW-8	19-Jul-99	<0.05	<0.05	0.0078	<0.0005	0.00064	<0.0005	0.00151
	20-Jan-00	0.19	0.33 Y	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
Split	20-Jan-00	0.20	0.37 Y	<0.002	0.00058	<0.0005	<0.0005	<0.0005
	28-Apr-00	0.064 YZ	0.12 YZ	0.013	<0.0005	<0.0005	<0.0005	<0.0005

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Monitoring Wells Owned by TOSCO								
MW-11	25-Jan-00	< 0.05	<0.05	0.0090	<0.0005	<0.0005	<0.0005	<0.0005
	28-Apr-00	<0.05	<0.05	<0.0087	<0.0005	<0.0005	<0.0005	<0.0005
	10-Aug-00	<0.05	<0.05	0.0110	<0.0005	<0.0005	<0.0005	<0.0005
	1-Nov-00	<0.05	<0.05	0.0068	<0.0005	<0.0005	<0.0005	<0.0005
	31-Jan-01	< 0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	27-Jul-01	<0.05	0.10 [HY]	0.0010	<0.0005	<0.0005	<0.0005	0.0007
	19-Oct-01	<0.05	<0.05	<0.0050	<0.0050	<0.005	<0.005	<0.010
	31-Jan-02	<0.05	0.071 [Y]	<0.0050 [b]	<0.0050 [b]	<0.005 [b]	<0.005 [b]	<0.005 [b]
	16,17-Apr-02	<0.05	<0.05	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	22,23-Oct-02	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	18-Feb-03	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	30-Jul-03	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	28-Jan-04	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	3-Aug-04	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	1-Feb-05	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	5-Jul-05	<0.05	<0.05	0.0008	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jan-06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jul-06	<0.05	<0.05	0.001	<0.0005	<0.0005	<0.0005	<0.0005
	28-Feb-07	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	19-Feb-08	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-08	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	10-Feb-09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	12-Aug-09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**<0.05**	**<0.05**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
Monitoring Wells Installed by LFR								
LFR-1	9-Aug-00	0.53	1.2	0.0095	<0.0005	<0.0005	<0.0005	<0.0005
	30-Oct-00	0.24 [YZ]	0.37 [YZ]	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
Split	30-Oct-00	0.24 [YZ]	0.37 [YZ]	0.0043	<0.0005	<0.0005	<0.0005	<0.0005
	29-Jan-01	0.21 [YZ]	0.31 [YZ]	0.0033	<0.0005	<0.0005	<0.0005	<0.0005
	26-Apr-01	0.092	0.18 [YZ]	0.0044	<0.0005	0.002	<0.0005	<0.0005
	27-Jul-01	0.086	0.18 [YZ]	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
	18-Oct-01	0.19	0.38	<0.031	<0.031	<0.031	<0.031	<0.062
	31-Jan-02	0.15 [YZ]	0.27 [YZ]	<0.013 [b]	<0.013 [b]	<0.013 [b]	<0.013 [b]	<0.013 [b]
	16,17-Apr-02	0.10 [YZ]	0.17 [YZ]	< 0.013	<0.0005	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	0.084 [Y Z]	0.14 [Y Z]	<0.013	<0.013	<0.013	<0.013	<0.013
	22,23-Oct-02	<0.05	0.078 [YZ]	<0.005	<0.005	<0.005	<0.005	<0.005
	18-Feb-03	0.076 [YZ]	0.110 [YZ]	<0.005	<0.005	<0.005	<0.005	<0.005
	30-Jul-03	<0.05	0.068 [YZ]	<0.005	<0.005	<0.005	<0.005	<0.005
	29-Jan-04	0.060 [YZ]	0.100 [YZ]	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063
	4-Aug-04	<0.05	<0.050	<0.005	<0.005	<0.005	<0.005	<0.005
	2-Feb-05	<0.05	0.056 [YZ]	<0.005	<0.005	<0.005	<0.005	<0.005
	6-Jul-05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jan-06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jul-06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Mar-07	<0.05	0.053 [YZ]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	23-Aug-07	0.070 [YZ]	0.120 [YZ]	0.0008	<0.0005	<0.0005	<0.0005	<0.0005
	19-Feb-08	0.062 [Y]	0.077 [Y]	<0.001	<0.001	<0.001	<0.001	0.0033
	22-Aug-08	<0.05	0.059 [YZ]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	9-Feb-09	0.057 [Y]	0.067 [YZ]	<0.001	<0.001	<0.001	<0.001	<0.001
	11-Aug-09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Table 4
Historical Analytical Results for Total Petroleum Hydrocarbon, BTEX and MtBE in Groundwater Samples
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	TPH-ss (mg/L)	TPH-g (mg/L)	MtBE (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)
LFR-1 cont.	1-Feb-10	<0.05	0.051 [Y]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**<0.05**	**<0.05**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
LFR-2	11-Aug-00	0.59	1.10 [YH]	0.0022	0.0018	<0.0005	<0.0005	0.0013 [C]
	2-Nov-00	0.38	0.70 [YH]	0.003	0.0035	0.0011	0.0042	0.01184 [C]
	30-Jan-01	0.36	0.54 [HY]	0.0034	0.00057	<0.0005	<0.0005	<0.0005
	27-Apr-01	0.33	0.66 [HY]	<0.002	<0.0005	0.0013	<0.0005	<0.0005
	27-Apr-01	0.36	0.72 [HY]	<0.002	0.00059	0.0019	<0.0005	0.013
	27-Jul-01	0.33	0.76 [HY]	<0.0005	0.0013	<0.0005	<0.0005	0.0006
	18-Oct-01	0.73	1.50	<0.0071	<0.0071	<0.0071	<0.0071	<0.0142
	31-Jan-02	0.76	1.40 [HY]	<0.005 [b]	<0.005 [b]	<0.005 [b]	<0.005 [b]	<0.005 [b]
	16,17-Apr-02	1.10	1.90 [HY]	<0.002	<0.0005	<0.0005	<0.0005	0.019 [C]
	17,18-Jul-02	0.97	1.7 [H Y]	<0.005	<0.005	<0.005	<0.005	<0.005
	22,23-Oct-02	3.10	5.000 [HY]	<0.005	<0.005	<0.005	<0.005	<0.005
	18-Feb-03	1.50	2.300 [HY]	<0.005	<0.005	<0.005	<0.005	<0.005
	30-Jul-03	4.10	6.000 [HY]	<0.005	<0.005	<0.005	<0.005	<0.005
	29-Jan-04	NA	NA	NA	NA	NA	NA	NA
	4-Aug-04	2.50	2.2 [HY]	<0.005	<0.005	<0.005	<0.005	<0.005
	1-Feb-05	1.10	1.5 [HY]	<0.005	<0.005	<0.005	<0.005	<0.005
	5-Jul-05	0.95	1.3 [HY]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jan-06	4.00	5.6 [HY]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jul-06	0.49	0.770 [HY]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	28-Feb-07	1.20	1.9 [HY]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	3.70	6.4 [HY]	<0.0005	0.0022	<0.0005	<0.0005	<0.0005
	20-Feb-08	73	92 [Y]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	21-Aug-08	15	23 [Y]	<0.0083	0.0059	0.0017	<0.0005	<0.0005
	10-Feb-09	3.4	4.0 [Y]	<0.0017	0.0027	<0.0017	<0.0017	<0.0017
	11-Aug-09	38	68 [Y]	<0.0008	0.0010	<0.0008	<0.0008	<0.0008
	1-Feb-10	100	160 [Y]	<0.0005	0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**60**	**93 [Y]**	**<0.0017**	**<0.0017**	**<0.0017**	**<0.0017**	**<0.0017**
LFR-3	10-Aug-00	<0.05	<0.05	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
Split	10-Aug-00	<0.05	<0.05	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
	1-Nov-00	<0.05	<0.05	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
	30-Jan-01	<0.05	<0.05	0.0036	<0.0005	<0.0005	<0.0005	<0.0005
	27-Apr-01	<0.05	<0.05	0.0024	<0.0005	0.0054	<0.0005	<0.0005
	27-Jul-01	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	18-Oct-01	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01
	31-Jan-02	<0.05	0.067 [Y]	<0.005 [b]	<0.005 [b]	<0.005 [b]	<0.005 [b]	<0.005 [b]
	16,17-Apr-02	<0.05	<0.05	<0.002	<0.0005	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	22,23-Oct-02	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	19-Feb-03	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	30-Jul-03	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	29-Jan-04	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	3-Aug-04	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	2-Feb-05	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	5-Jul-05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	9-Dec-05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jan-06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jul-06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Mar-07	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	20-Feb-08	<0.05	0.053 [Y]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-08	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Table 4
Historical Analytical Results for Total Petroleum Hydrocarbon, BTEX and MtBE in Groundwater Samples
Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	TPH-ss (mg/L)	TPH-g (mg/L)	MtBE (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)
LFR-3 cont.	9-Feb-09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	11-Aug-09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**<0.05**	**<0.05**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
LFR-4	11-Aug-00	0.22 Y	0.41 Y	0.0051	0.01100	<0.0005	<0.0005	0.00162 C
	31-Oct-00	0.17 Y	0.27	0.0065	0.00084	<0.0005	<0.0005	<0.0005
	1-Feb-01	0.16 Y	0.22	0.0097	0.00330	<0.0005	<0.0005	<0.0005
	27-Apr-01	0.22 Y	0.44	0.0058	0.02700	0.0036	<0.0005	<0.0005
	27-Jul-01	0.091 Y	0.19	0.011	0.00090	<0.0005	<0.0005	<0.0005
	31-Jan-02	NA	NA	NA	NA	NA	NA	NA
	16,17-Apr-02	0.40 Y	0.67	< 0.005	0.05300	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	0.21 Y	0.36 Y	0.0075	0.007	<0.005	<0.005	<0.005
	22,23-Oct-02	0.110 Y	0.17	0.0080	<0.005	<0.005	<0.005	<0.005
	19-Feb-03	0.490 Y	0.740	<0.005	0.055	<0.005	<0.005	<0.005
	30-Jul-03	0.400 Y	0.59	<0.005	0.010	<0.005	<0.005	<0.005
	29-Jan-04	0.42 Y	0.700 Y	<0.005	0.011	<0.005	<0.005	<0.005
	4-Aug-04	NA	NA	NA	NA	NA	NA	NA
	5-Jul-05	0.510 Y	0.68	0.0049	0.024	<0.0005	<0.0005	<0.0005
	5-Jul-06	0.650 Y	1.10	0.0081	0.059	<0.0005	0.0081	0.006
	1-Mar-07	0.370 Y	0.590 H	0.006	0.0063	<0.0005	<0.0005	<0.0005
	22-Aug-07	NA	NA	NA	NA	NA	NA	NA
	20-Feb-08	NA	NA	NA	NA	NA	NA	NA
	21-Aug-08	0.990 Y	1.50 Y	0.0029	0.0009	<0.0005	<0.0005	<0.0005
	10-Feb-09	1.20 Y	1.40 Y	0.0025	0.0021	<0.0005	<0.0005	<0.0005
	11-Aug-09	0.27 Y	0.48 Y	0.0009	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	NA	NA	NA	NA	NA	NA	NA
	5-Aug-10	**0.27 Y**	**0.42 Y**	**0.0008**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
Monitoring Wells Installed by SOMA								
SOMA-1	19-Oct-01	0.22	0.44	0.034	<0.0050	<0.0050	<0.0050	<0.0100
	31-Jan-02	0.058	0.100 HY	0.110 b	<0.0050 b	<0.0050 b	<0.0050 b	<0.0050 b
	16,17-Apr-02	<0.05	0.052 Y	0.120	0.0008	<0.0005	<0.0005	<0.0005
	17,18-Jul-02	<0.05	<0.05	0.120	<0.005	<0.005	<0.005	<0.005
	22,23-Oct-02	<0.05	0.053	0.140	<0.005	<0.005	<0.005	<0.005
	19-Feb-03	<0.05	<0.05	0.150	<0.0071	<0.0071	<0.0071	<0.0071
	30-Jul-03	<0.05	<0.05	0.190	<0.005	<0.005	<0.005	<0.005
	29-Jan-04	<0.05	<0.05	0.190	<0.005	<0.005	<0.005	<0.005
	3-Aug-04	<0.05	<0.05	0.170	<0.013	<0.013	<0.013	<0.013
	1-Feb-05	<0.05	<0.05	0.200	<0.017	<0.017	<0.017	<0.017
	5-Jul-05	<0.05	<0.05	0.210	<0.0017	<0.0017	<0.0017	<0.0017
	5-Jan-06	<0.05	<0.05	0.270	0.0006	<0.0005	<0.0005	<0.0005
	5-Jul-06	<0.05	<0.05	0.310	<0.002	<0.002	<0.002	<0.002
	28-Feb-07	0.050 YZ	0.081 YZ	0.330	0.0025	<0.002	<0.002	<0.002
	22-Aug-07	<0.05	0.066 YZ	0.450	<0.002	<0.002	<0.002	<0.002
	20-Feb-08	<0.05	0.076 Y	0.340	<0.002	<0.002	<0.002	0.0084
	21-Aug-08	0.055 Y	0.084 YZ	0.390	<0.0025	<0.0025	<0.0025	<0.0025
	10-Feb-09	0.057 Y	0.086 YZ	0.370	<0.0025	<0.0025	<0.0025	<0.0025
	11-Aug-09	<0.05	0.053 Y	0.430	<0.0025	<0.0025	<0.0025	<0.0025
	2-Feb-10	<0.05	0.051 Y	0.360	<0.0025	<0.0025	<0.0025	<0.0025
	5-Aug-10	**<0.05**	**0.054 YZ**	**0.400**	**<0.0036**	**<0.0036**	**<0.0036**	**<0.0036**
SOMA-2	19-Oct-01	1.4	2.8	<0.250	<0.2500	<0.250	<0.250	<0.500
	31-Jan-02	1.3	2.4 HY	<0.071 b	<0.0710 b	<0.071 b	<0.071 b	<0.071 b
	16,17-Apr-02	1.3 L	2.2 H	< 0.130	0.0067	0.046	0.012	0.044
	17,18-Jul-02	2.6	4.4 H Y	<0.063	<0.063	<0.063	<0.063	<0.063
	22,23-Oct-02	0.37	0.600 HY	0.300	<0.0071	<0.0071	<0.0071	<0.0071

Table 4
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Well Name	Date Sampled	TPH-ss (mg/L)	TPH-g (mg/L)	MtBE (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)
SOMA-2 cont.	19-Feb-03	0.30	0.460 HY	0.210	<0.017	<0.017	<0.017	<0.017
	29-Jul-03	0.27	0.400 HY	0.300	<0.020	<0.020	<0.020	<0.020
	28-Jan-04	0.23	0.38 HY	0.270	<0.017	<0.017	<0.017	<0.017
	4-Aug-04	0.31	0.28 HY	0.280	<0.031	<0.031	<0.031	<0.031
	2-Feb-05	39	53 HY	<0.31	<0.31	<0.31	<0.31	<0.31
	6-Jul-05	5.10	6.8 HY	<0.025	<0.025	0.053	<0.025	0.031
	9-Jan-06	67	93 HY	<0.042	<0.042	0.054	<0.042	<0.042
	6-Jul-06	25	40 HY	<0.042	<0.042	0.061	<0.042	<0.042
	1-Mar-07	18	29 HY	<0.042	<0.042	0.055	<0.042	<0.042
	23-Aug-07	75	130 HY	<0.042	<0.042	0.081	<0.042	<0.042
	20-Feb-08	3.2	4.0 Y	<0.1	<0.1	<0.1	<0.1	<0.1
	25-Mar-08	360.0	270 Yb	<0.13	<0.13	0.180	<0.13	0.170
	21-Aug-08	3.8	5.7 Y	<0.0063	0.016	0.120	0.014	0.094
	10-Feb-09	860.0	1,300 Y	<0.05	<0.05	<0.05	<0.05	<0.05
	11-Aug-09	FP	FP	FP	FP	FP	FP	FP
	2-Feb-10	430	700 Y	<0.013	<0.013	<0.013	<0.013	<0.013
	6-Aug-10	**52**	**80 Y**	**<0.02**	**<0.02**	**<0.02**	**<0.02**	**<0.02**
SOMA-3	19-Oct-01	0.42	0.83	0.65	<0.02500	<0.02500	<0.0250	<0.0500
	31-Jan-02	0.23	0.41 HY	0.31 b	<0.01300 b	<0.01300 b	<0.0130 b	<0.0130 b
	16,17-Apr-02	0.61	1.00 HY	0.42	0.00078	0.00068	<0.0005	<0.0005
	17,18-Jul-02	0.41	0.69 H Y	0.38	<0.017	<0.017	<0.017	<0.017
	22,23-Oct-02	3.00	4.700 HY	<0.17	<0.170	<0.170	<0.170	<0.170
	19-Feb-03	2.50	3.800 HY	<0.13	<0.130	<0.130	<0.130	<0.130
	29-Jul-03	2.10	3.100 HY	<0.13	<0.130	<0.130	<0.130	<0.130
	29-Jan-04	4.10	6.8 HY	<0.31	<0.310	<0.310	<0.310	<0.310
	4-Aug-04	4.00	3.6 HY	<0.50	<0.500	<0.500	<0.500	<0.500
	2-Feb-05	0.27	0.36 HY	0.25	<0.063	<0.063	<0.063	<0.063
	6-Jul-05	0.32	0.43 HY	0.32	0.0017	<0.0005	<0.0005	0.0016
	6-Jan-06	0.22	0.30 HY	0.39	0.0014	<0.0005	<0.0005	0.0012
	6-Jul-06	0.14	0.27 HY	0.500	<0.005	<0.005	<0.005	<0.005
	1-Mar-07	0.19	0.31 HY	0.490	<0.005	<0.005	<0.005	<0.005
	23-Aug-07	0.97	1.700 HY	0.320	<0.005	<0.005	<0.005	<0.005
	20-Feb-08	0.38	0.48 Y	<0.031	<0.031	<0.031	<0.031	<0.031
	21-Aug-08	0.40	0.60 Y	0.220	<0.013	<0.013	<0.013	<0.013
	10-Feb-09	0.10	0.15 Y	0.280	<0.013	<0.013	<0.013	<0.013
	12-Aug-09	0.076 Y	0.13 Y	0.430	<0.0036	<0.0036	<0.0036	<0.0036
	2-Feb-10	0.27	0.44 Y	0.110	<0.0083	<0.0083	<0.0083	<0.0083
	6-Aug-10	**0.24**	**0.37 Y**	**0.020**	**<0.013**	**<0.013**	**<0.013**	**<0.013**
SOMA-4	19-Oct-01	2.5	5	0.63	<0.13	<0.13	<0.13	<0.26
	31-Jan-02	FP	FP	FP	FP	FP	FP	FP
	16,17-Apr-02	FP	FP	FP	FP	FP	FP	FP
	17,18-Jul-02	FP	FP	FP	FP	FP	FP	FP
	22,23-Oct-02	FP	FP	FP	FP	FP	FP	FP
	18-Feb-03	FP	FP	FP	FP	FP	FP	FP
	29-Jul-03	FP	FP	FP	FP	FP	FP	FP
	10-Feb-09	44	65 Y	0.018	<0.005	0.016	<0.005	0.029
SOMA-4R	12-Aug-09	37	65 Y	0.08	<0.001	<0.001	<0.001	0.0019
	2-Feb-10	21	34 Y	0.008	<0.002	0.0031	<0.002	0.0065
	6-Aug-10	**20**	**32 Y**	**0.015**	**<0.0031**	**0.0035**	**<0.0031**	**0.0043**

Table 4
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Well Name	Date Sampled	TPH-ss (mg/L)	TPH-g (mg/L)	MtBE (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)
SOMA-5	4-Aug-04	4.1	3.7 HY	<0.005	<0.005	<0.005	<0.005	<0.005
	2-Feb-05	0.11 Z	0.15 HYZ	<0.005	<0.005	<0.005	<0.005	<0.005
	6-Jul-05	2.3 H	3.1 HY	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	9-Jan-06	0.89	1.2 HY	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	6-Jul-06	0.45 YZ	0.720 YZ	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Mar-07	NA	3.9 YZ	0.0052	<0.0005	<0.0005	<0.0005	<0.0005
	23-Aug-07	NA	NA	NA	NA	NA	NA	NA
	20-Feb-08	NA	NA	NA	NA	NA	NA	NA
	21-Aug-08	NA	NA	NA	NA	NA	NA	NA
	10-Feb-09	NA	NA	NA	NA	NA	NA	NA
	11-Aug-09	NA	NA	NA	NA	NA	NA	NA
	1-Feb-10	NA	NA	NA	NA	NA	NA	NA
	6-Aug-10	**0.78**	**1.2 Y**	**0.0078**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
MPE-1	12-Aug-09	28	49 Y	0.26	<0.0005	0.0011	<0.0005	0.0029
	2-Feb-10	<5	<5	<0.002	<0.002	<0.002	<0.002	<0.002
	6-Aug-10	**1.1**	**1.8 Y**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
MPE-2	12-Aug-09	380	200 Y	0.015	0.0016	0.0053	0.0013	0.0204
	1-Feb-10	FP	FP	FP	FP	FP	FP	FP
	5-Aug-10	**FP**	**FP**	**FP**	**FP**	**FP**	**FP**	**FP**
MPE-3	11-Aug-09	FP	FP	FP	FP	FP	FP	FP
	1-Feb-10	FP	FP	FP	FP	FP	FP	FP
	5-Aug-10	**FP**	**FP**	**FP**	**FP**	**FP**	**FP**	**FP**
MPE-4	12-Aug-09	71	130 Y	0.0043	0.0006	<0.0005	<0.0005	0.0036
	2-Feb-10	1.3	2.2 Y	0.0021	0.0009	<0.0005	0.0006	0.0026
	6-Aug-10	**0.99**	**1.5 Y**	**0.0028**	**0.0009**	**<0.0005**	**<0.0005**	**0.0009**
MPE-5	12-Aug-09	1.1 Y	1.9 Y	0.0032	<0.001	<0.001	<0.001	<0.001
	2-Feb-10	29	47 Y	0.0021	0.001	<0.001	<0.001	<0.001
	6-Aug-10	**18**	**27 Y**	**0.0022**	**0.0005**	**<0.0005**	**<0.0005**	**<0.0005**

Notes:

b Analysis was carried out past the hold date, no analytical problems were encountered. See narrative for Q1 2008

C Presence of this compound confirmed by second column, however, the confirmation concentration different from reported results by more than a factor of two.

H Heavier hydrocarbons than the standard are present in the sample.

J Result is estimated.

L Lighter hydrocarbons contributed to the quantitation

NA Not analyzed.

During First and Second Semi-annual 2009 events SOMA-5 had insufficient groundwater for sampling

During Second Semi-annual 2009 event GW-4 had insufficient groundwater for sampling

Y Sample exhibits fuel pattern which does not resemble standard.

Z Sample exhibits unknown single peak or peaks.

FP: Not Analyzed due to Free Product

TPH, purge = Total petroleum hydrocarbons (purgeable)

Groundwater samples collected from the temporary sampling points are considered grab samples, therefore, the results should be considered estimates of groundwater quality.

MPE-1 through MPE-5 were installed May 2009

Table 5
Historical Analytical Results For Volatile Organic Compound Analyses in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
Temporary Sampling Points Installed by Geosolv, LLC							
B-2	24-Jan-00	<0.0013	<0.0013	0.27	0.001	< 0.0013	< 0.0013
B-3	24-Jan-00	< 0.0020	< 0.002	0.61	< 0.002	< 0.002	< 0.002
B-7	24-Jan-00	< 0.0036	< 0.0036	0.92	0.004	< 0.0036	< 0.0036
	11-Aug-00	< 0.0031	< 0.0031	0.86	0.005	< 0.0031	< 0.0031
	31-Oct-00	< 0.0042	< 0.0042	0.91	0.004	< 0.0042	< 0.0042
	27-Jul-01	0.01	0.017	0.86	0.005	<0.0031	<0.0031
	27-Apr-01	<0.0031	<0.0031	1.10	0.007	<0.0031	<0.0031
	31-Jan-01	< 0.0042	< 0.0042	0.92	0.005	< 0.0042	< 0.0042
B-8	24-Jan-00	< 0.0005	< 0.0005	0.035	< 0.0005	< 0.0005	< 0.0005
B-8R	12-Aug-09	<0.0005	<0.0005	0.027	<0.0005	<0.0005	<0.0005
	2-Feb-10	0.0012	<0.0005	0.016	<0.0005	<0.0005	<0.0005
	6-Aug-10	**<0.0007**	**<0.0007**	**0.018**	**<0.0007**	**<0.0007**	**<0.0007**
B-9	24-Jan-00	< 0.0005	0.001	0.003	< 0.0005	< 0.0005	< 0.0005
B-10	24-Jan-00	1.20	2.40	14.00	0.090	< 0.063	< 0.063
	10-Aug-00	2.90	1.60	6.50	0.050	< 0.025	< 0.025
	31-Oct-00	2.40	1.90	7.10	0.061	< 0.025	< 0.025
	27-Jul-01	1.70	1.40	7.30	0.043	<0.025	<0.025
	27-Jul-01	0.87	0.81	6.60	0.041	<0.025	<0.025
	31-Jan-01	2.10	1.60	6.60	0.044	< 0.025	< 0.025
	6-Jul-05	0.59	0.34	12.00	<0.1	<0.1	<0.1
	9-Jan-06	0.14	0.29	13.00	<0.1	<0.1	<0.1
	6-Jul-06	0.37	0.38	14.00	<0.1	<0.1	<0.1
	1-Mar-07	<0.1	<0.1	14.00	0.110	<0.1	<0.1
	23-Aug-07	NA	NA	NA	NA	NA	NA
	20-Feb-08	20.0	9.1	16.0	<0.25	<0.25	<0.25
	25-Mar-08	520.0	70.0	28.0	<0.36	<0.36	<0.36
	21-Aug-08	1.1	0.97	17.0	0.096	<0.083	<0.083
	10-Feb-09	1.2	1.2	2.9	<0.02	<0.02	<0.02
B-10R	12-Aug-09	0.260	0.120	1.8	<0.013	<0.013	<0.013
	2-Feb-10	0.130	0.100	2.0	0.0077	<0.0063	<0.0063
	6-Aug-10	**0.025**	**0.055**	**3.9**	**0.048**	**0.012**	**<0.001**
B-13	24-Jan-00	0.020	0.029	0.13	0.005	< 0.0005	< 0.0005
Temporary Sampling Points Installed by LFR							
GW-2	19-Jul-99	0.014	0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	20-Jan-00	0.130	0.019	0.006	< 0.0005	< 0.0005	< 0.0005
	28-Apr-00	0.120	0.016	0.003	< 0.0005	< 0.0005	< 0.0005
	2-Nov-00	0.008	0.001	0.003	< 0.0005	< 0.0005	< 0.0005
	1-Feb-01	0.008	0.001	0.003	< 0.0005	< 0.0005	< 0.0005
	27-Apr-01	0.010	0.002	0.002	<0.0005	<0.0005	<0.0005
	27-Jul-01	0.033	0.004	0.002	<0.0005	<0.0005	<0.0005
	19-Oct-01	0.019	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	31-Jan-02	0.0092 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0100 [b]	<0.0050 [b]
	16,17-Apr-02	0.014	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	17-18-Jul-02	0.014	<0.005	<0.005	<0.005	<0.01	<0.005
	22,23-Oct-02	0.027	<0.005	<0.005	<0.005	<0.010	<0.005
	19-Feb-03	0.057	0.007	<0.005	<0.005	<0.010	<0.005
	29-Jul-03	0.043	<0.005	<0.005	<0.005	<0.010	<0.005
	28-Jan-04	0.057	0.0069	<0.005	<0.005	<0.010	<0.005
	4-Aug-04	0.075	0.0100	<0.005	<0.005	<0.010	<0.005
	2-Feb-05	0.049	0.0066	0.016	<0.005	<0.010	<0.005
	6-Jul-05	0.082	0.0110	0.0009	<0.0005	<0.0005	<0.0005
	6-Jan-06	0.061	0.0079	0.0008	<0.0005	<0.0005	<0.0005
	6-Jul-06	0.0750	0.0095	0.0007	<0.0005	<0.0005	<0.0005
	28-Feb-07	0.082	0.0096	0.0006	<0.0005	<0.0005	<0.0005
	22-Aug-07	NA	NA	NA	NA	NA	NA
	20-Feb-08	NA	NA	NA	NA	NA	NA
	22-Aug-08	0.015	0.003	<0.0005	<0.0005	<0.0005	<0.0005
	9-Feb-09	0.059	0.0062	<0.0005	<0.0005	<0.0005	<0.0005
	11-Aug-09	0.030	0.0031	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	0.042	0.0046	<0.0005	<0.0005	<0.0005	<0.0005

Table 5
Historical Analytical Results For Volatile Organic Compound Analyses in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
	5-Aug-10	0.033	0.0035	<0.0005	<0.0005	<0.0005	<0.0005

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Historical Analytical Results For Volatile Organic Compound Analyses in Groundwater Samples
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Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
GW-3	19-Jul-99	0.220	<0.001	< 0.0010	< 0.0010	< 0.0010	< 0.0010
	20-Jan-00	0.055	0.001	0.020	< 0.0005	< 0.0005	< 0.0005
	27-Apr-00	0.350	0.002	0.006	< 0.0005	< 0.0005	< 0.0005
Split	27-Apr-00	0.270	0.002	0.002	< 0.0013	< 0.0013	< 0.0013
	11-Aug-00	0.068	0.003	0.012	< 0.0005	< 0.0005	< 0.0005
	2-Nov-00	0.059	0.001	0.002	< 0.0005	< 0.0005	< 0.0005
	1-Feb-01	0.046	0.001	0.001	< 0.0005	< 0.0005	< 0.0005
	27-Apr-01	0.079	0.001	0.002	<0.0005	<0.0005	<0.0005
	27-Jul-01	0.090	0.001	<0.0005	<0.0005	<0.0005	<0.0005
	19-Oct-01	0.180	<0.0100	<0.0100	<0.0100	<0.0200	<0.0100
	31-Jan-02	0.0960 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0100 [b]	<0.0050 [b]
	16,17-Apr-02	0.160	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	17,18-Jul-02	0.086	<0.005	<0.005	<0.005	<0.01	<0.005
	22,23-Oct-02	0.200	<0.0071	<0.0071	<0.0071	<0.014	<0.0071
	19-Feb-03	0.240	<0.005	0.006	<0.005	<0.010	<0.005
	29-Jul-03	0.430	<0.010	<0.010	<0.010	<0.010	<0.010
	28-Jan-04	0.170	<0.005	<0.005	<0.005	<0.010	<0.005
	3-Aug-04	0.440	<0.017	<0.017	<0.017	<0.033	<0.017
	2-Feb-05	0.360	<0.031	<0.031	<0.031	<0.063	<0.031
	6-Jul-05	0.320	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	6-Jan-06	0.200	0.0008	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jul-06	0.400	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	1-Mar-07	0.400	0.002	<0.0017	<0.0017	<0.0017	<0.0017
	23-Aug-07	0.150	0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	20-Feb-08	0.082	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-08	0.240	0.0013	<0.0005	<0.0005	<0.0005	<0.0005
	9-Feb-09	0.330	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	11-Aug-09	0.230	0.0058	0.0013	<0.0005	<0.0005	<0.0005
	1-Feb-10	0.100	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**0.180**	**0.0084**	**0.0063**	**<0.0017**	**<0.0017**	**<0.0017**
GW-4	19-Jul-99	< 0.0005	< 0.0005	0.004	< 0.0005	< 0.0005	0.002
	20-Jan-00	0.001	< 0.0005	0.004	< 0.0005	< 0.0005	0.002
Split	20-Jan-00	0.001	< 0.0005	0.004	< 0.0005	< 0.0005	0.002
	27-Apr-00	0.002	< 0.0005	0.001	< 0.0005	< 0.0005	0.001
	30-Jan-01	< 0.0005	< 0.0005	0.002	< 0.0005	< 0.0005	0.001
	27-Jul-01	< 0.0005	< 0.0005	0.003	< 0.0005	0.001	0.002
	19-Oct-01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	31-Jan-02	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0100 [b]	<0.0050 [b]
	16,17-Apr-02	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	17,18-Jul-02	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
	22,23-Oct-02	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	19-Feb-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	30-Jul-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	28-Jan-04	0.0081	<0.005	0.010	<0.005	<0.010	<0.005
	3-Aug-04	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	1-Feb-05	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	6-Jul-05	0.0006	<0.0005	0.0013	<0.0005	<0.0005	0.0011
	5-Jan-06	<0.0005	<0.0005	0.0018	<0.0005	<0.0005	0.0015
	28-Feb-07	0.0006	<0.0005	0.0016	<0.0005	<0.0005	0.0014
	22-Aug-07	NA	NA	NA	NA	NA	NA
	20-Feb-08	<0.0005	<0.0005	0.0010	<0.0005	<0.0005	0.0011
	21-Aug-08	NA	NA	NA	NA	NA	NA
	10-Feb-09	<0.0005	<0.0005	0.0013	<0.0005	<0.0005	0.0017
	11-Aug-09	NA	NA	NA	NA	NA	NA
	1-Feb-10	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	0.0006
	4-Aug-10	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
GW-5	27-Aug-99	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
	20-Jan-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	27-Apr-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5-Aug-10	**< 0.0005**	**< 0.0005**	**< 0.0005**	**< 0.0005**	**< 0.0005**	**< 0.0005**
GW-6A	27-Aug-99	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Split	27-Aug-99	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	25-Jan-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	27-Apr-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
GW-7	15-Jul-99	< 0.0005	< 0.0005	0.004	< 0.0005	< 0.0005	0.001
	15-Jul-99	< 0.0020	< 0.0020	0.004	< 0.0020	< 0.0020	< 0.0020
Split	15-Jul-99	< 0.0020	< 0.0020	0.004	< 0.0020	< 0.0020	< 0.0020
GW-8	19-Jul-99	0.024	0.015	0.004	0.002	0.001	< 0.0005
	20-Jan-00	0.150	0.190	0.053	0.012	0.005	< 0.0007
Split	20-Jan-00	0.150	0.180	0.052	0.011	0.005	< 0.0005
	28-Apr-00	0.120	0.110	0.029	0.005	0.002	< 0.0005
Monitoring wells owned by TOSCO							
MW-11	25-Jan-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	28-Apr-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	10-Aug-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	1-Nov-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	31-Jan-01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	27-Apr-01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	27-Jul-01	0.002	0.001	0.006	< 0.0005	< 0.0005	< 0.0005
	19-Oct-01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	31-Jan-02	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0100 [b]	<0.0050 [b]
	16,17-Apr-02	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050
	17,18-Jul-02	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
	22,23-Oct-02	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	18-Feb-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	30-Jul-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	28-Jan-04	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	3-Aug-04	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	1-Feb-05	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	5-Jul-05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jan-06	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jul-06	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	28-Feb-07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	19-Feb-08	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-08	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	10-Feb-09	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	12-Aug-09	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**

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Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
Monitoring wells installed by LFR							
LFR-1	9-Aug-00	2.80	0.064	0.041	< 0.0083	< 0.0083	< 0.0083
	30-Oct-00	0.82	0.034	0.010	< 0.0031	< 0.0031	< 0.0031
Split	30-Oct-00	0.87	0.035	0.014	< 0.0031	< 0.0031	< 0.0031
	29-Jan-01	0.77	0.026	0.007	<0.0025	<0.0025	<0.0025
	26-Apr-01	0.44	0.013	0.005	<0.0013	<0.0013	<0.0013
	27-Jul-01	0.38	0.031	0.010	<0.0013	<0.0013	<0.0013
	18-Oct-01	0.78	0.093	<0.0310	<0.0310	<0.0630	<0.0310
	31-Jan-02	0.37 [b]	0.035 [b]	<0.0130 [b]	<0.0130 [b]	<0.0250 [b]	<0.0130 [b]
	16,17-Apr-02	0.38	0.040	<0.0130	<0.0130	<0.0250	<0.0130
	17,18-Jul-02	0.36	0.041	<0.013	<0.013	<0.025	<0.013
	22,23-Oct-02	0.18	0.024	0.007	<0.005	<0.010	<0.005
	18-Feb-03	0.28	0.032	<0.005	<0.005	<0.010	<0.005
	30-Jul-03	0.15	0.027	0.007	<0.005	<0.010	<0.005
	29-Jan-04	0.15	0.023	0.0077	<0.0063	<0.013	<0.0063
	4-Aug-04	0.058	0.016	0.0052	<0.005	<0.010	<0.005
	2-Feb-05	0.089	0.0079	0.0072	<0.005	<0.010	<0.005
	6-Jul-05	0.096	0.0260	0.0049	<0.0005	<0.0005	<0.0005
	6-Jan-06	0.062	0.0076	0.0010	<0.0005	<0.0005	<0.0005
	6-Jul-06	0.0078	0.0410	0.001	<0.0005	<0.0005	<0.0005
	1-Mar-07	0.098	0.0099	0.0017	<0.0005	<0.0005	<0.0005
	23-Aug-07	0.170	0.073	0.036	0.0066	0.0005	<0.0005
	19-Feb-08	0.130	0.051	0.021	0.0048	<0.001	<0.001
	22-Aug-08	0.084	0.047	0.014	0.0039	<0.0005	<0.0005
	9-Feb-09	0.100	0.020	0.0031	<0.001	<0.001	<0.001
	11-Aug-09	0.082	0.039	0.011	0.0028	<0.0005	<0.0005
	1-Feb-10	0.110	0.032	0.0048	0.0011	<0.0005	<0.0005
	5-Aug-10	**0.074**	**0.036**	**0.011**	**0.0035**	**<0.0005**	**<0.0005**
LFR-2	11-Aug-00	< 0.0005	< 0.0005	0.035	< 0.0005	0.005	< 0.0005
	2-Nov-00	< 0.0005	< 0.0005	0.130	0.001	0.015	0.001
	29-Jan-01	<0.0005	<0.0005	0.006	<0.0005	0.002	<0.0005
	27-Apr-01	0.001	<0.0005	0.006	<0.0005	0.001	<0.0005
split	27-Jul-01	0.001	0.001	0.019	<0.0005	<0.0005	<0.0005
	18-Oct-01	<0.0071	<0.0071	0.160	<0.0071	<0.0140	<0.0071
	27-Apr-01	0.001	<0.0005	0.007	<0.0005	0.002	<0.0005
	31-Jan-02	<0.0050 [b]	<0.0050 [b]	0.0069 [b]	<0.0050 [b]	<0.0100 [b]	<0.0050 [b]
	16,17-Apr-02	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	17,18-Jul-02	<0.005	<0.005	0.012	<0.005	<0.01	<0.005
	22,23-Oct-02	<0.005	<0.005	0.066	<0.005	<0.010	<0.005
	18-Feb-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	30-Jul-03	<0.005	<0.005	0.011	<0.005	<0.010	<0.005
	4-Aug-04	<0.005	<0.005	0.012	<0.005	<0.010	<0.005
	1-Feb-05	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	5-Jul-05	<0.0005	<0.0005	0.0012	<0.0005	<0.0005	<0.0005
	5-Jan-06	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.0005
	5-Jul-06	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	28-Feb-07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	<0.0005	<0.0005	0.078	<0.0005	0.0098	<0.0005
	20-Feb-08	<0.0005	<0.0005	0.014	<0.0005	0.004	<0.0005
	21-Aug-08	<0.0083	<0.0005	1.40	0.0083	0.089	0.0009
	10-Feb-09	<0.0017	<0.0017	0.33	0.0023	0.032	<0.0017
	11-Aug-09	<0.0008	<0.0008	0.12	<0.0008	0.013	<0.0008
	1-Feb-10	<0.0005	<0.0005	0.027	<0.0005	0.0057	<0.0005
	5-Aug-10	**<0.0017**	**<0.0017**	**0.067**	**<0.0017**	**0.0085**	**<0.0017**

Table 5
Historical Analytical Results For Volatile Organic Compound Analyses in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
LFR-3	10-Aug-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Split	10-Aug-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	1-Nov-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	30-Jan-01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	27-Apr-01	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	27-Jul-01	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	18-Oct-01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	31-Jan-02	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0050 [b]	<0.0100 [b]	<0.0050 [b]
	16,17-Apr-02	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	17,18-Jul-02	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
	22,23-Oct-02	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	19-Feb-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	30-Jul-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	29-Jan-04	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	3-Aug-04	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	2-Feb-05	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	5-Jul-05	0.011	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	9-Dec-05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	6-Jan-06	0.0031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Jul-06	0.023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Mar-07	0.020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-07	0.0039	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	20-Feb-08	0.0020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	22-Aug-08	0.0013	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	9-Feb-09	0.0015	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	11-Aug-09	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	5-Aug-10	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
LFR-4	11-Aug-00	< 0.0005	< 0.0005	0.001	< 0.0005	< 0.0005	< 0.0005
	31-Oct-00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	30-Jan-01	<0.0005	<0.0005	0.001	<0.0005	< 0.0005	< 0.0005
	27-Apr-01	<0.0005	<0.0005	0.002	<0.0005	<0.0005	<0.0005
	27-Jul-01	0.001	<0.0005	0.002	<0.0005	<0.0005	<0.0005
	16,17-Apr-02	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050
	17,18-Jul-02	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
	22,23-Oct-02	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	19-Feb-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	30-Jul-03	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	29-Jan-04	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	4-Aug-04	NA	NA	NA	NA	NA	NA
	5-Jul-05	0.0011	<0.0005	0.0026	<0.0005	<0.0005	<0.0005
	5-Jul-06	<0.0005	<0.0005	0.0022	<0.0005	0.0007	<0.0005
	1-Mar-07	<0.0005	<0.0005	0.0033	<0.0005	0.0006	<0.0005
	22-Aug-07	NA	NA	NA	NA	NA	NA
	20-Feb-08	NA	NA	NA	NA	NA	NA
	21-Aug-08	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	10-Feb-09	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.0005
	11-Aug-09	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	1-Feb-10	NA	NA	NA	NA	NA	NA
	5-Aug-10	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**

Table 5
Historical Analytical Results For Volatile Organic Compound Analyses in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
Monitoring wells installed by SOMA							
SOMA-1	19-Oct-01	<0.0050	<0.0050	0.014	<0.0050	<0.0100	<0.0050
	31-Jan-02	0.0056 [b]	<0.0050 [b]	0.0070 [b]	<0.0050 [b]	<0.0100 [b]	0.0057 [b]
	16,17-Apr-02	0.006	<0.0050	0.007	<0.0050	<0.0100	<0.0050
	17,18-Jul-02	<0.005	<0.005	0.016	<0.005	<0.01	<0.005
	22,23-Oct-02	0.008	<0.005	0.041	<0.005	<0.010	0.007
	19-Feb-03	0.009	<0.0071	0.016	<0.0071	<0.014	<0.0071
	30-Jul-03	0.016	<0.005	0.042	<0.005	<0.010	0.006
	29-Jan-04	0.019	<0.005	0.044	<0.005	<0.010	0.0059
	3-Aug-04	0.019	<0.013	0.038	<0.013	<0.025	<0.013
	1-Feb-05	0.022	<0.017	0.028	<0.017	<0.033	<0.017
	5-Jul-05	0.041	0.0026	0.051	<0.0017	<0.0017	0.0046
	5-Jan-06	0.019	0.0013	0.028	<0.0005	<0.0005	0.0026
	5-Jul-06	0.037	0.0028	0.057	<0.002	<0.002	0.0037
	28-Feb-07	0.079	0.0062	0.170	<0.002	<0.002	0.0067
	22-Aug-07	0.062	0.0060	0.170	0.0022	<0.002	0.0035
	20-Feb-08	0.075	0.0058	0.180	0.0022	<0.002	0.0025
	21-Aug-08	0.110	0.0085	0.250	<0.0025	<0.0025	0.0031
	10-Feb-09	0.085	0.0067	0.290	0.0028	<0.0025	0.0035
	12-Aug-09	0.059	0.0063	0.220	<0.0025	<0.0025	<0.0025
	2-Feb-10	0.046	0.0052	0.180	<0.0025	<0.0025	<0.0025
	5-Aug-10	**0.050**	**0.0047**	**0.170**	**<0.0036**	**<0.0036**	**<0.0036**
SOMA-2	19-Oct-01	1.400	0.350	5.000	<0.250	<0.500	<0.250
	31-Jan-02	<0.071 [b]	<0.071 [b]	1.8 [b]	<0.071 [b]	<0.140 [b]	<0.071 [b]
	16,17-Apr-02	<0.130	<0.130	2.900	<0.130	<0.250	<0.130
	17,18-Jul-02	<0.063	<0.063	1.600	<0.063	<0.13	<0.063
	22,23-Oct-02	0.017	0.008	0.350	<0.0071	<0.014	<0.0071
	19-Feb-03	<0.017	<0.017	0.790	<0.017	<0.033	<0.017
	29-Jul-03	0.032	<0.020	0.580	<0.040	<0.040	<0.020
	28-Jan-04	0.036	<0.017	0.430	<0.017	<0.033	<0.017
	4-Aug-04	<0.031	<0.031	0.430	<0.031	<0.063	<0.031
	2-Feb-05	<0.310	<0.310	6.100	<0.310	<0.630	<0.310
	6-Jul-05	0.078	0.047	5.200	0.044	<0.025	<0.025
	9-Jan-06	<0.042	<0.042	7.30	0.049	<0.042	<0.042
	6-Jul-06	<0.042	<0.042	5.400	0.046	<0.042	<0.042
	1-Mar-07	<0.042	<0.042	5.100	<0.042	<0.042	<0.042
	23-Aug-07	<0.042	0.110	5.400	0.042	<0.042	<0.042
	20-Feb-08	0.200	0.360	16.00	0.100	<0.100	<0.100
	25-Mar-08	6.400	2.500	20.00	0.130	<0.130	<0.130
	21-Aug-08	0.620	0.870	15.00	0.160	<0.0063	<0.0063
	10-Feb-09	0.170	0.390	5.90	<0.05	<0.05	<0.05
	11-Aug-09	FP	FP	FP	FP	FP	FP
	2-Feb-10	<0.013	<0.013	1.90	0.018	<0.013	<0.013
	6-Aug-10	**<0.02**	**<0.02**	**2.40**	**0.023**	**<0.02**	**<0.02**
SOMA-3	19-Oct-01	0.042	0.057	0.440	<0.025	<0.050	<0.025
	31-Jan-02	0.018 [b]	0.023 [b]	0.38 [b]	<0.013 [b]	<0.025 [b]	<0.013 [b]
	16,17-Apr-02	0.025	0.018	0.36	<0.017	<0.033	<0.017
	17,18-Jul-02	0.027	<0.017	0.44	<0.017	<0.033	<0.017
	22,23-Oct-02	<0.170	<0.170	5.90	<0.170	<0.330	<0.170
	19-Feb-03	<0.130	<0.130	4.10	<0.130	<0.250	<0.130
	29-Jul-03	0.150	0.220	4.70	<0.130	<0.250	<0.130
	29-Jan-04	<0.310	<0.310	7.70	<0.310	<0.630	<0.310
	4-Aug-04	<0.500	<0.500	6.90	<0.500	<1.0	<0.500
	2-Feb-05	<0.063	<0.063	1.10	<0.063	<0.130	<0.063
	6-Jul-05	0.031	0.014	0.89	0.0067	0.0011	0.0032
	6-Jan-06	0.025	0.0094	0.77	0.005	0.001	0.0026
	6-Jul-06	0.015	0.0064	0.370	<0.005	<0.005	<0.005
	1-Mar-07	0.015	<0.005	0.270	<0.005	<0.005	<0.005
	23-Aug-07	0.280	0.060	2.900	0.010	<0.005	<0.005
	20-Feb-08	0.041	0.062	5.300	0.068	<0.031	<0.031
	21-Aug-08	0.160	0.030	2.100	0.019	<0.013	<0.013

Table 5
Historical Analytical Results For Volatile Organic Compound Analyses in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	PCE (mg/L)	TCE (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	Vinyl Chloride (mg/L)	1,2-DCP (mg/L)
SOMA-3 cont.	10-Feb-09	0.024	0.014	1.800	0.013	<0.013	<0.013
	12-Aug-09	0.0078	0.0036	0.170	<0.0036	<0.0036	<0.0036
	2-Feb-10	<0.0083	<0.0083	1.50	<0.0083	<0.0083	<0.0083
	6-Aug-10	**<0.013**	**<0.013**	**1.60**	**<0.013**	**<0.013**	**<0.013**
SOMA-4	19-Oct-01	<0.13	<0.13	2.600	<0.13	<0.25	<0.13
	31-Jan-02	FP	FP	FP	FP	FP	FP
	16,17-Apr-02	FP	FP	FP	FP	FP	FP
	17,18-Jul-02	FP	FP	FP	FP	FP	FP
	22,23-Oct-02	FP	FP	FP	FP	FP	FP
	18-Feb-03	FP	FP	FP	FP	FP	FP
	29-Jul-03	FP	FP	FP	FP	FP	FP
	10-Feb-09	<0.005	<0.005	0.830	0.0051	<0.005	<0.005
SOMA-4R	12-Aug-09	0.0015	<0.001	0.099	<0.001	<0.001	0.0015
	2-Feb-10	<0.002	<0.002	0.360	0.00350	<0.002	<0.002
	6-Aug-10	**<0.0031**	**<0.0031**	**0.310**	**<0.0031**	**<0.0031**	**<0.0031**
SOMA-5	4-Aug-04	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	2-Feb-05	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005
	6-Jul-05	<0.0025	<0.0025	0.0057	<0.0025	<0.0025	<0.0025
	9-Jan-06	<0.0025	0.0067	0.430	0.027	<0.0025	<0.0025
	6-Jul-06	<0.0005	<0.0005	0.0035	<0.0005	<0.0005	<0.0005
	1-Mar-07	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	23-Aug-07	NA	NA	NA	NA	NA	NA
	20-Feb-08	NA	NA	NA	NA	NA	NA
	21-Aug-08	NA	NA	NA	NA	NA	NA
	10-Feb-09	NA	NA	NA	NA	NA	NA
	11-Aug-09	NA	NA	NA	NA	NA	NA
	1-Feb-10	NA	NA	NA	NA	NA	NA
	6-Aug-10	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
MPE-1	12-Aug-09	0.0039	0.012	0.880	0.0053	<0.0005	<0.0005
	2-Feb-10	0.0240	0.052	0.330	0.0062	<0.0002	<0.0002
	6-Aug-10	**0.0170**	**0.021**	**0.077**	**0.0057**	**<0.0005**	**<0.0005**
MPE-2	12-Aug-09	<0.0013	<0.0013	0.150	0.0013	<0.0013	0.0016
	1-Feb-10	FP	FP	FP	FP	FP	FP
	5-Aug-10	**FP**	**FP**	**FP**	**FP**	**FP**	**FP**
MPE-3	11-Aug-09	FP	FP	FP	FP	FP	FP
	1-Feb-10	FP	FP	FP	FP	FP	FP
	5-Aug-10	**FP**	**FP**	**FP**	**FP**	**FP**	**FP**
MPE-4	12-Aug-09	<0.0005	<0.0005	0.083	0.0021	<0.0005	<0.0005
	2-Feb-10	0.0006	0.0016	0.092	0.0032	<0.0005	<0.0005
	6-Aug-10	**<0.0005**	**0.0007**	**0.075**	**0.0017**	**<0.0005**	**<0.0005**
MPE-5	12-Aug-09	<0.001	<0.001	0.14	0.0045	<0.001	<0.001
	2-Feb-10	<0.001	0.0021	0.16	0.0062	<0.001	<0.001
	6-Aug-10	**<0.0005**	**<0.0005**	**0.10**	**0.0038**	**<0.0005**	**<0.0005**

Notes:
<: Not detected above the laboratory reporting limits.
[b] analysis was carried out past hold date, no analytical problems were encountered
FP: Not Analyzed due to Free Product
NA: Not Analyzed.
During First and Second Semi-annual 2009 events SOMA-5 had insufficient groundwater for sampling
During Second Semi-annual 2009 event GW-4 had insufficient groundwater for sampling
MPE-1 through MPE-5 were installed May 2009

Table 6
Historical In-Situ and Ex-Situ Analyses Results for Bioattenuation Parameters in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Dissolved Oxygen (mg/L)	Dissolved Manganese (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane* (mg/L)	ORP	Hydrogen (nanoMoles)
B-7	11-Aug-00						11.0	193	
B-7-field	11-Aug-00	0.63		-1.0	3.0				
	31-Oct-00	0.62	2.6	< 0.10	< 1.0	11.00	2.4		-3
B-7-field	31-Oct-00	0.25		0.4	-1.0	15.85		-63	
	1-Feb-01	0.78	2.2	0.8	<1.0	15.00	13.0		
B-7-field	31-Jan-01	0.48						28	
B-7 Field	26-Apr-01	0.60	1.7	2.5	5.0	>3.3	7.6	-28	
B-7 Field	26-Jul-01	1.98	7.3	0.0	8.0	11.60	7.0	-40	
B-8 field	31-Jan-01	0.45						58	
B-8R	12-Aug-09	0.17	15.3	0.0	0.0	0.00	5.4	-41.4	
	2-Feb-10	0.37	10.2	6.5	12.0	3.30	4.6	-21.2	
	6-Aug-10	**0.43**	**14.4**	**0.0**	**0.0**	**1.50**	**6.2**	**-72.3**	
B-10	10-Aug-00			< 0.05	< 0.05	5.70	10.0	213	
B-10-field	10-Aug-00	0.44		-1.0	-2.0				
	31-Oct-00	2.40	1.4	< 0.10	< 1.0	5.90	6.7		0.81
B-10-field	31-Oct-00	0.44		0.0	0.0	7.60		-22	
	31-Jan-01	6.40	1.3	< 0.10	<2.0	7.70	24.0		1.3
B-10-field	31-Jan-01	0.46						64	
B-10 Field	11-Jun-01	0.90	0.0	0	0	1.25	3.9	-8	NM
B-10 Field	26-Jun-01	1.87	1.3	0	3	6.20	5.6	-22	
	6-Jul-05	9.53	41.1	35	80	3.30	2.2	12	
	9-Jan-06	3.39	13.6	0	0	3.30	10.0	10	
	6-Jul-06	10.62	0.0	0	0	3.30	11	-104	
	1-Mar-07	10.53	1.8	0	0	3.30	0.25	-76.3	
	23-Aug-07	NM	NM	NM	NM	NM	NM	NM	
	20-Feb-08	NM	0.70	7.20	11.00	3.30	6.30	NM	
	25-Mar-08	NM	NM	NM	NM	NM	7.40	NM	
	21-Aug-08	0.25	12.40	12.10	16.00	3.30	2.90	-60.20	
	10-Feb-09	0.18	10.50	5.70	80.00	2.68	2.00	-65.70	
B-10R	12-Aug-09	0.19	47.00	12.30	80.00	3.12	1.00	-102.80	
	2-Feb-10	0.29	3.40	0.00	80.00	3.30	2.10	-49.60	
	6-Aug-10	**0.39**	**13.80**	**2.40**	**7.00**	**2.49**	**2.60**	**-88.10**	
GW-2-field	1-Nov-00	2.32						77	
GW-2	1-Feb-01	3.80					0.0410		
GW-2-field	1-Feb-01	0.58						159	
	26-Apr-01	4.00	1.0	7.1	36	0.02	0.0002	152	NM
	26-Jul-01	1.93	0.0	3.9	60	0.00	0.0160	233	
GW-2 field	Not En. Sample						0.0009		
	31-Jan-02	2.80	0.0	0.8	45	0.36	0.0069	179	NM
	16,17-Apr-02	1.76	0.0	4.7	70	0.09	0.0003	198	
	17,18-Jul-02	1.39	0.6	0.0	69	0.00	0.0021	161	
	22,23-Oct-02	3.86	0.6	11.5	40	0.07	0.0007	166	

Table 6
Historical In-Situ and Ex-Situ Analyses Results for Bioattenuation Parameters in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Dissolved Oxygen (mg/L)	Dissolved Manganese (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane* (mg/L)	ORP	Hydrogen (nanoMoles)
GW-2	19-Feb-03	7.24	0.1	10.3	49	0.03	0.0012	169	
	29-Jul-03	4.21	0.2	0.0	44	0.00	0.0007	47	
	28-Jan-04	6.02	0.0	3.3	56	0.00	0.00046	143	
	4-Aug-04	8.27	0.0	0.0	27	0.00	0.00035	115	
	2-Feb-05	8.41	0.0	0.0	40	0.00	<0.0050	76	
	6-Jul-05	10.90	0.0	5.3	51	0.00	<0.005	90	
	6-Jan-06	8.11	2.4	0.0	44	0.00	<0.005	86	
	6-Jul-06	9.71	0.3	0.0	53	0.00	<0.005	86	
	28-Feb-07	6.51	1.5	14.4	48	0.12	<0.005	33.5	
	22-Aug-07	NM	NM	NM	NM	NM	NM	NM	
	20-Feb-08	NM	NM	NM	NM	NM	NM	NM	
	22-Aug-08	0.12	0.00	0.00	29.00	0.00	<0.005	114.80	
	9-Feb-09	0.14	1.30	3.40	66.00	0.11	<0.005	10.40	
	11-Aug-09	1.03	1.10	6.80	69.00	0.00	<0.005	30.20	
	1-Feb-10	1.08	0.80	0.40	41.00	0.00	<0.005	122.40	
	5-Aug-10	**1.15**	**1.70**	**2.90**	**52.00**	**0.00**	**<0.005**	**39.70**	
GW-3	11-Aug-00						< 0.0005	395	
GW-3-field	11-Aug-00	0.72		1.0	46				
GW-3-field	1-Nov-00	7.76						81	
	29-Jan-01	8.80					0.0120		
GW-3-field	1-Feb-01	8.99						235	
	27-Apr-01	2.90	0.0	0.7	30	0.00	0.0150	212	NM
	26-Jul-01	2.48	0.0	2.4	52	0.12	0.0083	214	
GW-3 field	18-Oct-01	3.76	0.0	5.2	4.9	0.00	0.0041	131	NM
	31-Jan-02	3.70	0.2	1.3	52	0.00	0.0081	163	
	16,17-Apr-02	7.55	0.0	4.2	59	0.00	0.0006	133	
	17,18-Jul-02	3.50	0.0	0.0	47	0.22	0.0100	155	
	22,23-Oct-02	2.19	0.0	1.6	33	0.00	0.0007	178	
	19-Feb-03	5.28	0.4	4.0	43	0.02	0.0007	123	
	29-Jul-03	6.12	0.0	0.0	31	0.00	0.0005	96	
	28-Jan-04	4.21	0.0	0.8	61	0.00	0.00042	141	
	3-Aug-04	10.20	0.0	0.0	41	0.00	0.00028	84	
	2-Feb-05	3.97	0.5	0.0	12	0.00	<0.0050	84	
	6-Jul-05	7.96	2.9	0.5	52	0.00	<0.005	67	
	6-Jan-06	5.22	0.0	0.0	4	0.00	<0.005	61	
	6-Jul-06	5.69	3.1	0.0	31	0.00	<0.005	63	
	1-Mar-07	7.27	0.6	4.3	15	0.00	<0.005	50.4	
	23-Aug-07	4.79	1.9	7.8	33	0.17	<0.005	178.3	
	20-Feb-08	0.22	0.0	35.0	0	0.00	<0.0065	71.1	
	22-Aug-08	0.12	0.3	0.0	4	0.00	<0.005	135.5	
	9-Feb-09	0.13	1.4	2.8	36	0.02	<0.005	-6.1	
	11-Aug-09	0.50	0.0	1.3	34	0.02	<0.005	17.5	
	1-Feb-10	0.99	1.3	0.3	26	0.24	<0.005	126.5	
	5-Aug-10	**1.31**	**3.5**	**1.1**	**43**	**0.00**	**<0.005**	**49.1**	
GW-4-field	30-Jan-01	0.83						67	
GW-4-field	26-Jul-01	2.59	0.2	10.5	25	1.29	0.0028	-3	
GW-4-field	18-Oct-01	1.00	0.1	0.0	0	4.80	4.80	-84	NM
GW-4	31-Jan-02	0.90	0.8	0.0	0	8.00	3.50	-91	
	16,17-Apr-02	0.41	0.1	5.2	0	5.70	4.70	-2	
	17,18-Jul-02	2.38	3.0	0.0	0	>3.3	4.60	-68	
	22,23-Oct-02	NM	NM	NM	NM	NM	0.30	NM	
	19-Feb-03	7.76	0.4	5.4	0	3.30	2.30	-57	
	30-Jul-03	5.38	6.1	0.0	0	3.30	1.30	-141	

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GW-4	28-Jan-04	2.17	5.9	0.0	0	3.30	0.22	-73	
	3-Aug-04	10.35	0.9	0.0	0	3.30	3.20	-113	
	1-Feb-05	2.97	0.8	0.0	0	1.53	1.20	93	
	6-Jul-05	9.17	1.9	9.8	20	1.07	0.84	128	
	5-Jan-06	7.62	3.4	0.0	0	3.30	3.40	110	
	28-Feb-07	5.26	1.1	0.0	0	3.30	3.90	-119.5	
	22-Aug-07	NM	NM	NM	NM	NM	NM	NM	
	20-Feb-08	0.23	0.60	0.00	0.00	3.30	2.50	-108.70	
	21-Aug-08	NM	NM	NM	NM	NM	NM	NM	
	10-Feb-09	0.13	8.00	2.30	8.00	3.30	2.40	-19.40	
	11-Aug-09	NM	NM	NM	NM	NM	NM	NM	
	1-Feb-10	0.97	5.80	1.80	24.00	3.30	1.40	-21.00	
	4-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	
MW-11	10-Aug-00			2.8	63	< 0.1	< 0.0005	476	
MW-11-field	10-Aug-00	2.52		4.1	67				
	1-Nov-00	4.10	< 0.010	15.0	90	< 0.1	0.0000		130
MW-11-field	1-Nov-00	4.01		3.3	73	0.00		87	
MW-11-field	1-Nov-00	3.97		27.3	74	0.00		319	
	31-Jan-01	6.30	< 0.010	15.0	94	< 1.0	0.0001		1.1
MW-11 Field	26-Apr-01	7.40	0.0	6.8	52	0.00	0.0014	229	NM
MW-11 Field	26-Jul-01	1.85	0.0	5.2	77	0.00	0.0049	233	
MW-11 Field	18-Oct-01	5.58	0.0	10.1	NM	0.00	0.0066	155	NM
	31-Jan-02	4.90	0.0	2.8	79	0.00	0.0077	218	
	16,17-Apr-02	3.18	0.0	2.8	88	0.00	0.0092	242	
	17,18-Jul-02	2.82	0.0	4.1	79	0.00	0.0088	357	
	22,23-Oct-02	4.47	0.0	3.7	69	0.00	0.0025	118	
	18-Feb-03	5.65	0.6	2.3	73	0.00	0.0022	304	
	30-Jul-03	3.80	0.1	0.0	54	0.00	0.0010	224	
	28-Jan-04	7.32	0.0	0.0	80	0.00	0.0200	130	
	3-Aug-04	10.40	0.0	0.0	77	0.00	0.0028	185	
	1-Feb-05	6.99	1.7	0.0	52	0.00	<0.0050	91	
	5-Jul-05	10.38	1.2	0.0	80	0.00	<0.005	125	
	5-Jan-06	6.21	0.0	0.0	65	0.00	<0.005	166	
	5-Jul-06	8.35	5.9	0.0	80	0.00	<0.005	35	
	28-Feb-07	6.68	0.4	0.0	41	0.63	<0.005	12.9	
	22-Aug-07	3.07	3.5	0.0	54	0.00	<0.005	237	
	19-Feb-08	0.23	0.8	0.0	27	0.00	<0.0065	48	
	22-Aug-08	0.10	1.9	0.0	35	0.00	<0.005	67.60	
	10-Feb-09	0.25	0.6	0.0	50	0.02	<0.005	34.40	
	12-Aug-09	1.39	0.6	1.6	52	0.06	<0.005	2.30	
	1-Feb-10	1.29	0.0	0.2	80	0.03	<0.005	104.80	
	5-Aug-10	**1.10**	**0.0**	**0.0**	**80**	**0.07**	**<0.005**	**67.10**	
LFR-1	9-Aug-00							462	
	11-Aug-00						0.0096		
LFR-1-field	9-Aug-00	3.63		5.5	30				1.5
	30-Oct-00	2.70	0.0	39.0	42	< 1.0	0.0004		
LFR-1-field/split	30-Oct-00	2.95		10.3/10.0	29/29	0.01/0.01		77	1
LFR-1 split	30-Oct-00	3.40	0.0	40.0	43.0	< 1.0	0.0007		
	29-Jan-01	5.10	<0.01	<0.10	51	<1.0	0.0001		0.43
LFR-1-field	29-Jan-01	3.78	0.0		36	0.00		383	
LFR-1 Dup	29-Jan-01	4.60	<0.01	<0.10	50	<1.0	0.0000		0.32
	26-Apr-01	3.20	0.0	12.9	16	0.00	0.0003	224	NM
	26-Jul-01	1.07	0.0	8.0	25	0.01	0.0084	238	

