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ENVIRONMENTAL SCREENING ASSESSMENT / RISK MITIGATION PLAN PROPOSED SKYWEST PLAZA HAYWARD, CALIFORNIA

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ENVIRONMENTAL SCREENING ASSESSMENT / RISK MITIGATION PLAN PROPOSED SKYWEST PLAZA HAYWARD, CALIFORNIA

1.0 INTRODUCTION

This Environmental Screening Assessment/Risk Mitigation Plan report has been prepared on behalf of Browman Development Company, Inc. documenting an environmental screening assessment at the proposed Skywest Plaza located at the 20400 block of Hesperian Boulevard in Hayward, California (site). Previous work conducted by others in 1998 and 2003 at this site identified the presence of petroleum hydrocarbons in soil and groundwater beneath the site.

This report was prepared by The Twining Laboratories, Inc. (Twining) Environmental and Geological Services Division. The services provided by Twining were authorized by Mr. Darryl Browman of Browman Development Company, Inc. Mr. Browman can be contacted at 100 Swan Way, Suite 206, Oakland, California, telephone number (510) 430-9701.

This work was performed at the request of the client in connection with obtaining a Prospective Purchasers Agreement from the California Regional Water Quality Control Board (CRWQCB) and approval to develop the site. This assessment is intended to establish a baseline condition for groundwater, soil and soil vapor on the approximately 13.45 acre site. In addition, this investigation will be used to identify areas of concern for the proposed redevelopment. Subsequent work will be directed based on the analytical results obtained from this assessment.

2.0 BACKGROUND

A description of the site, the geologic and hydrologic characteristics, and the project history are summarized in the following subsections.

2.1 Site Description

The site is located in Hayward, Alameda County, California on the northwest corner of Hesperian Boulevard and A Street within Latitude 37.6664 and Longitude 122.1188 (assessor's parcel numbers 432-0104-107 and 432-0104-105). The site elevation is approximately 40 feet above mean sea level. A site location map and site plan are presented as Drawings No. 1 and 2.

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The northeast portion of the site is occupied by a vacant movie theater. The east-central portion of the site is occupied by a Carrow's Restaurant, and the Vagabond Inn front office. The main Vagabond Inn hotel structure is located on the south central portion of the Site. JT's Fuel and Service is located on the southeast corner of the Site. The remainder of the site is occupied by pavements and associated improvements.

2.2 Geologic and Hydrologic Characteristics

The following subsections summarize the geology and hydrology of the Alameda county area.

2.2.1 Geology: The site is located at the northern end of the Diablo Range of Central California in Alameda County. Alameda County is bound on the north by the south flank of Mount Diablo, one of the highest peaks in the Bay Area. The San Francisco Bay forms the western boundary, and the San Joaquin Valley forms the eastern boundary, with an arbitrary line from the Bay into the Diablo Range forming the southern boundary. Alameda is one of nine Bay counties tributary to the San Francisco Bay. Most of the terrain is mountainous with steep rugged topography. The Hayward Fault extends from San Jose about 74 miles northward along the base of the East Bay Hills to San Pablo Bay. According to the USGS, there is a fault creep located to the east of Mission Boulevard, from A Street to D Street, in the city of Hayward.

2.2.2 Hydrology: Groundwater is present at depths ranging between approximately 12 and 14 feet bgs, under semi-confined conditions with a potentiometric groundwater surface at approximately 9 feet bsg and generally flows in a southwesterly direction (published offsite groundwater investigations, Airport Alliance/Former Beacon, 20450 Hesperian Boulevard). Review of historical groundwater level data obtained from the DWR website (http://dwr.ca.gov) indicates that the groundwater table near the site has been as shallow as 11 feet BSG in 1983.

Local groundwater flow may be influenced by pumping of water wells and recharge from various sources. The effect of these influences on groundwater beneath the site is beyond the scope of this investigation.

2.3 Project History

Information obtained by Twining during the performance of a Phase I Environmental Site Assessment (PHASE I) indicated that the site was a portion of the Hayward Army Airfield and/or the Hayward Executive Airport from approximately 1942 to 1973. The site was released by the FAA for non-aviation purposes back to the city of Hayward in 1966, and sometime around 1973 the site was developed into commercial property as it is today.

A service station is located on the southeast corner of the site. This facility has experienced a release in the past and is considered a historical environmental concern. This facility received a no further action closure letter from the CRWQCB. It should be noted that residual constituents of concern

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remain in site soils and groundwater as a result of this historical release. It is Twining's understanding that previous investigations have been performed onsite by Pacific Environmental Group (1998) and Waterstone Environmental, Inc. (2004). The investigations included the collection and analysis of soil and groundwater samples, these results were included in Twining's Phase II Preliminary Assessment workplan, dated July 19, 2005. Results of these investigations concluded that shallow groundwater and soils near the groundwater interface have been impacted by petroleum hydrocarbons characteristic of gasoline and diesel.

The CRWQCB has concluded that soil and groundwater on the site have been impacted primarily by migration of hydrocarbon contamination from off-site sources and, possibly to a lesser extent, by on-site sources. Reportedly, the CRWQCB has identified potential responsible parties for this groundwater contamination, as being offsite sources.

3.0 PURPOSE AND SCOPE

The purpose of the investigation was to collect soil, groundwater, and soil gas samples for laboratory analysis to further assess the subsurface soil and groundwater conditions beneath the 13.45-acre site. These data were used to assess indoor air quality concerns for the proposed redevelopment. The following work was conducted to achieve the above referenced objective:

- A workplan was prepared and submitted to the CRWQCB for review and approval prior to start of work and a drilling permit was obtained from the Alameda County Public Works Department;

- The boring locations were marked in the field and Underground Service Alert (USA) was notified a minimum of 48 hours prior to initiating field work. In addition, a private locator service was contracted to clear the boring locations;

- Using a Geoprobe portable push sampling-rig, thirty (30) soil borings were drilled to a depth of fifteen feet below site grade (bsg) and soil, soil gas, and groundwater grab samples were collected for analysis;

- Selected soil and groundwater samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), total petroleum hydrocarbons gasoline range constituents (TPH-g), diesel range constituents (TPH-d), and fuel oxygenates methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert amyl methyl ether (TAME), and tertiary butyl alcohol (TBA);

- A soil vapor survey was performed by collecting and analyzing 15 soil vapor samples from soil borings drilled near the proposed structures for TPHg, BTEX, MTBE; and

- This technical report was prepared detailing the investigative procedures, analytical results, conclusions, and recommendations.

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4.0 METHODOLOGY

The following subsections describe Twining's technical approach for conducting the Environmental Screening Risk Assessment and Mitigation Plan. The methodologies summarized below are intended to be consistent with the requirements of the appropriate regulatory agencies. Twining's standard operating procedures (SOPs) relevant to the field and laboratory activities are included as Appendix A. The field investigation consisted of drilling soil borings and collecting soil, groundwater, and soil vapor samples for analysis.

4.1 **Soil Boring Advancement and Soil Sampling:** Thirty (30) soil borings (SB1 through SB30) were drilled on August 1 through August 5, 2005. The soil borings were advanced using direct push drilling technology to depths of approximately 15 feet bsg. Soil samples intended for chemical analyses were sealed with Teflon® tape and plastic end caps, labeled, placed on ice, and delivered to a laboratory, along with chain-of-custody documentation. Field activities were performed under the direction of a California registered geologist or certified professional engineer. Drilling and sampling equipment were thoroughly cleaned before, during, and after each use. Cleaning procedures are described in Twining's SOPs included as Appendix A. The soil samples were field screened for evidence of volatile organic chemicals (VOCs) and/or other contaminants. The field screening consisted of visual observation for staining, free fluids, unusual odor, and head space analysis using a photo-ionization detector (PID). The procedures for performing head space analysis are described in the attached SOPs in Appendix A. The boring locations are attached as Drawing 3, superimposed on this drawing are the proposed retail buildings.

4.2 **Groundwater Sampling**: Thirty (30) of the soil borings were extended to groundwater to collect a grab sample. Due to the low permeability of subsurface soils, groundwater was not readily available, therefore temporary wells were constructed consisting of 1-inch diameter schedule 40 polyvinylchloride (PVC) 0.01-inch factory slotted casing set in the borings to aid in sample collection. Grab samples were collected using disposable tubing connected to a peristaltic pump.

The borings were extended to depths of approximately 14 to 15 feet to first encountered groundwater, semi-confined conditions were present and groundwater rose to a potentiometric surface of approximately nine (9) feet bsg. Samples were collected in laboratory prepared containers, labeled, placed on ice, and delivered to a laboratory, along with chain-of-custody documentation. The procedures for sample collection and analysis are described in the attached SOPs in Appendix A.

4.3 **Soil Gas Sampling**: Fifteen (15) soil gas samples were collected from shallow soils. These samples were collected at selected locations at the site in one liter SUMMA canisters from subsurface soils at approximately four and one-half (4.5) feet bgs (recommended guidance from DTSC) in borings from the areas proposed for buildings. When vapor samples could not be collected because of impermeable soils, samples were collected at shallower depths. Soil vapor samples were collected at a flow rate of 120 milliliters per minute. Prior to sampling, the sample collection system was verified for tightness in accordance with established DTSC guidance protocols which are described in the attached SOPs.

4.4 **Laboratory Testing Program:** Selected soil, grab groundwater, and soil vapor samples were analyzed for TPHg, TPHd, BTEX and fuel oxygenates methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert amyl methyl ether (TAME), and tertiary butyl alcohol (TBA). In addition, selected groundwater samples were analyzed for general minerals. Heterotrophic plate counts were taken to enumerate existing microbe populations and for use in planning risk mitigation as a part of this investigation.

Twining is a California Department of Health Services certified hazardous waste laboratory (Certificate No. 1371) for the analyses outlined herein. A description of the laboratory quality assurance/quality control procedures are described in the attached SOPs in Appendix A.

5.0 SUMMARY OF SITE INVESTIGATION

5.1 Overview

This screening-level assessment focuses on potential human health risks associated with the presence of chemicals at the site. For commercial/industrial properties, the CRWQCB recommends that site data be compared to environmental screening levels for both unrestricted/residential and commercial/industrial land use. As described in Section 1.0, the site will be redeveloped as commercial/retail property and deed restricted as such. Accordingly, residential and commercial worker and customer populations are included in this screening-level risk assessment with emphasis on commercial/industrial land use screening levels.

Site redevelopment will result in the site surface being covered with a combination of buildings and hardscape, and isolated landscaped areas. As the surface soils will be mostly covered under the proposed development and impacted soils are at depths of greater than 5 feet bsg, direct contact with soils is not considered a complete exposure pathway for future on-site commercial workers. However, direct exposure is considered a potential for construction workers. As requested by CRWQCB, direct exposure to soils is included as a potential exposure pathway as part of a baseline assessment of potential risks. Thus, for this evaluation, exposure pathways that are relevant for the site, include direct contact with soils and inhalation of vapors that could potentially migrate to indoor air from the subsurface.

Volatile organic chemicals (VOCs) in the subsurface, whether in soil or groundwater, can migrate upward through the soil and enter into buildings, causing an unacceptable chemical exposure for building occupants. The CRWQCB, San Francisco Bay Region, has established a guidance document, environmental screening risk assessments, Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater-February 2005. This guidance document includes Environmental Screening Levels (ESLs) for various chemicals of concern (COCs) found in the various media soil, groundwater and soil gas, and provide concentrations protective of human health and the environment. These concentrations are found in the Summary Tier 1 Lookup Tables provided with the document and provide for residential and commercial/industrial land uses. The relevant ESLs for soil, groundwater, and soil vapor are compared with site concentrations from this site on Tables 1, 2 and 4, respectively.

Analytical results for shallow soils, i.e., upper 10 feet below site grade (bsg) were used to assess the direct contact pathway. As recommended by the CRWQCB and other regulatory agencies, the indoor air pathway has been assessed using shallow soil gas and groundwater data. The screening-level risk assessment has been conducted by comparing site data to the ESLs published by the CRWQCB (2005). For carcinogens, the ESL used in this analysis corresponds to a cancer risk of 10^{-6}. For evaluating the potential for non-cancer health effects, the ESL corresponding to a hazard quotient (HQ) of 0.2 is used in this analysis.

When evaluating groundwater data for potential indoor air impacts, the ESL for low / moderate permeability soils has been used, as this is consistent with subsurface conditions encountered at the site. It should be noted that risks to drinking water resources, aquatic habitats and terrestrial biota have not been included in this assessment as they are not considered relevant to site conditions, the site setting and the proposed redevelopment of the site.

5.1.1 Soils: Soils at the site have generally been found to be comprised of clay to silty clay to depths between the ground surface and 15 feet bgs. At the request of the CRWQCB and for the purposes of this screening level risk assessment, our analysis of soil conditions has focused on shallows soils (less than 10 feet bsg). Analytical results for shallow soils are presented in Table 1. The laboratory analytical reports are included in Appendix B.

As discussed more fully below, TPHg, benzene and xylenes were the only chemicals detected on-site at concentrations that exceed health-based screening goals. The highest concentrations of TPHg, TPHd and benzene in subsurface soil were generally found to be between 10 and 12 feet bgs, directly corresponding to the depth of first encountered groundwater. The detectible concentrations of hydrocarbons in subsurface soil appears to be present at depths near the soil/groundwater interface. These data suggests that the majority of the hydrocarbon impacts to soil below the site are a result of a hydrocarbon "smear" zone from on and offsite sources. The maximum concentrations of TPHg, benzene, and xylenes (400 mg/kg, 0.84 mg/kg, and 14 mg/kg, respectively) exceeded their respective commercial/industrial ESLs (400 mg/kg, 0.38 mg/kg and 11 mg/kg, respectively). In addition the residential ESLs were exceeded at (100 mg/kg, 0.18 mg/kg and 11 mg/kg, respectively) These elevated concentrations occur in the northeastern center of the site at a depth of 10 feet bsg.

Field screening of soils during drilling operations indicated that there was no appreciable PID readings other than at the 10 to 12 foot depths sampled, corresponding to the hydrocarbon smear zone near the soil/groundwater interface. Boring logs indicate a lithology of low permeable soils to a depth of 15 feet bsg. The boring logs are presented in Appendix C of this report.

5.1.2 Groundwater: Groundwater was encountered at depths of between approximately 12 and 14 feet bgs, under semi-confined conditions with a potentiometric groundwater surface at approximately 9 feet bsg and generally flows in a southwesterly direction (published offsite groundwater investigations, Airport Alliance/Former Beacon, 20450 Hesperian Boulevard). Groundwater sample analytical results are presented in Table 2. As discussed more fully below, TPHg, TPHd, BTEX, and fuel oxygenates MTBE and TBA were the only chemicals detected in on-site groundwater at concentrations that exceed health-based screening goals for non-drinking water

source. The maximum concentration of benzene reported in groundwater was 13,000 micrograms per liter (ug/l), which exceeds the benzene ESL of 46 ug/l. This elevated concentration of benzene occurs at S-10 in the northeastern center of the site.

The highest concentrations of TPHg, TPHd, toluene, ethylbenzene, xylenes, MTBE and TBA in groundwater were found at S-10 in the northeastern center of the site at concentrations of 1,000,000 ug/l, 250,000 ug/l, 4,200 ug/l, 19,000 ug/l, 50,000 ug/l, 61,000 ug/l and 41,000 ug/l, respectively.

5.1.3 **Soil Gas:** A soil gas survey was conducted at the Site, concentrating in the areas where buildings will be constructed and in areas where elevated concentrations of VOCs were previously reported in soil and/or groundwater. Analytical results for shallow soil gas (collected from 2 to 4.5 feet bsg) are presented in Table 4.

The soil gas results for all COCs were below the commercial/industrial ESLs. TPHg is the only chemical detected in soil gas samples at concentrations that exceed health-based screening levels for the conservative residential ESLs. The maximum concentrations of TPHg reported in shallow soil gas was 31,810 micrograms per cubic meter (ug/m^3), which exceeds the TPHg ESL of 26,000ug/m^3. This sample is located at S-28 in the southwestern corner of the Site.

It should be noted that it was not possible to obtain shallow soil gas samples at 4.5 feet bsg in 7 of the 15 locations attempted on the northeastern portion of the Site, as subsurface soils proved too impermeable to allow collection of an adequate sample at that depth. Samples were obtained but were from shallower more permeable zones within the borings. The concentrations reported ranged between 662 and 31,081 ug/m^3 for TPHg, 14.39 and 54.56 ug/m^3 for benzene and 0.50 to 17.71 ug/m^3 for MTBE.

The CRWQCBs emphasis for this risk assessment is for the potential for migration of contaminants relative to indoor air quality. Based on results of the soil vapor survey, the shallow low permeable subsurface soils appear to be restricting vertical migration of subsurface soil gas. Soil vapor sample depths are shown on Table 4. The northeastern portion of the site appears less permeable than the southwestern areas of the site.

5.2 Comparison of Site Concentration to Environmental Screening Levels

5.2.1 **Overview of Results:** As discussed in Section 2.3, previous site investigations indicate that the site soils and groundwater are contaminated with chemicals that may be related to past on-site and off-site activities. The chemicals detected in soils, groundwater and soil gas are as follows:

- Soils - TPHg, TPHd, BTEX compounds, TBA and MTBE;
- Groundwater - TPHg, TPHd, BTEX, TBA and MTBE; and
- Soil Gas - TPHg, BTEX and MTBE.

The chemicals of concern (as discussed more fully below), identified as those which are present at concentrations exceeding health-based screening levels, are as follows:

- Soils - TPHg, benzene and xylenes;
- Groundwater - TPHg, TPHd, BTEX, MTBE and TBA; and
- Soil vapor - TPHg.

The areas impacted by these chemicals are on the north-northeastern portion of the site, and extending in the southwestern direction in the center of the 13.45-acre property, and generally correspond to areas downgradient from formerly and currently operated onsite and offsite service stations. The following sections include a brief summary of site conditions, followed by a more detailed discussion of the methodology and results of the screening-level risk assessment.

5.2.2 Restricted Land Use Scenario: The CRWQCB intends to place a deed restriction for use of the property. The use of Commercial/Industrial ESLs are appropriate for proposed commercial uses of this property and are discussed below. Site data, as presented in Tables 1, 2 and 4 and shown on Drawings 4, 5 and 6, were compared to restricted land use (commercial/industrial) ESLs.

Soils

Site soil data for all chemicals detected at the site were compared to commercial/industrial direct contact ESLs, as indicated in Table 1. Sample location S-10 was the only area tested that exceeded the commercial/industrial ESLs for TPHg, benzene and xylenes. TPHg was detected at 400 mg/kg, benzene at 0.84 mg/kg and xylenes at 14 mg/kg. The commercial/residential ESLs are 400 mg/kg, 0.38 mg/kg and 11 mg/kg, respectively.

Groundwater

The concentrations of chemicals present in groundwater were compared to ESLs that are protective of indoor air quality, as shown in Table 2. Analytical results and associated groundwater sampling locations where chemicals were detected in groundwater at levels exceeding screening levels for a non-drinking water source are presented on Drawing 5. An assumption was made that groundwater is not a current or potential source of drinking water at this site. This scenario was used in developing the ESLs. The ESLs have been exceeded at this site. The comparison indicates that the concentrations of TPHg reported in groundwater were lower than the ESLs (500 ug/l) in 16 locations, with the remaining 14 locations above the ESL in the northeastern to the central portion of the site. At location S-10, the concentration of benzene (13,000 ug/l) exceeded the ESL of 46 ug/l by a factor of 282. TPHg was also detected at high concentrations in groundwater, the maximum concentration of TPHg reported in groundwater was 1,000,000 ug/l, at location S-10 also in the northeastern center portion of the site. S-10 was also the location for the highest TPHd concentration of 250,000 ug/l. Note that detectable TPHd concentrations in groundwater were annotated on the laboratory reports as atypical, suggesting that this is predominately a TPHg.

Potential cumulative risks were assessed by comparison of the maximum concentration of each chemical in groundwater to the groundwater screening level for the evaluation of indoor air impacts. Results of these comparisons are presented in Table 4. As noted above, for chemicals detected in groundwater, the cumulative cancer risk above a target risk level of $1x10^{-6}$ would likely be driven primarily by benzene. The cumulative non-cancer hazard is above a Hazard Quotient (HQ) of 1, as all noncarginogenic VOCs (e.g., ethylbenzene, toluene, xylenes, MTBE and TBA) were detected at concentrations well above their respective groundwater ESLs.

Soils Gas

The concentrations of chemicals present in shallow soil gas were compared to ESLs that are protective of commercial/industrial indoor air quality in Table 5. None of the analytical results at associated soil gas monitoring locations were detected in soil gas levels exceeding the commercial/industrial screening levels, these results are presented on Drawing 6.

5.2.3 Unrestricted Land Use Scenario: Site data, as presented in Tables 1, 2 and 4 and shown on Drawings 4, 5 and 6, were compared to unrestricted land use (residential) ESLs.

Soils

Site soil data for all chemicals detected at the site were compared to residential direct contact ESLs, as indicated in Table 1. Analytical results and associated boring locations where chemicals were detected in soils at levels exceeding residential screening levels are presented in Table 1 and Drawing 4.

Concentrations of TPH-g and benzene are present in soil across portions of the site at levels that exceed the residential direct contact ESLs. Concentrations of benzene are present in soil across portions of the site at levels that exceed the commercial direct contact ESL. The comparison indicates that:

- At two locations S-10 and S-11, the non-cancer ESL for TPHg (100 mg/kg) was exceeded. These locations were in the north-northwestern center of the site. The soil samples that exceeded the ESL were from 10 feet bsg, and elevated concentrations ranged between 150 and 400 mg/kg. The sample concentrations exceed the ESL by factors of between 1.5 and 4;

- The concentrations of benzene in soils exceeded the carcinogenic ESL of 0.18 mg/kg in one sample analyzed. The sample had a concentration of benzene at 0.84 mg/kg and was collected from the northeastern center of the site at S-10, at a depth of 10 feet bsg. The sample concentration exceeds the ESL by a factor of 4.66. In addition xylenes exceeded the non-cancer health effect ESL of 11 mg/kg by factor of 1.2; and

- Potential cumulative cancer risks associated with the presence of multiple chemicals in soil were assessed by comparison of the maximum concentration of each chemical in soil to screening level for direct contact. Results of these comparisons are presented in Table 1. As noted above, for chemicals detected in soil, cumulative cancer risk above a cancer risk level of 1 $x10^{-6}$ would likely be driven primarily by benzene.

Groundwater

The concentrations of chemicals present in groundwater were compared to ESLs that are protective of indoor air quality, as shown in Table 2. Analytical results and associated groundwater sampling locations where chemicals were detected in groundwater at levels exceeding screening levels for a non-drinking water source are presented on Drawing 5. The comparison indicates that the concentrations of TPHg reported in groundwater were lower than the ESLs (500 ug/l) in 16 locations, with the remaining 14 locations above the ESL in the northeastern to the central portion of the site. At location S-10, the concentration of benzene (13,000 ug/l) exceeded the ESL of 46 ug/l by a factor of 282. TPHg was also detected at high concentrations in groundwater, the maximum concentration of TPHg reported in groundwater was 1,000,000 ug/l, at location S-10 also in the northeastern center portion of the site. S-10 was also the location for the highest TPHd concentration of 250,000 ug/l. Note that detectable TPHd concentrations in groundwater were annotated on the laboratory reports as atypical, suggesting that this is predominately a TPHg.

Potential cumulative risks were assessed by comparison of the maximum concentration of each chemical in groundwater to the groundwater screening level for the evaluation of indoor air impacts. Results of these comparisons are presented in Table 4. As noted above, for chemicals detected in groundwater, the cumulative cancer risk above a target risk level of $1x10^{-6}$ would likely be driven primarily by benzene. The cumulative non-cancer hazard is above a Hazard Quotient (HQ) of 1, as all noncarginogenic VOCs (e.g., ethylbenzene, toluene, xylenes, MTBE and TBA) were detected at concentrations well above their respective groundwater ESLs.

Soils Gas

The concentrations of chemicals present in shallow soil gas were compared to ESLs that are protective of residential indoor air quality in Table 5. Analytical results and associated soil gas monitoring locations where chemicals were detected in soil gas levels exceeding residential screening levels are presented on Drawing 6. The comparison indicates that TPHg exceeds the residential ESL of 26,000 ug/m^3 at S-28 with a concentration 31,081 ug/m^3. As indicated on Drawing 6, the location with this elevated concentration is in the southwest corner of the site. The sample exceeds the TPHg ESL by a factor of 1.19.

It should be noted that proposed development of this area will include construction of a major retail store and a junior anchor retail store on the southwest portion of the property and three smaller retail stores along Hesperian Boulevard on the northeastern portion of the property. This soil vapor survey has indicated that the low permeable soils encountered beneath the site are likely restricting vertical

vapor migration to the surface, except in one location in the area of sample S-28 where more permeable soils were encountered. Nevertheless, vapor migration could be further mitigated using engineering controls (i.e., a liner, etc.) beneath proposed structures.

In addition to residential ESLs, the supporting tables also present commercial/industrial ESLs.

5.2.4 Summary of Land Use Scenarios:

Soil concentrations in only one area tested (S-10) exceeded both commercial/industrial and residential ESls. Petroleum hydrocarbons were found in groundwater at 28 of the 30 locations at the site, ESLs were exceeded at fourteen of these locations. Soil gas ESLs were not exceeded from commercial/industrial scenarios from any of the locations sampled, the residential ESL for TPHg was exceeded at S-28. It should be noted that soil vapor concentrations were not tested in areas that had the highest concentrations of petroleum hydrocarbons in groundwater; thus, actual soil vapor concentrations could be higher in areas that were not tested. It should also be noted that the upper 2.5 feet of the soils beneath the proposed buildings will consist of a non-expansive engineered fill. This material will exhibit different physical and engineering properties than the native soils.

Since the land use will be deed restricted for commercial/retail use, commercial/industrial ESLs are considered to be appropriate screening criteria for this site.

6.0 CONCLUSIONS

6.1 Conclusions of Screening Level Risk Assessment: As described in the preceding sections, petroleum hydrocarbon-related compounds are present in soil, groundwater, and soil gas across the site, principally in the northeastern central portion of the site. A screening-level risk assessment was conducted by comparing the concentrations detected to the relevant ESLs, as set forth by the CRWQCB for restricted land use. The significant findings and conclusions of the screening- level risk assessment are as follows.

- Concentrations of benzene are present in soil at one location (S-10) on the site at levels that exceed the commercial/industrial direct contact ESL. The proposed development for the site will result in covering the soils with buildings and hardscape except for isolated landscape areas. The fact that impacted subsurface soil is present generally below a depth of 5 feet bsg, direct contact with the impacted soils is not likely to occur except for construction workers. Thus, the proposed development will likely mitigate potential risks associated with direct contact pathways after the construction of the project is complete. A soil and groundwater management plan and heath and safety plan should be prepared prior to future redevelopment activities that specifies special procedures during any disturbance of subsurface soils both during construction and future activities on the site.

- Concentrations of TPH-g and benzene are present in soil at two locations (S-10 and S-11) on the site at levels that exceed the residential direct contact. The proposed development for the site will result in covering the soils with buildings and hardscape except for isolated landscape areas. The fact that impacted subsurface soil is present generally below a depth of 5 feet bsg, direct contact with the impacted soils is not likely to occur except for construction workers. Thus, the proposed development will likely mitigate potential risks associated with direct contact pathways after the construction of the project is complete.

- Impacted groundwater is the principal and pervasive subsurface media distributing contaminants across the site. Concentrations of hydrocarbons in groundwater exceeds ESLs, based on a non-drinking water source, at 14 of 30 locations. It is our understanding that the CRWQCB will require offsite responsible parties to conduct groundwater cleanup activities at the Site, and selective/focused remediation will be conducted in those areas identified from this assessment-baseline investigation by the City of Hayward.

- The concentrations of TPH-g in soil gas at the locations tested are present in soils below the ESLs established for commercial/industrial land uses. However, since the areas with the highest concentrations of hydrocarbons in groundwater were not sampled for soil gas, the potential exists that soil vapor in these areas could be higher than ESLs.

- The concentration of TPH-g in soil gas exceeded residential indoor-air ESLs in one location tested (S-28). This area corresponds to the southwestern portion of the site. It should also be noted that since the areas with the highest concentrations of hydrocarbons in groundwater were not sampled for soil gas, the potential exists that soil vapor in these areas could also be higher than residential ESLs.

- The findings from this environmental screening assessment indicates a potential impact to indoor air quality related to concentrations of hydrocarbons present in soil and groundwater at this site for the proposed commercial/industrial use. Thus, this assessment indicates that the proposed construction should incorporate some design elements (i.e., liners, etc.) to mitigate the potential for migration of vapors from the subsurface into the buildings. In our opinion, the results of this study would indicate that a liner below the proposed buildings should be sufficient to mitigate this potential risk.

- Given that one of the existing buildings will remain as part of the development and high concentrations of hydrocarbons were detected in groundwater in the vicinity of this building, additional assessment of this area should be performed to evaluate soil gas concentrations.

- This assessment and the requirements of the CRWQCB indicate that a focused remediation of the contaminated groundwater should be performed.

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6.2 **Proposed Risk Mitigation:** The results of this investigation revealed widespread groundwater contamination with hydrocarbons at the site (i.e., 28 of 30 groundwater samples analyzed detected hydrocarbons at varying concentrations). Specifically, soil and groundwater at the site that contain concentrations of petroleum hydrocarbons that exceed ESLs are predominantly located in the north and northeast portions of the site. Focused abatement will occur in areas identified from this investigation as impacted with concentrations of hydrocarbons that exceed ESLs and, more specifically, where several of the proposed buildings are to be located on the site. In addition, following demolition of the service station as part of the redevelopment, focused remediation will likely occur at impacted areas found both from this investigation and potentially during UST removal activities.

Based on our discussions with the CRWQCB, the Developer is required to perform a single focused remediation to enhance natural attenuation. Thus, it is not our objective to remediate the existing hydrocarbon contamination identified during this and previous investigations at the site.

Natural attenuation can be enhanced and accelerated with the addition of oxygen to groundwater. Aerobic microbes that degrade petroleum hydrocarbons flourish in an environment of elevated dissolved oxygen. This electron acceptor is often the limiting factor for aerobic microbes capable of biologically degrading contaminants such as petroleum hydrocarbons. Without adequate oxygen, contaminant degradation will either cease or may proceed by much slower anaerobic (oxygen free) processes.

During this soil, groundwater, and soil gas investigation, field groundwater testing of inorganic properties Dissolved Oxygen (DO), Oxidation Reduction Potential (ORP) as well as testing for microbial populations {Heterotrophic Plate Count (HPC)} have indicated that biodegradation is occurring in selected locations at the site. A summary of the groundwater field parameters are included in Table 6. An in-situ enhancement of natural attenuation by introducing an oxygen source is proposed for this site. Specifically, a Regenesis® product ORC *Advanced*™ , which is a mixture of Calcium OxyHydroxide, Calcium Hydroxide and Calcium Hydroxide. This formulation delivers 17 percent oxygen per weight of compound. Oxygen is delivered to the subsurface upon hydration with groundwater. The patented Controlled Release Technology (CRT™) will provide an oxygen source for up to one year. This compound supplies a larger amount of oxygen when hydrated than it's predecessor Oxygen Releasing Compound (ORC®). This compound is a powder, mixed at the surface and pumped in the subsurface at the soil/groundwater interface via a direct push drill system.

Soil gas results have identified areas that would benefit from this technology. The area that is proposed to be injected is shown on Drawing 7. A grid pattern on 10 foot centers are shown on the Drawing. Four pounds per foot of this product will be injected in each of these borings from eleven to fifteen feet bsg for a total of 200 pounds of ORC *Advanced* in Zone A, within the area recognized from increased soil gas concentrations (S-28) to an area of increased groundwater concentration at S-20.

The MSDS for the ORC is attached in Appendix D. The appropriate permitting for drilling will be made with the Alameda County Public Works Agency prior to any field work. There will not be an additional workplan for this scope of work for the site, however this text is intended as an addendum to the previously submitted Phase II Preliminary Assessment Workplan, dated July 19, 2005. This focused abatement work is intended as pre-development work, specific to building/construction activities.

As described previously in this report, groundwater contamination that exceeded ESLs and not considered suitable for natural attenuation was found in the area of soil borings S-10 and S-11. The detected concentrations are considered too great for natural attenuation and/or bio-degradation to take place effectively. Aerobic bioactivity is probably not the active mechanism for petroleum degradation, rendering this portion of the site without any appreciable attenuation. In-situ Chemical Oxidation (ISCO) is proposed for use in this area. Regenesis offers a product *Regenox*®, an ISCO process, which contains a mixture of sodium percarbonate, sodium bicarbonate and sodium silicate, which when mixed with an activator complex-mixture of sodium silicate and ferrous sulfate solution will release hydroxyl radicals. The hydroxyl radical is the second most complete oxidizer in the environment, the oxidation process that is generated will chemically destroy the hydrogen-carbon bond of complex petroleum constituents to an eventual product of carbon dioxide and water. This process continues over about a one month period, substantially decreasing the rapid exothermic reaction from other ISCO processes that takes place when released to the environment, making this an appropriate remediation choice for focused mitigation at the site.

The delivery system for this technology is by way of direct push drilling/ pressure grouting, as is done with the ORC discussed previously in the report. The MSDS for Regenox is attached in Appendix D. As described above, a grid pattern on 5 to 7 feet centers is shown on Drawing 7, four pounds per foot of this product will be injected in each of these 15 borings from eleven to fifteen feet bsg for a total of 240 pounds of *Regenox* in Zone B, within the area recognized as containing elevated petroleum hydrocarbon concentrations in groundwater (area in the proximity of soil borings S-10 to S-11).

Given the direction of groundwater flow and the concentrations of hydrocarbons detected at the site, the optimum location of the injection points of ISCO or ORC would be at the upgradient side of the project site (i.e., along Hesperian Boulevard). However, the existence of buildings and associated improvements (such as a fiber optic line, etc.) prevents the injection of ISCO or ORC at this preferred location. Thus, alternate locations were selected for injection. This approach will not treat the impacted groundwater between Hesperian Boulevard and the existing buildings, some of which are scheduled to remain as part of the development.

It should be noted that an additional phase of the focused remediation may be required by the CRWQCB at the location of the existing gasoline service station (JTs Service) located on the site. The requirements for this focused remediation will not be known until the underground gasoline tanks are removed and the area is tested.