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LFR-1 field	18-Oct-01	1.03	0.0	6.9	24	0.18	0.0054	119	NM
LFR-1	31-Jan-02	1.80	0.3	5.5	31	0.00	0.0062	163	
	16,17-Apr-02	1.68	0.3	1.5	38	0.39	0.0030	240	
	17,18-Jul-02	0.00	0.0	6.1	3	0.07	0.0047	209	
	22,23-Oct-02	0.00	0.4	0.0	23	0.15	0.0008	265	
	18-Feb-03	7.76	0.0	4.3	30	0.00	0.0008	260	
	30-Jul-03	0.58	0.3	0.0	10	0.00	0.0004	190	
	29-Jan-04	3.12	0.5	0.0	57	0.00	0.0011	19	
	4-Aug-04	6.26	5.8	0.0	17	0.00	0.0010	62	
	2-Feb-05	5.24	0.0	0.0	1	0.00	0.0120	93	
	6-Jul-05	8.53	0.2	2.5	40	0.00	<0.005	110	
	6-Jan-06	5.43	3.9	0.0	5	0.00	0.025	161	
	6-Jul-06	9.93	0.4	0.0	6	0.00	<0.005	99	
	1-Mar-07	5.00	5.2	4.5	42	0.04	<0.005	62.9	
	23-Aug-07	0.88	2.7	4.7	23	0.15	<0.005	215	
	19-Feb-08	0.20	0.0	0.0	11	0.00	<0.0065	43.9	
	22-Aug-08	0.14	6.7	0.0	0	0.00	0.0059	119.2	
	9-Feb-09	0.14	4.9	0.0	23	0.00	<0.005	12.2	
	11-Aug-09	0.14	5.6	2.4	23	0.00	<0.005	15.3	
	1-Feb-10	0.48	0.8	0.6	31	0.41	<0.005	124.5	
	5-Aug-10	**0.47**	**1.8**	**5.8**	**36**	**0.36**	**<0.005**	**37.4**	
LFR-2	11-Aug-00						6.60	270	
LFR-2-field	11-Aug-00	0.48		1.5	-1.0	2.70			1200
	2-Nov-00	2.20	8.8	0.3	5.4	5.30	8.50		
LFR-2-field	2-Nov-00	0.47		0.5	-1.0	6.05		-24	
	30-Jan-01	4.40	8.9	1.0	8.3	4.60	4.60		1.1
LFR-2-field	30-Jan-01	0.61	10.7	2.9		1.02		210	
	27-Apr-01	1.40	0.4	1.6	1.0	2.66	14.00	9	NM
	26-Jul-01	0.55	0.2	0.0	0.0	4.50	10.00	-20	
LFR-2 field	18-Oct-01	0.43	0.0	0.0	0.0	6.50	11.00	-75	NM
	31-Jan-02	1.00	0.0	2.6	19.0	1.81	11.00	-14	
	16,17-Apr-02	0.00	0.0	1.7	0.0	7.20	16.00	-6	
	17,18-Jul-02	0.00	13.9	0.0	0.0	7.20	9.60	-64	
	22,23-Oct-02	0.00	10.7	0.5	0.0	3.30	4.70	-82	
	18-Feb-03	0.42	9.0	0.0	0.0	3.30	9.60	-53	
	30-Jul-03	0.00	3.0	0.0	0.0	3.30	8.70	-85	
	4-Aug-04	4.78	1.6	0.0	0.0	3.30	6.20	-93	
	1-Feb-05	1.77	12.1	0.0	0.0	1.79	11.00	69	
	5-Jul-05	4.21	18.2	0.0	0.0	3.30	11.00	-60	
	5-Jan-06	3.53	3.8	0.0	3.0	3.30	14.00	-29	
	5-Jul-06	7.70	4.3	0.0	0.0	3.30	10.00	-136	
	28-Feb-07	3.03	4.2	0.0	0.0	3.30	11.00	-89.9	
	22-Aug-07	0.11	22.7	0.0	0.0	3.30	6.60	-24.0	
	20-Feb-08	0.20	0.0	0.0	0.0	0.76	4.70	-69.5	
	21-Aug-08	0.13	21.4	0.0	0.0	3.30	5.80	-66.1	
	10-Feb-09	0.16	24.0	0.2	0.0	3.30	3.70	-62.2	
	11-Aug-09	0.16	35.5	3.6	7.0	2.88	3.10	-138.1	
	1-Feb-10	0.37	21.4	0.0	0.0	3.30	7.70	-18.9	
	5-Aug-10	**0.29**	**NM**	**NM**	**NM**	**NM**	**4.90**	**-83.7**	

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LFR-3	10-Aug-00			2.4	64	< 0.1	0.0005	464	
LFR-3 split	10-Aug-00							< 0.0005	
LFR-3-field	10-Aug-00	1.30		2.4	64				850
	1-Nov-00	4.70	0.0	8.8	74	< 1.0	0.0003		
LFR-3-field	1-Nov-00	0.58		1.8	57	0.00		75	
	31-Jan-01	4.10	<0.01	1.2	58	< 1.0	0.0004		
LFR-3-field	30-Jan-01	1.75		0.0	44	0.00		195	
LFR-3 Field	11-Jun-01	1.00	0.0	0.8	28	0.00	0.0086	201	NM
LFR-3 Field	26-Jul-01	1.29	0.4	0.0	51	0.60	0.0035	228	
LFR-3 Field	18-Oct-01	0.54	0.0	0.8	30	0.11	0.0093	139	NM
	31-Jan-02	0.80	0.4	2.6	32	0.00	0.0072	212	
	16,17-Apr-02	0.19	0.4	0.0	55	0.79	0.0096	228	
	17,18-Jul-02	0.00	0.2	1.7	42	0.00	0.0068	166	
	22,23-Oct-02	0.11	0.5	0.0	36	0.00	0.0035	186	
	19-Feb-03	1.10	0.5	0.0	19	0.54	0.0069	217	
	30-Jul-03	0.17	0.1	0.0	21	0.00	0.0069	167	
	29-Jan-04	1.39	0.0	0.0	0	3.30	0.0011	64	
	3-Aug-04	5.14	3.9	0.0	8	0.00	0.0054	175	
	2-Feb-05	2.74	0.0	0.0	0	0.00	<0.005	94	
	5-Jul-05	7.59	0.5	35.0	80	3.29	<0.005	85	
	6-Jan-06	3.52	1.8	0.0	23	0.67	<0.005	151	
	5-Jul-06	5.47	1.1	0.0	40	0.00	<0.005	56	
	1-Mar-07	3.78	1.6	5.3	12	0.72	<0.005	42.7	
	22-Aug-07	1.70	4.0	0.0	9	0.44	<0.005	192	
	20-Feb-08	0.22	6.2	0.0	0	0.00	<0.0065	58.9	
	22-Aug-08	0.14	1.5	0.0	0	0.00	<0.005	140.4	
	9-Feb-09	0.13	0.0	2.3	44	0.00	<0.005	-41.0	
	11-Aug-09	0.12	4.6	0.0	32	0.00	<0.005	-27.6	
	1-Feb-10	0.32	1.3	1.3	44	0.37	<0.005	101.8	
	5-Aug-10	**0.63**	**0.6**	**0.0**	**45**	**0.00**	**<0.005**	**53.7**	
LFR-4	11-Aug-00						0.06	402	
LFR-4-field	11-Aug-00	1.13		0.7	1	0.14			1.1
	31-Oct-00	1.90	2.2	< 0.10	2.9	1.10	3.20		
LFR-4-field	31-Oct-00	0.64		1.0		0.61		-80	
	1-Feb-01	3.20	2.8	1.5	2.8	1.80	2.20		1.5
LFR-4-field	1-Feb-01	0.55	4.5	8.0	0.0	1.50		59	
LFR-4 Field	27-Apr-01	5.60	0.0	1.7	0.0	1.37	7.00	14	NM
LFR-4 Field	26-Jul-01	1.65	0.0	0.0	0.0	0.84	1.20	18	
	16,17-Apr-02	0.00	1.0	2.6	6.0	4.80	12.00	-4	
	17,18-Jul-02	0.79	6.8	0.0	0.0	>3.3	2.80	3	
	22,23-Oct-02	0.00	4.0	0.0	0.0	2.55	1.30	-63	
	19-Feb-03	0.50	6.8	0.0	18	3.30	4.40	-41	
	30-Jul-03	0.28	5.1	0.0	0.0	3.30	3.90	-49	
	29-Jan-04	1.64	5.0	0.0	0.0	0.52	4.00	1	
	4-Aug-04	NM	NM	NM	NM	NM	NM	NM	
	5-Jul-05	5.22	2.8	0.0	0.0	3.30	5.40	61	
	5-Jul-06	9.70	5.9	0.0	0.0	3.30	9.20	-98	
	1-Mar-07	3.97	1.7	0.0	0.0	3.30	3.00	-50	
	22-Aug-07	NM	NM	NM	NM	NM	NM	NM	
	19-Feb-08	NM	NM	NM	NM	NM	NM	NM	
	21-Aug-08	0.14	4.40	0.00	0.00	3.20	6.20	-0.70	
	10-Feb-09	0.18	28.10	0.00	0.00	2.18	4.40	-30.60	
	11-Aug-09	0.44	10.10	0.00	0.00	2.65	1.80	-29.70	
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	
	5-Aug-10	**0.38**	**5.30**	**0.00**	**0.00**	**3.17**	**NM**	**-15.90**	

Table 6
Historical In-Situ and Ex-Situ Analyses Results for Bioattenuation Parameters in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Dissolved Oxygen (mg/L)	Dissolved Manganese (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane* (mg/L)	ORP	Hydrogen (nanoMoles)
SOMA-1	18-Oct-01	4.19	0.3	0.2	33	0.52	0.12	151	NM
	31-Jan-02	0.40	0.0	0.0	18	0.00	0.58	141	NM
	16,17-Apr-02	0.00	0.0	0.6	31	0.10	0.82	213	
	17,18-Jul-02	0.00	0.0	1.8	28	0.05	0.44	149	
	22,23-Oct-02	0.00	0.7	0.0	4	0.00	0.68	131	
	18-Feb-03	5.12	0.4	0.0	1	0.00	0.41	258	
	30-Jul-03	0.00	0.4	0.0	1	0.00	0.99	74	
	29-Jan-04	0.29	0.5	0.0	13	0.47	0.85	133	
	3-Aug-04	4.44	0.0	0.0	25	0.00	0.50	152	
	1-Feb-05	1.57	0.1	0.0	0.0	0.00	0.83	137	
	5-Jul-05	7.58	0.5	0.0	16	0.21	1.50	72	
	5-Jan-06	5.82	0.0	0.0	6	0.00	0.60	156	
	5-Jul-06	6.79	1.8	0.0	13	0.00	1.10	66	
	28-Feb-07	2.13	10.1	0.0	12	0.00	2.50	37.3	
	22-Aug-07	0.14	3.3	0.0	9	0.39	0.79	177.0	
	20-Feb-08	0.22	0.2	0.0	0	0.00	0.65	57.1	
	21-Aug-08	0.12	0.1	0.0	0	0.00	0.67	202.7	
	10-Feb-09	0.15	8.0	0.6	22	0.20	1.20	22.7	
	11-Aug-09	0.20	23.0	0.0	10	0.06	0.86	-20.8	
	2-Feb-10	0.63	3.0	0.6	20	0.00	0.79	78.9	
	5-Aug-10	**0.77**	**7.6**	**0.0**	**18**	**0.00**	**0.83**	**28.1**	
SOMA-2	18-Oct-01	0.57	0.0	0.4	0.0	40.00	6.60	-89	NM
	31-Jan-02	0.70	3.8	0.8	0.0	9.00	13.00	103	NM
	16,17-Apr-02	0.00	0.5	0.1	0.0	7.40	14.00	-69	
	17,18-Jul-02	0.00	5.7	0.0	0.0	>3.3	9.40	-87	
	22,23-Oct-02	0.35	1.7	2.8	15	3.30	2.20	-98	
	19-Feb-03	3.17	1.9	1.7	0.0	2.89	2.40	-72	
	30-Jul-03	2.71	1.0	0.0	0.0	0.83	1.00	-53	
	28-Jan-04	4.52	0.2	0.0	0.0	1.46	1.70	-8	
	4-Aug-04	7.06	0.4	0.0	0.0	0.31	1.40	-33	
	2-Feb-05	1.17	8.4	0.0	0.0	3.30	13.00	-95	
	6-Jul-05	5.67	1.1	0.0	0.0	3.30	11.00	-66	
	9-Jan-06	3.01	15.7	5.6	0.0	3.30	15.00	-60	
	6-Jul-06	8.92	7.4	0.0	0.0	3.30	14.00	-85	
	1-Mar-07	6.42	8.7	0.0	0.0	3.30	12.00	-137	
	23-Aug-07	0.43	0.0	0.0	0.0	2.87	8.60	-31.6	
	20-Feb-08	0.25	2.9	0.0	0.0	3.30	11.00	-79.6	
	25-Mar-08	NM	NM	NM	NM	NM	9.10	NM	
	21-Aug-08	0.26	3.10	0.00	0.00	3.30	7.50	-65.40	
	10-Feb-09	0.18	30.30	0.00	80.00	3.30	2.50	-100.60	
	11-Aug-09	NM	NM	NM	NM	NM	NM	NM	
	2-Feb-10	0.63	9.60	6.00	0.00	3.30	1.40	-45.40	
	6-Aug-10	**0.73**	**13.80**	**1.50**	**0.00**	**3.30**	**2.60**	**-90.40**	
SOMA-3	18-Oct-01	1.32	0.0	0.0	33	0.22	1.00	2	NM
	31-Jan-02	1.00	22.0	2.0	54	0.62	0.46	-71	NM
	16,17-Apr-02	2.60	0.0	0.6	42	0.77	0.41	29	
	17,18-Jul-02	0.97	10.9	0.0	23	>3.3	0.94	-51	
	22,23-Oct-02	0.30	2.7	0.1	7	3.26	4.20	-98	
	19-Feb-03	0.18	0.0	0.0	0.0	3.30	9.00	-88	
	30-Jul-03	0.00	2.0	0.0	0.0	3.30	8.70	-106	
	29-Jan-04	2.30	3.5	0.0	0.0	3.30	8.40	-85	
	4-Aug-04	5.35	0.0	0.0	0.0	3.30	6.50	-105	
	2-Feb-05	3.66	0.3	0.0	0.0	0.00	2.70	-73	
	6-Jul-05	9.65	0.7	0.0	0.0	0.77	2.50	84	
	6-Jan-06	2.20	2.9	0.0	0.0	0.40	3.10	86	
	6-Jul-06	10.52	0.5	0.0	0.0	0.37	1.40	-58	
	1-Mar-07	5.03	0.5	0.0	0.0	0.80	1.40	-51.9	
	23-Aug-07	9.68	0.0	0.0	35.0	0.28	2.70	11.8	
	20-Feb-08	0.25	34.2	12.1	49.0	3.30	6.50	59.3	
	21-Aug-08	0.30	0.0	0.0	0.0	0.00	1.60	27.3	
	10-Feb-09	0.20	0.8	0.0	25.0	0.80	0.83	34.2	
	12-Aug-09	2.28	2.6	0.9	19.0	0.71	0.20	4.3	
	2-Feb-10	1.22	6.4	0.0	22.0	1.61	1.20	9.5	
	6-Aug-10	**1.23**	**0.5**	**0.0**	**48.0**	**0.46**	**1.50**	**-8.7**	

Table 6
Historical In-Situ and Ex-Situ Analyses Results for Bioattenuation Parameters in Groundwater Samples
at the Former Glovatorium Site
3820 Manila Avenue, Oakland, California

Well Name	Date Sampled	Dissolved Oxygen (mg/L)	Dissolved Manganese (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane* (mg/L)	ORP	Hydrogen (nanoMoles)
SOMA-4	18-Oct-01	0.83	4.0	22.0	17	0.22	1.20	88	NM
	10-Feb-09	0.17	7.1	0.4	80.0	2.83	2.20	-104.9	
SOMA-4R	12-Aug-09	0.23	7.4	2.1	2.0	2.47	1.00	-138.1	
	2-Feb-10	0.39	12.4	0.0	35.0	3.30	2.00	-134.7	
	6-Aug-10	**0.57**	**27.6**	**4.1**	**3.0**	**3.30**	**4.10**	**-114.6**	
SOMA-5	4-Aug-04	5.65	0.0	0.0	0.0	0.23	1.70	-143	
	2-Feb-05	2.40	1.5	0.0	0.0	3.30	3.00	-81	
	6-Jul-05	8.91	20.9	0.0	0.0	3.30	20.00	-113	
	9-Jan-06	3.24	15.2	0.0	0.0	3.30	10.00	-141	
	6-Jul-06	10.54	0.0	0.0	0.0	0.82	6.90	-129	
	1-Mar-07	NM	NM	NM	NM	NM	NM	NM	
	23-Aug-07	NM	NM	NM	NM	NM	NM	NM	
	20-Feb-08	NM	NM	NM	NM	NM	NM	NM	
	21-Aug-08	NM	NM	NM	NM	NM	NM	NM	
	10-Feb-09	0.18	63.4	0.0	0.0	1.64	NM	-119.4	
	12-Aug-09	NM	NM	NM	NM	NM	NM	NM	
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	
	6-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	
MPE-1	12-Aug-09	0.64	NM	NM	NM	NM	0.09	0.2	
	2-Feb-10	0.57	19.7	0.0	80.0	0.52	0.035	7.7	
	6-Aug-10	**0.68**	**8.5**	**0.0**	**37.0**	**1.48**	**0.020**	**-69.2**	
MPE-2	12-Aug-09	0.11	NM	NM	NM	NM	1.70	-41.5	
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	
	5-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	
MPE-3	11-Aug-09	NM	NM	NM	NM	NM	NM	NM	
	1-Feb-10	NM	NM	NM	NM	NM	NM	NM	
	5-Aug-10	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	**NM**	
MPE-4	12-Aug-09	0.19	9.1	0.0	20.0	1.21	1.70	-66.9	
	2-Feb-10	0.42	8.7	0.0	5.0	2.74	3.20	-81.4	
	6-Aug-10	**0.50**	**NM**	**NM**	**NM**	**NM**	**3.80**	**-66.2**	
MPE-5	12-Aug-09	0.19	26.7	0.0	0.0	0.00	2.80	-117.0	
	2-Feb-10	0.48	46.7	0.0	18.0	3.30	4.40	-80.7	
	6-Aug-10	**0.69**	**14.4**	**0.0**	**0.0**	**1.60**	**4.40**	**-78.2**	

Notes:
Samples with "field" in the well number indicate that the results are from field measurements obtained using a Hach spectrophotometer or a Hydrolab Quanta flow-through instrument.
since April 2001, field measurements have been obtained by a Hach Calorimeter
* Methane was measured by Laboratory.
Since the First Quarter 2005, Curtis & Tompkins has analyzed for methane.
NM: Not Measured.
During First and Second Semi-annual 2009 events SOMA-5 had insufficient groundwater for sampling
During Second Semi-annual 2009 event GW-4 had insufficient groundwater for sampling
MPE-1 through MPE-5 were installed May 2009

Table 7
Free Product Removal Log
Former Glovatorium Site
3820 Manila Avenue, Oakland, CA

Date	Depth to Water (feet)	Depth to Free Product (feet)	Thickness of Free Product (feet)
SOMA-4			
2002			
31-Jan-2002	11.30	8.80	2.50
10-Apr-2002	12.45	9.58	2.87
29-Apr-2002	13.00	9.80	3.20
10-Sep-2002	16.75	10.26	6.49
19-Sep-2002	16.32	10.64	5.68
27-Sep-2002	16.59	10.65	5.94
3-Oct-2002	16.95	11.65	5.30
7-Oct-2002	17.40	11.01	6.39
8-Oct-2002	17.11	10.75	6.36
14-Oct-2002	17.51	10.53	6.98
25-Oct-2002	16.90	10.96	5.94
1-Nov-2002	15.59	11.70	3.89
14-Nov-2002	16.24	11.20	5.04
20-Nov-2002	13.44	11.90	1.54
15-Dec-2002	12.73	12.10	0.63
2003			
18-Jul-2003	17.70	7.20	10.50
2004			
28-Jan-2004	12.00	2.90	9.10
2005			
29-Jun-2005	10.40	10.10	0.30
18-Jul-2005	10.35	9.90	0.45
25-Jul-2005	10.75	10.00	0.75
1-Aug-2005	10.87	9.25	1.62
24-Aug-2005	13.47	9.95	3.52
31-Aug-2005	11.15	10.01	1.14
6-Sep-2005	12.98	10.78	2.20
12-Sep-2005	11.15	9.10	2.05
19-Sep-2005	12.90	10.80	2.10
5-Oct-2005	12.80	10.85	1.95
2006			
4-Jan-2006	12.50	8.60	3.90
12-Jan-2006	13.10	10.30	2.80
18-Jan-2006	13.64	10.50	3.14
24-Jan-2006	9.20	9.19	0.01
24-Jan-2006	began extracting free product using GeoTech pump		
26-Jan-2006	9.67	9.66	0.01
13-Feb-2006	10.24	10.23	0.01
27-Feb-2006	9.72	9.70	0.02
10-Mar-2006	8.90	8.70	0.20
20-Mar-2006	7.80	7.70	0.10
30-Mar-2006	8.30	8.20	0.10

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Former Glovatorium Site
3820 Manila Avenue, Oakland, CA

Date	Depth to Water (feet)	Depth to Free Product (feet)	Thickness of Free Product (feet)
SOMA-4			
2006			
6-Apr-2006	7.01	6.65	0.36
18-Apr-2006	moved GeoTech pump from SOMA-4 to B-8		
1-May-2006	7.60	7.56	0.04
10-May-2006	8.64	8.63	0.01
22-May-2006	8.53	8.40	0.13
1-Jun-2006	8.64	8.61	0.03
7-Jun-2006	8.86	8.82	0.04
19-Jun-2006	9.39	9.38	0.01
27-Jun-2006	10.54	10.46	0.08
13-Jul-2006	10.75	10.15	0.60
24-Jul-2006	11.05	10.16	0.89
3-Aug-2006	12.02	10.32	1.70
14-Aug-2006	13.08	9.88	3.20
14-Aug-2006	began extracting free product using GeoTech pump		
25-Aug-2006	13.95	10.70	3.25
28-Aug-2006	11.50	10.73	0.77
9-Sep-2006	14.23	10.75	3.48
13-Sep-2006	12.95	10.70	2.25
27-Sep-2006	15.78	11.00	4.78
4-Oct-2006	14.61	11.26	3.35
11-Oct-2006	14.25	10.75	3.50
1-Nov-2006	17.23	10.92	6.31
22-Nov-2006	14.98	10.53	4.45
30-Nov-2006	15.16	10.29	4.87
8-Dec-2006	13.54	11.30	2.24
11-Dec-2006	12.24	10.66	1.58
2007			
8-Jan-2007	11.15	10.78	0.37
12-Jan-2007	10.79	10.38	0.41
16-Jan-2007	11.00	11.00	0.00
24-Jan-2007	11.10	10.83	0.27
31-Jan-2007	11.02	10.44	0.58
8-Feb-2007	11.50	10.64	0.86
14-Feb-2007	9.60	9.25	0.35
22-Feb-2007	9.94	9.81	0.13
9-Mar-2007	9.73	9.53	0.20
16-Mar-2007	10.02	10.01	0.01
22-Mar-2007	9.93	9.91	0.02
26-Mar-2007	10.67	10.67	0.00
26-Mar-2007	Stopped extracting free product from well SOMA-4.		

Table 7
Free Product Removal Log
Former Glovatorium Site
3820 Manila Avenue, Oakland, CA

Date	Depth to Water (feet)	Depth to Free Product (feet)	Thickness of Free Product (feet)
SOMA-4			
2007			
4-Apr-2007	10.56	10.39	0.17
9-Apr-2007	10.71	10.60	0.11
17-May-2007	16.05	15.32	0.73
21-May-2007	16.06	15.30	0.76
31-May-2007	16.31	15.31	1.00
8-Jun-2007	16.73	16.09	0.64
11-Jun-2007	16.85	16.02	0.83
20-Jun-2007	16.44	15.62	0.82
29-Jun-2007	16.63	15.90	0.73
2-Jul-2007	16.73	16.15	0.58
12-Jul-2007	17.30	16.64	0.66
12-Jul-2007	Installed new GeoTech pump system in SOMA-4 and began extraction of free product from both wells.		
20-Jul-2007	16.94	-	0.00
25-Jul-2007	16.61	16.58	0.03
7-Aug-2007	18.52	18.49	0.03
7-Aug-2007	FP recovery pump in SOMA-4 well not operating due to unknown internal fault; removed and returned to supplier for repair.		
16-Aug-2007	17.65	-	0.00
22-Aug-2007	18.04	-	0.00
30-Aug-2007	18.21	-	0.00
7-Sep-2007	17.96	-	0.00
14-Sep-2007	18.05	-	0.00
21-Sep-2007	17.90	-	-
29-Nov-2007	17.54	-	-
21-Dec-2007	17.04	-	-
2008			
4-Jan-2008	15.94	15.84	0.10
11-Jan-2008	15.23	14.72	0.51
14-Jan-2008	15.48	15.00	0.48
22-Jan-2008	15.79	15.35	0.44
23-Jan-2008	Geopump serviced by EI		
29-Jan-2008	15.66	15.54	0.12
4-Feb-2008	14.75	14.80	0.05
7-Feb-2008	14.95	14.92	0.03
12-Feb-2008	15.75	15.72	0.03
26-Feb-2008	16.19	16.02	0.17

Table 7
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Former Glovatorium Site
3820 Manila Avenue, Oakland, CA

Date	Depth to Water (feet)	Depth to Free Product (feet)	Thickness of Free Product (feet)
SOMA-4			
2008			
4-Mar-2008	16.27	16.13	0.14
17-Mar-2008	16.65	16.56	0.09
25-Mar-2008	16.97	16.88	0.09
5-Aug-2008	13.95	13.55	0.40
21-Aug-2008	13.82	13.22	0.60
2-Sep-2008	Begin MPE Pilot Test		
11-Sep-2008	14.00	13.60	0.40
19-Sep-2008	14.25	13.40	0.85
26-Sep-2008	14.01	13.10	0.91
2-Oct-2008	14.00	13.00	1.00
9-Oct-2008	14.00	12.95	1.05
24-Oct-2008	13.20	13.09	0.11
No FP observed since then			
B-8			
2001			
18-Oct-2001	12.31	10.21	2.10
2002			
31-Jan-2002	6.79	6.29	0.50
10-Apr-2002	8.22	8.08	0.14
29-Apr-2002	8.55	8.45	0.10
3-Oct-2002	10.40	9.64	0.76
7-Oct-2002	10.37	8.79	1.58
8-Oct-2002	10.28	9.68	0.60
14-Oct-2002	10.30	9.69	0.61
22-Oct-2002	10.39	9.70	0.69
2003			
18-Jul-2003	9.40	9.17	0.23
2005			
29-Jun-2005	11.50	11.25	0.25
18-Jul-2005	10.90	10.10	0.80
25-Jul-2005	10.92	10.20	0.72
1-Aug-2005	10.85	9.85	1.00
24-Aug-2005	10.35	10.10	0.25
31-Aug-2005	10.48	10.10	0.38
6-Sep-2005	10.86	10.59	0.27
12-Sep-2005	10.59	10.00	0.59
19-Sep-2005	11.20	10.60	0.60
5-Oct-2005	11.30	10.50	0.80
2006			
4-Jan-2006	9.50	8.00	1.50
12-Jan-2006	11.40	10.20	1.20
18-Jan-2006	11.93	11.00	0.93
24-Jan-2006	8.65	8.65	0.00
26-Jan-2006	8.72	8.70	0.02
13-Feb-2006	8.82	8.59	0.23
27-Feb-2006	8.81	8.61	0.20
10-Mar-2006	7.45	6.85	0.60
20-Mar-2006	7.90	7.20	0.70
30-Mar-2006	7.88	7.00	0.88

Table 7
Free Product Removal Log
Former Glovatorium Site
3820 Manila Avenue, Oakland, CA

Date	Depth to Water (feet)	Depth to Free Product (feet)	Thickness of Free Product (feet)
B-8			
2006			
6-Apr-2006	7.91	7.90	0.01
18-Apr-2006	began extracting free product using GeoTech pump		
1-May-2006	8.34	8.31	0.03
22-May-2006	9.51	8.92	0.59
1-Jun-2006	9.81	9.30	0.51
7-Jun-2006	10.24	9.51	0.73
14-Jun-2006	10.58	9.73	0.85
27-Jun-2006	9.04	8.92	0.12
27-Jun-2006	removed GeoTech pump from well		
13-Jul-2006	9.61	9.30	0.31
24-Jul-2006	9.70	9.26	0.44
3-Aug-2006	10.01	9.05	0.96
14-Aug-2006	10.41	9.69	0.72
25-Aug-2006	10.60	9.64	0.96
28-Aug-2006	10.62	9.80	0.82
7-Sep-2006	10.68	9.73	0.95
13-Sep-2006	10.65	9.78	0.87
27-Sep-2006	11.03	10.23	0.80
4-Oct-2006	11.00	10.20	0.80
11-Oct-2006	10.68	9.73	0.95
1-Nov-2006	11.39	10.24	1.15
22-Nov-2006	11.53	9.78	1.75
30-Nov-2006	11.64	9.25	2.39
8-Dec-2006	11.53	9.76	1.77
11-Dec-2006	11.44	9.68	1.76
2007			
8-Jan-2007	11.56	9.33	2.23
12-Jan-2007	11.58	9.33	2.25
16-Jan-2007	11.59	9.49	2.10
24-Jan-2007	11.77	9.70	2.07
31-Jan-2007	11.76	9.62	2.14
8-Feb-2007	11.92	9.71	2.21
14-Feb-2007	10.91	7.61	3.30
22-Feb-2007	11.46	8.54	2.92
9-Mar-2007	11.34	8.20	3.14
16-Mar-2007	11.53	8.60	2.93
22-Mar-2007	11.72	8.71	3.01
26-Mar-2007	11.71	8.81	2.90
26-Mar-2007	Started extracting free product from well B-8. Moved GeoTech pump from SOMA-4 to B-8		

Table 7
Free Product Removal Log
Former Glovatorium Site
3820 Manila Avenue, Oakland, CA

Date	Depth to Water (feet)	Depth to Free Product (feet)	Thickness of Free Product (feet)
B-8			
2007			
4-Apr-2007	10.71	9.67	1.04
9-Apr-2007	10.83	9.91	0.92
17-May-2007	13.98	13.22	0.76
21-May-2007	13.98	13.20	0.78
31-May-2007	14.78	13.90	0.88
8-Jun-2007	15.44	14.72	0.72
11-Jun-2007	15.50	14.80	0.70
20-Jun-2007	15.43	14.80	0.63
29-Jun-2007	15.20	15.15	0.05
2-Jul-2007	15.32	15.29	0.03
12-Jul-2007	16.03	15.92	0.11
20-Jul-2007	15.95	15.85	0.10
25-Jul-2007	15.90	15.82	0.08
7-Aug-2007	17.18	17.12	0.06
16-Aug-2007	16.87	-	0.00
22-Aug-2007	17.16	-	0.00
30-Aug-2007	17.68	-	0.00
7-Sep-2007	17.10	-	0.00
14-Sep-2007	17.09	-	0.00
21-Sep-2007	17.00	-	-
29-Nov-2007	16.47	-	-
21-Dec-2007	14.18	-	-
2008			
4-Jan-2008	13.69	-	-
11-Jan-2008	10.69	10.68	0.01
14-Jan-2008	11.25	11.23	0.02
22-Jan-2008	13.18	-	0.00
23-Jan-2008	Geopump serviced by EI		
29-Jan-2008	10.68	-	0.00
4-Feb-2008	10.09	-	0.00
7-Feb-2008	10.26	10.24	0.02
12-Feb-2008	11.24	11.21	0.03
26-Feb-2008	10.85	NA	0.00
4-Mar-2008	12.97	NA	0.00
17-Mar-2008	14.92	NA	0.00
25-Mar-2008	15.41	NA	NA
5-Aug-2008	13.19	NA	NA
21-Aug-2008	13.02	NA	NA
No FP observed since then			

Table 7
Free Product Removal Log
Former Glovatorium Site
3820 Manila Avenue, Oakland, CA

Date	Depth to Water (feet)	Depth to Free Product (feet)	Thickness of Free Product (feet)
B-10			
2008			
20-Feb-2008	11.75	8.99	2.76
26-Feb-2008	9.94	8.37	1.57
4-Mar-2008	9.23	9.21	0.02
17-Mar-2008	9.9	9.87	0.03
25-Mar-2008	10.15	10.12	0.03
5-Aug-2008	11.03	10.96	0.07
21-Aug-2008	11.03	10.86	0.17
2-Sep-2008	Begin MPE Pilot Test		
3-Sep-2008	11.51	11.33	0.18
11-Sep-2008	13.93	12.55	1.38
19-Sep-2008	12.87	12.10	0.77
24-Oct-2008	11.33	NA	NA
No FP observed since then			
SOMA-2			
2008			
20-Feb-2008	10	9.29	0.71
25-Mar-2008	10.67	10.02	0.65
5-Aug-2008	11.38	10.84	0.46
21-Aug-2008	11.36	10.76	0.6
2-Sep-2008	Begin MPE Pilot Test		
3-Sep-2008	11.62	11.3	0.32
5-Sep-2008	11.77	11.42	0.35
24-Sep-2008	12.87	12.25	0.62
30-Sep-2008	12.6	11.9	0.7
6-Oct-2008	12.32	11.66	0.66
16-Oct-2008	12.6	11.85	0.75
24-Oct-2008	11.42	NA	NA
2009			
11-Aug-2009	12.69	12.51	0.18
2010			
1-Feb-2010	No free product was observed during the First Semi-Annual 2010 Monitoring Event		
MPE-2			
2009			
2-Jun-2009	12.72	11.85	0.87
3-Jun-2009	11.9	11.70	0.2
2010			
1-Feb-2010	10.89	10.65	0.24
4-Aug-2010	14.57	12.13	2.44
MPE-3			
2009			
2-Jun-2009	11.55	11.50	0.05
3-Jun-2009	11.39	11.31	0.08
11-Aug-2009	11.33	11.19	0.14
2010			
1-Feb-2010	9.31	8.97	0.34
4-Aug-2010	12.51	11.67	0.84

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
PROJECT #: 2514

MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
12/17/2008	700	carbon change out, prep. system and extraction wells to continue pilot test															3,904		
	1300	begin extraction from SOMA-2, SOMA-4, B-8, and B-10															3,904	205	
	1330	166	56	23	-	25.75	0.17	1.7	23	0	6	54	5,769	939	4.1	3.5	3,904		
	1430	166	58	23	-	25.75	0.17	1.7	23	0	6	62	6,000	977	4.0	2.4	3,967		
12/18/2008	1000	system down upon arrival, main timer = 1253.1, approximate shut down at 0800,															4,461		
		inspection revealed - magnetic contactor connected to xfer pump short circuited, temporary alternate route created until repair/replacement of contactor																	
	1330	restart system																	
	1400	168	62	23		25.75	0.17	1.7	23	0	6	60	10,300	1,677	3.0	0.0	4,502		
	1430	168	64	23		25.75	0.19	1.7	24	0	6	64	9,600	1,563	3.6	2.0	4,502		
	1530	168	60	23.5		26	0.15	1.4	21	0	5	66	5,375	875	3.0	1.0	4,522		
		shutdown system to replace magnectic contactor, system remaing off overnigh to allow groundwater to recharge, insufficient water being extracted to allow xfer pump to run																	
12/19/2008	900	restart system after inspection of treatment system																	
	1000	168	59	24		26.25	0.135	1.6	20	0	5	60	6,300	1,026	3.4	1.6	4,620		
	1100	168	59	24		26.25	0.135	1.6	20	0	5	64	4,214	686	2.8	1.9	4,620		
	1200	168	57	24		26.25	0.135	1.6	20	0	5	66	3,475	566	2.9	1.7	4,620		
	1300	166	57	24.5		26.5	0.12	1.4	19	0	5	66	3,000	488	2.5	1.0	4,620		
	1430	166	59	24		26.5	0.13	1.6	20	0	5	70	3,035	494	0.7	1.1	4,620		
	1500	166	59	23		26.5	0.12	1.5	19	0	5	70	2,730	444	2	3	4,620		
12/22/2008	900	166	51	24		26	0.15	1.6	21	0	5	62	1,575	256	0.0	0.0	4,620		
	1100	166	58	22		25	0.28	2	29	0	7	64	1,898	309	0.0	0.0	4,620		
	1230	166	59	22		25	0.3	2.2	30	0	8	64	2,490	405	0.0	0.0	4,620		
	1330	166	62	22		25	0.3	2.2	30	0	8	66	2,095	341	0.0	0	4,620		
	1400	166	60	22		25	0.3	2.2	30	0	8	66	1,941	316	0.0	0	4,620		
12/23/2008	930	166	57	22		25	0.3	2.2	30	0	8	64	1,714	279	0.0	0	4,620	227	
	1030	166	57	22		25	0.3	2.2	30	0	8	62	2,560	417	0.0	0.0	4,620		
	1130	166	59	22		25	0.3	2.2	30	0	8	64	1,666	271	0.0	0	4,620		
	1330	166	59	22		25	0.3	2.2	30	0	8	66	1,805	294	0.0	0.0	4,620		
12/24/2008	1000	166	59	22		25	0.3	2.2	30	0	8	66	1,844	300	0.0	0.0	4,620		
	1200	166	59	22		25	0.3	2.2	30	0	8	68	1680	273	0.0	0.0	4,620		
		shutdown system due to rain and expected rain over weekend																	

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
PROJECT #: 2514

MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
12/29/2008	1000	restarted system after initial inspection of system and wells																232	
	1100	168	61	22		25	0.3	2.2	30	0	8	58	1,820	296	0.0	0.0	4,640		
	1300	168	63	22		25	0.3	2.2	30	0	8	66	1,653	269	0.0	0.0	4,958		
	1400	168	63	22		25	0.32	2.2	31	0	8	70	1,507	245	0.0	0.0	4,958		
12/30/2008	930	168	56	22		25	0.32	2.2	31	0	8	68	1,775	289	0.0	0.0	5,414		
	1030	168	61	22		25	0.32	2.2	31	0	8	68	1,815	295	0.0	0.0	5,414		
	1130	168	61	22		25	0.32	2.2	31	0	8	70	1,623	264	0.0	0.0	5,414		
	1230	168	61	22		25	0.32	2.2	31	0	8	70	1,596	260	0.0	0.0	5,414		
	1330	168	61	22		25	0.32	2.2	31	0	8	70	1,470	239	0.0	0.0	5,414		
12/31/2008	1000	168	53	22		25	0.32	2.2	31	0	8	62	1,645	268	1.0	0.0	5,577		
	1200	168	58	22		25	0.32	2.2	31	0	8	64	1,835	299	0.0	0.0	5,577		
	1400	168	60	22		25	0.32	2.2	31	0	8	68	1,644	268	0.0	0.0	5,632		
	1500	shut down system for holiday and long weekend																	
1/5/2009	800	restart system, extraction from only B-10																	
	830	168	56	21.75		24.5	0.38	2.3	35	0	9	50	2,400	390	0.0	0.0	5,632		
	900	168	56	21.25		24.25	0.34	2.5	33	0	8	54	2,395	174	1.0	1.0	5,632		
	1100	168	56	21		24	0.46	2.5	38	0	9	60	1,070	174	0.0	0.0	5,632		
		extraction from B-10 and SOMA-2 began and continued overnight																	
1/6/2009	1000	168	58	21		24.25	0.48	2.6	38	0	10	66	6,250	1,017	5.0	3.0	5,632		
	1200	168	58	21		24.25	0.48	2.6	38	0	10	66	5,290	861	1.0	0.0	5,632		
		extraction from B-10, SOMA-2, and SOMA-4 began and continued overnight																	
	1400	168	64	20		24	0.5	2.6	39	0	10	68	7,345	1,196	0.0	0.0	6,374		
1/7/2009	700	168	59	20		24	0.6	2.8	43	0	11	66	7,215	1,175	30.0	1.0	6,988		
	730	shut down system for carbon change out of 1000 lb vessel on vapor side																	
	930	restart system with extraction from B-10 only																252	
	1030	168	58	23.5		25.5	0.3	2.2	30	0	8	60	7,520	1,224	2.0	8.0	6,988		
	1130	168	56	23.5		25.5	0.3	2	30	0	8	60	5,675	924	3.0	3.0	7,045		
		extraction from B-10. B-8, SOMA-4, and SOMA-2																	
	1230	168	63	21		24.5	0.4	2.3	35	0	9	62	7,360	1,198	1.0	2.0	7,096		
	1430	168	63	20.5		24.5	0.48	2.4	38	0	10	66	8,225	1,339	1.0	1.0	7,157		
1/8/2009	1000	168	62	20.5		24	0.52	2.5	40	0	10	70	9,725	1,583	0.0	0.0	7,988		
	1200	168	61	21		25	0.42	2.3	36	0	9	70	7,180	1,169	0.0	0.0	8,034		
	1400	168	61	21.5		24.5	0.44	2.3	36	0	9	70	6,885	1,121	0.0	0.0	8,034		
		extraction from B-8, SOMA-4, SOMA-2																	
	1500	168	58	24		26	0.18	1.4	23	0	6	70	5,040	820	0.0	0.0	8,034		

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
PROJECT #: 2514

MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
1/9/2009	1200	168	60	24		26.25	0.19	1.4	24	0	6	66	7,500	1,221	83.0	0.0	8,260		
	1400	168	63	24		26.25	0.19	2.2	24	0	6	70	5,370	874	100.0	0.0	8,260		
	1500	168	63	22		25	0.4	2.4	35	0	9	70	4,250	692	142.0	0.0	8,299		
1/12/2009	1030	168	69	22		25	0.4	2.4	34	0	9	78	8,690	1,415	400.0	20.0	9,025		
		pause operation to change out 55 gallon polishing vapor drum																	
	1300	restart operation w/ only extraction from B-10																	
	1400	168	74	22		25	0.36	2.3	33	0	8	80	1,580	257	100.0	2.0	9,029		
	1500	168	74	22		25	0.36	2.3	33	0	8	82	1,300	212	101.0	0.0	9,029		
1/13/2009	1030	168	72	22		25	0.36	2.3	33	0	8	82	2,250	366	310.0	40.0	9,029		
		pause operation to change out 55 gallon polishing vapor drum																	
	1130	restart operation w/ only extraction from B-10																	
	1230	168	74	23		25.75	0.28	1.8	29	0	7	84	600	98	44	0	9,029		
	1400	168	75	24		26	0.22	1.7	25	0	6	84	601	98	56	0	9,029		
1/14/2009	930	system down upon arrival; main timer = 1644.9; approximate shut down at 0930; pressure, temp., or power issues, will observe closely																	
	1030	system remains shut down overnight to allow system to reset/cool down																	
1/15/2009	730	change out of 1000 lb vessel for vapor and removal of 2 55 gal vapor drums and drop off of 2 new 55 gal vapor drums																	
	1030	restart system with extraction from B-10, B-8, SOMA-2, SOMA-4																298	
	1100	168	69	23		25.5	0.28	2	29	0	7	64	3,471	565	0	0	9,029		
	1130	168	73	23		25.5	0.28	2	29	0	7	68	2,267	369	0	0	9,029		
	1230	168	74	23		25.5	0.3	2	30	0	7	74	2,002	326	0	0	9,029		
1/16/2009	1030	168	66	23		25.5	0.3	2	30	0	7	74	2,911	474	0	0	9,195		
	1100	system shut down due to pressure, temp., or power issue - under observation																293	
	1230	restart system with extraction from B-10, B-8, SOMA-2, SOMA-4																	
	1330	168	75	25		27	0.14	2	20	0	5	76	4,550	741	0	0	9,242		
1/19/2009	1000	system down upon arrival; main timer = 1687.2; approximate shut down at 0500 on 1/17/9; pressure, temp., or power issue under observation												741					
	1030	restart system with extraction from SOMA-4, B-8																	
	1200	168	71	23.5		26	0.18	1.6	23	0	6	68	9,211	1,499	0	0	9,514		
	1300	168	73	23.5		26	0.2	1.6	25	0	6	70	10,000	1,628	1	0	9,570		
1/20/2009	930	system shut down upon arrival; main timer = 1700; approximate shut down at 2300 1/19/9												1,628					
	1000	restart system with extraction from SOMA-4, B-10																	
	1100	168	67	23		26	0.2	1.6	25	0	6	68	7,830	1,275	0	0	10,019		
	1200	168	71	23		26	0.2	1.6	25	0	6	72	6,946	1,131	1	0	10,075		
	1330	168	73	24		27	0.1	1.3	17	0	4	74	7,400	1,205	0	0	10,075		
1/21/2009	930	system shut down upon arrival; main timer = 1710; approximate shut down at 2000 1/20/9												1,205					
	1100	inspection revealed: pressure sensor damage - internal part, diaphram torn; pressure sensor repaired and system restarted																	
	1300	168	64	22		25	0.36	2	33	0	8	72	4,934	803	0	0	10,299		

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
PROJECT #: 2514

MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
1/22/2009	1000	168	59	22		25	0.36	2.2	33	0	8	72	3,775	615	4	0	10,299		
	1100	166	59	22		25	0.36	2.2	33	0	8	72	3,290	536	11	0	10,299		
	1200	168	61	22		25	0.4	2.2	35	0	9	72	2,082	339	16	0	10,299		
1/23/2009	1100	166	62	22		25	0.4	2.2	35	0	9	74	808	132	45	0	10,299		
	1200	166	63	21.5		24.25	0.5	2.5	39	0	10	74	810	132	46	0	10,299		
1/26/2009	1000	166	55	21.5		24.25	0.5	2.3	39	0	10	64	568	92	45	0	10,299		
		extraction from B-10, B-8, SOMA-2, and SOMA-4 began																	
	1130	166	61	20		24	0.48	2.4	38	0	10	66	8,360	1,361	67	0	10,731		
	1230	166	63	20.25		24.25	0.48	2.4	38	0	10	68	9,064	1,476	92	2	10,805		
1/27/2009	1000	system down upon arrival; main timer = 1843.4 H @ ~ 2300												1,476					
	1030	xfer pum shorted causing wires to burn; repaired and rewired xfer pump; restarted system																	
	1130	166	64	20.25		24.25	0.48	2.4	38	0	10	62	13,000	2,116	787	0	11,532		
		shutdown system because xfer pump short circuit and overheat causing xfer pump failure; rerouted effluent piping to GAC																	
	1200	restart system																	
	1300	168	66	20.5		24.5	0.5	2.4	39	0	10	64	11,800	1,921	1,555	1	11,565		
		added 2nd 55 gal carbon drum because exceeding air permit discharge conditions																	
	1400	168	65	20.5		24.5	0.5	2.4	39	0	10	64	9,500	1,547	0	0	11,624		
1/28/2009	1000	168	65	20.5		24.5	0.52	2.6	40	0	10	68	8,669	1,411	0	0	12,517		
	1100	168	65	20		24	0.52	2.6	40	0	10	70	7,980	1,299	0	0	12,595		
1/29/2009	730	168	64	20		24	0.6	2.8	42	0	11	72	13,444	2,189	80	0	13,373		
		carbon change out of 1000 lb vapor vessel																345	
	930	restart system																	
	1030	168	68	20.5		24.5	0.5	2.4	39	0	10	62	13,600	2,214	2	0	13,430		
1/30/2009	930	168	65	20.5		24.5	0.48	2.6	38	0	10	64	15,000	2,442	0	0	14,313		
		extraction from SOMA-2 only																	
	1030	168	61	25		27	0.1	0.4	17	0	4	66	8,565	1,394	3	0	14,342		
2/2/2009	1230	168	67	24.5		27	0.1	1.2	17	0	4	70	15,000	2,442	0	0	14,992		
		extraction from SOMA-2, SOMA-4, and B-8																	
	1330	168	74	20.5		24.5	0.5	2.4	39	0	10	70	15,000	2,442	0	0	15,021		
	1400	168	72	20		24	0.5	2.6	39	0	10	72	15,000	2,442	0	0	15,050		
2/3/2009	1500	168	76	20.5		24	0.5	2.6	38	0	10	80	15,000	2,442	120	30	15,962		
		extraction from B-10 only																	
	1600	168	71	22		24.5	0.5	2.4	38	0	10	80	3,918	638	0	0	15,962		
2/4/2009	1300	168	65	22		24.5	0.44	2.4	36	0	9	72	775	126	0	0	15,989		
	1400	168	65	22		24.5	0.44	2.4	36	0	9	72	653	106	0	0	15,989		
	1500	168	67	22		24.5	0.44	2.4	36	0	9	72	627	102	0	0	15,989		
2/5/2009	1330	168	65	22		24.5	0.44	2.4	36	0	9	70	795	129	0	0	15,989		
	1430	168	65	22		24.5	0.44	2.4	36	0	9	70	672	109	0	0	15,989		
2/6/2009	730	168	61	22		24.5	0.44	2.4	36	0	9	68	1,100	179	20	0	15,989		
		carbon change out of 1000 lb vapor vessel																388	
	930	restart system																	

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
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MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
	1000	168	61	21		24	0.4	2.4	35	0	9	58	785	128	0	0	15,989		
	1030	168	63	21		24	0.42	2.4	36	0	9	62	617	100	0	0	15,989		
2/9/2009	1100	168	55	21.5		24	0.42	2.4	36	0	9	62	572	93	0	0	15,989		
		shut down system for ground water monitoring																397	
2/11/2009	930	restart system with SOMA-2, SOMA-4, B-8, and B-10																	
	1000	system shut down, transfer pump failed												93					
	1130	restart system with extraction from B-10 only, reroute piping to allow discharge of water																	
	1230	168	63	21.5		24	0.44	2.4	37	0	9	50	2,000	326	0	0	15,989		
2/12/2009	930	168	55	21.5		24.5	0.44	2.4	37	0	9	60	429	70	0	0	15,989		
		closed B-10; extraction from SOMA-2, SOMA-4, and B-8															15,989		
	1030	168	60	22		26	0.22	1.8	26	0	6	62	4,500	733	0	0	16,213		
2/13/2009	900	168	60	21		24	0.32	2.2	31	0	8	60	7,840	1,276	0	0	16,213		
		extraction from B-8 only																	
	1100	168	58	22		24	0.4	2.4	35	0	9	60	4,100	667	0	0	16,213		
2/16/2009	1130	168	60	22		24	0.4	2.4	35	0	9	60	500	81	2	0	16,213		
		shut down system to install new motor for transfer pump																411	
	1230	restart system; extraction from B-8 only																	
	1330	168	62	22		24	0.4	2.4	35	0	9	60	1,500	244	0	0	16,213		
2/17/2009	1000	168	58	22		24	0.4	2.4	35	0	9	60	322	52	0	0	16,213		
	1100	168	57	22		24	0.4	2.4	35	0	9	60	255	42	0	0	16,213		
2/18/2009	1000	168	59	22.5		24.5	0.42	2.4	36	0	9	64	240	39	14	7	16,213		
		extraction from SOMA-2 only																	
	1200	168	64	23		25	0.32	2.2	31	0	8	64	1,235	201	10	0	16,213		
2/19/2009	1000	168	59	24		26	0.34	2.2	32	0	8	66	775	126	4	0	18,332		
		extraction from SOMA-2, SOMA-4, B-10, and B-8																	
	1100	168	65	22.5		25.5	0.26	2	28	0	7	66	1,750	285	7	0	18,358		
	1200	168	65	22.5		25.5	0.26	2	28	0	7	66	2,082	339	10	0	18,417		
2/20/2009	1000	168	64	22.5		25.5	0.28	2	29	0	7	66	2,684	437	40	0	19,272		
	1100	168	65	22.5		25.5	0.26	2	28	0	7	70	3,520	573	99	10	19,320		
		change out of 55 gal vapor drum for polishing															19,320		
	1200	168	67	22.5		25.5	0.2	2	25	0	6	65	2,330	379	33	0	19,346		
2/23/2009	1000	168	68	22.5		25.5	0.2	2	25	0	6	70	3,780		101	8	19,346		
		change out of 55 gal vapor drum for polishing; extraction from B-10 only												615					

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
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MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
	1200	168	64	24		26	0.14	2	21	0	5	64	1,385		101	0	19,346		
2/24/2009	1000	168	60	25		27	0.14	2	21	0	5	70	242	225	94	0	21,299		
	1100	168	62	25		27	0.12	1.6	19	0	5	70	154	39	88	0	21,302		
	1200	168	63	25		27	0.12	1.6	19	0	5	70	152	25	94	0	21,302		
2/25/2009	1000	168	61	25		27	0.1	1.6	17	0	4	64	251	25	83	0	21,302		
	1100	168	64	25		27	0.1	1.6	17	0	4	64	787	41	143	0	21,302		
	1200	168	66	25		27	0.1	1.6	17	0	4	66	580	128	150	0	21,302		
2/26/2009	730	168	59	25		27	0.12	1.6	19	0	5	70	270	94	245	0	21,302		
		carbon change out of 1000 lb vapor vessel												44				476	
	930	restart system																	
	1030	168	62	24.5		26.5	0.12	1.4	19	0	5	64	835		0	0	21,302		
	1130	168	67	22		25	0.34	2.4	32	0	8	64	1,200	136	0	0	21,302		
		extraction from SOMA-2, SOMA-4, B-10, and B-8												195					
2/27/2009	1230	168	62	22		25	0.34	2.4	32	0	8	64	222	36	0	0	21,387		
	1330	168	63	24.5		27	0.1	1.4	17	0	4	66	760	124	0	0	21,505		
	1430	168	64	24.5		27	0.1	1.4	17	0	4	68	982	160	0	0	21,595		
3/2/2009	1030	168	65	23		26	0.14	1.4	21	0	5	68	2,721	443	32	0	21,595		
	1130	168	62	24		27	0.1	1	17	0	4	68	4,091	666	100	21	21,595		
	1230	168	61	25		27	0.1	1	18	0	4	60	2,185	356	180	0	21,595		
3/3/2009	1100	168	60	25		27	0.1	1	17	0	4	62	1,611	262	6	1	21,595		
	1200	168	60	25		27	0.1	1	17	0	4	62	1,020	166	2	0	21,595		
3/4/2009	1000	168	61	25		27	0.1	1	18	0	4	60	1,715	279	1	0	21,595		
	1100	168	62	25		27	0.1	1	18	0	4	60	2,023	329	1	0	21,595		
	1200	168	62	25		27	0.1	1	18	0	4	60	1,750	285	40	0	21,595		
3/5/2009	1000	168	60	25		27	0.08	1.4	16	0	4	68	1,120	182	0	0	21,595		
	1100	168	61	25		27	0.08	1.4	16	0	4	68	790	129	0	0	21,595		
	1200	168	61	25		27	0.08	1.4	16	0	4	68	784	128	0	0	21,595		
3/6/2009	1030	168	58	25		27	0.08	1.4	16	0	4	68	1,130	184	0	0	21,595		
	1130	168	62	25		27	0.08	1.4	16	0	4	66	828	135	0	0	21,595		
3/9/2009	1100	168	52	25		27	0.08	1.2	16	0	4	66	841	137	0	0	27,066		
		extraction from SOMA-2 and B-10																	
	1200	168	59	24		26.8	0.1	1.8	17	0	4	64	3,754	611	0	0	27,107		
3/10/2009	1430	168	62	24.5		26.5	0.1	1.6	17	0	4	68	3,595	585	0	0	27,863		
	1530	168	67	23		26	0.14	1.6	21	0	5	68	5,233	852	0	0	27,913		
		extraction from SOMA-2, SOMA-4, and B-10																	
3/11/2009	1530	168	68	23		26	0.18	1.8	23	0	6	70	5,054	823	0	0	29,562		
	1630	168	68	23		26	0.2	1.8	25	0	6	70	5,041	821	0	0	29,602		
3/12/2009	1000	system ok															31,885		

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DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
3/13/2009	1100	170	66	23		26	0.2	1.8	25	0	6	68	7,362	1,198	0	0	31,885		
		extraction from SOMA-4 only																	
	1200	170	66	25		27	0.1	1.2	17	0	4	68	5,644	919	0	0	31,944		
	1300	168	63	25.5		27.5	0.08	1.2	16	0	4	68	5,260	856	0	0	31,944		
3/16/2009	1000	168	63	26		27.5	0.04	1.6	11	0	3	62	7,345	1,196	0	0	33,184		
		extraction from SOMA-2, SOMA-4, and B-8																	
	1100	168	65	25		27	0.08	1.8	16	0	4	62	3,510	571	0	0	33,184		
	1200	168	66	25		27	0.08	1.4	16	0	4	62	2,970	483	0	0	33,184		
3/17/2009	1000	168	65	25		27	0.08	1.4	16	0	4	68	395	64	0	0	33,298		
		extraction from SOMA-2, SOMA-4, and B-8																	
	1100	168	68	24.5		27	0.1	1.6	17	0	4	70	1,586	258	0	0	33,383		
	1200	168	70	24.5		26.5	0.14	1.6	21	0	5	70	3,216	524	0	0	33,471		
3/18/2009	1000	system ok															33,471		
3/19/2009	1000	168	69	23		26	0.24	2	27	0	7	76	7,100	1,156	30	15	35,947		
		extraction from SOMA-4 only																	
	1100	168	69	25		27	0.1	1.2	17	0	4	76	5,070	825	0	0	35,975		
	1200	168	69	25		27	0.1	1.2	17	0	4	76	5,465	890	0	0	36,003		
3/20/2009	700	168	62	25		27	0.1	1.2	17	0	4	64	5,344	870	0	0	36,472		
		carbon change out of 1000 lb vapor vessel																	
	930	restart system															36,472		
	1030	168	65	25		27	0.1	1.4	17	0	4	66	15,000	2,442	0	0	36,545		
	1130	168	68	25		27	0.1	1. 4	17	0	4	66	9,000	1,465	0	0	36,577		
		extraction from SOMA-2, SOMA-4, and B-8																	
3/23/2009	1000	168	55	25		27	0.1	1.4	17	0	4	64	5,025	818	2	0	38,962		
	1100	168	61	23		26	0.2	1.8	25	0	6	64	5,783	941	3	1	39,057		
	1200	168	63	23		26	0.2	1.8	25	0	6	64	5,354	872	0	0	39,137		
3/24/2009	1000	168	63	23		26	0.24	2	27	0	7	64	8,451	1,376	4	5	40,307		
	1100	168	63	23		26	0.24	2	27	0	7	68	7,875	1,282	6	8	40,338		
	1200	170	69	23		26	0.24	2.4	27	0	7	68	6,759	1,100	8	8	40,396		
3/25/2009		system ok															40,396		
3/26/2009	1130	168	69	23		26	0.24	2.4	27	0	7	72	6,500	1,058	0	0	42,445		
	1230	168	71	23		26	0.24	2.4	27	0	7	72	5,979	973	10	0	42,477		
3/27/2009	1100	168	72	23		26	0.28	2.4	29	0	7	76	8,460	1,377	6	7	43,427		
		extraction from SOMA-4 only																	
	1200	168	71	25		27	0.1	1.4	17	0	4	74	5,825	948	0	0	43,457		
3/30/2009		system ok															43,457		
3/31/2009	1130	170	61	25		27	0.1	1.4	17	0	4	70	6,554	1,067	100	25	45,845		
	1230	170	61	25		27	0.1	1.4	17	0	4	70	6,414	1,044	100	25	45,877		
	1330	170	71	25		27	0.1	1.4	17	0	4	70	5,655	921	0	0	45,908		
4/1/2009	1100	170	70	25		27	0.1	1.4	17	0	4	80	6,220	1,013	0	0	46,532		
	1200	170	70	25		27	0.1	1.4	17	0	4	80	6,180	1,006	0	0	46,563		

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MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
	1300	170	74	25		27	0.1	1.4	17	0	4	80	5,137	836	0	0	46,589		
4/2/2009		system ok												733			46,589		
4/3/2009	730	168	58	25		27	0.08	1.4	16	0	4	68	4,500		0	0	47,758		
		carbon change out of 1000 lb vapor vessel															47,758		
	930	restart system															47,758		
	1030	168	64	25		27	0.08	1.4	16	0	4	66	8,478	1,380	0	0	47,758		
		extraction from SOMA-2, SOMA-4, and B-8																	
	1130	168	67	24		26	0.18	1.8	23	0	6	70	7,455	1,214	0	0	47,803		
	1230	168	69	24		26	0.18	1.8	23	0	6	70	7,291	1,187	0	0	47,928		
4/6/2009	1300	170	76	23.5		25.5	0.26	2	28	0	7	80	6,985	1,137	0	0	50,877		
	1400	170	80	23.5		25.5	0.3	2.2	30	0	7	82	6,227	1,014	0	0	50,915		
4/7/2009	1300	170	80	23.5		25.5	0.28	2.2	29	0	7	82	6,454	1,051	0	0	52,058		
	1400	171	80	23.5		25.5	0.28	2.2	29	0	7	82	6,333	1,031	0	0	52,090		
4/8/2009	1030	172	67	22.5		25.5	0.28	2.2	29	0	7	68	6,605	1,075	0	0	52,507		
		extraction from SOMA-2 only																	
	1130	172	64	25		27	0.08	1.2	16	0	4	66	7,700	1,253	0	0	52,507		
4/9/2009	1230	170	66	25		27	0.08	1.2	16	0	4	64	8,500	1,384	0	0	52,507		
	1330	170	66	25		27	0.08	1.2	16	0	4	65	8,399	1,367	0	0	52,507		
4/10/2009	1030	170	64	25		27	0.08	1.2	16	0	4	68	8,674	1,412	0	0	52,507		
	1130	170	64	25		27	0.08	1.2	16	0	4	67	8,356	1,360	0	0	52,507		
4/13/2009	1000	170	67	25		27	0.08	1.2	16	0	4	66	8,125	1,323	100	25	53,805		
	1100	172	69	25		27	0.08	1.2	16	0	4	68	8,835	1,438	0	0	53,809		
	1200	172	69	25		27	0.08	1.2	16	0	4	68	9,100	1,481	10	0	53,809		
4/14/2009	1030	172	62	25		27	0.1	1.6	17	0	4	70	8,100	1,319	0	0	54,061		
	1130	172	62	25		27	0.1	1.6	17	0	4	70	10,000	1,628	0	0	54,075		
4/15/2009	1000	170	60	25		27	0.1	1.6	17	0	4	68	9,700	1,579	0		54,271		
	1100	170	65	25		27	0.1	1.6	17	0	4	68	10,000	1,628	0		54,282		
4/16/2009	700	170	63	25		27	0.1	1.6	17	0	4	64	10,000	1,628	0		54,457		
																	54,457		
	900																54,457		
	1000	170	64	25		27	0.1	1.6	17	0	4	65	12,111	1,972	0	0	54,457		
4/17/2009	1300	170	64	25		27	0.1	1.6	17	0	4	65	11,124	1,811	0	0	54,665		
4/20/2009	1700	180	84	25		27	0.1	1.6	17	0	4	85	10,000	1,628	0	0	55,381		

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4/21/2009	1330	186	86	25		27	0.1	1.6	17	0	4	86	14,000	2,279	10	0	55,603		
	1430	186	86	25		27	0.1	1.6	17	0	4	86	14,000	2,279	10	0	55,603		
4/22/2009	1300	180	76	25		27	0.1	1.6	17	0	4	80	7,200	1,172	0	0	55,803		
	1400	180	76	25		27	0.1	1.6	17	0	4	80	7,281	1,185	0	0	55,803		
4/23/2009	1300	176	69	25		27	0.1	1.6	17	0	4	66	9,220	1,501	0	0	55,997		
	1400	176	69	25		27	0.1	1.6	17	0	4	65	9,111	1,483	0	0	55,997		
4/24/2009	1300	176	67	25		27	0.1	1.6	18	0	4	58	15,000	2,442	0	0	56,224		
	1400	176	68	25		27	0.1	1.6	18	0	4	58	15,000	2,442	0	0	56,224		
4/27/2009	1230	174	66	24.5		26.5	0.1	1.8	17	0	4	64	8,935	1,455	0	0	56,839		
	1330	174	68	24.5		26.5	0.1	1.8	17	0	4	64	8,670	1,411	0	0	56,839		
4/28/2009	1400	174	68	24.5		26.5	0.1	1.8	17	0	4	64	8,770	1,428	0	0	57,046		
4/29/2009	1230	174	68	25		27	0.1	1.8	17	0	4	68	7,650	1,245	0	0	57,258		
4/30/2009	1330	174	69	24.75		27	0.1	2	17	0	4	70	8,000	1,302	0	0	57,454		
	1430	174	72	24.75		27	0.1	2	17	0	4	70	10,000	1,628	0	0	57,454		
5/1/2009	730	174	63	24.75		27	0.1	2	17	0	4	64	8,500	1,384	75	0	57,623		
		carbon change out of 1000 lb vapor vessel															57,623		
	1000	restart															57,623		
	1300	174	68	25		27	0.1	1.6	17	0	4	68	7,500	1,221	0	0	57,623		
5/4/2009	1000	174	68	25		27	0.1	1.6	17	0	4	70	8,975	1,461	0	0	57,623		
		shut down system for drilling; additional site investigation															57,623		
5/6/2009	1300	restart with SOMA-2, SOMA-4, and B-8															57,623		
	1400	176	76	22.5		25.5	0.28	2.2	29	0	7	73	6,434	1,047	0	0	57,623		
5/7/2009	1200	176	77	22.5		25.5	0.28	2.2	29	0	7	74	6,125	997	0	0	59,779		
	1300	176	76	22.5		25.5	0.28	2.2	29	0	7	74	6,380	1,039	0	0	59,779		
		shut down system to allow 1000 lb liquid vessel to drain for change out															59,779		
5/8/2009	700	change out of 1000 lb liquid vessel															59,779		
	1000	restart															59,779		
	1100	172	75	23		26	0.2	1.8	25	0	6	70	8,300	1,351	0	0	59,896		
5/11/2009	1700	182	79	23		26	0.2	2.6	25	0	6	70	8,450	1,376	0	0	63,401		
	1800	182	77	23		26	0.2	2.6	25	0	6	71	9,675	1,575	0	0	63,401		
5/12/2009	1430	182	79	22		25	0.16	2.5	22	0	5	74	8,653	1,409	0	0	64,127		
	1530	182	79	22		25	0.16	2.5	22	0	5	74	8,930	1,454	0	0	64,127		
5/13/2009	1430	182	79	22		25	0.16	2.5	22	0	5	74	9,664	1,573	0	8	64,858		
5/14/2009	1230	180	78	22		25	0.22	2.2	26	0	6	72	8,800	1,433	100	15	65,801		
	1330	180	79	22		25	0.18	2.2	23	0	6	72	7,011	1,141	0	0	65,830		
5/15/2009	1300	180	79	22		25	0.18	2.2	23	0	6	72	7,000	1,140	0	0	66,591		
5/18/2009	830	180	64	22		25	0.18	2.2	23	0	6	64	7,100	1,156	0	0	68,046		
		shut down system to reconstruct wells SOMA-4, B-8, & B-10 and construct new wells MPE-1,2,3,4,5																	
5/21/2009	1500	carbon change out of 1000 lb vapor vessel; restart with SOMA-4																	
	1600	180	71	25		27	0.1	1.4	17	0	4	70	7,000	1,140	0	0	68,084		
5/22/2009	1500	176	71	24		26	0.16	1.8	22	0	5	78	5,347	870	0	0	69,117		

Table 8: MPE Pilot Test Operational data

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DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
5/26/2009	1200	176	71	24		26	0.16	1.8	22	0	5	78	5,500	895	0	0	70,161		
5/27/2009	1200	176	71	24		26	0.16	1.8	22	0	5	78	5,500	895	0	0	71,792		
5/28/2009	1200	176	71	24		26	0.16	1.8	22	0	5	78	5,500	895	0	0	73,061		
5/29/2009	1200	182	72	23.5		26	0.18	1.8	23	0	6	76	6,300	1,026	0	0	74,601		
6/1/2009	1430	182	71	23.5		26	0.18	1.8	23	0	6	70	4,590	747	0	0	76,684		
		extraction from MPE-4 only																	
	1530	174	72	26		28	0.04	1	11	0	3	70	825	134	0	0	76,718		
6/2/2009	1130	178	68	24.5		26.75	0.12	1.6	19	0	5	68	4,720	768	0	0	77,310		
	1230	180	73	24.5		26.75	0.12	1.6	19	0	5	70	5,200	847	0	0	77,339		
6/3/2009	1130	182	73	24		26	0.2	1.8	25	0	6	70	3,066	499	0	0	77,793		
	1230	184	75	24		26	0.18	1.8	23	0	6	76	2,670	435	0	0	77,847		
6/4/2009	730	180	64	24		26	0.18	1.8	23	0	6	64	2,500	407	0	0	78,087		
		carbon change out of 1000 lb vapor vessel																	
	1100	restart extraction with MPE-3 & 5																	
	1300	182	75	22.5		25	0.3	2.2	30	0	8	62	15,000	2,442	0	0	78,227		
6/5/2009	1200	184	73	22		25	0.34	2.4	32	0	8	70	2,620	427	0	0	78,477		
		extraction from MPE-2 only																	
	1400	184	74	24		26	0.14	1.6	21	0	5	70	3,660	596	0	0	78,578		
		extraction from MPE-2 & 3													0	0			
	1500	186	75	22.5		25.5	0.3	2.2	30	0	8	70	3,990	650	0	0	78,608		
6/8/2009	1400	190	70	21.5		24.5	0.4	2.6	35	0	9	70	3,450	562	0	0	79,507		
6/9/2009	1400	184	70	21.5		24.5	0.4	2.6	35	0	9	70	3,065	499	0	0	79,652		
		extraction from MPE-2 only																	
6/10/2009	1500	181	72	23.5		26	0.2	2	25	0	6	70	3,620	589	0	0	79,822		
6/11/2009	1200	184	74	23.5		26	0.22	2	26	0	6	70	3,550	578	0	0	79,822		
		extraction from SOMA-2 only for sampling																	
	1300	182	75	25		27.5	0.04	1	11	0	3	70	3,820	622	0	0	79,822		
		extraction from B-10 only for sampling																	
	1400	182	78	25		27	0.08	1.2	16	0	4	70	6,717	1,093	0	0	79,822		
		extraction from MPE-1 only for sampling																	
	1500	182	78	25		27	0.1	1.2	17	0	4	70	8,000	1,302	0	0	79,822		
		extraction from MPE-2 only																	
6/12/2009	1000	180	64	25		27	0.1	1.2	17	0	4	70	7,500	1,221	0	0	79,822		
	1200	carbon change out of 1000 lb vapor vessel; restart with MPE-2 & 5															79,822		
6/15/2009	700	180	64	22.5		25	0.3	2.4	30	0	8	70	3,000	488	0	0	80,298		
6/16/2009	700	180	64	22.5		25	0.3	2.4	30	0	8	70	2,511	409	0	0	80,431		
6/17/2009	1100	186	74	22.5		25	0.3	2.4	30	0	8	70	2,330	379	0	0	80,526		
6/18/2009	1200	186	74	22.5		25	0.3	2.4	30	0	8	70	3,451	562	0	0	80,622		
6/19/2009	900	190	76	22.5		25	0.36	2.4	33	0	8	70	4,300	700	0	0	80,622		
	1030	190	76	22.5		25	0.36	2.4	33	0	8	70	4,297	700	0	0	80,622		
		extraction from LFR-2 only																	

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DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
	1130	190	82	25		27	0.1	1.6	17	0	4	74	3,110	506	0	0	80,642		
	1230	190	83	25		27	0.1	1.6	17	0	4	74	3,710	604	0	0	80,642		
	1330	190	86	25		27	0.1	1.6	17	0	4	76	3,733	608	0	0	80,668		
6/22/2009	1100	190	76	23		25.5	0.28	2.2	29	0	7	70	2,175	354	0	0	80,869		
		end extraction from LFR-2; begin extraction from MPE-5																	
6/23/2009	1030	186	76	24.5		26.5	0.14	1.6	21	0	5	70	2,608	425	100	0	81,095		
		carbon change out of 1000 lb vapor vessel																	
	1300	restart with MPE-2																	
	1400	190	79	23		25	0.26	2	28	0	7	72	3,200	521	0	0	81,095		
6/24/2009	1230	188	72	23		25	0.3	2.2	30	0	7	74	2,880	469	0	0	81,095		
		extraction from B-10R only																	
	1330	182	73	25		27	0.1	1.2	17	0	4	74	5,420	882	0	0	81,095		
	1430	187	72	25		27	0.1	1.2	17	0	4	74	5,544	903	0	0	81,095		
6/25/2009	930	180	69	24		26.5	0.16	1.6	22	0	6	66	7,400	1,205	0	0	82,095		
		extraction from B-10R & MPE-1																	
	1030	190	77	22.5		25	0.3	2.6	30	0	8	70	15,000	2,442	0	0	82,145		
	1130	190	73	22.5		25	0.3	2.6	30	0	8	70	4,790	780	0	0	82,175		
		extraction from B-10 only																	
	1300	190	75	24.5		26.5	0.2	1.6	24	0	6	74	4,400	716	0	0	82,205		
		extraction from B-10R & MPE-1																	
	1430	190	78	23		26	0.26	2	28	0	7	78	5,555	904	0	0	82,235		
6/26/2009	1330	190	77	23		25	0.3	2	30	0	7	79	10,200	1,660	0	0	82,845		
	1430	190	77	23		25	0.3	2	30	0	7	74	9,820	1,599	0	0	82,855		
6/29/2009	1430	200	79	22		25	0.34	2	32	0	8	80	3,500	570	0	0	84,495		
6/30/2009	1430	200	79	22		25	0.36	2	33	0	8	80	5,500	895	0	0	84,995		
7/1/2009	1500	200	75	22		25	0.4	2.6	34	0	9	80	6,419	1,045	0	0	85,475		
7/2/2009	930	192	70	22		25	0.38	2.4	34	0	8	72	6,000	977	0	0	85,808		
		carbon change out of 1000 lb vapor vessel																	
		surveying of newly installed wells and newly rebuilt wells																	
	1500	restart with MPE-1																	
7/3/2009	1200	190	74	23		25	0.3	2.2	30	0	8	72	6,500	1,058	0	0	85,968		
	1300	190	72	24		26	0.2	2	25	0	6	72	5,520	899	0	0	85,968		
7/6/2009	1030	182	70	23		26	0.2	2	25	0	6	68	4,990	812	0	0	86,225		
	1130	186	75	24		26	0.2	2	25	0	6	68	5,804	945	0	0	86,285		
7/7/2009	1400	190	77	23.5		26	0.22	2	26	0	6	70	4,282	697	20	0	86,365		
7/8/2009	1030	190	74	24.5		26	0.22	2	26	0	6	69	3,960	645	84	0	86,425		
	1130	190	77	23.5		26	0.22	2	26	0	6	72	4,002	651	79	0	86,425		
7/9/2009	1700	192	80	23.5		26	0.14	2	21	0	5	72	3,584	583	94	3	86,525		
7/10/2009	1530	192	79	23.5		26	0.2	2	25	0	6	72	3,563	580	96	4	86,615		
7/13/2009	1030	190	76	23.5		26	0.22	2	26	0	6	70	3,992	650	0	0	86,853		
		extraction from B-10R & MPE-1																	

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	1130	194	80	22		25	0.34	2.4	32	0	8	74	6,342	1,032	0	0	86,881		
7/14/2009	1530	194	80	22		25	0.34	2.6	32	0	8	80	6,122	997	50	5	87,485		
	1630	196	80	22		25	0.34	2.6	32	0	8	80	5,990	975	44	3	87,485		
7/15/2009	1330	198	77	21		24.5	0.36	2.8	33	0	8	80	5,300	863	100	7	88,161		
7/16/2009	930	190	71	20		24	0.46	2.8	37	0	9	74	5,250	855	150	10	88,624		
		carbon change out of 1000 lb vapor vessel																	
	1200	restart with MPE-1, B-10R, & SOMA-2																	
	1300	190	75	22		25	0.34	2.6	32	0	8	64	5,815	947	0	0	88,655		
7/17/2009	1330	194	81	21.1		24.75	0.4	2.8	35	0	9	76	5,640	918	0	0	89,040		
		extraction from SOMA-2 & MPE-1																	
7/20/2009	1530	195	83	22		25	0.38	2.4	34	0	8	79	6,830	1,112	0	0	89,295		
7/21/2009	930	186	69	22		25	0.38	2.4	34	0	8	68	6,720	1,094	0	0	89,741		
		extraction from SOMA-2 only for sampling																	
	1000	184	68	24		26	0.18	1.6	23	0	6	70	9,500	1,547	0	0	89,741		
		extraction from MPE-1 only for sampling																	
	1030	186	71	22.5		25	0.32	2.2	31	0	8	68	9,900	1,612	0	0	89,770		
		extraction from B-10R only for sampling																	
	1130	184	72	23.5		26	0.2	1.8	25	0	6	68	12,450	2,027	0	0	89,793		
		extraction from B-10R & MPE-2																	
7/22/2009	930	188	72	21.5		24.5	0.38	26	34	0	8	68	6,300	1,026	0	0	90,452		
	1030	190	73	21.5		24.5	0.44	2.8	36	0	9	68	6,944	1,130	0	0	90,452		
	1100	190	73	21.5		24.5	0.44	2.8	36	0	9	68	6,756	1,100	0	0			
		extraction from SOMA-4 & MPE-1																	
	1200	190	75	22		25	0.32	2.4	31	0	8	70	8,521	1,387	0	0	90,471		
7/23/2009	1130	190	74	22		25	0.34	2.4	32	0	8	68	7,504	1,222	0	0	91,032		
7/24/2009	1530	193	79	22		25	0.34	2.4	32	0	8	71	6,333	1,031	0	0	91,565		
7/27/2009	1230	190	74	22		25	0.36	2.4	33	0	8	70	5,178	843	0	0	92,965		
7/28/2009	1330	194	80	22		25	0.4	2.6	35	0	9	72	11,338	1,846	300	50	93,441		
		extraction from MPE-1																	
	1430	190	77	25		27	0.1	2.4	17	0	4	72	4,650	757	97	10	93,445		
7/29/2009	1400	186	74	25		27	0.1	2.6	17	0	4	70	2,840	462	144	10	93,523		
	1500	186	74	25		27	0.1	2.6	17	0	4	70	2,951	480	101	7	93,523		
7/30/2009	1000	180	65	25		27	0.1	2.6	17	0	4	65	3,351	546	54	4	93,571		
	1030	carbon change out of 1000 lb vapor vessel																	
	1130	restart with B-10R & MPE-2																976	
	1230	200	75	22.5		25.5	0.3	2.2	30	0	8	72	8,000	1,302	0	0	93,600		
7/31/2009	1300	200	76	22		25	0.36	2.6	33	0	8	80	15,000	2,442	183	25	94,397		
		extraction from B-10R							0	0	0								
	1330	196	75	25		26.5	0.16	2.4	22	0	5	80	5,300	863	20	2	94,425		
8/3/2009	1400	194	76	24		26.5	0.12	2.4	19	0	5	76	7,500	1,221	0	0	95,522		
		extraction from B-10R & MPE-2																	

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	1500	194	78	23		26	0.24	2.4	27	0	7	76	4,607	750	0	0	95,551		
8/4/2009	1000	194	75	23		26	0.22	2.6	26	0	6	72	7,932	1,291	22	2	96,027		
	1100	194	73	23		26	0.25	2.6	27	0	7	74	8,606	1,401	36	14	96,027		
8/5/2009	1030	194	73	23		26	0.2	2.6	25	0	6	70	6,688	1,089	24	15	96,587		
	1130	196	79	23		26	0.24	2.4	27	0	7	70	5,081	827	2	2	96,615		
8/6/2009	1300	196	76	23		26	0.22	2.6	26	0	6	72	7,250	1,180	100	9	97,203		
		extraction from B-10R							0	0	0								
	1400	196	78	24.5		26.5	0.14	2.6	21	0	5	72	4,900	798	54	9	97,231		
8/7/2009	1400	196	78	24.5		26.5	0.14	2.6	21	0	5	72	4,766	776	44	8	97,639		
8/10/2009	1400	198	81	24		26.5	0.14	2.6	20	0	5	80	7,011	1,141	154	10	98,549		
	1500	198	81	24		26.5	0.14	2.6	20	0	5	80	5,627	916	311	11	98,575		
		shut down system for scheduled groundwater monitoring on 8/11																	
8/14/2009	1530	carbon change out of 1000 lb vapor vessel, restart system with MPE-3																	
	1630	184	82	23.5		26	0.2	2	25	0	6	70	7,475	1,217	0	0	98,620		
8/17/2009	1300	182	75	22.5		25	0.3	2.2	30	0	8	70	4,140	674	17	7	99,026		
8/18/2009	1300	182	75	22.5		25	0.3	2.2	30	0	7	76	3,437	560	25	10	99,122		
		extraction from SOMA-2																	
	1400	180	75	25		27	0.1	2	17	0	4	80	6,490	1,057	0	0	99,149		
8/19/2009	1300	180	74	24		26.5	0.14	2.6	20	0	5	78	8,000	1,302	0	0	99,335		
		extraction from B-10R								0	0								
	1400	180	75	23.5		26	0.2	1.8	24	0	6	80	10,000	1,628	0	0	99,362		
		extraction from MPE-1								0	0								
	1500	180	73	23		25.5	0.26	2.2	28	0	7	82	6,364	1,036	0	0	99,380		
	1600	180	73	24.5		26.5	0.14	2	20	0	5	82	5,250	855	0	0	99,380		
8/20/2009	1230	176	74	26		27	0.08	2	15	0	4	76	3,131	510	0	0	99,425		
8/21/2009	1230	176	74	26		27	0.08	2	15	0	4	76	3,289	535	0	0	99,478		
	1330	176	77	26		27	0.08	2	15	0	4	82	3,070	500	0	0	99,478		
8/24/2009	1700	180	76	26		27	0.08	2	15	0	4	80	3,341	544	0	0	99,607		
8/25/2009	1400	180	73	26		27	0.08	2	15	0	4	78	3,539	576	15	0	99,677		
	1500	180	73	26		27	0.08	2	15	0	4	78	3,414	556	20	0	99,677		
8/26/2009	1400	180	76	26		27	0.1	2	17	0	4	76	2,613	425	0	0	99,726		
8/27/2009	1000	176	71	24		25	0.3	2.4	30	0	7	76	2,500	407	50	9	99,827		
	1100	carbon change out of 1000 lb vapor vessel, restart system with SOMA-2																	
	1200	180	76	25		27	0.14	1.4	20			76	7,787	1,268	0	0	99,854		
	1300	180	76	25		27	0.14	1.4	20			76	7,614	1,239	0	0	99,854		
8/28/2009	1200	184	83	26		27	0.16	1.4	22			84	10,803	1,759	37	0	100,067		
8/31/2009	1700	187	86	24		26	0.2	1.8	24			90	8,944	1,456	0	0	100,465		
9/1/2009	1700	188	84	24		26	0.2	1.8	24			90	9,150	1,490	0	0	100,600		
9/2/2009	1530	190	87	24		26	0.2	2	24			90	8,460	1,377	100	0	100,737		
9/3/2009	1700	190	87	24		26	0.2	2.2	24			90	8,111	1,320	200	9	100,778		
9/4/2009	930	184	70	24		26	0.24	2.4	27			72	9,027	1,470	3,412	0	100,943		

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
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MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
	1100	restart SOMA-2 after 55-gallon drum changeout																	
	1200	188	76	23		26	0.2	2.1	25			68	15,000	2,442	5,764	0	100,943		
9/8/2009	1100	188	76	23		26	0.24	2.2	27			80	6,627	1,079	5,381	0	101,425		
	1200	188	75	23		26	0.22	2.2	25			82	8,154	1,327	5,904	0	101,425		
	1300	190	76	23		26	0.24	2.2	27			84	5,868	955	4,823	0	101,425		
9/10/2009	1000	186	73	23		26	0.24	2.2	27			78	4,590	747	3,297	26	101,629		
		restart SOMA-2 after 1000-lb & 55 gal drum changeout																	
	1330	186	82	23		26	0.24	2.4	27			78	7,083	1,153	180	9	101,629		
9/16/2009		System was shut down from 9/16 to 9/21 per EBMUD permit																	
9/21/2009	1030	restart SOMA-2 after effluent piping reassembly but Heat Exchanger failed to start, shut down																	
	1330	restart SOMA-2 after circuit breaker reset																	
	1430	178	78	25		27	0.1	1.8	17			72	2,736	445	5	0	102,087		
9/23/2009	1000	178	71	24		27	0.18	2.4	23			80	9,000	1,465	99.4	0	102,465		
9/25/2009	1000	176	70	24		26	0.16	2.6	22			80	10,000	1,628	100	17	102,737		
	1100	180	75	24		26	0.16	2.6	22			80	7,985	1,300	101	8	102,737		
	1200	180	75	24		26	0.16	2.6	22			80	8,451	1,376	96	7	102,737		
9/28/2009	1400	182	77	24		26	0.18	2.6	23			76	15,000	2,442	100	0	103,124		
	1500	184	75	24		26	0.18	2.6	23			76	7,574	1,233	100	0	103,149		
10/1/2009	1000	180	70	24		26	0.18	2.8	23			78	7,761	1,263	100	0	103,452		
		carbon change out of 1000 lb vapor vessel, restart system with SOMA-2															103,452		
	1330	MPE-3 FP = 11.3 - 11.4'; restart with MPE-3															103,452		
	1430	180	77	24		26	0.2	2.6	25			68	6,621	1,078	0	0	103,452		
10/5/2009	1630	188	74	24		26	0.26	2.4	28			75	2,700	440	0	0	103,775		
	1730	188	74	24		26	0.26	2.4	28			75	2,514	409	0	0	103,775		
10/6/2009	1200	188	72	24		26	0.26	2.4	28			74	2,310	376	0	0	103,846		
10/7/2009	1200	188	74	24		26	0.24	2.4	27			74	2,150	350	0	0	103,918		
10/8/2009	1300	188	70	24		26	0.24	2.4	27			70	2,470	402	0	0	103,982		
10/9/2009	1330	188	70	23		26	0.24	2.4	27			78	1,960	319	0	0	104,035		
10/12/2009	800	182	64	23		25	0.24	2.4	27			72	2,450	399	0	0	104,264		
10/13/2009	1400	186	71	23		25	0.2	24	25			66	2,715	442	0	0	104,264		
		extraction from SOMA-2 and MPE-1															104,264		
	1500	186	78	21.5		24.5	0.3	2.4	30			66	6,430	1,047	0	0	104,264		
	1600	186	77	21.5		24.5	0.3	2.4	30			66	10,777	1,754	0	0	104,264		
10/14/2009	1330	200	83	22		25	0.38	2.6	34			76	11,000	1,791	150	10	104,264		
		extraction from MPE-1															104,264		
	1400	200	81	23		25.5	0.24	2	27			76	6,050	985	101	10	104,264		
		vapor sample from MPE-1; extraction from SOMA-2															104,264		
	1430	194	82	24		26.5	0.14	1.6	20			76	5,600	912	25	5	104,264		
		extraction from B-10															104,264		
10/15/2009	1330	190	79	23.5		26	0.2	1.8	24			78	6,411	1,044	210	15	105,205		
		55-gallon polishing drum changeout for vapor															105,205		

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MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
	1430	extraction from MPE-3															105,205		
	1500	190	80	24		26.5	0.16	2.4	22			80	3,962	645	0	0	105,236		
10/19/2009	1230	190	74	24		26	0.19	2.8	24			74	1,355	221	126.2	0	105,635		
	1330	190	75	24		26	0.19	2.8	24			74	2,779	452	242.8	0	105,635		
	1430	192	76	24.5		26	0.2	2.8	24			74	2,990	487	502.7	3.2	105,635		
10/20/2009	1030	184	68	24		26	0.19	2.6	24			78	1,352	220	156.1	5.6	105,735		
	1130	184	68	24		26	0.2	2.6	24			78	1,349	220	167.2	4.8	105,735		
	1230	188	70	24		26.5	0.19	2.6	24			78	1,605	261	219.7	5	105,735		
10/21/2009	830	188	70	26		26	0.18	2.8	23			72	11,300	1,840	500	15	105,812		
		carbon change out of 1000 lb vapor vessel															105,812		
	1100	restart with extraction from MPE-3															105,812		
	1130	187	73	23		25.5	0.24	2.4	27			62	12,000	1,953	0	0	105,812		
10/22/2009	1130	189	71	23		26	0.2	2.4	24			80	2,161	352	0	0	29,979		
	1230	191	74	23.5		26	0.2	2.4	24			80	2,220	361	0	0	29,979		
	1330	191	73	24		26.5	0.2	2.4	24			82	1,522	248	32	0	29,994		
10/27/2009	1100	188	67	24		26	0.2	2.6	24			78	1,330	217	0	0	30,441		
		extraction from SOMA-2																	
	1200	184	68	25		27.5	0.08	1.2	15			78	2,160	352	0	0	30,468		
	1300	184	70	25		27	0.1	2.4	17			78	3,081	502	0	0	30,525		
10/28/2009	1430	190	69	24		26	0.16	3.4	22			78	4,151	676	0	0	30,940		
		extraction from SOMA-2, MPE-1 and B-10R																	
	1530	190	72	22		25	0.32	2.4	31			78	3,750	610	0	0	30,965		
10/29/2009	1100	192	69	22		25	0.4	2.8	34			78	4,299	700	0	0	31,502		
	1300	194	73	22		25	0.34	2.5	32			78	3,763	613	0	0	31,529		
10/30/2009	1430	198	76	22		25	0.34	2.6	32			82	2,922	476	0	0	32,007		
	1530	198	78	22		25	0.34	2.4	32			82	3,053	497	0	0	32,007		
11/2/2009	1130	198	75	22		25	0.3	2.6	30			80	3,525	574	0	0	33,115		
		extraction from SOMA-2 and MPE-1																	
	1500	198	81	21		24.5	0.4	2.8	34			88	3,411	555	0	0	33,143		
		extraction from B-10R and SOMA-4																	
	1600	200	81	21		25	0.4	2.8	34			90	3,965	645	0	0	33,220		
11/3/2009	1030	200	77	20		24	0.54	3.2	40			80	8,211	1,337	110	8	34,183		
	1130	200	79	20		24	0.54	3.2	40			82	6,212	1,011	53	10	34,240		
		extraction SOMA-4																	
	1300	200	80	24		26	0.2	1.8	24			84	5,610	913	25	4	34,298		
		extraction from MPE-4 and MPE-5																	
11/4/2009	800	196	66	20		23.5	0.68	3.6	45			78	1,413	230	0	0	34,719		
		extraction from MPE-4																	
	900	194	66	21		24	0.52	3	39			78	1,648	268	0	0	34,746		
		extraction from MPE-5																	
	1000	190	67	23.5		26	0.2	1.8	24			78	2,767	450	0	0	34,746		

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MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
		extraction from MPE-3																	
	1500	200	72	22.5		25	0.3	2.4	30			80	1,550	252	0	0	34,774		
		extraction from B-8R and MPE-2																	
11/5/2009	830	200	75	21		24	0.5	3	39			78	15,000	2,442	50	8	35,310		
		extraction from MPE-2																	
	900	200	76	22.5		25	0.32	2.4	31			78	6,500	1,058	40	7	35,310		
		extraction from B-8R																	
	1000	198	76	24		26.5	0.12	1.6	19			78	15,000	2,442	76	9	35,338		
		extraction from SOMA-2																	
	1500	200	76	24.5		26	0.14	1.6	20			80	6,232	1,015	99	9	35,395		
		extraction from B-10R and MPE-1																	
11/6/2009	730	200	75	22		25	0.3	2.4	30			76	12,524	2,039	200	10	35,727		
		extraction from MPE-1																	
	800	200	73	23		25	0.28	2.2	29			76	5,911	962	200	10	35,727		
		extraction from B-10R																	
	900	196	73	24		26	0.18	1.8	23			76	5,888	959	175	9	35,727		
		carbon change out of 1000 lb vapor vessel																	
	1130	restart with extraction from SOMA-2 and MPE-1																	
	1300	194	74	22		25	0.3	2.6	30			74	5,911	962	0	0	35,754		
11/9/2009	1300	196	69	22		25	0.36	2.6	33			76	3,911	637	0	0	36,388		
	1500	196	70	21.5		25	0.36	2.8	33			76	3,791	617	0	0	36,416		
		extraction from SOMA-2, B-10R and MPE-1												0					
11/10/2009	1100	198	72	21		24.5	0.46	3	37			78	4,850	790	185	5	36,804		
	1300	198	72	21		24.5	0.44	3	36			78	4,811	783	8	3	36,804		
11/11/2009	1030	198	69	21		24	0.44	3	36			78	5,460	889	25	2	37,135		
	1130	198	72	21		24	0.44	3	36			78	4,139	674	0	0	37,135	1,261	
11/12/2009	1100	198	68	21		24	0.42	3	35			76	4,100	667	80	9	37,498	1,264	
	1200	196	67	23		25.5	0.22	2.6	26			76	3,659	596	4	2	37,498		
11/13/2009	1300	196	70	22.5		25.5	0.22	2.6	26			72	7,111	1,158	125	9	37,800	1,267	
		extraction from B-10R												0			37,800	1,267	
	1400	196	70	24		26.4	0.12	2.8	19			67	3,756	611	74	5	37,800		
11/16/2009	1400	192	68	24		26.4	0.11	2.8	18			70	3,812	621	60	15	38,150		
	1500	190	68	25		26.4	0.12	2.8	19			70	3,639	592	1,394	29	38,150		
	1600	190	68	26.4		27	0.1	2.8	17			70	3,036	494	60	17	38,150		
11/17/2009	1200	190	67	25		27	0.1	2.6	17			68	3,925	639	10	2	38,250		
	1300	196	70	23		26	0.2	3	25			70	4,211	686	8	3	114,195		
	1400	196	70	23		26	0.2	3	25			70	4,150	676	10	3	114,195		
11/18/2009	1030	192	66	23		26	0.24	3.2	27			68	4,386	714	1,936	30	114,443		
	1130	194	67	23		26	0.24	3.2	27			68	4,389	714	2,122	28	114,443		
	1230	194	67	23		26	0.24	3.2	27			70	3,955	644	2,101	28	114,443		
11/19/2009	900	190	65	23		26	0.24	3.2	27			64	2,758	449	28	20	114,635		

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MTS OPERATIONAL DATA																			
DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
		carbon change out of 1000 lb vapor vessel												0			114,635		
	1100	restart with extraction from SOMA-2 and MPE-1												0			114,635		
	1200	192	66	22.5		25.5	0.28	2.2	29			64	3,325	541	0	0	114,635		
11/20/2009	1130	198	66	23		25	0.3	2.8	30			68	3,683	600	6	0	114,798		
	1230	198	66	23		25	0.3	2.8	30			68	4,320	703	6	0	114,798		
	1330	198	66	23		25	0.3	2.8	30			68	5,554	904	6	0	114,798		
11/23/2009	1215	196	66	23		25.5	0.32	2.8	31			68	3,565	580	8	3	115,120		
	1315	196	66	23		25.5	0.34	2.8	32			70	3,195	520	11	3	115,120		
	1415	196	66	22.5		25.5	0.32	2.8	31			70	3,314	539	11	3	115,120		
11/24/2009	1115	200	72	22.5		25	0.34	2.8	32			70	2,953	481	31	4	115,218		
	1215	200	69	22.5		25	0.34	2.8	32			72	2,711	441	21	4	115,239		
	1315	200	70	22.5		25	0.32	2.8	31			72	2,634	429	24	4	115,239		
11/25/2009	1100	200	68	21.4		25	0.33	2.7	32			70	4,200	684	30	4	115,335		
	1200	196	68	21.7		25	0.34	2.7	32			60	3,660	596	180	3	115,335		
	1300	199	67	22		25	0.33	2.7	32			60	3,700	602	160	8	115,335		
11/30/2009	730	190	60	22.5		25	0.32	2.6	31			60	3,411	555	101	6	115,774		
	830	192	60	22.5		25	0.32	2.7	31			60	3,210	523	141	7	115,774		
12/1/2009	730	190	61	22.5		25	0.33	2.8	32			62	3,157	514	51	5	115,897		
	830	190	60	22.5		25	0.32	2.8	31			62	3,009	490	44	8	115,897		
12/2/2009	1100	198	64	22.5		25	0.3	2.8	30			66	3,367	548	55	9	116,019		
	1200	196	63	22.5		26	0.18	2.6	23			66	2,911	474	53	9	116,019		
12/3/2009	1030	192	61	22.5		26	0.16	2.8	22			66	3,060	498	101	10	116,041		
	1200	194	63	22.5		26	0.16	2.8	22			60	2,811	458	3	1	116,059		
12/4/2009	730	190	60	22.5		26	0.16	2.8	22			60	2,710	441	0	0	116,084		
	830	188	60	22.5		26	0.16	2.8	22			61	2,950	480	0	0	116,084		
12/7/2009	730	188	60	22.5		26	0.16	2.8	22			60	2,101	342	20	4	116,146		
	830	188	61	22.5		26	0.16	2.8	22			60	1,953	318	15	8	116,146		
12/8/2009	730	182	52	22.5		26.5	0.14	2.4	21			60	1,877	306	0	0	116,175		
	830	180	52	22.5		26.5	0.14	2.4	21			52	1,855	302	0	0	116,175		
12/9/2009	1030	180	56	22.5		26.5	0.14	2.4	21			50	1,674	273	0	0	116,198		
	1130	180	56	22.5		26.5	0.14	2.4	21			50	1,701	277	0	0	116,198		
12/10/2009	730	180	55	22.5		26	0.18	2.6	24			56	1,666	271	25	0	116,255		
	830	179	54	22.5		26	0.18	2.6	24			56	1,713	279	33	2	116,255		
12/11/2009	1100	188	58	22.5		25.5	0.2	2.6	25			60	1,503	245	1,171	4	116,328		
	1200	188	59	22.5		25.5	0.2	2.6	25			60	1,434	233	1,012	6	116,339		
	1300	188	58	22.5		25.5	0.2	2.6	25			60	1,304	212	852	5	116,339		
12/14/2009	900	192	67	22.5		26	0.2	2.8	25			64	1,361	222	1,020	2	116,589		
	1000	192	65	22.5		26	0.2	2.8	25			64	1,902	310	1,462	5	116,589		
		shut down system												0			116,589		
		8/9 - 8/13 system maintenance - house keeping, electrical/mechanical tests												0			116,589		
8/13/2010		carbon change out of vapor side: 1000 lb vessel, 3 X 200 lb drums, and liquid side: 1000 lb vessel, 1 X 200 lb drum												0			116,647		

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
PROJECT #: 2514

MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
8/16/2010		prep system for restart - connect extraction wells, leak test, mechanical/electrical tests												0			116,647		
	1030	system restart with SOMA -2												0			116,647		
	1130	194	65	24		27	0.1	1.6	18			60	3,300	537	0	0	116,647	1,409	
8/17/2010	1000	194	70	24		26.5	0.14	2.6	21			72	3,932	640	0	0	116,841	1,415	
		added extraction from MPE-1 & B-10R with SOMA-2; MPE-1 = B-10R = SOMA-2 = 7 " Hg vacuum												0			116,841		
	1100	194	70	23		25	0.4	2.6	35			74	4,150	676	10	5	116,841		
8/18/2010	1100	196	75	22.5		24.5	0.44	2.8	36			80	3,708	604	7	0	117,060	1,422	
	1200	194	75	22.5		24.5	0.44	2.8	36			82	3,611	588	10	5	117,062		
		extraction from B-10R only												0			117,062		
8/19/2010	1100	194	75	23		25	0.3	2.4	30			78	3,939	641	10	0	117,305	1,429	
	1200	194	75	23		25	0.3	2.4	30			80	3,124	509	8	3	117,315		
8/20/2010	1630	194	75	23		25	0.34	2.4	32			84	3,237	527	8	3	117,585		
		shut down system; heat exchanger leaking sealing fluid												0			117,585		
8/26/2010		installed repaired heat exchanger												0			117,587		
	1300	restarted with extraction from B-10R												0			117,587		
	1400	170	74	24		26	0.12	2.4	19			70	800	130	150	4	117,587		
8/27/2010	600	166	65	23		25	0.2	2.6	25			60	2,420	394	25	3	117,587		
		shut down system; heat exchanger leaking sealing fluid												0			117,587		
9/2/2010		installed new heat exchanger; modified vapor abatement side pipeline, 4 x 200 lb vessels before 1000 lb vessel followed by 2 X 200 lb vessels												0			117,587		
	1100	restart with extraction from B-10R												0			117,587		
	1230	166	85			25	0.2	2.4	24			80	2,130	347	0	0	117,693		
9/3/2010	1430	166	77			25	0.3	2.6	30			80	2,881	469	0	0	117,949		
	1530	166	76			25	0.3	2.6	30			80	2,950	480	0	0	117,976		
9/7/2010	930	restart with extraction from B-10R, SOMA-2, MPE-1												0			117,976		
	1030	164	71			24.5	0.32	2.6	31			64	4,848	789	0	0	117,976		
	1200	166	73			24.75	0.32	2.6	31			70	5,262	857	0	0	118,009		
9/8/2010	900	EBMUD inspection and sampling															118,009		
	930	164	69			24.75	0.36	2.8	33			74	3,659	596	0	0	118,039		
	1030	164	69			24.75	0.36	2.8	33			74	4,530	737	0	0	118,087		
9/9/2010	1400	164	79			24.5	0.4	2.8	34			84	4,400	716	0	0	118,295		
9/10/2010	1530	164	79			24.5	0.4	2.8	34			84	4,000	651	0	0	118,470		
	1630	164	79			24.5	0.4	2.8	34			86	3,838	625	0	0	118,470		
9/13/2010	1300	restart with extraction from B-10R, SOMA-2, MPE-1							0								118,470		
	1330	164	68			24.75	0.34	2.6	32			62	4,100	667	0	0	118,485	1,472	
	1400	164	71			24.75	0.34	2.6	32			66	4,191	682	0	0	118,485		
9/14/2010	1230	164	70			24.75	0.38	2.8	34			76	4,573	744	0	0	118,685		
	1330	164	71			24.75	0.36	2.8	33			76	4,444	723	0	0	118,685		
9/15/2010	1100	164	69			24.75	0.38	2.8	34			74	3,540	576	0	0	118,827		
		closed SOMA-2 and B-10R; MPE at MPE-1							0								118,827		
9/16/2010	1230	164	75			25	0.32	2.4	31			80	1,435	234	0	0	118,914		
		closed MPE-1; MPE at SOMA-2 and B-10R															118,914		

Table 8: MPE Pilot Test Operational data

Golden Gate Remediation Technology

SITE ADDRESS: 3820 Manila ave, Oakland, California
PROJECT #: 2514

MTS OPERATIONAL DATA

DATE	TIME	PUMP TEMPERATURE (F)	CONDENSER TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	CASING VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE Δ PRESSURE (IN-H20)	PUMP OUTLET (Psi)	TOTAL FLOW RATE (SCFM)	DILUTION FLOW RATE (SCFM)	WELL FLOW RATE (SCFM)	EFFLUENT TEMPERATURE (F)	INFLUENT CONCENTRATION (PPMV as hexane)	INFLUENT CONCENTRATION (PPMV as TPH-ss)	MID EFFLUENT CONCENTRATION (PPMV)	END EFFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER	POWER USAGE (KWH)	GAC
	1330	164	78			25	0.34	2.6	32			82	3,636	592	0	0	118,943		
9/17/2010	1400	164	75			24	0.46	3.2	37			84	5,300	863	0	0	119,177		
		closed B-10R; opened SOMA-2															119,177		
	1500	164	75			26.5	0.16	1.6	22			84	7,877	1,282	0	0	119,177		
9/20/2010	1130	restart with SOMA-2 and B-10R															119,177		
	1230	164	76			25	0.3	2.4	30			70	8,299	1,351	0	0	119,209		
9/21/2010	1100	164	74			24.5	0.38	3	34			78	6,111	995	0	0	119,410		
	1200	164	74			24.5	0.38	3	34			78	5,250	855	0	0	119,410		
9/22/2010	1300	164	74			25	0.3	3	30			80	4,799	781	0	0	119,525		
	1400	164	75			26	0.22	2.4	26			80	7,681	1,250	0	0	119,553		
9/23/2010	1430	164	77			26	0.22	3	25			82	5,641	918	0	0	119,638		
		resolved restriction in vapor flow causing high effluent pressure															119,638		
	1530	164	77			26	0.22	2.4	25			86	6,832	1,112	0	0	119,667		
9/24/2010	1430	164	80			26	0.22	3	25			84	7,600	1,237	0	0	119,752		
	1530	164	80			26	0.22	3	25			84	7,444	1,212	0	0	119,752		
9/27/2010	930	restart with SOMA-2, B-10R, and MPE-1							0								119,752		
	1000	164	75			25	0.26	2.4	28			70	6,351	1,034	0	0	119,780		
	1030	164	76			25	0.28	2.4	29			74	7,853	1,278	0	0	119,780		
9/28/2010	1330	164	88			24.5	0.36	3	32			90	6,050	985	0	0	119,976		
		closed MPE-1; MPE at SOMA-2 and B-10R															119,976		
9/29/2010	1200	164	80			25.5	0.22	2.2	25			86	6,000	977	0	0	120,087		
		opened MPE-1; MPE at SOMA-2, B-10R, and MPE-1															120,087		
	1300	164	80			25	0.3	2.6	30			86	6,960	1,133	0	0	120,087		
9/30/2010	1000	168	73			24	0.3	2.6	30			80	6,211	1,011	0	0	120,225		
10/1/2010	1230	164	75			24.5	0.32	2.6	31			80	6,399	1,042	0	0	120,370		
	1330	164	75			24.5	0.32	2.6	31			80	6,122	997	0	0	120,370		
10/4/2010	1300	restart with SOMA-2, B-10R, and MPE-1															120,370		
	1400	164	76			25	0.24	2.4	27			68	8,555	1,393	0	0	120,399		
10/5/2010	1300	164	74			24.5	0.3	2.8	30			80	5,250	855	0	0	120,570		
10/6/2010	1300	164	74			24.5	0.3	2.8	30			80	6,850	1,115	0	0	120,714		
		carbon change - removed 3 X 200 lbs vessels and installed 4 X 200 lb vessels							0								120,714		
	1530	164	74			24.5	0.34	2.6	32			82	4,365	711	0	0	120,714		
10/7/2010	1200	164	71			24.5	0.34	2.6	32			76	5,540	902	0	0	120,854		
	1300	164	71			24.5	0.34	2.6	32			76	6,000	977	0	0	120,854		
10/8/2010	1300	164	76			24.5	0.34	2.8	32			78	4,878	794	0	0	120,995		
	1400	164	76			24.5	0.34	2.8	32			78	4,577	745	0	0	120,995		

Table 8: MPE Pilot Test Operational data

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
SOMA-4, 2	**START**	**12/17/2008**	1300	0									
B-10, 8	**STEADY-STATE**		1330	30	30	23	690	1.8206	939	0.0009	0.2462	0.0082	12
			1430	60	90	23	1,380	3.6412	977	0.0010	0.5121	0.0085	12
		12/18/2008	0830	1080	1,170	23	24,840	65.5409	977	0.0010	9.2208	0.0085	12
	pause				1,170								
	restart		1330	0	1,170								
			1400	30	1,200	23	684	1.8059	1,677	0.0017	0.4360	0.0145	21
			1430	30	1,230	24	722	1.9055	1,563	0.0016	0.4288	0.0143	21
			1530	60	1,290	21	1,288	3.3992	875	0.0009	0.4283	0.0071	10
	pause				1,290								
	restart	**12/19/2008**	900	0	1,290								
			1000	60	1,350	20	1,222	3.2247	1,026	0.0010	0.4762	0.0079	11
			1100	60	1,410	20	1,217	3.2124	686	0.0007	0.3173	0.0053	8
			1200	60	1,470	20	1,200	3.1662	566	0.0006	0.2579	0.0043	6
			1300	60	1,530	19	1,140	3.0079	488	0.0005	0.2115	0.0035	5
			1430	90	1,620	20	1,800	4.7493	494	0.0005	0.3379	0.0038	5
			1500	30	1,650	19	570	1.5040	444	0.0004	0.0962	0.0032	5
		12/22/2008	900	3960	5,610	21	83,160	219.4195	256	0.0003	8.1012	0.0020	3
			1100	120	5,730	29	3,480	9.1821	309	0.0003	0.4085	0.0034	5
			1230	90	5,820	30	2,700	7.1240	405	0.0004	0.4158	0.0046	7
			1330	60	5,880	30	1,800	4.7493	341	0.0003	0.2332	0.0039	6
			1400	60	5,940	30	1,800	4.7493	316	0.0003	0.2161	0.0036	5
		12/23/2008	930	1170	7,110	30	35,100	92.6121	279	0.0003	3.7211	0.0032	5
			1030	60	7,170	30	1,800	4.7493	417	0.0004	0.2850	0.0048	7
			1130	60	7,230	30	1,800	4.7493	271	0.0003	0.1855	0.0031	4
			1330	120	7,350	30	3,600	9.4987	294	0.0003	0.4019	0.0033	5
		12/24/2008	1000	1230	8,580	30	37,135	97.9824	300	0.0003	4.2355	0.0034	5
			1200	120	8,700	30	3,616	9.5411	273	0.0003	0.3758	0.0031	5
	pause				8,700								
	restart	**12/29/2008**	1000	0	8,700								
			1100	60	8,760	30	1,825	4.8164	296	0.0003	0.2055	0.0034	5
			1300	120	8,880	30	3,623	9.5593	269	0.0003	0.3704	0.0031	4
			1400	60	8,940	31	1,864	4.9177	245	0.0002	0.1737	0.0029	4
		12/30/2008	930	1170	10,110	31	36,413	96.0769	289	0.0003	3.9977	0.0034	5
			1030	60	10,170	31	1,867	4.9270	295	0.0003	0.2096	0.0035	5
			1130	60	10,230	31	1,864	4.9177	264	0.0003	0.1871	0.0031	4
			1230	60	10,290	31	1,864	4.9177	260	0.0003	0.1840	0.0031	4
			1330	60	10,350	31	1,864	4.9177	239	0.0002	0.1695	0.0028	4
		12/31/2008	1000	750	11,100	31	23,476	61.9407	268	0.0003	2.3885	0.0032	5
			1200	120	11,220	31	3,749	9.8916	299	0.0003	0.4255	0.0035	5
			1400	120	11,340	31	3,735	9.8540	268	0.0003	0.3798	0.0032	5
			1500	60	11,400	31	1,867	4.9270	268	0.0003	0.1899	0.0032	5
	pause				11,400								

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
B-10	restart	**1/5/2009**	800	0	11,400								
			830	30	11,430	35	1,035	2.7315	390	0.0004	0.1534	0.0051	7
			900	30	11,460	33	975	2.5737	174	0.0002	0.0646	0.0022	3
B-10,			1100	120	11,580	38	4,512	11.9051	174	0.0002	0.2983	0.0025	4
SOMA-2					11,580								
		1/6/2009	1000	1380	12,960	38	52,701	139.0536	1,017	0.0010	20.3730	0.0148	21
B-10.			1200	120	13,080	38	4,560	12.0317	861	0.0009	1.4920	0.0124	18
SOMA-2, 4					13,080						0.0000		
			1400	120	13,200	39	4,680	12.3483	1,196	0.0012	2.1261	0.0177	26
		1/7/2009	700	1020	14,220	43	43,551	114.9101	1,175	0.0012	19.4351	0.0191	27
	c/o		730	30	14,250	43	1,281	3.3797	1,175	0.0012	0.5718	0.0191	27
					14,250								
B-10			930	0	14,250								
			1000	30	14,280	8	235	0.6206	1,224	0.0012	0.1094	0.0036	5
			1030	30	14,310	30	911	2.4036	924	0.0009	0.3198	0.0107	15
B-10, 8,			1130	60	14,370	30	1,822	4.8071		0.0000	0.0000	0.0000	0
SOMA-2, 4			1230	60	14,430	35	2,100	5.5401	1,198	0.0012	0.9559	0.0159	23
			1430	120	14,550	38	4,583	12.0916	1,339	0.0013	2.3314	0.0194	28
		1/8/2009	1000	1110	15,660	40	43,954	115.9744	1,583	0.0016	26.4389	0.0238	34
			1200	120	15,780	36	4,320	11.3984	1,169	0.0012	1.9185	0.0160	23
			1400	120	15,900	36	4,371	11.5331	1,121	0.0011	1.8614	0.0155	22
B-8,					15,900								
SOMA-2, 4			1500	60	15,960	23	1,398	3.6883	820	0.0008	0.4358	0.0073	10
		1/9/2009	1200	1260	17,220	24	30,274	79.8785	1,221	0.0012	14.0438	0.0111	16
			1400	120	17,340	24	2,880	7.5989	874	0.0009	0.9566	0.0080	11
			1500	60	17,400	35	2,100	5.5409	692	0.0007	0.5520	0.0092	13
		1/12/2009	1030	4050	21,450	34	139,607	368.3572	1,415	0.0014	75.0380	0.0185	27
	pause				21,450								
B-10	restart		1300		21,450								
			1400	60	21,510	33	1,958	5.1675	257	0.0003	0.1914	0.0032	5
			1500	60	21,570	33	1,955	5.1580	212	0.0002	0.1572	0.0026	4
		1/13/2009	1030	1170	22,740	33	38,120	100.5803	366	0.0004	5.3050	0.0045	7
	pause				22,740								
	restart		1130		22,740								
			1230	60	22,800	29	1,721	4.5405	98	0.0001	0.0639	0.0011	2
			1400	90	22,890	25	2,288	6.0371	98	0.0001	0.0851	0.0009	1
	pause	**1/14/2009**	930	1170	24,060	25	29,745	78.4825	98	0.0001	1.1075	0.0009	1
	pause				24,060								
	c/o	**1/15/2009**	730		24,060								
					24,060								
B-10, 8,	restart		1030		24,060								
SOMA-2, 4			1100	30	24,090	29	877	2.3132	565	0.0006	0.1882	0.0063	9
			1130	30	24,120	29	873	2.3044	369	0.0004	0.1225	0.0041	6
			1230	60	24,180	30	1,798	4.7437	326	0.0003	0.2226	0.0037	5
		1/16/2009	1030	1320	25,500	30	39,553	104.3612	474	0.0005	7.1215	0.0054	8
	pause		1100	30	25,530								
	restart		1230		25,530								
			1330	60	25,590	20	1,226	3.2345	741	0.0007	0.3450	0.0057	8

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
	pause	1/19/2009	1000	4110	29,700	20	83,973	221.5638	741	0.0007	23.6417	0.0058	8
SOMA-4,	restart		1030		29,700								
B-8,			1200	90	29,790	23	2,101	5.5429	1,499	0.0015	1.1968	0.0133	19
			1300	60	29,850	25	1,473	3.8878	1,628	0.0016	0.9114	0.0152	22
	pause	1/20/2009	930	600	30,450	25	14,735	38.8780	1,628	0.0016	9.1142	0.0152	22
SOMA-4, 2	restart		1000		30,450								
			1100	60	30,510	25	1,476	3.8952	1,275	0.0013	0.7150	0.0119	17
			1200	60	30,570	25	1,471	3.8805	1,131	0.0011	0.6318	0.0105	15
			1330	90	30,660	17	1,557	4.1082	1,205	0.0012	0.7126	0.0079	11
B-10, 8,	pause	1/21/2009	930	450	31,110	17	7,650	20.1847	1,205	0.0012	3.5024	0.0078	11
SOMA-2, 4	restart		1100		31,110								
			1300	120	31,230	33	3,960	10.4485	803	0.0008	1.2085	0.0101	15
		1/22/2009	1000	1260	32,490	33	41,580	109.7098	615	0.0006	9.7085	0.0077	11
			1100	60	32,550	33	1,980	5.2243	536	0.0005	0.4029	0.0067	10
B-10			1200	60	32,610	35	2,100	5.5409	339	0.0003	0.2704	0.0045	6
		1/23/2009	1100	1380	33,990	35	47,748	125.9835	132	0.0001	2.3863	0.0017	2
			1200	60	34,050	39	2,321	6.1241	132	0.0001	0.1163	0.0019	3
	pause	1/26/2009	1000	4200	38,250	39	164,015	432.7568	92	0.0001	5.7621	0.0014	2
	restart				38,250								
B-10, 8,			1130	60	38,310	38	2,291	6.0458	1,361	0.0014	1.1848	0.0197	28
SOMA-2, 4			1230	60	38,370	38	2,287	6.0343	1,476	0.0015	1.2822	0.0214	31
	pause	1/27/2009	1000	630	39,000	38	23,940	63.1662	0	0.0000	0.0000	0.0000	0
	restart		1030		39,000								
	pause		1130	60	39,060	38	2,300	6.0689	2,116	0.0021	1.8495	0.0308	44
	restart				39,060								
			1200		39,060								
			1300	60	39,120	39	2,343	6.1822	1,921	0.0019	1.7101	0.0285	41
					39,120								
			1400	60	39,180	39	2,343	6.1822	1,547	0.0015	1.3768	0.0229	33
		1/28/2009	1000	1200	40,380	40	48,000	126.6491	1,411	0.0014	25.7373	0.0214	31
			1100	60	40,440	40	2,400	6.3325	1,299	0.0013	1.1846	0.0197	28
		1/29/2009	730	1230	41,670	42	52,220	137.7844	2,189	0.0022	43.4231	0.0353	51
	pause c/o				41,670								
	restart		930		41,670								
			1030	60	41,730	39	2,348	6.1941	2,214	0.0022	1.9747	0.0329	47
		1/30/2009	930	1380	43,110	38	52,802	139.3187	2,442	0.0024	48.9883	0.0355	51
SOMA-2					43,110								
			1030	60	43,170	17	1,046	2.7595	1,394	0.0014	0.5541	0.0092	13
		2/2/2009	1230	4440	47,610	17	77,101	203.4325	2,442	0.0024	71.5325	0.0161	23
					47,610								
B-8,			1330	60	47,670	39	2,330	6.1471	2,442	0.0024	2.1615	0.0360	52
SOMA-2, 4			1400	30	47,700	39	1,163	3.0678	2,442	0.0024	1.0787	0.0360	52
		2/3/2009	1500	1500	49,200	39	58,500	154.3536	2,442	0.0024	54.2750	0.0362	52
B-10					49,200								
			1600	60	49,260	38	2,280	6.0158	638	0.0006	0.5525	0.0092	13
		2/4/2009	1300	1260	50,520	36	45,360	119.6834	126	0.0001	2.1743	0.0017	2
			1400	60	50,580	36	2,160	5.6992	106	0.0001	0.0872	0.0015	2
			1500	60	50,640	36	2,160	5.6992	102	0.0001	0.0838	0.0014	2

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		2/5/2009	1330	1350	51,990	36	48,600	128.2322	129	0.0001	2.3898	0.0018	3
			1430	60	52,050	36	2,160	5.6992	109	0.0001	0.0898	0.0015	2
		2/6/2009	730	1020	53,070	36	37,224	98.2166	179	0.0002	2.5326	0.0025	4
	pause c/o				53,070								
	restart		930		53,070								
			1000	30	53,100	35	1,054	2.7807	128	0.0001	0.0512	0.0017	2
			1030	30	53,130	36	1,076	2.8385	100	0.0001	0.0411	0.0014	2
		2/9/2009	1100	1410	54,540	36	50,562	133.4086	93	0.0001	1.7888	0.0013	2
	pause				54,540								
	restart	**2/11/2009**	930		54,540								
	pause		1000	30	54,570	36	1,080	2.8496	93	0.0001	0.0382	0.0013	2
	restart		1130		54,570						0.0000		
			1230	60	54,630	37	2,228	5.8785	326	0.0003	0.2756	0.0046	7
		2/12/2009	930	1260	55,890	37	46,335	122.2561	70	0.0001	1.2295	0.0010	1
					55,890								
B-8,			1030	60	55,950	26	1,557	4.1087	733	0.0007	0.4334	0.0072	10
SOMA-2, 4		**2/13/2009**	900	1350	57,300	31	42,337	111.7075	1,276	0.0013	20.5301	0.0152	22
					57,300								
B-8			1100	120	57,420	35	4,207	11.1016	667	0.0007	1.0670	0.0089	13
		2/16/2009	1130	1410	58,830	35	49,438	130.4436	81	0.0001	1.5289	0.0011	2
	pause				58,830								
	restart		1230		58,830								
			1330	60	58,890	35	2,104	5.5508	244	0.0002	0.1952	0.0033	5
		2/17/2009	1000	1230	60,120	35	43,127	113.7912	52	0.0001	0.8589	0.0007	1
			1100	60	60,180	35	2,104	5.5508	42	0.0000	0.0332	0.0006	1
		2/18/2009	1000	1380	61,560	36	49,392	130.3207	39	0.0000	0.7332	0.0005	1
SOMA-2					61,560								
			1200	120	61,680	31	3,749	9.8916	201	0.0002	0.2864	0.0024	3
		2/19/2009	1000	1320	63,000	32	42,426	111.9427	126	0.0001	2.0337	0.0015	2
B-10, 8,					63,000								
SOMA-2, 4			1100	60	63,060	28	1,686	4.4496	285	0.0003	0.1825	0.0030	4
			1200	60	63,120	28	1,686	4.4496	339	0.0003	0.2172	0.0036	5
		2/20/2009	1000	1320	64,440	29	38,501	101.5864	437	0.0004	6.3916	0.0048	7
			1100	60	64,500	28	1,680	4.4328	573	0.0006	0.3658	0.0061	9
					64,500								
			1200	60	64,560	25	1,480	3.9063	379	0.0004	0.2134	0.0036	5
					64,560								
		2/23/2009	1000	4200	68,760	25	105,000	277.0449	615	0.0006	24.5490	0.0058	8
B-10					68,760								
			1200	120	68,880	21	2,520	6.6491	225	0.0002	0.2159	0.0018	3
		2/24/2009	1000	1320	70,200	21	27,122	71.5608	39	0.0000	0.4060	0.0003	0
			1100	60	70,260	19	1,141	3.0115	25	0.0000	0.0109	0.0002	0
			1200	60	70,320	19	1,141	3.0115	25	0.0000	0.0107	0.0002	0
		2/25/2009	1000	1320	71,640	17	23,053	60.8252	41	0.0000	0.3579	0.0003	0
			1100	60	71,700	17	1,048	2.7648	128	0.0001	0.0510	0.0009	1
			1200	60	71,760	17	1,046	2.7595	94	0.0001	0.0375	0.0006	1
		2/26/2009	730	1170	72,930	19	22,256	58.7238	44	0.0000	0.3717	0.0003	0

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
	pause c/o				72,930								
	restart		930		72,930								
			1030	60	72,990	19	1,148	3.0287	136	0.0001	0.0593	0.0010	1
			1130	60	73,050	32	1,932	5.0980	195	0.0002	0.1434	0.0024	3
B-10, 8,		2/27/2009	1230	1500	74,550	32	48,304	127.4502	36	0.0000	0.6633	0.0004	1
SOMA-2, 4			1330	60	74,610	17	1,046	2.7595	124	0.0001	0.0492	0.0000	0
			1430	60	74,670	17	1,044	2.7543	160	0.0002	0.0634	0.0011	2
		3/2/2009	1030	4080	78,750	21	83,989	221.6065	443	0.0004	14.1352	0.2356	339
			1130	60	78,810	17	1,044	2.7543	666	0.0007	0.2641	0.0001	0
			1230	60	78,870	18	1,052	2.7754	356	0.0004	0.1422	0.0024	3
		3/3/2009	1100	1350	80,220	17	22,950	60.5541	262	0.0003	2.2868	0.0381	55
			1200	60	80,280	17	1,020	2.6913	166	0.0002	0.0644	0.0000	0
		3/4/2009	1000	1320	81,600	18	23,760	62.6913	279	0.0003	2.5204	0.0420	60
			1100	60	81,660	18	1,080	2.8496	329	0.0003	0.1351	0.0001	0
			1200	60	81,720	18	1,080	2.8496	285	0.0003	0.1169	0.0019	3
		3/5/2009	1000	1320	83,040	16	20,541	54.1972	182	0.0002	1.4229	0.0237	34
			1100	60	83,100	16	934	2.4635	129	0.0001	0.0456	0.0000	0
			1200	60	83,160	16	934	2.4635	128	0.0001	0.0453	0.0008	1
		3/6/2009	1030	1350	84,510	16	21,008	55.4290	184	0.0002	1.4683	0.0245	35
			1130	60	84,570	16	935	2.4682	135	0.0001	0.0479	0.0000	0
		3/9/2009	1100	1410	85,980	16	21,983	58.0025	137	0.0001	1.1435	0.0191	27
					85,980		0						
SOMA-2,			1200	60	86,040	17	1,048	2.7648	611	0.0006	0.2433	0.0041	6
B-10		3/10/2009	1430	1590	87,630	17	27,663	72.9887	585	0.0006	6.1510	0.0039	6
			1530	60	87,690	21	1,235	3.2589	852	0.0009	0.3998	0.0067	10
					87,690								
B-10,		3/11/2009	1530	1440	89,130	23	33,549	88.5189	823	0.0008	10.4873	0.0073	10
SOMA-2, 4			1630	60	89,190	25	1,473	3.8878	821	0.0008	0.4594	0.0077	11
		3/12/2009	1000	1050	90,240		0				0.0000	0.0000	
		3/13/2009	1100	1500	91,740	25	36,907	97.3788	1,198	0.0012	16.8055	0.0112	16
					91,740								
SOMA-4			1200	60	91,800	17	1,044	2.7543	919	0.0009	0.3644	0.0061	9
			1300	60	91,860	16	934	2.4635	856	0.0009	0.3038	0.0051	7
		3/16/2009	1000	4140	96,000	11	45,815	120.8844	1,196	0.0012	20.8139	0.0050	7
					96,000								
B-8,			1100	60	96,060	16	939	2.4776	571	0.0006	0.2039	0.0034	5
SOMA-2, 4			1200	60	96,120	16	939	2.4776	483	0.0005	0.1725	0.0029	4
		3/17/2009	1000	1320	97,440	16	20,541	54.1972	64	0.0001	0.5018	0.0004	1
					97,440								
B-8,			1100	60	97,500	17	1,042	2.7491	258	0.0003	0.1022	0.0017	2
SOMA-2, 4			1200	60	97,560	21	1,233	3.2528	524	0.0005	0.2452	0.0041	6
		3/18/2009	1000	1320	98,880		0				0.0000	0.0000	
		3/19/2009	1000	1440	100,320	27	38,521	101.6391	1,156	0.0012	16.9165	0.0117	17
					100,320								
SOMA-4			1100	60	100,380	17	1,036	2.7337	825	0.0008	0.3249	0.0054	8
			1200	60	100,440	17	1,036	2.7337	890	0.0009	0.3502	0.0058	8