7.0 RECOMMENDATIONS

Soils and groundwater at the site contain compounds related to petroleum hydrocarbons, predominantly in the northeastern central portion of the Site. As discussed above, the proposed development can be constructed in a manner such that contact with and exposure to the residual concentrations of compounds left in soil and groundwater at the site can be managed.

Prior to site redevelopment activities, a Health and Safety Plan, and a Soil and Groundwater Management Plan should be prepared. These documents should address construction worker health and safety issues and procedures for management of impacted soil and groundwater encountered during redevelopment and future activities at the site.

A single focused remediation, as required by the CRWQCB, should be performed as described in this report. It is our understanding that the CRWQCB is not requiring groundwater monitoring to assess the effectiveness of the required focused remediation program. It is also our understanding that the CRWQCB will require the off-site responsible parties to perform future monitoring and remediation as required.

After the Skywest Plaza project is developed, the surface of the site will mostly be covered with buildings and associated hardscape except for isolated landscape areas. The Skywest Plaza development will be reserved for commercial use. Special protective measures are to be undertaken at the Skywest Plaza development to reduce the potential for migration of vapors from the subsurface into future site buildings. As indicated by this assessment and as agreed to with the CRWQCB, a vapor membrane/liner that is compatible with the constituents of concern will be installed beneath the slabs-on-grade of the buildings constructed at the site. In addition, other pathways such as utility trenches will be constructed using special procedures to reduce the potential for migration of vapor into the buildings. Indoor air-quality monitoring may be required after the buildings are completed to verify acceptable concentrations of the constituents of concern.

Given the findings of this study, the indoor air quality of existing buildings to remain as part of the development should be assessed to determine if any indoor air quality issues associated with the soil and groundwater hydrocarbon contamination exist.

The future use of the property will be deed restricted for commercial/industrial use only according to the guidelines provided by the CRWQCB and the City of Hayward.

This report should be submitted to the CRWQCB for review and approval.

8.0 LIMITATIONS

The proposed work is intended to be an interactive process. Additional work may be required to further assess the extent of impacts to soil and groundwater. The purpose of this assessment is to

reasonably characterize existing site conditions based on the geology/hydrogeology of the area. In performing such an assessment, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic.

No investigation is thorough enough to describe all geologic/hydro geologic conditions of interest at a given site. If conditions are not identified during the study, such a finding should not be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed. Where subsurface exploratory work is performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

This report was prepared for the sole use of the client and appropriate regulatory agencies. Any reliance on this report by a third party is at such party's sole risk. The professional services will be performed, the findings obtained, and the conclusions prepared in accordance with generally-accepted engineering principles and practices in California at the time the work is performed. This warranty is in lieu of all other warranties, either expressed or implied.

9.0 CLOSING

Twining appreciates the opportunity to be of service to you on this project. If you should have any questions, please do not hesitate to contact our office at (800) 268-7021.

Respectfully Submitted,

THE TWINING LABORATORIES, INC.
Environmental and Geological Services Division

Vern Bennett
Senior Phase II Supervisor

Keith Mayes, RG No. 7555
Environmental Division Manager

cc: California Regional Water Quality Control Board, 1515 Clay Street, Suite 1400, Oakland, California, 94612

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10.0 REFERENCES

The Twining Laboratories, Inc. Phase II Preliminary Assessment Workplan Proposed Retail Shopping Center Northwest Corner of Hesperian Boulevard and A Street, Hayward, California July 19, 2005.

The Twining Laboratories, Inc. Phase I Environmental Site Assessment 13.95-Acre Lot on the Northwest corner of Hesperian Boulevard and A Street, Hayward, California Project No. A07281.01 June 24, 2005.

Waterstone Environmental, Inc. Phase II Environmental Assessment Report Master Lease 20400 Block of Hesperian Boulevard Hayward, California April 5, 2004.

Pacific Environmental Group, Inc. Additional Assessment Report Former Texaco Service Station 20499 Hesperian Boulevard at West A Street Hayward, California October 1, 1998.

Department of Toxic Substances Control, California Environmental Protection Agency and California Regional Water Quality Control Board, Los Angeles Region Advisory-Active Soil Gas Investigations January, 2003.

Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables Interim Final - CRWQCB San Francisco Bay Region February, 2005.

Interim Final - Guidance For The Evaluation And Mitigation Of Subsurface Vapor Intrusion To Indoor Air. Department of Toxic Substances Control, California Environmental Protection Agency, December 15, 2004 (revised February 7, 2005).

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TABLES

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
Proposed Skywest Plaza
Hayward, California

Sample Identification	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	Regulatory Standard	
Depth (FBSG)	12'	10'	10'	10'	10'	10'	10'	10'	10'	10'	Residential ESLs	Commercial/ Industrial ESLs
Analysis - US EPA Method 8021B												
Methyl tert-Butyl Ether (mg/kg)	< 0.01	< 0.01	**0.043**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 5	2	5.6
Benzene (mg/kg)	< 0.005	< 0.005	**0.025**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.84**	0.18	0.38
Toluene (mg/kg)	< 0.005	< 0.005	**0.026**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**1.4**	9.3	9.3
Ethylbenzene (mg/kg)	< 0.005	< 0.005	**0.12**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**3.3**	32	32
Total Xylenes (mg/kg)	< 0.005	< 0.005	**0.47**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**14**	11	11
TPH - gasoline range (mg/kg)	< 1	< 1	**13**	< 1	< 1	< 1	< 1	< 1	< 1	**400**	100	400
Analysis - US EPA Method 8260B												
1,2-Dichloroethane (mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	0.025	0.07
Ethylene Dibromide (mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	0.0073	0.02
Di-isopropyl ether (mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.2	- - - -	- - - -
Ethyl tert-Butyl Ether (mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.2	- - - -	- - - -
Methyl tert-Butyl Ether (mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**1.1**	2	5.6
Tert-Amyl Methyl Ether (mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.2	- - - -	- - - -
tert-Butyl Alcohol (mg/kg)	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 2	57	110
Analysis - US EPA Method 8015 modified												
TPH - diesel range (mg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	**31 ***	100	500
Total Lead (mg/kg)	<25	NA	NA	NA	NA	NA	NA	NA	<25	NA	150	750
Total Organic Carbon (%)	0.99%	NA	NA	NA	NA	NA	NA	NA	NA	NA	- - - -	- - - -

FBSG = feet below site grade
mg/kg = milligrams per kilogram
NA = not analyzed
* = atypical diesel pattern
US EPA = United States Environmental Protection Agency
TPH = total petroleum hydrocarbons
<2 = less than followed by the laboratory detection limit (not detected)
Regulatory Standard = California Regional Water Quality Control Board - San Francisco Region Environmental Screening Levels (Residential and Commercial/Industrial Land Use, Shallow Soils, Non-Drinking Water - February 2005)

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
Proposed Skywest Plaza
Hayward, California

Sample Identification	S-11	S-12	S-13	S-14	S-15	S-16	S-17	S-18	S-19	S-20	Regulatory Standard	
Depth (FBSG)	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	Residential ESLs	Commercial/ Industrial ESLs
Analysis - US EPA Method 8021B												
Methyl tert-Butyl Ether (mg/kg)	< 5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2	5.6
Benzene (mg/kg)	< 0.5	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18	0.38
Toluene (mg/kg)	< 0.5	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.3	9.3
Ethylbenzene (mg/kg)	**1.3**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	32	32
Total Xylenes (mg/kg)	**4.9**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	11	11
TPH - gasoline range (mg/kg)	**150**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	100	400
Analysis - US EPA Method 8260B												
1,2-Dichloroethane (mg/kg)	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.025	0.07
Ethylene Dibromide (mg/kg)	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0073	0.02
Di-isopropyl ether (mg/kg)	< 0.2	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	- - - -	- - - -
Ethyl tert-Butyl Ether (mg/kg)	< 0.2	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	- - - -	- - - -
Methyl tert-Butyl Ether (mg/kg)	**1.2**	**0.0026**	< 0.001	**0.0047**	< 0.001	**0.0036**	**0.0023**	**0.0078**	< 0.001	< 0.001	2	5.6
Tert-Amyl Methyl Ether (mg/kg)	< 0.2	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	- - - -	- - - -
tert-Butyl Alcohol (mg/kg)	< 2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	57	110
Analysis - US EPA Method 8015 modified												
TPH - diesel range (mg/kg)	**18 ***	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	100	500
Total Lead (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	150	750
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	- - - -	- - - -

FBSG = feet below site grade
mg/kg = milligrams per kilogram
NA = not analyzed
* = atypical diesel pattern
US EPA = United States Environmental Protection Agency
TPH = total petroleum hydrocarbons
<2 = less than followed by the laboratory detection limit (not detected)
Regulatory Standard = California Regional Water Quality Control Board - San Francisco Region Environmental Screening Levels (Residential and Commercial/Industrial Land Use, Shallow Soils, Non-Drinking Water - February 2005)

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
Proposed Skywest Plaza
Hayward, California

Sample Identification	S-21	S-22	S-23	S-24	S-25	S-26	S-27	S-28	S-29	S-30	Regulatory Standard	
Depth (FBSG)	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	Residential ESLs	Commercial/ Industrial ESLs
Analysis - US EPA Method 8021B												
Methyl tert-Butyl Ether (mg/kg)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1/2/00	1/5/00
Benzene (mg/kg)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18	0.38
Toluene (mg/kg)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.3	9.3
Ethylbenzene (mg/kg)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	32	32
Total Xylenes (mg/kg)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	11	11
TPH - gasoline range (mg/kg)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	100	400
Analysis - US EPA Method 8260B												
1,2-Dichloroethane (mg/kg)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.025	0.07
Ethylene Dibromide (mg/kg)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0073	0.02
Di-isopropyl ether (mg/kg)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	- - - -	- - - -
Ethyl tert-Butyl Ether (mg/kg)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	- - - -	- - - -
Methyl tert-Butyl Ether (mg/kg)	< 0.001	< 0.001	**0.0074**	**0.016**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	2	5.6
Tert-Amyl Methyl Ether (mg/kg)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	- - - -	- - - -
tert-Butyl Alcohol (mg/kg)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	57	110
Analysis - US EPA Method 8015 modified												
TPH - diesel range (mg/kg)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	100	500
Total Lead (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.8	150	750
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	- - - -	- - - -

FBSG = feet below site grade
mg/kg = milligrams per kilogram
NA = not analyzed
* = atypical diesel pattern
US EPA = United States Environmental Protection Agency
TPH = total petroleum hydrocarbons
<2 = less than followed by the laboratory detection limit (not detected)
Regulatory Standard = California Regional Water Quality Control Board - San Francisco Region Environmental Screening Levels (Residential and Commercial/Industrial Land Use, Shallow Soils, Non-Drinking Water - February 2005)

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
Proposed Skyway Plaza
Hayward, California

Sample Identification	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Regulatory Standard	
											ESLs	MCLs
Analysis - US EPA Method 8012/8015 modified												
Methyl tert-Butyl Ether (ug/L)	< 0.5	< 0.5	**7,800**	**6.5**	**1.5**	**1.7**	**13**	**8.1**	< 0.5	**93,000**	1,800	13 e
Benzene (ug/L)	< 0.5	**80**	**7,300**	< 0.5	**1.5**	< 0.5	**17**	< 0.5	**3.4**	**13,000**	46	1
Toluene (ug/L)	< 0.5	**79**	**1,700**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**4,200**	130	150
Ethylbenzene (ug/L)	< 0.5	**150**	**3,000**	< 0.5	**0.66**	< 0.5	**12**	< 0.5	**0.58**	**19,000**	290	700
Total Xylenes (ug/L)	< 0.5	**86**	**8,300**	< 0.5	**2.8**	< 0.5	**11**	**1.1**	**2.4**	**50,000**	100	1,750
TPH - gasoline range (ug/L)	**7,100**	**26,000**	**60,000**	< 50	**280**	**160**	**4,100**	**170**	**360**	**1,000,000**	500	- - - -
Analysis - US EPA Method 8260B												
1,2-Dichloroethane (ug/L)	< 5	< 5	< 10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 50	200	0.50
Ethylene Dibromide (ug/L)	< 5	< 5	< 10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 50	150	0.050
Di-isopropyl ether (ug/L)	< 5	< 5	< 10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 200	- - - -	- - - -
Ethyl tert-Butyl Ether (ug/L)	< 5	< 5	< 10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 200	- - - -	- - - -
Methyl tert-Butyl Ether (ug/L)	**7.4**	< 5	**8,500**	**6.5**	**1.3**	**1.8**	**4.2**	**7.8**	< 0.5	**61,000**	1,800	13 e
Tert-Amyl Methyl Ether (ug/L)	< 5	< 5	**23**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 200	- - - -	- - - -
tert-Butyl Alcohol (ug/L)	< 200	< 200	**4,200**	< 20	< 20	< 20	< 20	< 20	< 20	**41,000**	18,000	12 e
Analysis - US EPA Method 8015 modified												
TPH - diesel range (ug/L)	**17000 ***	**290,000 ***	**35,000 ***	**54 ***	**1,300 ***	**360 ***	**17,000 ***	**210 ***	**200 ***	**250,000 ***	640	- - - -

mg/L = milligrams per liter
ug/L = micrograms per liter
* = atypical diesel pattern
TPH = total petroleum hydrocarbons
US EPA = United States Environmental Protection Agency
NA = not analyzed
<2 = less than followed by the laboratory detection limit (not detected)
e = Action Level
MCLs = Maximum Contamination Level for Drinking Water
ESLs = California Regional Water Quality Control Board - San Francisco Region Environmental Screening Levels
(Groundwater, Shallow Soils, Non-Drinking Water - February 2005)

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
Proposed Skyway Plaza
Hayward, California

Sample Identification	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	Regulatory Standard	
											ESLs	MCLs
Analysis - US EPA Method 8021/8015 modified												
Methyl tert-Butyl Ether (ug/L)	**70,000**	**17**	< 2.5	< 2.5	< 2.5	**10**	< 2.5	**1,200**	**76**	**14**	1,800	13 e
Benzene (ug/L)	**5,500**	**25**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**42**	< 0.5	< 2.5	46	1
Toluene (ug/L)	**2,100**	< 2.5	< 0.5	< 0.5	< 0.5	**0.74**	< 0.5	**8.8**	< 0.5	**16**	130	150
Ethylbenzene (ug/L)	**6,700**	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 2.5	290	700
Total Xylenes (ug/L)	**16,000**	< 7.5	<1.5	< 1.5	< 1.5	<1.5	< 1.5	< 7.5	< 1.5	< 7.5	100	1,750
TPH - gasoline range (ug/L)	**280,000**	**6,400**	< 50	< 50	< 50	**580**	< 50	**3,700**	**67**	**12,000**	500	- - - -
Analysis - US EPA Method 8260B												
1,2-Dichloroethane (ug/L)	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	200	0.50
Ethylene Dibromide (ug/L)	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	150	0.050
Di-isopropyl ether (ug/L)	< 200	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	- - - -	- - - -
Ethyl tert-Butyl Ether (ug/L)	< 200	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	- - - -	- - - -
Methyl tert-Butyl Ether (ug/L)	**48,000**	< 1	< 1	< 1	< 1	**10**	< 1	**990**	**53**	**8.1**	1,800	13 e
Tert-Amyl Methyl Ether (ug/L)	< 200	< 2	< 2	< 2	< 2	< 2	< 2	**2**	< 2	< 2	- - - -	- - - -
tert-Butyl Alcohol (ug/L)	**32,000**	< 20	< 20	< 20	< 20	< 20	< 20	**330**	< 20	**70**	18,000	12 e
Analysis - US EPA Method 8015 modified												
TPH - diesel range (ug/L)	**120,000***	**15,000 ***	**120 ***	**120 ***	**85 ***	**420 ***	< 50	**4,000 ***	**52 ***	**15,000 ***	640	- - - -

mg/L = milligrams per liter
ug/L = micrograms per liter
* = atypical diesel pattern
TPH = total petroleum hydrocarbons
US EPA = United States Environmental Protection Agency
NA = not analyzed
<2 = less than followed by the laboratory detection limit (not detected)
e = Action Level
MCLs = Maximum Contamination Level for Drinking Water
ESLs = California Regional Water Quality Control Board - San Francisco Region Environmental Screening Levels
(Groundwater, Shallow Soils, Non-Drinking Water - February 2005)

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
Proposed Skyway Plaza
Hayward, California

Sample Identification	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	Regulatory Standard	
											ESLs	MCLs
Analysis - US EPA Method 8021/8015 modified												
Methyl tert-Butyl Ether (ug/L)	< 2.5	< 2.5	**600**	**370**	**16**	**9.9**	**4.4**	**9**	**16**	**35**	1,800	13 e
Benzene (ug/L)	< 0.5	< 0.5	**5.7**	**24**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	46	1
Toluene (ug/L)	**3**	< 0.5	< 2.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	130	150
Ethylbenzene (ug/L)	< 0.5	< 0.5	**6.8**	**40**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	290	700
Total Xylenes (ug/L)	< 1.5	< 1.5	< 7.5	< 7.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	100	1,750
TPH - gasoline range (ug/L)	**1,800**	< 50	**1,300**	**1,100**	< 50	**1,500**	< 50	< 50	< 50	< 50	500	- - - -
Analysis - US EPA Method 8260B												
1,2-Dichloroethane (ug/L)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	200	0.50
Ethylene Dibromide (ug/L)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	150	0.050
Di-isopropyl ether (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	- - - -	- - - -
Ethyl tert-Butyl Ether (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	- - - -	- - - -
Methyl tert-Butyl Ether (ug/L)	**2.2**	< 1	**460**	**260**	**15**	**4.6**	**4.1**	**8.2**	**14**	**53**	1,800	13 e
Tert-Amyl Methyl Ether (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	- - - -	- - - -
tert-Butyl Alcohol (ug/L)	< 20	< 20	**200**	**110**	< 20	< 20	< 20	< 20	**140**	< 20	18,000	12 e
Analysis - US EPA Method 8015 modified												
TPH - diesel range (ug/L)	**170 ***	< 50	**260 ***	**250 ***	**340 ***	**810 ***	**86 ***	**85 ***	**110 ***	**92 ***	640	- - - -

mg/L = milligrams per liter
ug/L = micrograms per liter
* = atypical diesel pattern
TPH = total petroleum hydrocarbons
US EPA = United States Environmental Protection Agency
NA = not analyzed
<2 = less than followed by the laboratory detection limit (not detected)
e = Action Level
MCLs = Maximum Contamination Level for Drinking Water
ESLs = California Regional Water Quality Control Board - San Francisco Region Environmental Screening Levels
(Groundwater, Shallow Soils, Non-Drinking Water - February 2005)

TABLE 3
SUMMARY OF GENERAL MINERAL ANALYTICAL RESULTS
Proposed Skyway Plaza
Hayward, California

Sample Identification	S1	S3	S9	S30
Alkalinity (mg/L)	520	610	540	460
Bicarbonate (mg/L)	640	750	660	570
Carbonate (mg/L)	< 20	< 20	< 20	< 20
Hydroxide (mg/L)	< 20	< 20	< 20	< 20
Hardness (mg/L)	1300	530	520	510
Chloride (mg/L)	60	59	120	85
Sulfate (mg/L)	< 2	< 2	< 2	35
Nitrates (mg/L)	NA	NA	NA	8.3
Total Dissolved Solids (mg/L)	680	730	730	680
pH	6.8	6.5	6.7	6.7
Ec (uS/cm)	1100	1200	1300	1100
Langlier Index	0.34	0.18	0.02	-0.04
MBAS	< 0.05	< 0.05	< 0.05	< 0.05
Calcium (mg/L)	200	120	120	120
Magnesium (mg/L)	190	56	53	50
Manganese (mg/L)	18	7.8	7.9	0.32
Potassium (mg/L)	41	4.6	3.5	3.4
Sodium (mg/L)	94	84	94	79
Copper (ug/L)	0.62	0.037	0.024	0.019
Lead (ug/L)	0.23	0.0079	0.0056	0.005
Iron, dissolved (mg/L)	1.7	0.84	2.6	< 0.1
Total Iron	390	23	20	19
Heterotrophic Plate Count (CFU/ml)	400	NA	NA	29

mg/L = milligrams per liter
ug/L = micrograms per liter
uS/cm = micro siemens per centimeter
CFU/ml = colony forming units per milliliter
MBAS = Methylene Blue Active Substances
NA = not analyzed
<2 = less than followed by the laboratory detection limit (not detected)

TABLE 4
SUMMARY OF VAPOR SAMPLE ANALYTICAL RESULTS
Proposed Skywest Plaza
Hayward, California

Sample Identification	S1 *	S2	S5	S8	S9	S13	S16	S19	Shallow Soil Gas Screening Levels	
Depth (FBSG)	2'	2'	4.5'	2.5'	3'	2.5'	4.5'	2'	Residential ESLs	Commercial/ Industrial ESLs
Petroleum Hydrocarbon Constituent										
Benzene (ug/m^3)	54.56	42.58	27.06	20.80	14.39	28.50	26.30	46.03	85	290
Toluene (ug/m^3)	114.70	11.97	12.89	9.96	13.00	54.30	16.30	23.43	63,000	180,000
Ethylbenzene (ug/m^3)	16.52	9.40	3.50	3.68	6.81	2.20	1.40	33.31	42,000	1,200,000
Total Xylenes (ug/m^3)	39.77	28.85	9.30	18.11	23.01	3.50	4.20	99.15	150,000	410,000
Methyl tert-Butyl Ether (ug/m^3)	< 4.72	2.40	1.48	17.71	< 0.97	< 0.9	1.20	1.40	9,400	31,000
TPH - gasoline range (ug/m^3)	662	11,089	8,108	15,567	2,190	890	1,841	6,817	26,000	72,000

Sample Identification	S20	S21	S22	S23	S28	S29	S30		Shallow Soil Gas Screening Levels	
Depth (FBSG)	4.5'	4.5'	4.5'	3'	4'	4'	4.5'		Residential ESLs	Commercial/ Industrial ESLs
Petroleum Hydrocarbon Constituent										
Benzene (ug/m^3)	15.61	27.30	15.47	47.78	32.75	27.30	17.90		85	290
Toluene (ug/m^3)	16.56	49.80	30.05	113.49	58.05	41.10	18.30		63,000	180,000
Ethylbenzene (ug/m^3)	7.27	2.60	11.50	94.44	17.30	2.10	1.40		42,000	1,200,000
Total Xylenes (ug/m^3)	20.29	2.90	43.27	346.61	63.03	2.60	3.00		150,000	410,000
Methyl tert-Butyl Ether (ug/m^3)	0.50	5.40	1.38	7.84	8.56	1.30	< 0.8		9,400	31,000
TPH - gasoline range (ug/m^3)	7,003	1,392	1,328	2,259	31,081	4,248	5,227		26,000	72,000

ug/m^3 = micrograms per cubic meter
FBSG = feet below site grade
NA = not analyzed
TPH = total petroleum hydrocarbons
ESLs = Environmental Screening Levels
< 4.72 = less than followed by the method detection limit (not detected)

* Results of the isopropyl alcohol analysis for system tightness testing were not detected (see Appendix B)

Indoor Air Screening Levels = California Regional Water Quality Control Board - San Francisco Region Environmental Screening Levels (Shallo Soil Gas - February 2005)

TABLE 5
SUMMARY OF VAPOR SAMPLING
Proposed Skyway Plaza
Hayward, California

Sample Identification	Sample Interval		Sample Cantister		Comments
	Initial Depth (FBSG)	Final Sample Depth (FBSG)	Initial Vacuum Pressure (" Hg)	Final Vacuum Pressure (" Hg)	
S1	4.5	2	30	7	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S2	4.5	2	30	2	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S5	4.5	4.5	27	3.5	Adaquate permeability for vapor sampling at 4.5 FBSG.
S8	4.5	1.5	25	5	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S9	4.5	3	30	5	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S13	4.5	2.5	30	5	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S15	4.5	4.5	25	0	Adaquate permeability for vapor sampling at 4.5 FBSG.
S19	4.5	2	30	5	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.

TABLE 5
SUMMARY OF VAPOR SAMPLING
Proposed Skyway Plaza
Hayward, California

Sample Identification	Sample Interval		Sample Cantister		Comments
	Initial Depth (FBSG)	Final Sample Depth (FBSG)	Initial Vacuum Pressure (" Hg)	Final Vacuum Pressure (" Hg)	
S20	4.5	4.5	30	0.5	Adaquate permeability for vapor sampling at 4.5 FBSG.
S21	4.5	4.5	30	0	Adaquate permeability for vapor sampling at 4.5 FBSG.
S22	4.5	4.5	30	2	Adaquate permeability for vapor sampling at 4.5 FBSG.
S23	4.5	3	26	5	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S28	4.5	4	24	0	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S29	4.5	4	30	1	Inadaquate permeability for vapor sampling at 4.5 FBSG. Vacuum pressure between formation and purge cannister at initial depth remained constant for 10 to 15 minutes. Depth interval for vapor sample shifted until vacuum pressure in formation began to drop.
S30	4.5	4.5	30	4	Adaquate permeability for vapor sampling at 4.5 FBSG.

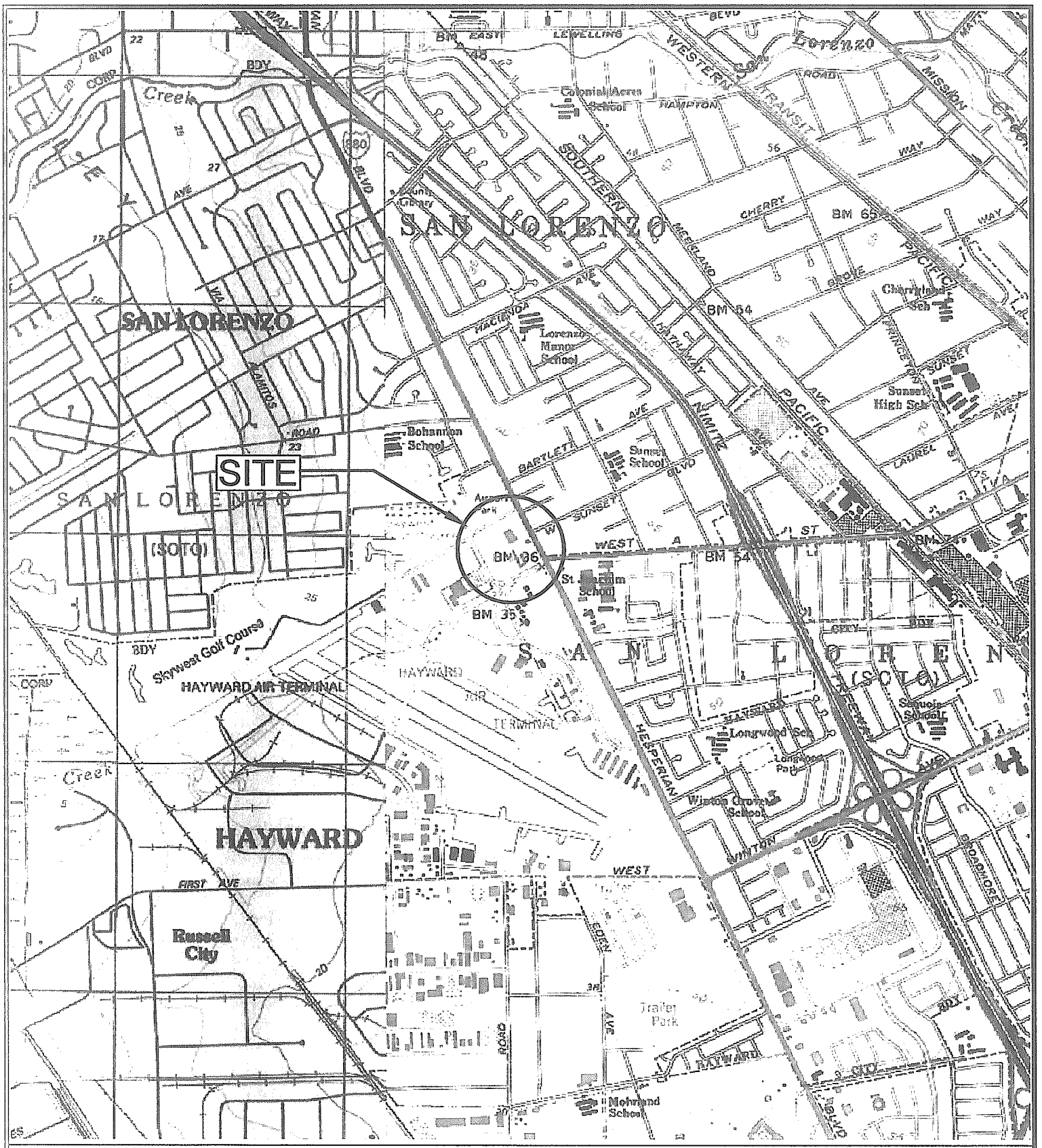
Notes:
FBSG = feet below site grade
" Hg = inches of mercury (pressure)

TABLE 6
SUMMARY OF GROUNDWATER FIELD PARAMETERS
Proposed Skyway Plaza
Hayward, California

Sample Identification	Temperature (°C)	Specific Conductance (uS/cm)	pH	Dissolved Oxygen (mg/L)	ORP (mV)	Total Dissolved Solids (mg/L)
S1	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
S2	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
S3	- - - -	1162	6.58	1.83	+ 124	- - - -
S4	28	987	6.58	- - - -	+ 127	662
S5	28	1008	6.74	3.45	+ 93	- - - -
S6	27	1043	- - - -	- - - -	+ 102	713
S7	25	1021	6.61	0.95	+ 151	688
S8	25	1072	6.67	0.52	+ 130	730
S9	24	1262	6.70	0.92	+ 65	866
S10	24	1189	6.57	0.95	+ 20	- - - -
S11	24	1150	6.62	1.00	+ 50	790
S12	22	1025	6.76	1.31	+ 16	703
S13	23	861	7.24	2.65	+ 94	586
S14	22	533	7.12	1.75	+ 65	358
S15	23	825	6.82	3.95	+ 110	558
S16	24	908	6.87	1.18	+ 112	618
S17	24	935	7.10	1.66	+ 88	635
S18	27	1103	6.78	1.93	+ 85	756
S19	26	929	7.03	1.28	+ 81	630
S20	23	1067	8.20	0.58	+ 55	733
S21	24	855	7.30	1.22	+ 18	575
S22	27	708	6.72	2.40	+ 140	474
S23	27	1125	6.69	1.33	+ 94	772
S24	27	1066	6.66	1.30	+ 132	728
S25	27	1087	6.77	1.00	+ 86	752
S26	27	1028	6.92	0.72	+ 77	700
S27	21	1100	6.91	1.18	+ 153	760
S28	22	1151	6.97	0.83	+ 152	795
S29	26	1085	6.76	0.80	+ 117	747
S30	26	1047	7.28	0.90	+ 60	728

°C = degrees Celsius
mg/L = milligrams per liter
uS/cm = microsiemens per centimeter
mV = millivolts
ORP = oxidation/reduction potential

DRAWINGS



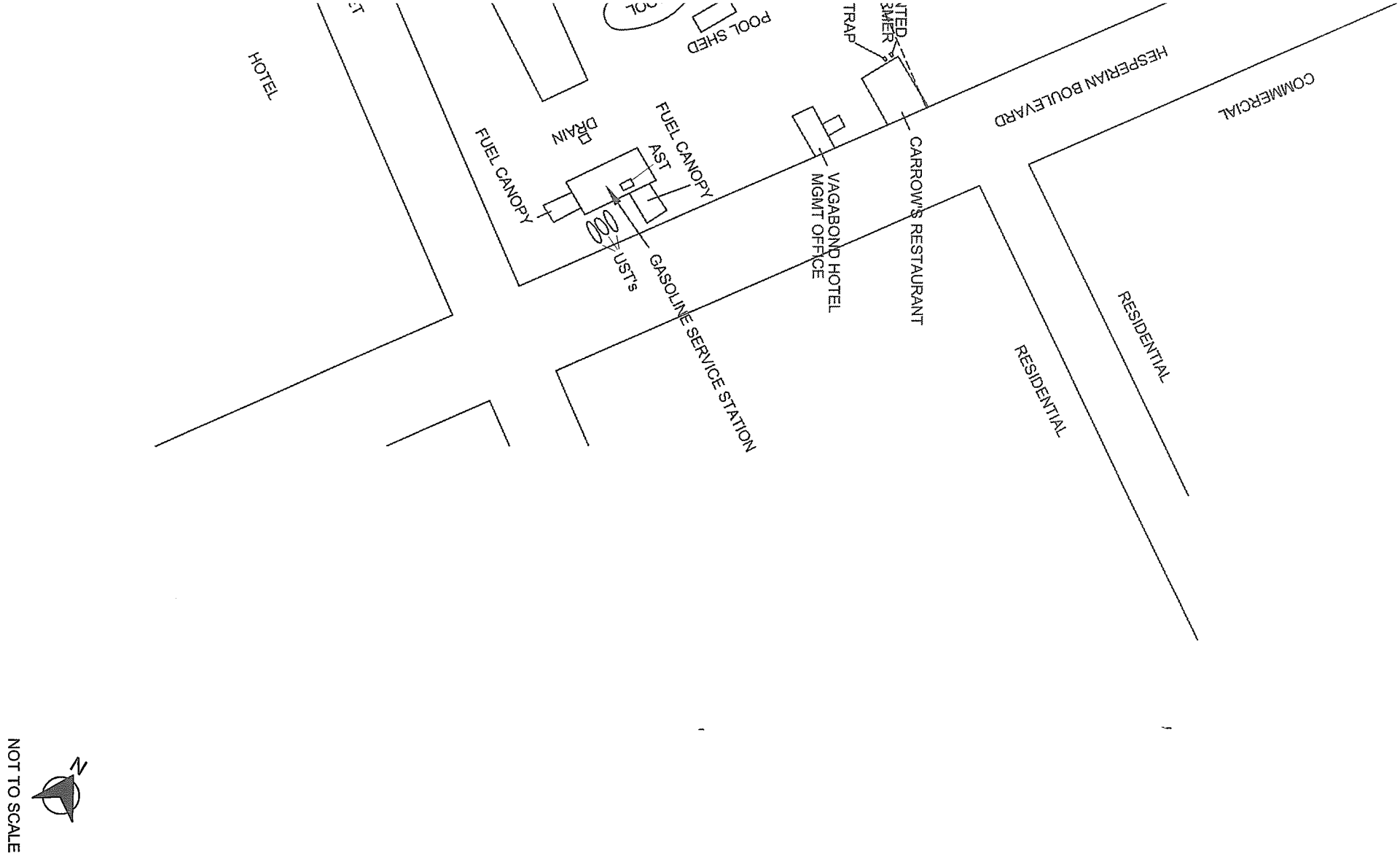
SOURCE: U.S.G.S. TOPOGRAPHIC MAP, 7 ½ MINUTE SERIES
HAYWARD, CALIFORNIA QUADRANGLE, PHOTOREVISED 1993