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
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WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		3/20/2009	700	1140	101,580	17	19,909	52.5309	870	0.0009	6.5807	0.0058	8
					101,580								
	pause c/o		930		101,580								
	restart		1030	60	101,640	17	1,046	2.7595	2,442	0.0024	0.9703	0.0162	23
			1130	60	101,700	17	1,046	2.7595	1,465	0.0015	0.5822	0.0097	14
		3/23/2009	1000	4230	105,930	17	73,874	194.9171	818	0.0008	22.9603	0.0054	8
			1100	60	105,990	25	1,482	3.9100	941	0.0009	0.5301	0.0088	13
			1200	60	106,050	25	1,482	3.9100	872	0.0009	0.4907	0.0082	12
		3/24/2009	1000	1320	107,370	27	35,640	94.0369	1,376	0.0014	18.6294	0.0141	20
			1100	60	107,430	27	1,620	4.2744	1,282	0.0013	0.7891	0.0132	19
			1200	60	107,490	27	1,620	4.2744	1,100	0.0011	0.6773	0.0113	16
		3/25/2009		1440	108,930		0				0.0000	0.0000	
		3/26/2009	1130	1410	110,340	27	37,860	99.8951	1,058	0.0011	15.2212	0.0108	16
			1230	60	110,400	27	1,611	4.2509	973	0.0010	0.5958	0.0099	14
SOMA-4		**3/27/2009**	1100	1350	111,750	29	39,007	102.9214	1,377	0.0014	20.4112	0.0151	22
			1200	60	111,810	17	1,038	2.7388	948	0.0009	0.3740	0.0062	9
		3/30/2009			111,810								
		3/31/2009	1130	5730	117,540	17	97,410	257.0185	1,067	0.0011	39.4878	0.0069	10
			1230	60	117,600	17	1,020	2.6913	1,044	0.0010	0.4047	0.0067	10
			1330	60	117,660	17	1,020	2.6913	921	0.0009	0.3568	0.0059	9
		4/1/2009	1100	1290	118,950	17	21,930	57.8628	1,013	0.0010	8.4369	0.0065	9
			1200	60	119,010	17	1,020	2.6913	1,006	0.0010	0.3899	0.0065	9
			1300	60	119,070	17	1,020	2.6913	836	0.0008	0.3241	0.0054	8
		4/3/2009	730	2550	121,620	16	39,681	104.6992	733	0.0007	11.0446	0.0043	6
					121,620								
	pause c/o		930		121,620								
B-8,	**restart**		1030	60	121,680	16	935	2.4682	1,380	0.0014	0.4905	0.0082	12
SOMA-2, 4			1130	60	121,740	23	1,398	3.6883	1,214	0.0012	0.6446	0.0107	15
			1230	60	121,800	23	1,398	3.6883	1,187	0.0012	0.6304	0.0105	15
		4/6/2009	1300	4290	126,090	28	119,004	313.9947	1,137	0.0011	51.4139	0.0120	17
			1400	60	126,150	30	1,785	4.7086	1,014	0.0010	0.6873	0.0115	16
		4/7/2009	1300	1380	127,530	29	39,653	104.6246	1,051	0.0011	15.8290	0.0115	17
			1400	60	127,590	29	1,724	4.5489	1,031	0.0010	0.6753	0.0113	16
SOMA-2		**4/8/2009**	1030	1230	128,820	29	35,808	94.4806	1,075	0.0011	14.6288	0.0119	17
			1130	60	128,880	16	935	2.4682	1,253	0.0013	0.4455	0.0074	11
		4/9/2009	1230	1380	130,260	16	21,556	56.8766	1,384	0.0014	11.3330	0.0082	12
			1330	60	130,320	16	936	2.4705	1,367	0.0014	0.4864	0.0081	12
		4/10/2009	1030	1260	131,580	16	19,607	51.7337	1,412	0.0014	10.5193	0.0083	12
			1130	60	131,640	16	935	2.4658	1,360	0.0014	0.4830	0.0081	12
		4/13/2009	1000	1350	132,990	16	21,047	55.5343	1,323	0.0013	10.5773	0.0078	11
			1100	60	133,050	16	934	2.4635	1,438	0.0014	0.5102	0.0085	12
			1200	60	133,110	16	934	2.4635	1,481	0.0015	0.5255	0.0088	13
		4/14/2009	1030	1350	134,460	17	22,950	60.5541	1,319	0.0013	11.4980	0.0085	12
			1130	60	134,520	17	1,042	2.7491	1,628	0.0016	0.6444	0.0107	15
		4/15/2009	1000	1350	135,870	17	23,487	61.9715	1,579	0.0016	14.0915	0.0104	15
			1100	60	135,930	17	1,044	2.7543	1,628	0.0016	0.6457	0.0108	15
		4/16/2009	700	1200	137,130	17	20,957	55.2956	1,628	0.0016	12.9623	0.0108	16

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
					137,130								
	pause c/o		900		137,130								
	restart		1000	60	137,190	17	1,047	2.7621	1,972	0.0020	0.7842	0.0131	19
		4/17/2009	1300	1620	138,810	17	28,265	74.5780	1,811	0.0018	19.4475	0.0120	17
		4/20/2009	1700	4560	143,370	17	78,087	206.0354	1,628	0.0016	48.2985	0.0106	15
		4/21/2009	1330	1230	144,600	17	21,044	55.5244	2,279	0.0023	18.2223	0.0148	21
			1430	60	144,660	17	1,027	2.7085	2,279	0.0023	0.8889	0.0148	21
		4/22/2009	1300	1350	146,010	17	23,225	61.2791	1,172	0.0012	10.3428	0.0077	11
			1400	60	146,070	17	1,032	2.7235	1,185	0.0012	0.4648	0.0077	11
		4/23/2009	1300	1380	147,450	17	24,055	63.4690	1,501	0.0015	13.7178	0.0099	14
			1400	60	147,510	17	1,047	2.7621	1,483	0.0015	0.5899	0.0098	14
		4/24/2009	1300	1380	148,890	18	24,240	63.9572	2,442	0.0024	22.4891	0.0163	23
			1400	60	148,950	18	1,054	2.7807	2,442	0.0024	0.9778	0.0163	23
		4/27/2009	1230	4230	153,180	17	73,874	194.9171	1,455	0.0015	40.8260	0.0097	14
			1330	60	153,240	17	1,048	2.7648	1,411	0.0014	0.5619	0.0094	13
		4/28/2009	1400	1410	154,650	17	24,625	64.9724	1,428	0.0014	13.3574	0.0095	14
		4/29/2009	1230	1350	156,000	17	23,487	61.9715	1,245	0.0012	11.1134	0.0082	12
		4/30/2009	1330	1500	157,500	17	26,048	68.7272	1,302	0.0013	12.8887	0.0086	12
			1430	60	157,560	17	1,042	2.7491	1,628	0.0016	0.6444	0.0107	15
		5/1/2009	730	1020	158,580	17	17,813	47.0013	1,384	0.0014	9.3653	0.0092	13
					158,580								
	pause c/o		1000		158,580								
	restart		1300	180	158,760	17	3,132	8.2629	1,221	0.0012	1.4527	0.0081	12
		5/4/2009	1000	4140	162,900	17	71,891	189.6871	1,461	0.0015	39.9084	0.0096	14
					162,900								
B-8,	pause drilling	5/6/2009	1300		162,900								
SOMA-2, 4	restart		1400	60	162,960	29	1,739	4.5871	1,047	0.0010	0.6919	0.0115	17
		5/7/2009	1200	1320	164,280	29	38,212	100.8225	997	0.0010	14.4762	0.0110	16
			1300	60	164,340	29	1,737	4.5828	1,039	0.0010	0.6854	0.0114	16
					164,340								
	pause	5/8/2009	700		164,340								
			1000		164,340								
	restart		1100	60	164,400	25	1,473	3.8878	1,351	0.0014	0.7564	0.0126	18
		5/11/2009	1700	4680	169,080	25	114,931	303.2482	1,376	0.0014	60.0685	0.0128	18
			1800	60	169,140	25	1,472	3.8841	1,575	0.0016	0.8809	0.0147	21
		5/12/2009	1430	1230	170,370	22	26,916	71.0182	1,409	0.0014	14.4055	0.0117	17
			1530	60	170,430	22	1,313	3.4643	1,454	0.0015	0.7252	0.0121	17
		5/13/2009	1430	1380	171,810	22	30,198	79.6790	1,573	0.0016	18.0506	0.0131	19
		5/14/2009	1230	1320	173,130	26	33,935	89.5375	1,433	0.0014	18.4705	0.0140	20
			1330	60	173,190	23	1,395	3.6813	1,141	0.0011	0.6050	0.0101	15
		5/15/2009	1300	1410	174,600	23	32,788	86.5117	1,140	0.0011	14.1960	0.0101	14
		5/18/2009	830	4050	178,650	23	94,894	250.3807	1,156	0.0012	41.6727	0.0103	15
					178,650								
SOMA-4	pause	5/21/2009	1500		178,650								
	restart c/o		1600	60	178,710	17	1,020	2.6913	1,140	0.0011	0.4416	0.0074	11
		5/22/2009	1500	1380	180,090	22	30,086	79.3822	870	0.0009	9.9501	0.0072	10
		5/26/2009	1200	5580	185,670	22	121,652	320.9803	895	0.0009	41.3841	0.0074	11
		5/27/2009	1200	1440	187,110	22	31,394	82.8336	895	0.0009	10.6798	0.0074	11

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		5/28/2009	1200	1440	188,550	22	31,394	82.8336	895	0.0009	10.6798	0.0074	11
		5/29/2009	1200	1440	189,990	23	33,360	88.0221	1,026	0.0010	12.9994	0.0090	13
		6/1/2009	1430	4170	194,160	23	97,151	256.3360	747	0.0007	27.5813	0.0066	10
MPE-4					194,160								
			1530	60	194,220	11	659	1.7387	134	0.0001	0.0336	0.0006	1
		6/2/2009	1130	1200	195,420	19	22,870	60.3435	768	0.0008	6.6767	0.0056	8
			1230	60	195,480	19	1,141	3.0115	847	0.0008	0.3671	0.0061	9
		6/3/2009	1130	1380	196,860	25	33,890	89.4193	499	0.0005	6.4268	0.0047	7
			1430	60	196,920	23	1,390	3.6676	435	0.0004	0.2296	0.0038	6
		6/4/2009	730	1140	198,060	23	26,711	70.4775	407	0.0004	4.1303	0.0036	5
					198,060								
MPE-3,5	**pause c/o**		1100		198,060								
	restart		1300	120	198,180	30	3,637	9.5958	2,442	0.0024	3.3742	0.0281	40
		6/5/2009	1200	1380	199,560	32	44,187	116.5885	427	0.0004	7.1606	0.0052	7
MPE-2					199,560								
MPE-2,3			1400	120	199,680	21	2,466	6.5055	596	0.0006	0.5582	0.0047	7
					199,680								
			1500	60	199,740	30	1,805	4.7616	650	0.0006	0.4454	0.0074	11
		6/8/2009	1400	4260	204,000	35	147,950	390.3705	562	0.0006	31.5710	0.0074	11
		6/9/2009	1400	1440	205,440	35	50,011	131.9562	499	0.0005	9.4810	0.0066	9
MPE-2					205,440								
		6/10/2009	1500	1500	206,940	25	36,837	97.1949	589	0.0006	8.2479	0.0055	8
		6/11/2009	1200	1260	208,200	26	32,453	85.6287	578	0.0006	7.1259	0.0057	8
SOMA-2					208,200								
			1300	60	208,260	11	659	1.7387	622	0.0006	0.1557	0.0026	4
B-10					208,260								
			1400	60	208,320	16	932	2.4589	1,093	0.0011	0.3872	0.0065	9
MPE-1					208,320								
			1500	60	208,380	17	1,042	2.7491	1,302	0.0013	0.5155	0.0086	12
MPE-2					208,380								
		6/12/2009	1000	1140	209,520	17	19,796	52.2327	1,221	0.0012	9.1832	0.0081	12
MPE-2,5	**pause c/o**		1200		209,520								
	restart	**6/15/2009**	700	4020	213,540	30	120,910	319.0245	488	0.0005	22.4356	0.0056	8
		6/16/2009	700	1440	214,980	30	43,311	114.2774	409	0.0004	6.7267	0.0047	7
		6/17/2009	1100	1200	216,180	30	36,093	95.2312	379	0.0004	5.2015	0.0043	6
		6/18/2009	1200	1380	217,560	30	41,507	109.5159	562	0.0006	8.8596	0.0064	9
		6/19/2009	900	1260	218,820	33	41,514	109.5366	700	0.0007	11.0413	0.0088	13
			1030	90	218,910	33	2,965	7.8240	700	0.0007	0.7881	0.0088	13
LFR-2					218,910								
			1130	60	218,970	17	1,038	2.7388	506	0.0005	0.1997	0.0033	5
			1230	60	219,030	17	1,038	2.7388	604	0.0006	0.2382	0.0040	6
			1330	60	219,090	17	1,036	2.7337	608	0.0006	0.2392	0.0040	6
		6/22/2009	1100	4170	223,260	29	121,169	319.7072	354	0.0004	16.3006	0.0039	6
MPE-5					223,260								
		6/23/2009	1030	1410	224,670	21	28,971	76.4400	425	0.0004	4.6733	0.0033	5
					224,670								
MPE-2	**pause c/o**		1300		224,670								
	restart		1400	60	224,730	28	1,677	4.4244	521	0.0005	0.3319	0.0055	8

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		6/24/2009	1230	60	224,790	30	1,798	4.7437	469	0.0005	0.3203	0.0053	8
B-10R					224,790								
			1330	60	224,850	17	1,038	2.7388	882	0.0009	0.3480	0.0058	8
			1430	60	224,910	17	1,038	2.7388	903	0.0009	0.3559	0.0059	9
		6/25/2009	930	1140	226,050	22	25,135	66.3204	1,205	0.0012	11.5046	0.0101	15
B-10R,MPE-1					226,050								
			1030	60	226,110	30	1,805	4.7616	2,442	0.0024	1.6743	0.0279	40
			1130	60	226,170	30	1,805	4.7616	780	0.0008	0.5347	0.0089	13
B-10R					226,170								
			1300	90	226,260	24	2,202	5.8098	716	0.0007	0.5992	0.0067	10
B-10R,MPE-1					226,260								
			1430	90	226,350	28	2,501	6.5995	904	0.0009	0.8594	0.0095	14
		6/26/2009	1330	1380	227,730	30	41,159	108.5977	1,660	0.0017	25.9665	0.0188	27
			1430	60	227,790	30	1,798	4.7437	1,599	0.0016	1.0920	0.0182	26
		6/29/2009	1430	1440	229,230	32	45,679	120.5259	570	0.0006	9.8887	0.0069	10
		6/30/2009	1430	1440	230,670	33	47,004	124.0201	895	0.0009	15.9899	0.0111	16
		7/1/2009	1500	1470	232,140	34	50,578	133.4522	1,045	0.0010	20.0810	0.0137	20
		7/2/2009	930	1110	233,250	34	37,504	98.9542	977	0.0010	13.9180	0.0125	18
					233,250								
	pause c/o				233,250								
MPE-1			1500		233,250								
	restart	7/3/2009	1200	1260	234,510	30	37,826	99.8046	1,058	0.0011	15.2074	0.0121	17
			1300	30	234,540	25	735	1.9402	899	0.0009	0.2511	0.0084	12
		7/6/2009	1030	4170	238,710	25	102,600	270.7132	812	0.0008	31.6666	0.0076	11
			1130	60	238,770	25	1,476	3.8952	945	0.0009	0.5300	0.0088	13
		7/7/2009	1400	1710	240,480	26	44,044	116.2103	697	0.0007	11.6650	0.0068	10
		7/8/2009	1030	1230	241,710	26	31,711	83.6689	645	0.0006	7.7670	0.0063	9
			1130	60	241,770	26	1,542	4.0699	651	0.0007	0.3818	0.0064	9
		7/9/2009	1700	1800	243,570	21	36,914	97.3993	583	0.0006	8.1831	0.0045	7
		7/10/2009	1530	1350	244,920	25	33,091	87.3109	580	0.0006	7.2925	0.0054	8
		7/13/2009	1030	4020	248,940	26	103,541	273.1963	650	0.0006	25.5657	0.0064	9
B-10R,MPE-1					248,940								
			1130	60	249,000	32	1,914	5.0500	1,032	0.0010	0.7508	0.0125	18
		7/14/2009	1530	1680	250,680	32	53,293	140.6135	997	0.0010	20.1796	0.0120	17
			1630	60	250,740	32	1,903	5.0219	975	0.0010	0.7052	0.0118	17
		7/15/2009	1330	1260	252,000	33	41,128	108.5176	863	0.0009	13.4824	0.0107	15
		7/16/2009	930	1200	253,200	37	44,525	117.4802	855	0.0009	14.4583	0.0120	17
					253,200								
B-10R,MPE-1,SOMA-2	pause c/o		1200		253,200								
	restart		1300	60	253,260	32	1,932	5.0980	947	0.0009	0.6949	0.0116	17
		7/17/2009	1330	1470	254,730	35	50,767	133.9492	918	0.0009	17.7097	0.0120	17
SOMA-2,MPE-1					254,730								
		7/20/2009	1530	4200	258,930	34	140,981	371.9821	1,112	0.0011	59.5573	0.0142	20
		7/21/2009	930	1080	260,010	34	36,628	96.6438	1,094	0.0011	15.2242	0.0141	20
SOMA-2					260,010								
			1000	30	260,040	23	699	1.8441	1,547	0.0015	0.4107	0.0137	20

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
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WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
MPE-1					260,040								
			1030	30	260,070	31	934	2.4635	1,612	0.0016	0.5717	0.0191	27
B-10R					260,070								
			1130	60	260,130	25	1,476	3.8952	2,027	0.0020	1.1368	0.0189	27
B-10R,MPE-2					260,130								
		7/22/2009	930	1320	261,450	34	44,768	118.1202	1,026	0.0010	17.4444	0.0132	19
			1030	60	261,510	36	2,190	5.7774	1,130	0.0011	0.9405	0.0157	23
			1100	30	261,540	36	1,095	2.8887	1,100	0.0011	0.4575	0.0152	22
SOMA-4,MPE-1					261,540								
			1200	60	261,600	31	1,864	4.9177	1,387	0.0014	0.9823	0.0164	24
		7/23/2009	1130	1410	263,010	32	45,233	119.3485	1,222	0.0012	20.9943	0.0149	21
		7/24/2009	1530	1680	264,690	32	53,742	141.8002	1,031	0.0010	21.0513	0.0125	18
		7/27/2009	1230	4140	268,830	33	136,404	359.9059	843	0.0008	43.6861	0.0106	15
		7/28/2009	1330	1500	270,330	35	52,500	138.5224	1,846	0.0018	36.8170	0.0245	35
MPE-1					270,330								
			1430	60	270,390	17	1,020	2.6913	757	0.0008	0.2934	0.0049	7
		7/29/2009	1400	1410	271,800	17	23,970	63.2454	462	0.0005	4.2106	0.0030	4
			1500	60	271,860	17	1,020	2.6913	480	0.0005	0.1862	0.0031	4
		7/30/2009	1000	1140	273,000	17	19,380	51.1346	546	0.0005	4.0168	0.0035	5
	pause c/o		1030		273,000								
B-10R,MPE-2			1130		273,000								
	restart		1230	60	273,060	30	1,800	4.7493	1,302	0.0013	0.8907	0.0148	21
		7/31/2009	1300	1470	274,530	33	48,510	127.9947	2,442	0.0024	45.0065	0.0306	44
B-10R					274,530								
			1330	30	274,560	22	660	1.7414	863	0.0009	0.2164	0.0072	10
		8/3/2009	1400	4350	278,910	19	82,650	218.0739	1,221	0.0012	38.3404	0.0088	13
B-10R,MPE-2					278,910								
			1500	60	278,970	27	1,620	4.2744	750	0.0007	0.4616	0.0077	11
		8/4/2009	1000	1140	280,110	26	29,640	78.2058	1,291	0.0013	14.5417	0.0128	18
			1100	60	280,170	27	1,620	4.2744	1,401	0.0014	0.8623	0.0144	21
		8/5/2009	1030	1410	281,580	25	35,250	93.0079	1,089	0.0011	14.5817	0.0103	15
			1130	60	281,640	27	1,620	4.2744	827	0.0008	0.5091	0.0085	12
		8/6/2009	1300	1530	283,170	26	39,780	104.9604	1,180	0.0012	17.8384	0.0117	17
B-10R					283,170								
			1400	60	283,230	21	1,260	3.3245	798	0.0008	0.3819	0.0064	9
		8/7/2009	1400	1440	284,670	21	29,531	77.9195	776	0.0008	8.7070	0.0060	9
		8/10/2009	1400	4320	288,990	20	87,936	232.0204	1,141	0.0011	38.1219	0.0088	13
			1500	60	289,050	20	1,221	3.2225	916	0.0009	0.4251	0.0071	10
					289,050								
MPE-3	**pause c/o**	**8/14/2009**	1530		289,050								
	restart		1630	60	289,110	25	1,473	3.8878	1,217	0.0012	0.6813	0.0114	16
		8/17/2009	1300	4110	293,220	30	123,617	326.1668	674	0.0007	31.6564	0.0077	11
		8/18/2009	1300	1440	294,660	30	43,068	113.6360	560	0.0006	9.1636	0.0064	9
SOMA-2					294,660								0
			1400	60	294,720	17	1,032	2.7235	1,057	0.0011	0.4145	0.0069	10

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Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		8/19/2009	1300	1380	296,100	20	28,143	74.2553	1,302	0.0013	13.9220	0.0101	15
B-10R					296,100								
			1400	60	296,160	24	1,460	3.8516	1,628	0.0016	0.9029	0.0150	22
MPE-1					296,160								
			1500	60	296,220	28	1,661	4.3834	1,036	0.0010	0.6539	0.0109	16
			1600	60	296,280	20	1,219	3.2166	855	0.0009	0.3960	0.0066	10
		8/20/2009	1230	1230	297,510	15	18,450	48.6807	510	0.0005	3.5751	0.0029	4
		8/21/2009	1230	1440	298,950	15	21,600	56.9921	535	0.0005	4.3907	0.0030	4
			1330	60	299,010	15	900	2.3747	500	0.0005	0.1709	0.0028	4
		8/24/2009	1700	4530	303,540	15	67,950	179.2876	544	0.0005	14.0417	0.0031	4
		8/25/2009	1400	1260	304,800	15	18,900	49.8681	576	0.0006	4.1371	0.0033	5
			1500	60	304,860	15	900	2.3747	556	0.0006	0.1900	0.0032	5
		8/26/2009	1400	1380	306,240	17	23,460	61.8997	425	0.0004	3.7916	0.0027	4
		8/27/2009	1000	1200	307,440	30	35,890	94.6967	407	0.0004	5.5497	0.0046	7
SOMA-2	**pause c/o**		1100		307,440								
	restart		1200	60	307,500	20	1,226	3.2345	1,268	0.0013	0.5904	0.0098	14
			1300	60	307,560	20	1,226	3.2345	1,239	0.0012	0.5773	0.0096	14
		8/28/2009	1200	1380	308,940	22	29,919	78.9432	1,759	0.0018	19.9918	0.0145	21
		8/31/2009	1700	4620	313,560	24	111,376	293.8671	1,456	0.0015	61.6133	0.0133	19
		9/1/2009	1700	1440	315,000	24	34,714	91.5949	1,490	0.0015	19.6465	0.0136	20
		9/2/2009	1530	1350	316,350	24	32,545	85.8702	1,377	0.0014	17.0296	0.0126	18
		9/3/2009	1700	1530	317,880	24	36,884	97.3196	1,320	0.0013	18.5041	0.0121	17
		9/4/2009	930	990	318,870	27	26,583	70.1391	1,470	0.0015	14.8421	0.0150	22
			1100		318,870								
	pause		1200	60	318,930	25	1,476	3.8952	2,442	0.0024	1.3696	0.0228	33
		9/8/2009	1100	5700	324,630	27	151,914	400.8288	1,079	0.0011	62.2684	0.0109	16
			1200	60	324,690	25	1,528	4.0322	1,327	0.0013	0.7707	0.0128	18
			1300	60	324,750	27	1,593	4.2037	955	0.0010	0.5782	0.0096	14
		9/10/2009	1000	2700	327,450	27	72,093	190.2188	747	0.0007	20.4672	0.0076	11
	pause c/o		1130		327,450								
	restart		1330	120	327,570	27	3,204	8.4542	1,153	0.0012	1.4037	0.0117	17
	pause	**9/21/2009**	1030		327,570								
			1330		327,570								
	restart		1430	8640	336,210	17	146,880	387.5462	445	0.0004	24.8560	0.0029	4
		9/23/2009	1000	2610	338,820	23	60,030	158.3905	1,465	0.0015	33.4167	0.0128	18
		9/25/2009	1000	2880	341,700	22	62,672	165.3602	1,628	0.0016	38.7635	0.0135	19
			1100	60	341,760	22	1,306	3.4450	1,300	0.0013	0.6448	0.0107	15
			1200	60	341,820	22	1,306	3.4450	1,376	0.0014	0.6825	0.0114	16
		9/28/2009	1400	4440	346,260	23	102,861	271.4014	2,442	0.0024	95.4323	0.0215	31
			1500	60	346,320	23	1,390	3.6676	1,233	0.0012	0.6512	0.0109	16
		10/1/2009	1000	4020	350,340	23	92,958	245.2711	1,263	0.0013	44.6227	0.0111	16
					350,340								
	pause c/o		1330		350,340								
	restart		1430	60	350,400	25	1,476	3.8952	1,078	0.0011	0.6046	0.0101	15
		10/5/2009	1630	5880	356,280	28	163,871	432.3768	440	0.0004	27.3664	0.0047	7
			1730	60	356,340	28	1,672	4.4120	409	0.0004	0.2600	0.0043	6
		10/6/2009	1200	1110	357,450	28	30,964	81.6985	376	0.0004	4.4240	0.0040	6
		10/7/2009	1200	1440	358,890	27	38,593	101.8293	350	0.0004	5.1322	0.0036	5

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		10/8/2009	1300	1500	360,390	27	40,353	106.4717	402	0.0004	6.1649	0.0041	6
		10/9/2009	1330	1530	361,920	27	40,853	107.7907	319	0.0003	4.9526	0.0032	5
		10/12/2009	800	1170	363,090	27	31,416	82.8917	399	0.0004	4.7607	0.0041	6
		10/13/2009	1400	1080	364,170	25	26,623	70.2459	442	0.0004	4.4708	0.0041	6
					364,170								
			1500	60	364,230	30	1,811	4.7796	1,047	0.0010	0.7204	0.0120	17
			1600	60	364,290	30	1,811	4.7796	1,754	0.0018	1.2075	0.0201	29
		10/14/2009	1330	1290	365,580	34	43,422	114.5709	1,791	0.0018	29.5433	0.0229	33
					365,580								
			1400	30	365,610	27	803	2.1175	985	0.0010	0.3003	0.0100	14
					365,610								
			1430	30	365,640	20	613	1.6173	912	0.0009	0.2124	0.0071	10
		10/15/2009	1330	1380	367,020	24	33,120	87.3879	1,044	0.0010	13.1375	0.0095	14
					367,020								
			1500	150	367,170	22	3,300	8.7071	645	0.0006	0.8087	0.0054	8
		10/19/2009	1230	1290	368,460	24	30,960	81.6887	221	0.0002	2.5947	0.0020	3
			1330	60	368,520	24	1,440	3.7995	452	0.0005	0.2475	0.0041	6
			1430	60	368,580	24	1,440	3.7995	487	0.0005	0.2663	0.0044	6
		10/20/2009	1030	1200	369,780	24	28,800	75.9894	220	0.0002	2.4084	0.0020	3
			1130	60	369,840	24	1,440	3.7995	220	0.0002	0.1202	0.0020	3
			1230	60	369,900	24	1,440	3.7995	261	0.0003	0.1430	0.0024	3
		10/21/2009	830	1200	371,100	23	27,600	72.8232	1,840	0.0018	19.2952	0.0161	23
			1130	180	371,280	27	4,860	12.8232	1,953	0.0020	3.6063	0.0200	29
	pause c/o	**10/22/2009**	1130	1440	372,720	24	35,034	92.4391	352	0.0004	4.6856	0.0033	5
	restart		1230	60	372,780	24	1,460	3.8516	361	0.0004	0.2002	0.0033	5
			1330	60	372,840	24	1,457	3.8445	248	0.0002	0.1373	0.0023	3
		10/27/2009	1100	7050	379,890	24	171,841	453.4070	217	0.0002	14.1681	0.0020	3
SOMA-2					379,890								
			1200	60	379,950	15	925	2.4405	352	0.0004	0.1237	0.0021	3
			1300	60	380,010	17	1,034	2.7286	502	0.0005	0.1972	0.0033	5
		10/28/2009	1430	1530	381,540	22	33,356	88.0107	676	0.0007	8.5673	0.0056	8
SOMA-2,MPE-1, B-10R					381,540								
			1530	60	381,600	31	1,850	4.8810	610	0.0006	0.4287	0.0071	10
		10/29/2009	1100	1170	382,770	34	40,331	106.4143	700	0.0007	10.7266	0.0092	13
			1300	120	382,890	32	3,814	10.0625	613	0.0006	0.8882	0.0074	11
		10/30/2009	1430	90	382,980	32	2,850	7.5190	476	0.0005	0.5154	0.0057	8
			1530	60	383,040	32	1,900	5.0126	497	0.0005	0.3587	0.0060	9
		11/2/2009	1130	4080	387,120	30	121,573	320.7740	574	0.0006	26.5139	0.0065	9
SOMA-2, MPE-1					387,120								
			1500	210	387,330	34	7,173	18.9249	555	0.0006	1.5125	0.0072	10
B-10R, SOMA-4					387,330			0.0000					
			1600	60	387,390	34	2,046	5.3973	645	0.0006	0.5013	0.0084	12
		11/3/2009	1030	1050	388,440	40	41,976	110.7553	1,337	0.0013	21.3235	0.0203	29
			1130	60	388,500	40	2,394	6.3172	1,011	0.0010	0.9197	0.0153	22
SOMA-4					388,500								
			1300	90	388,590	24	2,182	5.7562	913	0.0009	0.7568	0.0084	12
MPE-4,5					388,590								

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		11/4/2009	800	1140	389,730	45	51,237	135.1897	230	0.0002	4.4775	0.0039	6
MPE-4					389,730								
			900	60	389,790	39	2,358	6.2221	268	0.0003	0.2401	0.0040	6
MPE-5					389,790								
			1000	60	389,850	24	1,462	3.8588	450	0.0005	0.2500	0.0042	6
MPE-3					389,850								
			1500	300	390,150	30	8,939	23.5863	252	0.0003	0.8559	0.0029	4
B-8R, MPE-2					390,150								
		11/5/2009	830	1050	391,200	39	40,467	106.7723	2,442	0.0024	37.5463	0.0358	51
MPE-2					391,200								
			900	30	391,230	31	925	2.4405	1,058	0.0011	0.3718	0.0124	18
B-8R					391,230								
			1000	60	391,290	19	1,133	2.9890	2,442	0.0024	1.0511	0.0175	25
SOMA-2					391,290								
			1500	300	391,590	20	6,107	16.1125	1,015	0.0010	2.3550	0.0079	11
B-10R, MPE-1					391,590								
		11/6/2009	730	990	392,580	30	29,609	78.1248	2,039	0.0020	22.9387	0.0232	33
MPE-1					392,580								
			800	30	392,610	29	867	2.2871	962	0.0010	0.3168	0.0106	15
B-10R					392,610								
			900	60	392,670	23	1,390	3.6676	959	0.0010	0.5065	0.0084	12
					392,670								
SOMA-2, MPE-1			1130		392,670								
	pause c/o		1300	90	392,760	30	2,697	7.1155	962	0.0010	0.9857	0.0110	16
	restart	**11/9/2009**	1300	4320	397,080	33	141,536	373.4461	637	0.0006	34.2380	0.0079	11
SOMA-2, MPE-1			1500	120	397,200	33	3,932	10.3735	617	0.0006	0.9219	0.0077	11
B-10R				0	397,200		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
		11/10/2009	1100	1200	398,400	37	44,359	117.0427	790	0.0008	13.3069	0.0111	16
			1300	120	398,520	36	4,338	11.4470	783	0.0008	1.2910	0.0108	15
		11/11/2009	1030	1290	399,810	36	46,638	123.0553	889	0.0009	15.7502	0.0122	18
			1130	60	399,870	36	2,169	5.7235	674	0.0007	0.5553	0.0093	13
		11/12/2009	1100	1410	401,280	35	49,897	131.6548	667	0.0007	12.6536	0.0090	13
			1200	60	401,340	26	1,537	4.0547	596	0.0006	0.3478	0.0058	8
		11/13/2009	1300	1500	402,840	26	38,562	101.7471	1,158	0.0012	16.9607	0.0113	16
B-10R				0	402,840		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
			1400	60	402,900	19	1,145	3.0200	611	0.0006	0.2659	0.0044	6
		11/16/2009	1400	4320	407,220	18	78,679	207.5953	621	0.0006	18.5508	0.0043	6
			1500	60	407,280	19	1,141	3.0115	592	0.0006	0.2569	0.0043	6
			1600	60	407,340	17	1,042	2.7491	494	0.0005	0.1957	0.0033	5
		11/17/2009	1200	1200	408,540	17	20,878	55.0858	639	0.0006	5.0684	0.0042	6
			1300	60	408,600	25	1,473	3.8878	686	0.0007	0.3838	0.0064	9
			1400	60	408,660	25	1,473	3.8878	676	0.0007	0.3782	0.0063	9
		11/18/2009	1030	1230	409,890	27	33,152	87.4720	714	0.0007	8.9935	0.0073	11
			1130	60	409,950	27	1,617	4.2669	714	0.0007	0.4390	0.0073	11
			1230	60	410,010	27	1,614	4.2589	644	0.0006	0.3949	0.0066	9
		11/19/2009	900	1230	411,240	27	33,278	87.8052	449	0.0004	5.6768	0.0046	7
				0	411,240		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
SOMA-2, MPE-1			1100	0	411,240		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
	pause c/o		1200	60	411,300	29	1,753	4.6264	541	0.0005	0.3606	0.0060	9
	restart	11/20/2009	1130	1410	412,710	30	42,489	112.1084	600	0.0006	9.6790	0.0069	10
			1230	60	412,770	30	1,808	4.7706	703	0.0007	0.4831	0.0081	12
			1330	60	412,830	30	1,808	4.7706	904	0.0009	0.6211	0.0104	15
		11/23/2009	1215	4245	417,075	31	132,114	348.5869	580	0.0006	29.1315	0.0069	10
			1315	60	417,135	32	1,921	5.0691	520	0.0005	0.3797	0.0063	9
			1415	60	417,195	31	1,864	4.9177	539	0.0005	0.3820	0.0064	9
		11/24/2009	1115	1260	418,455	32	40,345	106.4504	481	0.0005	7.3689	0.0058	8
			1215	60	418,515	32	1,918	5.0595	441	0.0004	0.3215	0.0054	8
			1315	60	418,575	31	1,860	4.9085	429	0.0004	0.3031	0.0051	7
		11/25/2009	1100	1305	419,880	32	41,167	108.6188	684	0.0007	10.6941	0.0082	12
			1200	60	419,940	32	1,940	5.1176	596	0.0006	0.4391	0.0073	11
			1300	60	420,000	32	1,911	5.0418	602	0.0006	0.4373	0.0073	10
		11/30/2009	730	6870	426,870	31	215,449	568.4671	555	0.0006	45.4547	0.0066	10
			830	60	426,930	31	1,882	4.9648	523	0.0005	0.3736	0.0062	9
		12/1/2009	730	1380	428,310	32	43,865	115.7380	514	0.0005	8.5653	0.0062	9
			830	60	428,370	31	1,878	4.9553	490	0.0005	0.3495	0.0058	8
		12/2/2009	1100	1590	429,960	30	48,004	126.6602	548	0.0005	9.9971	0.0063	9
MPE-1			1200	60	430,020	23	1,403	3.7023	474	0.0005	0.2526	0.0042	6
		12/3/2009	1030	1350	431,370	22	29,766	78.5373	498	0.0005	5.6336	0.0042	6
			1200	90	431,460	22	1,996	5.2659	458	0.0005	0.3470	0.0039	6
		12/4/2009	730	1170	432,630	22	25,945	68.4573	441	0.0004	4.3489	0.0037	5
			830	60	432,690	22	1,329	3.5073	480	0.0005	0.2425	0.0040	6
		12/7/2009	730	1380	434,070	22	30,602	80.7445	342	0.0003	3.9768	0.0029	4
			830	60	434,130	22	1,331	3.5106	318	0.0003	0.1607	0.0027	4
		12/8/2009	730	1380	435,510	21	28,626	75.5295	306	0.0003	3.3233	0.0024	3
			830	60	435,570	21	1,254	3.3094	302	0.0003	0.1439	0.0024	3
		12/9/2009	1030	1440	437,010	21	30,162	79.5823	273	0.0003	3.1229	0.0022	3
			1130	60	437,070	21	1,257	3.3159	277	0.0003	0.1322	0.0022	3
		12/10/2009	730	1200	438,270	24	28,334	74.7598	271	0.0003	2.9197	0.0024	4
			830	60	438,330	24	1,417	3.7380	279	0.0003	0.1501	0.0025	4
		12/11/2009	1100	1590	439,920	25	39,421	104.0125	245	0.0002	3.6647	0.0023	3
			1200	60	439,980	25	1,488	3.9250	233	0.0002	0.1319	0.0022	3
			1300	60	440,040	25	1,488	3.9250	212	0.0002	0.1200	0.0020	3
		12/14/2009	900	1200	441,240	25	29,638	78.1998	222	0.0002	2.4949	0.0021	3
			1000	60	441,300	25	1,482	3.9100	310	0.0003	0.1743	0.0029	4
				0	441,300		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
				0	441,300		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
	pause	8/13/2010		0	441,300		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
		8/16/2010		0	441,300		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
SOMA-2	c/o		1030	0	441,300		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
			1130	60	441,360	18	1,052	2.7754	537	0.0005	0.2147	0.0036	5
	restart	8/17/2010	1000	1350	442,710	21	27,686	73.0495	640	0.0006	6.7332	0.0050	7
SOMA-2,MPE-1,				0	442,710		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
B-10R			1100	60	442,770	35	2,076	5.4775	676	0.0007	0.5329	0.0089	13
		8/18/2010	1100	1440	444,210	36	51,964	137.1094	604	0.0006	11.9179	0.0083	12
			1200	60	444,270	36	2,161	5.7023	588	0.0006	0.4827	0.0080	12
B-10R				0	444,270		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!

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Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
		8/19/2010	1100	1380	445,650	30	41,197	108.6986	641	0.0006	10.0370	0.0073	10
			1200	60	445,710	30	1,788	4.7173	509	0.0005	0.3455	0.0058	8
		8/20/2010	1630	1710	447,420	32	54,720	144.3799	527	0.0005	10.9557	0.0064	9
				0	447,420		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
		8/26/2010		0	447,420		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
	pause		1300	0	447,420		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
			1400	60	447,480	19	1,141	3.0115	130	0.0001	0.0565	0.0009	1
	restart	**8/27/2010**	600	960	448,440	25	23,801	62.8000	394	0.0004	3.5626	0.0037	5
				0	448,440		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
		9/2/2010		0	448,440		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
	pause		1100	0	448,440		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
			1230	90	448,530	24	2,190	5.7774	347	0.0003	0.2885	0.0032	5
	restart	**9/3/2010**	1430	1560	450,090	30	46,484	122.6489	469	0.0005	8.2832	0.0053	8
			1530	60	450,150	30	1,788	4.7173	480	0.0005	0.3262	0.0054	8
SOMA-2,MPE-1,		**9/7/2010**	930	0	450,150		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
B-10R	**pause**		1030	60	450,210	31	1,874	4.9458	789	0.0008	0.5621	0.0094	13
	restart		1200	90	450,300	31	2,796	7.3766	857	0.0009	0.9099	0.0101	15
		9/8/2010	900	0	450,300		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
			930	1290	451,590	33	42,343	111.7238	596	0.0006	9.5830	0.0074	11
			1030	60	451,650	33	1,969	5.1965	737	0.0007	0.5518	0.0092	13
		9/9/2010	1400	1650	453,300	34	56,563	149.2416	716	0.0007	15.3934	0.0093	13
		9/10/2010	1530	1530	454,830	34	52,449	138.3876	651	0.0007	12.9763	0.0085	12
			1630	60	454,890	34	2,053	5.4170	625	0.0006	0.4874	0.0081	12
		9/13/2010	1300	0	454,890		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
	pause		1330	30	454,920	32	968	2.5539	667	0.0007	0.2455	0.0082	12
	restart		1400	30	454,950	32	964	2.5442	682	0.0007	0.2499	0.0083	12
		9/14/2010	1230	1350	456,300	34	45,442	119.8998	744	0.0007	12.8532	0.0095	14
			1330	60	456,360	33	1,966	5.1868	723	0.0007	0.5403	0.0090	13
		9/15/2010	1100	1290	457,650	34	43,504	114.7853	576	0.0006	9.5254	0.0074	11
MPE-1				0	457,650		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
		9/16/2010	1230	1530	459,180	31	47,430	125.1451	234	0.0002	4.2098	0.0028	4
B-10R, SOMA-2				0	459,180		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
			1330	60	459,240	32	1,920	5.0660	592	0.0006	0.4318	0.0072	10
		9/17/2010	1400	1470	460,710	37	54,039	142.5844	863	0.0009	17.7150	0.0121	17
SOMA-2				0	460,710		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
			1500	60	460,770	22	1,301	3.4323	1,282	0.0013	0.6338	0.0106	15
B-10R, SOMA-2		**9/20/2010**	1130	0	460,770		0	0.0000	0	0.0000	0.0000	#DIV/0!	#DIV/0!
	pause		1230	60	460,830	30	1,805	4.7616	1,351	0.0014	0.9263	0.0154	22
	restart	**9/21/2010**	1100	1350	462,180	34	45,900	121.1082	995	0.0010	17.3524	0.0129	19
			1200	60	462,240	34	2,040	5.3826	855	0.0009	0.6627	0.0110	16
		9/22/2010	1300	1500	463,740	30	45,000	118.7335	781	0.0008	13.3572	0.0089	13
SOMA-2			1400	60	463,800	26	1,560	4.1161	1,250	0.0013	0.7411	0.0124	18
		9/23/2010	1430	1470	465,270	25	36,750	96.9657	918	0.0009	12.8223	0.0087	13
					465,270								
			1530	60	465,330	25	1,500	3.9578	1,112	0.0011	0.6339	0.0106	15
		9/24/2010	1430	1380	466,710	25	35,084	92.5691	1,237	0.0012	16.4919	0.0120	17
			1530	60	466,770	25	1,525	4.0247	1,212	0.0012	0.7023	0.0117	17
SOMA-2,MPE-1,		**9/27/2010**	930	0	466,770								

Table 9

Extraction Data and VOC Mass Removal Rate

3820 Manila Ave
Oakland, California

WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q			PID		MASS REMOVAL		
				minutes	minutes	SCFM	ft^3 of extracted air	Moles of extracted air	ppmv as TPHss	mole %	lb VOC mass removal as TPHss	lbs/min	lbs/day
B-10R	**pause**		1000	30	466,800	28	840	2.2164	1,034	0.0010	0.3300	0.0110	16
	restart		1030	30	466,830	29	868	2.2914	1,278	0.0013	0.4218	0.0141	20
		9/28/2010	1330	1620	468,450	32	52,396	138.2484	985	0.0010	19.6068	0.0121	17
SOMA-2,MPE-1,				0	468,450					0.0000			
SOMA-2,MPE-1,		**9/29/2010**	1200	1350	469,800	25	34,258	90.3908	977	0.0010	12.7136	0.0094	14
B-10R				0	469,800					0.0000			
			1300	60	469,860	30	1,778	4.6913	1,133	0.0011	0.7654	0.0128	18
		9/30/2010	1000	1260	471,120	30	37,545	99.0626	1,011	0.0010	14.4233	0.0114	16
		10/1/2010	1230	1590	472,710	31	48,932	129.1072	1,042	0.0010	19.3667	0.0122	18
			1330	60	472,770	31	1,846	4.8720	997	0.0010	0.6992	0.0117	17
	pause	**10/4/2010**	1300	0	472,770								
	restart		1400	60	472,830	27	1,620	4.2744	1,393	0.0014	0.8574	0.0143	21
		10/5/2010	1300	1380	474,210	30	41,400	109.2348	855	0.0009	13.4490	0.0097	14
		10/6/2010	1330	1470	475,680	30	44,100	116.3588	1,115	0.0011	18.6826	0.0127	18
				0	475,680								
	c/o		1530	120	475,800	32	3,840	10.1319	711	0.0007	1.0373	0.0086	12
		10/7/2010	1200	1230	477,030	32	39,360	103.8522	902	0.0009	13.4892	0.0110	16
			1300	60	477,090	32	1,920	5.0660	977	0.0010	0.7127	0.0119	17
		10/8/2010	1300	1440	478,530	32	46,080	121.5831	794	0.0008	13.9013	0.0097	14
			1400	60	478,590	32	1,920	5.0660	745	0.0007	0.5435	0.0091	13
				60	478,650	32	1,920	5.0660					
	TOTAL				**474,210**		**12,243,555**	**32305**			**3949.94**	**0.0083**	**11.99**
	MEDIAN					**26**			**711**	**0.0007**			

Notes

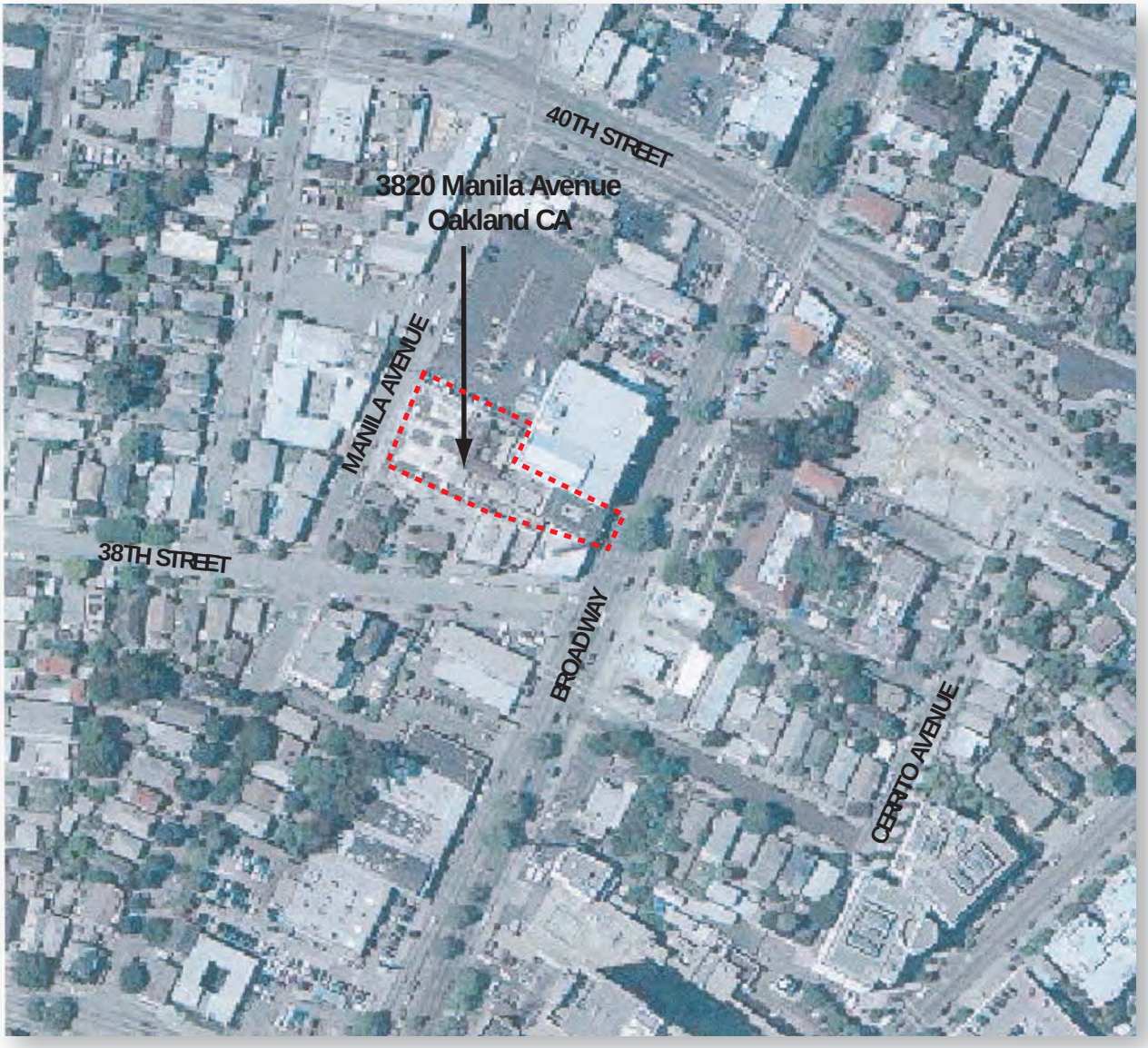
Q	volumetric flow rate
SCFM	standard cubic feet per minute
ft^3	cubic feet per minute
VOC	volatile organic compounds
PID	photo-ionization detector
ppmv	parts per million vapor

7903.5
329.3125 658.3230639

DERIVATION OF MASS REMOVAL RATE

ppmv as TPHss/1,000,000 = mole %
ft3 of extracted air/(379 ft3 air/lb-mole air) = moles of extracted air
(moles of extracted air)(mole %)(144 lb/lb-mole TPHss) = lbs of VOC removed as TPHss
(lbs of VOC mass removed as TPHss)(elapsed time) = lbs/min of VOC removed as TPHss
(lbs/min of VOC removed as TPHss)(60 min/1 hour)(24 hours/1 day) = lbs/day of VOC removed as TPHss

FIGURES



N

approximate scale in feet

0 250 500

Figure 1: Site vicinity map.

SOMA ENVIRONMENTAL ENGINEERING, INC.

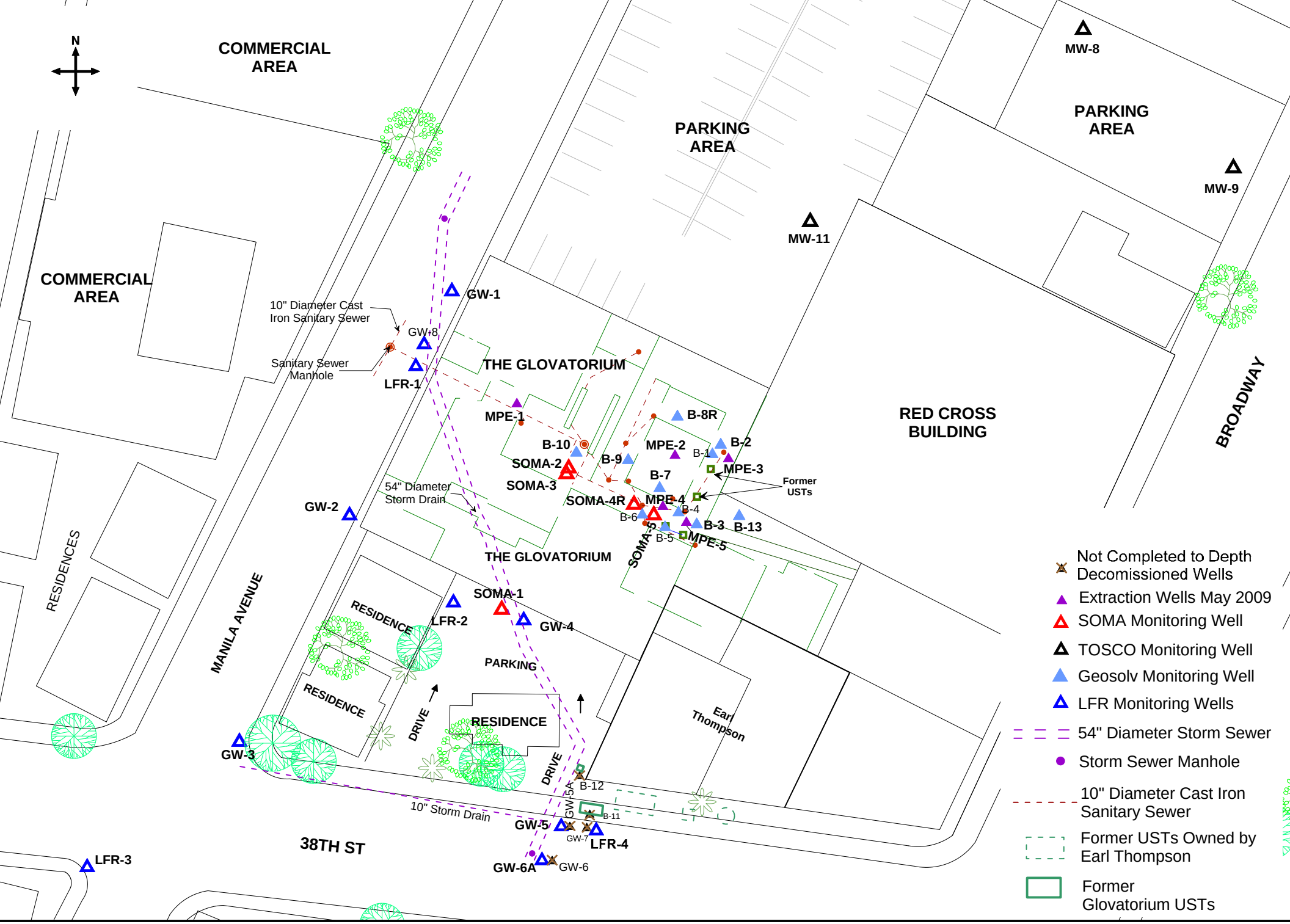


Figure 2: Map showing the approximate locations of groundwater monitoring wells.

SOMA ENVIRONMENTAL ENGINEERING, INC.

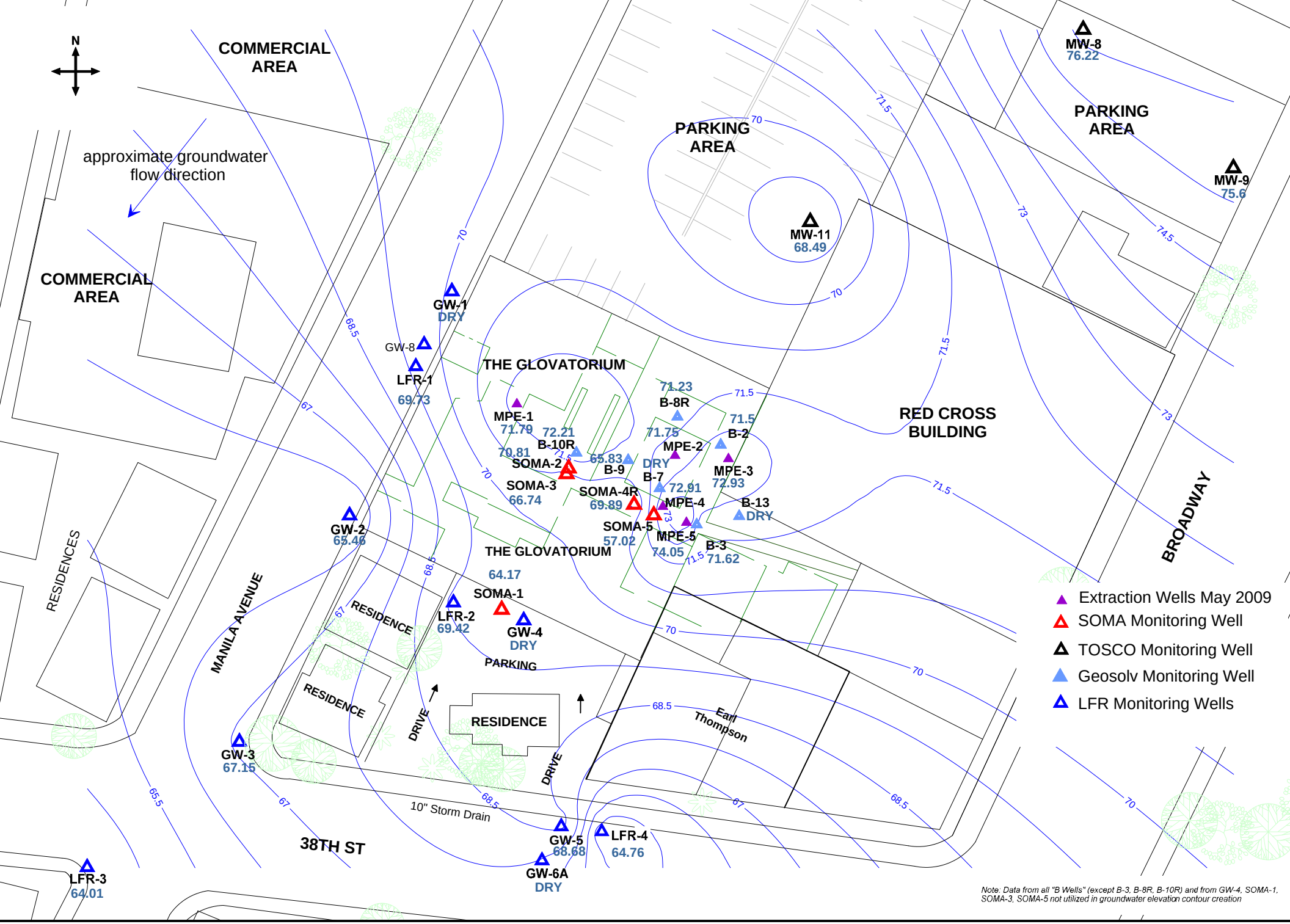
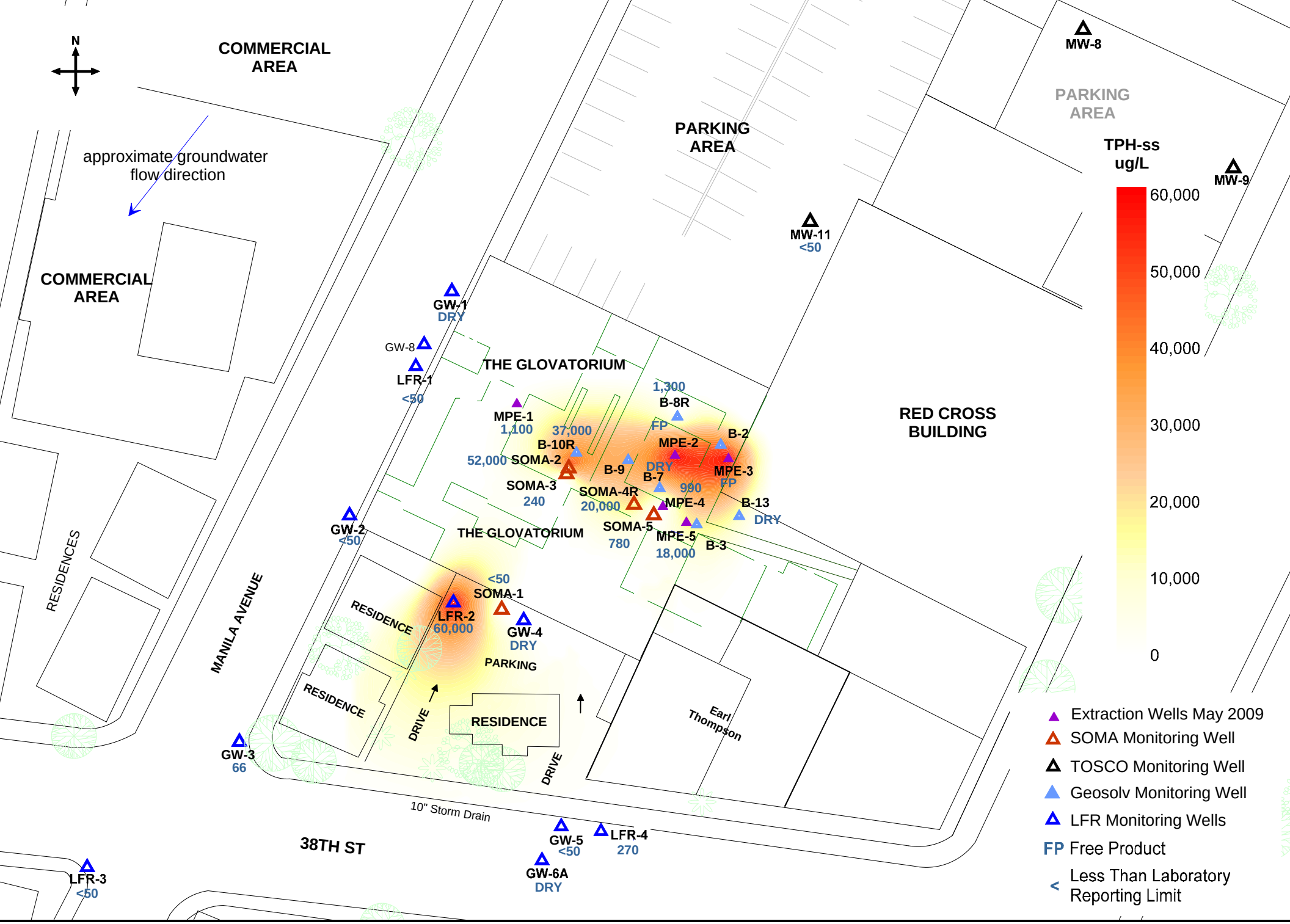


Figure 3: Groundwater elevation contour map in feet August 4, 2010

ENVIRONMENTAL ENGINEERING, INC.

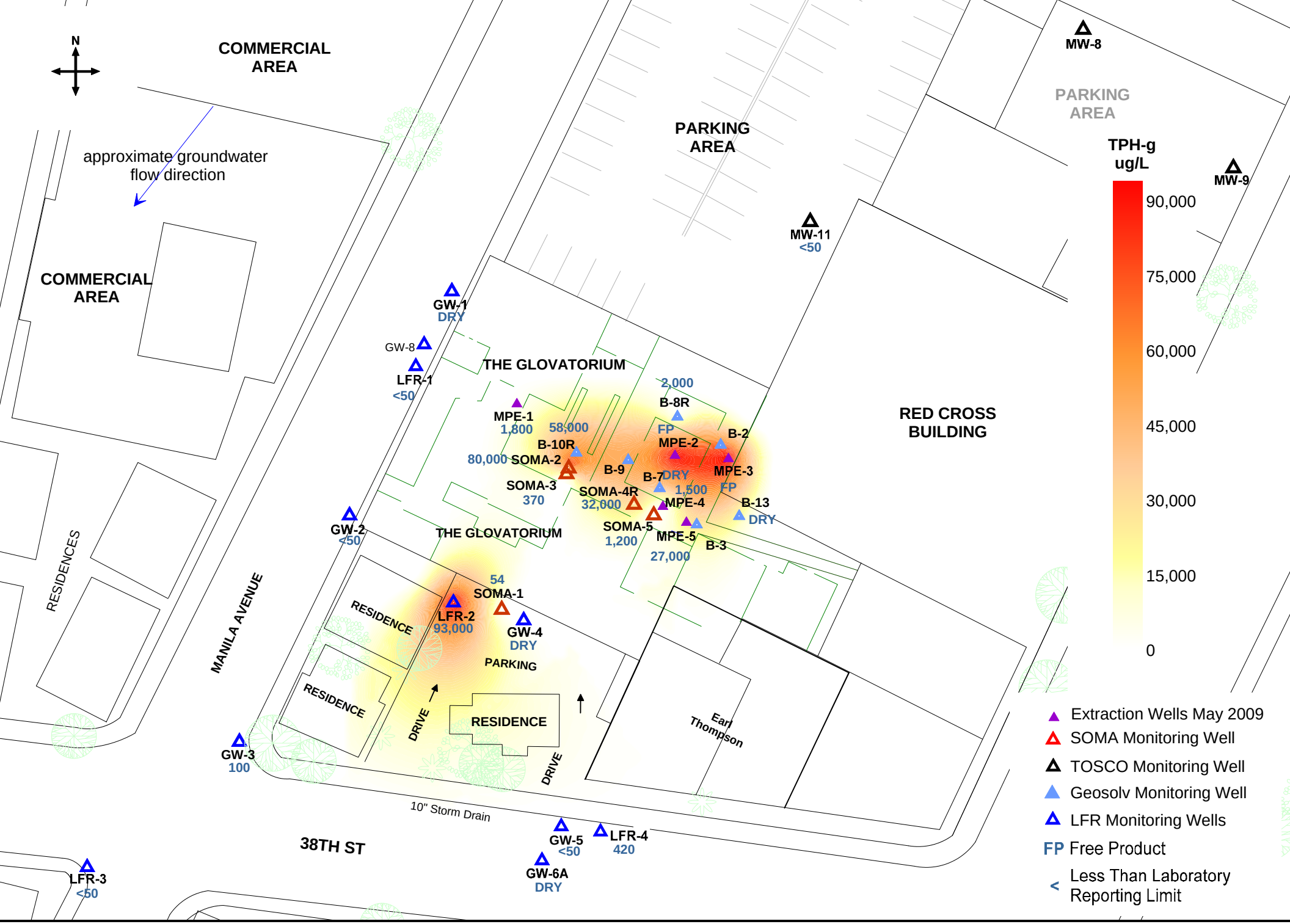


approximate scale in feet

0 50 100

Figure 4 Contour map of TPH-ss concentrations in groundwater
August 4 to 6, 2010

SOMA ENVIRONMENTAL ENGINEERING, INC.

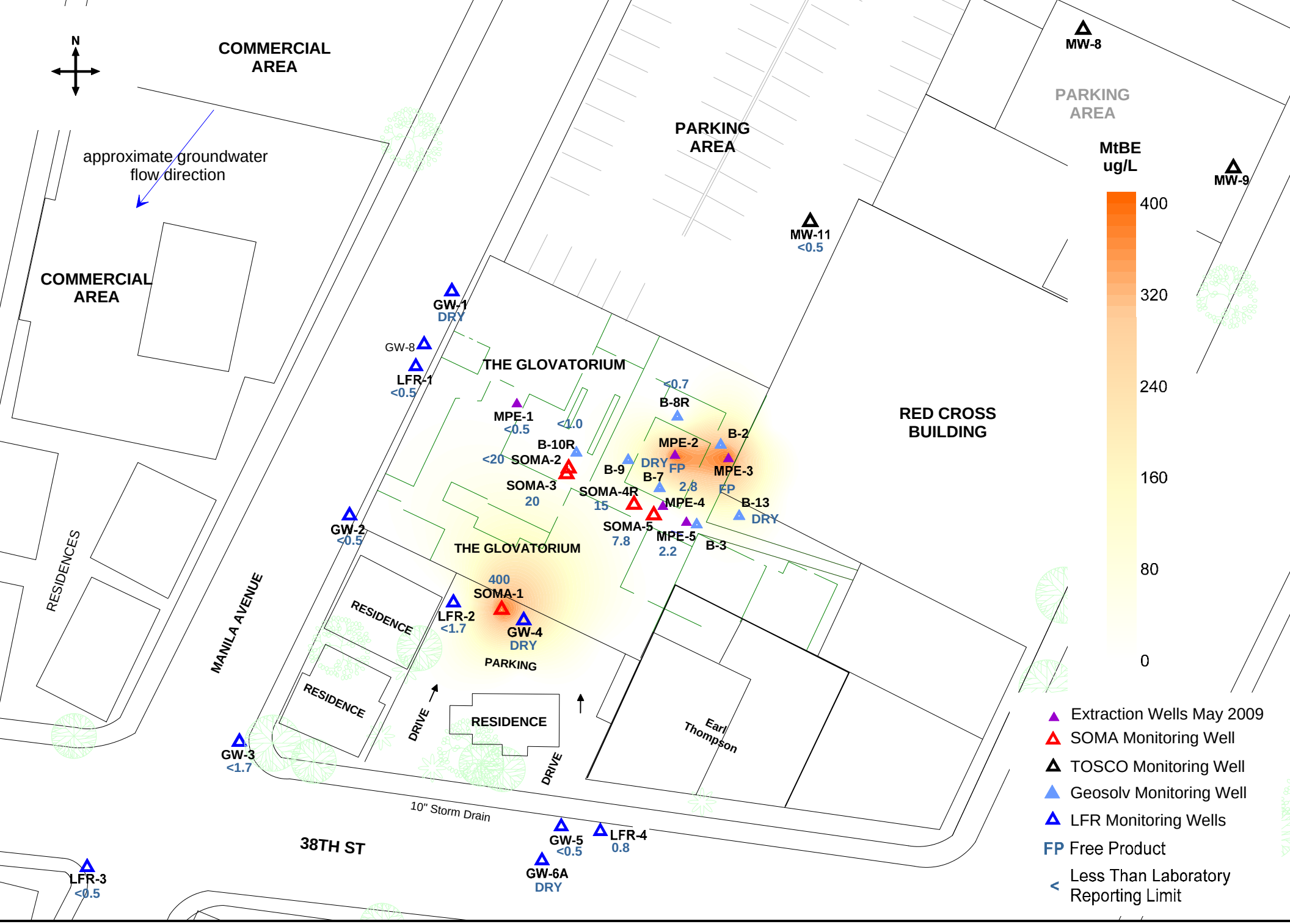


approximate scale in feet

0 50 100

Figure 5 Contour map of TPH-g concentrations in groundwater
August 4 to 6, 2010

SOMA ENVIRONMENTAL ENGINEERING, INC.



approximate scale in feet

0 50 100

Figure 6: Contour map of MtBE concentrations in groundwater (EPA Method 8260B). August 4 to 6, 2010

ENVIRONMENTAL ENGINEERING, INC.

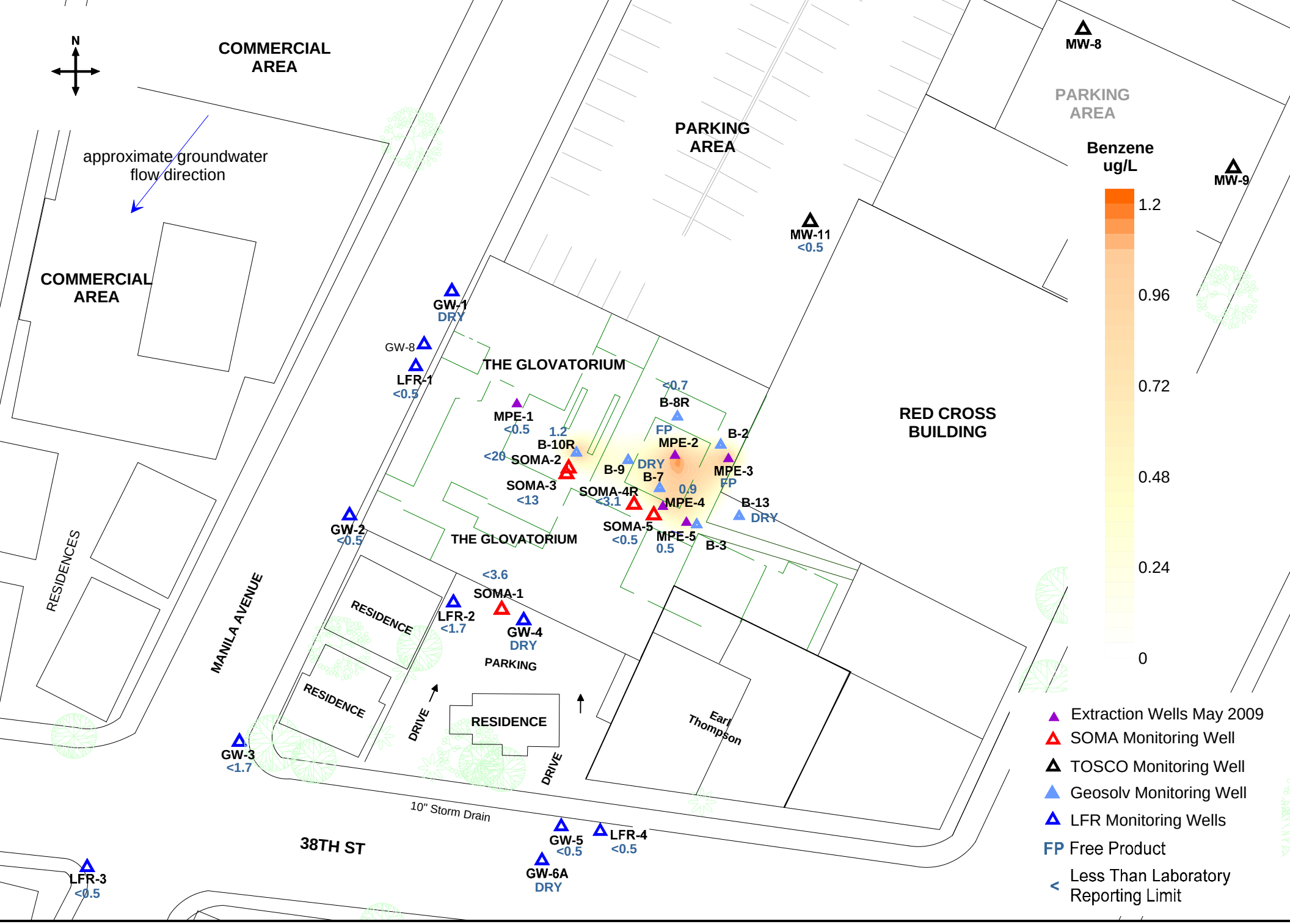


Figure 7: Contour map of benzene concentrations in groundwater
August 4 to 6, 2010

ENVIRONMENTAL ENGINEERING, INC.

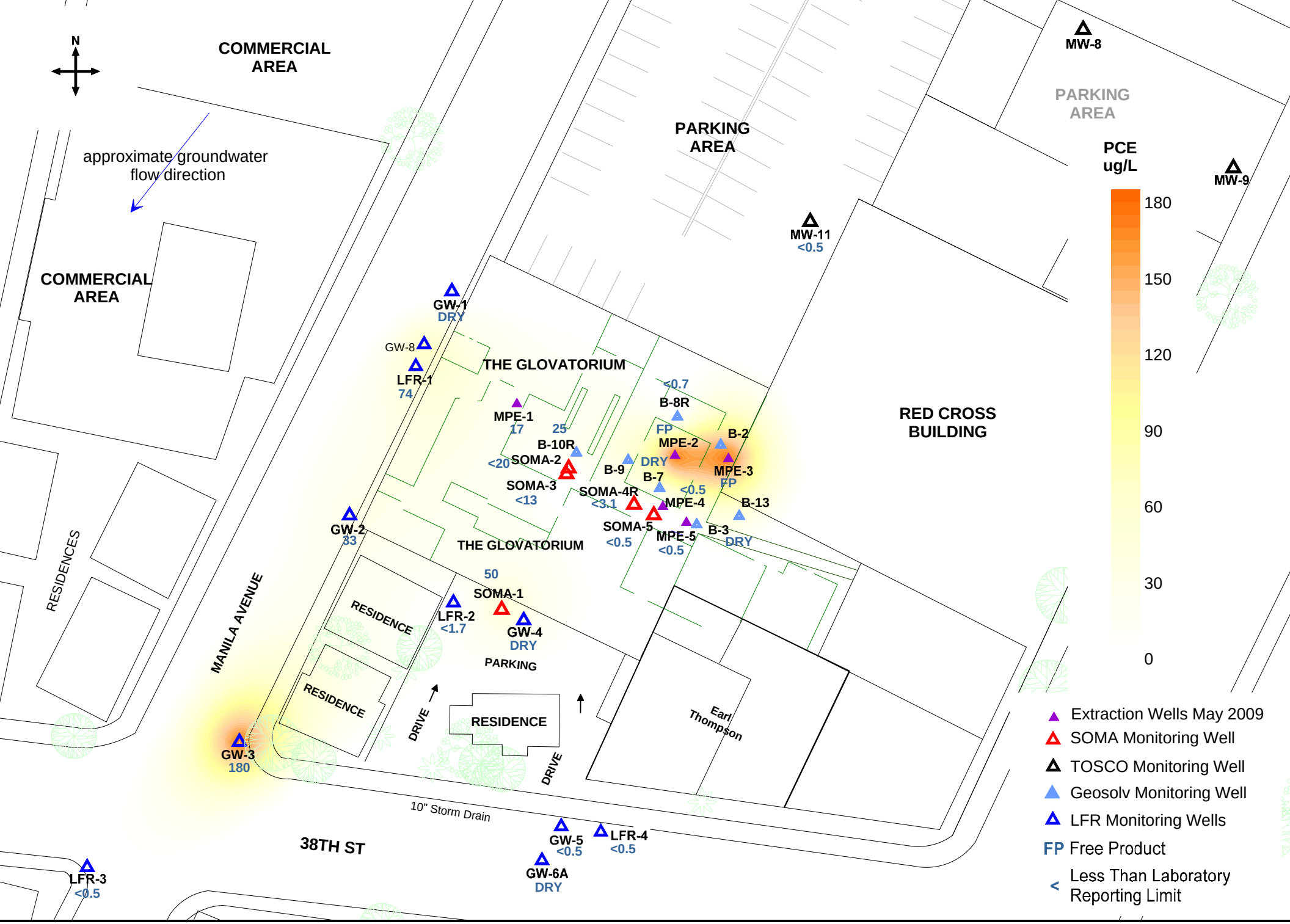


Figure 8: Contour map of PCE concentrations in groundwater
August 4 to 6, 2010

ENVIRONMENTAL ENGINEERING, INC.

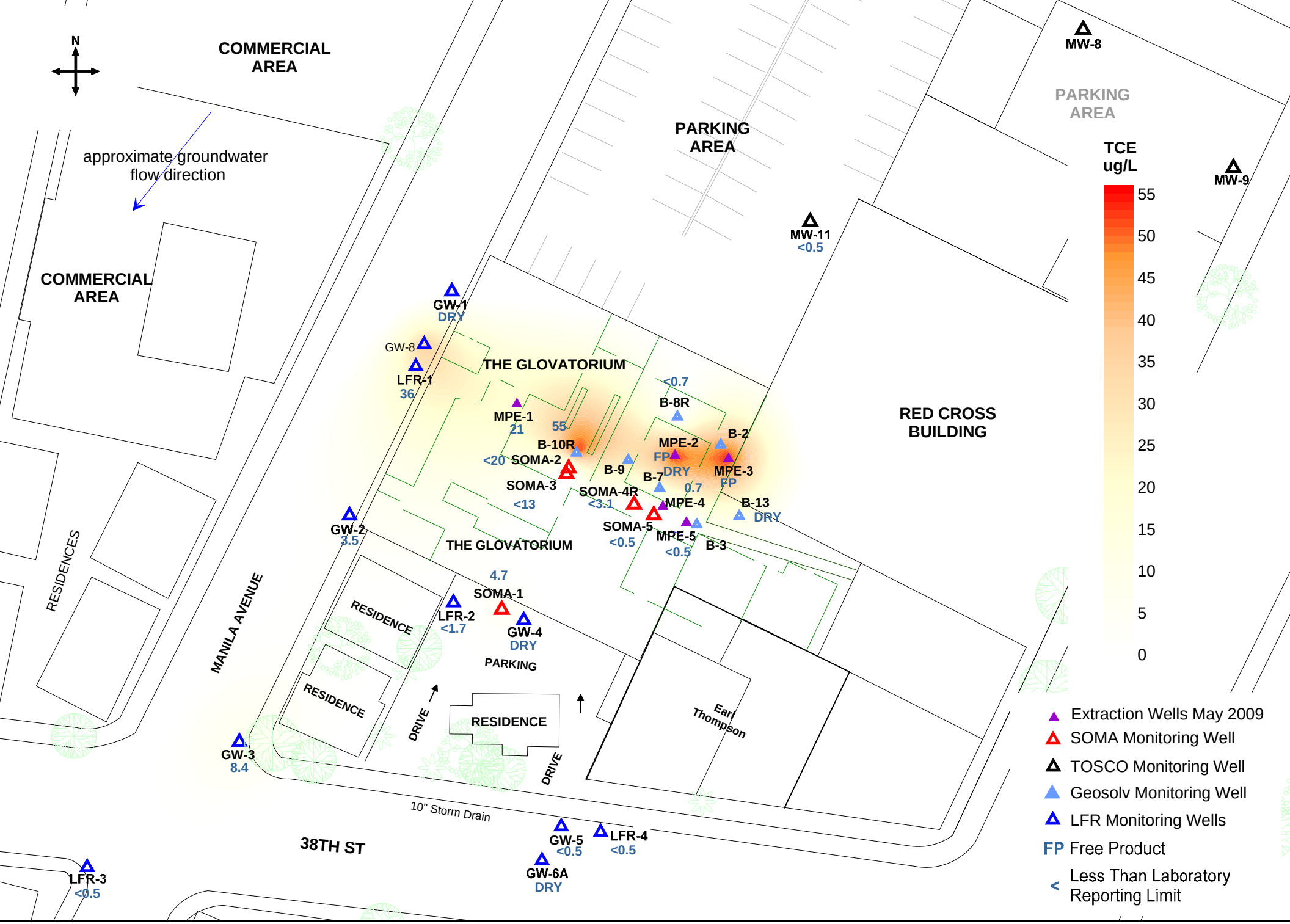
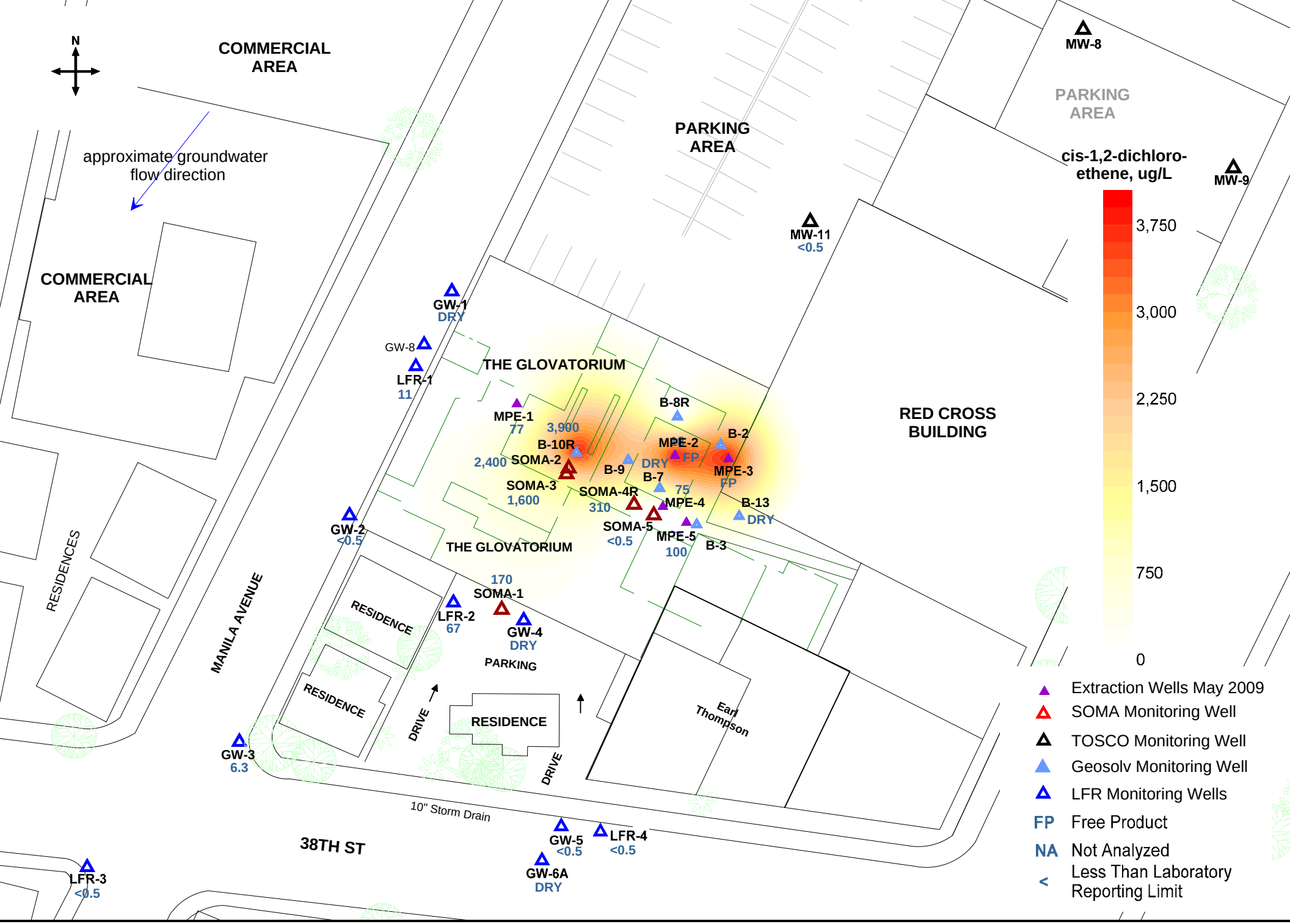


Figure 9 Contour map of TCE concentrations in groundwater
August 4 to 6, 2010

ENVIRONMENTAL ENGINEERING, INC.



approximate scale in feet

0 50 100

Figure 10: Contour map of cis-1,2-dichloroethene concentrations in groundwater.
August 4 to 6, 2010.

ENVIRONMENTAL ENGINEERING, INC.

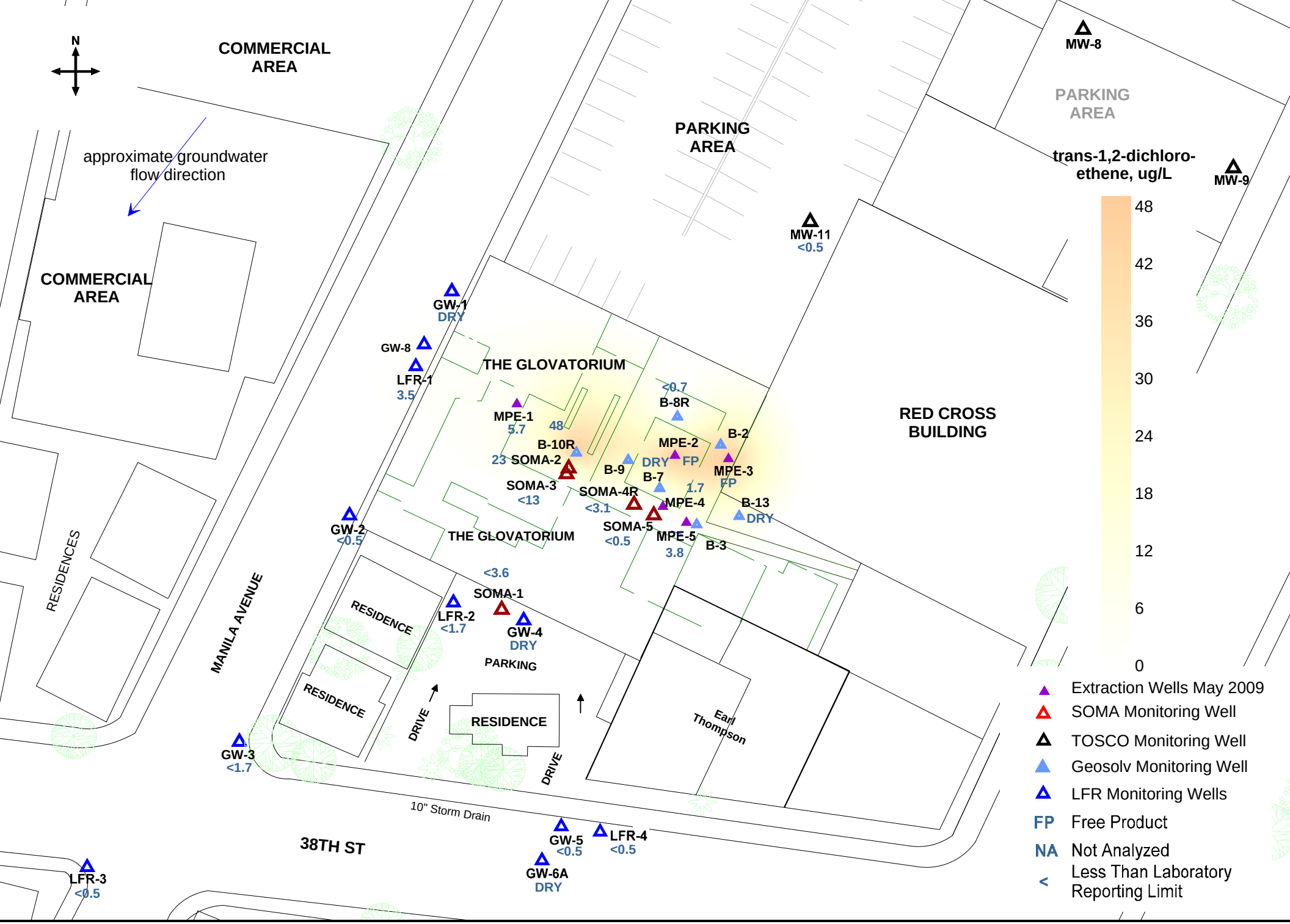


Figure 11 Contour map of trans-1,2-dichloroethene concentrations in groundwater August 4 to 6, 2010.

SOMA ENVIRONMENTAL ENGINEERING, INC.

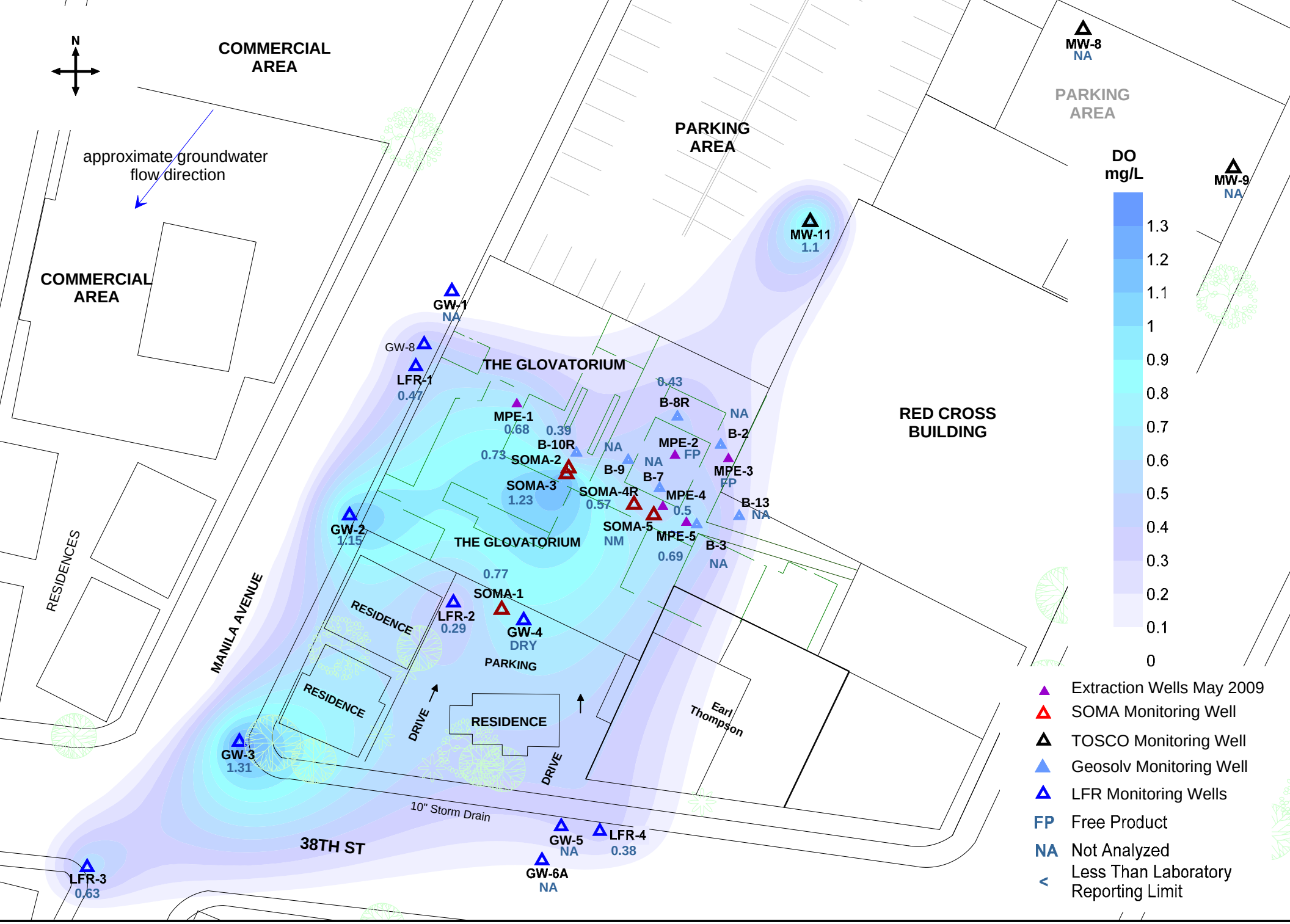


Figure 12: Contour map of dissolved oxygen concentrations in groundwater
August 4 to 6, 2010

ENVIRONMENTAL ENGINEERING, INC.

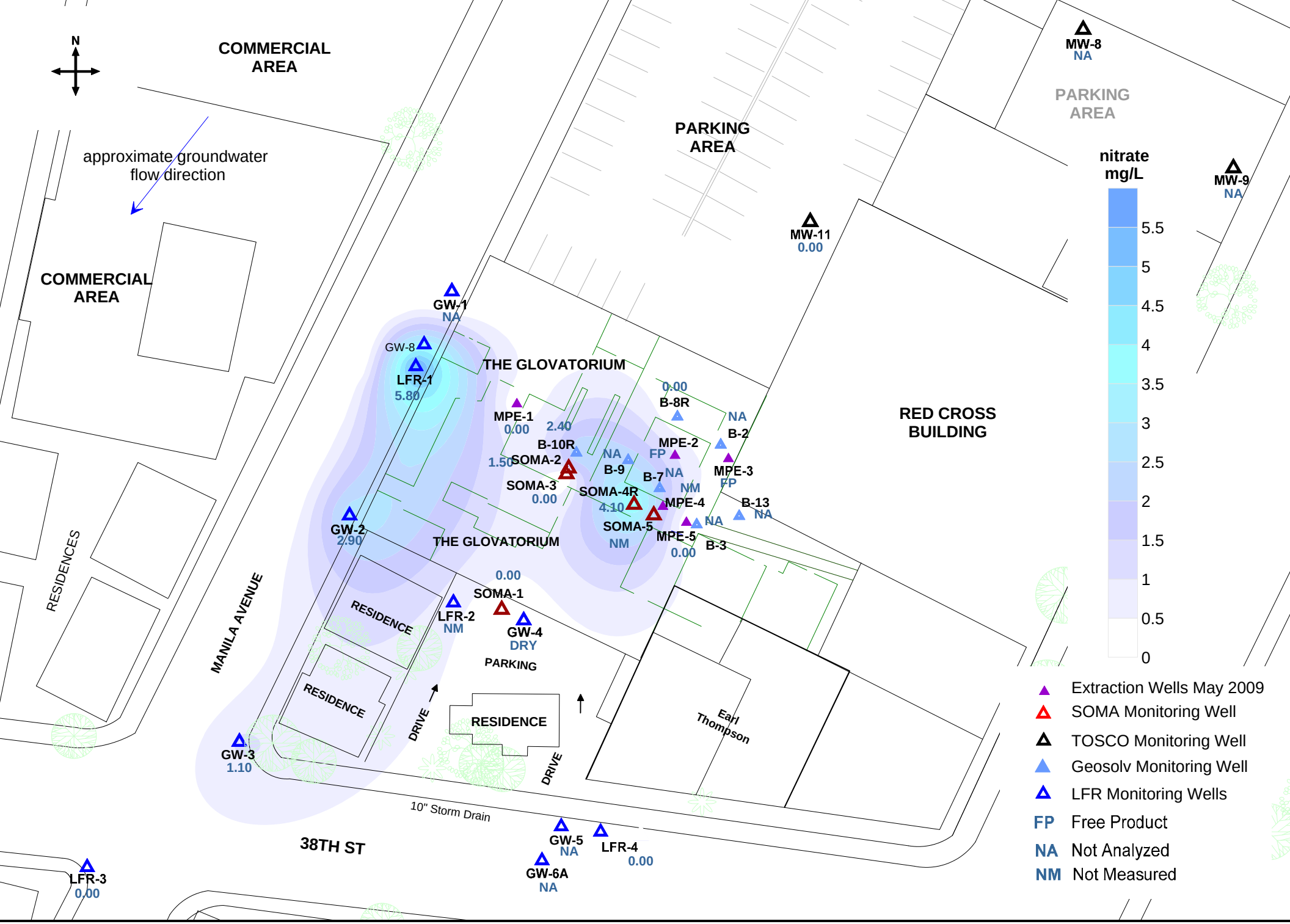


Figure 13: Contour map of nitrate concentrations in groundwater
August 4 to 6, 2010.

ENVIRONMENTAL ENGINEERING, INC.

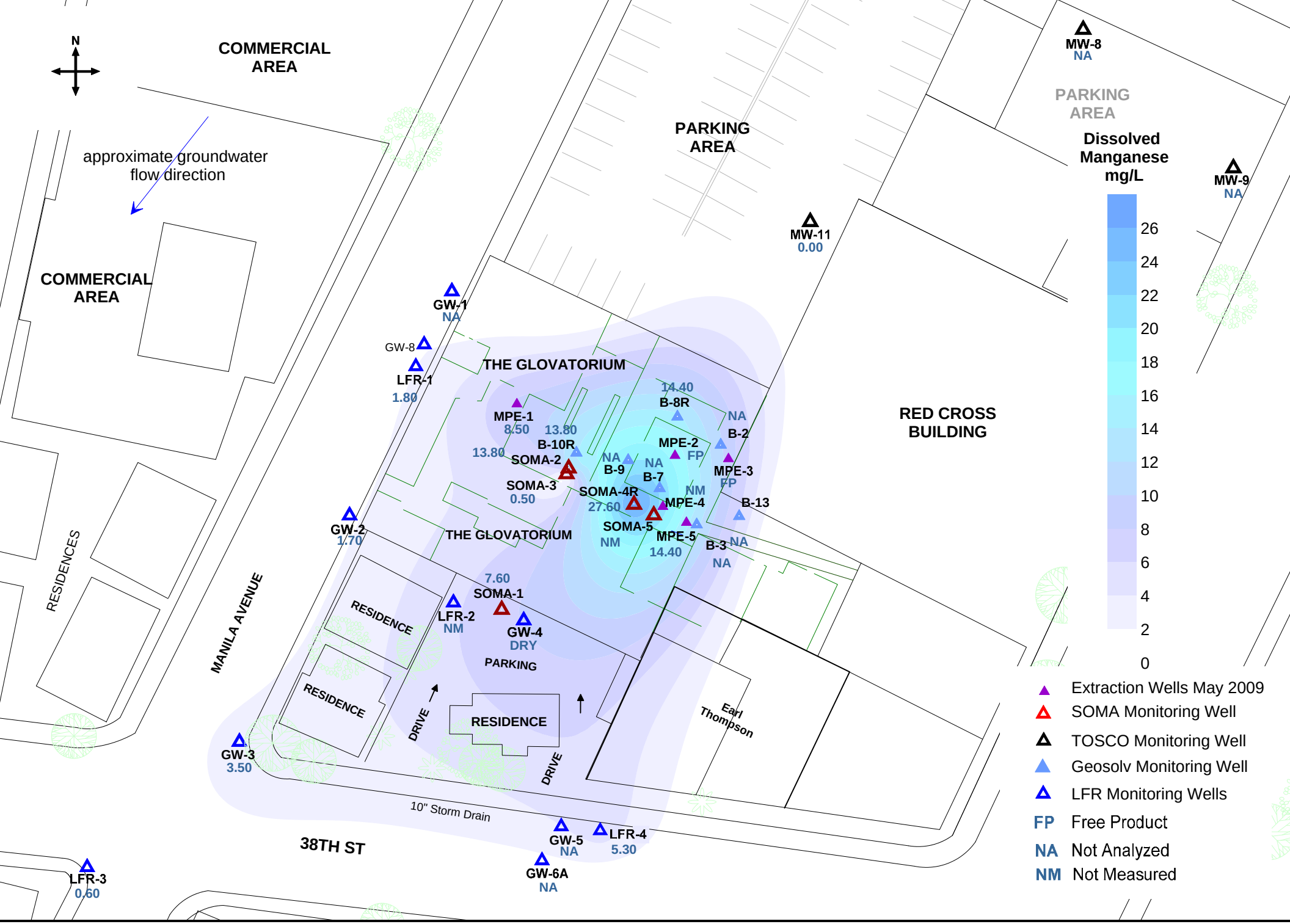


Figure 14: Contour map of dissolved manganese concentrations in groundwater August 4 to 6, 2010.

SOMA ENVIRONMENTAL ENGINEERING, INC.

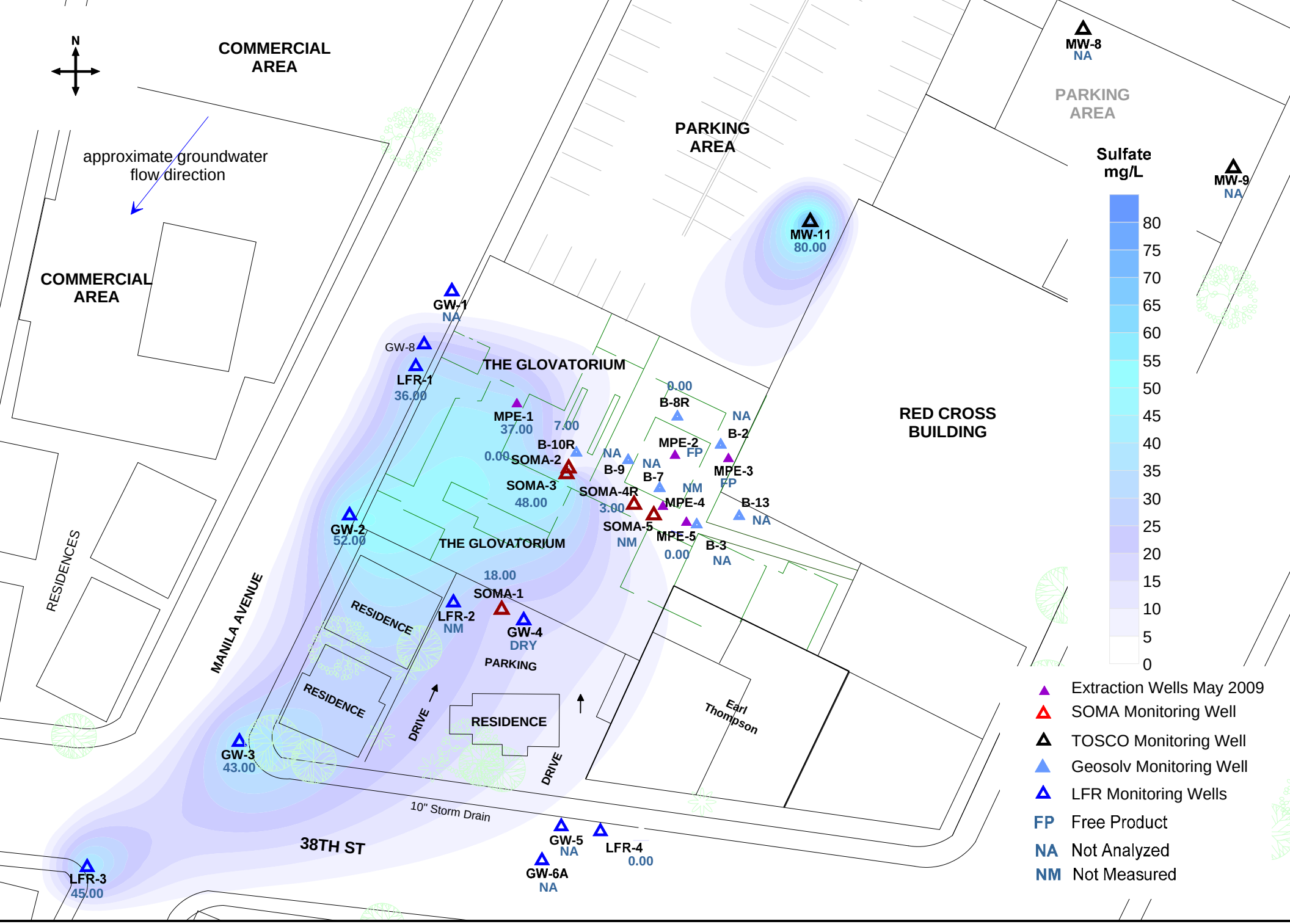
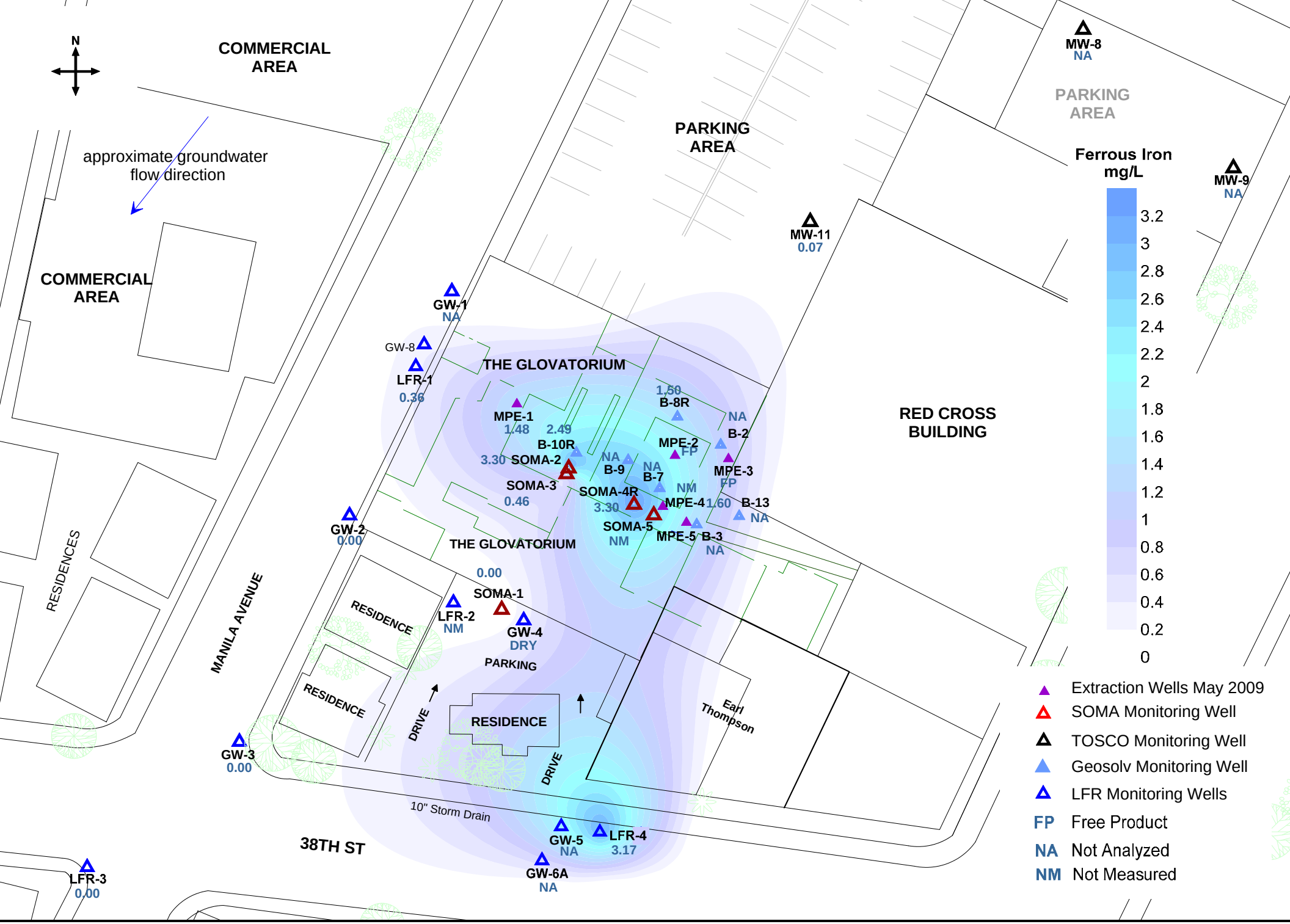


Figure 15: Contour map of sulfate concentrations in groundwater August 4 to 6, 2010.

SOMA ENVIRONMENTAL ENGINEERING, INC.



approximate scale in feet

0 50 100

Figure 16: Contour map of ferrous iron concentrations in groundwater August 4 to 6, 2010.

SOMA ENVIRONMENTAL ENGINEERING, INC.

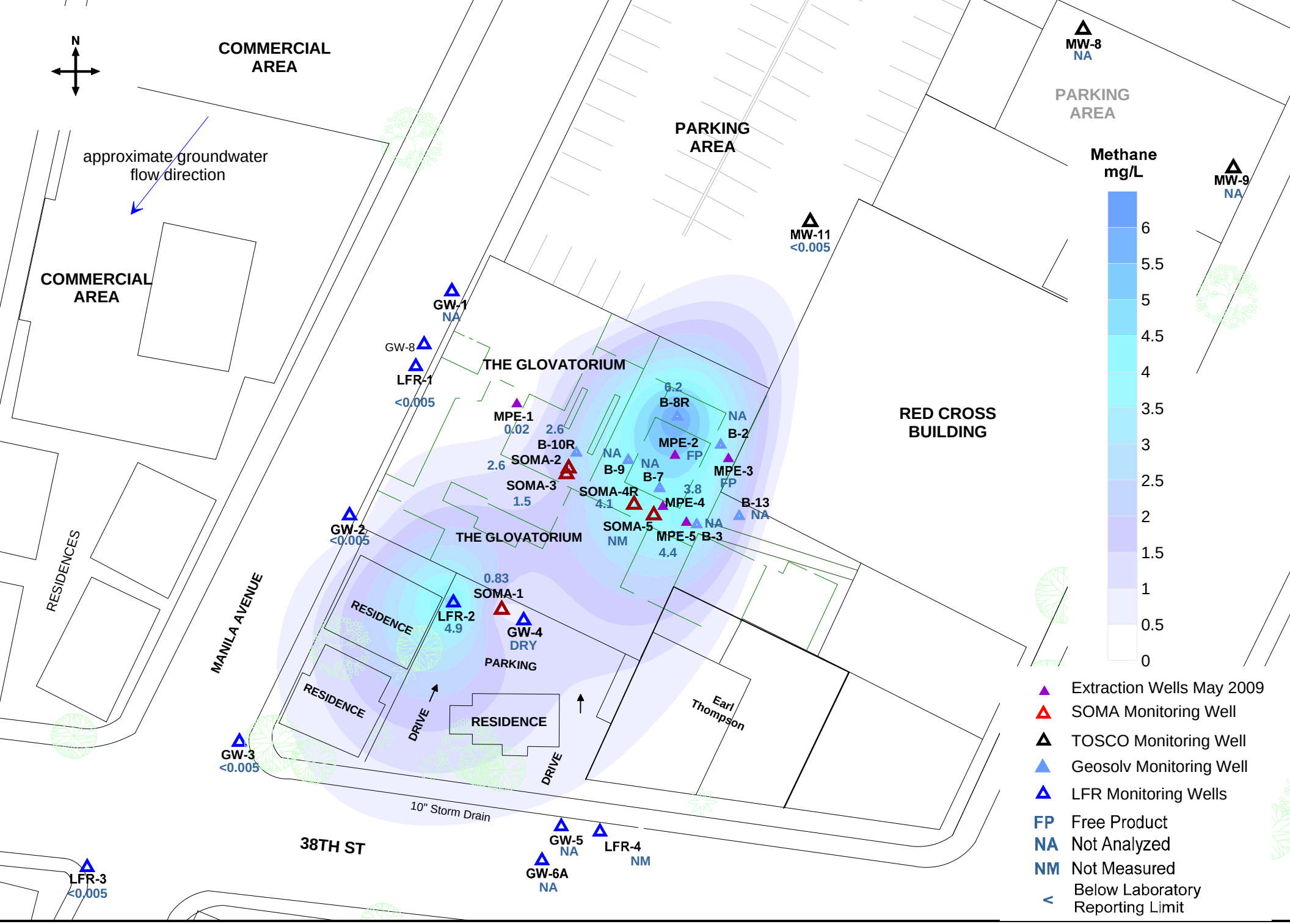
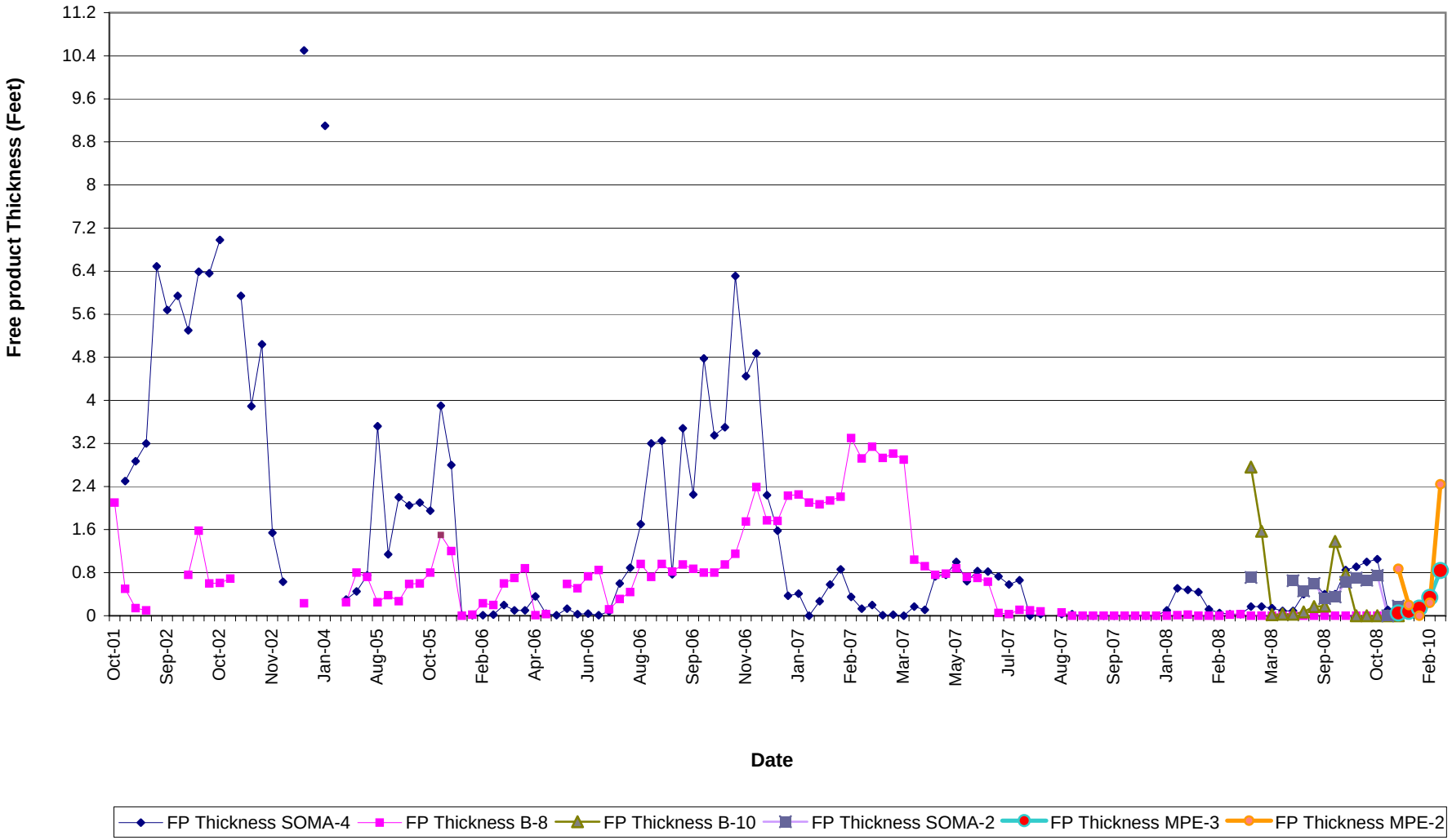


Figure 17: Contour map of methane concentrations in groundwater August 4 to 6, 2010.

ENVIRONMENTAL ENGINEERING, INC.

Figure 18
Free Product Thickness
Former Glovatorium Site
3820 Manila Avenue, Oakland, California



APPENDIX A

SOMA's Groundwater Monitoring Procedures

Field Activities

Field activities were conducted from August 4 to 6, 2010. During this event, 18 monitoring wells were sampled. Depths to groundwater were measured in 30 groundwater monitoring wells and temporary sampling points.

Wells GW-5 and LFR-4 were monitored and sampled as a part of the soil and groundwater investigation conducted for the adjacent property, located at 316, 38th street and owned by Earl Thompson, Sr., based on the ACEH directive dated September 17, 2009. The data collected in the field and laboratory analytical results for these two wells have been utilized and presented in this report.

Wells MPE-2 and MPE-3 were sampled for the analysis of free-product only and not for the contaminants of concern. Figure 2 shows locations of groundwater monitoring wells and temporary sampling points.

On August 4, 2010, SOMA's field crew measured depths to groundwater in the monitoring wells and temporary groundwater sampling points from the top of the casings to the nearest 0.01 feet using an electrical sounder. The depth to groundwater and top of the casing elevation were used to calculate the Site's groundwater elevation at each sounding location.

Prior to sample collection, each well was purged using a battery-operated, 2-inch-diameter pump (Model ES-60 DC) or a GeoTech pump (for the smaller ¾-inch diameter temporary wells). During the purging activities, the groundwater was measured for parameters such as DO, pH, temperature, EC, and the ORP using a Hanna HI-9828 multi-parameter instrument. Turbidity was measured using a Hanna HI-98703 portable turbidimeter. The equipment was calibrated at the Site using standard solutions and procedures provided by the manufacturer.

The purging continued until the parameters for pH, temperature, EC, DO, turbidity, and ORP stabilized, or three casing volumes were purged. The groundwater samples were also tested on-site for nitrate, nitrite, sulfate, total iron, ferrous iron and dissolved manganese concentrations, once stabilization occurred, using the Hach Colorimeter (Model 890). The Hach Colorimeter is a microprocessor-controlled photometer suitable for colorimetric testing in the laboratory or the field. The required reagents for each specific test were provided in AccuVac ampules.

Nitrate was measured colorimetrically using Method 8039, the Cadmium Reduction Method. Cadmium metal in the NitraVer 5 Nitrate Reagent reduces nitrates present in the sample to nitrite; the nitrite ion reacts in an acidic medium with sulfanilic acid to form an intermediate diazonium salt, which couples with getistic acid to form an amber-colored product. The intensity of the color is proportional to the nitrate concentration in the sample.

Nitrite was measured colorimetrically using Method 8507, the Diazotization Method. Nitrite in the sample reacts with sulfanilic acid in the NitriVer 3 Nitrite Reagent to form an intermediate diazonium salt. The salt couples with chromotropic acid to produce a pink colored complex. The intensity of the color is proportional to the nitrite concentration in the sample.

Sulfate was measured colorimetrically using Method 8051, the SulfaVer 4 Method. Sulfate ions in the sample react with barium in the SulfaVer 4 Sulfate Reagent to form insoluble barium sulfate. The intensity of the subsequent color development is proportional to the sulfate concentration.

Ferrous iron was measured colorimetrically using Method 8146 (1,10-phenanthroline Method). The 1,10-phenathroline indicator in the ferrous iron reagent reacts with Fe^{+2} in the sample to form an orange color. The intensity of the orange color is proportional to the iron concentration.

Total iron was measured colorimetrically using Method 8008. The FerroVer Iron Reagent reacts with all soluble and most insoluble forms of iron in the sample to produce soluble ferrous iron. This reacts with the 1,10-phenanthroline indicator in the reagent to form an orange color in proportion to the iron concentration.

Dissolved manganese was measured colorimetrically using Method 8034, the Periodate Oxidation Method. Manganese in the sample is oxidized to the purple permanganate state by sodium periodate, after buffering the sample with citrate. The purple color that develops as a result of this reaction is directly proportional to the manganese concentration.

After purging, a disposable polyethylene bailer was used to collect sufficient samples from each monitoring well for laboratory analyses. The groundwater samples from the smaller diameter ¾-inch temporary wells were collected using the GeoTech pump and a battery pack. A ¼-inch poly tube was placed in the temporary well, and groundwater was extracted through the tubing using the GeoTech pump.

The groundwater sample was transferred to nine 40-mL VOA vials and preserved with hydrochloric acid. The vials were then sealed to prevent the development of air bubbles within the headspace. The VOA vials containing the samples were immediately placed on ice and maintained at 4°C in a cooler. A chain of custody form was written and placed with the samples in the cooler. SOMA's field crew delivered the samples to Curtis & Tompkins, Ltd. Laboratory, in Berkeley, California, upon sampling completion.

Laboratory Analysis

Curtis & Tompkins, Ltd., a state-certified laboratory, analyzed the groundwater samples for TPH-g, TPH-ss, purgeable organics, which included BTEX and MtBE constituents, and methane. TPH-g and TPH-ss were prepared using EPA

Method 5030B and measured using EPA Method 8015B. Purgeable organics, which included BTEX and MtBE, were prepared using EPA Method 5030B and analyzed using EPA Method 8260B. Methane was analyzed using RSK-175.

APPENDIX B

Table of Elevations and Coordinates on Wells;
Field Notes, Field Measured Physical
and Chemical Parameter Values

Virgil Chavez Land Surveying
312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

November 6, 2001
Project No. 1974-06

Mansour
Soma Environmental Engineering, Inc.
2680 Bishop Drive, Suite 203
San Ramon, CA 94583

Subject: Monitoring Well Survey
3815 Broadway
Oakland, CA

Dear Mansour:

This is to confirm that we have proceeded at your request to survey the monitoring wells located at the above referenced location. The survey was performed on October 30, 2001. The benchmark for the survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway. The coordinates are for top of casing based on your coordinate system. Measurements taken at approximate north side of top of box and top of casing. Benchmark Elev. = 85.41 feet, (NGVD 29).

Well No.	Rim Elevation	TOC Elevation	Northing	Easting
SOMA - 1	82.31'	81.64'	270.13	326.38
SOMA - 2	81.62'	81.39'	270.39	392.29
SOMA - 3	81.65'	81.42'	270.60	394.89
SOMA - 4	81.51'	81.09'	237.74	392.79
SOMA - 5	81.68'	81.50'	227.76	392.24

Sincerely,

Virgil D. Chavez, PLS 6323

Harrington Surveys

Land Surveying & Mapping

2278 Larkey Lane, Walnut Creek, Ca. 94596 Phone (925)935-7228 Fax (925)935-5118
Cel (925)788-7359 E-Mail (ben5132@pacbell.net)

Soma Environmental Engineering
6620 Owens Dr
Suite A
Pleasanton Ca. 94588

July 02 2009

Attn: Erica Fisker
Job # 2908

Ref: 3820 Manila Ave., Oakland Ca.

HORZONTAL CONTROL, NAD 88:

Survey based on California Coordinate System, Zone 3, NAD 83.

B TIDAL PID AE5211 NORTH 2,121,308.82 EAST 6,032,659.16 LAT. N37°47'44.25088" W122°16"47.37830", NAVD 88, ELEV. 9.39.

PID HT0654, NORTH 2117,057.95 EAST 6,047,431.59, LAT. N37°43'11.04190" W122°07'09.20691", NAVD 88, ELEV. 13.65.

GPS: TRIMBLE 5800, LEICA TCA 1800, 1" HORZ. & VERT.

EPOCH DATE 2007.00

OBSERVATION: EPOCH=180.

FIELD SURVEY: 7-02-09.