0 2000
APPROXIMATE SCALE IN FEET

SITE LOCATION MAP
HESPERIAN AND A STREET
HAYWARD, CALIFORNIA

FILE NO.: 07281-01-01	DATE: 05/24/05
DRAWN BY: RM	APPROVED BY:
PROJECT NO. A07281.01	DRAWING NO. 1

THE TWINING LABORATORIES, INC.
EST. 1898
FRESNO/MODESTO/VISALIA/BAKERSFIELD/MONTEREY



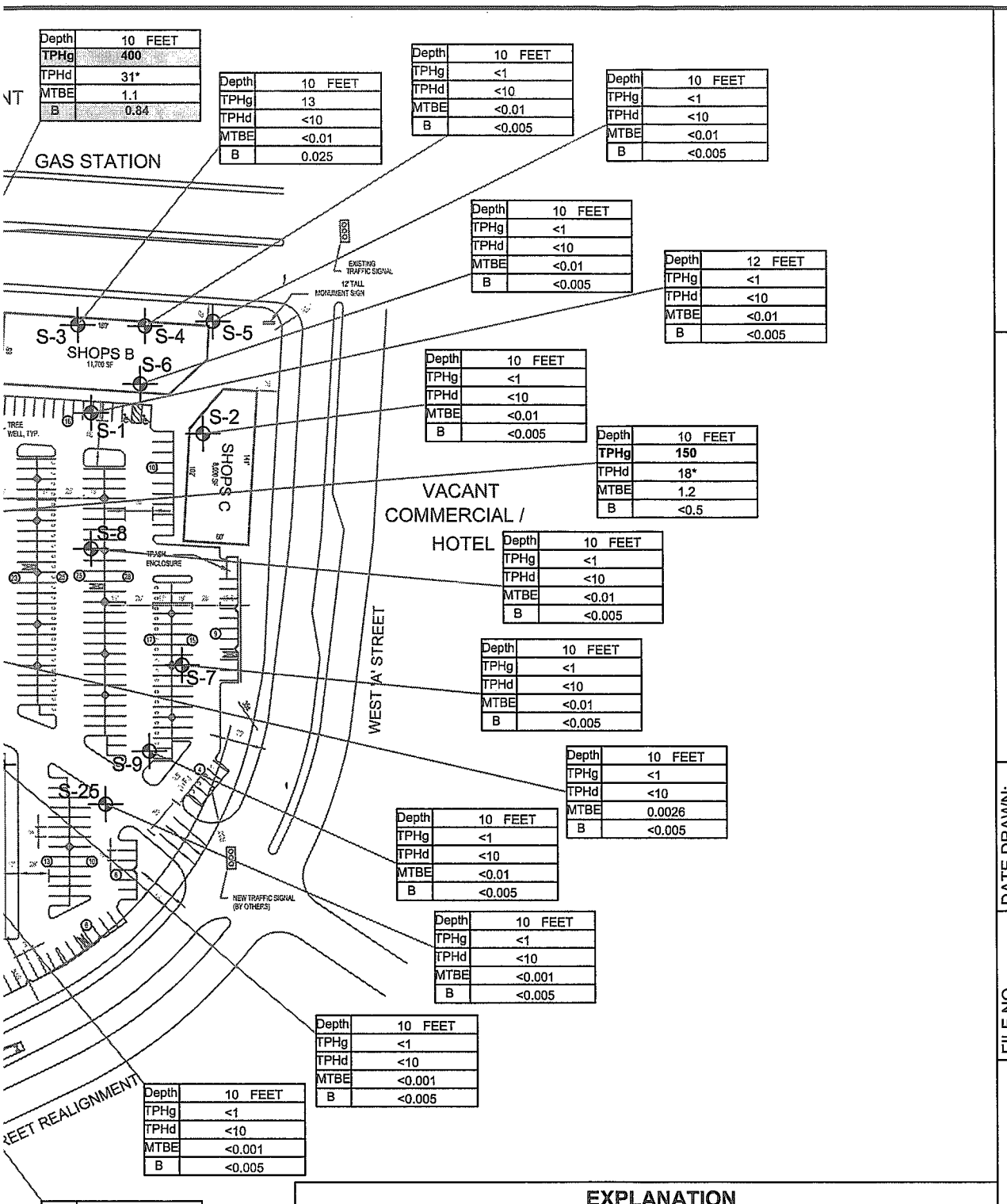
SITE PLAN HESPERIAN AND A STREET HAYWARD, CALIFORNIA	FILE NO. 07282-01-02	DATE DRAWN: 08/19/05	THE TWINING LABORATORIES, INC. EST.1898 FRESNO/MODESTO/VISALIA/BAKERSFIELD/MONTEREY
	DRAWN BY: RM	APPROVED BY:	
SOURCE: RSC ENGINEERING, PROJECT 019-002, 05-05-05	PROJECT NO. A07282.01	DRAWING NO. 2	

THE TWINING LABORATORIES, INC.
EST. 1898
FRESNO/MODESTO/VISALIA/BAKERSFIELD/MONTEREY

FILE NO. 07282-01-02	DATE DRAWN: 08/19/05
DRAWN BY: RM	APPROVED BY:
PROJECT NO. A07282.01	DRAWING NO. 3

TEST BORING LOCATION MAP
PROPOSED "A" STREET RETAIL CENTER
HAYWARD, CALIFORNIA

SOURCE: RSC ENGINEERING, PROJECT 019-002, 05-05-05



Depth	10 FEET
TPHg	400
TPHd	31*
MTBE	1.1
B	0.84

Depth	10 FEET
TPHg	13
TPHd	<10
MTBE	<0.01
B	0.025

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	12 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	10 FEET
TPHg	150
TPHd	18*
MTBE	1.2
B	<0.5

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	0.0026
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.01
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.001
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.001
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.001
B	<0.005

Depth	10 FEET
TPHg	<1
TPHd	<10
MTBE	<0.001
B	<0.005

EXPLANATION

Depth	1.5	4.5
TPHg	-	18
TPHd	8	10
MTBE	.5*	-
B	340	110

DEPTH IN FEET bgs

CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (ug/L)

CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS DIESEL (ug/L)

CONCENTRATION OF METHYL TERT-BUTYL ETHANE (ug/L)

CONCENTRATION OF BENZENE (ug/L)

- = NOT TESTED

<0.5 = LESS THAN FOLLOWED BY THE LABORATORY DETECTION LIMIT

* = ATYPICAL DIESEL PATTERN

= EXCEEDED COMMERCIAL / INDUSTRIAL ESLs

APPROXIMATE BORING LOCATION

0 140

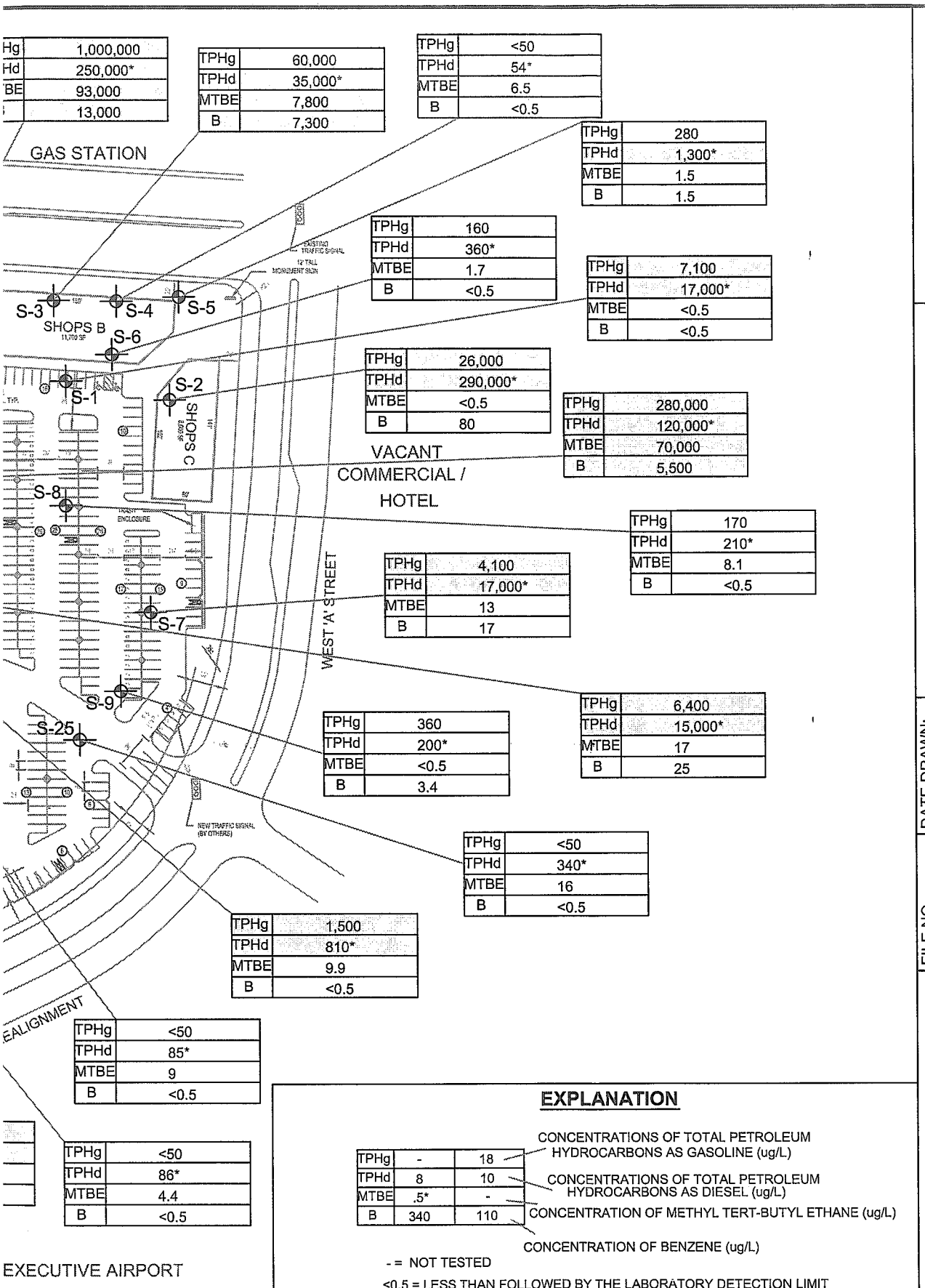
APPROXIMATE SCALE IN FEET

THE TWINING LABORATORIES, INC.
EST. 1898
FRESNO/MODESTO/VISALIA/BAKERSFIELD/MONTEREY

FILE NO. 07282-01-04	DATE DRAWN: 08/15/05	
DRAWN BY: RM	APPROVED BY:	
PROJECT NO. A07282.01	DRAWING NO. 4	

SOIL TEST RESULTS MAP
PROPOSED "A" STREET RETAIL CENTER
HAYWARD, CALIFORNIA

SOURCE: RSC ENGINEERING, PROJECT 019-002, 05-05-05



Hg	1,000,000
Hd	250,000*
BE	93,000
	13,000

TPHg	60,000
TPHd	35,000*
MTBE	7,800
B	7,300

TPHg	<50
TPHd	54*
MTBE	6.5
B	<0.5

TPHg	280
TPHd	1,300*
MTBE	1.5
B	1.5

TPHg	160
TPHd	360*
MTBE	1.7
B	<0.5

TPHg	7,100
TPHd	17,000*
MTBE	<0.5
B	<0.5

TPHg	26,000
TPHd	290,000*
MTBE	<0.5
B	80

TPHg	280,000
TPHd	120,000*
MTBE	70,000
B	5,500

TPHg	170
TPHd	210*
MTBE	8.1
B	<0.5

TPHg	4,100
TPHd	17,000*
MTBE	13
B	17

TPHg	6,400
TPHd	15,000*
MTBE	17
B	25

TPHg	360
TPHd	200*
MTBE	<0.5
B	3.4

TPHg	<50
TPHd	340*
MTBE	16
B	<0.5

TPHg	1,500
TPHd	810*
MTBE	9.9
B	<0.5

TPHg	<50
TPHd	85*
MTBE	9
B	<0.5

TPHg	<50
TPHd	86*
MTBE	4.4
B	<0.5

EXPLANATION

TPHg	-	18	CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (ug/L)
TPHd	8	10	CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS DIESEL (ug/L)
MTBE	.5*	-	CONCENTRATION OF METHYL TERT-BUTYL ETHANE (ug/L)
B	340	110	CONCENTRATION OF BENZENE (ug/L)

- = NOT TESTED

<0.5 = LESS THAN FOLLOWED BY THE LABORATORY DETECTION LIMIT

* = ATYPICAL DIESEL PATTERN

| = EXCEEDED ESLs

APPROXIMATE BORING LOCATION

N

0 140

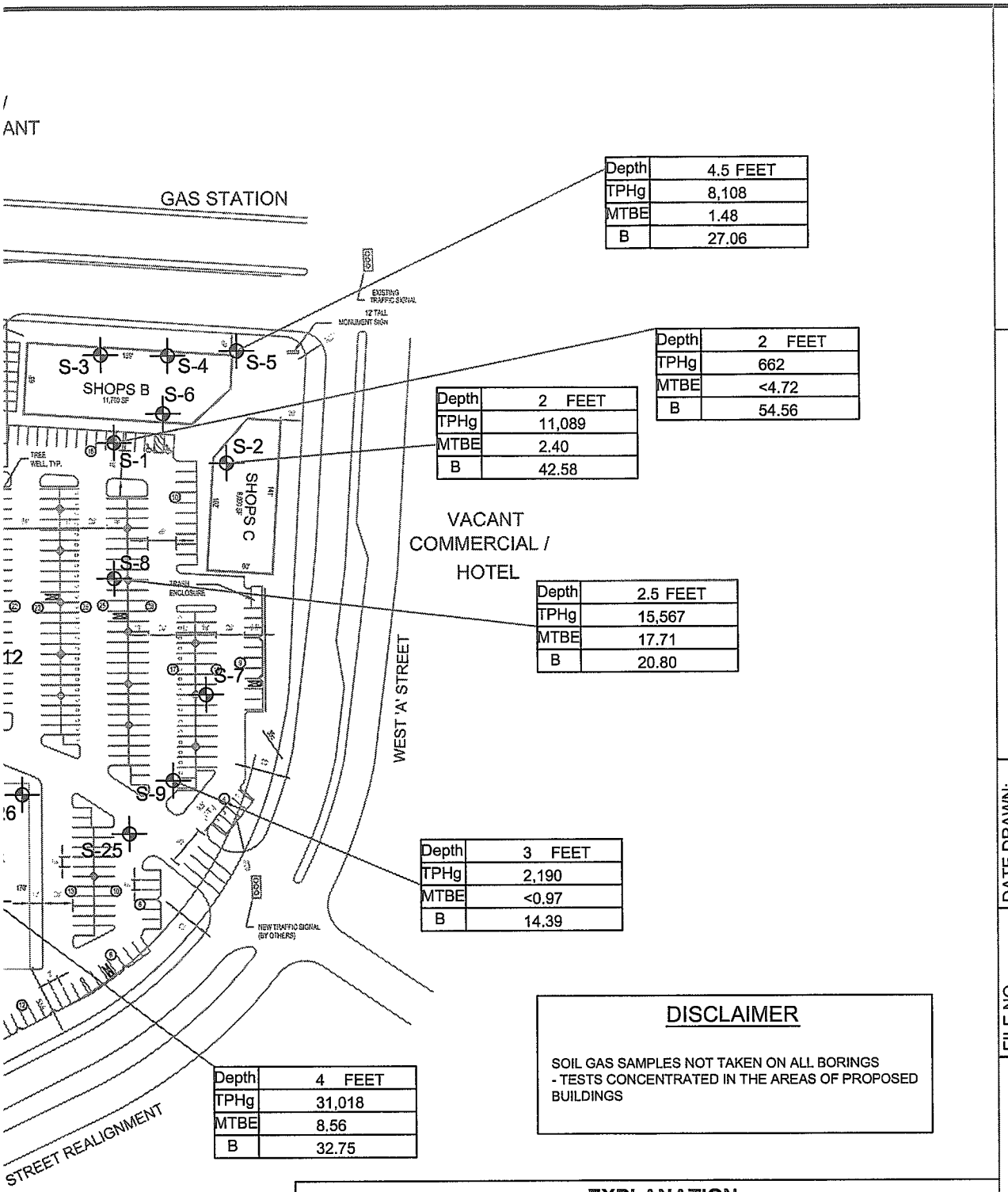
APPROXIMATE SCALE IN FEET

THE TWINING LABORATORIES, INC.
EST. 1898
FRESNO/MODESTO/VISALIA/BAKERSFIELD/MONTEREY

FILE NO. 07282-01-05	DATE DRAWN: 08/19/05	
DRAWN BY: MM	APPROVED BY:	
PROJECT NO. A07282.01	DRAWING NO. 5	

GROUNDWATER TEST RESULTS MAP
PROPOSED "A" STREET RETAIL CENTER
HAYWARD, CALIFORNIA

SOURCE: RSC ENGINEERING, PROJECT 019-002, 05-05-05



Depth	4.5 FEET
TPHg	8,108
MTBE	1.48
B	27.06

Depth	2 FEET
TPHg	662
MTBE	<4.72
B	54.56

Depth	2 FEET
TPHg	11,089
MTBE	2.40
B	42.58

Depth	2.5 FEET
TPHg	15,567
MTBE	17.71
B	20.80

Depth	3 FEET
TPHg	2,190
MTBE	<0.97
B	14.39

Depth	4 FEET
TPHg	31,018
MTBE	8.56
B	32.75

DISCLAIMER

SOIL GAS SAMPLES NOT TAKEN ON ALL BORINGS
- TESTS CONCENTRATED IN THE AREAS OF PROPOSED BUILDINGS

FEET
03
0
.61

WARD EXECUTIVE AIRPORT

EXPLANATION

DEPTH IN FEET bgs

Depth	1.5	4.5
TPHg	-	18
MTBE	.5	-
B	340	110

CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (ug/m^3)

CONCENTRATION OF METHYL TERT-BUTYL ETHANE (ug/m^3)

CONCENTRATION OF BENZENE (ug/m^3)

- = NOT TESTED

<0.5 = LESS THAN FOLLOWED BY THE LABORATORY DETECTION LIMIT

= EXCEEDED COMMERCIAL / INDUSTRIAL ESLs

APPROXIMATE BORING LOCATION

N

0 140

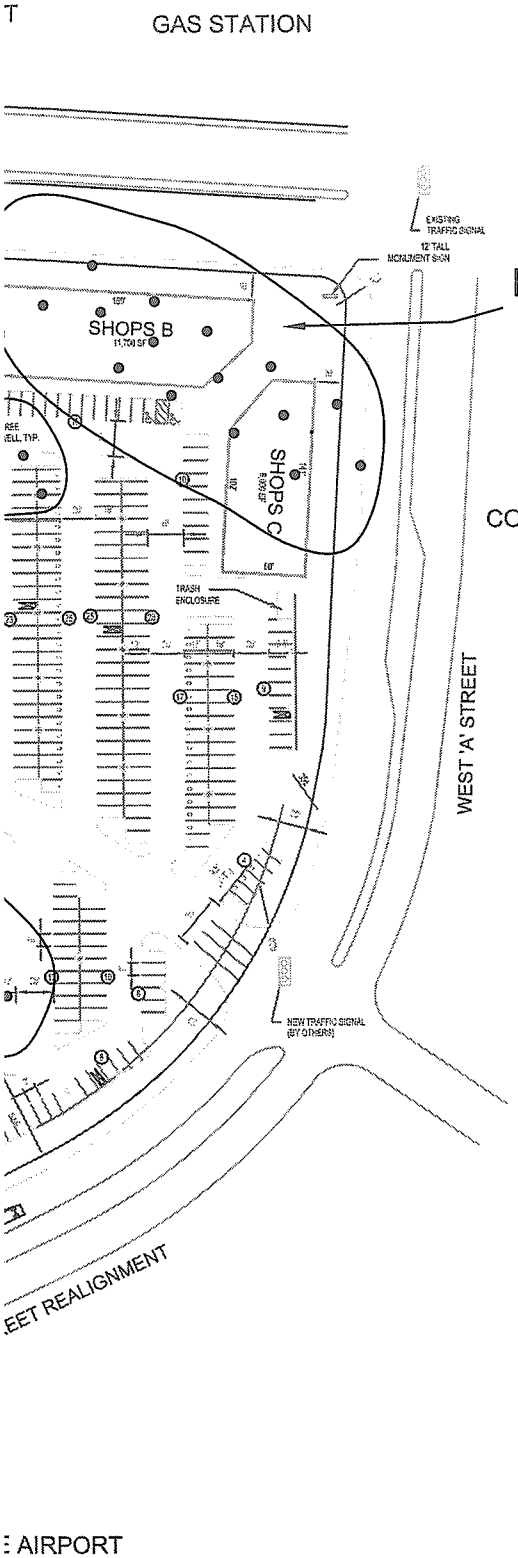
APPROXIMATE SCALE IN FEET

THE TWINING LABORATORIES, INC.
FRESNO/MODESTO/VISALIA/BAKERSFIELD/MONTEREY
EST. 1898

FILE NO. 07282-01-06	DATE DRAWN: 08/19/05	
DRAWN BY: MM	APPROVED BY:	
PROJECT NO. A07282.01	DRAWING NO.- 6	

SHALLOW SOIL VAPOR TEST RESULTS MAP
PROPOSED "A" STREET RETAIL CENTER
HAYWARD, CALIFORNIA

SOURCE: RSC ENGINEERING, PROJECT 019-002, 05-05-05



● INJECTION LOCATIONS

0 140
APPROXIMATE SCALE IN FEET

THE TWINING LABORATORIES, INC.
EST. 1898
FRESNO/MODESTO/VISALIA/BAKERSFIELD/MONTEREY

FILE NO. 07282-01-02	DATE DRAWN: 08/19/05
DRAWN BY: RM	APPROVED BY:
PROJECT NO. A07282.01	DRAWING NO. 7

FOCUSED REMEDIATION, ZONE LOCATION MAP
PROPOSED "A" STREET RETAIL CENTER
HAYWARD, CALIFORNIA

SOURCE: RSC ENGINEERING, PROJECT 019-002, 05-05-05

APPENDIX A

THE TWINING LABORATORIES, INC. STANDARD OPERATING PROCEDURES

APPENDIX A

THE TWINING LABORATORIES, INC. STANDARD OPERATING PROCEDURES

This appendix contains the standard operating procedures used by The Twining Laboratories, Inc. (Twining) in performing investigations. Twining observes these procedures in order to obtain consistent, reliable data. The procedures proposed for use for this investigation include the following.

- Direct Push Technology, Soil, Groundwater and Soil Vapor Sampling
- Soil Gas Sampling, DTSC Provisions
- Hand Augering and Soil Sampling
- Sample Handling and Chain-of-Custody
- Laboratory Quality Assurance/Quality Control (QA/QC)
- Photoionization Detector (PID) and Drager Tube Analyses
- Performing Head Space Analyses

A-1 Standard Operating Procedures for Direct Push Drilling; Soil, Groundwater, and Soil Vapor Sampling

Subsurface assessment permits, if required, are filed with the appropriate regulatory agencies prior to conducting field operations. Field activities are performed under the supervision of a California registered geologist or professional engineer. Sampling equipment is thoroughly cleaned before, during, and after each use according to Twining's "Standard Operating Procedures for Equipment Decontamination."

Direct Push involves the use of small (1.25" to 1.5") steel probes that are hydraulically pushed or hammered into the underlying soil formation to a specified depth. At this depth, the operator may extract a soil core or a groundwater or vapor sample.

There are two methods for soil sampling; discrete depth soil sampling and continuous core sampling. For discrete depth soil sampling the sampler is comprised of a hollow cylindrical tube of hardened steel that measures 2 feet in length. Sample sleeves are available; clear acetate or Teflon sleeves. To collect a groundwater sample a 1.125-inch diameter by 2-foot length PVC screen is used. The sheath is withdrawn at the selected depth and the screen is exposed to the formation. The most common methods of extracting the groundwater are a bailer, a check valve or a peristaltic pump, depending upon the contaminant, the volume desired, and the local protocols. The open hole piezometer is used when limited recharge of the aquifer occurs. Typically ½ to 3/4 in Schedule 40/80 PVC casing and screens are placed in the boring. Groundwater is extracted as indicated above.

Soil Vapor samples are collected at discrete depths using an expendable point, an expendable point holder, a PRT adaptor and tubing. Typically polyethylene tubing is used to draw samples. The used tubing is discarded after each sample, a regulator is placed in-line to maintain a 200 (ml) per minute flow rate while purging or collecting soil samples. Once the line has been purged, samples can be extracted from the line using a syringe, glass bulb, SUMA cannister or captured and stored in a Tedlar bag with the use of a vacuum box.

The soil borings are abandoned by grouting with a 6-sack cement slurry containing 3 to 5 percent bentonite, or backfilling with hydrated bentonite. Abandonment procedures depend upon the boring depth, depth to groundwater, project objectives, and regulatory requirements.

Soil cuttings generated during direct push operations are stockpiled, depending upon project requirements. Stockpiled soil is containerized in United States Department of Transportation-approved drums, or placed on and covered with plastic sheeting, and stored on the Sitein an area inaccessible to the general public. Typically, the stockpiled soil is characterized by collecting and analyzing composite samples from the stockpile. Twining can recommend an appropriate method for disposition of stockpiled soil based on the analytical results. Disposal will be the responsibility of the client.

A-2 Soil Gas Sampling, DTSC Provisions

Subsurface assessment permits, if required, are filed with the appropriate regulatory agencies prior to conducting field operations. Field activities are performed under the supervision of a California registered geologist or professional engineer. Sampling equipment is thoroughly cleaned before, during, and after each use according to Twining's "Standard Operating Procedures for Equipment Decontamination."

Procedures for obtaining high-quality soil gas samples for use in risk assessments are:

- Sample greater than 5 feet below grade to reduce the effects of barometric pumping.
- seal the surface around the soil gas sampler to prevent ambient air intrusion.
- conduct leak tests using tracer gas to evaluate ambient air intrusion.
- Conduct tests to determine the optimal purge volume for sampling.
- Purge and sample at low flow rates(less than 200 milliliters per minute).
- Collect samples in Summa Canisters (USEPA TO methods), glass bulbs, or glass syringes.
- Avoid soil gas sample collection following significant rainfall events.

Samples are attained by drilling a continuous core as necessary to identify permeable strata then backfill the borings with Portland cement. A PRT adaptor is connected to 10 to 15 feet of tubing which is connected to a vapor tight valve. The valve is closed and sealed to the PRT adaptor into the bottom of the lead drill rod. A Geoprobe rod is hydraulically pushed into the target vapor sample depth, then the drill rod is raised to approximately 6 inches. One the probe is installed, a 30 minute waiting will occur before sample collection to allow subsurface conditions to equilibrate. Hydrated bentonite is placed around the drill rod to inhibit surface air migration down the outer portion of the drill rod.

A tee fitting is connected to the top of each purge and sample summa cannister with a pressure gauge installed on the top of the tee fitting. 1 to 2 feet of tubing is connected to the tee fitting on each of the purge and sample canisters. A third tee fitting is connected to the free ends of each of the tubes. The down-hole side of the third tee fitting is connected to a 180 to 200 milliliter/minute flow regulator. A particulate filter is then applied to the down-hole side of the flow regulator. A vapor-

tight valve is connected to the down-hole side of the filter and is vacuum tested by opening and closing the purge valve for 10 minutes. If the gauge vacuum cannot be maintained for 10 minuets work is terminated. After at least 30 minutes since the drill rod has been sealed at the surface with bentonite, the vapor tight valve and purge cannister valves are opened until three volumes of air from the sample tubing and borehole are purged. The purge canister valve is then closed and a few pieces of isopropyl alcohol saturated gauze is dropped down the inside of the drill rod. Isopropyl alcohol saturated gauze is then placed on the down-hole side of the vapor tight valve, the top of the Geoprobe rod, and all rod joints exposed above grade. The vapor tight valve and sample canister valve are opened to begin sample collection. Isopropyl alcohol is added to the gauze every 5 minutes. When the sample canister gauge reaches 5 inches Hg of vacuum the vapor tight valve is closed and the sample is labeled and the time the sample took during the collection is recorded. The tee fitting is replaced on the sample with a laboratory supplied brass plug. The drill rod and sampling apparatus is removed and the borehole is backfilled.

The soil borings are abandoned by grouting with a 6-sack cement slurry containing 3 to 5 percent bentonite, or backfilling with clean soil. Abandonment procedures depend upon the boring depth, depth to groundwater, project objectives, and regulatory requirements.

Soil cuttings generated during Soil Gas Sampling operations are stockpiled, depending upon project requirements. Stockpiled soil is containerized in United States Department of Transportation-approved drums, or placed on and covered with plastic sheeting, and stored on the Sitein an area inaccessible to the general public. Typically, the stockpiled soil is characterized by collecting and analyzing composite samples from the stockpile. Twining can recommend an appropriate method for disposition of stockpiled soil based on the analytical results. Disposal will be the responsibility of the client.

A-3 Standard Operating Procedures for Hand Augering and Soil Sampling

Subsurface assessment permits, if required, are filed with the appropriate regulatory agencies prior to conducting field operations. Field activities are performed under the supervision of a California registered geologist or professional engineer. Sampling equipment is thoroughly cleaned before, during, and after each use according to Twining's "Standard Operating Procedures for Equipment Decontamination."

Hand auger soil borings are between 1.5 and 3.0 inches in diameter depending upon the size of the auger. These soil borings are advanced by turning the hand auger handle repeatedly which causes the auger bit to cut into the soil. After approximately 6 inches of advance, the bucket of the auger fills with soil cuttings and it is then removed from the borehole and the cuttings are emptied. The auger is then replaced in the borehole to advance another 6-inch interval. In this manner the borehole is extended to the designated sampling depth.

Soil samples are collected from hand auger soil borings by lowering a soil sampler equipped with a stainless-steel retention sleeve into the undisturbed soil at the bottom of the borehole. The soil sampler is then driven approximately 6 inches using a slide hammer.

If pertinent to the investigation, soil descriptions are made from observations of the soil cuttings as they are removed from the borehole. The soil descriptions, including consistency, moisture, particle size, and color, and other relevant observations are recorded on soil boring logs. Soils are classified in general accordance with the Unified Soil Classification System (USCS).

The soil borings are abandoned by grouting with a 6-sack cement slurry containing 3 to 5 percent bentonite, or backfilling with clean soil. Abandonment procedures depend upon the boring depth, depth to groundwater, project objectives, and regulatory requirements.

Soil cuttings generated during hand augering are either replaced in the borings, or stockpiled, depending upon project requirements. Stockpiled soil is containerized in United States Department of Transportation-approved drums, or placed on and covered with plastic sheeting, and stored on the Sitein an area inaccessible to the general public. Typically, the stockpiled soil is characterized by collecting and analyzing composite samples from the stockpile. Twining can recommend an appropriate method for disposition of stockpiled soil based on the analytical results. Disposal will be the responsibility of the client.

A-4 Standard Operating Procedures for Sample Handling and Chain-of-Custody

Records are developed for samples which include: sampling date, sample type, location, job number, name of sampling personnel, and method of preservation. Each sample container is labeled immediately following collection. Chain-of-custody protocol, as described in United States Environmental Protection Agency, 1986, Test Methods for Evaluating Solid Waste, SW-846, Third Edition, is followed. Samples will be maintained at approximately 4°C. Upon arrival at the laboratory, the samples will be preserved for analysis as appropriate.

Samples may be delivered to Twining's chemistry laboratory in Fresno, California. The Twining representative in charge of the field work transport or direct the transportation of the samples and custody forms to the laboratory, where the samples are transferred to the sample control department. A receiving clerk, or an authorized analyst, signs the custody forms, present a duplicate copy to the Twining representative, and transfers the samples to a laboratory analyst. The laboratory manager retains possession of the custody forms during analyses of the samples.

The laboratory manager's responsibilities include monitoring the sample integrity within the laboratory. This involves assigning each sample a laboratory number and maintaining cross-reference between the sample's field and laboratory identifications. The analysts' responsibilities include maintaining accurate records of the samples analyzed along with the analytical data produced. This involves labeling chromatograms and maintaining the laboratory numbers on subsamples taken from the submitted samples, labeling glassware used in the analyses, and properly labeling sample extract containers with each sample's laboratory number.

Following analyses, the samples are transferred to a limited-access storage room. Chain-of-custody forms, chromatograms, and other pertinent information are filed for future reference. Splits of samples analyzed are kept for 30 days. Samples containing hazardous concentrations will be returned to the client for disposal.

A-5 Standard Operating Procedures for Laboratory Quality Assurance/Quality Control

These laboratory QA/QC procedures were developed to reduce outside interferences during analyses

of samples. The laboratory director is responsible for creating and maintaining the program. General QA/QC procedures follow:

- Analytical instruments are serviced on a regular basis to assure accurate calibration;
- Organic-free water is monitored daily for quality;
- Gas chromatographs are calibrated daily;
- Method blanks are run to check whether the glassware and reagents are free of interference from chemicals that would invalidate the analyses;
- Standards are prepared using the applicable reference materials;
- Matrix spikes are analyzed in duplicate to validate the accuracy and precision of the method; and
- During groundwater sampling, a travel blank sample consisting of organic-free water is prepared and containerized in the laboratory, transported to the site, and handled and transported in the same manner as the groundwater samples.

A-6 Standard Operating Procedures for Using Photoionization Detector(PID) and/or Drager® Tubes

The PID is calibrated in accordance with the manufacture's recommendations prior to use in the field. Upon arrival at the project site, the PID is used to monitor background concentrations of organic vapors in the atmosphere at the site. The background concentrations are measured in a location upwind and removed as possible from sources of organic vapors on the site. When background concentrations of organic vapors register as "0.0" on the PID, subsequent readings of "0.0" registered from samples tested in the field are recorded as "ND" (not detected). When background concentrations of organic vapors register at some quantity above "0.0", subsequent readings registered from samples tested in the field at or below this value are recorded as "B/G" (background).