Ben Harrington
PLS 5132

3820 MANILA AVE.
OAKLAND CA.

HARRINGTION SURVEYS
2278 LARKEY LANE
WALNUT CREEK CA 94597

JOB # 2908
DATE: 07\07\09

PT#	NORTH	EAST	ELEV	DESC.	LATITUDE N.DMS	LONGTIDUDE W.DMS	LAT.N. DEC. DEG.	LONG.W.DEC.DEG.
75	2128282.80	6053968.91	84.87	MPE-3 NOTCH	37°49'36.27652"N	122°15'29.63631"W	37.826788357°N	122.257938351°W
76	2128282.70	6053968.57	85.14	MPE-3 PUNCH	37°49'36.27652"N	122°15'29.63631"W	37.826788072°N	122.257939519°W
77	2128283.75	6053969.25	85.15	MPE-3 FF	37°49'36.27652"N	122°15'29.63631"W	37.826790983°N	122.257937246°W

3820 MANILA AVE.
OAKLAND CA.

HARRINGTON SURVEYS
2278 LARKEY LANE
WALNUT CREEK CA 94597

JOB # 2908
DATE: 07\07, 2009
~~**PAGE OF 2**~~

PT#	NORTH	EAST	ELEV	DESC.	LATITUDE N.DMS	LONGTIDUDE W.DMS	LATITUDE DEC. DEG.	LONGTIDUDE W.DEC.DEG.
1	2128400.26	6053866.77	84.03	SET PK-TC-S	37°49'37.58019"N	122°15'29.87854"W	37.827105609°N	122.258299593°W
3	2128379.12	6053814.43	83.46	SET PK-TC-N	37°49'37.36145"N	122°15'30.52580"W	37.827044848°N	122.258479389°W
5	2128167.60	6053704.79	81.21	SET PK-TC-W	37°49'35.25021"N	122°15'31.84259"W	37.826458393°N	122.258845164°W
7	2128323.25	6053926.32	84.57	SET PK/S-TP	37°49'36.83002"N	122°15'29.11835"W	37.826897228°N	122.258088432°W
8	2128279.40	6053906.51	84.58	SET X-TP	37°49'36.39285"N	122°15'29.35491"W	37.826775791°N	122.258154113°W
9	2128267.32	6053922.80	84.59	SET X-TP	37°49'36.27652"N	122°15'29.14905"W	37.826743478°N	122.258096958°W
10	2128289.53	6053933.85	84.77	SET N/S-TP	37°49'36.27652"N	122°15'29.01656"W	37.826805020°N	122.258060156°W
11	2128307.69	6053943.14	84.90	SET X-TP	37°49'36.27652"N	122°15'28.90501"W	37.826855379°N	122.258029171°W
51	2128287.63	6053907.85	83.98	B-10R NOTCH	37°49'36.27652"N	122°15'29.34011"W	37.826798455°N	122.258150032°W
52	2128287.88	6053908.08	84.60	B-10R PUNCH	37°49'36.27652"N	122°15'29.33729"W	37.826799170°N	122.258149248°W
53	2128286.82	6053907.95	84.58	B-10R FF	37°49'36.27652"N	122°15'29.33866"W	37.826796242°N	122.258149628°W
54	2128279.68	6053904.41	84.38	SOMA-2 NOTCH	37°49'36.27652"N	122°15'29.38119"W	37.826776471°N	122.258161442°W
55	2128279.93	6053904.49	84.61	SOMA-2 PUNCH	37°49'36.27652"N	122°15'29.38022"W	37.826777138°N	122.258161172°W
56	2128278.63	6053904.50	84.59	SOMA-2 FF	37°49'36.27652"N	122°15'29.37976"W	37.826773586°N	122.258161045°W
57	2128309.67	6053884.35	84.41	MPE-1 NOTCH	37°49'36.27652"N	122°15'29.63818"W	37.826857770°N	122.258232829°W
58	2128309.44	6053884.49	84.65	MPE-1 PUNCH	37°49'36.27652"N	122°15'29.63631"W	37.826857149°N	122.258232309°W
59	2128308.72	6053884.79	84.65	MPE-1 FF	37°49'36.27652"N	122°15'29.63631"W	37.826855199°N	122.258231242°W
60	2128263.25	6053932.99	83.95	SOMA-4R NOTCH	37°49'36.27652"N	122°15'29.63631"W	37.826732814°N	122.258061416°W
61	2128263.39	6053932.72	84.49	SOMA-4R PUNCH	37°49'36.27652"N	122°15'29.63631"W	37.826733193°N	122.258062388°W
62	2128263.44	6053931.81	84.50	SOMA-4R FF	37°49'36.27652"N	122°15'29.63631"W	37.826733289°N	122.258065526°W
63	2128260.22	6053946.91	84.45	MPE-4 NOTCH	37°49'36.27652"N	122°15'29.63631"W	37.826725212°N	122.258013051°W
64	2128260.45	6053946.86	84.80	MPE-4 PUNCH	37°49'36.27652"N	122°15'29.63631"W	37.826725857°N	122.258013222°W
65	2128259.61	6053947.18	84.82	MPE-4 FF	37°49'36.27652"N	122°15'29.63631"W	37.826723563°N	122.258012083°W
66	2128258.29	6053957.28	84.64	MPE-5 NOTCH	37°49'36.27652"N	122°15'29.63631"W	37.826720467°N	122.257977014°W
67	2128258.06	6053957.18	85.23	MPE-5 PUNCH	37°49'36.27652"N	122°15'29.63631"W	37.826719808°N	122.257977358°W
68	2128258.09	6053958.22	85.26	MPE-5 FF	37°49'36.27652"N	122°15'29.63631"W	37.826719944°N	122.257973751°W
69	2128283.95	6053949.57	84.66	MPE-2 NOTCH	37°49'36.27652"N	122°15'29.63631"W	37.826790522°N	122.258005373°W
70	2128283.87	6053949.79	85.09	MPE-2 PUNCH	37°49'36.27652"N	122°15'29.63631"W	37.826790304°N	122.258004595°W
71	2128283.82	6053950.71	85.06	MPE-2 FF	37°49'36.27652"N	122°15'29.63631"W	37.826790210°N	122.258001410°W
72	2128302.87	6053952.63	84.66	B-8R NOTCH	37°49'36.27652"N	122°15'29.63631"W	37.826842611°N	122.257996005°W
73	2128302.78	6053952.89	85.07	B-8R PUNCH	37°49'36.27652"N	122°15'29.63631"W	37.826842379°N	122.257995115°W
74	2128302.48	6053953.60	85.05	B-8R FF	37°49'36.27652"N	122°15'29.63631"W	37.826841601°N	122.257992633°W

ENVIRONMENTAL ENGINEERING, INC

Well Name:	B-2	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	— feet		Oakland, California
Top of Casing Elevation:	82.09 feet	**Date:**	August 5, 2010
Depth to Groundwater:	10.59 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	71.50 feet		Erica Fisker
Water Column Height:	NC feet		
Purged Volume:	— gallons		

Not purged

Purging Method:	**Bailer** ☐	**Pump** ☐		
Sampling Method:	**Bailer** ☐	**Pump** ☐	Not sampled	
Color:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Sheen:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Odor:	**No** ☐	**Yes** ☐	**Describe:**	Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	B-3	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	— feet		Oakland, California
Top of Casing Elevation:	82.57 feet	**Date:**	August 5, 2010
Depth to Groundwater:	10.95 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	71.62 feet		Erica Fisker
Water Column Height:	NC feet		
Purged Volume:	— gallons		
	Not purged		

Purging Method:	**Bailer** ☐	**Pump** ☐		
Sampling Method:	**Bailer** ☐	**Pump** ☐	Not sampled	
Color:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Sheen:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Odor:	**No** ☐	**Yes** ☐	**Describe:**	Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name: B-7
Casing Diameter: 3/4 inch
Depth of Well: — feet
Top of Casing Elevation: 76.96 feet
Depth to Groundwater: DRY feet
Groundwater Elevation: NC feet
Water Column Height: NC feet
Purged Volume: — gallons
Not purged

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 5, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☐
Sampling Method: Bailer ☐ Pump ☐ Not sampled

Color:	No ☐	Yes ☐	**Describe:**	Unknown		
Sheen:	No ☐	Yes ☐	**Describe:**	Unknown		
Odor:	No ☐	Yes ☐	**Describe:**	Unknown		

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	B-8R	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	19.47 feet		Oakland, California
Top of Casing Elevation:	84.66 feet	**Date:**	August 6, 2010
Depth to Groundwater:	13.43 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	71.23 feet		Erica Fisker
Water Column Height:	6.04 feet		
Purged Volume:	4 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☒			
Sampling Method:	**Bailer** ☒	**Pump** ☐			
Color:	**No** ☐	**Yes** ☒	**Describe:**	dk grey	
Sheen:	**No** ☐	**Yes** ☐	**Describe:**		
Odor:	**No** ☐	**Yes** ☐	**Describe:**		

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
09:13	Start Purge						
09:15	2	6.40	17.38	0.57	1407	813	-69.9
09:17	4	6.34	17.54	0.43	1411	966	-72.3
09:22	Sample						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
09:47	1.50	3.30	0.0	0.000	0	14.4

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	B-9	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	— feet		Oakland, California
Top of Casing Elevation:	77.37 feet	**Date:**	August 5 , 2010
Depth to Groundwater:	11.54 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	65.83 feet		Erica Fisker
Water Column Height:	NC feet		
Purged Volume:	— gallons		

Not purged

Purging Method:	**Bailer** ☐	**Pump** ☐		
Sampling Method:	**Bailer** ☐	**Pump** ☐	Not sampled	
Color:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Sheen:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Odor:	**No** ☐	**Yes** ☐	**Describe:**	Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	B-10R	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	19.25 feet		Oakland, California
Top of Casing Elevation:	83.98 feet	**Date:**	August 6, 2010
Depth to Groundwater:	11.77 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	72.21 feet		Erica Fisker
Water Column Height:	7.48 feet		
Purged Volume:	4 gallons		

Purging Method:	**Bailer** ☐		**Pump** ☒		
Sampling Method:	**Bailer** ☒		**Pump** ☐		
Color:	**No** ☐		**Yes** ☒	**Describe:**	
Sheen:	**No** ☐		**Yes** ☒	**Describe:**	
Odor:	**No** ☐		**Yes** ☒	**Describe:**	

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
10:25	Start purging						
10:27	2	6.73	16.96	0.43	1104	50.5	-80.7
10:29	4	6.52	17.00	0.39	1163	51.7	-88.1
10:34	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
10:52	2.49	3.30	2.4	0.017	7	13.8

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	B-13	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	— feet		Oakland, California
Top of Casing Elevation:	84.58 feet	**Date:**	August 5, 2010
Depth to Groundwater:	DRY feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	NC feet		Erica Fisker
Water Column Height:	NC feet		
Purged Volume:	— gallons		

Not purged

Purging Method:	**Bailer** ☐	**Pump** ☐		
Sampling Method:	**Bailer** ☐	**Pump** ☐	Not sampled	
Color:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Sheen:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Odor:	**No** ☐	**Yes** ☐	**Describe:**	Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	GW-1	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	7.85 feet		Oakland, California
Top of Casing Elevation:	79.94 feet	**Date:**	August 4, 2010
Depth to Groundwater:	DRY feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	NC feet		Erica Fiskeer
Water Column Height:	NC feet		
Purged Volume:	— gallons		

Not purged

Purging Method:	**Bailer** ☐	**Pump** ☐		
Sampling Method:	**Bailer** ☐	**Pump** ☐	Not Sampled	
Color:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Sheen:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Odor:	**No** ☐	**Yes** ☐	**Describe:**	Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes: Well dry, therefore no field measurements or samples taken.

ENVIRONMENTAL ENGINEERING, INC

Well Name:	GW-2	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	20.00 feet		Oakland, California
Top of Casing Elevation:	79.14 feet	**Date:**	August 5, 2010
Depth to Groundwater:	13.68 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	65.46 feet		Erica Fisker
Water Column Height:	6.32 feet		
Purged Volume:	0.50 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☑	Geotech	
Sampling Method:	**Bailer** ☐	**Pump** ☑	Geotech	
Color:	**No** ☑	**Yes** ☐	**Describe:**	
Sheen:	**No** ☑	**Yes** ☐	**Describe:**	
Odor:	**No** ☑	**Yes** ☐	**Describe:**	

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
14:34	Started purging well						
14:36	0.25	6.87	23.22	1.32	533	2.32	+20.9
14:39	0.50	6.71	20.74	1.15	661	3.69	+39.7
14:44	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
15:00	0.00	0.00	2.9	0.007	52	1.7

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name: GW-3
Casing Diameter: 3/4 inch
Depth of Well: 20.00 feet
Top of Casing Elevation: 77.92 feet
Depth to Groundwater: 10.77 feet
Groundwater Elevation: 67.15 feet
Water Column Height: 9.23 feet
Purged Volume: 0.50 gallons

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 5, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☒ Geotech
Sampling Method: Bailer ☐ Pump ☒ Geotech

Color: No ☒ Yes ☐ Describe: _____
Sheen: No ☒ Yes ☐ Describe: _____
Odor: No ☒ Yes ☐ Describe: _____

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
13:50	Start	Purge					
13:55	0.25	6.61	19.42	1.62	531	13.9	36.2
13:58	0.50	6.46	19.03	1.31	525	7.52	49.1
14:05	Sample						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
14:20	0.00	0.05	1.1	0.015	43	3.5

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	GW-4	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	12.00 feet		Oakland, California
Top of Casing Elevation:	82.37 feet	**Date:**	August 4, 2010
Depth to Groundwater:	DRY feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	NC feet		Erica Fisker
Water Column Height:	NC feet		
Purged Volume:	— gallons		

Not purged

Purging Method:	**Bailer** ☐	**Pump** ☐		
Sampling Method:	**Bailer** ☐	**Pump** ☐	Not sampled	
Color:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Sheen:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Odor:	**No** ☐	**Yes** ☐	**Describe:**	Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes: Well dry, therefore no field measurements or samples taken.

ENVIRONMENTAL ENGINEERING, INC

Well Name: GW-5
Casing Diameter: 3/4 inch
Depth of Well: 12.87 feet
Top of Casing Elevation: 81.01 feet
Depth to Groundwater: 12.33 feet
Groundwater Elevation: 68.68 feet
Water Column Height: 0.54 feet
Purged Volume: 0 gallons
Not purged

Project #: 0721
Address: 316 38th Street
Oakland, California
Date: August 5, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☐
Sampling Method: Bailer ☐ Pump ☒ Geotech

Color: No ☒ Yes ☐ Describe: _____
Sheen: No ☒ Yes ☐ Describe: _____
Odor: No ☒ Yes ☐ Describe: _____

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
12:15	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes: Insufficient water in well for field measurements, grab sample only.

ENVIRONMENTAL ENGINEERING, INC

Well Name: GW-6A
Casing Diameter: 3/4 inch
Depth of Well: — feet
Top of Casing Elevation: 81.61 feet
Depth to Groundwater: DRY feet
Groundwater Elevation: NC feet
Water Column Height: NC feet
Purged Volume: — gallons
Not purged

Project #: 2721
Address: 316 38th St.
Oakland, California
Date: August 4, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☐
Sampling Method: Bailer ☐ Pump ☐ Not sampled

Color: No ☐ Yes ☐ Describe: Unknown
Sheen: No ☐ Yes ☐ Describe: Unknown
Odor: No ☐ Yes ☐ Describe: Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes: Well dry, therefore no field measurements or samples taken.

ENVIRONMENTAL ENGINEERING, INC

Well Name:	MW-8	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	— feet		Oakland, California
Top of Casing Elevation:	87.44 feet	**Date:**	August 4, 2010
Depth to Groundwater:	11.22 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	76.22 feet		Erica Fisker
Water Column Height:	NC feet		
Purged Volume:	— gallons		
	Not purged		

Purging Method:	**Bailer** ☐	**Pump** ☐		
Sampling Method:	**Bailer** ☐	**Pump** ☐	Not sampled	
Color:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Sheen:	**No** ☐	**Yes** ☐	**Describe:**	Unknown
Odor:	**No** ☐	**Yes** ☐	**Describe:**	Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name: MW-9
Casing Diameter: 2 inch
Depth of Well: — feet
Top of Casing Elevation: 86.56 feet
Depth to Groundwater: 10.96 feet
Groundwater Elevation: 75.60 feet
Water Column Height: NC feet
Purged Volume: — gallons
Not purged

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 4, 2010
Sampler: Lizzie Hightower

Purging Method: Bailer ☐ Pump ☐
Sampling Method: Bailer ☐ Pump ☐ Not sampled

Color: No ☐ Yes ☐ **Describe:** Unknown
Sheen: No ☐ Yes ☐ **Describe:** Unknown
Odor: No ☐ Yes ☐ **Describe:** Unknown

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name: MW-11
Casing Diameter: 2 inch
Depth of Well: 19.00 feet
Top of Casing Elevation: 84.13 feet
Depth to Groundwater: 15.64 feet
Groundwater Elevation: 68.49 feet
Water Column Height: 3.36 feet
Purged Volume: 1.5 gallons

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 5, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method:	**Bailer** ☑		**Pump** ☐		
Sampling Method:	**Bailer** ☑		**Pump** ☐		
Color:	**No** ☐		**Yes** ☑	**Describe:**	Cloudy
Sheen:	**No** ☑		**Yes** ☐	**Describe:**	
Odor:	**No** ☑		**Yes** ☐	**Describe:**	

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
13:15							
13:17	0.5	6.32	19.72	1.55	962	17.7	+59.6
13:19	1	6.30	18.86	1.37	1008	24.3	+64.0
13:21	1.5	6.29	19.21	1.10	1007	65.7	+67.1
13:26	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
13:43	0.07	0.45	0.0	0.005	80	0.0

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	LFR-1	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	19.00 feet		Oakland, California
Top of Casing Elevation:	79.97 feet	**Date:**	August 5, 2010
Depth to Groundwater:	10.24 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	69.73 feet		Erica Fisker
Water Column Height:	8.76 feet		
Purged Volume:	4 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☑			
Sampling Method:	**Bailer** ☑	**Pump** ☐			
Color:	**No** ☐	**Yes** ☑	**Describe:**	Cloudy	
Sheen:	**No** ☑	**Yes** ☐	**Describe:**		
Odor:	**No** ☑	**Yes** ☐	**Describe:**		

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
15:14	Started purging well						
15:15	2	6.70	19.67	0.68	504	122	+26.6
15:16	4	6.66	19.14	0.47	547	42.5	+37.4
15:21	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
15:36	0.36	0.63	5.8	0.000	36	1.8

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	LFR-2	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	19.00 feet		Oakland, California
Top of Casing Elevation:	81.89 feet	**Date:**	August 5, 2010
Depth to Groundwater:	12.47 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	69.42 feet		Erica Fisker
Water Column Height:	6.53 feet		
Purged Volume:	3.5 gallons		

Purging Method:	**Bailer**	☑	**Pump**	☐	
Sampling Method:	**Bailer**	☑	**Pump**	☐	
Color:	**No**	☐	**Yes**	☑	**Describe:** Gray/Cloudy
Sheen:	**No**	☐	**Yes**	☑	**Describe:** Rainbow Sheen
Odor:	**No**	☐	**Yes**	☑	**Describe:** Chemical Odor

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
10:53	Started purging well						
10:56	1	7.12	16.91	0.51	840	999	-45.3
10:58	2	6.80	17.28	0.40	899	999	-63.9
11:01	3	6.63	17.03	0.33	939	999	-75.8
11:03	3.5	6.60	17.03	0.29	928	999	-83.7
11:08	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
Water too cloudy - unable to measure.						

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	LFR-3	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	22.00 feet		Oakland, California
Top of Casing Elevation:	77.96 feet	**Date:**	August 5, 2010
Depth to Groundwater:	13.95 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	64.01 feet		Erica Fisker
Water Column Height:	8.05 feet		
Purged Volume:	4 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☑			
Sampling Method:	**Bailer** ☑	**Pump** ☐			
Color:	**No** ☐	**Yes** ☑	**Describe:**	Cloudy	
Sheen:	**No** ☑	**Yes** ☐	**Describe:**		
Odor:	**No** ☑	**Yes** ☐	**Describe:**		

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
12:50	Started purging well						
12:51	2	6.35	19.49	0.72	473	171	+46.8
12:52	4	6.32	19.41	0.63	479	37.6	+53.7
12:57	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
13:11	0.00	0.10	0.0	0.003	45	0.6

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	LFR-4	**Project #:**	2721
Casing Diameter:	2 inch	**Address:**	316 38th St. Oakland, California
Depth of Well:	19.30 feet	**Date:**	August 5, 2010
Top of Casing Elevation:	81.65 feet	**Sampler:**	Lizzie Hightower Erica Fisker
Depth to Groundwater:	16.89 feet		
Groundwater Elevation:	64.76 feet		
Water Column Height:	2.41 feet		
Purged Volume:	1.25 gallons		

Purging Method:	**Bailer** ☐		**Pump** ☑	Geotech	
Sampling Method:	**Bailer** ☐		**Pump** ☑	Geotech	
Color:	**No** ☑		**Yes** ☐	**Describe:**	
Sheen:	**No** ☑		**Yes** ☐	**Describe:**	
Odor:	**No** ☐		**Yes** ☑	**Describe:**	Petro Odor

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
11:45							
11:46	0.50	6.64	17.93	0.61	502	4.4	-10.8
11:49	1.0	6.37	17.99	0.53	506	12.3	-9.6
11:53	1.25	6.36	17.99	0.38	511	3.36	-15.9
11:58	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
12:07	3.17	3.30	0	0	0	5.3

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name: SOMA-1
Casing Diameter: 4 inch
Depth of Well: 40.00 feet
Top of Casing Elevation: 81.64 feet
Depth to Groundwater: 17.47 feet
Groundwater Elevation: 64.17 feet
Water Column Height: 22.53 feet
Purged Volume: 14 gallons

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 5, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☑
Sampling Method: Bailer ☑ Pump ☐

Color: No ☑ Yes ☐ Describe: _____
Sheen: No ☑ Yes ☐ Describe: _____
Odor: No ☑ Yes ☐ Describe: _____

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
10:07	Started purging well						
10:08	2	6.51	17.69	1.35	1091	3.71	+28.1
10:10	6	6.23	17.59	1.09	1095	2.98	+29.8
10:12	10	6.21	17.57	0.93	1095	2.75	+28.3
10:14	14	6.21	17.60	0.77	1093	2.33	+28.1
10:19	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
10:47	0.00	0.17	0.0	0.006	18	7.6

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	SOMA-2	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	20.00 feet		Oakland, California
Top of Casing Elevation:	84.38 feet	**Date:**	August 6, 2010
Depth to Groundwater:	13.57 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	70.81 feet		Erica Fisker
Water Column Height:	6.43 feet		
Purged Volume:	4 gallons		

Purging Method:	**Bailer** ☐		**Pump** ☒		
Sampling Method:	**Bailer** ☒		**Pump** ☐		
Color:	**No** ☐		**Yes** ☒	**Describe:**	black
Sheen:	**No** ☐		**Yes** ☒	**Describe:**	Rainbow
Odor:	**No** ☐		**Yes** ☒	**Describe:**	petro

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
10:04	Start	purge					
10:06	2	6.54	17.28	0.88	1044	99.6	-91.1
10:08	4	6.41	17.37	0.73	1041		-90.4
10:13	SAMPLE						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
10:35	3.30	3.30	1.5	0.000	0	13.8

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	SOMA-3	**Project #:**	2511
Casing Diameter:	3/4 inch	**Address:**	3820 Manila Avenue
Depth of Well:	30.00 feet		Oakland, California
Top of Casing Elevation:	81.42 feet	**Date:**	August 6, 2010
Depth to Groundwater:	14.68 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	66.74 feet		Erica Fisker
Water Column Height:	15.32 feet		
Purged Volume:	0.5 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☒ Peristaltic			
Sampling Method:	**Bailer** ☐	**Pump** ☒			
Color:	**No** ☐	**Yes** ☑	**Describe:**	Cloudy	
Sheen:	**No** ☑	**Yes** ☐	**Describe:**		
Odor:	**No** ☐	**Yes** ☑	**Describe:**	Slight Petro	

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
10:53	Started purging well						
10:54	0.25	6.71	17.02	1.76	1134	146	-79.3
10:55	6.5	6.69	17.42	1.23	1118	20.7	-8.7
11:00	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
11:15	~~2.49~~ 0.46	~~3.90~~ 1.40	0.0	0.013	48	0.5

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name: SOMA-4R
Casing Diameter: 2 inch
Depth of Well: 19.54 feet
Top of Casing Elevation: 83.95 feet
Depth to Groundwater: 14.06 feet
Groundwater Elevation: 69.89 feet
Water Column Height: 5.48 feet
Purged Volume: 4 gallons

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 6, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☒
Sampling Method: Bailer ☒ Pump ☐

Color: No ☐ Yes ☑ Describe: Dark gray
Sheen: No ☑ Yes ☐ Describe:
Odor: No ☐ Yes ☑ Describe: Petro Odor

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
08:45	Start Purge						
08:47	2	6.57	17.28	0.63	1542	313	-113.9
08:49	4	6.42	17.17	0.57	1403	103	-114.6
08:54	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
09:14	3.30	3.30	4.1	0.040	3	27.6

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name: SOMA-5
Casing Diameter: 3/4 inch
Depth of Well: 25.60 feet
Top of Casing Elevation: 81.50 feet
Depth to Groundwater: 24.48 feet
Groundwater Elevation: 57.02 feet
Water Column Height: 1.12 feet
Purged Volume: — gallons
Not purged

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 6, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☐ NA
Sampling Method: Bailer ☒ Pump ☐

Color: No ☐ Yes ☐ Describe: _____
Sheen: No ☐ Yes ☐ Describe: _____
Odor: No ☐ Yes ☐ Describe: _____

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
08:28	Sample						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes: Insufficient water in well for field
No Purge

ENVIRONMENTAL ENGINEERING, INC

Well Name:	MPE-1	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	19.82 feet		Oakland, California
Top of Casing Elevation:	84.41 feet	**Date:**	August 6, 2010
Depth to Groundwater:	12.62 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	71.79 feet		Erica Fisher
Water Column Height:	7.20 feet		
Purged Volume:	4 gallons		

Purging Method:	Bailer ☐	Pump ☒
Sampling Method:	Bailer ☒	Pump ☐

Color:	No ☐	Yes ☒	**Describe:**	yellow-brown	
Sheen:	No ☒	Yes ☐	**Describe:**		
Odor:	No ☐	Yes ☒	**Describe:**	slight petro	

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
11:33	start purge						
11:35	2	6.53	16.52	0.75	545	406	-62.9
11:37	4	6.33	16.73	0.68	545	394	-69.2
11:42	Sample						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
11:57	1.48	3.30	0.0	0.0	37	8.5

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well Name:	MPE-2	**Project #:**	2511
Casing Diameter:	2 inch	**Address:**	3820 Manila Avenue
Depth of Well:	19.00 feet		Oakland, California
Top of Casing Elevation:	84.66 feet	**Date:**	August 5, 2010
Depth to Groundwater:	14.57 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	70.09 feet		Erica Fisker
Water Column Height:	4.43 feet		
Purged Volume:	– gallons		

Not purged

Purging Method:	Bailer ☐		Pump ☐		
Sampling Method:	Bailer ☐		Pump ☑ Geotech		
Color:	No ☐	Yes ☐		Describe:	Unknown
Sheen:	No ☐	Yes ☑		Describe:	Free Product
Odor:	No ☐	Yes ☑		Describe:	Strong Petro

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
16:10	Sampled free product						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes: 2.44 feet of free product
F.P. depth = 12.13 ft.

ENVIRONMENTAL ENGINEERING, INC

Well Name: MPE-3
Casing Diameter: 2 inch
Depth of Well: 19.32 feet
Top of Casing Elevation: 84.87 feet
Depth to Groundwater: 12.51 feet
Groundwater Elevation: 72.36 feet
Water Column Height: 6.81 feet
Purged Volume: – gallons
Not purged

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 5, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☐ N/A
Sampling Method: Bailer ☐ Pump ☑ Geotech pump

Color:	No ☐	Yes ☐	Describe:	Unknown
Sheen:	No ☐	Yes ☑	Describe:	Free Product
Odor:	No ☐	Yes ☑	Describe:	Strong Petro

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
16:22	Sampled free product						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)

Notes: 0.84 feet of free product
F.P. depth = 11.67 ft.

ENVIRONMENTAL ENGINEERING, INC

Well Name: MPE-4
Casing Diameter: 2 inch
Depth of Well: 18.56 feet
Top of Casing Elevation: 84.45 feet
Depth to Groundwater: 11.54 feet
Groundwater Elevation: 72.91 feet
Water Column Height: 7.02 feet
Purged Volume: 4 gallons

Project #: 2511
Address: 3820 Manila Avenue
Oakland, California
Date: August 6, 2010
Sampler: Lizzie Hightower
Erica Fisker

Purging Method: Bailer ☐ Pump ☑
Sampling Method: Bailer ☑ Pump ☐

Color: No ☐ Yes ☑ Describe: Dark gray
Sheen: No ☐ Yes ☑ Describe: Rainbow Sheen
Odor: No ☐ Yes ☑ Describe: Petro Odor

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
08:05	Started purging well						
08:06	2	6.64	16.07	0.62	583	489	-68.4
08:07	4	6.60	16.51	0.50	639	999	-66.2
08:12	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
08:30				0.188		

Notes: Unable to read colorimeter
Sample to cloudy to measure

ENVIRONMENTAL ENGINEERING, INC

Well Name: MPE-5
Casing Diameter: 2 inch
Depth of Well: 19.53 feet
Top of Casing Elevation: 84.64 feet
Depth to Groundwater: 10.59 feet
Groundwater Elevation: 74.05 feet
Water Column Height: 8.94 feet
Purged Volume: 4 gallons

Project #: 2511
Address: 3820 Manila Avenue, Oakland, California
Date: August 6, 2010
Sampler: Lizzie Hightower, Erica Fisker

Purging Method: Bailer ☐ Pump ☒
Sampling Method: Bailer ☐ Pump ☑

Color: No ☐ Yes ☑ Describe: Dark gray
Sheen: No ☐ Yes ☑ Describe: Rainbow
Odor: No ☐ Yes ☑ Describe: Petro

Field Measurements:

Time	Volume (gallons)	pH	Temp (°C)	D.O. (mg/L)	E.C. (µs/cm)	Turbidity (NTU)	ORP (mV)
07:39	Start purging						
07:40	2	6.29	16.22	0.82	989	129	-49.5
07:41	4	6.32	16.39	0.69	988	999	-78.2
07:46	Sampled						

Time	Ferrous Iron (mg/L)	Total Iron (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Dissolved Manganese (mg/L)
08:02	1.60	3.30	0.0	0.000	0	14.4

Notes:

APPENDIX C

Chain of Custody Forms and Laboratory Reports

for

Groundwater Monitoring Event

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 221740
ANALYTICAL REPORT

SOMA Environmental Engineering Inc.
6620 Owens Dr.
Pleasanton, CA 94588

Project : 2511
Location : 3820 Manila Ave., Oakland,CA
Level : II

Sample ID	Lab ID
GW-2	221740-001
GW-3	221740-002
MW-11	221740-003
LFR-1	221740-004
LFR-2	221740-005
LFR-3	221740-006
SOMA-1	221740-007
SOMA-2	221740-008
SOMA-3	221740-009
SOMA-4R	221740-010
SOMA-5	221740-011
B-8R	221740-012
B-10R	221740-013
MPE-1	221740-014
MPE-4	221740-015
MPE-5	221740-016

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 08/13/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**221740**
Client:	**SOMA Environmental Engineering Inc.**
Project:	**2511**
Location:	**3820 Manila Ave., Oakland,CA**
Request Date:	**08/06/10**
Samples Received:	**08/06/10**

This data package contains sample and QC results for sixteen water samples, requested for the above referenced project on 08/06/10. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
High surrogate recovery was observed for bromofluorobenzene (FID) in B-10R (lab # 221740-013), due to interference from coeluting hydrocarbon peaks. Sample SOMA-5 (lab # 221740-011) had approximately 5 mL of headspace in the vial associated with reported results. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
High RPD was observed for tert-butyl alcohol (TBA) in the BS/BSD for batch 165833; this analyte was not detected at or above the RL in the associated sample. LFR-2 (lab # 221740-005) and B-8R (lab # 221740-012) were diluted due to high hydrocarbons. No other analytical problems were encountered.

Dissolved Gases by GC/FID (RSK-175):
No analytical problems were encountered.

CHAIN OF CUSTODY

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

C&T LOGIN # 221740

Sampler: Lizzie Hightower/ Erica Fisher

Project No: 2511

Report To: Joyce Bobek

Project Name: 3820 Manila Ave., Oakland, CA

Company : SOMA Environmental

Turnaround Time: Standard

Telephone: 925-734-6400

Fax: 925-734-6401

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste	# of Containers	Preservative: HCL	H_2SO_4	HNO_3	ICE	Analyses: TPHg (including Stoddard Solvent) 8015		8260 (Full List)	Methane									
1	GW-2	8-5-10 14:44		*		9-40ml VOAs	*			*	*		*	*									
2	GW-3	8-5-10 14:05		*		9-40ml VOAs	*			*	*		*	*									
—	~~GW-4~~			*		~~9-40ml VOAs~~	*			*	*		*	*									
3	MW-11	8-5-10 13:36		*		9-40ml VOAs	*			*	*		*	*									
4	LFR-1	8-5-10 15:21		*		9-40ml VOAs	*			*	*		*	*									
5	LFR-2	8-5-10 11:08		*		9-40ml VOAs	*			*	*		*	*									
6	LFR-3	8-5-10 12:57		*		9-40ml VOAs	*			*	*		*	*									
7	SOMA-1	8-5-10 10:19		*		9-40ml VOAs	*			*	*		*	*									
8	SOMA-2	8-6-10 10:13		*		9-40ml VOAs	*			*	*		*	*									
9	SOMA-3	8-6-10 11:00		*		9-40ml VOAs	*			*	*		*	*									
10	SOMA-4R	8-6-10 8:54		*		9-40ml VOAs	*			*	*		*	*									
11	SOMA-5	8-6-10 8:28		*		9-40ml VOAs	*			*	*		*	*									
12	B-8R	8-6-10 9:22		*		9-40ml VOAs	*			*	*		*	*									
13	B-10R	8-6-10 10:34		*		9-40ml VOAs	*			*	*		*	*									

Notes:

EDF Output required
8260B List to include gasoline oxygenates & lead scavengers, BTEX, MtBE

RELINQUISHED BY:

Erica Fisher 8-6-10 13:30 DATE/TIME

DATE/TIME

DATE/TIME

RECEIVED BY:

8/6/10 13:30 DATE/TIME

DATE/TIME

DATE/TIME

CHAIN OF CUSTODY

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

C&T LOGIN # 22174D

Sampler: Lizzie Hightower/ Erica Fisher

Project No: 2511

Report To: Joyce Bobek

Project Name: 3820 Manila Ave., Oakland, CA

Company : SOMA Environmental

Turnaround Time: Standard

Telephone: 925-734-6400

Fax: 925-734-6401

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Analyses: TPHg (including Stoddard Solvent) 8015	Analyses: 8260 (Full List)	Analyses: Methane
14	MPE-1	8-6-10 11:42		*		9-40ml VOAs	*			*	*	*	*
~~—~~	~~MPE-2~~			*		~~9-40ml VOAs~~	*			*	*	*	*
~~—~~	~~MPE-3~~			*		~~9-40ml VOAs~~	*			*	*	*	*
15	MPE-4	8-6-10 8:12		*		9-40ml VOAs	*			*	*	*	*
16	MPE-5	8-6-10 7:46		*		9-40ml VOAs	*			*	*	*	*

Notes:

EDF Output required
8260B List to include gasoline oxygenates & lead scavengers, BTEX, MtBE

RELINQUISHED BY:

Erica Fisher 8-6-10 13:30 DATE/TIME

DATE/TIME

DATE/TIME

RECEIVED BY:

8/6/10 13:30 DATE/TIME

DATE/TIME

DATE/TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 221740 Date Received 6/6/10 Number of coolers 1
Client SCMX ENV. Project 3820 MANILA AVE., OAKLAND

Date Opened 6/6/10 By (print) M. VILLANUEVA (sign)
Date Logged in 6/9/10 By (print) (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES NO
   Shipping info
2A. Were custody seals present? ... ☐ YES (circle) on cooler on samples ☐ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☑ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C)

☑ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are samples in the appropriate containers for indicated tests? YES NO
11. Are sample labels present, in good condition and complete? YES NO
12. Do the sample labels agree with custody papers? YES NO
13. Was sufficient amount of sample sent for tests requested? YES NO
14. Are the samples appropriately preserved? YES NO N/A
15. Are bubbles > 6mm absent in VOA samples? YES NO N/A
16. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8015B
Matrix:	Water	Received:	08/06/10
Units:	ug/L		

Field ID:	GW-2	Batch#:	165773
Type:	SAMPLE	Sampled:	08/05/10
Lab ID:	221740-001	Analyzed:	08/10/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Field ID:	GW-3	Batch#:	165773
Type:	SAMPLE	Sampled:	08/05/10
Lab ID:	221740-002	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	100 Y Z	50
Stoddard Solvent C7-C12	66 Y Z	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Field ID:	MW-11	Batch#:	165773
Type:	SAMPLE	Sampled:	08/05/10
Lab ID:	221740-003	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Field ID:	LFR-1	Batch#:	165773
Type:	SAMPLE	Sampled:	08/05/10
Lab ID:	221740-004	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8015B
Matrix:	Water	Received:	08/06/10
Units:	ug/L		

Field ID:	LFR-2	Batch#:	165821
Type:	SAMPLE	Sampled:	08/05/10
Lab ID:	221740-005	Analyzed:	08/11/10
Diln Fac:	100.0		

Analyte	Result	RL
Gasoline C7-C12	93,000 Y	5,000
Stoddard Solvent C7-C12	60,000	5,000

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	120	70-140

Field ID:	LFR-3	Batch#:	165821
Type:	SAMPLE	Sampled:	08/05/10
Lab ID:	221740-006	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Field ID:	SOMA-1	Batch#:	165821
Type:	SAMPLE	Sampled:	08/05/10
Lab ID:	221740-007	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	54 Y Z	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	70-140

Field ID:	SOMA-2	Batch#:	165821
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-008	Analyzed:	08/12/10
Diln Fac:	100.0		

Analyte	Result	RL
Gasoline C7-C12	80,000 Y	5,000
Stoddard Solvent C7-C12	52,000	5,000

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	70-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8015B
Matrix:	Water	Received:	08/06/10
Units:	ug/L		

Field ID:	SOMA-3	Batch#:	165773
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-009	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	370 Y	50
Stoddard Solvent C7-C12	240	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Field ID:	SOMA-4R	Batch#:	165821
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-010	Analyzed:	08/12/10
Diln Fac:	25.00		

Analyte	Result	RL
Gasoline C7-C12	32,000 Y	1,300
Stoddard Solvent C7-C12	20,000	1,300

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	117	70-140

Field ID:	SOMA-5	Batch#:	165821
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-011	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,200 Y	50
Stoddard Solvent C7-C12	780	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	138	70-140

Field ID:	B-8R	Batch#:	165773
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-012	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	2,000 Y	50
Stoddard Solvent C7-C12	1,300	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	133	70-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8015B
Matrix:	Water	Received:	08/06/10
Units:	ug/L		

Field ID:	B-10R	Batch#:	165821
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-013	Analyzed:	08/12/10
Diln Fac:	10.00		

Analyte	Result	RL
Gasoline C7-C12	58,000 Y	500
Stoddard Solvent C7-C12	37,000	500

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	181 *	70-140

Field ID:	MPE-1	Batch#:	165821
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-014	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,800 Y	50
Stoddard Solvent C7-C12	1,100	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	135	70-140

Field ID:	MPE-4	Batch#:	165821
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-015	Analyzed:	08/12/10
Diln Fac:	10.00		

Analyte	Result	RL
Gasoline C7-C12	1,500 Y	500
Stoddard Solvent C7-C12	990	500

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	107	70-140

Field ID:	MPE-5	Batch#:	165821
Type:	SAMPLE	Sampled:	08/06/10
Lab ID:	221740-016	Analyzed:	08/12/10
Diln Fac:	50.00		

Analyte	Result	RL
Gasoline C7-C12	27,000 Y	2,500
Stoddard Solvent C7-C12	18,000	2,500

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	107	70-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8015B
Matrix:	Water	Received:	08/06/10
Units:	ug/L		

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555496	Batch#:	165773

Analyte	Result	RL	Analyzed
Gasoline C7-C12	ND	50	08/10/10
Stoddard Solvent C7-C12	ND	50	08/11/10

Surrogate	%REC	Limits	Analyzed
Bromofluorobenzene (FID)	95	70-140	08/10/10

Type:	BLANK	Batch#:	165821
Lab ID:	QC555682	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	165773
Units:	ug/L	Analyzed:	08/10/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555494

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,004	100	73-127

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Type: BSD Lab ID: QC555495

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,043	104	73-127	4	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	70-140

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	165821
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555680

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,008	101	73-127

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Type: BSD Lab ID: QC555681

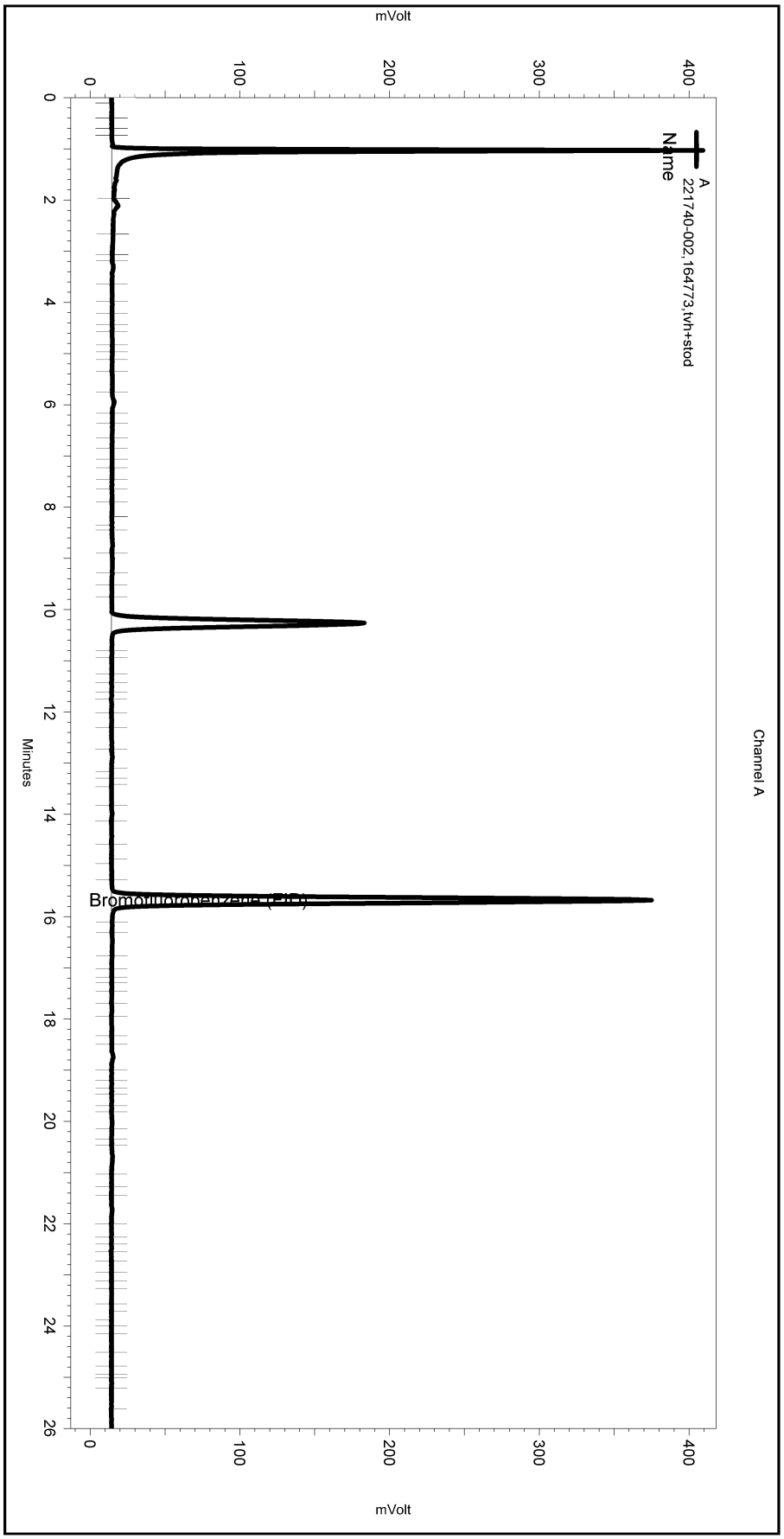
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,002	100	73-127	1	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\222.seq**
Sample Name: **221740-002,164773,tvh+stod**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\222-016**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/11/2010 12:13:53 AM
Analysis Date: 8/11/2010 12:42:36 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\222-016_8DEC.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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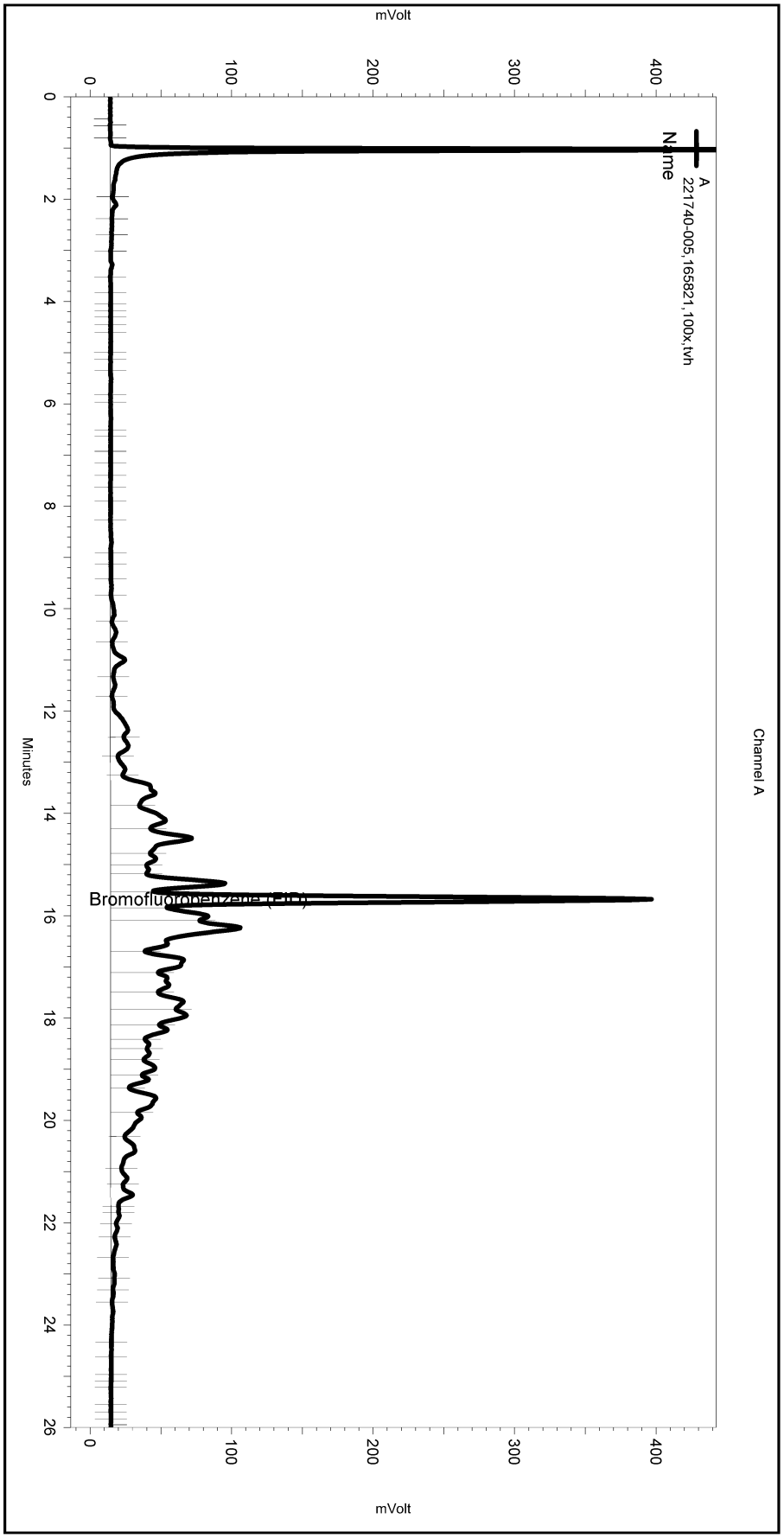
Sample Name: **221740-005,165821,100x,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-010**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/11/2010 11:11:16 PM
Analysis Date: 8/11/2010 11:40:00 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.0



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

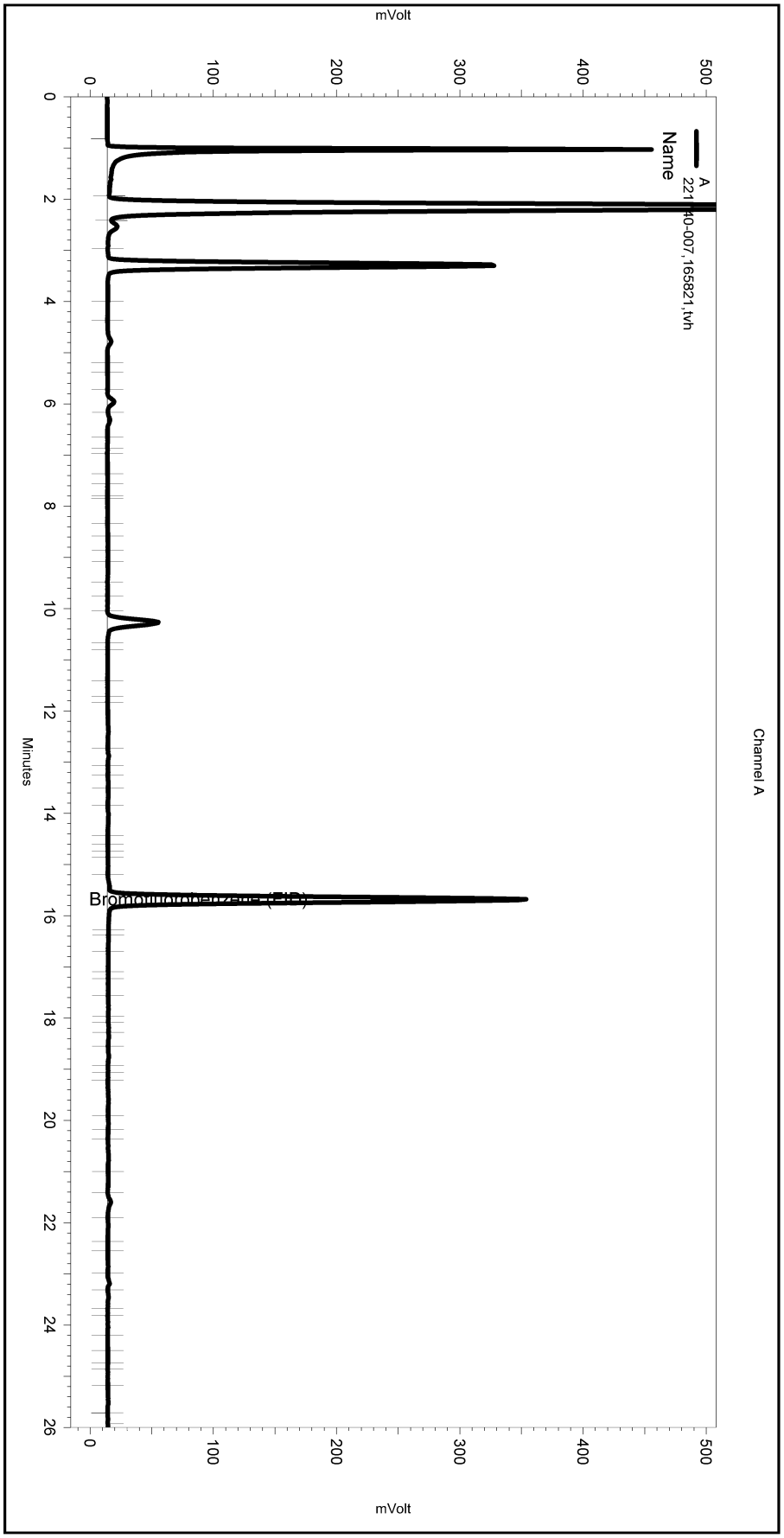
Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\223-010_8E0E.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-007,165821,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-012**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 12:24:29 AM
Analysis Date: 8/12/2010 12:53:14 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.3



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No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\223-012_8E10.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-008,165821,100x,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-017**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 3:27:23 AM
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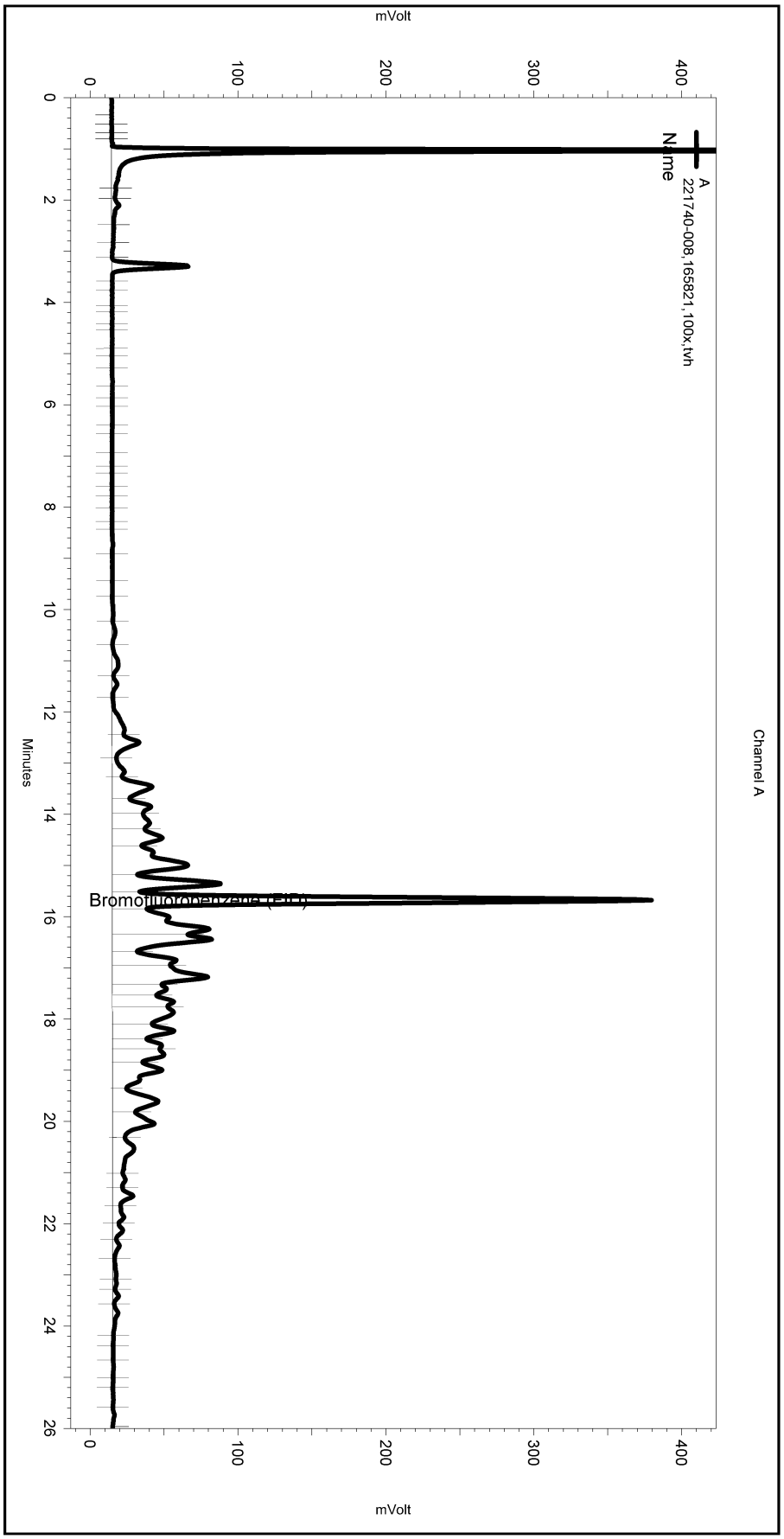
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.0



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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\223-017_8E15.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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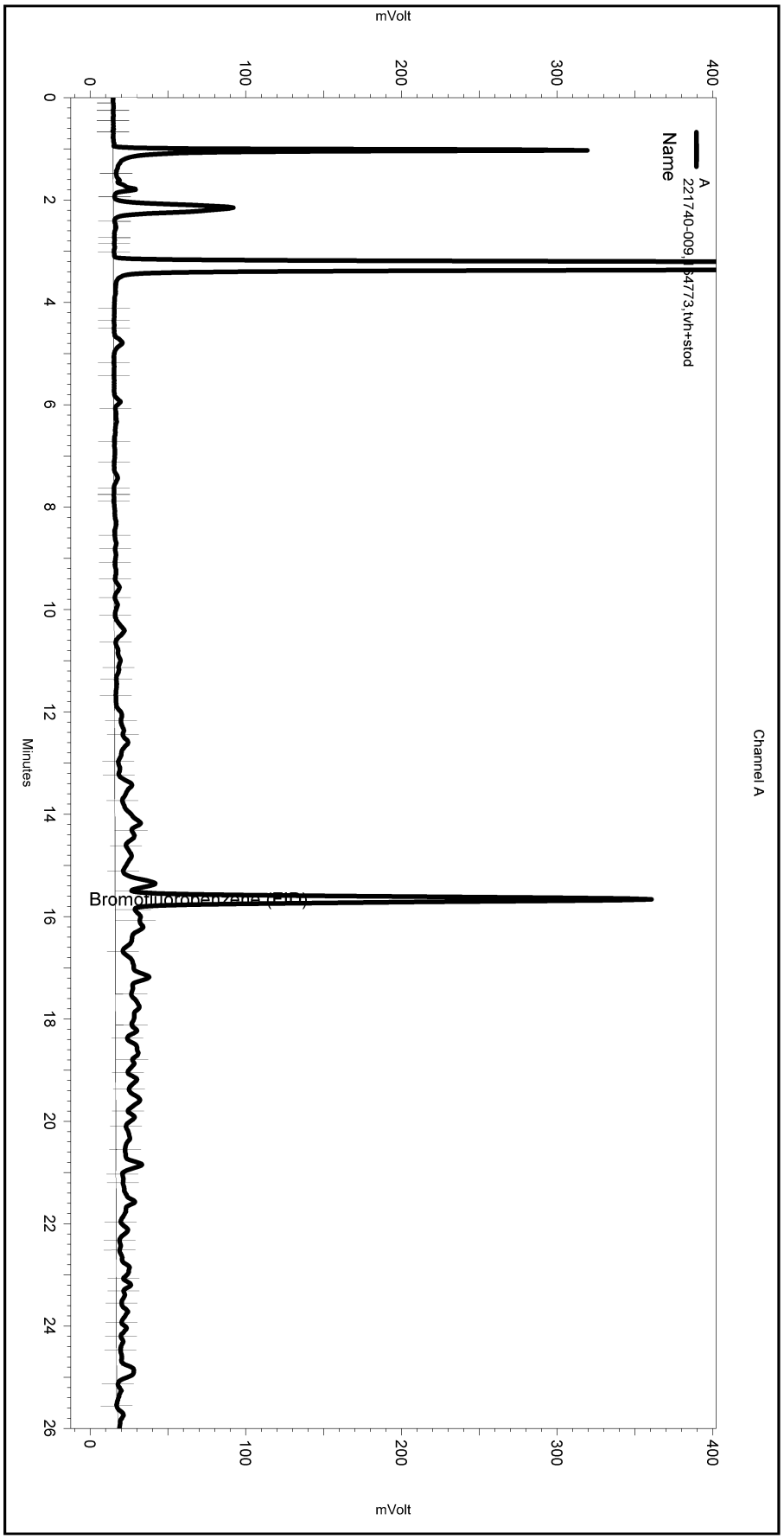
Sample Name: **221740-009,164773,tvh+stod**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\222-024**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/11/2010 5:06:26 AM
Analysis Date: 8/11/2010 5:35:10 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

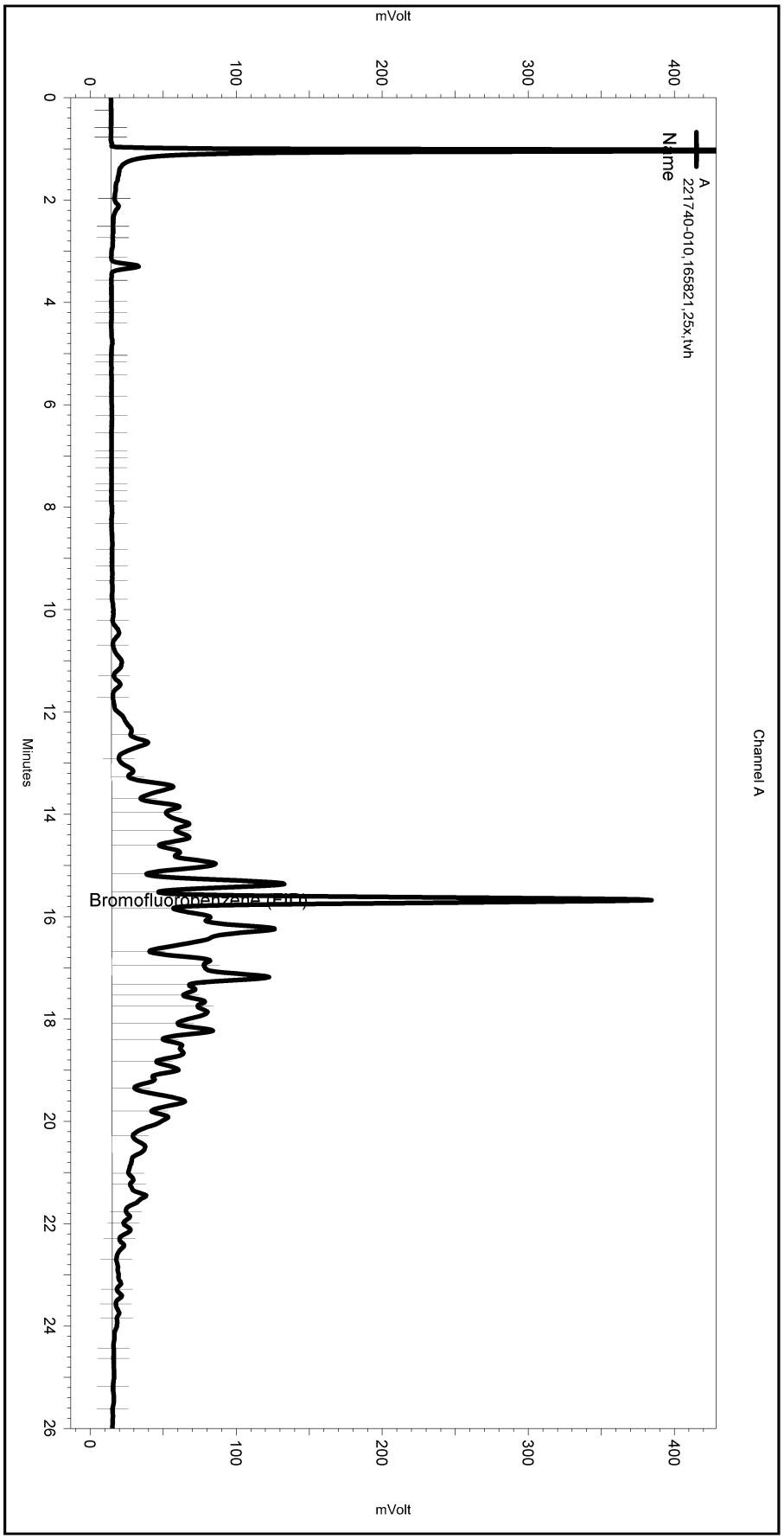
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\222-024_8DF4.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-010,165821,25x,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-018**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 4:04:01 AM
Analysis Date: 8/12/2010 4:32:44 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.0



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No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

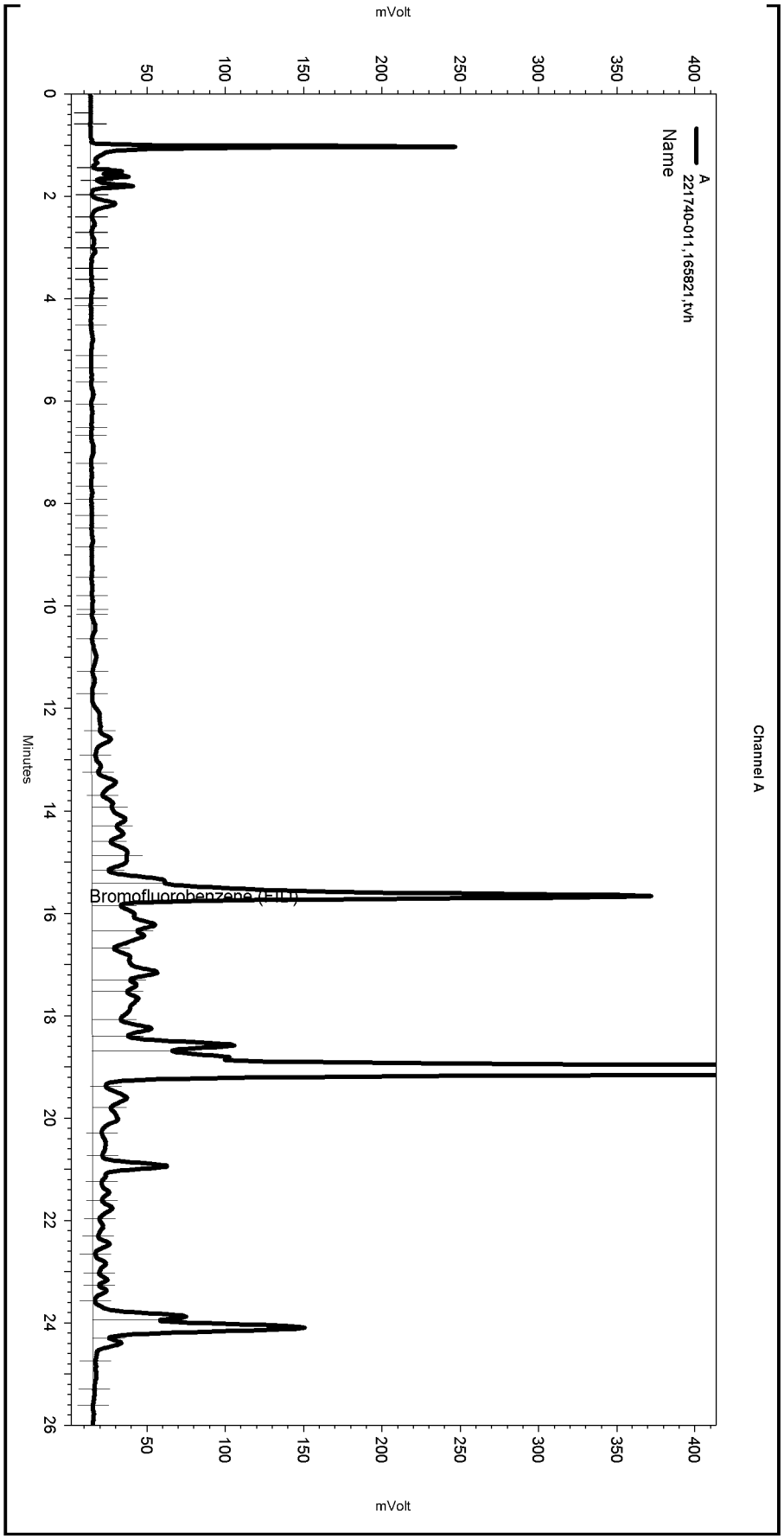
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\223-018_8E16.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-011,165821,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-019**
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 4:40:38 AM
Analysis Date: 8/12/2010 2:27:38 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0,HS>5mL