A-7 Standard Operating Procedures for Performing Head Space Analysis

Head space analysis is performed using a photoionization detector (PID) or a drager tube. A soil sample is placed in a sealed glass container or plastic bag, agitated, and placed in a warm atmosphere. After approximately 15 minutes, which is generally sufficient for some of the volatiles to escape from the soil, the PID probe or tip of the drager tube is inserted into the container and the gas is sampled. The highest concentration of organic vapors recorded by the PID or the drager tube reading will be recorded.

APPENDIX B

LABORATORY ANALYTICAL REPORTS

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

August 13, 2005

Work Order #: 5H03001

Vern Bennett
Twining Environmental Department
2527 Fresno Street
Fresno, CA 93721

RE: BDC- Sky West Plaza- Hayward

Enclosed are the analytical results for samples received by our laboratory on 08/03/05 . For your reference, these analyses have been assigned laboratory work order number 5H03001.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety; The Twining Laboratories, Inc. (TL) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

The Twining Laboratories, Inc.

Ronald J. Boquist
Director of Analytical Chemistry

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Analytical Report for the Following Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1-12'	5H03001-01	Soil	08/01/05 10:50	08/03/05 08:15
S-2-10'	5H03001-02	Soil	08/01/05 12:10	08/03/05 08:15
S-3-10'	5H03001-03	Soil	08/01/05 14:05	08/03/05 08:15
S-4-10'	5H03001-04	Soil	08/01/05 14:50	08/03/05 08:15
S-5-10'	5H03001-05	Soil	08/01/05 16:45	08/03/05 08:15
S-6-10'	5H03001-06	Soil	08/01/05 17:45	08/03/05 08:15
S1	5H03001-07	Water	08/01/05 11:15	08/03/05 08:15
S2	5H03001-08	Water	08/01/05 12:10	08/03/05 08:15
S3	5H03001-09	Water	08/01/05 14:10	08/03/05 08:15
S4	5H03001-10	Water	08/01/05 15:10	08/03/05 08:15
S5	5H03001-11	Water	08/01/05 17:10	08/03/05 08:15
S6	5H03001-12	Water	08/01/05 18:10	08/03/05 08:15
S-7-10'	5H03001-13	Soil	08/02/05 09:10	08/03/05 08:15
S7	5H03001-14	Water	08/02/05 09:20	08/03/05 08:15
S-8-10'	5H03001-15	Soil	08/02/05 11:08	08/03/05 08:15
S8	5H03001-16	Water	08/02/05 11:20	08/03/05 08:15
S-9-10'	5H03001-17	Soil	08/02/05 14:45	08/03/05 08:15
S9	5H03001-18	Water	08/01/05 15:00	08/03/05 08:15

Samples 5H03001-07, 5H03001-09 and 5H03001-018 for EC and pH were analyzed outside the EPA recommended holding time of 24 hours. Samples 5H03001-07, 5H03001-08, 5H03001-09, 5H03001-10, 5H03001-11, 5H03001-12, 5H03001-14 5H03001-16 and 5H03001-18 had atypical diesel pattens, and many had no reportable surrogate recovery due to matrix interference in the EPA 8015M analysis.

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Analytical Report for Work Order 5H03001

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
S-1-12'			Sampled:	08/01/05 10:50				**5H03001-01 (Soil)**
TOC (% Carbon) by LOI	**0.99**	0.058	%	1	[CALC]	08/08/05	08/08/05	ASTM D2974
LOI (% Organic Matter)	**1.7**	0.10	%	1	T5H1202	08/08/05	08/08/05	ASTM D2974
Lead	ND	25	mg/kg	5	T5H1015	08/10/05	08/10/05	EPA 6010B
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*%*	*0-200*			*T5H0417*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S-2-10'			Sampled:	08/01/05 12:10				**5H03001-02 (Soil)**
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*49.8 %*	*0-200*			*T5H0417*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S-3-10'			Sampled:	08/01/05 14:05				**5H03001-03 (Soil)**
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*59.8 %*	*0-200*			*T5H0417*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S-4-10'			Sampled:	08/01/05 14:50				**5H03001-04 (Soil)**
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*%*	*0-200*			*T5H0417*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S-5-10'			Sampled:	08/01/05 16:45				**5H03001-05 (Soil)**
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*29.8 %*	*0-200*			*T5H0417*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S-6-10'			Sampled:	08/01/05 17:45				**5H03001-06 (Soil)**
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*40.2 %*	*0-200*			*T5H0417*	*08/04/05*	*08/05/05*	*EPA 8015Mod*

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Analytical Report for Work Order 5H03001

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
S1			Sampled:	08/01/05 11:15				**5H03001-07 (Water)**
Hardness	**1300**	8.3	mg equiv. CaCO3/L	5	[CALC]	08/03/05	08/05/05	[CALC]
Langelier Index	**0.34**		SI	1	T5H0316	08/03/05	08/03/05	[CALC]
pH	**6.8**		pH Units	1	T5H0403	08/03/05	08/03/05	EPA 150.1
Total Dissolved Solids	**680**	10	mg/L	1	T5H0406	08/04/05	08/04/05	EPA 160.1
Chloride	**60**	10	mg/L	5	T5H0304	08/03/05	08/03/05	EPA 300.0
Sulfate as SO4	ND	2.0	mg/L	1	T5H0304	08/03/05	08/03/05	EPA 300.0
Total Alkalinity as CaCO3	**520**	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Bicarbonate Alkalinity as HCO3	**640**	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Carbonate Alkalinity as CO3	ND	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Hydroxide Alkalinity as OH	ND	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Specific Conductance (EC)	**1100**	1.0	µS/cm	1	T5H0405	08/03/05	08/03/05	SM2510B
Methylene Blue Active Substances	ND	0.050	mg/L	1	T5H0305	08/03/05	08/08/05	SM5540C
Calcium	**200**	2.5	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Copper	**0.62**	0.25	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Iron	**390**	0.50	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Lead	**0.23**	0.12	mg/L	25	T5H0317	08/03/05	08/05/05	EPA 200.7
Magnesium	**190**	0.50	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Manganese	**18**	0.10	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Potassium	**41**	5.0	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Sodium	**94**	5.0	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Zinc	**1.4**	0.025	mg/L	5	T5H0317	08/03/05	08/05/05	EPA 200.7
Iron - Dissolved	**1.7**	0.10	mg/L	1	T5H0317	08/03/05	08/05/05	EPA 200.7
Heterotrophic Plate Count	**400**	10	CFU/ml	10	T5H0415	08/03/05	08/05/05	SM9215B
Diesel	**17000**	10000	µg/L	200	T5H0416	08/04/05	08/05/05	EPA 8015Mod
S2			Sampled:	08/01/05 12:10				**5H03001-08 (Water)**
Diesel	**290000**	100000	µg/L	2000	T5H0416	08/04/05	08/05/05	EPA 8015Mod

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Analytical Report for Work Order 5H03001

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
S3			Sampled:	08/01/05 14:10				**5H03001-09 (Water)**
Hardness	**530**	0.66	mg equiv. CaCO3/L	1	[CALC]	08/08/05	08/09/05	[CALC]
Langelier Index	**0.18**		SI	1	T5H0316	08/03/05	08/03/05	[CALC]
pH	**6.5**		pH Units	1	T5H0403	08/03/05	08/03/05	EPA 150.1
Total Dissolved Solids	**730**	10	mg/L	1	T5H0406	08/04/05	08/04/05	EPA 160.1
Chloride	**59**	10	mg/L	5	T5H0304	08/03/05	08/03/05	EPA 300.0
Sulfate as SO4	ND	2.0	mg/L	1	T5H0304	08/03/05	08/03/05	EPA 300.0
Total Alkalinity as CaCO3	**610**	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Bicarbonate Alkalinity as HCO3	**750**	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Carbonate Alkalinity as CO3	ND	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Hydroxide Alkalinity as OH	ND	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Specific Conductance (EC)	**1200**	1.0	µS/cm	1	T5H0405	08/03/05	08/03/05	SM2510B
Methylene Blue Active Substances	ND	0.050	mg/L	1	T5H0305	08/03/05	08/08/05	SM5540C
Calcium	**120**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Copper	**0.037**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Iron	**23**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Lead	**0.0079**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Magnesium	**56**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Manganese	**7.8**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Potassium	**4.6**	1.0	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Sodium	**84**	1.0	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Zinc	**0.058**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Iron - Dissolved	**0.84**	0.10	mg/L	1	T5H0317	08/03/05	08/05/05	EPA 200.7
Diesel	**35000**	25000	µg/L	500	T5H0416	08/04/05	08/05/05	EPA 8015Mod
S4			Sampled:	08/01/05 15:10				**5H03001-10 (Water)**
Diesel	**54**	50	µg/L	1	T5H0416	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*70.4 %*	*0-200*			*T5H0416*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S5			Sampled:	08/01/05 17:10				**5H03001-11 (Water)**
Diesel	**1300**	1000	µg/L	20	T5H0416	08/04/05	08/05/05	EPA 8015Mod
S6			Sampled:	08/01/05 18:10				**5H03001-12 (Water)**
Diesel	**360**	50	µg/L	1	T5H0416	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*72.0 %*	*0-200*			*T5H0416*	*08/04/05*	*08/05/05*	*EPA 8015Mod*

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Ronald J. Boquist, Director of Analytical Chemistry
Joseph A. Ureno, Quality Assurance Manager

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Analytical Report for Work Order 5H03001

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
S-7-10'			Sampled:	08/02/05 09:10				**5H03001-13 (Soil)**
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*%*	*0-200*			*T5H0417*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S7			Sampled:	08/02/05 09:20				**5H03001-14 (Water)**
Diesel	**17000**	10000	µg/L	200	T5H0416	08/04/05	08/05/05	EPA 8015Mod
S-8-10'			Sampled:	08/02/05 11:08				**5H03001-15 (Soil)**
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/06/05	EPA 8015Mod
Surrogate: o-Terphenyl	*%*	*0-200*			*T5H0417*	*08/04/05*	*08/06/05*	*EPA 8015Mod*
S8			Sampled:	08/02/05 11:20				**5H03001-16 (Water)**
Diesel	**210**	50	µg/L	1	T5H0416	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*61.9 %*	*0-200*			*T5H0416*	*08/04/05*	*08/05/05*	*EPA 8015Mod*
S-9-10'			Sampled:	08/02/05 14:45				**5H03001-17 (Soil)**
Lead	ND	25	mg/kg	5	T5H1015	08/10/05	08/10/05	EPA 6010B
Diesel	ND	10	mg/kg	1	T5H0417	08/04/05	08/06/05	EPA 8015Mod
Surrogate: o-Terphenyl	*%*	*0-200*			*T5H0417*	*08/04/05*	*08/06/05*	*EPA 8015Mod*

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Analytical Report for Work Order 5H03001

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
S9			Sampled:	08/01/05 15:00				**5H03001-18 (Water)**
Hardness	**520**	0.66	mg equiv. CaCO3/L	1	[CALC]	08/08/05	08/09/05	[CALC]
Langelier Index	**0.020**		SI	1	T5H0316	08/03/05	08/03/05	[CALC]
pH	**6.7**		pH Units	1	T5H0403	08/03/05	08/03/05	EPA 150.1
Total Dissolved Solids	**770**	10	mg/L	1	T5H0406	08/04/05	08/04/05	EPA 160.1
Chloride	**120**	10	mg/L	5	T5H0304	08/03/05	08/03/05	EPA 300.0
Sulfate as SO4	ND	2.0	mg/L	1	T5H0304	08/03/05	08/03/05	EPA 300.0
Total Alkalinity as CaCO3	**540**	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Bicarbonate Alkalinity as HCO3	**660**	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Carbonate Alkalinity as CO3	ND	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Hydroxide Alkalinity as OH	ND	20	mg/L	1	T5H0314	08/03/05	08/04/05	SM 2320B
Specific Conductance (EC)	**1300**	1.0	µS/cm	1	T5H0405	08/03/05	08/03/05	SM2510B
Methylene Blue Active Substances	ND	0.050	mg/L	1	T5H0305	08/03/05	08/08/05	SM5540C
Calcium	**120**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Copper	**0.024**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Iron	**20**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Lead	**0.0056**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Magnesium	**53**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Manganese	**7.9**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Potassium	**3.5**	1.0	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Sodium	**94**	1.0	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Zinc	**0.039**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7
Iron - Dissolved	**2.6**	0.10	mg/L	1	T5H0317	08/03/05	08/05/05	EPA 200.7
Diesel	**200**	50	µg/L	1	T5H0416	08/04/05	08/05/05	EPA 8015Mod
Surrogate: o-Terphenyl	*70.9 %*	*0-200*			*T5H0416*	*08/04/05*	*08/05/05*	*EPA 8015Mod*

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Notes and Definitions

MSTW	Tap water used for batch QC MS/MSD analyses.
_HPC	<1
ug/L	micrograms per liter (parts per billion concentration units)
mg/L	milligrams per liter (parts per million concentration units)
mg/kg	milligrams per kilogram (parts per million concentration units)
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference

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Inorganics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0304 - No Prep										
Blank (T5H0304-BLK1)				Prepared & Analyzed: 08/03/05						
Chloride	ND	2.0	mg/L							
Sulfate as SO4	ND	2.0	"							
LCS (T5H0304-BS1)				Prepared & Analyzed: 08/03/05						
Chloride	23.7	2.0	mg/L	25.0		94.8	85-115			
Sulfate as SO4	23.9	2.0	"	25.0		95.6	85-115			
LCS Dup (T5H0304-BSD1)				Prepared & Analyzed: 08/03/05						
Chloride	23.8	2.0	mg/L	25.0		95.2	85-115	0.421	15	
Sulfate as SO4	24.1	2.0	"	25.0		96.4	85-115	0.833	20	
Matrix Spike (T5H0304-MS1)		Source: 5H03008-01		Prepared & Analyzed: 08/03/05						
Chloride	30.8	2.0	mg/L	25.0	5.4	102	48-147			
Sulfate as SO4	33.1	2.0	"	25.0	7.6	102	70-130			
Matrix Spike Dup (T5H0304-MSD1)		Source: 5H03008-01		Prepared & Analyzed: 08/03/05						
Chloride	31.0	2.0	mg/L	25.0	5.4	102	48-147	0.647	15	
Sulfate as SO4	33.5	2.0	"	25.0	7.6	104	70-130	1.20	20	
Batch T5H0305 - No Prep										
Blank (T5H0305-BLK1)				Prepared: 08/03/05 Analyzed: 08/08/05						
Methylene Blue Active Substances	ND	0.050	mg/L							
LCS (T5H0305-BS1)				Prepared: 08/03/05 Analyzed: 08/08/05						
Methylene Blue Active Substances	0.956	0.050	mg/L	1.00		95.6	80-120			

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Project: BDC- Sky West Plaza- Hayward
Project Number: A07281.02
Project Manager: Vern Bennett

Reported:
08/13/05

Inorganics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0305 - No Prep										
LCS Dup (T5H0305-BSD1)				Prepared: 08/03/05 Analyzed: 08/08/05						
Methylene Blue Active Substances	0.885	0.050	mg/L	1.00		88.5	80-120	7.71	20	
Batch T5H0314 - No Prep										
Blank (T5H0314-BLK1)				Prepared: 08/03/05 Analyzed: 08/04/05						
Total Alkalinity as CaCO3	ND	20	mg/L							
Bicarbonate Alkalinity as HCO3	ND	20	"							
Carbonate Alkalinity as CO3	ND	20	"							
Hydroxide Alkalinity as OH	ND	20	"							
LCS (T5H0314-BS1)				Prepared: 08/03/05 Analyzed: 08/04/05						
Total Alkalinity as CaCO3	175	20	mg/L	169		104	80-120			
LCS Dup (T5H0314-BSD1)				Prepared: 08/03/05 Analyzed: 08/04/05						
Total Alkalinity as CaCO3	178	20	mg/L	169		105	80-120	1.70	20	
Duplicate (T5H0314-DUP1)		Source: 5G29010-01		Prepared: 08/03/05 Analyzed: 08/04/05						
Total Alkalinity as CaCO3	110	20	mg/L		110			0.00	20	
Duplicate (T5H0314-DUP2)		Source: 5H01014-03		Prepared: 08/03/05 Analyzed: 08/04/05						
Total Alkalinity as CaCO3	72.0	20	mg/L		69			4.26	20	
Batch T5H0403 - No Prep										
LCS (T5H0403-BS1)				Prepared & Analyzed: 08/03/05						
pH	7.00		pH Units	7.00		100	80-120			

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Inorganics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0403 - No Prep										
LCS Dup (T5H0403-BSD1)				Prepared & Analyzed: 08/03/05						
pH	7.00		pH Units	7.00		100	80-120	0.00	20	
Duplicate (T5H0403-DUP1)		Source: 5H03001-07		Prepared & Analyzed: 08/03/05						
pH	6.80		pH Units		6.8			0.00	20	
Batch T5H0405 - No Prep										
Blank (T5H0405-BLK1)				Prepared & Analyzed: 08/03/05						
Specific Conductance (EC)	ND	1.0	µS/cm							
LCS (T5H0405-BS1)				Prepared & Analyzed: 08/03/05						
Specific Conductance (EC)	315	1.0	µS/cm	303		104	80-120			
LCS Dup (T5H0405-BSD1)				Prepared & Analyzed: 08/03/05						
Specific Conductance (EC)	314	1.0	µS/cm	303		104	80-120	0.318	20	
Duplicate (T5H0405-DUP1)		Source: 5H03001-07		Prepared & Analyzed: 08/03/05						
Specific Conductance (EC)	1120	1.0	µS/cm		1100			1.80	20	
Duplicate (T5H0405-DUP2)		Source: 5H03027-03		Prepared & Analyzed: 08/03/05						
Specific Conductance (EC)	2340	1.0	µS/cm		2400			2.53	20	
Batch T5H0406 - No Prep										
Blank (T5H0406-BLK1)				Prepared & Analyzed: 08/04/05						
Total Dissolved Solids	ND	10	mg/L							

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Inorganics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0406 - No Prep										
LCS (T5H0406-BS1)				Prepared & Analyzed: 08/04/05						
Total Dissolved Solids	318	10	mg/L	293		109	80-120			
LCS Dup (T5H0406-BSD1)				Prepared & Analyzed: 08/04/05						
Total Dissolved Solids	314	10	mg/L	293		107	80-120	1.27	20	
Duplicate (T5H0406-DUP1)		Source: 5H03001-18		Prepared & Analyzed: 08/04/05						
Total Dissolved Solids	784	10	mg/L		770			1.80	20	
Duplicate (T5H0406-DUP2)		Source: 5H02031-01		Prepared & Analyzed: 08/04/05						
Total Dissolved Solids	130	10	mg/L		130			0.00	20	
Batch T5H1202 - No Prep										
Duplicate (T5H1202-DUP1)		Source: 5H03001-01		Prepared & Analyzed: 08/08/05						
LOI (% Organic Matter)	1.6	0.10	%		1.7			6.06	20	

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Project: BDC- Sky West Plaza- Hayward
Project Number: A07281.02
Project Manager: Vern Bennett

Reported:
08/13/05

Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0317 - EPA 200.2										
Blank (T5H0317-BLK1)				Prepared: 08/03/05 Analyzed: 08/05/05						
Calcium	ND	0.50	mg/L							
Sodium	ND	1.0	"							
Potassium	ND	1.0	"							
Magnesium	ND	0.10	"							
Lead	ND	0.0050	"							
Copper	ND	0.050	"							
Zinc	ND	0.0050	"							
Manganese	ND	0.020	"							
Iron	ND	0.10	"							
LCS (T5H0317-BS1)				Prepared: 08/03/05 Analyzed: 08/05/05						
Magnesium	2.04	0.10	mg/L	2.00		102	85-115			
Manganese	0.105	0.020	"	0.100		105	85-115			
Iron	2.13	0.10	"	2.00		106	85-115			
Potassium	4.20	1.0	"	4.00		105	85-115			
Lead	0.106	0.0050	"	0.100		106	85-115			
Copper	0.104	0.050	"	0.100		104	85-115			
Sodium	2.14	1.0	"	2.00		107	85-115			
Zinc	0.110	0.0050	"	0.100		110	85-115			
Calcium	2.09	0.50	"	2.00		104	85-115			
LCS Dup (T5H0317-BSD1)				Prepared: 08/03/05 Analyzed: 08/05/05						
Sodium	2.24	1.0	mg/L	2.00		112	85-115	4.57	20	
Calcium	2.09	0.50	"	2.00		104	85-115	0.00	20	
Iron	2.12	0.10	"	2.00		106	85-115	0.471	20	
Zinc	0.110	0.0050	"	0.100		110	85-115	0.00	20	
Copper	0.104	0.050	"	0.100		104	85-115	0.00	20	
Manganese	0.105	0.020	"	0.100		105	85-115	0.00	20	
Magnesium	2.03	0.10	"	2.00		102	85-115	0.491	20	
Lead	0.107	0.0050	"	0.100		107	85-115	0.939	20	
Potassium	4.20	1.0	"	4.00		105	85-115	0.00	20	

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Project: BDC- Sky West Plaza- Hayward
Project Number: A07281.02
Project Manager: Vern Bennett

Reported:
08/13/05

Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0317 - EPA 200.2										
Matrix Spike (T5H0317-MS1)		**Source: 5H02007-04**		Prepared: 08/03/05		Analyzed: 08/05/05				
Copper	0.126	0.050	mg/L	0.100	0.021	105	70-130			
Manganese	1.22	0.020	"	0.100	1.1	120	70-130			
Zinc	0.186	0.0050	"	0.100	0.083	103	70-130			
Lead	0.106	0.0050	"	0.100	0.0033	103	70-130			
Iron	2.59	0.10	"	2.00	0.52	104	70-130			
Matrix Spike (T5H0317-MS2)		**Source: 5H02031-01**		Prepared: 08/03/05		Analyzed: 08/05/05				
Zinc	6.54	0.025	mg/L	0.100	6.6	NR	70-130			
Manganese	0.185	0.020	"	0.100	0.082	103	70-130			
Lead	0.104	0.0050	"	0.100	ND	104	70-130			
Iron	2.31	0.10	"	2.00	0.22	104	70-130			
Copper	0.106	0.050	"	0.100	ND	106	70-130			
Matrix Spike Dup (T5H0317-MSD1)		**Source: 5H02007-04**		Prepared: 08/03/05		Analyzed: 08/05/05				
Zinc	0.188	0.0050	mg/L	0.100	0.083	105	70-130	1.07	20	
Copper	0.127	0.050	"	0.100	0.021	106	70-130	0.791	20	
Lead	0.106	0.0050	"	0.100	0.0033	103	70-130	0.00	20	
Iron	2.60	0.10	"	2.00	0.52	104	70-130	0.385	20	
Manganese	1.23	0.020	"	0.100	1.1	130	70-130	0.816	20	
Matrix Spike Dup (T5H0317-MSD2)		**Source: 5H02031-01**		Prepared: 08/03/05		Analyzed: 08/05/05				
Copper	0.106	0.050	mg/L	0.100	ND	106	70-130	0.00	20	
Lead	0.105	0.0050	"	0.100	ND	105	70-130	0.957	20	
Manganese	0.186	0.020	"	0.100	0.082	104	70-130	0.539	20	
Iron	2.33	0.10	"	2.00	0.22	106	70-130	0.862	20	
Zinc	6.62	0.025	"	0.100	6.6	20.0	70-130	1.22	20	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0817 - EPA 200.2										
Blank (T5H0817-BLK1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Calcium	ND	0.10	mg/L							
Copper	ND	0.0050	"							
Lead	ND	0.0050	"							
Iron	ND	0.10	"							
Manganese	ND	0.0050	"							
Sodium	ND	1.0	"							
Potassium	ND	1.0	"							
Zinc	ND	0.0050	"							
Magnesium	ND	0.10	"							
LCS (T5H0817-BS1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Magnesium	2.06	0.10	mg/L	2.00		103	85-115			
Iron	2.11	0.10	"	2.00		106	85-115			
Potassium	4.27	1.0	"	4.00		107	85-115			
Manganese	0.104	0.0050	"	0.100		104	85-115			
Sodium	2.29	1.0	"	2.00		114	85-115			
Copper	0.105	0.0050	"	0.100		105	85-115			
Lead	0.105	0.0050	"	0.100		105	85-115			
Calcium	2.06	0.10	"	2.00		103	85-115			
Zinc	0.109	0.0050	"	0.100		109	85-115			
LCS Dup (T5H0817-BSD1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Copper	0.105	0.0050	mg/L	0.100		105	85-115	0.00	20	
Lead	0.105	0.0050	"	0.100		105	85-115	0.00	20	
Manganese	0.104	0.0050	"	0.100		104	85-115	0.00	20	
Sodium	2.20	1.0	"	2.00		110	85-115	4.01	20	
Calcium	2.06	0.10	"	2.00		103	85-115	0.00	20	
Zinc	0.109	0.0050	"	0.100		109	85-115	0.00	20	
Potassium	4.26	1.0	"	4.00		106	85-115	0.234	20	
Iron	2.10	0.10	"	2.00		105	85-115	0.475	20	
Magnesium	2.06	0.10	"	2.00		103	85-115	0.00	20	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/13/05

Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0817 - EPA 200.2										
Matrix Spike (T5H0817-MS1)		**Source: 5H03005-07**		Prepared: 08/08/05	Analyzed: 08/09/05					
Copper	0.105	0.0050	mg/L	0.100	ND	105	70-130			
Zinc	0.108	0.0050	"	0.100	0.0022	106	70-130			
Lead	0.105	0.0050	"	0.100	ND	105	70-130			
Iron	2.10	0.10	"	2.00	ND	105	70-130			
Manganese	0.104	0.0050	"	0.100	ND	104	70-130			
Matrix Spike (T5H0817-MS2)		**Source: 5H03029-01**		Prepared: 08/08/05	Analyzed: 08/09/05					
Copper	0.102	0.025	mg/L	0.100	ND	102	70-130			
Zinc	0.112	0.025	"	0.100	0.0056	106	70-130			
Lead	0.0955	0.025	"	0.100	ND	95.5	70-130			
Iron	2.17	0.50	"	2.00	0.27	95.0	70-130			
Manganese	0.287	0.025	"	0.100	0.19	97.0	70-130			
Matrix Spike Dup (T5H0817-MSD1)		**Source: 5H03005-07**		Prepared: 08/08/05	Analyzed: 08/09/05					
Lead	0.104	0.0050	mg/L	0.100	ND	104	70-130	0.957	20	
Copper	0.104	0.0050	"	0.100	ND	104	70-130	0.957	20	
Zinc	0.108	0.0050	"	0.100	0.0022	106	70-130	0.00	20	
Manganese	0.104	0.0050	"	0.100	ND	104	70-130	0.00	20	
Iron	2.10	0.10	"	2.00	ND	105	70-130	0.00	20	
Matrix Spike Dup (T5H0817-MSD2)		**Source: 5H03029-01**		Prepared: 08/08/05	Analyzed: 08/09/05					
Manganese	0.289	0.025	mg/L	0.100	0.19	99.0	70-130	0.694	20	
Iron	2.18	0.50	"	2.00	0.27	95.5	70-130	0.460	20	
Zinc	0.112	0.025	"	0.100	0.0056	106	70-130	0.00	20	
Copper	0.104	0.025	"	0.100	ND	104	70-130	1.94	20	
Lead	0.0960	0.025	"	0.100	ND	96.0	70-130	0.522	20	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/13/05

Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H1015 - EPA 3050B										
Blank (T5H1015-BLK1)				Prepared & Analyzed: 08/10/05						
Lead	ND	5.0	mg/kg							
LCS (T5H1015-BS1)				Prepared & Analyzed: 08/10/05						
Lead	19.3	5.0	mg/kg	20.0		96.5	75-125			
LCS Dup (T5H1015-BSD1)				Prepared & Analyzed: 08/10/05						
Lead	19.4	5.0	mg/kg	20.0		97.0	75-125	0.517	20	
Matrix Spike (T5H1015-MS1)		Source: 5H05007-01		Prepared & Analyzed: 08/10/05						
Lead	32.1	25	mg/kg	20.0	12	100	75-125			
Matrix Spike Dup (T5H1015-MSD1)		Source: 5H05007-01		Prepared & Analyzed: 08/10/05						
Lead	31.9	25	mg/kg	20.0	12	99.5	75-125	0.625	20	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/13/05

Metals - Dissolved - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0317 - EPA 200.2										
Blank (T5H0317-BLK1)				Prepared: 08/03/05	Analyzed: 08/05/05					
Iron	ND	0.10	mg/L							
LCS (T5H0317-BS1)				Prepared: 08/03/05	Analyzed: 08/05/05					
Iron	2.13	0.10	mg/L	2.00		106	85-115			
LCS Dup (T5H0317-BSD1)				Prepared: 08/03/05	Analyzed: 08/05/05					
Iron	2.12	0.10	mg/L	2.00		106	85-115	0.471	20	
Matrix Spike (T5H0317-MS1)		Source: 5H02007-04		Prepared: 08/03/05	Analyzed: 08/05/05					
Iron	2.59	0.10	mg/L	2.00	0.52	104	70-130			
Matrix Spike (T5H0317-MS2)		Source: 5H02031-01		Prepared: 08/03/05	Analyzed: 08/05/05					
Iron	2.31	0.10	mg/L	2.00	0.22	104	70-130			
Matrix Spike Dup (T5H0317-MSD1)		Source: 5H02007-04		Prepared: 08/03/05	Analyzed: 08/05/05					
Iron	2.60	0.10	mg/L	2.00	0.52	104	70-130	0.385	20	
Matrix Spike Dup (T5H0317-MSD2)		Source: 5H02031-01		Prepared: 08/03/05	Analyzed: 08/05/05					
Iron	2.33	0.10	mg/L	2.00	0.22	106	70-130	0.862	20	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Semi-Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0416 - EPA 3510C										
Blank (T5H0416-BLK1)				Prepared & Analyzed: 08/04/05						
Surrogate: o-Terphenyl	*4.93*		*µg/L*	*8.00*		*61.6*	*0-200*			
Diesel	ND	50	"							
LCS (T5H0416-BS1)				Prepared & Analyzed: 08/04/05						
Surrogate: o-Terphenyl	*5.98*		*µg/L*	*8.00*		*74.8*	*0-200*			
Diesel	377	50	"	500		75.4	70-130			
LCS Dup (T5H0416-BSD1)				Prepared & Analyzed: 08/04/05						
Surrogate: o-Terphenyl	*5.73*		*µg/L*	*8.00*		*71.6*	*0-200*			
Diesel	378	50	"	500		75.6	70-130	0.265	20	
Matrix Spike (T5H0416-MS1)				Prepared: 08/04/05 Analyzed: 08/05/05						
Surrogate: o-Terphenyl	*6.40*		*µg/L*	*8.00*		*80.0*	*0-200*			*MSTW*
Diesel	372	50	"	500		74.4	70-130			MSTW
Matrix Spike Dup (T5H0416-MSD1)				Prepared: 08/04/05 Analyzed: 08/05/05						
Surrogate: o-Terphenyl	*6.53*		*µg/L*	*8.00*		*81.6*	*0-200*			*MSTW*
Diesel	371	50	"	500		74.2	70-130	0.269	20	MSTW
Batch T5H0417 - EPA 3550B										
Blank (T5H0417-BLK1)				Prepared: 08/04/05 Analyzed: 08/05/05						
Surrogate: o-Terphenyl	*0.238*		*mg/kg*	*0.400*		*59.5*	*0-200*			
Diesel	ND	10	"							
LCS (T5H0417-BS1)				Prepared: 08/04/05 Analyzed: 08/05/05						
Surrogate: o-Terphenyl	*0.287*		*mg/kg*	*0.400*		*71.8*	*0-200*			
Diesel	21.7	10	"	25.0		86.8	70-130			

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/13/05

Semi-Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0417 - EPA 3550B										
LCS Dup (T5H0417-BSD1)				Prepared: 08/04/05 Analyzed: 08/05/05						
Surrogate: o-Terphenyl	*0.286*		*mg/kg*	*0.400*		*71.5*	*0-200*			
Diesel	21.6	10	"	25.0		86.4	70-130	0.462	20	
Matrix Spike (T5H0417-MS1)		**Source: 5G29014-01**		Prepared: 08/04/05 Analyzed: 08/06/05						
Surrogate: o-Terphenyl	*0.398*		*mg/kg*	*0.400*		*99.5*	*0-200*			
Diesel	30.6	10	"	25.0	6.1	98.0	70-130			
Matrix Spike Dup (T5H0417-MSD1)		**Source: 5G29014-01**		Prepared: 08/04/05 Analyzed: 08/06/05						
Surrogate: o-Terphenyl	*0.325*		*mg/kg*	*0.400*		*81.2*	*0-200*			
Diesel	28.2	10	"	25.0	6.1	88.4	70-130	8.16	20	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/13/05

Microbiologicals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0415 - Micro										
Blank (T5H0415-BLK1)				Prepared & Analyzed: 08/04/05						
Heterotrophic Plate Count	<1	1.0	CFU/ml							
Blank (T5H0415-BLK2)				Prepared & Analyzed: 08/04/05						
Heterotrophic Plate Count	<1	1.0	CFU/ml							
Blank (T5H0415-BLK3)				Prepared & Analyzed: 08/04/05						
Heterotrophic Plate Count	<1	1.0	CFU/ml							
Blank (T5H0415-BLK4)				Prepared & Analyzed: 08/04/05						
Heterotrophic Plate Count	<1	1.0	CFU/ml							

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Analytical Chemistry Division

August 18, 2005

Work Order #: 5H03001

Vern Bennett
Twining Environmental Department
2527 Fresno Street
Fresno, CA 93721

RE: BDC – Sky West Plaza - Hayward

Enclosed are the analytical results for samples received by our laboratory on 08/03/05. For your reference, these analyses have been assigned laboratory work order number 5H03001.

Please find enclosed the official letter of documentation for the Fuel Oxys & Lead Scavengers & TPH-G/BTEX w/MTBE analyses from the subcontracted laboratory, which was received at our laboratory on 08/15/05.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, The Twining Laboratories, Inc. (TL) is not responsible for use of less than complete reports. Results only apply to samples analyzed.

If you have any questions, Please feel free to contact us at the number listed above.

Sincerely,

The Twining Laboratories, Inc.

Ronald J. Boquist
Director of Analytical Chemistry

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
Certificate #2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930
Fax: (209) 384-1507

Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Description: Water Sample Prep/Analysis Method: EPA 5030/8015M, 8020 Lab Numbers: 8430-7W, 8W, 9W, 10W, 11W	Sampled: 08-01-05 Received: 08-04-05 Extracted: 08-05-05 Analyzed: 08-05-05 Reported: 08-12-05

TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT µg/L	SAMPLE ID S1 5H03001-07 (µg/L)	SAMPLE ID S2 5H03001-08 (µg/L)	SAMPLE ID S3 5H03001-09 (µg/L)	SAMPLE ID S4 5H03001-10 (µg/L)	SAMPLE ID S5 5H03001-11 (µg/L)
MTBE	0.50	ND	ND	7800	6.5	1.5
BENZENE	0.50	ND	80	7300	ND	1.5
TOLUENE	0.50	ND	79	1700	ND	ND
ETHYLBENZENE	0.50	ND	150	3000	ND	0.66
TOTAL XYLENES	0.50	ND	86	8300	ND	2.8
GASOLINE RANGE HYDROCARBONS	50	7100	26000	60000	ND	280
Report Limit Multiplication Factor:		20	100	200	1	1

Surrogate % Recovery:	FID: 107% / PID: 99.5%	FID: 143% / PID: 108%	FID: 111% / PID: 103%	FID: 96.8% / PID: 95.5%	FID: 109% / PID: 102%
Instrument ID:	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

ANALYST: Clari J. Cone

APPROVED BY: James C. Phillips
Laboratory Director

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
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2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930
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Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Description: Water Sample Prep/Analysis Method: EPA 5030/8015M, 8020 Lab Numbers: 8430-12W, 14W, 16W, 18W	Sampled: See Below Received: 08-04-05 Extracted: 08-05-05 Analyzed: 08-05-05 Reported: 08-12-05

TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT µg/L	SAMPLE ID S6 5H03001-12 (µg/L)	SAMPLE ID S7 5H03001-14 (µg/L)	SAMPLE ID S8 5H03001-16 (µg/L)	SAMPLE ID S9 5H03001-18 (µg/L)
MTBE	0.50	1.7	13	8.1	ND
BENZENE	0.50	ND	17	ND	3.4
TOLUENE	0.50	ND	ND	ND	ND
ETHYLBENZENE	0.50	ND	12	ND	0.58
TOTAL XYLENES	0.50	ND	11	1.1	2.4
GASOLINE RANGE HYDROCARBONS	50	160	4100	170	360
Report Limit Multiplication Factor:		1	20	1	1
Date Sampled:		08-01-05	08-02-05	08-02-05	08-02-05

Surrogate % Recovery:	FID: 117% / PID: 103%	FID: 115% / PID: 103%	FID: 105% / PID: 98.9%	FID: 104% / PID: 98.4%
Instrument ID:	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

ANALYST: Clari J. Cone

APPROVED BY: James C. Phillips
Laboratory Director

CASTLE ANALYTICAL LABORATORY

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Phone: (209) 384-2930
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Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Description: Water Analyst: Jim Phillips	Method: EPA 5030/8015M,8020 Instrument ID: Var-GC1 Extracted: 08-05-05 Analyzed: 08-05-05 Reported: 08-12-05

QUALITY CONTROL DATA REPORT

ANALYTE	Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Total Xylenes
Spike Concentration:	110	2.16	1.34	7.58	1.82	8.88
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LCS Batch #:	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2
LCS % Recovery:	106%	93.4%	103%	105%	114%	112%
Surrogate Recovery:	105%	103%	103%	103%	103%	103%
Control Limits:	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %
MS/MSD Batch #:	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2	VW-8055bhp2
Spike Concentration:	110	2.16	1.34	7.58	1.82	8.88
MS % Recovery:	97.8%	79.1%	98.3%	102%	109%	106%
Surrogate Recovery:	98.4%	93.9%	93.9%	93.9%	93.9%	93.9%
MSD % Recovery:	97.3%	50.1%	92.7%	97.8%	104%	102%
Surrogate Recovery:	97.3%	92.5%	92.5%	92.5%	92.5%	92.5%
Relative % Difference:	0.384%	7.93%	5.24%	3.99%	3.90%	3.57%
Method Blank :	ND	ND	ND	ND	ND	ND
Surrogate Recovery:	95.5%	95.7%	95.7%	95.7%	95.7%	95.7%

The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

ANALYST: Clari J. Cone

APPROVED BY: James C. Phillips
Laboratory Director

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
Certificate # 2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930
Fax: (209) 384-1507

Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Description: Soil Sample Prep/Analysis Method: EPA 5030/8015M, 8020 Lab Numbers: 8430-1S, 2S, 3S, 4S, 5S	Sampled: 08-01-05 Received: 08-04-05 Extracted: 08-04-05 Analyzed: 08-04-05 Reported: 08-12-05

TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID S-1-12' 5H03001-01 (mg/kg)	SAMPLE ID S-2-10' 5H03001-02 (mg/kg)	SAMPLE ID S-3-10' 5H03001-03 (mg/kg)	SAMPLE ID S-4-10' 5H03001-04 (mg/kg)	SAMPLE ID S-5-10' 5H03001-05 (mg/kg)
MTBE	0.010	ND	ND	0.043	ND	ND
BENZENE	0.0050	ND	ND	0.025	ND	ND
TOLUENE	0.0050	ND	ND	0.026	ND	ND
ETHYLBENZENE	0.0050	ND	ND	0.12	ND	ND
TOTAL XYLENES	0.0050	ND	ND	0.47	ND	ND
GASOLINE RANGE HYDROCARBONS	1.0	ND	ND	13	ND	ND
Report Limit Multiplication Factor:		1	1	1	1	2*

**Increased reporting limit due to limited amount of sample.*

Surrogate % Recovery:	FID: 94.6% / PID: 74.6%	FID: 75.7% / PID: 75.0%	FID: 108% / PID: 88.8%	FID: 88.3% / PID: 88.4%	FID: 85.3% / PID: 85.1%
Instrument ID:	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY: _____
Clari J. Cone
Laboratory Manager

APPROVED BY: _____
James C. Phillips
Laboratory Director

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Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Description: Soil Sample Prep/Analysis Method: EPA 5030/8015M, 8020 Lab Numbers: 8430-6S, 13S, 15S, 17S	Sampled: See Below Received: 08-04-05 Extracted: 08-04-05 Analyzed: 08-04-05 Reported: 08-12-05

TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID S-6-10' 5H03001-06 (mg/kg)	SAMPLE ID S-7-10' 5H03001-13 (mg/kg)	SAMPLE ID S-8-10' 5H03001-15 (mg/kg)	SAMPLE ID S-9-10' 5H03001-17 (mg/kg)
MTBE	0.010	ND	ND	ND	ND
BENZENE	0.0050	ND	ND	ND	ND
TOLUENE	0.0050	ND	ND	ND	ND
ETHYLBENZENE	0.0050	ND	ND	ND	ND
TOTAL XYLENES	0.0050	ND	ND	ND	ND
GASOLINE RANGE HYDROCARBONS	1.0	ND	ND	ND	ND
Report Limit Multiplication Factor:		1	1	1	1
Date Sampled:		08-01-05	08-02-05	08-02-05	08-02-05

Surrogate % Recovery:	FID: 89.7% / PID: 89.3%	FID: 84.8% / PID: 83.7%	FID: 84.8% / PID: 83.3%	FID: 82.9% / PID: 81.8%
Instrument ID:	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY: Clari J. Cone
Clari J. Cone
Laboratory Manager

APPROVED BY: James C. Phillips
James C. Phillips
Laboratory Director

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Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Matrix: Soil Analyst: Clari Cone	Method: EPA 5030/8015M,8020 Instrument ID: Var-GC1 Extracted: 08-04-05 Analyzed: 08-04-05 Reported: 08-12-05

QUALITY CONTROL DATA REPORT

ANALYTE	Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Total Xylenes
Spike Concentration:	2.20	45.2	27.2	153	36.8	178
Units:	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
LCS Batch #:	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2
LCS % Recovery:	NA*	NA*	NA*	NA*	NA*	NA*
Surrogate Recovery:	NA*	NA*	NA*	NA*	NA*	NA*
Control Limits:	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %
MS/MSD Batch #:	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2	VS-8045bhp2
LCSA % Recovery:	107%	95.8%	103%	97.1%	103%	101%
Surrogate Recovery:	98.2%	92.4%	92.4%	92.4%	92.4%	92.4%
LCSB % Recovery:	101%	89.8%	103%	96.5%	105%	103%
Surrogate Recovery:	97.7%	93.1%	93.1%	93.1%	93.1%	93.1%
Relative % Difference:	5.52%	6.44%	0.357%	0.607%	2.08%	1.87%
Method Blank :	ND	ND	ND	ND	ND	ND
Surrogate Recovery:	98.3%	96.0%	96.0%	96.0%	96.0%	96.0%

**See LCSA/LCSB.*

Please Note:
The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY: _____
Clari J. Cone
Laboratory Manager

APPROVED BY: _____
James C. Phillips
Laboratory Director

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Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Description: Water Sample Prep/Analysis Method: EPA 5030/8260 Lab Numbers: 8430-7W, 8W, 9W, 10W, 11W	Sampled: 08-01-05 Received: 08-04-05 Extracted: 08-04-05 Analyzed: 08-04-05 Reported: 08-12-05

GASOLINE ADDITIVES BY EPA METHOD 8260 GC/MS

ANALYTE	REPORTING LIMIT (µg/L)	SAMPLE ID S1 5H03001-07 (µg/L)	SAMPLE ID S2 5H03001-08 (µg/L)	SAMPLE ID S3 5H03001-09 (µg/L)	SAMPLE ID S4 5H03001-10 (µg/L)	SAMPLE ID S5 5H03001-11 (µg/L)
FUEL OXYGENATES						
Methyl tert-Butyl Ether (MTBE)	0.50	7.4	ND	8500	6.5	1.3
Di-isopropyl Ether (DIPE)	0.50	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (ETBE)	0.50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	0.50	ND	ND	23	ND	ND
tert-Butanol (TBA)	20	ND	ND	4200	ND	ND
VOLATILE HALOCARBONS						
1,2-Dichloroethane (1,2-DCA)	0.50	ND	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.50	ND	ND	ND	ND	ND
Report Limit Multiplication Factor:		10*	10*	20*	1	1
Report Limit Multiplication Factor for MTBE:				200		

** Report limit raised due to matrix interference*

Surrogate Recoveries					
1,2-Dichloroethane-d4	98.4%	101%	94.8%	101%	106%
Toluene-d8	102%	104%	103%	106%	108%

Instrument ID: Varian 2100T & HP 5972 MS
Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
(µg/L) = micrograms per liter or parts per billion (ppb)

ANALYST: Clari J. Cone

APPROVED BY: James C. Phillips
Laboratory Director

CASTLE ANALYTICAL LABORATORY

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Certificate #2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930
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Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Description: Water Sample Prep/Analysis Method: EPA 5030/8260 Lab Numbers: 8430-12W, 14W, 16W, 18W	Sampled: See Below Received: 08-04-05 Extracted: 08-04-05 Analyzed: 08-04-05 Reported: 08-12-05

GASOLINE ADDITIVES BY EPA METHOD 8260 GC/MS

ANALYTE	REPORTING LIMIT (µg/L)	SAMPLE ID S6 5H03001-12 (µg/L)	SAMPLE ID S7 5H03001-14 (µg/L)	SAMPLE ID S8 5H03001-16 (µg/L)	SAMPLE ID S9 5H03001-18 (µg/L)
FUEL OXYGENATES					
Methyl tert-Butyl Ether (MTBE)	0.50	1.8	4.2	7.8	ND
Di-isopropyl Ether (DIPE)	0.50	ND	ND	ND	ND
Ethyl tert-Butyl Ether (ETBE)	0.50	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	0.50	ND	ND	ND	ND
tert-Butanol (TBA)	20	ND	ND	ND	ND
VOLATILE HALOCARBONS					
1,2-Dichloroethane (1,2-DCA)	0.50	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.50	ND	ND	ND	ND
Report Limit Multiplication Factor:		1	1	1	1
Date Sampled:		08-01-05	08-02-05	08-02-05	08-01-05

Surrogate Recoveries				
1,2-Dichloroethane-d4	105%	94.7%	71.6%	80.6%
Toluene-d8	103%	160%	92.0%	88.9%

Instrument ID: Varian 2100T & HP 5972 MS
Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
(µg/L) = micrograms per liter or parts per billion (ppb)

ANALYST: Clari J. Cone

APPROVED BY: James C. Phillips
Laboratory Director

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Twining Laboratories	Client Project ID: 5H03001	Method: EPA 5030/8260
2527 Fresno St.	Reference Number: 8430	Instrument ID: Varian 2100T
Fresno, CA. 93721	Sample Description: Water	Prepared: 08-04-05
Attn: Eric Scott	Analyst: Scott Foster	Analyzed: 08-04-05
		Reported: 08-12-05

QUALITY CONTROL DATA REPORT

SPIKE ID: VWMS-8045V

	Reporting Limit µg/L	BLANK Result µg/L	Spiking Level µg/L	Control Spike %R	%R Limits
COMPOUNDS					
t-Butyl Alcohol (t-BA)	20	ND	75.0	75.3%	57.6-163
Methyl t-butyl ether (MTBE)	0.50	ND	2.50	92.4%	64.7-134
Diisopropyl ether (DIPE)	0.50	ND	2.50	107%	58.2-135
Ethyl t-Butyl ether (ETBE)	0.50	ND	2.50	100%	65.0-132
t-Amyl methyl ether (TAME)	0.50	ND	2.50	99.2%	61.0-139
1,2-Dichloroethane (1,2-DCA)	0.50	ND	2.50	101%	70.1-145
Ethylene dibromide (EDB)	0.50	ND	2.50	96.8%	55.0-156
Surrogates:					
1,2-Dichloroethane-d4	1.00	99.2%	10.0	101%	80.0-118
Toluene-d8	1.00	97.8%	10.0	95.4%	74.1-129

	Spiking Level µg/L	MATRIX SPIKE %R	MATRIX SPIKE DUP %R	%R Limits	%RPD
COMPOUNDS					
t-Butyl Alcohol (t-BA)	75.0	63.3%	76.6%	39.7-178	15.9%
Methyl t-butyl ether (MTBE)	2.50	100%	106%	55.3-144	5.83%
Diisopropyl ether (DIPE)	2.50	84.0%	86.8%	54.9-135	3.28%
Ethyl t-Butyl ether (ETBE)	2.50	69.2%	70.0%	54.0-136	1.00%
t-Amyl methyl ether (TAME)	2.50	88.8%	100%	39.6-131	11.7%
1,2-Dichloroethane (1,2-DCA)	2.50	75.2%	82.8%	73.9-147	9.62%
Ethylene dibromide (EDB)	2.50	97.2%	104%	63.3-141	6.84%
Surrogate:					
1,2-Dichloroethane-d4	10.0	72.0%	78.1%	68.9-128	8.13%
Toluene-d8	10.0	98.0%	93.8%	68.0-128	4.38%

The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY: _____
Clari J. Cone
Laboratory Manager

APPROVED BY: _____
James C. Phillips
Laboratory Director

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Twining Laboratories	Client Project ID: 5H03001	Sampled: 08-01-05
2527 Fresno St.	Reference Number: 8430	Received: 08-04-05
Fresno, CA. 93721	Sample Description: Soil	Extracted: 08-08-05
Attn: Eric Scott	Sample Prep/Analysis Method: EPA 5030/8260	Analyzed: 08-08-05
	Lab Numbers: 8430-1S, 2S, 3S, 4S, 5S	Reported: 08-12-05

GASOLINE ADDITIVES BY EPA METHOD 8260 GC/MS

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID S-1-12' 5H03001-01 (mg/kg)	SAMPLE ID S-2-10' 5H03001-02 (mg/kg)	SAMPLE ID S-3-10' 5H03001-03 (mg/kg)	SAMPLE ID S-4-10' 5H03001-04 (mg/kg)	SAMPLE ID S-5-10' 5H03001-5 (mg/kg)
FUEL OXYGENATES						
Methyl tert-Butyl Ether (MTBE)	0.010	ND	ND	ND	ND	ND
Di-isopropyl Ether (DIPE)	0.010	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (ETBE)	0.010	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	0.010	ND	ND	ND	ND	ND
tert-Butanol (TBA)	0.80	ND	ND	ND	ND	ND
VOLATILE HALOCARBONS						
1,2-Dichloroethane (1,2-DCA)	0.010	ND	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.010	ND	ND	ND	ND	ND
Report Limit Multiplication Factor:		1	1	1	2*	2*

* *The reporting limit was raised due to insufficient sample mass available for testing.*

Surrogate Recoveries					
1,2-Dichloroethane-d4	65.7%	69.7%	69.0%	80.5%	83.4%
Toluene-d8	70.6%	68.8%	73.0%	87.3%	85.3%

Instrument ID: HP 5972 MS
Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
(mg/kg) = milligrams per kilogram or parts per million (ppm)

APPROVED BY: _____
Clari J. Cone
Laboratory Manager

APPROVED BY: _____
James C. Phillips
Laboratory Director

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2333 Shuttle Drive, Atwater, CA 95301

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Twining Laboratories	Client Project ID: 5H03001	Sampled: See Below
2527 Fresno St.	Reference Number: 8430	Received: 08-04-05
Fresno, CA. 93721	Sample Description: Soil	Extracted: 08-08-05
Attn: Eric Scott	Sample Prep/Analysis Method: EPA 5030/8260	Analyzed: 08-08-05
	Lab Numbers: 8430-6S, 13S, 15S, 17S	Reported: 08-12-05

GASOLINE ADDITIVES BY EPA METHOD 8260 GC/MS

ANALYTE	REPORTING LIMIT * (mg/kg)	SAMPLE ID S-6-10' 5H03001-06 (mg/kg)	SAMPLE ID S-7-10' 5H03001-13 (mg/kg)	SAMPLE ID S-8-10' 5H03001-15 (mg/kg)	SAMPLE ID S-9-10' 5H03001-17 (mg/kg)
FUEL OXYGENATES					
Methyl tert-Butyl Ether (MTBE)	0.010	ND	ND	ND	ND
Di-isopropyl Ether (DIPE)	0.010	ND	ND	ND	ND
Ethyl tert-Butyl Ether (ETBE)	0.010	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	0.010	ND	ND	ND	ND
tert-Butanol (TBA)	0.80	ND	ND	ND	ND
VOLATILE HALOCARBONS					
1,2-Dichloroethane (1,2-DCA)	0.010	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.010	ND	ND	ND	ND
Report Limit Multiplication Factor:		2*	2*	2*	1
Date Sampled:		08-01-05	08-02-05	08-02-05	08-02-05

* *The reporting limit was raised due to insufficient sample mass available for testing.*

Surrogate Recoveries				
1,2-Dichloroethane-d4	93.4%	84.0%	82.5%	80.3%
Toluene-d8	102%	87.0%	79.7%	84.0%

Instrument ID: HP 5972 MS
Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
(mg/kg) = milligrams per kilogram or parts per million (ppm)

APPROVED BY: *Clark J. Cone*
Laboratory Manager

APPROVED BY: *James C. Phillips*
Laboratory Director

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Twining Laboratories 2527 Fresno St. Fresno, CA. 93721 Attn: Eric Scott	Client Project ID: 5H03001 Reference Number: 8430 Sample Prep/Analysis Method: EPA 5030/8260 Analyst: Scott Foster	Method: EPA 5030/8260 Instrument ID: HP 5972 MS Extracted: 08-08-05 Analyzed: 08-08-05 Reported: 08-12-05

QUALITY CONTROL DATA REPORT

SPIKE ID: VSMS-8085

	Reporting Limit mg/Kg	BLANK Result mg/Kg	Spiking Level mg/Kg	Control Spike %R	%R Limits
COMPOUNDS					
t-Butyl Alcohol (t-BA)	0.80	ND	3.00	77.4%	55.3 - 153
Methyl t-butyl ether (MTBE)	0.010	ND	0.100	86.0%	60.4 - 137
Diisopropyl ether (DIPE)	0.010	ND	0.100	84.8%	70.0 -130
Ethyl t-Butyl ether (ETBE)	0.010	ND	0.100	84.8%	70.0 -130
t-Amyl methyl ether (TAME)	0.010	ND	0.100	86.0%	70.0 -130
1,2-Dichloroethane (1,2-DCA)	0.010	ND	0.100	80.8%	63.6 - 138
Ethylene dibromide (EDB)	0.010	ND	0.100	78.8%	66.7 - 129
Surrogates:					
1,2-Dichloroethane-d4	0.010	102%	0.400	79.0%	59.2 - 135
Toluene-d8	0.010	97.7%	0.400	81.5%	62.9 - 132

	Spiking Level mg/Kg	MATRIX SPIKE %R	MATRIX SPIKE DUP %R	%R Limits	%RPD
COMPOUNDS					
t-Butyl Alcohol (t-BA)	3.00	75.2%	73.8%	55.3 - 153	1.88%
Methyl t-butyl ether (MTBE)	0.100	74.0%	70.4%	60.4 - 137	4.34%
Diisopropyl ether (DIPE)	0.100	83.2%	80.0%	70.0 -130	3.92%
Ethyl t-Butyl ether (ETBE)	0.100	82.4%	78.4%	70.0 -130	4.98%
t-Amyl methyl ether (TAME)	0.100	76.0%	73.6%	70.0 -130	2.86%
1,2-Dichloroethane (1,2-DCA)	0.100	84.0%	81.6%	63.6 - 138	2.90%
Ethylene dibromide (EDB)	0.100	73.6%	75.2%	66.7 - 129	2.08%
Surrogate:					
1,2-Dichloroethane-d4	0.400	81.7%	76.2%	59.2 - 135	6.97%
Toluene-d8	0.400	83.3%	83.6%	62.9 - 132	0.359%

The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY: _____
Clari J. Cone
Laboratory Manager

APPROVED BY: _____
James C. Phillips
Laboratory Director

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

August 15, 2005

Work Order #: 5H05027

Vern Bennett
Twining Environmental Department
2527 Fresno Street
Fresno, CA 93721

RE: BDC- Sky West Plaza- Hayward

Enclosed are the analytical results for samples received by our laboratory on 08/05/05 . For your reference, these analyses have been assigned laboratory work order number 5H05027.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, The Twining Laboratories, Inc. (TL) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

The Twining Laboratories, Inc.

Ronald J. Boquist
Director of Analytical Chemistry

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-10-10'	5H05027-01	Soil	08/02/05 16:00	08/05/05 17:45
S-10	5H05027-02	Ground Water	08/02/05 16:10	08/05/05 17:45
S-11-10'	5H05027-03	Soil	08/02/05 17:15	08/05/05 17:45
S-11	5H05027-04	Ground Water	08/02/05 17:25	08/05/05 17:45
S-12-10'	5H05027-05	Soil	08/02/05 18:20	08/05/05 17:45
S-12	5H05027-06	Ground Water	08/02/05 18:45	08/05/05 17:45
S-13-10'	5H05027-07	Soil	08/03/05 08:40	08/05/05 17:45
S-13	5H05027-08	Ground Water	08/03/05 09:00	08/05/05 17:45
S-14-10'	5H05027-09	Soil	08/03/05 09:45	08/05/05 17:45
S-14	5H05027-10	Ground Water	08/03/05 10:15	08/05/05 17:45
S-15-10'	5H05027-11	Soil	08/03/05 10:50	08/05/05 17:45
S-15	5H05027-12	Ground Water	08/03/05 11:30	08/05/05 17:45
S-16-10'	5H05027-13	Soil	08/03/05 13:00	08/05/05 17:45
S-16	5H05027-14	Ground Water	08/03/05 13:15	08/05/05 17:45
S-17-10'	5H05027-15	Soil	08/03/05 14:00	08/05/05 17:45
S-17	5H05027-16	Ground Water	08/03/05 14:20	08/05/05 17:45
S-18-10'	5H05027-17	Soil	08/03/05 15:05	08/05/05 17:45
S-18	5H05027-18	Ground Water	08/03/05 15:25	08/05/05 17:45
S-19-10'	5H05027-19	Soil	08/03/05 17:15	08/05/05 17:45
S-19	5H05027-20	Ground Water	08/03/05 17:30	08/05/05 17:45
S-20-10'	5H05027-21	Soil	08/04/05 08:30	08/05/05 17:45
S-20	5H05027-22	Ground Water	08/04/05 09:00	08/05/05 17:45
S-21-10'	5H05027-23	Soil	08/04/05 10:15	08/05/05 17:45
S-21	5H05027-24	Ground Water	08/04/05 10:45	08/05/05 17:45
S-22-10'	5H05027-25	Soil	08/04/05 12:00	08/05/05 17:45
S-22	5H05027-26	Ground Water	08/04/05 12:20	08/05/05 17:45
S-23-10'	5H05027-27	Soil	08/04/05 14:20	08/05/05 17:45
S-23	5H05027-28	Ground Water	08/04/05 14:40	08/05/05 17:45

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-24-10'	5H05027-29	Soil	08/04/05 15:10	08/05/05 17:45
S-24	5H05027-30	Ground Water	08/04/05 15:30	08/05/05 17:45
S-25-10'	5H05027-31	Soil	08/04/05 16:15	08/05/05 17:45
S-25	5H05027-32	Ground Water	08/04/05 16:30	08/05/05 17:45
S-26-10'	5H05027-33	Soil	08/04/05 17:00	08/05/05 17:45
S-26	5H05027-34	Ground Water	08/04/05 17:20	08/05/05 17:45
Field Blank	5H05027-35	Water	08/05/05 07:15	08/05/05 17:45
S-27-10'	5H05027-36	Soil	08/05/05 07:30	08/05/05 17:45
S-27	5H05027-37	Ground Water	08/05/05 07:50	08/05/05 17:45
S-28-10'	5H05027-38	Soil	08/05/05 09:20	08/05/05 17:45
S-28	5H05027-39	Ground Water	08/05/05 09:35	08/05/05 17:45
S-29-10'	5H05027-40	Soil	08/05/05 11:00	08/05/05 17:45
S-29	5H05027-41	Ground Water	08/05/05 11:25	08/05/05 17:45
S-30-10'	5H05027-42	Soil	08/05/05 13:00	08/05/05 17:45
S-30	5H05027-43	Ground Water	08/05/05 13:30	08/05/05 17:45

Samples 5H05027-01, 5H05027-02, 5H05027-03, 5H05027-04, 5H05027-06, 5H05027-08, 5H05027-10, 5H05027-12, 5H05027-14, 5H05027-18, 5H05027-20, 5H05027-22, 5H05027-24, 5H05027-28, 5H05027-30, 5H05027-32, 5H05027-34, 5H05027-35, 5H05027-37, 5H05027-39, 5H05027-41, and 5H05027-43 had atypical diesel patterns and many samples had no reportable surrogate recovery due to matrix interference in the EPA 8015M analysis.

TPH-g and BTEX by EPA 8015/0821 on samples 5H05027-18, 5H05027-28, and 5H0527-30 had surrogate recoveries outside of established control limits due to matrix interference.

Sample 5H05027-43 for pH and EC analyses were run outside the EPA recommended holding time of 24 hours due to late arrival of sample to the laboratory. MBAS analysis for this sample was completed outside the EPA recommended hold time of 48 hours.

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-10-10'

5H05027-01 (Soil) Sampled:08/02/05 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**31**	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Surrogate: o-Terphenyl		*50.2 %*	*0-200*		*T5H1107*	*08/10/05*	*08/11/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.050	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.050	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.20	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.20	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**1.1**	0.10	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.20	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	2.0	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Surrogate: Toluene-d8		*99.2 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*90.8 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	**0.84**	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Toluene	**1.4**	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Ethylbenzene	**3.3**	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Xylenes, total	**14**	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Gasoline	**400**	250	mg/kg	500	T5H1301	08/13/05	08/14/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	5.0	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*115 %*	*75-125*		*T5H1301*	*08/13/05*	*08/14/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*114 %*	*75-125*		*T5H1301*	*08/13/05*	*08/14/05*	*EPA 8021B*

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S-10

5H05027-02 (Ground Water) Sampled:08/02/05 16:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**250000**	100000	µg/L	2000	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	50	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	50	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	200	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	200	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**61000**	1000	µg/L	1000	T5H1022	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	200	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	**41000**	2000	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Surrogate: Dibromofluoromethane		*88.0 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*98.4 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Toluene-d8		*96.8 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	**13000**	500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Toluene	**4200**	500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	**19000**	500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	**50000**	1500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**93000**	2500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	**1000000**	50000	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*124 %*	*75-125*		*T5H1119*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*107 %*	*75-125*		*T5H1119*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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S-11-10'

5H05027-03 (Soil) Sampled:08/02/05 17:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**18**	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.050	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.050	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.20	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.20	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**1.2**	0.10	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.20	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	2.0	mg/kg	100	T5H1208	08/12/05	08/13/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Toluene-d8		*100 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*90.0 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Toluene	ND	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Ethylbenzene	**1.3**	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Xylenes, total	**4.9**	0.50	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Gasoline	**150**	100	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	5.0	mg/kg	100	T5H1301	08/13/05	08/14/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*108 %*	*75-125*		*T5H1301*	*08/13/05*	*08/14/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*110 %*	*75-125*		*T5H1301*	*08/13/05*	*08/14/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/15/05

S-11

5H05027-04 (Ground Water) Sampled:08/02/05 17:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**120000**	50000	µg/L	1000	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	50	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	50	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	200	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	200	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**48000**	1000	µg/L	1000	T5H1022	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	200	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	**32000**	2000	µg/L	100	T5H1022	08/10/05	08/11/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*92.4 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Toluene-d8		*99.6 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	**5500**	500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Toluene	**2100**	500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	**6700**	500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	**16000**	1500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**70000**	2500	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	**280000**	50000	µg/L	1000	T5H1119	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*100 %*	*75-125*		*T5H1119*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*102 %*	*75-125*		*T5H1119*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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S-12-10'

5H05027-05 (Soil) Sampled:08/02/05 18:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**0.0026**	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Toluene-d8		*98.8 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*95.5 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*99.7 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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S-12

5H05027-06 (Ground Water) Sampled:08/02/05 18:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**15000**	10000	µg/L	200	T5H0911	08/09/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Surrogate: Toluene-d8		*95.6 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*79.6 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	**25**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	ND	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	7.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**17**	12	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	**6400**	250	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*97.6 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*123 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-13-10'

5H05027-07 (Soil) Sampled:08/03/05 08:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Toluene-d8		*97.2 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*88.3 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*88.6 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department	Project: BDC- Sky West Plaza- Hayward	
2527 Fresno Street	Project Number: A07281.02	Reported:
Fresno CA, 93721	Project Manager: Vern Bennett	08/15/05

S-13

5H05027-08 (Ground Water) Sampled:08/03/05 09:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**120**	50	µg/L	1	T5H0911	08/09/05	08/09/05	EPA 8015Mod
Surrogate: o-Terphenyl		*77.2 %*	*0-200*		*T5H0911*	*08/09/05*	*08/09/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*95.6 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Toluene-d8		*96.4 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*90.4 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*94.8 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-14-10'

5H05027-09 (Soil) Sampled:08/03/05 09:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**0.0047**	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: Toluene-d8		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*91.0 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*91.4 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-14

5H05027-10 (Ground Water) Sampled:08/03/05 10:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	120	50	µg/L	1	T5H0911	08/09/05	08/09/05	EPA 8015Mod
Surrogate: o-Terphenyl		*77.8 %*	*0-200*		*T5H0911*	*08/09/05*	*08/09/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Toluene-d8		*97.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*100 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*92.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*90.0 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*94.0 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-15-10'

5H05027-11 (Soil) Sampled:08/03/05 10:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Surrogate: o-Terphenyl		*41.0 %*	*0-200*		*T5H1107*	*08/10/05*	*08/11/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: Dibromofluoromethane		*102 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Toluene-d8		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*90.2 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*92.0 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-15

5H05027-12 (Ground Water) Sampled:08/03/05 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**85**	50	µg/L	1	T5H0911	08/09/05	08/09/05	EPA 8015Mod
Surrogate: o-Terphenyl		*71.6 %*	*0-200*		*T5H0911*	*08/09/05*	*08/09/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Dibromofluoromethane		*91.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Toluene-d8		*97.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*95.6 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*90.8 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-16-10'

5H05027-13 (Soil) Sampled:08/03/05 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Surrogate: o-Terphenyl		*28.0 %*	*0-200*		*T5H1107*	*08/10/05*	*08/11/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**0.0036**	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*104 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Toluene-d8		*103 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*88.5 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*88.3 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
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Twining Environmental Department	Project: BDC- Sky West Plaza- Hayward	
2527 Fresno Street	Project Number: A07281.02	Reported:
Fresno CA, 93721	Project Manager: Vern Bennett	08/15/05

S-16

5H05027-14 (Ground Water) Sampled:08/03/05 13:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**420**	50	µg/L	1	T5H0911	08/09/05	08/09/05	EPA 8015Mod
Surrogate: o-Terphenyl		*73.5 %*	*0-200*		*T5H0911*	*08/09/05*	*08/09/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**10**	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Dibromofluoromethane		*91.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Toluene-d8		*99.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	**0.74**	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**10**	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	**580**	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*83.6 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*103 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-17-10'

5H05027-15 (Soil) Sampled:08/03/05 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**0.0023**	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: Toluene-d8		*98.4 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*99.2 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*86.6 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*86.2 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-17

5H05027-16 (Ground Water) Sampled:08/03/05 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*68.1 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Toluene-d8		*97.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*92.0 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*90.0 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*94.4 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-18-10'

5H05027-17 (Soil) Sampled:08/03/05 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**0.0078**	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: Toluene-d8		*95.2 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*92.8 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*94.7 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*88.5 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-18