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

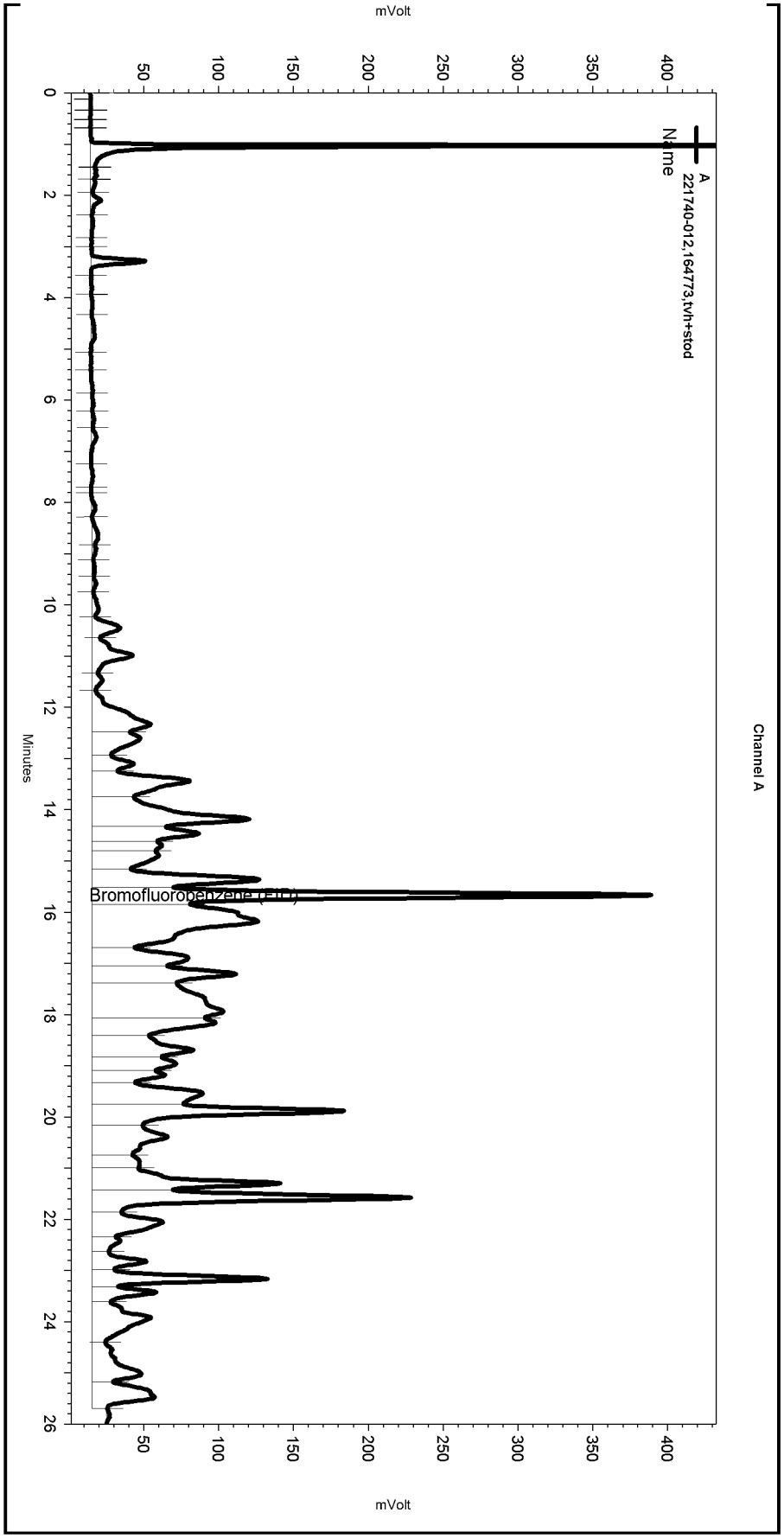
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\223-019

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	15.413	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\222.seq**
Sample Name: **221740-012,164773,tvh+stod**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\222-030**
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/11/2010 8:45:47 AM
Analysis Date: 8/11/2010 6:46:36 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

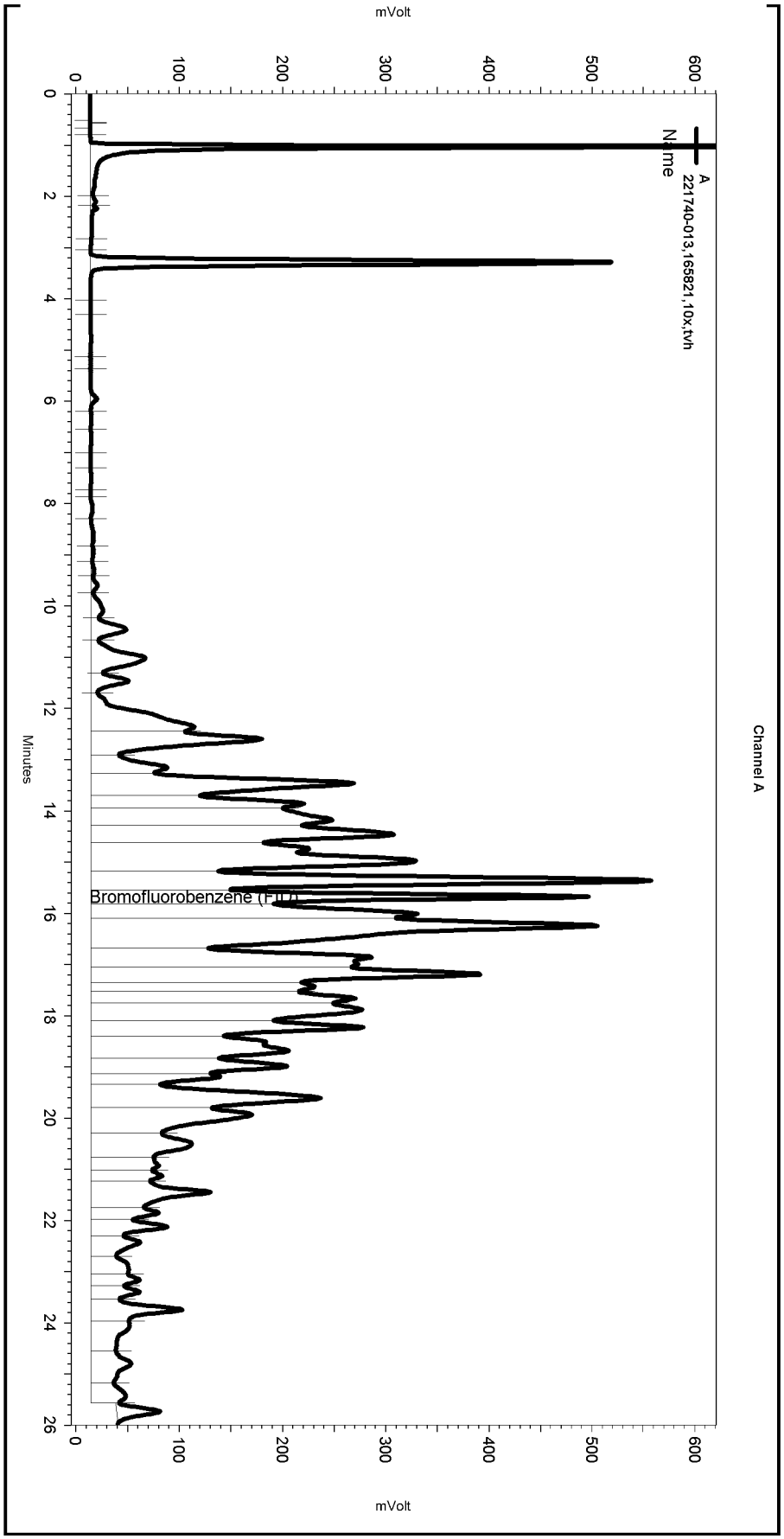
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\222-030

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Horizontal Baseline	8.7	25.738	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-013,165821,10x,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-020**
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 5:17:15 AM
Analysis Date: 8/12/2010 3:17:51 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.0



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

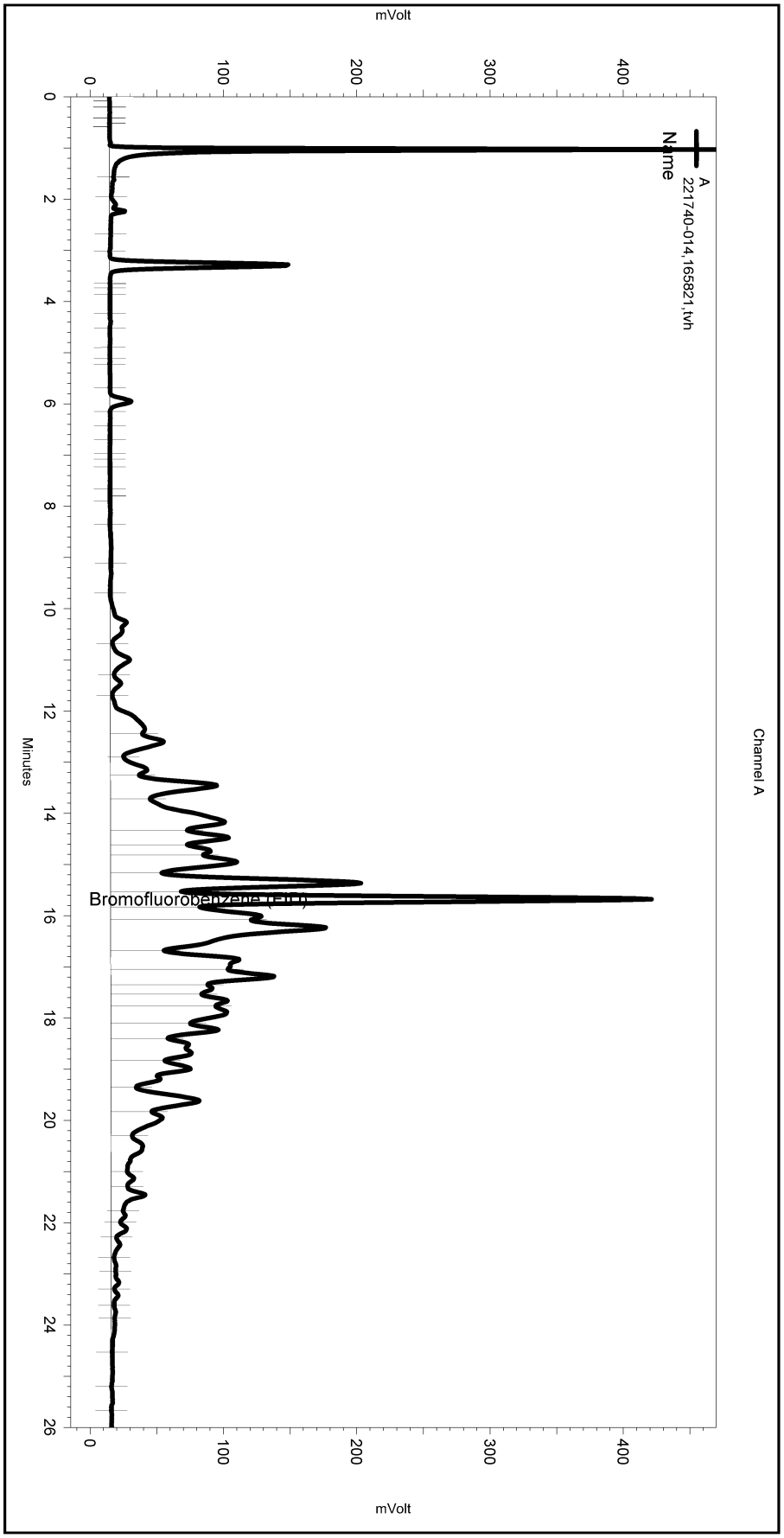
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\223-020

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Horizontal Baseline	7.744	25.628	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-014,165821,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-021**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 5:53:49 AM
Analysis Date: 8/12/2010 6:22:32 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.0



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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

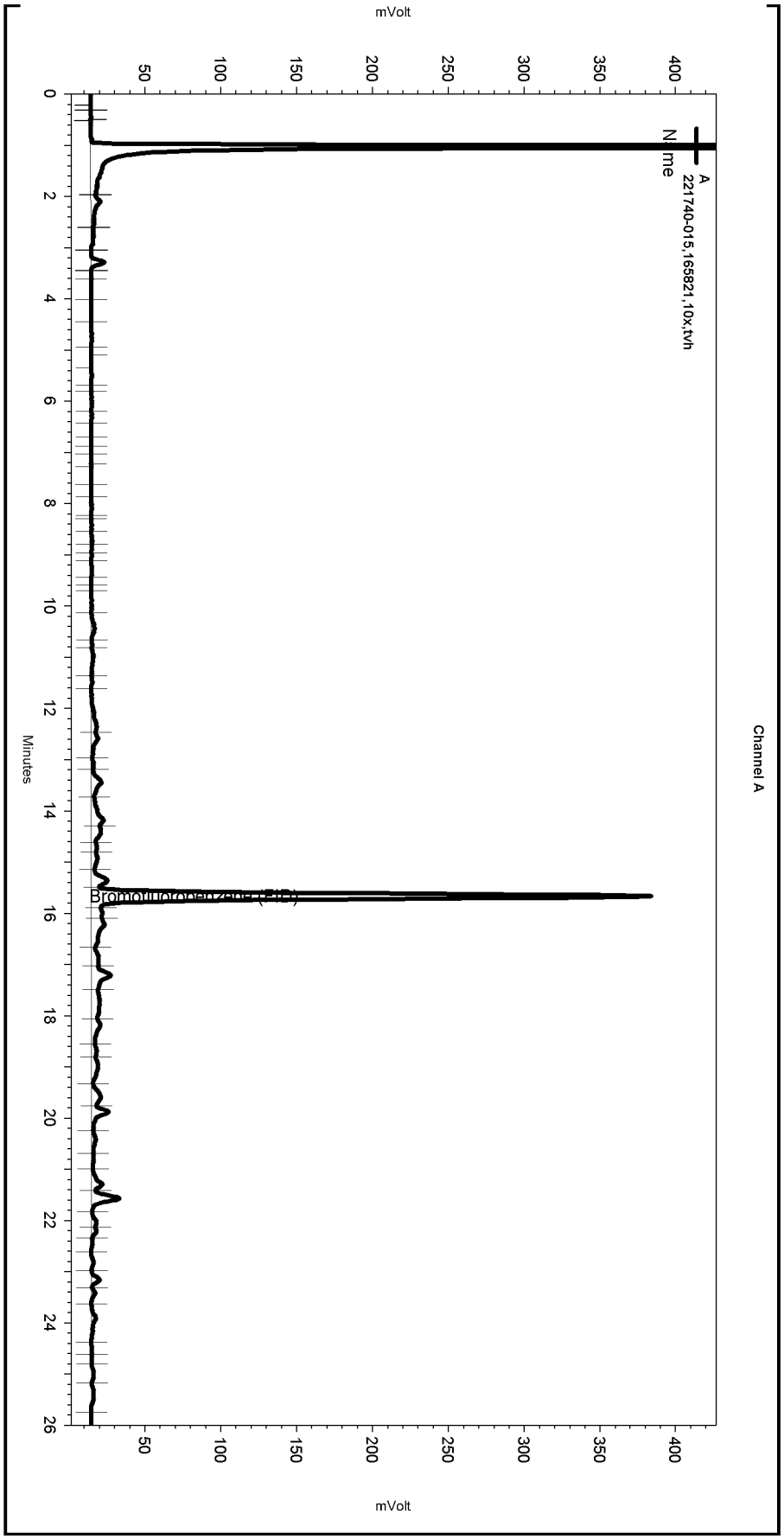
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\223-021_8E19.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-015,165821,10x,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-022**
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 6:30:24 AM
Analysis Date: 8/12/2010 2:29:31 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.0



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

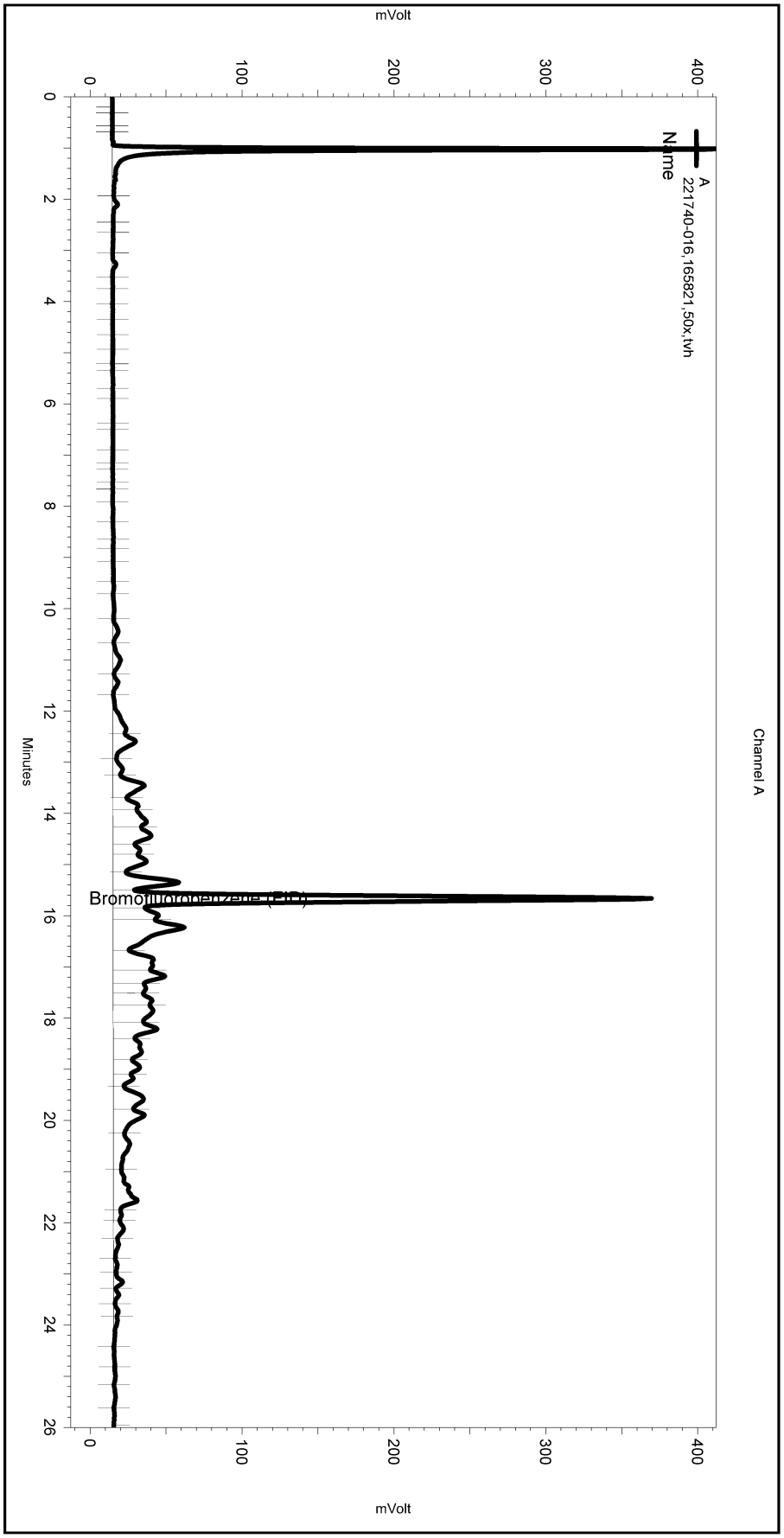
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\223-022

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Reset Baseline	3.612	0	0
Yes	Manual Baseline	3.621	7.234	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221740-016,165821,50x,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-023**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 7:06:56 AM
Analysis Date: 8/12/2010 7:35:40 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: e1.0



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

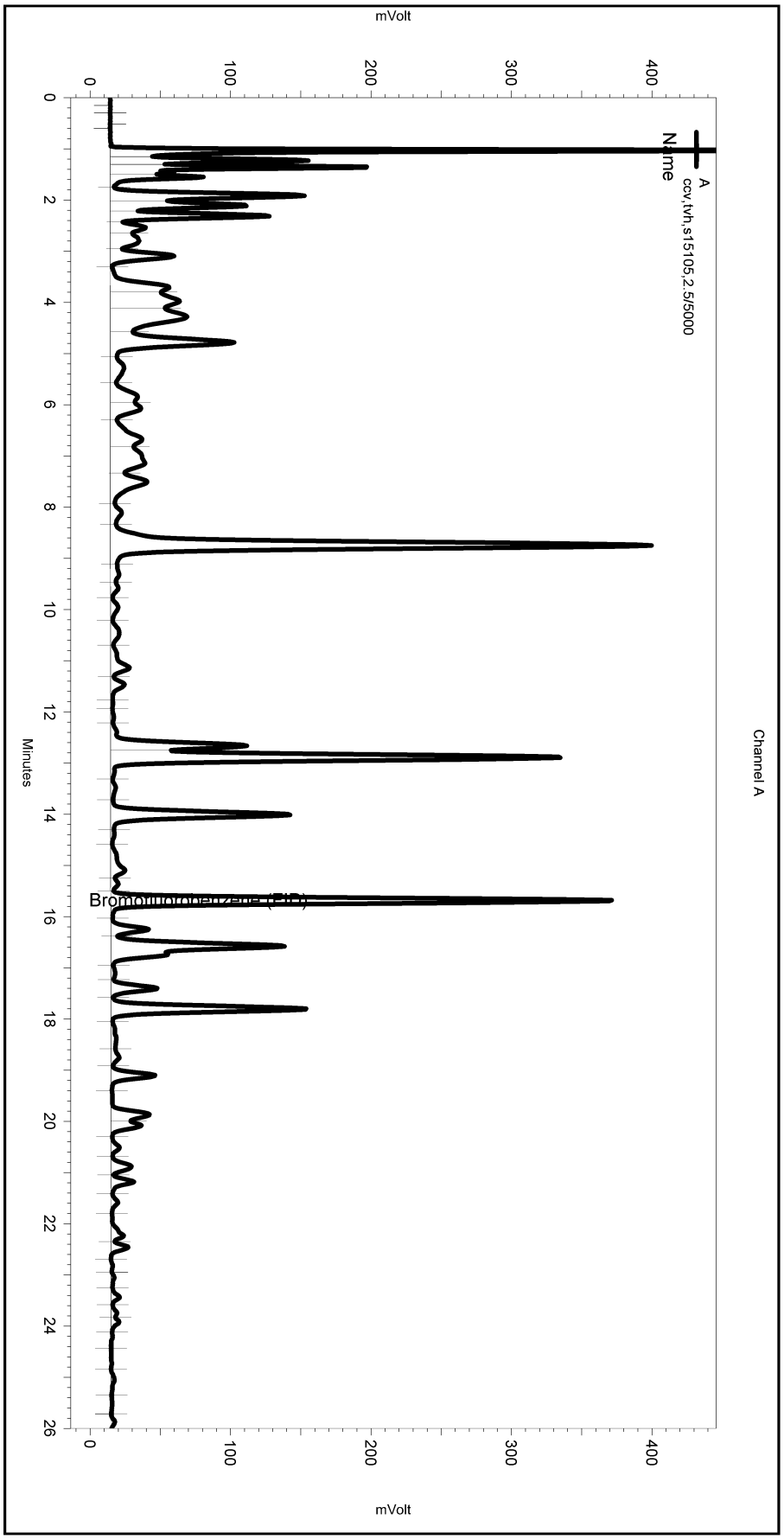
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\223-023_8E1B.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\222.seq**
Sample Name: **ccv,tvh,s15105,2.5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\222-003**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/10/2010 1:46:36 PM
Analysis Date: 8/10/2010 2:15:20 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

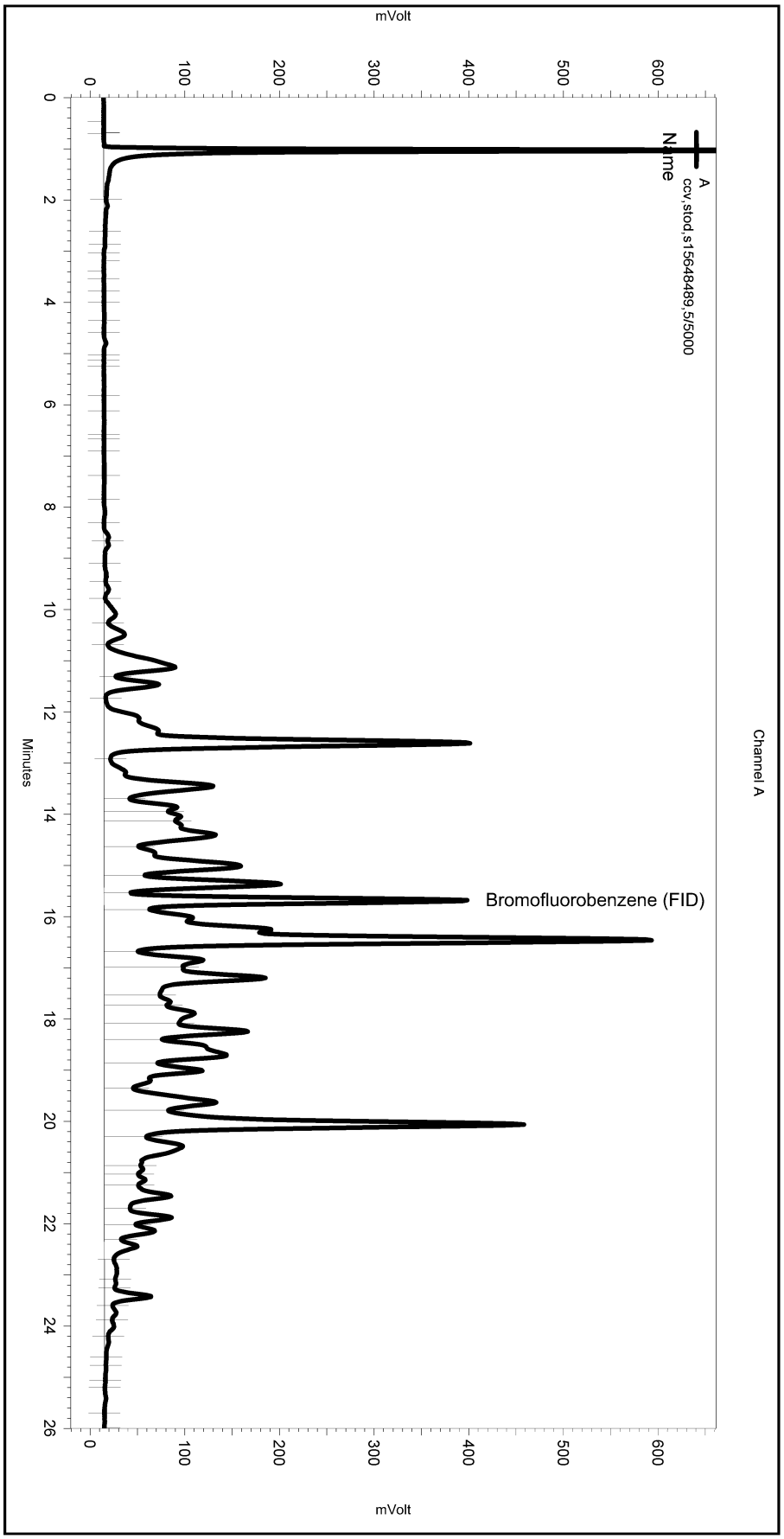
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\222-003_8DDF.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\222.seq**
Sample Name: **ccv,stod,s15648489,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\222-013**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/10/2010 10:24:13 PM
Analysis Date: 8/10/2010 10:52:57 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



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No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\222-013_8DE9.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	GW-2	Batch#:	165786
Lab ID:	221740-001	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	3.5	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	33	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	GW-2	Batch#:	165786
Lab ID:	221740-001	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	101	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	GW-3	Batch#:	165786
Lab ID:	221740-002	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	3.333		

Analyte	Result	RL
Freon 12	ND	3.3
tert-Butyl Alcohol (TBA)	ND	33
Chloromethane	ND	3.3
Isopropyl Ether (DIPE)	ND	1.7
Vinyl Chloride	ND	1.7
Bromomethane	ND	3.3
Ethyl tert-Butyl Ether (ETBE)	ND	1.7
Chloroethane	ND	3.3
Methyl tert-Amyl Ether (TAME)	ND	1.7
Trichlorofluoromethane	ND	3.3
Ethanol	ND	3,300
Acetone	ND	33
Freon 113	ND	6.7
1,1-Dichloroethene	ND	1.7
Methylene Chloride	ND	33
Carbon Disulfide	ND	1.7
MTBE	ND	1.7
trans-1,2-Dichloroethene	ND	1.7
Vinyl Acetate	ND	33
1,1-Dichloroethane	ND	1.7
2-Butanone	ND	33
cis-1,2-Dichloroethene	6.3	1.7
2,2-Dichloropropane	ND	1.7
Chloroform	ND	1.7
Bromochloromethane	ND	1.7
1,1,1-Trichloroethane	ND	1.7
1,1-Dichloropropene	ND	1.7
Carbon Tetrachloride	ND	1.7
1,2-Dichloroethane	ND	1.7
Benzene	ND	1.7
Trichloroethene	8.4	1.7
1,2-Dichloropropane	ND	1.7
Bromodichloromethane	ND	1.7
Dibromomethane	ND	1.7
4-Methyl-2-Pentanone	ND	33
cis-1,3-Dichloropropene	ND	1.7
Toluene	ND	1.7
trans-1,3-Dichloropropene	ND	1.7
1,1,2-Trichloroethane	ND	1.7
2-Hexanone	ND	33
1,3-Dichloropropane	ND	1.7
Tetrachloroethene	180	1.7
Dibromochloromethane	ND	1.7
1,2-Dibromoethane	ND	1.7
Chlorobenzene	ND	1.7
1,1,1,2-Tetrachloroethane	ND	1.7
Ethylbenzene	ND	1.7
m,p-Xylenes	ND	1.7
o-Xylene	ND	1.7
Styrene	ND	1.7
Bromoform	ND	3.3
Isopropylbenzene	ND	1.7
1,1,2,2-Tetrachloroethane	ND	1.7
1,2,3-Trichloropropane	ND	1.7

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	GW-3	Batch#:	165786
Lab ID:	221740-002	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	3.333		

Analyte	Result	RL
Propylbenzene	ND	1.7
Bromobenzene	ND	1.7
1,3,5-Trimethylbenzene	ND	1.7
2-Chlorotoluene	ND	1.7
4-Chlorotoluene	ND	1.7
tert-Butylbenzene	ND	1.7
1,2,4-Trimethylbenzene	ND	1.7
sec-Butylbenzene	ND	1.7
para-Isopropyl Toluene	ND	1.7
1,3-Dichlorobenzene	ND	1.7
1,4-Dichlorobenzene	ND	1.7
n-Butylbenzene	ND	1.7
1,2-Dichlorobenzene	ND	1.7
1,2-Dibromo-3-Chloropropane	ND	6.7
1,2,4-Trichlorobenzene	ND	1.7
Hexachlorobutadiene	ND	6.7
Naphthalene	ND	6.7
1,2,3-Trichlorobenzene	ND	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	98	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	95	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MW-11	Batch#:	165786
Lab ID:	221740-003	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MW-11	Batch#:	165786
Lab ID:	221740-003	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	100	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	LFR-1	Batch#:	165786
Lab ID:	221740-004	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	3.5	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	11	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	1.5	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	36	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	74	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	LFR-1	Batch#:	165786
Lab ID:	221740-004	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	100	71-140
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	LFR-2	Batch#:	165786
Lab ID:	221740-005	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	3.333		

Analyte	Result	RL
Freon 12	ND	3.3
tert-Butyl Alcohol (TBA)	ND	33
Chloromethane	ND	3.3
Isopropyl Ether (DIPE)	ND	1.7
Vinyl Chloride	8.5	1.7
Bromomethane	ND	3.3
Ethyl tert-Butyl Ether (ETBE)	ND	1.7
Chloroethane	ND	3.3
Methyl tert-Amyl Ether (TAME)	ND	1.7
Trichlorofluoromethane	ND	3.3
Ethanol	ND	3,300
Acetone	ND	33
Freon 113	ND	6.7
1,1-Dichloroethene	ND	1.7
Methylene Chloride	ND	33
Carbon Disulfide	ND	1.7
MTBE	ND	1.7
trans-1,2-Dichloroethene	ND	1.7
Vinyl Acetate	ND	33
1,1-Dichloroethane	ND	1.7
2-Butanone	ND	33
cis-1,2-Dichloroethene	67	1.7
2,2-Dichloropropane	ND	1.7
Chloroform	ND	1.7
Bromochloromethane	ND	1.7
1,1,1-Trichloroethane	ND	1.7
1,1-Dichloropropene	ND	1.7
Carbon Tetrachloride	ND	1.7
1,2-Dichloroethane	ND	1.7
Benzene	ND	1.7
Trichloroethene	ND	1.7
1,2-Dichloropropane	ND	1.7
Bromodichloromethane	ND	1.7
Dibromomethane	ND	1.7
4-Methyl-2-Pentanone	ND	33
cis-1,3-Dichloropropene	ND	1.7
Toluene	ND	1.7
trans-1,3-Dichloropropene	ND	1.7
1,1,2-Trichloroethane	ND	1.7
2-Hexanone	ND	33
1,3-Dichloropropane	ND	1.7
Tetrachloroethene	ND	1.7
Dibromochloromethane	ND	1.7
1,2-Dibromoethane	ND	1.7
Chlorobenzene	ND	1.7
1,1,1,2-Tetrachloroethane	ND	1.7
Ethylbenzene	ND	1.7
m,p-Xylenes	ND	1.7
o-Xylene	ND	1.7
Styrene	ND	1.7
Bromoform	ND	3.3
Isopropylbenzene	ND	1.7
1,1,2,2-Tetrachloroethane	ND	1.7
1,2,3-Trichloropropane	ND	1.7

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	LFR-2	Batch#:	165786
Lab ID:	221740-005	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	3.333		

Analyte	Result	RL
Propylbenzene	ND	1.7
Bromobenzene	ND	1.7
1,3,5-Trimethylbenzene	ND	1.7
2-Chlorotoluene	ND	1.7
4-Chlorotoluene	ND	1.7
tert-Butylbenzene	ND	1.7
1,2,4-Trimethylbenzene	ND	1.7
sec-Butylbenzene	ND	1.7
para-Isopropyl Toluene	ND	1.7
1,3-Dichlorobenzene	ND	1.7
1,4-Dichlorobenzene	ND	1.7
n-Butylbenzene	ND	1.7
1,2-Dichlorobenzene	ND	1.7
1,2-Dibromo-3-Chloropropane	ND	6.7
1,2,4-Trichlorobenzene	ND	1.7
Hexachlorobutadiene	ND	6.7
Naphthalene	ND	6.7
1,2,3-Trichlorobenzene	ND	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	107	71-140
Toluene-d8	98	80-120
Bromofluorobenzene	118	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	LFR-3	Batch#:	165833
Lab ID:	221740-006	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	LFR-3	Batch#:	165833
Lab ID:	221740-006	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	107	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-1	Batch#:	165786
Lab ID:	221740-007	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	7.143		

Analyte	Result	RL
Freon 12	ND	7.1
tert-Butyl Alcohol (TBA)	ND	71
Chloromethane	ND	7.1
Isopropyl Ether (DIPE)	ND	3.6
Vinyl Chloride	ND	3.6
Bromomethane	ND	7.1
Ethyl tert-Butyl Ether (ETBE)	ND	3.6
Chloroethane	ND	7.1
Methyl tert-Amyl Ether (TAME)	ND	3.6
Trichlorofluoromethane	ND	7.1
Ethanol	ND	7,100
Acetone	ND	71
Freon 113	ND	14
1,1-Dichloroethene	ND	3.6
Methylene Chloride	ND	71
Carbon Disulfide	ND	3.6
MTBE	400	3.6
trans-1,2-Dichloroethene	ND	3.6
Vinyl Acetate	ND	71
1,1-Dichloroethane	ND	3.6
2-Butanone	ND	71
cis-1,2-Dichloroethene	170	3.6
2,2-Dichloropropane	ND	3.6
Chloroform	ND	3.6
Bromochloromethane	ND	3.6
1,1,1-Trichloroethane	ND	3.6
1,1-Dichloropropene	ND	3.6
Carbon Tetrachloride	ND	3.6
1,2-Dichloroethane	ND	3.6
Benzene	ND	3.6
Trichloroethene	4.7	3.6
1,2-Dichloropropane	ND	3.6
Bromodichloromethane	ND	3.6
Dibromomethane	ND	3.6
4-Methyl-2-Pentanone	ND	71
cis-1,3-Dichloropropene	ND	3.6
Toluene	ND	3.6
trans-1,3-Dichloropropene	ND	3.6
1,1,2-Trichloroethane	ND	3.6
2-Hexanone	ND	71
1,3-Dichloropropane	ND	3.6
Tetrachloroethene	50	3.6
Dibromochloromethane	ND	3.6
1,2-Dibromoethane	ND	3.6
Chlorobenzene	ND	3.6
1,1,1,2-Tetrachloroethane	ND	3.6
Ethylbenzene	ND	3.6
m,p-Xylenes	ND	3.6
o-Xylene	ND	3.6
Styrene	ND	3.6
Bromoform	ND	7.1
Isopropylbenzene	ND	3.6
1,1,2,2-Tetrachloroethane	ND	3.6
1,2,3-Trichloropropane	ND	3.6

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-1	Batch#:	165786
Lab ID:	221740-007	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	7.143		

Analyte	Result	RL
Propylbenzene	ND	3.6
Bromobenzene	ND	3.6
1,3,5-Trimethylbenzene	ND	3.6
2-Chlorotoluene	ND	3.6
4-Chlorotoluene	ND	3.6
tert-Butylbenzene	ND	3.6
1,2,4-Trimethylbenzene	ND	3.6
sec-Butylbenzene	ND	3.6
para-Isopropyl Toluene	ND	3.6
1,3-Dichlorobenzene	ND	3.6
1,4-Dichlorobenzene	ND	3.6
n-Butylbenzene	ND	3.6
1,2-Dichlorobenzene	ND	3.6
1,2-Dibromo-3-Chloropropane	ND	14
1,2,4-Trichlorobenzene	ND	3.6
Hexachlorobutadiene	ND	14
Naphthalene	ND	14
1,2,3-Trichlorobenzene	ND	3.6

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	101	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-2	Units:	ug/L
Lab ID:	221740-008	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	40	40.00	165846	08/12/10
tert-Butyl Alcohol (TBA)	ND	400	40.00	165846	08/12/10
Chloromethane	ND	40	40.00	165846	08/12/10
Isopropyl Ether (DIPE)	ND	20	40.00	165846	08/12/10
Vinyl Chloride	ND	20	40.00	165846	08/12/10
Bromomethane	ND	40	40.00	165846	08/12/10
Ethyl tert-Butyl Ether (ETBE)	ND	20	40.00	165846	08/12/10
Chloroethane	ND	40	40.00	165846	08/12/10
Methyl tert-Amyl Ether (TAME)	ND	20	40.00	165846	08/12/10
Trichlorofluoromethane	ND	40	40.00	165846	08/12/10
Ethanol	ND	40,000	40.00	165846	08/12/10
Acetone	ND	400	40.00	165846	08/12/10
Freon 113	ND	80	40.00	165846	08/12/10
1,1-Dichloroethene	ND	20	40.00	165846	08/12/10
Methylene Chloride	ND	400	40.00	165846	08/12/10
Carbon Disulfide	ND	20	40.00	165846	08/12/10
MTBE	ND	20	40.00	165846	08/12/10
trans-1,2-Dichloroethene	23	20	40.00	165846	08/12/10
Vinyl Acetate	ND	400	40.00	165846	08/12/10
1,1-Dichloroethane	ND	20	40.00	165846	08/12/10
2-Butanone	ND	400	40.00	165846	08/12/10
cis-1,2-Dichloroethene	2,400	31	62.50	165786	08/11/10
2,2-Dichloropropane	ND	20	40.00	165846	08/12/10
Chloroform	ND	20	40.00	165846	08/12/10
Bromochloromethane	ND	20	40.00	165846	08/12/10
1,1,1-Trichloroethane	ND	20	40.00	165846	08/12/10
1,1-Dichloropropene	ND	20	40.00	165846	08/12/10
Carbon Tetrachloride	ND	20	40.00	165846	08/12/10
1,2-Dichloroethane	ND	20	40.00	165846	08/12/10
Benzene	ND	20	40.00	165846	08/12/10
Trichloroethene	ND	20	40.00	165846	08/12/10
1,2-Dichloropropane	ND	20	40.00	165846	08/12/10
Bromodichloromethane	ND	20	40.00	165846	08/12/10
Dibromomethane	ND	20	40.00	165846	08/12/10
4-Methyl-2-Pentanone	ND	400	40.00	165846	08/12/10
cis-1,3-Dichloropropene	ND	20	40.00	165846	08/12/10
Toluene	ND	20	40.00	165846	08/12/10
trans-1,3-Dichloropropene	ND	20	40.00	165846	08/12/10
1,1,2-Trichloroethane	ND	20	40.00	165846	08/12/10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-2	Units:	ug/L
Lab ID:	221740-008	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
2-Hexanone	ND	400	40.00	165846	08/12/10
1,3-Dichloropropane	ND	20	40.00	165846	08/12/10
Tetrachloroethene	ND	20	40.00	165846	08/12/10
Dibromochloromethane	ND	20	40.00	165846	08/12/10
1,2-Dibromoethane	ND	20	40.00	165846	08/12/10
Chlorobenzene	ND	20	40.00	165846	08/12/10
1,1,1,2-Tetrachloroethane	ND	20	40.00	165846	08/12/10
Ethylbenzene	ND	20	40.00	165846	08/12/10
m,p-Xylenes	ND	20	40.00	165846	08/12/10
o-Xylene	ND	20	40.00	165846	08/12/10
Styrene	ND	20	40.00	165846	08/12/10
Bromoform	ND	40	40.00	165846	08/12/10
Isopropylbenzene	ND	20	40.00	165846	08/12/10
1,1,2,2-Tetrachloroethane	ND	20	40.00	165846	08/12/10
1,2,3-Trichloropropane	ND	20	40.00	165846	08/12/10
Propylbenzene	ND	20	40.00	165846	08/12/10
Bromobenzene	ND	20	40.00	165846	08/12/10
1,3,5-Trimethylbenzene	ND	20	40.00	165846	08/12/10
2-Chlorotoluene	ND	20	40.00	165846	08/12/10
4-Chlorotoluene	ND	20	40.00	165846	08/12/10
tert-Butylbenzene	ND	20	40.00	165846	08/12/10
1,2,4-Trimethylbenzene	ND	20	40.00	165846	08/12/10
sec-Butylbenzene	ND	20	40.00	165846	08/12/10
para-Isopropyl Toluene	ND	20	40.00	165846	08/12/10
1,3-Dichlorobenzene	ND	20	40.00	165846	08/12/10
1,4-Dichlorobenzene	ND	20	40.00	165846	08/12/10
n-Butylbenzene	ND	20	40.00	165846	08/12/10
1,2-Dichlorobenzene	ND	20	40.00	165846	08/12/10
1,2-Dibromo-3-Chloropropane	ND	80	40.00	165846	08/12/10
1,2,4-Trichlorobenzene	ND	20	40.00	165846	08/12/10
Hexachlorobutadiene	ND	80	40.00	165846	08/12/10
Naphthalene	ND	80	40.00	165846	08/12/10
1,2,3-Trichlorobenzene	ND	20	40.00	165846	08/12/10

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	104	80-122	40.00	165846	08/12/10
1,2-Dichloroethane-d4	94	71-140	40.00	165846	08/12/10
Toluene-d8	93	80-120	40.00	165846	08/12/10
Bromofluorobenzene	103	80-121	40.00	165846	08/12/10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-3	Batch#:	165786
Lab ID:	221740-009	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	25.00		

Analyte	Result	RL
Freon 12	ND	25
tert-Butyl Alcohol (TBA)	ND	250
Chloromethane	ND	25
Isopropyl Ether (DIPE)	ND	13
Vinyl Chloride	ND	13
Bromomethane	ND	25
Ethyl tert-Butyl Ether (ETBE)	ND	13
Chloroethane	ND	25
Methyl tert-Amyl Ether (TAME)	ND	13
Trichlorofluoromethane	ND	25
Ethanol	ND	25,000
Acetone	ND	250
Freon 113	ND	50
1,1-Dichloroethene	ND	13
Methylene Chloride	ND	250
Carbon Disulfide	ND	13
MTBE	20	13
trans-1,2-Dichloroethene	ND	13
Vinyl Acetate	ND	250
1,1-Dichloroethane	ND	13
2-Butanone	ND	250
cis-1,2-Dichloroethene	1,600	13
2,2-Dichloropropane	ND	13
Chloroform	ND	13
Bromochloromethane	ND	13
1,1,1-Trichloroethane	ND	13
1,1-Dichloropropene	ND	13
Carbon Tetrachloride	ND	13
1,2-Dichloroethane	ND	13
Benzene	ND	13
Trichloroethene	ND	13
1,2-Dichloropropane	ND	13
Bromodichloromethane	ND	13
Dibromomethane	ND	13
4-Methyl-2-Pentanone	ND	250
cis-1,3-Dichloropropene	ND	13
Toluene	ND	13
trans-1,3-Dichloropropene	ND	13
1,1,2-Trichloroethane	ND	13
2-Hexanone	ND	250
1,3-Dichloropropane	ND	13
Tetrachloroethene	ND	13
Dibromochloromethane	ND	13
1,2-Dibromoethane	ND	13
Chlorobenzene	ND	13
1,1,1,2-Tetrachloroethane	ND	13
Ethylbenzene	ND	13
m,p-Xylenes	ND	13
o-Xylene	ND	13
Styrene	ND	13
Bromoform	ND	25
Isopropylbenzene	ND	13
1,1,2,2-Tetrachloroethane	ND	13
1,2,3-Trichloropropane	ND	13

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-3	Batch#:	165786
Lab ID:	221740-009	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	25.00		

Analyte	Result	RL
Propylbenzene	ND	13
Bromobenzene	ND	13
1,3,5-Trimethylbenzene	ND	13
2-Chlorotoluene	ND	13
4-Chlorotoluene	ND	13
tert-Butylbenzene	ND	13
1,2,4-Trimethylbenzene	ND	13
sec-Butylbenzene	ND	13
para-Isopropyl Toluene	ND	13
1,3-Dichlorobenzene	ND	13
1,4-Dichlorobenzene	ND	13
n-Butylbenzene	ND	13
1,2-Dichlorobenzene	ND	13
1,2-Dibromo-3-Chloropropane	ND	50
1,2,4-Trichlorobenzene	ND	13
Hexachlorobutadiene	ND	50
Naphthalene	ND	50
1,2,3-Trichlorobenzene	ND	13

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	102	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-4R	Batch#:	165786
Lab ID:	221740-010	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	6.250		

Analyte	Result	RL
Freon 12	ND	6.3
tert-Butyl Alcohol (TBA)	ND	63
Chloromethane	ND	6.3
Isopropyl Ether (DIPE)	ND	3.1
Vinyl Chloride	ND	3.1
Bromomethane	ND	6.3
Ethyl tert-Butyl Ether (ETBE)	ND	3.1
Chloroethane	ND	6.3
Methyl tert-Amyl Ether (TAME)	ND	3.1
Trichlorofluoromethane	ND	6.3
Ethanol	ND	6,300
Acetone	ND	63
Freon 113	ND	13
1,1-Dichloroethene	ND	3.1
Methylene Chloride	ND	63
Carbon Disulfide	ND	3.1
MTBE	15	3.1
trans-1,2-Dichloroethene	ND	3.1
Vinyl Acetate	ND	63
1,1-Dichloroethane	ND	3.1
2-Butanone	ND	63
cis-1,2-Dichloroethene	310	3.1
2,2-Dichloropropane	ND	3.1
Chloroform	ND	3.1
Bromochloromethane	ND	3.1
1,1,1-Trichloroethane	ND	3.1
1,1-Dichloropropene	ND	3.1
Carbon Tetrachloride	ND	3.1
1,2-Dichloroethane	ND	3.1
Benzene	ND	3.1
Trichloroethene	ND	3.1
1,2-Dichloropropane	ND	3.1
Bromodichloromethane	ND	3.1
Dibromomethane	ND	3.1
4-Methyl-2-Pentanone	ND	63
cis-1,3-Dichloropropene	ND	3.1
Toluene	3.5	3.1
trans-1,3-Dichloropropene	ND	3.1
1,1,2-Trichloroethane	ND	3.1
2-Hexanone	ND	63
1,3-Dichloropropane	ND	3.1
Tetrachloroethene	ND	3.1
Dibromochloromethane	ND	3.1
1,2-Dibromoethane	ND	3.1
Chlorobenzene	ND	3.1
1,1,1,2-Tetrachloroethane	ND	3.1
Ethylbenzene	ND	3.1
m,p-Xylenes	ND	3.1
o-Xylene	4.3	3.1
Styrene	ND	3.1
Bromoform	ND	6.3
Isopropylbenzene	ND	3.1
1,1,2,2-Tetrachloroethane	ND	3.1
1,2,3-Trichloropropane	ND	3.1

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-4R	Batch#:	165786
Lab ID:	221740-010	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	6.250		

Analyte	Result	RL
Propylbenzene	ND	3.1
Bromobenzene	ND	3.1
1,3,5-Trimethylbenzene	ND	3.1
2-Chlorotoluene	ND	3.1
4-Chlorotoluene	ND	3.1
tert-Butylbenzene	ND	3.1
1,2,4-Trimethylbenzene	7.2	3.1
sec-Butylbenzene	ND	3.1
para-Isopropyl Toluene	ND	3.1
1,3-Dichlorobenzene	ND	3.1
1,4-Dichlorobenzene	ND	3.1
n-Butylbenzene	ND	3.1
1,2-Dichlorobenzene	ND	3.1
1,2-Dibromo-3-Chloropropane	ND	13
1,2,4-Trichlorobenzene	ND	3.1
Hexachlorobutadiene	ND	13
Naphthalene	ND	13
1,2,3-Trichlorobenzene	ND	3.1

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	101	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-5	Batch#:	165786
Lab ID:	221740-011	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	82	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	0.9	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	61	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	2.8	0.5
MTBE	7.8	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	SOMA-5	Batch#:	165786
Lab ID:	221740-011	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	33	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	106	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	80	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	B-8R	Batch#:	165786
Lab ID:	221740-012	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.429		

Analyte	Result	RL
Freon 12	ND	1.4
tert-Butyl Alcohol (TBA)	17	14
Chloromethane	ND	1.4
Isopropyl Ether (DIPE)	ND	0.7
Vinyl Chloride	ND	0.7
Bromomethane	ND	1.4
Ethyl tert-Butyl Ether (ETBE)	ND	0.7
Chloroethane	ND	1.4
Methyl tert-Amyl Ether (TAME)	ND	0.7
Trichlorofluoromethane	ND	1.4
Ethanol	ND	1,400
Acetone	ND	14
Freon 113	ND	2.9
1,1-Dichloroethene	ND	0.7
Methylene Chloride	ND	14
Carbon Disulfide	ND	0.7
MTBE	ND	0.7
trans-1,2-Dichloroethene	ND	0.7
Vinyl Acetate	ND	14
1,1-Dichloroethane	ND	0.7
2-Butanone	ND	14
cis-1,2-Dichloroethene	18	0.7
2,2-Dichloropropane	ND	0.7
Chloroform	ND	0.7
Bromochloromethane	ND	0.7
1,1,1-Trichloroethane	ND	0.7
1,1-Dichloropropene	ND	0.7
Carbon Tetrachloride	ND	0.7
1,2-Dichloroethane	ND	0.7
Benzene	ND	0.7
Trichloroethene	ND	0.7
1,2-Dichloropropane	ND	0.7
Bromodichloromethane	ND	0.7
Dibromomethane	ND	0.7
4-Methyl-2-Pentanone	ND	14
cis-1,3-Dichloropropene	ND	0.7
Toluene	ND	0.7
trans-1,3-Dichloropropene	ND	0.7
1,1,2-Trichloroethane	ND	0.7
2-Hexanone	ND	14
1,3-Dichloropropane	ND	0.7
Tetrachloroethene	ND	0.7
Dibromochloromethane	ND	0.7
1,2-Dibromoethane	ND	0.7
Chlorobenzene	ND	0.7
1,1,1,2-Tetrachloroethane	ND	0.7
Ethylbenzene	ND	0.7
m,p-Xylenes	ND	0.7
o-Xylene	ND	0.7
Styrene	ND	0.7
Bromoform	ND	1.4
Isopropylbenzene	ND	0.7
1,1,2,2-Tetrachloroethane	ND	0.7
1,2,3-Trichloropropane	ND	0.7

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	B-8R	Batch#:	165786
Lab ID:	221740-012	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.429		

Analyte	Result	RL
Propylbenzene	ND	0.7
Bromobenzene	ND	0.7
1,3,5-Trimethylbenzene	ND	0.7
2-Chlorotoluene	ND	0.7
4-Chlorotoluene	ND	0.7
tert-Butylbenzene	1.3	0.7
1,2,4-Trimethylbenzene	ND	0.7
sec-Butylbenzene	1.1	0.7
para-Isopropyl Toluene	ND	0.7
1,3-Dichlorobenzene	ND	0.7
1,4-Dichlorobenzene	ND	0.7
n-Butylbenzene	ND	0.7
1,2-Dichlorobenzene	ND	0.7
1,2-Dibromo-3-Chloropropane	ND	2.9
1,2,4-Trichlorobenzene	ND	0.7
Hexachlorobutadiene	ND	2.9
Naphthalene	ND	2.9
1,2,3-Trichlorobenzene	ND	0.7

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	107	71-140
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	B-10R	Units:	ug/L
Lab ID:	221740-013	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	2.0	2.000	165786	08/11/10
tert-Butyl Alcohol (TBA)	51	20	2.000	165786	08/11/10
Chloromethane	ND	2.0	2.000	165786	08/11/10
Isopropyl Ether (DIPE)	ND	1.0	2.000	165786	08/11/10
Vinyl Chloride	12	1.0	2.000	165786	08/11/10
Bromomethane	ND	2.0	2.000	165786	08/11/10
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	2.000	165786	08/11/10
Chloroethane	ND	2.0	2.000	165786	08/11/10
Methyl tert-Amyl Ether (TAME)	ND	1.0	2.000	165786	08/11/10
Trichlorofluoromethane	ND	2.0	2.000	165786	08/11/10
Ethanol	ND	2,000	2.000	165786	08/11/10
Acetone	ND	20	2.000	165786	08/11/10
Freon 113	ND	4.0	2.000	165786	08/11/10
1,1-Dichloroethene	3.0	1.0	2.000	165786	08/11/10
Methylene Chloride	ND	20	2.000	165786	08/11/10
Carbon Disulfide	3.4	1.0	2.000	165786	08/11/10
MTBE	ND	1.0	2.000	165786	08/11/10
trans-1,2-Dichloroethene	48	1.0	2.000	165786	08/11/10
Vinyl Acetate	ND	20	2.000	165786	08/11/10
1,1-Dichloroethane	ND	1.0	2.000	165786	08/11/10
2-Butanone	ND	20	2.000	165786	08/11/10
cis-1,2-Dichloroethene	3,900	25	50.00	165846	08/12/10
2,2-Dichloropropane	ND	1.0	2.000	165786	08/11/10
Chloroform	ND	1.0	2.000	165786	08/11/10
Bromochloromethane	ND	1.0	2.000	165786	08/11/10
1,1,1-Trichloroethane	ND	1.0	2.000	165786	08/11/10
1,1-Dichloropropene	ND	1.0	2.000	165786	08/11/10
Carbon Tetrachloride	ND	1.0	2.000	165786	08/11/10
1,2-Dichloroethane	ND	1.0	2.000	165786	08/11/10
Benzene	1.2	1.0	2.000	165786	08/11/10
Trichloroethene	55	1.0	2.000	165786	08/11/10
1,2-Dichloropropane	ND	1.0	2.000	165786	08/11/10
Bromodichloromethane	ND	1.0	2.000	165786	08/11/10
Dibromomethane	ND	1.0	2.000	165786	08/11/10
4-Methyl-2-Pentanone	ND	20	2.000	165786	08/11/10
cis-1,3-Dichloropropene	ND	1.0	2.000	165786	08/11/10
Toluene	1.3	1.0	2.000	165786	08/11/10
trans-1,3-Dichloropropene	ND	1.0	2.000	165786	08/11/10
1,1,2-Trichloroethane	ND	1.0	2.000	165786	08/11/10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	B-10R	Units:	ug/L
Lab ID:	221740-013	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
2-Hexanone	ND	20	2.000	165786	08/11/10
1,3-Dichloropropane	ND	1.0	2.000	165786	08/11/10
Tetrachloroethene	25	1.0	2.000	165786	08/11/10
Dibromochloromethane	ND	1.0	2.000	165786	08/11/10
1,2-Dibromoethane	ND	1.0	2.000	165786	08/11/10
Chlorobenzene	ND	1.0	2.000	165786	08/11/10
1,1,1,2-Tetrachloroethane	ND	1.0	2.000	165786	08/11/10
Ethylbenzene	ND	1.0	2.000	165786	08/11/10
m,p-Xylenes	ND	1.0	2.000	165786	08/11/10
o-Xylene	ND	1.0	2.000	165786	08/11/10
Styrene	ND	1.0	2.000	165786	08/11/10
Bromoform	ND	2.0	2.000	165786	08/11/10
Isopropylbenzene	ND	1.0	2.000	165786	08/11/10
1,1,2,2-Tetrachloroethane	ND	1.0	2.000	165786	08/11/10
1,2,3-Trichloropropane	ND	1.0	2.000	165786	08/11/10
Propylbenzene	ND	1.0	2.000	165786	08/11/10
Bromobenzene	ND	1.0	2.000	165786	08/11/10
1,3,5-Trimethylbenzene	1.5	1.0	2.000	165786	08/11/10
2-Chlorotoluene	ND	1.0	2.000	165786	08/11/10
4-Chlorotoluene	ND	1.0	2.000	165786	08/11/10
tert-Butylbenzene	ND	1.0	2.000	165786	08/11/10
1,2,4-Trimethylbenzene	ND	1.0	2.000	165786	08/11/10
sec-Butylbenzene	ND	1.0	2.000	165786	08/11/10
para-Isopropyl Toluene	ND	1.0	2.000	165786	08/11/10
1,3-Dichlorobenzene	ND	1.0	2.000	165786	08/11/10
1,4-Dichlorobenzene	ND	1.0	2.000	165786	08/11/10
n-Butylbenzene	ND	1.0	2.000	165786	08/11/10
1,2-Dichlorobenzene	ND	1.0	2.000	165786	08/11/10
1,2-Dibromo-3-Chloropropane	ND	4.0	2.000	165786	08/11/10
1,2,4-Trichlorobenzene	ND	1.0	2.000	165786	08/11/10
Hexachlorobutadiene	ND	4.0	2.000	165786	08/11/10
Naphthalene	ND	4.0	2.000	165786	08/11/10
1,2,3-Trichlorobenzene	ND	1.0	2.000	165786	08/11/10

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	102	80-122	2.000	165786	08/11/10
1,2-Dichloroethane-d4	105	71-140	2.000	165786	08/11/10
Toluene-d8	100	80-120	2.000	165786	08/11/10
Bromofluorobenzene	103	80-121	2.000	165786	08/11/10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MPE-1	Units:	ug/L
Lab ID:	221740-014	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	1.0	1.000	165846	08/12/10
tert-Butyl Alcohol (TBA)	ND	10	1.000	165846	08/12/10
Chloromethane	ND	1.0	1.000	165846	08/12/10
Isopropyl Ether (DIPE)	ND	0.5	1.000	165846	08/12/10
Vinyl Chloride	ND	0.5	1.000	165846	08/12/10
Bromomethane	ND	1.0	1.000	165846	08/12/10
Ethyl tert-Butyl Ether (ETBE)	ND	0.5	1.000	165846	08/12/10
Chloroethane	ND	1.0	1.000	165846	08/12/10
Methyl tert-Amyl Ether (TAME)	ND	0.5	1.000	165846	08/12/10
Trichlorofluoromethane	ND	1.0	1.000	165846	08/12/10
Ethanol	ND	1,000	1.000	165846	08/12/10
Acetone	ND	10	1.000	165846	08/12/10
Freon 113	ND	2.0	1.000	165846	08/12/10
1,1-Dichloroethene	ND	0.5	1.000	165846	08/12/10
Methylene Chloride	ND	10	1.000	165846	08/12/10
Carbon Disulfide	ND	0.5	1.000	165846	08/12/10
MTBE	ND	0.5	1.000	165846	08/12/10
trans-1,2-Dichloroethene	5.7	0.5	1.000	165846	08/12/10
Vinyl Acetate	ND	10	1.000	165846	08/12/10
1,1-Dichloroethane	ND	0.5	1.000	165846	08/12/10
2-Butanone	ND	10	1.000	165846	08/12/10
cis-1,2-Dichloroethene	77	1.7	3.333	165786	08/11/10
2,2-Dichloropropane	ND	0.5	1.000	165846	08/12/10
Chloroform	ND	0.5	1.000	165846	08/12/10
Bromochloromethane	ND	0.5	1.000	165846	08/12/10
1,1,1-Trichloroethane	ND	0.5	1.000	165846	08/12/10
1,1-Dichloropropene	ND	0.5	1.000	165846	08/12/10
Carbon Tetrachloride	ND	0.5	1.000	165846	08/12/10
1,2-Dichloroethane	ND	0.5	1.000	165846	08/12/10
Benzene	ND	0.5	1.000	165846	08/12/10
Trichloroethene	21	0.5	1.000	165846	08/12/10
1,2-Dichloropropane	ND	0.5	1.000	165846	08/12/10
Bromodichloromethane	ND	0.5	1.000	165846	08/12/10
Dibromomethane	ND	0.5	1.000	165846	08/12/10
4-Methyl-2-Pentanone	ND	10	1.000	165846	08/12/10
cis-1,3-Dichloropropene	ND	0.5	1.000	165846	08/12/10
Toluene	ND	0.5	1.000	165846	08/12/10
trans-1,3-Dichloropropene	ND	0.5	1.000	165846	08/12/10
1,1,2-Trichloroethane	ND	0.5	1.000	165846	08/12/10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MPE-1	Units:	ug/L
Lab ID:	221740-014	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
2-Hexanone	ND	10	1.000	165846	08/12/10
1,3-Dichloropropane	ND	0.5	1.000	165846	08/12/10
Tetrachloroethene	17	0.5	1.000	165846	08/12/10
Dibromochloromethane	ND	0.5	1.000	165846	08/12/10
1,2-Dibromoethane	ND	0.5	1.000	165846	08/12/10
Chlorobenzene	ND	0.5	1.000	165846	08/12/10
1,1,1,2-Tetrachloroethane	ND	0.5	1.000	165846	08/12/10
Ethylbenzene	ND	0.5	1.000	165846	08/12/10
m,p-Xylenes	ND	0.5	1.000	165846	08/12/10
o-Xylene	ND	0.5	1.000	165846	08/12/10
Styrene	ND	0.5	1.000	165846	08/12/10
Bromoform	ND	1.0	1.000	165846	08/12/10
Isopropylbenzene	ND	0.5	1.000	165846	08/12/10
1,1,2,2-Tetrachloroethane	ND	0.5	1.000	165846	08/12/10
1,2,3-Trichloropropane	ND	0.5	1.000	165846	08/12/10
Propylbenzene	ND	0.5	1.000	165846	08/12/10
Bromobenzene	ND	0.5	1.000	165846	08/12/10
1,3,5-Trimethylbenzene	ND	0.5	1.000	165846	08/12/10
2-Chlorotoluene	ND	0.5	1.000	165846	08/12/10
4-Chlorotoluene	ND	0.5	1.000	165846	08/12/10
tert-Butylbenzene	ND	0.5	1.000	165846	08/12/10
1,2,4-Trimethylbenzene	ND	0.5	1.000	165846	08/12/10
sec-Butylbenzene	ND	0.5	1.000	165846	08/12/10
para-Isopropyl Toluene	ND	0.5	1.000	165846	08/12/10
1,3-Dichlorobenzene	ND	0.5	1.000	165846	08/12/10
1,4-Dichlorobenzene	ND	0.5	1.000	165846	08/12/10
n-Butylbenzene	ND	0.5	1.000	165846	08/12/10
1,2-Dichlorobenzene	ND	0.5	1.000	165846	08/12/10
1,2-Dibromo-3-Chloropropane	ND	2.0	1.000	165846	08/12/10
1,2,4-Trichlorobenzene	ND	0.5	1.000	165846	08/12/10
Hexachlorobutadiene	ND	2.0	1.000	165846	08/12/10
Naphthalene	ND	2.0	1.000	165846	08/12/10
1,2,3-Trichlorobenzene	ND	0.5	1.000	165846	08/12/10

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	104	80-122	1.000	165846	08/12/10
1,2-Dichloroethane-d4	92	71-140	1.000	165846	08/12/10
Toluene-d8	93	80-120	1.000	165846	08/12/10
Bromofluorobenzene	107	80-121	1.000	165846	08/12/10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MPE-4	Batch#:	165846
Lab ID:	221740-015	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	13	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	2.8	0.5
trans-1,2-Dichloroethene	1.7	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	75	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.9	0.5
Trichloroethene	0.7	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	0.9	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	0.7	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MPE-4	Batch#:	165846
Lab ID:	221740-015	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	0.8	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	1.5	0.5
1,2,4-Trimethylbenzene	2.2	0.5
sec-Butylbenzene	2.4	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	95	71-140
Toluene-d8	92	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MPE-5	Batch#:	165846
Lab ID:	221740-016	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	2.2	0.5
trans-1,2-Dichloroethene	3.8	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	100	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.5	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Field ID:	MPE-5	Batch#:	165846
Lab ID:	221740-016	Sampled:	08/06/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	2.7	0.5
1,2,4-Trimethylbenzene	2.1	0.5
sec-Butylbenzene	5.3	0.5
para-Isopropyl Toluene	0.7	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	0.5	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-122
1,2-Dichloroethane-d4	96	71-140
Toluene-d8	92	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	165786
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555542

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	105.6	85	45-152
Isopropyl Ether (DIPE)	25.00	19.98	80	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	19.29	77	60-124
Methyl tert-Amyl Ether (TAME)	25.00	19.31	77	66-120
1,1-Dichloroethene	25.00	22.35	89	72-138
Benzene	25.00	23.83	95	80-122
Trichloroethene	25.00	21.32	85	80-122
Toluene	25.00	24.35	97	80-120
Chlorobenzene	25.00	24.79	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	98	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	93	80-121

Type: BSD Lab ID: QC555543

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	90.20	72	45-152	16	30
Isopropyl Ether (DIPE)	25.00	19.26	77	56-134	4	20
Ethyl tert-Butyl Ether (ETBE)	25.00	18.36	73	60-124	5	20
Methyl tert-Amyl Ether (TAME)	25.00	18.68	75	66-120	3	20
1,1-Dichloroethene	25.00	21.16	85	72-138	5	20
Benzene	25.00	23.21	93	80-122	3	20
Trichloroethene	25.00	20.44	82	80-122	4	20
Toluene	25.00	23.36	93	80-120	4	20
Chlorobenzene	25.00	23.76	95	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	100	71-140
Toluene-d8	101	80-120
Bromofluorobenzene	92	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555544	Batch#:	165786
Matrix:	Water	Analyzed:	08/11/10
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555544	Batch#:	165786
Matrix:	Water	Analyzed:	08/11/10
Units:	ug/L		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	104	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	165833
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555738

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	119.3	95	45-152
Isopropyl Ether (DIPE)	25.00	22.97	92	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	20.25	81	60-124
Methyl tert-Amyl Ether (TAME)	25.00	20.52	82	66-120
1,1-Dichloroethene	25.00	24.22	97	72-138
Benzene	25.00	24.97	100	80-122
Trichloroethene	25.00	22.10	88	80-122
Toluene	25.00	25.11	100	80-120
Chlorobenzene	25.00	25.29	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	106	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-121

Type: BSD Lab ID: QC555739

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	77.03	62	45-152	43 *	30
Isopropyl Ether (DIPE)	25.00	21.75	87	56-134	5	20
Ethyl tert-Butyl Ether (ETBE)	25.00	19.80	79	60-124	2	20
Methyl tert-Amyl Ether (TAME)	25.00	19.73	79	66-120	4	20
1,1-Dichloroethene	25.00	22.75	91	72-138	6	20
Benzene	25.00	24.48	98	80-122	2	20
Trichloroethene	25.00	21.26	85	80-122	4	20
Toluene	25.00	23.98	96	80-120	5	20
Chlorobenzene	25.00	24.10	96	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	109	71-140
Toluene-d8	101	80-120
Bromofluorobenzene	92	80-121

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555740	Batch#:	165833
Matrix:	Water	Analyzed:	08/12/10
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555740	Batch#:	165833
Matrix:	Water	Analyzed:	08/12/10
Units:	ug/L		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-122
1,2-Dichloroethane-d4	110	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	165846
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555802

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	121.6	97	45-152
Isopropyl Ether (DIPE)	25.00	28.22	113	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	27.72	111	60-124
Methyl tert-Amyl Ether (TAME)	25.00	24.84	99	66-120
1,1-Dichloroethene	25.00	28.06	112	72-138
Benzene	25.00	27.20	109	80-122
Trichloroethene	25.00	25.51	102	80-122
Toluene	25.00	25.36	101	80-120
Chlorobenzene	25.00	25.38	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	95	71-140
Toluene-d8	94	80-120
Bromofluorobenzene	95	80-121

Type: BSD Lab ID: QC555803

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	119.4	96	45-152	2	30
Isopropyl Ether (DIPE)	25.00	27.49	110	56-134	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	27.11	108	60-124	2	20
Methyl tert-Amyl Ether (TAME)	25.00	24.65	99	66-120	1	20
1,1-Dichloroethene	25.00	27.68	111	72-138	1	20
Benzene	25.00	27.07	108	80-122	0	20
Trichloroethene	25.00	25.75	103	80-122	1	20
Toluene	25.00	25.20	101	80-120	1	20
Chlorobenzene	25.00	25.33	101	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	94	71-140
Toluene-d8	94	80-120
Bromofluorobenzene	96	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555804	Batch#:	165846
Matrix:	Water	Analyzed:	08/12/10
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2511	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555804	Batch#:	165846
Matrix:	Water	Analyzed:	08/12/10
Units:	ug/L		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	94	71-140
Toluene-d8	96	80-120
Bromofluorobenzene	104	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Dissolved Gases

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2511	Analysis:	RSK-175
Analyte:	Methane	Batch#:	165790
Matrix:	Water	Received:	08/06/10
Units:	mg/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Field ID	Type	Lab ID	Result	RL	Sampled
GW-2	SAMPLE	221740-001	ND	0.0050	08/05/10
GW-3	SAMPLE	221740-002	ND	0.0050	08/05/10
MW-11	SAMPLE	221740-003	ND	0.0050	08/05/10
LFR-1	SAMPLE	221740-004	ND	0.0050	08/05/10
LFR-2	SAMPLE	221740-005	4.9	0.0050	08/05/10
LFR-3	SAMPLE	221740-006	ND	0.0050	08/05/10
SOMA-1	SAMPLE	221740-007	0.83	0.0050	08/05/10
SOMA-2	SAMPLE	221740-008	2.6	0.0050	08/06/10
SOMA-3	SAMPLE	221740-009	1.5	0.0050	08/06/10
SOMA-4R	SAMPLE	221740-010	4.1	0.0050	08/06/10
SOMA-5	SAMPLE	221740-011	2.2	0.0050	08/06/10
B-8R	SAMPLE	221740-012	6.2	0.0050	08/06/10
B-10R	SAMPLE	221740-013	2.6	0.0050	08/06/10
MPE-1	SAMPLE	221740-014	0.020	0.0050	08/06/10
MPE-4	SAMPLE	221740-015	3.8	0.0050	08/06/10
MPE-5	SAMPLE	221740-016	4.4	0.0050	08/06/10
	BLANK	QC555557	ND	0.0050	

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved Gases

Lab #:	221740	Location:	3820 Manila Ave., Oakland,CA
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2511	Analysis:	RSK-175
Analyte:	Methane	Diln Fac:	1.000
Matrix:	Water	Batch#:	165790
Units:	mg/L	Analyzed:	08/11/10

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC555558	0.6544	0.6301	96	73-120		
BSD	QC555559	0.6544	0.6305	96	73-120	0	21

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 221741
ANALYTICAL REPORT

SOMA Environmental Engineering Inc.	Project : 2721
6620 Owens Dr.	Location : 316 38th St., Oakland
Pleasanton, CA 94588	Level : II

Sample ID	Lab ID
GW-5	221741-001
LFR-4	221741-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 08/13/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**221741**
Client:	**SOMA Environmental Engineering Inc.**
Project:	**2721**
Location:	**316 38th St., Oakland**
Request Date:	**08/06/10**
Samples Received:	**08/06/10**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 08/06/10. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Metals (EPA 6010B):
No analytical problems were encountered.