5H05027-18 (Ground Water) Sampled:08/03/05 15:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
Semi-Volatile Organics									
Diesel	**4000**	2500	µg/L	50	T5H0911	08/09/05	08/11/05	EPA 8015Mod	
Volatile Organics									
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B	
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B	
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B	
Methyl tert-Butyl Ether (MTBE)	**990**	10	µg/L	10	T5H1022	08/10/05	08/11/05	EPA 8260B	
Tert-Amyl Methyl Ether (TAME)	**2.0**	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B	
tert-Butyl alcohol (TBA)	**330**	20	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*83.2 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*	
Surrogate: Toluene-d8		*95.6 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*	
Benzene	**42**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Toluene	**8.8**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Ethylbenzene	ND	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Xylenes, total	ND	7.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Methyl tert-Butyl Ether (MTBE)	**1200**	12	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Gasoline	**3700**	250	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Surrogate: 4-Bromofluorobenzene (PID)		*140 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*	MSR
Surrogate: 4-Bromofluorobenzene (FID)		*202 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*	MSR

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-19-10'

5H05027-19 (Soil) Sampled:08/03/05 17:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*105 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Toluene-d8		*99.6 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*87.4 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*89.1 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-19

5H05027-20 (Ground Water) Sampled:08/03/05 17:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**52**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*71.0 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**53**	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Toluene-d8		*94.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*95.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*100 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**76**	2.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Gasoline	**67**	50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*94.8 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*90.0 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
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(559) 268-7021 Phone
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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-20-10'

5H05027-21 (Soil) Sampled:08/04/05 08:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/11/05	EPA 8015Mod
Surrogate: o-Terphenyl		*33.2 %*	*0-200*		*T5H1107*	*08/10/05*	*08/11/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: Toluene-d8		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*106 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*99.2 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*88.0 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*90.1 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/15/05

S-20

5H05027-22 (Ground Water) Sampled:08/04/05 09:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**15000**	10000	µg/L	200	T5H0911	08/09/05	08/11/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**8.1**	1.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	**70**	20	µg/L	1	T5H1022	08/10/05	08/11/05	EPA 8260B
Surrogate: Toluene-d8		*97.6 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*90.4 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*107 %*	*70-130*		*T5H1022*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	ND	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	**16**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	7.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**14**	12	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	**12000**	250	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*110 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*112 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-21-10'

5H05027-23 (Soil) Sampled:08/04/05 10:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/12/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*103 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Surrogate: Toluene-d8		*97.6 %*	*70-130*		*T5H1206*	*08/12/05*	*08/12/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*88.0 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*87.8 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-21

5H05027-24 (Ground Water) Sampled:08/04/05 10:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**170**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*66.0 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**2.2**	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*94.4 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Toluene-d8		*96.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	**3.0**	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	**1800**	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*117 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*106 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-22-10'

5H05027-25 (Soil) Sampled:08/04/05 12:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: Toluene-d8		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*103 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*85.8 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*85.6 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-22

5H05027-26 (Ground Water) Sampled:08/04/05 12:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*69.0 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Dibromofluoromethane		*89.6 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Toluene-d8		*96.0 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*89.2 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*94.4 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*

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S-23-10'

5H05027-27 (Soil) Sampled:08/04/05 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**0.0074**	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: Toluene-d8		*98.8 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*102 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*98.0 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*88.3 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*89.3 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-23

5H05027-28 (Ground Water) Sampled:08/04/05 14:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
Semi-Volatile Organics									
Diesel	**260**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod	
Surrogate: o-Terphenyl		*76.6 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*	
Volatile Organics									
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Methyl tert-Butyl Ether (MTBE)	**460**	10	µg/L	10	T5H1010	08/10/05	08/11/05	EPA 8260B	
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
tert-Butyl alcohol (TBA)	**200**	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*	
Surrogate: Dibromofluoromethane		*84.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*	
Surrogate: Toluene-d8		*96.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*	
Benzene	**5.7**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Toluene	ND	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Ethylbenzene	**6.8**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Xylenes, total	ND	7.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Methyl tert-Butyl Ether (MTBE)	**600**	12	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Gasoline	**1300**	250	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Surrogate: 4-Bromofluorobenzene (PID)		*132 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*	MSR
Surrogate: 4-Bromofluorobenzene (FID)		*174 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*	MSR

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-24-10'

5H05027-29 (Soil) Sampled:08/04/05 15:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1208	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1208	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1208	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1208	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**0.016**	0.0010	mg/kg	1	T5H1208	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1208	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1208	08/12/05	08/13/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Toluene-d8		*99.2 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*96.0 %*	*70-130*		*T5H1208*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1301	08/13/05	08/14/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1301	08/13/05	08/14/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1301	08/13/05	08/14/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1301	08/13/05	08/14/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1301	08/13/05	08/14/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1301	08/13/05	08/14/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*96.5 %*	*75-125*		*T5H1301*	*08/13/05*	*08/14/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*101 %*	*75-125*		*T5H1301*	*08/13/05*	*08/14/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/15/05

S-24

5H05027-30 (Ground Water) Sampled:08/04/05 15:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
Semi-Volatile Organics									
Diesel	**250**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod	
Surrogate: o-Terphenyl		*80.8 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*	
Volatile Organics									
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Methyl tert-Butyl Ether (MTBE)	**260**	10	µg/L	10	T5H1010	08/10/05	08/11/05	EPA 8260B	
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
tert-Butyl alcohol (TBA)	**110**	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B	
Surrogate: 4-Bromofluorobenzene		*98.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*	
Surrogate: Toluene-d8		*95.6 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*	
Surrogate: Dibromofluoromethane		*86.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*	
Benzene	**24**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Toluene	ND	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Ethylbenzene	**40**	2.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Xylenes, total	ND	7.5	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Methyl tert-Butyl Ether (MTBE)	**370**	12	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Gasoline	**1100**	250	µg/L	5	T5H1111	08/11/05	08/12/05	EPA 8021/8015M	
Surrogate: 4-Bromofluorobenzene (FID)		*153 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*	MSR
Surrogate: 4-Bromofluorobenzene (PID)		*124 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-25-10'

5H05027-31 (Soil) Sampled:08/04/05 16:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: Toluene-d8		*101 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*99.6 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/14/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/14/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/14/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/14/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/14/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/14/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*89.4 %*	*75-125*		*T5H1217*	*08/12/05*	*08/14/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*88.6 %*	*75-125*		*T5H1217*	*08/12/05*	*08/14/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-25

5H05027-32 (Ground Water) Sampled:08/04/05 16:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**340**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terpheryl		*65.2 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**15**	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Dibromofluoromethane		*94.4 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Toluene-d8		*96.0 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**16**	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*94.0 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*90.4 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-26-10'

5H05027-33 (Soil) Sampled:08/04/05 17:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: Dibromofluoromethane		*105 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Toluene-d8		*102 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*87.8 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*88.6 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department
2527 Fresno Street
Fresno CA, 93721

Project: BDC- Sky West Plaza- Hayward
Project Number: A07281.02
Project Manager: Vern Bennett

Reported:
08/15/05

S-26

5H05027-34 (Ground Water) Sampled:08/04/05 17:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**810**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*72.8 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**4.6**	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Toluene-d8		*97.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*89.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**9.9**	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	**1500**	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*107 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*119 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

Field Blank

5H05027-35 (Water) Sampled:08/05/05 07:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	53	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*70.0 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/10/05	EPA 8260B
Surrogate: Toluene-d8		*98.8 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*95.6 %*	*70-130*		*T5H1010*	*08/10/05*	*08/10/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/11/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*95.2 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*90.0 %*	*75-125*		*T5H1111*	*08/11/05*	*08/11/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-27-10'

5H05027-36 (Soil) Sampled:08/05/05 07:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*97.6 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Toluene-d8		*97.6 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*85.9 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*85.3 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-27

5H05027-37 (Ground Water) Sampled:08/05/05 07:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**86**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*76.0 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**4.1**	1.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Surrogate: Dibromofluoromethane		*95.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Toluene-d8		*95.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*99.6 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**4.4**	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*94.8 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*90.0 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-28-10'

5H05027-38 (Soil) Sampled:08/05/05 09:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*104 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Toluene-d8		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (PID)		*89.9 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (FID)		*93.1 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	**Reported:** 08/15/05

S-28

5H05027-39 (Ground Water) Sampled:08/05/05 09:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**85**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*72.6 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**8.2**	1.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Surrogate: Toluene-d8		*93.6 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*93.6 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*99.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**9.0**	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*88.8 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*94.4 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-29-10'

5H05027-40 (Soil) Sampled:08/05/05 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: Dibromofluoromethane		*102 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Toluene-d8		*97.2 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*88.3 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*87.2 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

THE TWINING LABORATORIES, INC.
EST. 1898
CALIFORNIA ELAP CERTIFICATE #1371

2527 Fresno Street
Fresno, CA 93721
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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-29

5H05027-41 (Ground Water) Sampled:08/05/05 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics								
Diesel	**110**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod
Surrogate: o-Terphenyl		*74.6 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**14**	1.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	**140**	20	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Toluene-d8		*96.4 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*93.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**16**	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (PID)		*93.2 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (FID)		*88.4 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-30-10'

5H05027-42 (Soil) Sampled:08/05/05 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals								
Lead	**5.8**	5.0	mg/kg	1	T5H1015	08/10/05	08/10/05	EPA 6010B
Semi-Volatile Organics								
Diesel	ND	10	mg/kg	1	T5H1107	08/10/05	08/12/05	EPA 8015Mod
Volatile Organics								
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg	1	T5H1206	08/12/05	08/13/05	EPA 8260B
Surrogate: Toluene-d8		*99.2 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: Dibromofluoromethane		*100 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*T5H1206*	*08/12/05*	*08/13/05*	*EPA 8260B*
Benzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Toluene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Ethylbenzene	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Xylenes, total	ND	0.0050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Gasoline	ND	1.0	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg	1	T5H1217	08/12/05	08/13/05	EPA 8021B
Surrogate: 4-Bromofluorobenzene (FID)		*87.2 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*
Surrogate: 4-Bromofluorobenzene (PID)		*85.8 %*	*75-125*		*T5H1217*	*08/12/05*	*08/13/05*	*EPA 8021B*

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-30

5H05027-43 (Ground Water) Sampled:08/05/05 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
Inorganics									
Total Alkalinity as CaCO3	**460**	20	mg/L	1	T5H0905	08/09/05	08/09/05	SM 2320B	
Bicarbonate Alkalinity as HCO3	**570**	20	mg/L	1	T5H0905	08/09/05	08/09/05	SM 2320B	
Carbonate Alkalinity as CO3	ND	20	mg/L	1	T5H0905	08/09/05	08/09/05	SM 2320B	
Hydroxide Alkalinity as OH	ND	20	mg/L	1	T5H0905	08/09/05	08/09/05	SM 2320B	
Chloride	**85**	6.0	mg/L	3	T5H0601	08/06/05	08/06/05	EPA 300.0	
Specific Conductance (EC)	**1100**	1.0	µS/cm	1	T5H1007	08/09/05	08/09/05	SM2510B	
Hardness	**510**	0.66	mg equiv. CaCO3/L	1	[CALC]	08/08/05	08/09/05	[CALC]	
Langelier Index	**-0.04**		SI	1	T5H1216	08/12/05	08/12/05	[CALC]	
Methylene Blue Active Substances	ND	0.050	mg/L	1	T5H1105	08/11/05	08/12/05	SM5540C	HT
Nitrate as NO3	**8.3**	2.0	mg/L	1	T5H0513	08/05/05	08/05/05	EPA 300.0	
pH	**6.7**		pH Units	1	T5H1005	08/09/05	08/09/05	EPA 150.1	
Sulfate as SO4	**35**	2.0	mg/L	1	T5H0513	08/05/05	08/05/05	EPA 300.0	
Total Dissolved Solids	**680**	10	mg/L	1	T5H0904	08/09/05	08/09/05	EPA 160.1	
Metals									
Calcium	**120**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Copper	**0.019**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Iron	**19**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Lead	**0.0050**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Magnesium	**50**	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Manganese	**0.32**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Potassium	**3.4**	1.0	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Sodium	**79**	1.0	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Zinc	**0.053**	0.0050	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Metals - Dissolved									
Iron	ND	0.10	mg/L	1	T5H0817	08/08/05	08/09/05	EPA 200.7	
Semi-Volatile Organics									
Diesel	**92**	50	µg/L	1	T5H0911	08/09/05	08/10/05	EPA 8015Mod	
Surrogate: o-Terphenyl		*65.8 %*	*0-200*		*T5H0911*	*08/09/05*	*08/10/05*	*EPA 8015Mod*	
Volatile Organics									
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B	
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B	

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Twining Environmental Department 2527 Fresno Street Fresno CA, 93721	Project: BDC- Sky West Plaza- Hayward Project Number: A07281.02 Project Manager: Vern Bennett	Reported: 08/15/05

S-30

5H05027-43 (Ground Water) Sampled:08/05/05 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics								
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Methyl tert-Butyl Ether (MTBE)	**53**	1.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
tert-Butyl alcohol (TBA)	ND	20	µg/L	1	T5H1010	08/10/05	08/11/05	EPA 8260B
Surrogate: Dibromofluoromethane		*98.0 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Surrogate: Toluene-d8		*95.2 %*	*70-130*		*T5H1010*	*08/10/05*	*08/11/05*	*EPA 8260B*
Benzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Toluene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Ethylbenzene	ND	0.50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Xylenes, total	ND	1.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Methyl tert-Butyl Ether (MTBE)	**35**	2.5	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Gasoline	ND	50	µg/L	1	T5H1111	08/11/05	08/12/05	EPA 8021/8015M
Surrogate: 4-Bromofluorobenzene (FID)		*88.8 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Surrogate: 4-Bromofluorobenzene (PID)		*89.2 %*	*75-125*		*T5H1111*	*08/11/05*	*08/12/05*	*EPA 8021/8015M*
Microbiologicals								
Heterotrophic Plate Count	**29**	1.0	CFU/ml	1	T5H0805	08/05/05	08/07/05	SM9215B

Notes and Definitions

QM	The spike recovery for this QC sample is outside of established control limits due to matrix interference.
MSTW	Tap water used for batch QC MS/MSD analyses.
MSR	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference.
HT	This result was analyzed outside of the EPA recommended holding time.
_HPC	<1
_Calc	-0.04
ug/L	micrograms per liter (parts per billion concentration units)
mg/L	milligrams per kilogram (parts per million concentration units)
mg/kg	milligrams per liter (parts per million concentration units)
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference

Inorganics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0513 - No Prep										
Blank (T5H0513-BLK1)				Prepared & Analyzed: 08/05/05						
Nitrate as NO3	ND	2.0	mg/L							
Sulfate as SO4	ND	2.0	mg/L							
Blank (T5H0513-BLK2)				Prepared: 08/05/05 Analyzed: 08/06/05						
Nitrate as NO3	ND	2.0	mg/L							
Sulfate as SO4	ND	2.0	mg/L							
LCS (T5H0513-BS1)				Prepared & Analyzed: 08/05/05						
Nitrate as NO3	23.7	2.0	mg/L	25.0		94.8	80-120			
Sulfate as SO4	23.6	2.0	mg/L	25.0		94.4	85-115			
LCS (T5H0513-BS2)				Prepared: 08/05/05 Analyzed: 08/06/05						
Nitrate as NO3	23.2	2.0	mg/L	25.0		92.8	80-120			
Sulfate as SO4	23.6	2.0	mg/L	25.0		94.4	85-115			
LCS Dup (T5H0513-BSD1)				Prepared & Analyzed: 08/05/05						
Nitrate as NO3	23.5	2.0	mg/L	25.0		94.0	80-120	0.847	20	
Sulfate as SO4	23.5	2.0	mg/L	25.0		94.0	85-115	0.425	20	
LCS Dup (T5H0513-BSD2)				Prepared: 08/05/05 Analyzed: 08/06/05						
Nitrate as NO3	23.1	2.0	mg/L	25.0		92.4	80-120	0.432	20	
Sulfate as SO4	23.3	2.0	mg/L	25.0		93.2	85-115	1.28	20	
Matrix Spike (T5H0513-MS1)		Source: 5H04034-04		Prepared: 08/05/05 Analyzed: 08/06/05						
Nitrate as NO3	46.7	6.0	mg/L	25.0	23	94.8	70-130			
Sulfate as SO4	38.6	6.0	mg/L	25.0	16	90.4	70-130			
Matrix Spike (T5H0513-MS2)		Source: 5H04035-02		Prepared: 08/05/05 Analyzed: 08/06/05						
Nitrate as NO3	45.1	2.0	mg/L	25.0	17	112	70-130			
Sulfate as SO4	35.9	2.0	mg/L	25.0	11	99.6	70-130			
Matrix Spike Dup (T5H0513-MSD1)		Source: 5H04034-04		Prepared: 08/05/05 Analyzed: 08/06/05						
Nitrate as NO3	47.1	6.0	mg/L	25.0	23	96.4	70-130	0.853	20	
Sulfate as SO4	38.8	6.0	mg/L	25.0	16	91.2	70-130	0.517	20	
Matrix Spike Dup (T5H0513-MSD2)		Source: 5H04035-02		Prepared: 08/05/05 Analyzed: 08/06/05						
Nitrate as NO3	44.9	2.0	mg/L	25.0	17	112	70-130	0.444	20	
Sulfate as SO4	35.8	2.0	mg/L	25.0	11	99.2	70-130	0.279	20	
Batch T5H0601 - No Prep										
Blank (T5H0601-BLK1)				Prepared & Analyzed: 08/08/05						
Chloride	ND	2.0	mg/L							
LCS (T5H0601-BS1)				Prepared & Analyzed: 08/08/05						
Chloride	23.9	2.0	mg/L	25.0		95.6	85-115			
LCS Dup (T5H0601-BSD1)				Prepared & Analyzed: 08/08/05						
Chloride	23.9	2.0	mg/L	25.0		95.6	85-115	0.00	15	
Batch T5H0904 - No Prep										
Blank (T5H0904-BLK1)				Prepared & Analyzed: 08/09/05						
Total Dissolved Solids	ND	10	mg/L							
LCS (T5H0904-BS1)				Prepared & Analyzed: 08/09/05						
Total Dissolved Solids	299	10	mg/L	293		102	80-120			
LCS Dup (T5H0904-BSD1)				Prepared & Analyzed: 08/09/05						

Inorganics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0904 - No Prep										
LCS Dup (T5H0904-BSD1)				Prepared & Analyzed: 08/09/05						
Total Dissolved Solids	298	10	mg/L	293		102	80-120	0.335	20	
Duplicate (T5H0904-DUP1)		Source: 5H05018-02		Prepared & Analyzed: 08/09/05						
Total Dissolved Solids	239	10	mg/L		250			4.50	20	
Batch T5H0905 - No Prep										
Blank (T5H0905-BLK1)				Prepared & Analyzed: 08/09/05						
Total Alkalinity as CaCO3	ND	20	mg/L							
Bicarbonate Alkalinity as HCO3	ND	20	mg/L							
Carbonate Alkalinity as CO3	ND	20	mg/L							
Hydroxide Alkalinity as OH	ND	20	mg/L							
LCS (T5H0905-BS1)				Prepared & Analyzed: 08/09/05						
Total Alkalinity as CaCO3	169	20	mg/L	169		100	80-120			
LCS Dup (T5H0905-BSD1)				Prepared & Analyzed: 08/09/05						
Total Alkalinity as CaCO3	172	20	mg/L	169		102	80-120	1.76	20	
Duplicate (T5H0905-DUP1)		Source: 5H05004-01		Prepared & Analyzed: 08/09/05						
Total Alkalinity as CaCO3	73.0	20	mg/L		75			2.70	20	
Batch T5H1005 - No Prep										
LCS (T5H1005-BS1)				Prepared & Analyzed: 08/09/05						
pH	7.00		pH Units	7.00		100	80-120			
LCS Dup (T5H1005-BSD1)				Prepared & Analyzed: 08/09/05						
pH	7.00		pH Units	7.00		100	80-120	0.00	20	
Duplicate (T5H1005-DUP1)		Source: 5H05027-43		Prepared & Analyzed: 08/09/05						
pH	6.70		pH Units		6.7			0.00	20	
Batch T5H1007 - No Prep										
Blank (T5H1007-BLK1)				Prepared & Analyzed: 08/09/05						
Specific Conductance (EC)	ND	1.0	µS/cm							
LCS (T5H1007-BS1)				Prepared & Analyzed: 08/09/05						
Specific Conductance (EC)	303	1.0	µS/cm	303		100	80-120			
LCS Dup (T5H1007-BSD1)				Prepared & Analyzed: 08/09/05						
Specific Conductance (EC)	302	1.0	µS/cm	303		99.7	80-120	0.331	20	
Duplicate (T5H1007-DUP1)		Source: 5H05027-43		Prepared & Analyzed: 08/09/05						
Specific Conductance (EC)	1120	1.0	µS/cm		1100			1.80	20	
Batch T5H1105 - No Prep										
Blank (T5H1105-BLK1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Methylene Blue Active Substances	ND	0.050	mg/L							
LCS (T5H1105-BS1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Methylene Blue Active Substances	0.923	0.050	mg/L	1.00		92.3	80-120			
LCS Dup (T5H1105-BSD1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Methylene Blue Active Substances	0.852	0.050	mg/L	1.00		85.2	80-120	8.00	20	

Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0817 - EPA 200.2										
Blank (T5H0817-BLK1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Zinc	ND	0.0050	mg/L							
Potassium	ND	1.0	mg/L							
Lead	ND	0.0050	mg/L							
Magnesium	ND	0.10	mg/L							
Sodium	ND	1.0	mg/L							
Iron	ND	0.10	mg/L							
Manganese	ND	0.0050	mg/L							
Calcium	ND	0.10	mg/L							
Copper	ND	0.0050	mg/L							
LCS (T5H0817-BS1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Magnesium	2.06	0.10	mg/L	2.00		103	85-115			
Sodium	2.29	1.0	mg/L	2.00		114	85-115			
Iron	2.11	0.10	mg/L	2.00		106	85-115			
Lead	0.105	0.0050	mg/L	0.100		105	85-115			
Zinc	0.109	0.0050	mg/L	0.100		109	85-115			
Potassium	4.27	1.0	mg/L	4.00		107	85-115			
Manganese	0.104	0.0050	mg/L	0.100		104	85-115			
Copper	0.105	0.0050	mg/L	0.100		105	85-115			
Calcium	2.06	0.10	mg/L	2.00		103	85-115			
LCS Dup (T5H0817-BSD1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Zinc	0.109	0.0050	mg/L	0.100		109	85-115	0.00	20	
Lead	0.105	0.0050	mg/L	0.100		105	85-115	0.00	20	
Sodium	2.20	1.0	mg/L	2.00		110	85-115	4.01	20	
Iron	2.10	0.10	mg/L	2.00		105	85-115	0.475	20	
Magnesium	2.06	0.10	mg/L	2.00		103	85-115	0.00	20	
Potassium	4.26	1.0	mg/L	4.00		106	85-115	0.234	20	
Manganese	0.104	0.0050	mg/L	0.100		104	85-115	0.00	20	
Copper	0.105	0.0050	mg/L	0.100		105	85-115	0.00	20	
Calcium	2.06	0.10	mg/L	2.00		103	85-115	0.00	20	
Matrix Spike (T5H0817-MS1)	Source: 5H03005-07			Prepared: 08/08/05 Analyzed: 08/09/05						
Manganese	0.104	0.0050	mg/L	0.100	ND	104	70-130			
Zinc	0.108	0.0050	mg/L	0.100	0.0022	106	70-130			
Lead	0.105	0.0050	mg/L	0.100	ND	105	70-130			
Iron	2.10	0.10	mg/L	2.00	ND	105	70-130			
Copper	0.105	0.0050	mg/L	0.100	ND	105	70-130			
Matrix Spike (T5H0817-MS2)	Source: 5H03029-01			Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	2.17	0.50	mg/L	2.00	0.27	95.0	70-130			
Zinc	0.112	0.025	mg/L	0.100	0.0056	106	70-130			
Copper	0.102	0.025	mg/L	0.100	ND	102	70-130			
Manganese	0.287	0.025	mg/L	0.100	0.19	97.0	70-130			
Lead	0.0955	0.025	mg/L	0.100	ND	95.5	70-130			
Matrix Spike Dup (T5H0817-MSD1)	Source: 5H03005-07			Prepared: 08/08/05 Analyzed: 08/09/05						
Zinc	0.108	0.0050	mg/L	0.100	0.0022	106	70-130	0.00	20	
Manganese	0.104	0.0050	mg/L	0.100	ND	104	70-130	0.00	20	
Lead	0.104	0.0050	mg/L	0.100	ND	104	70-130	0.957	20	
Iron	2.10	0.10	mg/L	2.00	ND	105	70-130	0.00	20	
Copper	0.104	0.0050	mg/L	0.100	ND	104	70-130	0.957	20	

Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0817 - EPA 200.2										
Matrix Spike Dup (T5H0817-MSD2)		**Source: 5H03029-01**		Prepared: 08/08/05 Analyzed: 08/09/05						
Manganese	0.289	0.025	mg/L	0.100	0.19	99.0	70-130	0.694	20	
Zinc	0.112	0.025	mg/L	0.100	0.0056	106	70-130	0.00	20	
Lead	0.0960	0.025	mg/L	0.100	ND	96.0	70-130	0.522	20	
Iron	2.18	0.50	mg/L	2.00	0.27	95.5	70-130	0.460	20	
Copper	0.104	0.025	mg/L	0.100	ND	104	70-130	1.94	20	
Batch T5H1015 - EPA 3050B										
Blank (T5H1015-BLK1)				Prepared & Analyzed: 08/10/05						
Lead	ND	5.0	mg/kg							
LCS (T5H1015-BS1)				Prepared & Analyzed: 08/10/05						
Lead	19.3	5.0	mg/kg	20.0		96.5	75-125			
LCS Dup (T5H1015-BSD1)				Prepared & Analyzed: 08/10/05						
Lead	19.4	5.0	mg/kg	20.0		97.0	75-125	0.517	20	
Matrix Spike (T5H1015-MS1)		**Source: 5H05007-01**		Prepared & Analyzed: 08/10/05						
Lead	32.1	25	mg/kg	20.0	12	100	75-125			
Matrix Spike Dup (T5H1015-MSD1)		**Source: 5H05007-01**		Prepared & Analyzed: 08/10/05						
Lead	31.9	25	mg/kg	20.0	12	99.5	75-125	0.625	20	

Metals - Dissolved - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0817 - EPA 200.2										
Blank (T5H0817-BLK1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	ND	0.10	mg/L							
LCS (T5H0817-BS1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	2.11	0.10	mg/L	2.00		106	85-115			
LCS Dup (T5H0817-BSD1)				Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	2.10	0.10	mg/L	2.00		105	85-115	0.475	20	
Matrix Spike (T5H0817-MS1)		Source: 5H03005-07		Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	2.10	0.10	mg/L	2.00	ND	105	70-130			
Matrix Spike (T5H0817-MS2)		Source: 5H03029-01		Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	2.17	0.50	mg/L	2.00	0.27	95.0	70-130			
Matrix Spike Dup (T5H0817-MSD1)		Source: 5H03005-07		Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	2.10	0.10	mg/L	2.00	ND	105	70-130	0.00	20	
Matrix Spike Dup (T5H0817-MSD2)		Source: 5H03029-01		Prepared: 08/08/05 Analyzed: 08/09/05						
Iron	2.18	0.50	mg/L	2.00	0.27	95.5	70-130	0.460	20	

Semi-Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H0911 - EPA 3510C										
Blank (T5H0911-BLK1)				Prepared & Analyzed: 08/09/05						
Surrogate: o-Terphenyl	*5.83*		*µg/L*	*8.00*		*72.9*	*0-200*			
Diesel	ND	50	µg/L							
Blank (T5H0911-BLK2)				Prepared: 08/09/05 Analyzed: 08/10/05						
Surrogate: o-Terphenyl	*6.46*		*µg/L*	*8.00*		*80.8*	*0-200*			
Diesel	ND	50	µg/L							
LCS (T5H0911-BS1)				Prepared & Analyzed: 08/09/05						
Surrogate: o-Terphenyl	*6.27*		*µg/L*	*8.00*		*78.4*	*0-200*			
Diesel	456	50	µg/L	500		91.2	70-130			
LCS (T5H0911-BS2)				Prepared: 08/09/05 Analyzed: 08/10/05						
Surrogate: o-Terphenyl	*6.45*		*µg/L*	*8.00*		*80.6*	*0-200*			
Diesel	463	50	µg/L	500		92.6	70-130			
LCS Dup (T5H0911-BSD1)				Prepared & Analyzed: 08/09/05						
Surrogate: o-Terphenyl	*6.18*		*µg/L*	*8.00*		*77.2*	*0-200*			
Diesel	465	50	µg/L	500		93.0	70-130	1.95	20	
LCS Dup (T5H0911-BSD2)				Prepared: 08/09/05 Analyzed: 08/10/05						
Surrogate: o-Terphenyl	*6.52*		*µg/L*	*8.00*		*81.5*	*0-200*			
Diesel	463	50	µg/L	500		92.6	70-130	0.00	20	
Matrix Spike (T5H0911-MS1)				Prepared: 08/09/05 Analyzed: 08/10/05						
Surrogate: o-Terphenyl	*6.47*		*µg/L*	*8.00*		*80.9*	*0-200*			*MSTW*
Diesel	381	50	µg/L	500		76.2	70-130			MSTW
Matrix Spike (T5H0911-MS2)				Prepared: 08/09/05 Analyzed: 08/10/05						
Surrogate: o-Terphenyl	*5.92*		*µg/L*	*8.00*		*74.0*	*0-200*			*MSTW*
Diesel	356	50	µg/L	500		71.2	70-130			MSTW
Matrix Spike Dup (T5H0911-MSD1)				Prepared: 08/09/05 Analyzed: 08/10/05						
Surrogate: o-Terphenyl	*5.59*		*µg/L*	*8.00*		*69.9*	*0-200*			*MSTW*
Diesel	371	50	µg/L	500		74.2	70-130	2.66	20	MSTW
Matrix Spike Dup (T5H0911-MSD2)				Prepared: 08/09/05 Analyzed: 08/10/05						
Surrogate: o-Terphenyl	*5.62*		*µg/L*	*8.00*		*70.2*	*0-200*			*MSTW*
Diesel	356	50	µg/L	500		71.2	70-130	0.00	20	MSTW
Batch T5H1107 - EPA 3550B										
Blank (T5H1107-BLK1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: o-Terphenyl	*0.178*		*mg/kg*	*0.400*		*44.5*	*0-200*			
Diesel	ND	10	mg/kg							
LCS (T5H1107-BS1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: o-Terphenyl	*0.295*		*mg/kg*	*0.400*		*73.8*	*0-200*			
Diesel	18.8	10	mg/kg	25.0		75.2	70-130			
LCS Dup (T5H1107-BSD1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: o-Terphenyl	*0.315*		*mg/kg*	*0.400*		*78.8*	*0-200*			
Diesel	19.9	10	mg/kg	25.0		79.6	70-130	5.68	20	
Matrix Spike (T5H1107-MS1)					**Source: 5H05027-05**	Prepared: 08/10/05 Analyzed: 08/12/05				
Surrogate: o-Terphenyl	*0.264*		*mg/kg*	*0.400*		*66.0*	*0-200*			*QM*

Semi-Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H1107 - EPA 3550B										
Matrix Spike (T5H1107-MS1)		**Source: 5H05027-05**		Prepared: 08/10/05 Analyzed: 08/12/05						
Diesel	13.3	10	mg/kg	25.0	5.2	32.4	70-130			QM
Matrix Spike Dup (T5H1107-MSD1)		**Source: 5H05027-05**		Prepared: 08/10/05 Analyzed: 08/12/05						
Surrogate: o-Terphenyl	*0.235*		*mg/kg*	*0.400*		*58.8*	*0-200*			*QM*
Diesel	12.2	10	mg/kg	25.0	5.2	28.0	70-130	8.63	20	QM

Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H1010 - EPA 5030B										
Blank (T5H1010-BLK1)				Prepared & Analyzed: 08/10/05						
Surrogate: Toluene-d8	*23.9*		*µg/L*	*25.0*		*95.6*	*70-130*			
Surrogate: Dibromofluoromethane	*23.3*		*µg/L*	*25.0*		*93.2*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*26.0*		*µg/L*	*25.0*		*104*	*70-130*			
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Di-isopropyl ether (DIPE)	ND	2.0	µg/L							
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L							
tert-Butyl alcohol (TBA)	ND	20	µg/L							
LCS (T5H1010-BS1)				Prepared & Analyzed: 08/10/05						
Surrogate: 4-Bromofluorobenzene	*25.5*		*µg/L*	*25.0*		*102*	*70-130*			
Surrogate: Toluene-d8	*24.2*		*µg/L*	*25.0*		*96.8*	*70-130*			
Surrogate: Dibromofluoromethane	*23.6*		*µg/L*	*25.0*		*94.4*	*70-130*			
LCS Dup (T5H1010-BSD1)				Prepared & Analyzed: 08/10/05						
Surrogate: Dibromofluoromethane	*23.4*		*µg/L*	*25.0*		*93.6*	*70-130*			
Surrogate: Toluene-d8	*24.0*		*µg/L*	*25.0*		*96.0*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.1*		*µg/L*	*25.0*		*100*	*70-130*			
Matrix Spike (T5H1010-MS1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Dibromofluoromethane	*22.8*		*µg/L*	*25.0*		*91.2*	*70-130*			
Surrogate: Toluene-d8	*24.9*		*µg/L*	*25.0*		*99.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.1*		*µg/L*	*25.0*		*100*	*70-130*			
Matrix Spike Dup (T5H1010-MSD1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Toluene-d8	*24.4*		*µg/L*	*25.0*		*97.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.8*		*µg/L*	*25.0*		*103*	*70-130*			
Surrogate: Dibromofluoromethane	*24.3*		*µg/L*	*25.0*		*97.2*	*70-130*			
Batch T5H1022 - EPA 5030B										
Blank (T5H1022-BLK1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Toluene-d8	*24.0*		*µg/L*	*25.0*		*96.0*	*70-130*			
Surrogate: Dibromofluoromethane	*23.6*		*µg/L*	*25.0*		*94.4*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*24.8*		*µg/L*	*25.0*		*99.2*	*70-130*			
1,2-Dichloroethane (1,2-DCA)	ND	0.50	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Di-isopropyl ether (DIPE)	ND	2.0	µg/L							
Ethyl tert-Butyl Ether (ETBE)	ND	2.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Tert-Amyl Methyl Ether (TAME)	ND	2.0	µg/L							
tert-Butyl alcohol (TBA)	ND	20	µg/L							
LCS (T5H1022-BS1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Dibromofluoromethane	*23.9*		*µg/L*	*25.0*		*95.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*24.8*		*µg/L*	*25.0*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*24.6*		*µg/L*	*25.0*		*98.4*	*70-130*			
LCS Dup (T5H1022-BSD1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Dibromofluoromethane	*23.5*		*µg/L*	*25.0*		*94.0*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.3*		*µg/L*	*25.0*		*101*	*70-130*			

Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H1022 - EPA 5030B										
LCS Dup (T5H1022-BSD1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Toluene-d8	*23.4*		*µg/L*	*25.0*		*93.6*	*70-130*			
Matrix Spike (T5H1022-MS1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Dibromofluoromethane	*23.8*		*µg/L*	*25.0*		*95.2*	*70-130*			
Surrogate: Toluene-d8	*24.2*		*µg/L*	*25.0*		*96.8*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*24.8*		*µg/L*	*25.0*		*99.2*	*70-130*			
Matrix Spike Dup (T5H1022-MSD1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Surrogate: Toluene-d8	*24.0*		*µg/L*	*25.0*		*96.0*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.5*		*µg/L*	*25.0*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*22.5*		*µg/L*	*25.0*		*90.0*	*70-130*			
Batch T5H1111 - EPA 5030B										
Blank (T5H1111-BLK1)				Prepared & Analyzed: 08/11/05						
Surrogate: 4-Bromofluorobenzene (FID)	*22.9*		*µg/L*	*25.0*		*91.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene (PID)	*23.8*		*µg/L*	*25.0*		*95.2*	*75-125*			
Benzene	ND	0.50	µg/L							
Toluene	ND	0.50	µg/L							
Ethylbenzene	ND	0.50	µg/L							
Xylenes, total	ND	1.5	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L							
Gasoline	ND	50	µg/L							
LCS (T5H1111-BS1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Surrogate: 4-Bromofluorobenzene (FID)	*25.4*		*µg/L*	*25.0*		*102*	*70-130*			
Surrogate: 4-Bromofluorobenzene (PID)	*24.4*		*µg/L*	*25.0*		*97.6*	*70-130*			
Benzene	18.3	0.50	µg/L	20.0		91.5	70-130			
Toluene	18.3	0.50	µg/L	20.0		91.5	70-130			
Ethylbenzene	17.9	0.50	µg/L	20.0		89.5	70-130			
Xylenes, total	57.1	1.5	µg/L	60.0		95.2	70-130			
Methyl tert-Butyl Ether (MTBE)	95.7	2.5	µg/L	100		95.7	70-130			
Gasoline	791	50	µg/L	1000		79.1	70-130			
LCS Dup (T5H1111-BSD1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Surrogate: 4-Bromofluorobenzene (PID)	*24.6*		*µg/L*	*25.0*		*98.4*	*70-130*			
Surrogate: 4-Bromofluorobenzene (FID)	*26.6*		*µg/L*	*25.0*		*106*	*70-130*			
Benzene	18.8	0.50	µg/L	20.0		94.0	70-130	2.70	20	
Toluene	18.9	0.50	µg/L	20.0		94.5	70-130	3.23	20	
Ethylbenzene	18.5	0.50	µg/L	20.0		92.5	70-130	3.30	20	
Xylenes, total	59.2	1.5	µg/L	60.0		98.7	70-130	3.61	20	
Methyl tert-Butyl Ether (MTBE)	100	2.5	µg/L	100		100	70-130	4.39	20	
Gasoline	789	50	µg/L	1000		78.9	70-130	0.253	20	
Batch T5H1119 - EPA 5030B										
Blank (T5H1119-BLK1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Surrogate: 4-Bromofluorobenzene (FID)	*21.9*		*µg/L*	*25.0*		*87.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene (PID)	*23.4*		*µg/L*	*25.0*		*93.6*	*75-125*			
Benzene	ND	0.50	µg/L							
Toluene	ND	0.50	µg/L							
Ethylbenzene	ND	0.50	µg/L							

Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H1119 - EPA 5030B										
Blank (T5H1119-BLK1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Xylenes, total	ND	1.5	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.5	µg/L							
Gasoline	ND	50	µg/L							
LCS (T5H1119-BS1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Surrogate: 4-Bromofluorobenzene (FID)	*28.2*		*µg/L*	*25.0*		*113*	*70-130*			
Surrogate: 4-Bromofluorobenzene (PID)	*24.4*		*µg/L*	*25.0*		*97.6*	*70-130*			
Benzene	18.0	0.50	µg/L	20.0		90.0	70-130			
Toluene	18.4	0.50	µg/L	20.0		92.0	70-130			
Ethylbenzene	17.9	0.50	µg/L	20.0		89.5	70-130			
Xylenes, total	57.3	1.5	µg/L	60.0		95.5	70-130			
Methyl tert-Butyl Ether (MTBE)	96.5	2.5	µg/L	100		96.5	70-130			
Gasoline	794	50	µg/L	1000		79.4	70-130			
LCS Dup (T5H1119-BSD1)				Prepared: 08/11/05 Analyzed: 08/12/05						
Surrogate: 4-Bromofluorobenzene (PID)	*24.2*		*µg/L*	*25.0*		*96.8*	*70-130*			
Surrogate: 4-Bromofluorobenzene (FID)	*28.3*		*µg/L*	*25.0*		*113*	*70-130*			
Benzene	18.8	0.50	µg/L	20.0		94.0	70-130	4.35	20	
Toluene	18.8	0.50	µg/L	20.0		94.0	70-130	2.15	20	
Ethylbenzene	18.4	0.50	µg/L	20.0		92.0	70-130	2.75	20	
Xylenes, total	58.9	1.5	µg/L	60.0		98.2	70-130	2.75	20	
Methyl tert-Butyl Ether (MTBE)	92.4	2.5	µg/L	100		92.4	70-130	4.34	20	
Gasoline	786	50	µg/L	1000		78.6	70-130	1.01	20	
Batch T5H1206 - EPA 5035										
Blank (T5H1206-BLK1)				Prepared & Analyzed: 08/12/05						
Surrogate: Toluene-d8	*0.0246*		*mg/kg*	*0.0250*		*98.4*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0264*		*mg/kg*	*0.0250*		*106*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0250*		*mg/kg*	*0.0250*		*100*	*70-130*			
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg							
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg							
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg							
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg							
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg							
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg							
LCS (T5H1206-BS1)				Prepared & Analyzed: 08/12/05						
Surrogate: Dibromofluoromethane	*0.0256*		*mg/kg*	*0.0250*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.0245*		*mg/kg*	*0.0250*		*98.0*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0250*		*mg/kg*	*0.0250*		*100*	*70-130*			
LCS Dup (T5H1206-BSD1)				Prepared & Analyzed: 08/12/05						
Surrogate: Dibromofluoromethane	*0.0252*		*mg/kg*	*0.0250*		*101*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0269*		*mg/kg*	*0.0250*		*108*	*70-130*			
Surrogate: Toluene-d8	*0.0248*		*mg/kg*	*0.0250*		*99.2*	*70-130*			
Matrix Spike (T5H1206-MS1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: Dibromofluoromethane	*0.0226*		*mg/kg*	*0.0250*		*90.4*	*70-130*			
Surrogate: Toluene-d8	*0.0249*		*mg/kg*	*0.0250*		*99.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0248*		*mg/kg*	*0.0250*		*99.2*	*70-130*			

Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H1206 - EPA 5035										
Matrix Spike Dup (T5H1206-MSD1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: 4-Bromofluorobenzene	*0.0266*		*mg/kg*	*0.0250*		*106*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0234*		*mg/kg*	*0.0250*		*93.6*	*70-130*			
Surrogate: Toluene-d8	*0.0255*		*mg/kg*	*0.0250*		*102*	*70-130*			
Batch T5H1208 - EPA 5035										
Blank (T5H1208-BLK1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: 4-Bromofluorobenzene	*0.0251*		*mg/kg*	*0.0250*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0242*		*mg/kg*	*0.0250*		*96.8*	*70-130*			
Surrogate: Toluene-d8	*0.0249*		*mg/kg*	*0.0250*		*99.6*	*70-130*			
1,2-Dichloroethane (1,2-DCA)	ND	0.00050	mg/kg							
1,2-Dibromoethane (EDB)	ND	0.00050	mg/kg							
Di-isopropyl ether (DIPE)	ND	0.0020	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0020	mg/kg							
Methyl tert-Butyl Ether (MTBE)	ND	0.0010	mg/kg							
Tert-Amyl Methyl Ether (TAME)	ND	0.0020	mg/kg							
tert-Butyl alcohol (TBA)	ND	0.020	mg/kg							
LCS (T5H1208-BS1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: Dibromofluoromethane	*0.0226*		*mg/kg*	*0.0250*		*90.4*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0256*		*mg/kg*	*0.0250*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.0246*		*mg/kg*	*0.0250*		*98.4*	*70-130*			
LCS Dup (T5H1208-BSD1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: Dibromofluoromethane	*0.0224*		*mg/kg*	*0.0250*		*89.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0254*		*mg/kg*	*0.0250*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.0248*		*mg/kg*	*0.0250*		*99.2*	*70-130*			
Matrix Spike (T5H1208-MS1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: Toluene-d8	*0.0245*		*mg/kg*	*0.0250*		*98.0*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0224*		*mg/kg*	*0.0250*		*89.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0257*		*mg/kg*	*0.0250*		*103*	*70-130*			
Matrix Spike Dup (T5H1208-MSD1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: 4-Bromofluorobenzene	*0.0251*		*mg/kg*	*0.0250*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.0251*		*mg/kg*	*0.0250*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0220*		*mg/kg*	*0.0250*		*88.0*	*70-130*			
Batch T5H1217 - EPA 5035										
Blank (T5H1217-BLK1)				Prepared: 08/12/05 Analyzed: 08/13/05						
Surrogate: 4-Bromofluorobenzene (FID)	*0.0598*		*mg/kg*	*0.0625*		*95.7*	*75-125*			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0586*		*mg/kg*	*0.0625*		*93.8*	*75-125*			
Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	mg/kg							
Ethylbenzene	ND	0.0050	mg/kg							
Xylenes, total	ND	0.0050	mg/kg							
Gasoline	ND	1.0	mg/kg							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg							
LCS (T5H1217-BS1)				Prepared: 08/12/05 Analyzed: 08/14/05						
Surrogate: 4-Bromofluorobenzene (PID)	*0.0573*		*mg/kg*	*0.0625*		*91.7*	*70-130*			
Surrogate: 4-Bromofluorobenzene (FID)	*0.0808*		*mg/kg*	*0.0625*		*129*	*70-130*			

Volatile Organics - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch T5H1217 - EPA 5035										
LCS (T5H1217-BS1)				Prepared: 08/12/05 Analyzed: 08/14/05						
Benzene	0.0493	0.0050	mg/kg	0.0500		98.6	70-130			
Toluene	0.0492	0.0050	mg/kg	0.0500		98.4	70-130			
Ethylbenzene	0.0463	0.0050	mg/kg	0.0500		92.6	70-130			
Xylenes, total	0.144	0.0050	mg/kg	0.150		96.0	70-130			
Gasoline	2.20	1.0	mg/kg	2.50		88.0	70-130			
Methyl tert-Butyl Ether (MTBE)	0.283	0.050	mg/kg	0.250		113	70-130			
LCS Dup (T5H1217-BSD1)				Prepared: 08/12/05 Analyzed: 08/14/05						
Surrogate: 4-Bromofluorobenzene (FID)	*0.0794*		*mg/kg*	*0.0625*		*127*	*70-130*			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0583*		*mg/kg*	*0.0625*		*93.3*	*70-130*			
Benzene	0.0497	0.0050	mg/kg	0.0500		99.4	70-130	0.808	20	
Toluene	0.0502	0.0050	mg/kg	0.0500		100	70-130	2.01	20	
Ethylbenzene	0.0479	0.0050	mg/kg	0.0500		95.8	70-130	3.40	20	
Xylenes, total	0.151	0.0050	mg/kg	0.150		101	70-130	4.75	20	
Gasoline	2.14	1.0	mg/kg	2.50		85.6	70-130	2.76	20	
Methyl tert-Butyl Ether (MTBE)	0.297	0.050	mg/kg	0.250		119	70-130	4.83	20	
Batch T5H1301 - EPA 5035										
Blank (T5H1301-BLK1)				Prepared: 08/13/05 Analyzed: 08/14/05						
Surrogate: 4-Bromofluorobenzene (FID)	*0.0570*		*mg/kg*	*0.0625*		*91.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0571*		*mg/kg*	*0.0625*		*91.4*	*75-125*			
Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	mg/kg							
Ethylbenzene	ND	0.0050	mg/kg							
Xylenes, total	ND	0.0050	mg/kg							
Gasoline	ND	1.0	mg/kg							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/kg							
LCS (T5H1301-BS1)				Prepared: 08/13/05 Analyzed: 08/14/05						
Surrogate: 4-Bromofluorobenzene (FID)	*0.0792*		*mg/kg*	*0.0625*		*127*	*70-130*			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0582*		*mg/kg*	*0.0625*		*93.1*	*70-130*			
Benzene	0.0480	0.0050	mg/kg	0.0500		96.0	70-130			
Toluene	0.0482	0.0050	mg/kg	0.0500		96.4	70-130			
Ethylbenzene	0.0454	0.0050	mg/kg	0.0500		90.8	70-130			
Xylenes, total	0.142	0.0050	mg/kg	0.150		94.7	70-130			
Gasoline	2.22	1.0	mg/kg	2.50		88.8	70-130			
Methyl tert-Butyl Ether (MTBE)	0.284	0.050	mg/kg	0.250		114	70-130			
LCS Dup (T5H1301-BSD1)				Prepared: 08/13/05 Analyzed: 08/14/05						
Surrogate: 4-Bromofluorobenzene (PID)	*0.0591*		*mg/kg*	*0.0625*		*94.6*	*70-130*			
Surrogate: 4-Bromofluorobenzene (FID)	*0.0787*		*mg/kg*	*0.0625*		*126*	*70-130*			
Benzene	0.0475	0.0050	mg/kg	0.0500		95.0	70-130	1.05	20	
Toluene	0.0482	0.0050	mg/kg	0.0500		96.4	70-130	0.00	20	
Ethylbenzene	0.0463	0.0050	mg/kg	0.0500		92.6	70-130	1.96	20	
Xylenes, total	0.146	0.0050	mg/kg	0.150		97.3	70-130	2.78	20	
Gasoline	2.17	1.0	mg/kg	2.50		86.8	70-130	2.28	20	
Methyl tert-Butyl Ether (MTBE)	0.284	0.050	mg/kg	0.250		114	70-130	0.00	20	

Microbiologicals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch T5H0805 - Micro

Blank (T5H0805-BLK1) Prepared & Analyzed: 08/08/05

Heterotrophic Plate Count	<1	1.0	CFU/ml							

THE TWINING LABORATORIES, INC. EST. 1898

ANALYTICAL CHEMISTRY - ENVIRONMENTAL SERVICES
GEOTECHNICAL ENGINEERING - SAMPLING SERVICES
CONSTRUCTION INSPECTION & MATERIALS TESTING

CHAIN OF CUSTODY/ANALYSIS REQUEST

2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #: 5H05027
PAGE ____ OF ____

REPORT TO:

ATTENTION:
NAME: TL ENV
ADDRESS: TL ENV
PHONE:
FAX:

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☐ WRITE-ON (STATE FORM)
☐ GEOTRACKER/COELT (LUFT)
☐ PDF ☐ SPREADSHEET
☐ County DHS:
☐ Environmental Health Agency
☐ OTHER:

SAMPLE INFORMATION
SAMPLED BY (PRINT): M. Forney
SIGNATURE: M. Forney
☐ PUBLIC SYSTEM ☐ ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT
TURN AROUND TIME: ☐ RUSH, DUE ON:
☐ STANDARD

SAMPLE TYPES:
SOLID:
BS - BIOSOLID
CR - CERAMIC
SL - SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW - WASTE WATER

PROJECT INFORMATION
CONTRACT/P.O. NO.:
SITE: Skyline Plaza
PROJECT NUMBER: A07281.02
PROJECT MANAGER: Vern B.

ANALYSIS REQUESTED

LAB USE

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

	CLIENT SAMPLE ID	DATE	TIME	TYPE	TPH-G/BTEX/MTBE	TPH-D	OXY, 1,2DCA, EDB							LAB USE
1	S-10 @ 10'	8-2-05	1600	SL	✓	✓	✓							-5
2	S-10	8-2-05	1610	GW	✓	✓	✓							✓
3	S-11 @ 10'	8-2-05	1715	SL	✓	✓	✓							✓
4	S-11	8-2-05	1725	GW	✓	✓	✓							✓
5	S-12 @ 10'	8-2-05	1820	SL	✓	✓	✓							✓
6	S-12	8-2-05	1845	GW	✓	✓	✓							✓
7	S-13 @ 10'	8-3-05	0840	SL	✓	✓	✓							✓
8	S-13	8-3-05	0900	GW	✓	✓	✓							✓
9	S-14 @ 10'	8-3-05	0945	SL	✓	✓	✓							✓
10	S-14	8-3-05	1015	GW	✓	✓	✓							✓

COMMENTS/ADDITIONAL INSTRUCTIONS: #4 Sample filtered + pres at lab 8/5/05

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
[signature]	TL	8/5	1745	[signature]	

THE TWINING LABORATORIES, INC.
EST. 1896

ANALYTICAL CHEMISTRY - ENVIRONMENTAL SERVICES
GEOTECHNICAL ENGINEERING - SAMPLING SERVICES
CONSTRUCTION INSPECTION & MATERIALS TESTING

CHAIN OF CUSTODY/ANALYSIS REQUEST

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REPORT TO:	☐ INVOICE TO:	☐ REPORT COPY TO:	REPORTING:
ATTENTION:	ATTENTION:		☐ STANDARD FORMAT
NAME:	NAME:		☐ WRITE-ON (STATE FORM)
ADDRESS: TL ENV	ADDRESS: TL ENV		☐ GEOTRACKER/COELT (LUFT)
			☐ PDF ☐ SPREADSHEET
			☐ County DHS:
PHONE:	PHONE:		☐ Environmental Health Agency
FAX:	FAX:		☐ OTHER:

SAMPLE INFORMATION

SAMPLED BY (PRINT): Matt Forney
SIGNATURE:

☐ PUBLIC SYSTEM ☐ ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT

TURN AROUND TIME: ☐ RUSH, DUE ON:
☐ STANDARD

SAMPLE TYPES:

SOLID:
BS - BIOSOLID
CR - CERAMIC
SL - SOIL/SOLID

LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW - WASTE WATER

PROJECT INFORMATION

CONTRACT/P.O. NO.:
SITE:
PROJECT NUMBER:
PROJECT MANAGER:

LAB USE

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

ANALYSIS REQUESTED

	CLIENT SAMPLE ID	DATE	TIME	TYPE	TPH-G/BTEX/MTBE	TPH-D	Oxy 1,2 DCA, EDB								LAB USE
1	S-15-10'	8-3-05	1050	SL											0
2	S-15	8-3-05	1130	GW											✓ –
3	S-16-10'		1300	SL											0
4	S-16		1315	GW											✓ +
5	S-17-10'		1400	SL											0
6	S-17		1420	GW											✓ –
7	S-18-10'		1505	SL											0
8	S-18		1525	GW											✓ +
9	S-19-10'		1715	SL											0
10	S-19		1730	GW											✓ –

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
	TL	8/5	1945		

THE TWINING LABORATORIES, INC.
EST. 1898

ANALYTICAL CHEMISTRY - ENVIRONMENTAL SERVICES
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CONSTRUCTION INSPECTION & MATERIALS TESTING

CHAIN OF CUSTODY/ANALYSIS REQUEST

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WORK ORDER #: 5H05027
PAGE ____ OF ____

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TL EW

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☐ WRITE-ON (STATE FORM)
☐ GEOTRACKER/COELT (LUFT)
☐ PDF ☐ SPREADSHEET
☐ County DHS:
☐ Environmental Health Agency
☐ OTHER:

SAMPLE INFORMATION

SAMPLED BY (PRINT): M. Farmer
SIGNATURE:

☐ PUBLIC SYSTEM ☐ ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT

TURN AROUND TIME: ☐ RUSH, DUE ON:
☐ STANDARD

SAMPLE TYPES:

SOLID:
BS - BIOSOLID
CR - CERAMIC
SL - SOIL/SOLID

LIQUID:
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OL - OIL
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PROJECT INFORMATION

CONTRACT/P.O. NO.:
SITE:
PROJECT NUMBER:
PROJECT MANAGER:

LAB USE

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

ANALYSIS REQUESTED

	CLIENT SAMPLE ID	DATE	TIME	TYPE	TPH-G/BTEX MTBE	TPH-D	Oxy 1,2 DCA, EDB								LAB USE
21	S-20 -10'	8-4-05	0830	SL											0
22	S-20		0900	GW											✓+
23	S-21 -10'		1015	SL											0
24	S-21		1045	GW											✓+
25	S-22-10'		1200	SL											0
26	S-22		1220	GW											✓−
27	S-23 -10'		1420	SL											0
28	S-23		1440	GW											✓+
29	S-24 -10'		1510	SL											30
30	S-24		1530	GW											✓+

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
[signature]	TL	8/5	1745	[signature]	

THE TWINING LABORATORIES, INC.
EST. 1895
ANALYTICAL CHEMISTRY - ENVIRONMENTAL SERVICES
GEOTECHNICAL ENGINEERING - SAMPLING SERVICES
CONSTRUCTION INSPECTION & MATERIALS TESTING

CHAIN OF CUSTODY/ANALYSIS REQUEST

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WORK ORDER #: 5H05027
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☐ PDF ☐ SPREADSHEET
☐ County DHS:
☐ Environmental Health Agency
☐ OTHER:

SAMPLE INFORMATION

SAMPLED BY (PRINT): Matthew Farney
SIGNATURE:

☐ PUBLIC SYSTEM ☐ ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT

TURN AROUND TIME: ☐ RUSH, DUE ON:
☐ STANDARD

SAMPLE TYPES:

SOLID:
BS - BIOSOLID
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OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW - WASTE WATER

PROJECT INFORMATION

CONTRACT/P.O. NO.:
SITE:
PROJECT NUMBER:
PROJECT MANAGER:

ANALYSIS REQUESTED

LAB USE

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

	CLIENT SAMPLE ID	DATE	TIME	TYPE	TPH-G/BTEX/MTBE	TPH-D	Oxy 1,2 DCA, EDB	LAB USE
31	S-25-10'	8-4-05	1645	SL				0
32	S-25		1620	GW				✓+
~~33~~	~~Field Blank~~							
33 34	S-26-10'		1700	SL				0
34 35	S-26		1720	GW				✓+
35 36	Field Blank	8-5-05	0715	W				
36 37	S-27-10'		0730	SL				0
37 38	S-27		0750	GW				✓−
38 39	S-28-10'		0820	SL				0
39 40	S-28		0835	GW				✓−

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
[signature]	TL	8/5	1745	[signature]	

THE TWINING LABORATORIES, INC.
EST. 1898
ANALYTICAL CHEMISTRY - ENVIRONMENTAL SERVICES
GEOTECHNICAL ENGINEERING - SAMPLING SERVICES
CONSTRUCTION INSPECTION & MATERIALS TESTING

CHAIN OF CUSTODY/ANALYSIS REQUEST

2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #: 5H05027
PAGE ____ OF ____

REPORT TO: ☐ INVOICE TO: ☐ REPORT COPY TO:

ATTENTION:	ATTENTION:
NAME:	NAME:
ADDRESS: TL	ADDRESS: TL
Env.	Env.
PHONE:	PHONE:
FAX:	FAX:

REPORTING:
☐ STANDARD FORMAT
☐ WRITE-ON (STATE FORM)
☐ GEOTRACKER/COELT (LUFT)
☐ PDF ☐ SPREADSHEET
☐ County DHS:
☐ Environmental Health Agency
☐ OTHER:

SAMPLE INFORMATION
SAMPLED BY (PRINT): Matthew Forney
SIGNATURE: [signature]
☐ PUBLIC SYSTEM ☐ ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT
TURN AROUND TIME: ☐ RUSH, DUE ON:
☐ STANDARD

SAMPLE TYPES:
SOLID:
BS - BIOSOLID
CR - CERAMIC
SL - SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW - WASTE WATER

PROJECT INFORMATION
CONTRACT/P.O. NO.:
SITE: Skywest Plaza
PROJECT NUMBER: A07281.02
PROJECT MANAGER: Vern Bennett

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

ANALYSIS REQUESTED

LAB USE	CLIENT SAMPLE ID	DATE	TIME	TYPE	TPH-G/BTEX/MTBE	TPH-D	Oxy 1,2 DCA/EDS	Gen Minerals	Total Fe	Total Pb	Dissolved Fe	Hypochlorite plate	NO3		LAB USE
041	S-29-10'	8-5-05	1100	SL											0
142	S-29		1125	GW							yes				✓
243	S-30-10'		1300	SL				[illegible]	[illegible]	[illegible]	[illegible]				0
344	S-30		1330	GW				X	X	X	X	X	X		✓

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
[signature]	TL	8/5	1745	[signature]	

ENVIRONMENTAL
Analytical Service, Inc

August 17, 2005
Sample Delivery Group (SDG): 205531

Vern Bennet
Twining Laboratories
2527 Fresno Street
Fresno, CA 93721

Dear Vern:

Enclosed is the analytical report for the samples received and analyzed by Environmental Analytical Service, Inc. for the following project:

Project Name: Skywest Plaza – Hayward
Project Number: A02871.02

The report consists of the following sections:

I. Sample Description
II. Laboratory Narrative and Chain of Custody Forms
III. Laboratory Certification
IV. Quality Control Reports
V. Analytical Results

If you have any questions on the report or the analytical data please contact me at (805) 781-3585.

Sincerely,

Steven D. Hoyt, Ph.D.
Laboratory Director

SDH/lims

173 Cross Street
San Luis Obispo
CA
93401-7597
805 781 3585

Analytical Report

SDG Number 205531

Client: Twining Laboratories Date Received: 8/9/2005

I. SAMPLE DESCRIPTION AND ANALYSIS REQUESTED

Client Sample No.	EAS Lab No	Analysis Requested	Date Sample	Pressure (torr) Rec	Final
S-1	205531 1	EPA TO-14 TPH gas	8/1/2005	580	1335
S-1	205531 1	EPA TO-15 SIM BTEX, MTBE	8/1/2005	580	1335
S-1	205531 1	EPA TO-15 Volatile Organics	8/1/2005	580	1335
S-2	205531 2	EPA TO-15 SIM BTEX, MTBE	8/1/2005	689	1326
S-2	205531 2	EPA TO-14 TPH gas	8/1/2005	689	1326
S-5	205531 3	EPA TO-15 SIM BTEX, MTBE	8/1/2005	686	1349
S-5	205531 3	EPA TO-14 TPH gas	8/1/2005	686	1349
S-8	205531 4	EPA TO-15 SIM BTEX, MTBE	8/2/2005	586	1322
S-8	205531 4	EPA TO-14 TPH gas	8/2/2005	586	1322
S-9	205531 5	EPA TO-15 SIM BTEX, MTBE	8/2/2005	631	1305
S-9	205531 5	EPA TO-14 TPH gas	8/2/2005	631	1305
S-13	205531 6	EPA TO-15 SIM BTEX, MTBE	8/3/2005	681	1318
S-13	205531 6	EPA TO-14 TPH gas	8/3/2005	681	1318
S-16	205531 7	EPA TO-15 SIM BTEX, MTBE	8/3/2005	706	1331
S-16	205531 7	EPA TO-14 TPH gas	8/3/2005	706	1331
S-19	205531 8	EPA TO-15 SIM BTEX, MTBE	8/3/2005	708	1375
S-19	205531 8	EPA TO-14 TPH gas	8/3/2005	708	1375
S-20	205531 9	EPA TO-14 TPH gas	8/4/2005	694	1334
S-20	205531 9	EPA TO-15 SIM BTEX, MTBE	8/4/2005	694	1334
S-21	205531 10	EPA TO-14 TPH gas	8/4/2005	711	1325
S-21	205531 10	EPA TO-15 SIM BTEX, MTBE	8/4/2005	711	1325
S-22	205531 11	EPA TO-14 TPH gas	8/4/2005	715	1351
S-22	205531 11	EPA TO-15 SIM BTEX, MTBE	8/4/2005	715	1351
S-23	205531 12	EPA TO-15 SIM BTEX, MTBE	8/4/2005	664	1314
S-23	205531 12	EPA TO-14 TPH gas	8/4/2005	664	1314
S-28	205531 13	EPA TO-14 TPH gas	8/5/2005	725	1383
S-28	205531 13	EPA TO-15 SIM BTEX, MTBE	8/5/2005	725	1383
S-29	205531 14	EPA TO-14 TPH gas	8/5/2005	726	1359
S-29	205531 14	EPA TO-15 SIM BTEX, MTBE	8/5/2005	726	1359
S-30	205531 15	EPA TO-14 TPH gas	8/5/2005	603	1364
S-30	205531 15	EPA TO-15 SIM BTEX, MTBE	8/5/2005	603	1364

II. LABORATORY CASE NARRATIVE and CHAIN OF CUSTODY FORMS

EAS SDG Number 205531

Client: Twining Laboratories

All analysis met the QC requirements for the method except ethylbenzene, m,p-xylene, and o-xylene exceed QC limits for % recovery on the laboratory control spike and duplicate analysis.

The surrogate exceeds QC limits for % recovery on the QC data and/or sample data.

The above does not affect data quality.

III. LABORATORY CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness other than the condition noted above.

Steven D. Hoyt, Ph.D.
Laboratory Director

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number: SKYWEST Playa HAYWARD
Project Name: A02871.a
Quote Number:

REPORT TO:

Company: The Twining Laboratories, Inc
Address: 2521 N. Fresno N.
City/State/Zip: Fresno, CA
Phone: (559) 286-7021 (FAX)
ATTENTION: Vern Bennett

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SHELF-U

He

Returned 3-3L tedlar bags tubing

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	ANALYTICAL TESTS: TPH G BTEX	ANALYTICAL TESTS: WTBR	ANALYTICAL TESTS: Iso Propyl Alcohol	IP	FP	REMARKS
S-1	8/1/05	9:30	03181							30	10	205531-1	X	X	580	1335		2 ft bgs; 4.5 to 2 Vight
S-2	8/1/05	11:40	119							30	2	-2	X		689	1326		2 ft bgs 4.5 to 2
S-5	8/1/05	4:13	104							27	3½" Hg	-3	X		686	1349		4½ ft bgs more Permeable no yield
S-8	8/2/05	10:35	128							25" Hg	5" Hg	-4	X		586	1322		2½ ft bgs; Vight from 4½'
S-9	8/2/05	14:21	133							30	5"	-5	X		631	1305		3 ft Bgs, tight from 4½'
S-13	8/3/05	8:05	126							30" Hg	5"	-6	X		681	1318		2½ ft Bgs, tight from 4½
S-16	8/3/05	12:14	103							25" Hg	0" Hg	-7	X		706	1331		4½ Bgs, more permeable no yield
S-19	8/3/05	16:36	05001							30" Hg	5" Hg	-8	X		703	1335		2 ft Bgs, tight from 4½

COMMENTS: Returned FC: CT-39, 77, 68, 47, 83, 100, 53, 92, 87, 64, 101, 71, 23, 85, 62, 93, 61, 104, 57
Returned Gage: G-002, 005, 024, 022, 018, 006, 003, 016, 009, 001, 020, 025, 004, 019, 015, 010, 008, 017, 021

BILLING INFORMATION

Company
Address
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

	Date	Time		Date	Time
SAMPLED BY: [signature]	8-8-05	1200	Received by:		
Relinquished By:			Received by:		
Relinquished By:			Received by:		
Relinquished By:			Received for lab by: [signature]	8/9/05	900

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number: A09281.02
Project Name: Skyline Plaza - Hayward
Quote Number:

REPORT TO:

Company: The Training Laboratories Inc.
Address: 2527 N. Fresno Street
City/State/Zip: Fresno, CA 93721
Phone: (559) 286-7021 (FAX) (559) 286-7124
ATTENTION: Vern Bennow

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TPH-g/BTEX MTBE		IP	FP	REMARKS
S-20	8-4-05	811	127							30	Ø	205531-9	x		694	1334	4½ Bags, more permeable no yield
S-21	8-4-05	954	03187							30	Ø	-10	x		711	1325	4½ Bags, more permeable no yield
S-22	8-4-05	1143	139							30	2	-11	x		715	1351	4½ Bags, more permeable no yield
S-23	8-4-05	1400	134							26	5	-12	x		664	1314	3 Bags, tight from 4½
S-28	8-5-05	0902	135							30	Ø	-13	x		725	1383	4 Bags, tight from 4½
S-29	8-5-05	1042	123							30	Ø	-14	x		726	1359	4 Bags, tight from 4½
S-30	8-5-05	1240	Ø3415							30" Hg	4" Hg	-15	X		613	1364	4½ Bags,

COMMENTS: Returned can #655, 690, 952, 03182, 03185, 05002, 1259 and a pump + wrenches (2)
Returned gages: 6023, 6007, 6001

BILLING INFORMATION

Company:
Address:
City/State/Zip:
ATTENTION:
Purchase Order/Billing Reference:

SAMPLED BY:	Date	Time	Received by:	Date	Time
	8-8-05	1200			
Relinquished By:	Date	Time	Received by:	Date	Time
Relinquished By:	Date	Time	Received by:	Date	Time
Relinquished By:	Date	Time	Received for lab by:	Date	Time
				8/9/05	900

IV. QUALITY CONTROL REPORT

SDG Number: 205531
Client: Twining Laboratories

LABORATORY QC REPORT

QC NARRATIVE

This report was run with the standard laboratory QC.

STANDARD LABORATORY QC REPORT

Unless project specific QC was requested, this Section contains the standard laboratory QC supplied with the analytical reports, which includes the daily method blank and the daily duplicate control samples as described below. Each day that samples are analyzed comprises a Daily Analytical Batch for a particular instrument. A Daily Analytical Batch QC report will be supplied for each method and each day samples from this SDG Group were analyzed.

METHOD BLANK

A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples. A copy of the batch blank is included with the report.