CHAIN OF CUSTODY

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

C&T LOGIN # 221741

Sampler: Lizzie Hightower/ Erica Gates

Project No: 2721

Project Name: 316 38th St., Oakland

Turnaround Time: Standard

Report To: Joyce Bobek

Company : SOMA Environmental

Telephone: 925-734-6400

Fax: 925-734-6401

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE
1	GW-5	8-5-10 12:15		*		3-40ml VOAs	*			*
				x		3-40ml VOAs	*			*
				x		2-500 mL Ambers				*
				x		1-250 mL Poly			*	*
2	LFR-4	8-5-10 11:58		x		3-40ml VOAs	*			*
				X		3-40ml VOAs	*			*
				x		2-500 mL Ambers				*
				x		1-250 mL Poly			*	*

Analyses

TPHg (including Stoddard Solvent) 8015	8260 (Full List) with gas ox	TPH-d, Kerosene, method 8015 with silica gel cleanup	Total Lead, method 6010
*			
	*		
		*	
			*
*			
	*		
		*	
			*

Notes:

EDF Output required
8260B List to include gasoline oxygenates & lead scavengers, BTEX, MtBE

RELINQUISHED BY:	RECEIVED BY:
Erica Gates 8-6-10 13:30 DATE/TIME	8/6/10 13:30 DATE/TIME
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 221741 Date Received 8/6/10 Number of coolers 1
Client SOMX ENV. Project 316 38TH ST., OAKLAND

Date Opened 8/6/10 By (print) M. VILLANUEVA (sign)
Date Logged in 8/9/10 By (print) (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES NO
   Shipping info
2A. Were custody seals present? ... ☐ YES (circle) on cooler on samples ☐ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☑ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C)

☑ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are samples in the appropriate containers for indicated tests? YES NO
11. Are sample labels present, in good condition and complete? YES NO
12. Do the sample labels agree with custody papers? YES NO
13. Was sufficient amount of sample sent for tests requested? YES NO
14. Are the samples appropriately preserved? YES NO N/A
15. Are bubbles > 6mm absent in VOA samples? YES NO N/A
16. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/05/10
Units:	ug/L	Received:	08/06/10
Diln Fac:	1.000		

Field ID:	GW-5	Batch#:	165773
Type:	SAMPLE	Analyzed:	08/11/10
Lab ID:	221741-001		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	104	70-140

Field ID:	LFR-4	Batch#:	165821
Type:	SAMPLE	Analyzed:	08/12/10
Lab ID:	221741-002		

Analyte	Result	RL
Gasoline C7-C12	420 Y	50
Stoddard Solvent C7-C12	270 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	106	70-140

Type:	BLANK	Batch#:	165773
Lab ID:	QC555496		

Analyte	Result	RL	Analyzed
Gasoline C7-C12	ND	50	08/10/10
Stoddard Solvent C7-C12	ND	50	08/11/10

Surrogate	%REC	Limits	Analyzed
Bromofluorobenzene (FID)	95	70-140	08/10/10

Type:	BLANK	Batch#:	165821
Lab ID:	QC555682	Analyzed:	08/11/10

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	165773
Units:	ug/L	Analyzed:	08/10/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555494

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,004	100	73-127

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Type: BSD Lab ID: QC555495

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,043	104	73-127	4	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	70-140

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	165821
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555680

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,008	101	73-127

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Type: BSD Lab ID: QC555681

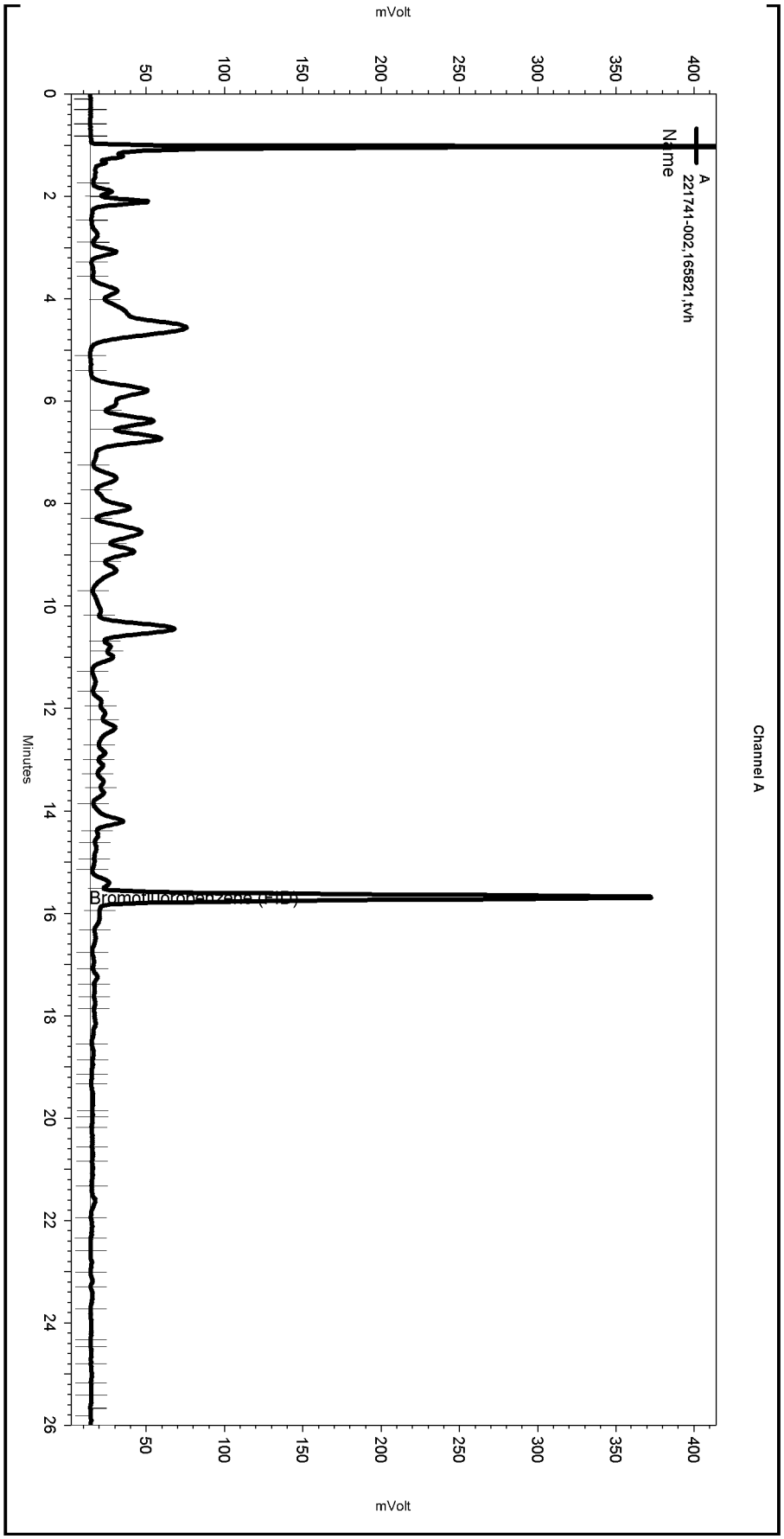
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,002	100	73-127	1	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\223.seq**
Sample Name: **221741-002,165821,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\223-024**
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/12/2010 7:43:28 AM
Analysis Date: 8/12/2010 2:30:38 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: d1.0



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No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\223-024

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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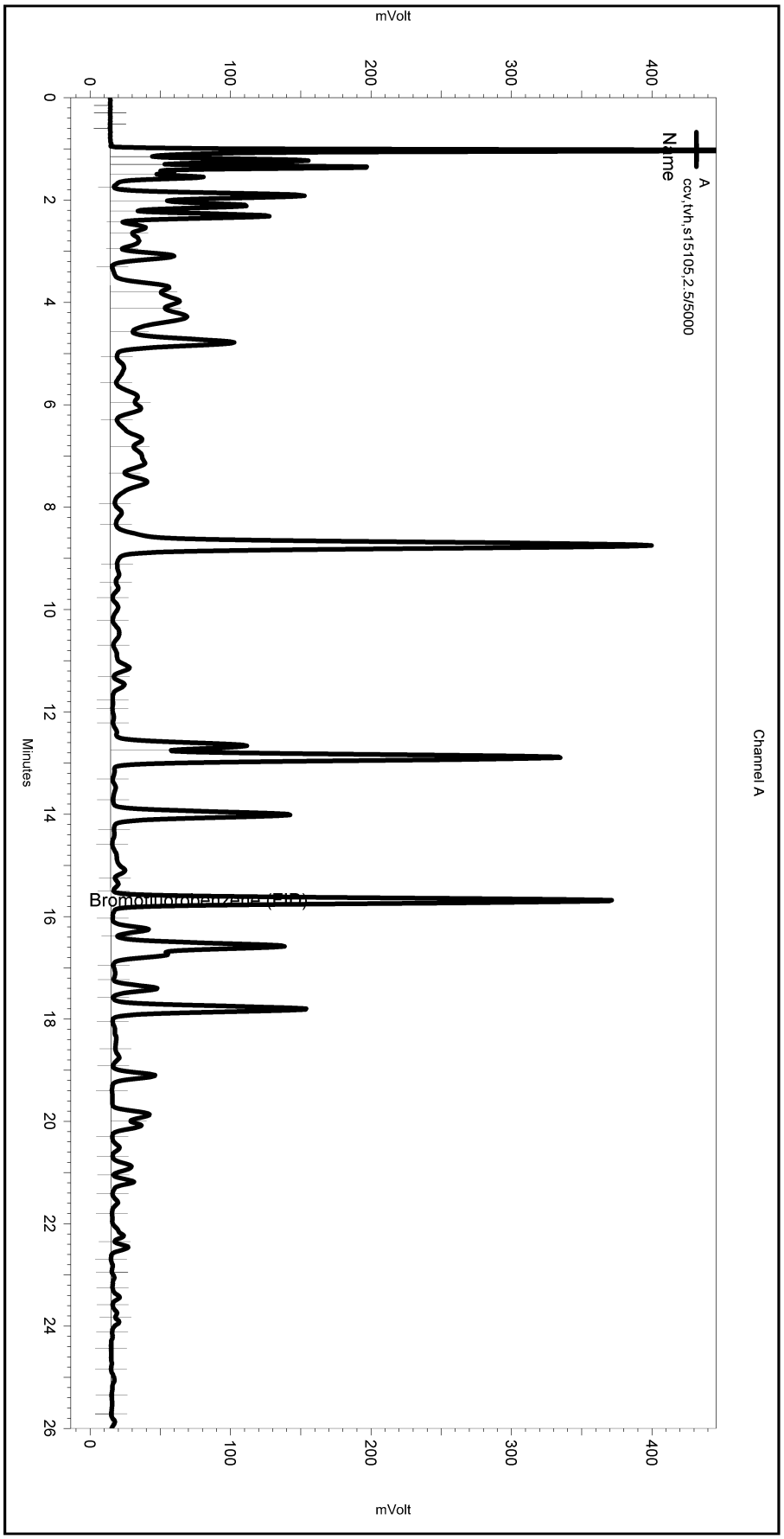
Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\222.seq**
Sample Name: **ccv,tvh,s15105,2.5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\222-003**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/10/2010 1:46:36 PM
Analysis Date: 8/10/2010 2:15:20 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

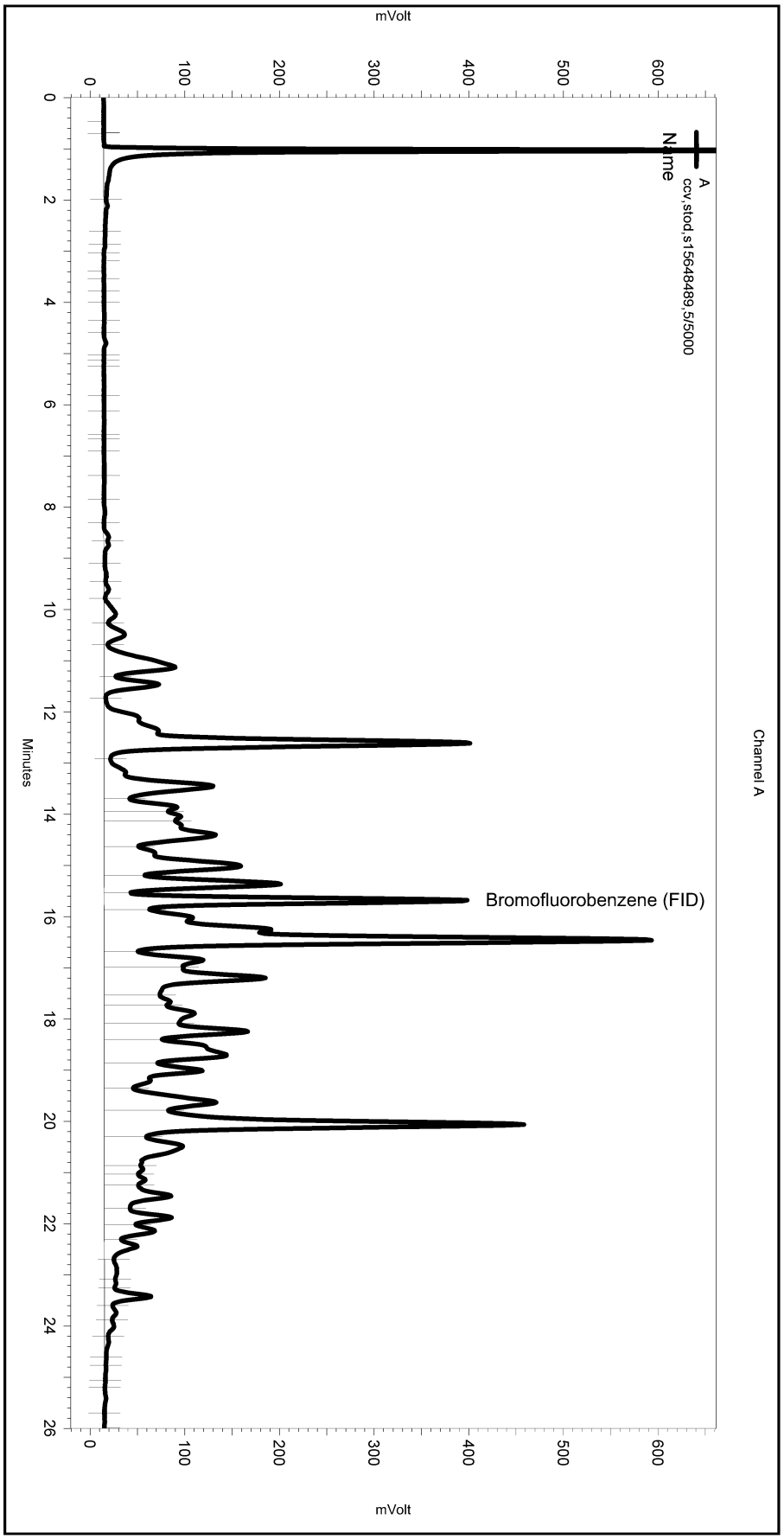
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\222-003_8DDF.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\222.seq**
Sample Name: **ccv,stod,s15648489,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\222-013**
Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe209.met

Software Version 3.1.7
Run Date: 8/10/2010 10:24:13 PM
Analysis Date: 8/10/2010 10:52:57 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\222-013_8DE9.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2721	Analysis:	EPA 8015B
Field ID:	LFR-4	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Prepared:	08/10/10
Diln Fac:	1.000	Analyzed:	08/11/10
Batch#:	165763		

Type: SAMPLE
Lab ID: 221741-002

Cleanup Method: EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	106	60-129

Type: BLANK
Lab ID: QC555459

Cleanup Method: EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	92	60-129

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2721	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	165763
Units:	ug/L	Prepared:	08/10/10
Diln Fac:	1.000	Analyzed:	08/11/10

Type: BS Cleanup Method: EPA 3630C
Lab ID: QC555460

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,182	87	54-125

Surrogate	%REC	Limits
o-Terphenyl	100	60-129

Type: BSD Cleanup Method: EPA 3630C
Lab ID: QC555461

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,276	91	54-125	4	53

Surrogate	%REC	Limits
o-Terphenyl	98	60-129

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Field ID:	GW-5	Batch#:	165786
Lab ID:	221741-001	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Field ID:	GW-5	Batch#:	165786
Lab ID:	221741-001	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	100	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	98	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Field ID:	LFR-4	Batch#:	165846
Lab ID:	221741-002	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	0.8	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Field ID:	LFR-4	Batch#:	165846
Lab ID:	221741-002	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	99	71-140
Toluene-d8	96	80-120
Bromofluorobenzene	107	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	165786
Units:	ug/L	Analyzed:	08/11/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555542

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	105.6	85	45-152
Isopropyl Ether (DIPE)	25.00	19.98	80	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	19.29	77	60-124
Methyl tert-Amyl Ether (TAME)	25.00	19.31	77	66-120
1,1-Dichloroethene	25.00	22.35	89	72-138
Benzene	25.00	23.83	95	80-122
Trichloroethene	25.00	21.32	85	80-122
Toluene	25.00	24.35	97	80-120
Chlorobenzene	25.00	24.79	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	98	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	93	80-121

Type: BSD Lab ID: QC555543

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	90.20	72	45-152	16	30
Isopropyl Ether (DIPE)	25.00	19.26	77	56-134	4	20
Ethyl tert-Butyl Ether (ETBE)	25.00	18.36	73	60-124	5	20
Methyl tert-Amyl Ether (TAME)	25.00	18.68	75	66-120	3	20
1,1-Dichloroethene	25.00	21.16	85	72-138	5	20
Benzene	25.00	23.21	93	80-122	3	20
Trichloroethene	25.00	20.44	82	80-122	4	20
Toluene	25.00	23.36	93	80-120	4	20
Chlorobenzene	25.00	23.76	95	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	100	71-140
Toluene-d8	101	80-120
Bromofluorobenzene	92	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Type:	BLANK	Dil'n Fac:	1.000
Lab ID:	QC555544	Batch#:	165786
Matrix:	Water	Analyzed:	08/11/10
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555544	Batch#:	165786
Matrix:	Water	Analyzed:	08/11/10
Units:	ug/L		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	104	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	165846
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Type: BS Lab ID: QC555802

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	121.6	97	45-152
Isopropyl Ether (DIPE)	25.00	28.22	113	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	27.72	111	60-124
Methyl tert-Amyl Ether (TAME)	25.00	24.84	99	66-120
1,1-Dichloroethene	25.00	28.06	112	72-138
Benzene	25.00	27.20	109	80-122
Trichloroethene	25.00	25.51	102	80-122
Toluene	25.00	25.36	101	80-120
Chlorobenzene	25.00	25.38	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	95	71-140
Toluene-d8	94	80-120
Bromofluorobenzene	95	80-121

Type: BSD Lab ID: QC555803

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	119.4	96	45-152	2	30
Isopropyl Ether (DIPE)	25.00	27.49	110	56-134	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	27.11	108	60-124	2	20
Methyl tert-Amyl Ether (TAME)	25.00	24.65	99	66-120	1	20
1,1-Dichloroethene	25.00	27.68	111	72-138	1	20
Benzene	25.00	27.07	108	80-122	0	20
Trichloroethene	25.00	25.75	103	80-122	1	20
Toluene	25.00	25.20	101	80-120	1	20
Chlorobenzene	25.00	25.33	101	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	94	71-140
Toluene-d8	94	80-120
Bromofluorobenzene	96	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555804	Batch#:	165846
Matrix:	Water	Analyzed:	08/12/10
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
tert-Butyl Alcohol (TBA)	ND	10
Chloromethane	ND	1.0
Isopropyl Ether (DIPE)	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Chloroethane	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	0.5
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2721	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC555804	Batch#:	165846
Matrix:	Water	Analyzed:	08/12/10
Units:	ug/L		

Analyte	Result	RL
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	94	71-140
Toluene-d8	96	80-120
Bromofluorobenzene	104	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3010A
Project#:	2721	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	165826
Field ID:	LFR-4	Sampled:	08/05/10
Matrix:	Water	Received:	08/06/10
Units:	ug/L	Prepared:	08/11/10
Diln Fac:	1.000	Analyzed:	08/12/10

Type	Lab ID	Result	RL
SAMPLE	221741-002	ND	5.0
BLANK	QC555701	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	221741	Location:	316 38th St., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3010A
Project#:	2721	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	165826
Field ID:	ZZZZZZZZZZ	Sampled:	08/11/10
MSS Lab ID:	221794-001	Received:	08/11/10
Matrix:	Water	Prepared:	08/11/10
Units:	ug/L	Analyzed:	08/12/10
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC555702		100.0	95.67	96	79-120		
BSD	QC555703		100.0	98.42	98	79-120	3	20
MS	QC555704	<1.000	100.0	94.68	95	66-120		
MSD	QC555705		100.0	98.11	98	66-120	4	25

RPD= Relative Percent Difference

APPENDIX D

Chain of Custody Forms and Laboratory Reports

for

Free-Product Analysis

JBobek@somaenv.com 008130 MP 08/11/10 CO2

SAMPLE CHAIN OF CUSTODY

Send Report To: Joyce Bobek
Company: SOMA
Address: 6620 Owens Drive, Suite A
City, State, ZIP: Pleasanton, CA 94588
Phone #: 925-734-6400 Fax #: 925-734-6401

SAMPLERS (signature): Lizzie Hightower
PROJECT NAME/NO.: Glovatorium / 2511
PO #: 2511
REMARKS: Please email to JBobek@somaenv.com

Page # ____ of ____

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH ____
- Rush charges authorized by: ____

SAMPLE DISPOSAL
- ☑ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	sVOCs by 8270	HFS	Aging	Finger Printing	Fuel Scan	PIANO		Notes
MPE-2	01 A B	8/5/10	16:10	Free Product	2							X	X	X	✓		✓=added per
MPE-3	02 A B	8/5/10	16:22	Product	2							X	X	X	✓		KJ MP 8/30/10

ANALYSES REQUESTED

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044
FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Lizzie Hightower	Lizzie Hightower	SOMA	8/6/10	8:40
Received by:	Joyce Bobek	Joyce Bobek	SOMA	8/6/10	8:40
Relinquished by:	Joyce Bobek	Joyce Bobek	SOMA	8/10/10	16:30
Received by:	[signature]	Nhan Phan	FedEx	8/10/10	0945

Note: Determine extent of degradation and fuel composition

Samples received at 4 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

September 20, 2010

Joyce Bobek, Project Manager
SOMA
6620 Owens Drive, Suite A
Pleasanton, CA 94588

Dear Ms. Bobek:

Included are the results from the testing of material submitted on August 11, 2010 from the Glovatorium/2511, PO 2511, F&BI 008130 project. The product samples submitted for forensic evaluation arrived in good condition. Upon arrival, the samples MPE-2 and MPE-3 were placed in a refrigerator maintained at 4°C until removed for sample processing.

The samples MPE-2 and MPE-3 were extracted and analyzed using a gas chromatograph with a flame ionization detector (GC/FID). The data generated yielded information on the boiling range and general chemical composition of the material present. The GC/FID traces are enclosed. A GC/FID trace of a standard consisting of normal alkanes is also provided for reference purposes. In addition, the samples MPE-2 and MPE-3 were analyzed for paraffin, isoparaffin, aromatic, naphthene, and olefin (PIANO) constituents using a GC fitted with a mass spectrometer (MS). The results of this testing are also enclosed.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions. We will hold your samples for 30 days before disposal unless directed otherwise.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson
Chemist

Enclosures
mcp/KJ
NAA0920R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Extracted: 08/16/10
Date Analyzed: 08/16/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID)

Sample ID	GC Characterization
MPE-2	The GC trace using the flame ionization detector (FID) showed the presence of low to medium boiling compounds. The patterns displayed by these peaks are indicative of a Stoddard solvent or similar materials. The low to medium boiling compounds appear as a regular pattern of peaks on top of a small hump or unresolved complex mixture (UCM). This material elutes from n-C_8 to n-C_{12} showing a maximum near n-C_{10}. This correlates with a temperature range of approximately 130°C to 220°C with a maximum near 170°C. Within this range, peaks are present which are indicative of normal alkanes. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Extracted: 08/16/10
Date Analyzed: 08/16/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID)

Sample ID	GC Characterization
MPE-3	The GC trace using the flame ionization detector (FID) showed the presence of low to medium boiling compounds. The patterns displayed by these peaks are indicative of a Stoddard solvent or similar materials. The low to medium boiling compounds appear as a regular pattern of peaks on top of a small hump or unresolved complex mixture (UCM). This material elutes from *n*-C_8 to *n*-C_{12} showing a maximum near *n*-C_{10}. This correlates with a temperature range of approximately 130°C to 220°C with a maximum near 170°C. Within this range, peaks are present which are indicative of normal alkanes. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS

Results Reported as % by Weight

Client ID MPE-2
Laboratory ID 008130-01

Compound	Weight Percent
Propane	<0.01
Methanol	<0.01
Isobutane	<0.01
2-Methyl-1-propene	<0.01
Ethanol	<0.01
n-Butane	<0.01
t-2-Butene	<0.01
c-2-Butene	<0.01
Isopropanol	<0.01
3-Methyl-1-butene	<0.01
Isopentane	<0.01
tert-Butanol	<0.01
1-Pentene	<0.01
2-Methyl-1-butene	<0.01
n-Propanol	<0.01
n-Pentane	<0.01
t-2-Pentene	<0.01
c-2-Pentene	<0.01
2-Methyl-2-butene	<0.01
MTBE	<0.01
sec-Butanol	<0.01
4-Methyl-1-pentene	<0.01
Isobutanol	<0.01
2,3-Dimethylbutane	<0.01
Cyclopentane	<0.01
2-Methylpentane	<0.01
DIPE	<0.01
3-Methylpentane	<0.01
1-Hexene	<0.01
ETBE	<0.01
n-Hexane	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS
Results Reported as % by Weight

Client ID MPE-2
Laboratory ID 008130-01

Compound	Weight Percent
t-2-Hexene	<0.01
2-Methyl-1-pentene	<0.01
2-Methyl-2-pentene	<0.01
c-2-Hexene	<0.01
2,2-Dimethylpentane	<0.01
2,4-Dimethylpentane	<0.01
Methylcyclopentane	<0.01
2,2,3-Trimethylbutane	<0.01
Benzene	<0.01
1-Methylcyclopentene	<0.01
TAME	<0.01
3,3-Dimethylpentane	<0.01
Cyclohexane	<0.01
2-Methylhexane	<0.01
2,3-Dimethylpentane	<0.01
1,1-Dimethylcyclopentane	<0.01
3-Methylhexane	<0.01
c-1,3-Dimethylcyclopentane	<0.01
3-Ethylpentane	<0.01
Isooctane	<0.01
t-1,2-Dimethylcyclopentane	<0.01
1-Heptene	<0.01
n-Heptane	<0.01
t-3-Heptene	<0.01
c-3-Heptene	<0.01
t-2-Heptene	<0.01
c-2-Heptene	<0.01
2,2-Dimethylhexane	<0.01
2,5-Dimethylhexane	<0.01
Methylcyclohexane	<0.01
2,4-Dimethylhexane	<0.01
Ethylcyclopentane	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS
Results Reported as % by Weight

Client ID MPE-2
Laboratory ID 008130-01

Compound	Weight Percent
t-1,c-2,4-Trimethylcyclopentane	<0.01
t-1,c-2,3-Trimethylcyclopentane	<0.01
2,3,4-Trimethylpentane	<0.01
Toluene	<0.01
2,3-Dimethylhexane	<0.01
2-Methylheptane	<0.01
3-Methylheptane	<0.01
4-Methylheptane	<0.01
3-Ethylhexane	<0.01
1-Octene	<0.01
1,2,3-Trimethylcyclopentane	<0.01
t-1,2-Dimethylcyclohexane	0.02
n-Octane	0.01
1-Ethyl-1-methylcyclopentane	0.01
c-2-Octene	<0.01
c-1,2-Dimethylcyclohexane	0.02
Isopropylcyclopentane	0.01
2,5-Dimethylheptane	0.05
3,5-Dimethylheptane	0.01
n-Propylcyclopentane	0.01
Ethylbenzene	<0.01
2,3-Dimethylheptane	0.06
3,4-Dimethylheptane	<0.01
2-Methyloctane	0.22
m-Xylene	<0.01
p-Xylene	<0.01
3-Methyloctane	0.33
1-Nonene	<0.01
3,3-Diethylpentane	<0.01
t-3-Nonene	<0.01
c3-Nonene	<0.01
o-Xylene	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS

Results Reported as % by Weight

Client ID MPE-2
Laboratory ID 008130-01

Compound	Weight Percent
n-Nonane	0.97
Isobutylcyclopentane	0.06
t-2-Nonene	<0.01
c-2-Nonene	<0.01
Isopropylbenzene	<0.01
3,3-Dimethyloctane	0.13
n-Butylcyclopentane	0.27
n-Propylbenzene	<0.01
2,3-Dimethyloctane	0.48
1-Methyl-3-ethylbenzene	<0.01
1-Methyl-4-ethylbenzene	<0.01
2-Methylnonane	1.89
3-Ethyloctane	0.80
3-Methylnonane	2.21
1,3,5-Trimethylbenzene	<0.01
1-Methyl-2-ethylbenzene	<0.01
1,2,4-Trimethylbenzene	<0.01
tert-Butylbenzene	<0.01
n-Decane	2.84
Isobutylbenzene	<0.01
Isopropylcyclohexane	<0.01
sec-Butylbenzene	<0.01
1-Methyl-3-isopropylbenzene	<0.01
Isobutylcyclohexane	<0.01
1-Methyl-4-isopropylbenzene	<0.01
1,2,3-Trimethylbenzene	<0.01
Indan	<0.01
1-Methyl-3-n-propylbenzene	<0.01
1-Methyl-4-n-propylbenzene	<0.01
n-Butylbenzene	<0.01
1,3-Dimethyl-5-ethylbenzene	<0.01
1,2-Diethylbenzene	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS

Results Reported as % by Weight

Client ID MPE-2
Laboratory ID 008130-01

Compound	Weight Percent
1-Methyl-2-n-propylbenzene	<0.01
1,4-Dimethyl-2-ethylbenzene	<0.01
1,2-Dimethyl-4-ethylbenzene	0.08
1,3-Dimethyl-2-ethylbenzene	<0.01
1,2-Dimethyl-3-ethylbenzene	<0.01
n-Undecane	2.10
1,2,4,5-Tetramethylbenzene	0.06
2-Methylbutylbenzene	<0.01
n-Pentylbenzene	<0.01
Methylindan	<0.01
1-tert-Butyl-3,5-dimethylbenzene	<0.01
1-tert-Butyl-4-ethylbenzene	<0.01
n-Dodecane	0.12
1,3,5-Triethylbenzene	<0.01
1,2,4-Triethylbenzene	<0.01
Naphthalene	<0.01
n-Hexylbenzene	<0.01
2-Methylnaphthalene	0.01
n-Tridecane	0.02
1-Methylnaphthalene	0.01
n-Tetradecane	0.01
n-Pentadecane	0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS
Results Reported as % by Weight

Client ID MPE-2
Laboratory ID 008130-01

PIANO SUMMARY	Weight Percent
Total Identified Compounds	12.82
Oxygenated Compounds	0.00
Hydrocarbon Compounds	12.82
Unidentified Compounds	87.18
Total	100

	Paraffins	Isoparaffins	Aromatics	Naphthenes	Olefins	Total
C3	<0.01					<0.01
C4	<0.01	<0.01			<0.01	<0.01
C5	<0.01	<0.01		<0.01	<0.01	<0.01
C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
C8	0.01	<0.01	<0.01	0.07	<0.01	0.08
C9	0.97	0.68	<0.01	0.34	<0.01	1.98
C10	2.84	5.51	0.14	<0.01		8.49
C11	2.10		0.02			2.12
C12	0.12		<0.01			0.12
C13	0.02					0.02
C14	0.01					0.01
C15	0.01					0.01
Total	6.07	6.19	0.16	0.40	<0.01	12.82

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS

Results Reported as % by Weight

Client ID MPE-3
Laboratory ID 008130-02

Compound	Weight Percent
Propane	<0.01
Methanol	<0.01
Isobutane	<0.01
2-Methyl-1-propene	<0.01
Ethanol	<0.01
n-Butane	<0.01
t-2-Butene	<0.01
c-2-Butene	<0.01
Isopropanol	<0.01
3-Methyl-1-butene	<0.01
Isopentane	<0.01
tert-Butanol	<0.01
1-Pentene	<0.01
2-Methyl-1-butene	<0.01
n-Propanol	<0.01
n-Pentane	<0.01
t-2-Pentene	<0.01
c-2-Pentene	<0.01
2-Methyl-2-butene	<0.01
MTBE	<0.01
sec-Butanol	<0.01
4-Methyl-1-pentene	<0.01
Isobutanol	<0.01
2,3-Dimethylbutane	<0.01
Cyclopentane	<0.01
2-Methylpentane	<0.01
DIPE	<0.01
3-Methylpentane	<0.01
1-Hexene	<0.01
ETBE	<0.01
n-Hexane	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS

Results Reported as % by Weight

Client ID MPE-3
Laboratory ID 008130-02

Compound	Weight Percent
t-2-Hexene	<0.01
2-Methyl-1-pentene	<0.01
2-Methyl-2-pentene	<0.01
c-2-Hexene	<0.01
2,2-Dimethylpentane	<0.01
2,4-Dimethylpentane	<0.01
Methylcyclopentane	<0.01
2,2,3-Trimethylbutane	<0.01
Benzene	<0.01
1-Methylcyclopentene	<0.01
TAME	<0.01
3,3-Dimethylpentane	<0.01
Cyclohexane	<0.01
2-Methylhexane	<0.01
2,3-Dimethylpentane	<0.01
1,1-Dimethylcyclopentane	<0.01
3-Methylhexane	<0.01
c-1,3-Dimethylcyclopentane	<0.01
3-Ethylpentane	<0.01
Isooctane	<0.01
t-1,2-Dimethylcyclopentane	<0.01
1-Heptene	<0.01
n-Heptane	<0.01
t-3-Heptene	<0.01
c-3-Heptene	<0.01
t-2-Heptene	<0.01
c-2-Heptene	<0.01
2,2-Dimethylhexane	<0.01
2,5-Dimethylhexane	<0.01
Methylcyclohexane	<0.01
2,4-Dimethylhexane	<0.01
Ethylcyclopentane	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS

Results Reported as % by Weight

Client ID MPE-3
Laboratory ID 008130-02

Compound	Weight Percent
t-1,c-2,4-Trimethylcyclopentane	<0.01
t-1,c-2,3-Trimethylcyclopentane	<0.01
2,3,4-Trimethylpentane	<0.01
Toluene	<0.01
2,3-Dimethylhexane	<0.01
2-Methylheptane	<0.01
3-Methylheptane	<0.01
4-Methylheptane	<0.01
3-Ethylhexane	<0.01
1-Octene	<0.01
1,2,3-Trimethylcyclopentane	<0.01
t-1,2-Dimethylcyclohexane	0.01
n-Octane	<0.01
1-Ethyl-1-methylcyclopentane	<0.01
c-2-Octene	<0.01
c-1,2-Dimethylcyclohexane	0.01
Isopropylcyclopentane	<0.01
2,5-Dimethylheptane	0.04
3,5-Dimethylheptane	0.01
n-Propylcyclopentane	0.01
Ethylbenzene	<0.01
2,3-Dimethylheptane	0.04
3,4-Dimethylheptane	<0.01
2-Methyloctane	0.16
m-Xylene	<0.01
p-Xylene	<0.01
3-Methyloctane	0.25
1-Nonene	<0.01
3,3-Diethylpentane	<0.01
t-3-Nonene	<0.01
c3-Nonene	<0.01
o-Xylene	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS

Results Reported as % by Weight

Client ID MPE-3
Laboratory ID 008130-02

Compound	Weight Percent
n-Nonane	0.63
Isobutylcyclopentane	0.04
t-2-Nonene	<0.01
c-2-Nonene	<0.01
Isopropylbenzene	<0.01
3,3-Dimethyloctane	0.11
n-Butylcyclopentane	0.26
n-Propylbenzene	<0.01
2,3-Dimethyloctane	0.37
1-Methyl-3-ethylbenzene	<0.01
1-Methyl-4-ethylbenzene	<0.01
2-Methylnonane	1.57
3-Ethyloctane	0.68
3-Methylnonane	2.05
1,3,5-Trimethylbenzene	<0.01
1-Methyl-2-ethylbenzene	<0.01
1,2,4-Trimethylbenzene	<0.01
tert-Butylbenzene	<0.01
n-Decane	1.73
Isobutylbenzene	<0.01
Isopropylcyclohexane	<0.01
sec-Butylbenzene	<0.01
1-Methyl-3-isopropylbenzene	<0.01
Isobutylcyclohexane	<0.01
1-Methyl-4-isopropylbenzene	<0.01
1,2,3-Trimethylbenzene	<0.01
Indan	<0.01
1-Methyl-3-n-propylbenzene	<0.01
1-Methyl-4-n-propylbenzene	<0.01
n-Butylbenzene	<0.01
1,3-Dimethyl-5-ethylbenzene	<0.01
1,2-Diethylbenzene	<0.01

Date of Report: 09/20/10
Date Received: 08/11/10
Project: Glovatorium/2511, PO 2511, F&BI 008130
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS
Results Reported as % by Weight

Client ID MPE-3
Laboratory ID 008130-02

Compound	Weight Percent
1-Methyl-2-n-propylbenzene	<0.01
1,4-Dimethyl-2-ethylbenzene	<0.01
1,2-Dimethyl-4-ethylbenzene	0.03
1,3-Dimethyl-2-ethylbenzene	<0.01
1,2-Dimethyl-3-ethylbenzene	<0.01
n-Undecane	2.26
1,2,4,5-Tetramethylbenzene	0.11
2-Methylbutylbenzene	<0.01
n-Pentylbenzene	<0.01
Methylindan	<0.01
1-tert-Butyl-3,5-dimethylbenzene	<0.01
1-tert-Butyl-4-ethylbenzene	<0.01
n-Dodecane	0.17
1,3,5-Triethylbenzene	<0.01
1,2,4-Triethylbenzene	<0.01
Naphthalene	<0.01
n-Hexylbenzene	<0.01
2-Methylnaphthalene	<0.01
n-Tridecane	0.01
1-Methylnaphthalene	<0.01
n-Tetradecane	0.01
n-Pentadecane	0.01

Date of Report: 09/20/10
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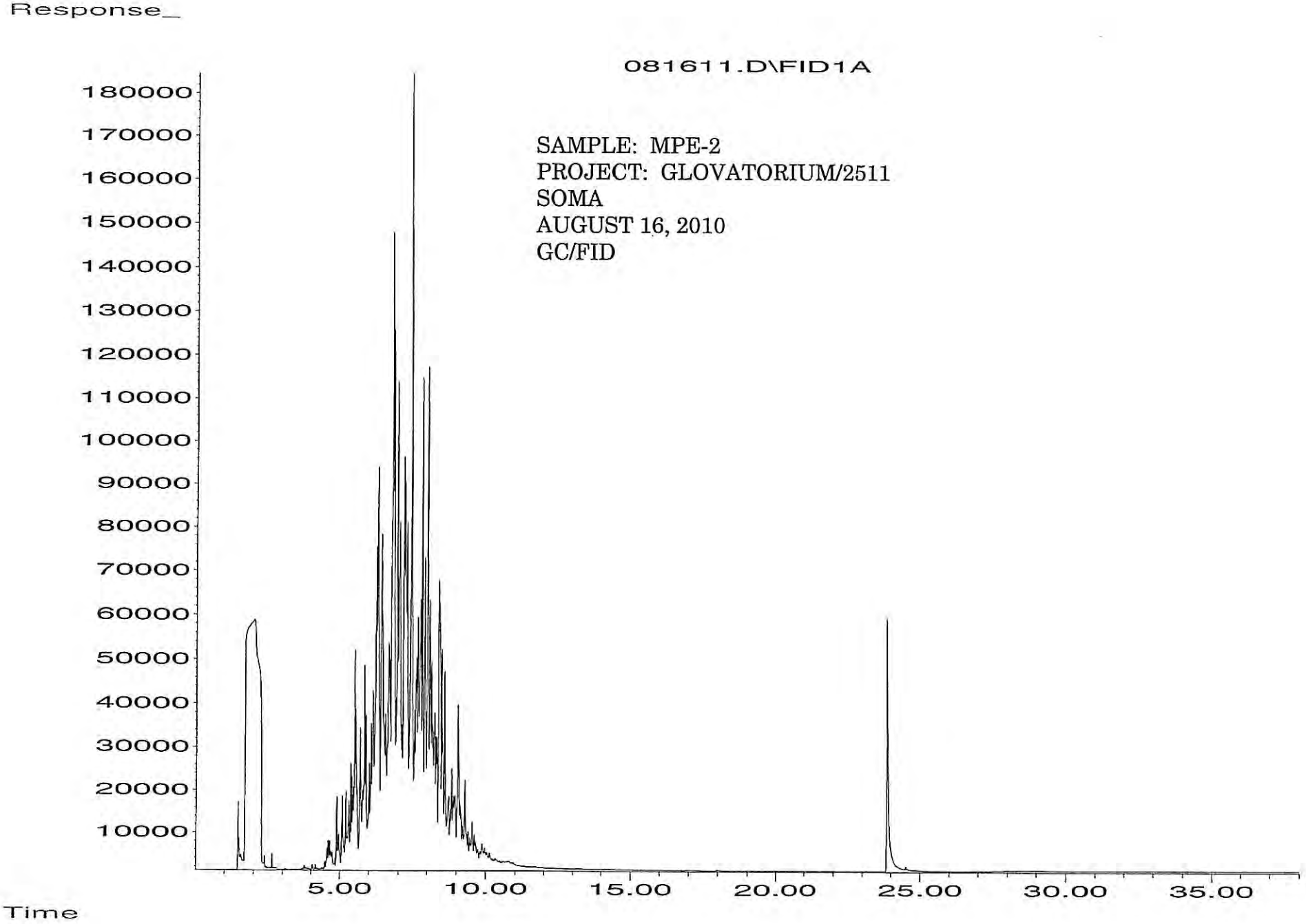
Date Analyzed: 09/02/10

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS
Results Reported as % by Weight

Client ID MPE-3
Laboratory ID 008130-02

PIANO SUMMARY	Weight Percent
Total Identified Compounds	10.56
Oxygenated Compounds	0.00
Hydrocarbon Compounds	10.56
Unidentified Compounds	89.44
Total	100

	Paraffins	Isoparaffins	Aromatics	Naphthenes	Olefins	Total
C3	<0.01					<0.01
C4	<0.01	<0.01			<0.01	<0.01
C5	<0.01	<0.01		<0.01	<0.01	<0.01
C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
C8	<0.01	<0.01	<0.01	0.03	<0.01	0.03
C9	0.63	0.50	<0.01	0.30	<0.01	1.43
C10	1.73	4.77	0.14	<0.01		6.63
C11	2.26		<0.01			2.26
C12	0.17		<0.01			0.17
C13	0.01					<0.01
C14	0.01					0.01
C15	0.01					0.01
Total	4.82	5.27	0.14	0.33	<0.01	10.56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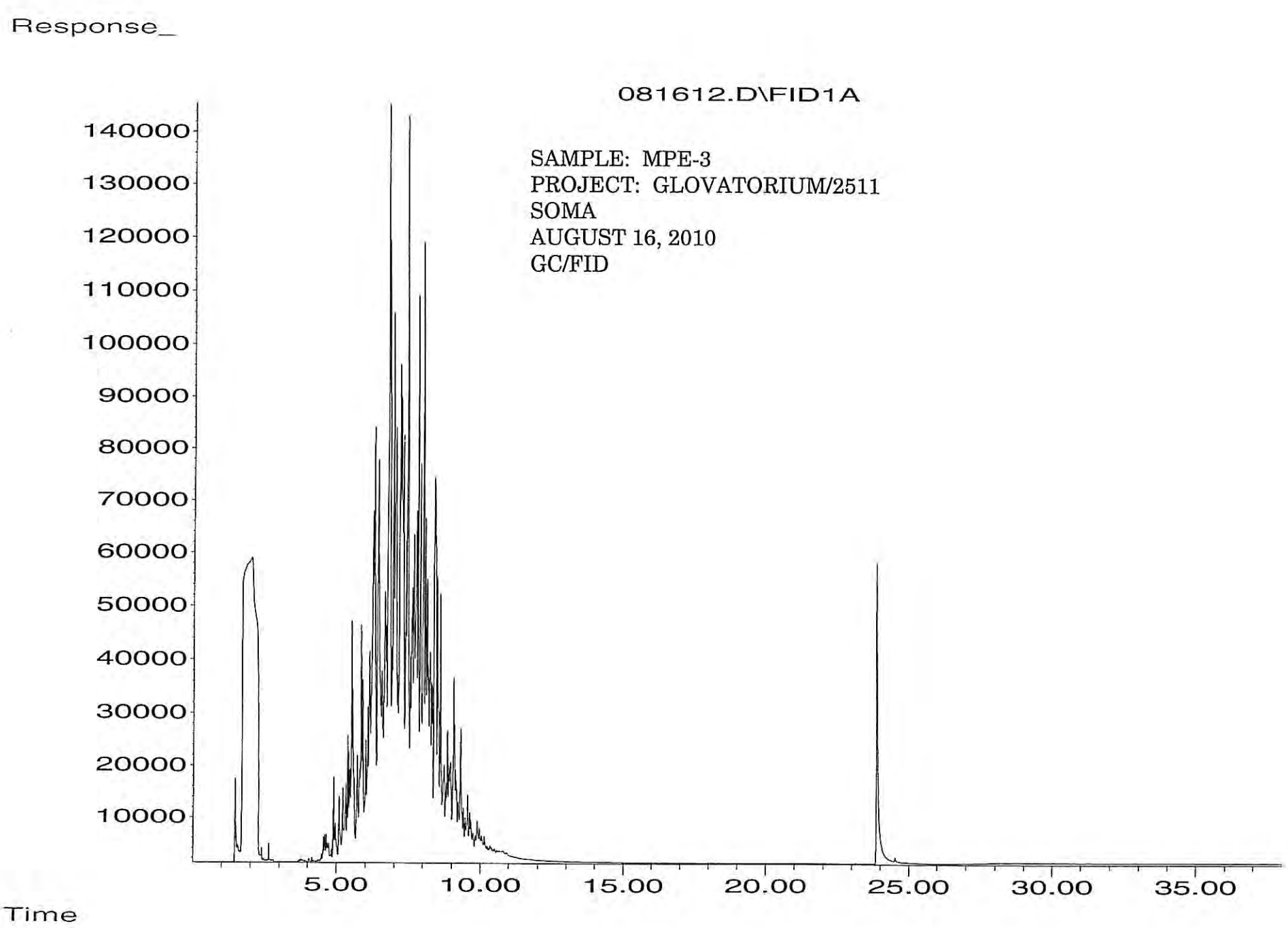
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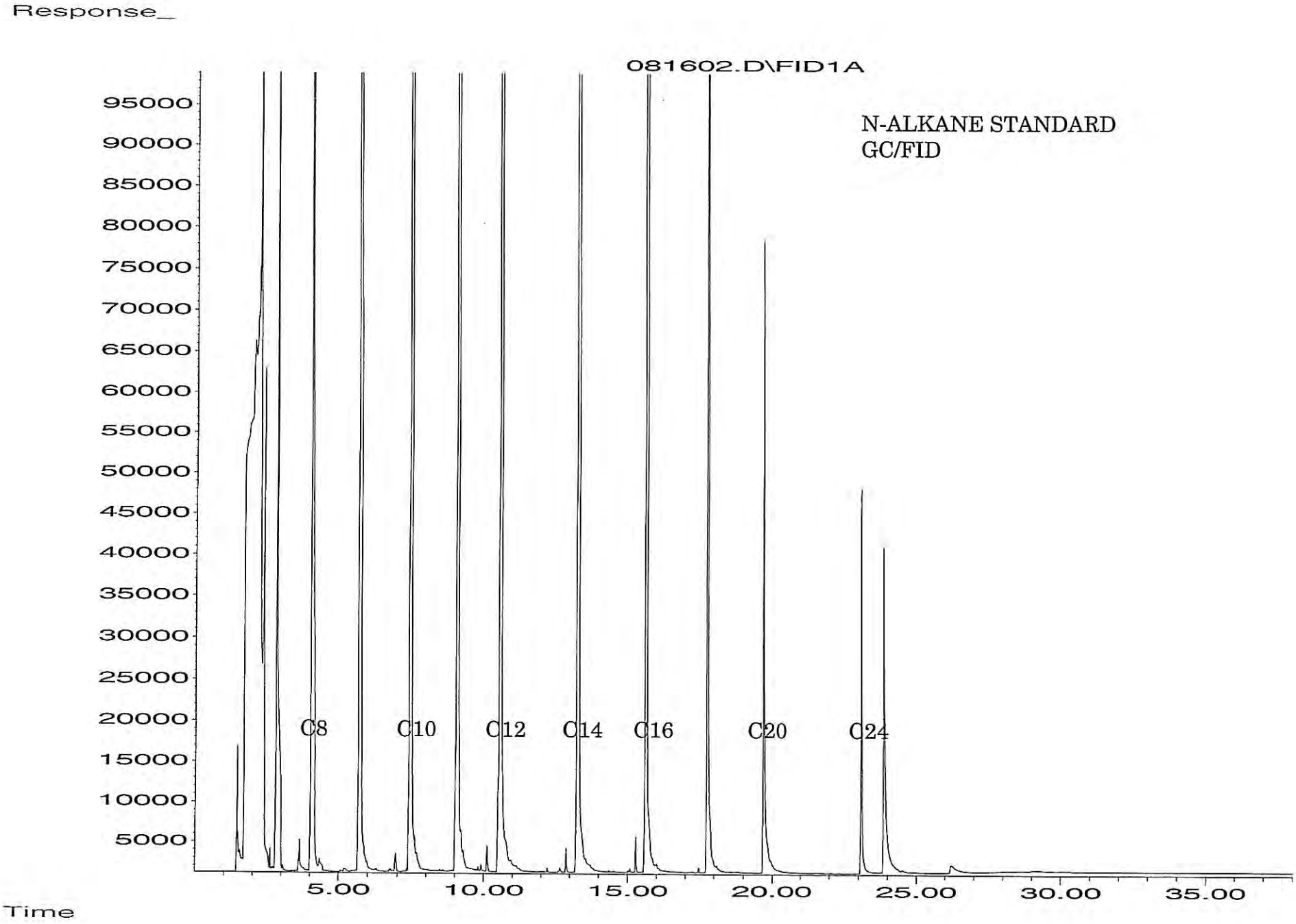
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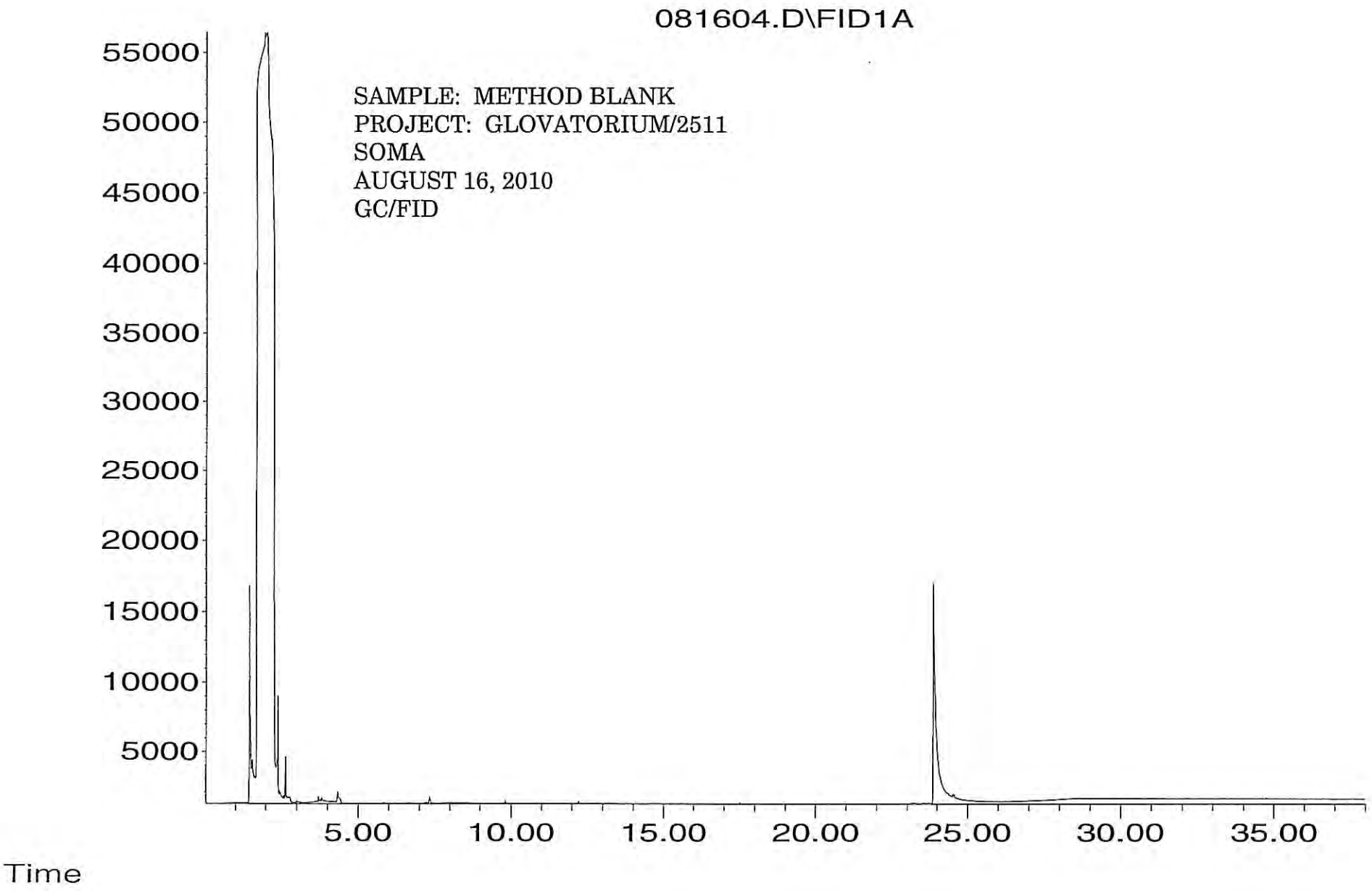
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SOMA
AUGUST 16, 2010
GC/FID
5.00
10.00
15.00
20.00
25.00
30.00
35.00
Time

Elena Manzo

To: Kurt Johnson
Subject: RE: Glovatorium

From: Kurt Johnson [mailto:knjchemist2@msn.com]
Sent: Tuesday, October 05, 2010 5:10 PM
To: emanzo@somaenv.com
Subject: Fw: Glovatorium

Ms. Manzo,

Per our conversation, the following summary of findings is being provided for your Glovatorium/2511, PO 2511, Friedman and Bruya, Inc. (F&BI) 008130 project:

1. The material present in the samples MPE-2 and MPE-3 is indicative of Stoddard solvent. Based on evaluation of the chemical composition of this solvent, using the results of the Hydrocarbon Fuel Scan (HFS) as well as Paraffin, Isoparaffin, Aromatic, Naphthene, and Olefin (PIANO) analyses, indicates that it has undergone some, although not extensive biological degradation. This is based on the level of paraffins (or alkanes) present in these samples compared to both that expected in typical Stoddard solvent as well as prior samples analyzed by F&BI at this Site.

2. The material present in the samples MPE-2 and MPE-3 was compared to the previous samples submitted to F&BI from the Glovatorium Site. This comparison yielded the following results:

a. The Stoddard solvent present in the sample MPE-2 and MPE-3 is not consistent with that previously identified in the samples PD-1, PD-2, PD-3, and "Product" submitted in 2007.

b. The Stoddard solvent present in the sample MPE-2 and MPE-3 is consistent with that previously identified in the Soma 4 samples submitted in 2005 and 2007. It should be noted, however, that the MPE-2 and MPE-3 samples contain a reduced level of alkanes relative to the Soma 4 samples. This reduced level of alkanes indicates that the former samples (MPE-2 and MPE-3) appear to have undergone more biological degradation.

3. Evaluation of the results generated by F&BI as well as the site information provided indicates that the LNAPL showing up in the MPE-2 and MPE-3 location does not appear to be due to a new release event at the Site. Review of this information suggests that LNAPL may be present in areas that have not been characterized to date.

Please let us know if we can be of further assistance.

Respectfully,

Kurt Johnson
Director, Chemist
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