DUPLICATE CONTROL SAMPLES

A duplicate or duplicate control sample (DCS) was analyzed as part of each daily analytical batch. A DCS is a well-characterized matrix (blank water, ambient air, or actual sample) which may or may not be spiked and run in duplicate with your sample batch. The results are on the attached Duplicate Sample/Spike results. Precision is measured in a duplicate test by Relative Percent Difference (RPD) as in:

$$RPD = \frac{[\% \text{ Recovery Test 1} - \% \text{ Recovery Test 2}] \times 100}{(\text{Recovery Test 1} + \text{Recovery Test 2}) / 2}$$

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

		SDG:	LABQC
Analytical Method:	EPA TO-14	Laboratory Number:	B08105

File:	B08105B.D	Date Sampled:		Time:	
Description	METHOD BLANK	Date Received:			
Can/Tube#:		Date Extracted:			
Sam_Type:	MB	Date Analyzed:	08/10/05	Time:	10:39
QC_Batch:	081005-GC1	Can Dilution Factor:	1.00		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.014	1.490	0.014	0.057	5.978	0.057	U

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Full Scan GC/MS
Analytical Method: TO-15

SDG: LABQC
Laboratory Number: B08115

File:	CC182A.D	Date Sampled:		Time:	
Description:	METHOD BLANK	Date Received:			
Can/Tube#:		Date Extracted:			
Sam_Type:	MB	Date Analyzed:	08/11/05	Time:	16:57
QC_Batch:	081105-MS2	Can Dilution Factor:	1.00		2
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
67-63-0	2-propanol	0.24	2.28	0.24	0.61	5.77	0.61	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
toluene-d8	10.000	10.331	103	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-14 GC/FID **SDG: LABQC**
Analytical Method: TO-14

Dup File: QC08095B.D
Description: ST-071905-1
Can/Tube#:
QC_Batch: 081005-GC1

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
74-84-0	Ethane	84.5	74.3	14	30	
74-98-6	Propane	83.7	73.7	13	30	
106-97-8	n-Butane	85.6	74.6	15	30	
109-66-0	n-Pentane	85.3	75.6	13	30	
110-54-3	n-Hexane	84.7	76.0	12	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-14 GC/FID **SDG: LABQC**
Analytical Method: TO-14

File: QC08095A.D
Description: ST-071905-1
Can/Tube#:
Sam_Type: LCS
QC_Batch: 081005-GC1
Air Volume: 200 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/09/05 **Time:** 10:58
Can Dilution Factor: 1.00 1
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
74-84-0	Ethane	0.3	75.0	74.3	0.000	74.3	99	70	130	
74-98-6	Propane	0.3	75.5	73.7	0.000	73.7	98	70	130	
106-97-8	n-Butane	0.3	75.5	74.6	0.000	74.6	99	70	130	
109-66-0	n-Pentane	0.3	76.5	75.6	0.000	75.6	99	70	130	
110-54-3	n-Hexane	0.3	75.5	76.0	0.000	76.0	101	70	130	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-14 GC/FID **SDG: LABQC**
Analytical Method: **TO-14**

File: QC08095B.D
Description: ST-071905-1
Can/Tube#:
Sam_Type: LCD
QC_Batch: 081005-GC1
Air Volume: 200 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/09/05 **Time:** 11:30
Can Dilution Factor: 1.00 1
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
74-84-0	Ethane	0.3	75.0	84.5	0.000	84.5	113	70	130	
74-98-6	Propane	0.3	75.5	83.7	0.000	83.7	111	70	130	
106-97-8	n-Butane	0.3	75.5	85.6	0.000	85.6	113	70	130	
109-66-0	n-Pentane	0.3	76.5	85.3	0.000	85.3	112	70	130	
110-54-3	n-Hexane	0.3	75.5	84.7	0.000	84.7	112	70	130	

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 Full Scan GC/MS **SDG: LABQC**
Analytical Method: TO-15

Dup File: QC08115D.D
Description: S-110204-1
Can/Tube#:
QC_Batch: 081105-MS2

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	1.09	1.06	3	30	
75-35-4	1,1-Dichloroethene	1.30	1.34	3	30	
75-09-2	Dichloromethane	1.19	1.19	0	30	
75-34-3	1,1-Dichloroethane	1.19	1.16	3	30	
67-66-3	Chloroform	1.19	1.25	5	30	
71-55-6	1,1,1-Trichloroethane	1.09	1.15	5	30	
107-06-2	1,2-Dichloroethane	1.03	1.07	3	30	
71-43-2	Benzene	1.06	1.14	7	30	
56-23-5	Carbon tetrachloride	1.09	1.20	8	30	
79-01-6	Trichloroethene	1.40	1.45	3	30	
108-88-3	Toluene	1.03	1.11	7	30	
106-93-4	1,2-Dibromoethane	0.60	0.61	1	30	
127-18-4	Tetrachloroethene	1.09	1.07	1	30	
108-90-7	Chlorobenzene	0.99	1.00	1	30	
100-41-4	Ethylbenzene	1.00	1.01	1	30	
108-38-3	m & p-Xylene	2.00	1.98	1	30	
95-47-6	o-Xylene	1.01	1.03	2	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 Full Scan GC/MS **SDG: LABQC**
Analytical Method: **TO-15**

File: QC08115C.D
Description: S-110204-1
Can/Tube#:
Sam_Type: LCS
QC_Batch: 081105-MS2
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/11/05 **Time:** 14:35
Can Dilution Factor: 1.00 2
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.17	1.14	1.06	0.000	1.06	93	70	130	
75-35-4	1,1-Dichloroethene	0.12	1.22	1.34	0.000	1.34	110	70	130	
75-09-2	Dichloromethane	0.12	1.10	1.19	0.000	1.19	108	70	130	
75-34-3	1,1-Dichloroethane	0.06	1.09	1.16	0.000	1.16	106	70	130	
67-66-3	Chloroform	0.04	1.11	1.25	0.000	1.25	113	70	130	
71-55-6	1,1,1-Trichloroethane	0.05	1.28	1.15	0.000	1.15	90	70	130	
107-06-2	1,2-Dichloroethane	0.04	1.20	1.07	0.000	1.07	89	70	130	
71-43-2	Benzene	0.04	1.19	1.14	0.000	1.14	96	70	130	
56-23-5	Carbon tetrachloride	0.02	1.38	1.20	0.000	1.20	87	70	130	
79-01-6	Trichloroethene	0.04	1.69	1.45	0.000	1.45	86	70	130	
108-88-3	Toluene	0.04	1.22	1.11	0.000	1.11	91	70	130	
106-93-4	1,2-Dibromoethane	0.04	0.80	0.61	0.000	0.61	76	70	130	
127-18-4	Tetrachloroethene	0.08	1.51	1.07	0.000	1.07	71	70	130	
108-90-7	Chlorobenzene	0.05	1.26	1.00	0.000	1.00	79	70	130	
100-41-4	Ethylbenzene	0.05	1.16	1.01	0.000	1.01	87	70	130	
108-38-3	m & p-Xylene	0.15	2.47	1.98	0.000	1.98	80	70	130	
95-47-6	o-Xylene	0.07	1.16	1.03	0.000	1.03	89	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
toluene-d8	10.000	10.951	110	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 Full Scan GC/MS **SDG: LABQC**
Analytical Method: TO-15

File: QC08115D.D
Description: S-110204-1
Can/Tube#:
Sam_Type: LCD
QC_Batch: 081105-MS2
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/11/05 **Time:** 15:18
Can Dilution Factor: 1.00 2
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.17	1.14	1.09	0.000	1.09	96	70	130	
75-35-4	1,1-Dichloroethene	0.12	1.22	1.30	0.000	1.30	107	70	130	
75-09-2	Dichloromethane	0.12	1.10	1.19	0.000	1.19	108	70	130	
75-34-3	1,1-Dichloroethane	0.06	1.09	1.19	0.000	1.19	109	70	130	
67-66-3	Chloroform	0.04	1.11	1.19	0.000	1.19	107	70	130	
71-55-6	1,1,1-Trichloroethane	0.05	1.28	1.09	0.000	1.09	85	70	130	
107-06-2	1,2-Dichloroethane	0.04	1.20	1.03	0.000	1.03	86	70	130	
71-43-2	Benzene	0.04	1.19	1.06	0.000	1.06	89	70	130	
56-23-5	Carbon tetrachloride	0.02	1.38	1.09	0.000	1.09	79	70	130	
79-01-6	Trichloroethene	0.04	1.69	1.40	0.000	1.40	83	70	130	
108-88-3	Toluene	0.04	1.22	1.03	0.000	1.03	84	70	130	
106-93-4	1,2-Dibromoethane	0.04	0.80	0.60	0.000	0.60	75	70	130	
127-18-4	Tetrachloroethene	0.08	1.51	1.09	0.000	1.09	72	70	130	
108-90-7	Chlorobenzene	0.05	1.26	0.99	0.000	0.99	79	70	130	
100-41-4	Ethylbenzene	0.05	1.16	1.00	0.000	1.00	86	70	130	
108-38-3	m & p-Xylene	0.15	2.47	2.00	0.000	2.00	81	70	130	
95-47-6	o-Xylene	0.07	1.16	1.01	0.000	1.01	87	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
toluene-d8	10.000	11.391	114	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	01
File:	0553101A.D	Date Sampled:	08/01/05	Time:	9:30
Description	S-1	Date Received:	08/09/05		
Can/Tube#:	3184	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	11:24
QC_Batch:	081005-GC1	Can Dilution Factor:	2.30		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.033	3.427	0.165	0.132	13.749	0.662	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Full Scan GC/MS — SDG: 205531
Analytical Method: TO-15 — Laboratory Number: 01

File:	0553101A.D	Date Sampled:	08/01/05	Time:	9:30
Description:	S-1	Date Received:	08/09/05		
Can/Tube#:	03184	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/11/05	Time:	17:47
QC_Batch:	081105-MS2	Can Dilution Factor:	2.30		2
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
67-63-0	2-propanol	0.55	5.23	0.55	1.40	13.28	1.40	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
toluene-d8	10.000	11.200	112	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	02
File:	0553102A.D	Date Sampled:	08/01/05	Time:	11:40
Description	S-2	Date Received:	08/09/05		
Can/Tube#:	119	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	12:12
QC_Batch:	081005-GC1	Can Dilution Factor:	1.92		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.027	2.861	2.764	0.110	11.477	11.089	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	03
File:	0553103A.D	Date Sampled:	08/01/05	Time:	4:13
Description	S-5	Date Received:	08/09/05		
Can/Tube#:	104	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	12:54
QC_Batch:	081005-GC1	Can Dilution Factor:	1.97		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.028	2.935	2.021	0.113	11.776	8.108	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

		SDG:	205531
Analytical Method:	EPA TO-14	Laboratory Number:	04

File:	0553104A.D	Date Sampled:	08/02/05	Time:	10:35
Description	S-8	Date Received:	08/09/05		
Can/Tube#:	128	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	13:37
QC_Batch:	081005-GC1	Can Dilution Factor:	2.26		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.032	3.367	3.878	0.130	13.509	15.557	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	05
File:	0553105A.D	Date Sampled:	08/02/05	Time:	14:21
Description	S-9	Date Received:	08/09/05		
Can/Tube#:	133	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	14:20
QC_Batch:	081005-GC1	Can Dilution Factor:	2.07		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.030	3.084	0.546	0.119	12.374	2.190	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	06
File:	0553106A.D	Date Sampled:	08/03/05	Time:	8:05
Description	S-13	Date Received:	08/09/05		
Can/Tube#:	126	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	15:03
QC_Batch:	081005-GC1	Can Dilution Factor:	1.94		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.028	2.891	0.222	0.111	11.597	0.890	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	07
File:	0553107A.D	Date Sampled:	08/03/05	Time:	12:14
Description	S-16	Date Received:	08/09/05		
Can/Tube#:	103	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	15:48
QC_Batch:	081005-GC1	Can Dilution Factor:	1.89		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.027	2.816	0.459	0.108	11.298	1.841	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	08
File:	0553108A.D	Date Sampled:	08/03/05	Time:	16:36
Description	S-19	Date Received:	08/09/05		
Can/Tube#:	5001	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	16:30
QC_Batch:	081005-GC1	Can Dilution Factor:	1.94		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.028	2.891	1.699	0.111	11.597	6.817	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	09
File:	0553109A.D	Date Sampled:	08/04/05	Time:	8:11
Description	S-20	Date Received:	08/09/05		
Can/Tube#:	127	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	17:13
QC_Batch:	081005-GC1	Can Dilution Factor:	1.92		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.027	2.861	1.746	0.110	11.477	7.003	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	10
File:	0553110A.D	Date Sampled:	08/04/05	Time:	9:54
Description	S-21	Date Received:	08/09/05		
Can/Tube#:	3187	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	17:56
QC_Batch:	081005-GC1	Can Dilution Factor:	1.86		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.027	2.771	0.347	0.107	11.118	1.392	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	11
File:	0553111A.D	Date Sampled:	08/04/05	Time:	11:43
Description	S-22	Date Received:	08/09/05		
Can/Tube#:	139	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	18:44
QC_Batch:	081005-GC1	Can Dilution Factor:	1.89		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.027	2.816	0.331	0.108	11.298	1.328	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	12
File:	0553112A.D	Date Sampled:	08/04/05	Time:	14:06
Description	S-23	Date Received:	08/09/05		
Can/Tube#:	134	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	19:31
QC_Batch:	081005-GC1	Can Dilution Factor:	1.98		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.028	2.950	0.563	0.113	11.836	2.259	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	13
File:	0553113A.D	Date Sampled:	08/05/05	Time:	9:02
Description	S-28	Date Received:	08/09/05		
Can/Tube#:	135	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	20:29
QC_Batch:	081005-GC1	Can Dilution Factor:	1.91		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.027	2.846	7.747	0.109	11.417	31.081	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	14
File:	0553114A.D	Date Sampled:	08/05/05	Time:	10:42
Description	S-29	Date Received:	08/09/05		
Can/Tube#:	123	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	21:20
QC_Batch:	081005-GC1	Can Dilution Factor:	1.87		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.027	2.786	1.059	0.107	11.178	4.248	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

				SDG:	205531
Analytical Method:	EPA TO-14			Laboratory Number:	15
File:	0553115A.D	Date Sampled:	08/05/05	Time:	12:40
Description	S-30	Date Received:	08/09/05		
Can/Tube#:	3415	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/10/05	Time:	22:02
QC_Batch:	081005-GC1	Can Dilution Factor:	2.26		3
Air Volume:	200 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppmV	RL ppmV	Amount ppmV	MDL mg/m3	RL mg/m3	Amount mg/m3	Flag
TPH(g)	TPH (gasoline)	0.032	3.367	1.303	0.130	13.509	5.227	J

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: LABQC
Laboratory Number: B08125

File: B08125A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 081205-MS2
Air Volume: 500 ml

Date Sampled: Time:
Date Received:
Date Extracted:
Date Analyzed: 08/12/05 Time: 12:36
Can Dilution Factor: 1.00 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.26	0.16	0.26	0.56	0.33	0.56	U
71-43-2	Benzene	0.01	0.41	0.20	0.03	1.09	0.53	J
108-88-3	Toluene	0.09	0.41	0.16	0.24	1.13	0.43	J
100-41-4	Ethylbenzene	0.01	0.41	0.14	0.05	1.69	0.58	J
108-38-3	m,p-Xylene	0.04	0.83	0.26	0.13	2.97	0.94	J
95-47-6	o-Xylene	0.09	0.41	0.19	0.36	1.69	0.77	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.191	95	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: LABQC
Laboratory Number: B08135

File: B08135A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 081305-MS1
Air Volume: 200 ml

Date Sampled: Time:
Date Received:
Date Extracted:
Date Analyzed: 08/13/05 Time: 11:38
Can Dilution Factor: 1.00 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl tert butyl ether	0.10	1.95	0.10	0.41	7.98	0.41	U
71-43-2	Benzene	0.03	0.26	0.04	0.10	0.86	0.12	J
108-88-3	Toluene	0.05	0.26	0.13	0.18	1.01	0.49	J
100-41-4	Ethylbenzene	0.04	0.26	0.07	0.16	1.16	0.31	J
108-38-3	m & p-Xylene	0.04	0.52	0.18	0.16	2.31	0.80	J
95-47-6	o-Xylene	0.04	0.26	0.08	0.18	1.16	0.36	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.113	57	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 Sim GC/MS **SDG: LABQC**
Analytical Method: **TO-15**

Dup File: QC08125B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 081205-MS2

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
71-43-2	Benzene	6.36	6.49	1	30	
108-88-3	Toluene	6.98	6.85	1	30	
100-41-4	Ethylbenzene	5.91	5.91	0	30	
108-38-3	m,p-Xylene	12.92	13.26	2	30	
95-47-6	o-Xylene	3.44	3.57	1	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 Sim GC/MS **SDG: LABQC**
Analytical Method: TO-15

File: QC08125A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 081205-MS2
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/12/05 **Time:** 23:56
Can Dilution Factor: 1.00 2
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
71-43-2	Benzene	0.01	10.30	6.49	0.000	6.49	63	70	130	*
108-88-3	Toluene	0.04	10.30	6.85	0.000	6.85	67	70	130	*
100-41-4	Ethylbenzene	0.01	10.30	5.91	0.000	5.91	57	70	130	*
108-38-3	m,p-Xylene	0.02	20.60	13.26	0.000	13.26	64	70	130	*
95-47-6	o-Xylene	0.04	10.30	3.57	0.000	3.57	35	70	130	*

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.191	96	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 Sim GC/MS **SDG: LABQC**
Analytical Method: **TO-15**

File: QC08125B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 081205-MS2
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/12/05 **Time:** 12:29
Can Dilution Factor: 1.00 2
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
71-43-2	Benzene	0.01	10.30	6.36	0.000	6.36	62	70	130	*
108-88-3	Toluene	0.04	10.30	6.98	0.000	6.98	68	70	130	*
100-41-4	Ethylbenzene	0.01	10.30	5.91	0.000	5.91	57	70	130	*
108-38-3	m,p-Xylene	0.02	20.60	12.92	0.000	12.92	63	70	130	*
95-47-6	o-Xylene	0.04	10.30	3.44	0.000	3.44	33	70	130	*

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.187	94	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

Dup File: QC08135B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 081305-MS1

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
71-43-2	Benzene	0.404	0.396	2	30	
108-88-3	Toluene	0.384	0.376	2	30	
100-41-4	Ethylbenzene	0.199	0.269	14	30	
108-38-3	m & p-Xylene	0.348	0.532	18	30	
95-47-6	o-Xylene	0.200	0.307	21	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: LABQC

File: QC08135A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 081305-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/13/05 Time: 10:06
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
71-43-2	Benzene	0.006	0.515	0.396	0.000	0.396	77	70	130	
108-88-3	Toluene	0.009	0.515	0.376	0.000	0.376	73	70	130	
100-41-4	Ethylbenzene	0.007	0.515	0.269	0.000	0.269	52	70	130	*
108-38-3	m & p-Xylene	0.007	1.030	0.532	0.000	0.532	52	70	130	*
95-47-6	o-Xylene	0.008	0.515	0.307	0.000	0.307	60	70	130	*

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.114	57	70-130	*

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS

SDG: LABQC

Analytical Method: TO-15 SIM

File: QC08135B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 081305-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 08/13/05 Time: 10:55
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
71-43-2	Benzene	0.006	0.515	0.404	0.000	0.404	78	70	130	
108-88-3	Toluene	0.009	0.515	0.384	0.000	0.384	75	70	130	
100-41-4	Ethylbenzene	0.007	0.515	0.199	0.000	0.199	39	70	130	*
108-38-3	m & p-Xylene	0.007	1.030	0.348	0.000	0.348	34	70	130	*
95-47-6	o-Xylene	0.008	0.515	0.200	0.000	0.200	39	70	130	*

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.140	0.115	82	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

V. ANALYTICAL RESULTS

SDG Number: 205531
Client: Twining Laboratories

The following pages contain the certified reports for the analytical methods and the compounds requested. The reports are in order of analytical method then EAS ID number. A brief description of the units that appear on the reports is given below:

ppbV, ppmV, Percent

Parts per billion by volume (also known as mole ratio) and other related units. This is the primary reporting unit for all volatile organic compound analysis except the hydrocarbon speciation and total hydrocarbons. This unit is independent of temperature and pressure.

$$\text{ppbV} = \frac{\text{nanomoles of compound}}{\text{moles of air}}$$

ug/m3, mg/m3

Micrograms of compound per cubic meter of air and other related units. This is the primary reporting unit for semi volatile organic compounds. It is not a primary reporting unit for volatile organic compounds because it is temperature and pressure dependent, so the result will vary depending on the conditions when the sample was collected. EAS provides the units on its analytical reports as a convenience to the client, but they should be used with caution. The following equation can be used to convert from ppbV to ug/m3.

$$\text{ug/m3} = \frac{\text{ppbV x MW compound}}{23.68}$$

23.68 is the molar volume of a gas at 60 F and 1 atm pressure

ppbC, ppmC

Parts per billion by volume as carbon (methane) and other related units. This unit is the primary reporting unit for hydrocarbon analysis, even if it does not appear on the report. This unit is used because the flame ionization detector response is proportional to the number of carbons in the compound, so an accurate concentration can be reported even if the identification of the compound is not known.

$$\text{ppbC} = \text{ppbV x number of carbons in compound}$$

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 01

File: 0553101C.D
Description: S-1
Can/Tube#: 03184
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 100 ml

Date Sampled: 08/01/05 Time: 9:30
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 14:48
Can Dilution Factor: 10.07 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	2.22	7.85	2.22	4.72	16.75	4.72	U
71-43-2	Benzene	0.66	20.84	20.67	1.75	55.02	54.56	J
108-88-3	Toluene	4.43	20.84	42.11	12.07	56.78	114.70	
100-41-4	Ethylbenzene	0.66	20.84	4.04	2.72	85.30	16.52	J
108-38-3	m,p-Xylene	1.77	41.69	11.09	6.35	149.47	39.77	J
95-47-6	o-Xylene	4.43	20.84	4.43	18.14	85.33	18.14	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.070	35	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 02

File: 0553102A.D
Description: S-2
Can/Tube#: 119
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 100 ml

Date Sampled: 08/01/05 Time: 11:40
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 15:22
Can Dilution Factor: 1.92 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.42	1.50	1.12	0.90	3.19	2.40	J
71-43-2	Benzene	0.13	3.97	16.13	0.33	10.49	42.58	
108-88-3	Toluene	0.84	3.97	4.40	2.30	10.83	11.97	
100-41-4	Ethylbenzene	0.13	3.97	2.30	0.52	16.26	9.40	J
108-38-3	m,p-Xylene	0.34	7.95	5.73	1.21	28.50	20.54	J
95-47-6	o-Xylene	0.84	3.97	2.03	3.46	16.27	8.31	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.254	127	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 03

File: 0553103A.D
Description: S-5
Can/Tube#: 104
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 100 ml

Date Sampled: 08/01/05 Time: 4:13
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 16:00
Can Dilution Factor: 1.97 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.43	1.54	0.70	0.92	3.28	1.48	J
71-43-2	Benzene	0.13	4.08	10.25	0.34	10.76	27.06	
108-88-3	Toluene	0.87	4.08	4.73	2.36	11.11	12.89	
100-41-4	Ethylbenzene	0.13	4.08	0.86	0.53	16.69	3.50	J
108-38-3	m,p-Xylene	0.35	8.16	2.59	1.24	29.24	9.30	J
95-47-6	o-Xylene	0.87	4.08	0.87	3.55	16.69	3.55	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.068	34	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 04

File:	0553104A.D	Date Sampled:	08/02/05	Time:	10:35
Description:	S-8	Date Received:	08/09/05		
Can/Tube#:	128	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/12/05	Time:	16:32
QC_Batch:	081205-MS2	Can Dilution Factor:	2.26		2
Air Volume:	100 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.50	1.76	8.31	1.06	3.76	17.71	
71-43-2	Benzene	0.15	4.68	7.88	0.39	12.35	20.80	
108-88-3	Toluene	0.99	4.68	3.66	2.71	12.74	9.96	J
100-41-4	Ethylbenzene	0.15	4.68	0.90	0.61	19.14	3.68	J
108-38-3	m,p-Xylene	0.40	9.36	3.88	1.43	33.55	13.91	J
95-47-6	o-Xylene	0.99	4.68	1.03	4.07	19.15	4.20	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.067	33	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 05

File: 0553105A.D
Description: S-9
Can/Tube#: 133
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 100 ml

Date Sampled: 08/02/05 Time: 14:21
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 17:08
Can Dilution Factor: 2.07 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.46	1.61	0.46	0.97	3.44	0.97	U
71-43-2	Benzene	0.14	4.28	5.45	0.36	11.31	14.39	
108-88-3	Toluene	0.91	4.28	4.77	2.48	11.67	13.00	
100-41-4	Ethylbenzene	0.14	4.28	1.66	0.56	17.53	6.81	J
108-38-3	m,p-Xylene	0.36	8.57	4.81	1.31	30.73	17.24	J
95-47-6	o-Xylene	0.91	4.28	1.41	3.73	17.54	5.77	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.107	54	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: 205531
Laboratory Number: 06

File: 0553106A.D
Description: S-13
Can/Tube#: 126
Sam_Type: SA
QC_Batch: 081305-MS1
Air Volume: 168 ml

Date Sampled: 08/03/05 Time: 8:05
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/13/05 Time: 15:17
Can Dilution Factor: 1.94 1
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl tert butyl ether	0.2	4.5	0.2	0.9	18.4	0.9	U
71-43-2	Benzene	0.1	0.6	8.6	0.2	2.0	28.5	
108-88-3	Toluene	0.1	0.6	14.0	0.4	2.3	54.3	
100-41-4	Ethylbenzene	0.1	0.6	0.5	0.4	2.7	2.2	J
108-38-3	m & p-Xylene	0.1	1.2	0.6	0.4	5.3	2.9	J
95-47-6	o-Xylene	0.1	0.6	0.1	0.4	2.7	0.6	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.104	52	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: 205531
Laboratory Number: 07

File:	0553107A.D	Date Sampled:	08/03/05	Time:	12:14
Description:	S-16	Date Received:	08/09/05		
Can/Tube#:	103	Date Extracted:			
Sam_Type:	SA	Date Analyzed:	08/13/05	Time:	13:06
QC_Batch:	081305-MS1	Can Dilution Factor:	1.89		1
Air Volume:	178 ml	Not Detected Flag:	U		

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl tert butyl ether	0.2	4.1	0.3	0.9	17.0	1.2	J
71-43-2	Benzene	0.1	0.6	8.0	0.2	1.8	26.3	
108-88-3	Toluene	0.1	0.6	4.2	0.4	2.1	16.3	
100-41-4	Ethylbenzene	0.1	0.6	0.3	0.3	2.5	1.4	J
108-38-3	m & p-Xylene	0.1	1.1	0.7	0.3	4.9	3.1	J
95-47-6	o-Xylene	0.1	0.6	0.2	0.4	2.5	1.1	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.113	56	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 08

File: 0553108A.D
Description: S-19
Can/Tube#: 05001
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 200 ml

Date Sampled: 08/03/05 Time: 16:36
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 18:46
Can Dilution Factor: 1.94 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.21	0.76	0.65	0.46	1.61	1.40	J
71-43-2	Benzene	0.06	2.01	17.44	0.17	5.30	46.03	
108-88-3	Toluene	0.43	2.01	8.60	1.16	5.47	23.43	
100-41-4	Ethylbenzene	0.06	2.01	8.14	0.26	8.22	33.31	
108-38-3	m,p-Xylene	0.17	4.02	22.66	0.61	14.40	81.25	
95-47-6	o-Xylene	0.43	2.01	4.37	1.75	8.22	17.90	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.077	38	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 09

File: 0553109A.D
Description: S-20
Can/Tube#: 127
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 200 ml

Date Sampled: 08/04/05 Time: 8:11
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 19:19
Can Dilution Factor: 1.92 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.21	0.75	0.24	0.45	1.60	0.50	J
71-43-2	Benzene	0.06	1.99	5.91	0.17	5.24	15.61	
108-88-3	Toluene	0.42	1.99	6.08	1.15	5.41	16.56	
100-41-4	Ethylbenzene	0.06	1.99	1.78	0.26	8.13	7.27	J
108-38-3	m,p-Xylene	0.17	3.97	4.31	0.61	14.25	15.47	
95-47-6	o-Xylene	0.42	1.99	1.18	1.73	8.14	4.82	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.079	39	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: 205531
Laboratory Number: 10

File: 0553110A.D
Description: S-21
Can/Tube#: 03187
Sam_Type: SA
QC_Batch: 081305-MS1
Air Volume: 178 ml

Date Sampled: 08/04/05 Time: 9:54
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/13/05 Time: 12:24
Can Dilution Factor: 1.86 1
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl tert butyl ether	0.2	4.1	1.3	0.9	16.7	5.4	J
71-43-2	Benzene	0.1	0.5	8.3	0.2	1.8	27.3	
108-88-3	Toluene	0.1	0.5	12.8	0.4	2.1	49.8	
100-41-4	Ethylbenzene	0.1	0.5	0.6	0.3	2.4	2.6	
108-38-3	m & p-Xylene	0.1	1.1	0.5	0.3	4.8	2.5	J
95-47-6	o-Xylene	0.1	0.5	0.1	0.4	2.4	0.4	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.178	89	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 11

File: 0553111A.D
Description: S-22
Can/Tube#: 139
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 200 ml

Date Sampled: 08/04/05 Time: 11:43
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 21:08
Can Dilution Factor: 1.89 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.21	0.74	0.65	0.44	1.57	1.38	J
71-43-2	Benzene	0.06	1.96	5.86	0.16	5.16	15.47	
108-88-3	Toluene	0.42	1.96	11.03	1.13	5.33	30.05	
100-41-4	Ethylbenzene	0.06	1.96	2.81	0.26	8.00	11.50	
108-38-3	m,p-Xylene	0.17	3.91	9.28	0.60	14.03	33.29	
95-47-6	o-Xylene	0.42	1.96	2.44	1.70	8.01	9.98	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.102	51	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 12

File: 0553112A.D
Description: S-23
Can/Tube#: 134
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 200 ml

Date Sampled: 08/04/05 Time: 14:06
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 21:41
Can Dilution Factor: 1.98 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.22	0.77	3.67	0.46	1.65	7.84	
71-43-2	Benzene	0.07	2.05	18.10	0.17	5.41	47.78	
108-88-3	Toluene	0.44	2.05	41.67	1.19	5.58	113.49	
100-41-4	Ethylbenzene	0.07	2.05	23.08	0.27	8.39	94.44	
108-38-3	m,p-Xylene	0.17	4.10	73.16	0.62	14.69	262.31	
95-47-6	o-Xylene	0.44	2.05	20.59	1.78	8.39	84.30	

	Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
	Toluene-d8	0.200	0.173	87	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Sim GC/MS
Analytical Method: TO-15

SDG: 205531
Laboratory Number: 13

File: 0553113A.D
Description: S-28
Can/Tube#: 135
Sam_Type: SA
QC_Batch: 081205-MS2
Air Volume: 200 ml

Date Sampled: 08/05/05 Time: 9:02
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/12/05 Time: 22:14
Can Dilution Factor: 1.91 2
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl Tert Butyl Ether	0.21	0.74	4.01	0.45	1.59	8.56	
71-43-2	Benzene	0.06	1.98	12.41	0.17	5.22	32.75	
108-88-3	Toluene	0.42	1.98	21.31	1.14	5.38	58.05	
100-41-4	Ethylbenzene	0.06	1.98	4.23	0.26	8.09	17.30	
108-38-3	m,p-Xylene	0.17	3.95	13.66	0.60	14.18	48.99	
95-47-6	o-Xylene	0.42	1.98	3.43	1.72	8.09	14.04	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.139	70	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: 205531
Laboratory Number: 14

File: 0553114A.D
Description: S-29
Can/Tube#: 123
Sam_Type: SA
QC_Batch: 081305-MS1
Air Volume: 257 ml

Date Sampled: 08/05/05 Time: 10:42
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/13/05 Time: 13:48
Can Dilution Factor: 1.87 1
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl tert butyl ether	0.1	2.8	0.3	0.6	11.6	1.3	J
71-43-2	Benzene	0.0	0.4	8.3	0.1	1.2	27.3	
108-88-3	Toluene	0.1	0.4	10.6	0.3	1.5	41.1	
100-41-4	Ethylbenzene	0.1	0.4	0.5	0.2	1.7	2.1	
108-38-3	m & p-Xylene	0.1	0.7	0.5	0.2	3.4	2.2	J
95-47-6	o-Xylene	0.1	0.4	0.1	0.3	1.7	0.4	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.127	64	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: 205531
Laboratory Number: 15

File: 0553115A.D
Description: S-30
Can/Tube#: 03415
Sam_Type: SA
QC_Batch: 081305-MS1
Air Volume: 217 ml

Date Sampled: 08/05/05 Time: 12:40
Date Received: 08/09/05
Date Extracted:
Date Analyzed: 08/13/05 Time: 14:29
Can Dilution Factor: 2.06 1
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
1634-04-4	Methyl tert butyl ether	0.2	3.7	0.2	0.8	15.2	0.8	U
71-43-2	Benzene	0.1	0.5	5.4	0.2	1.6	17.9	
108-88-3	Toluene	0.1	0.5	4.7	0.3	1.9	18.3	
100-41-4	Ethylbenzene	0.1	0.5	0.3	0.3	2.2	1.4	J
108-38-3	m & p-Xylene	0.1	1.0	0.5	0.3	4.4	2.3	J
95-47-6	o-Xylene	0.1	0.5	0.2	0.3	2.2	0.7	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.103	51	70-130	*

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

DATA QUALIFIERS *and* ABBREVIATIONS

ENVIRONMENTAL
Analytical Service, Inc.

Qualifiers

*	See Case Narrative
B	This compound was detected in the blank above the Reporting Limit (RL)
D	This report was calculated from a secondary dilution factor
E	Compound exceeds the calibration range and is an estimated value
J	The amount reported is an estimated value because it is between the Reporting Limit (RL) and the Method Detection Limit (MDL)
F	Higher detection limit due to sample matrix
G	Higher detection limit due to limited sample size
Q	Compound secondary ion ratio qualifiers are outside the standard acceptance criteria
R	Compound secondary retention time (RT) is outside the acceptance criteria for the method
U	Compound is less than the Method Detection Limit (MDL)

Abbreviations

MDL Minimum Detection Limit – Instrument detection limit

The minimum detectable level (MDL) is the lowest concentration of a substance that can be measured with confidence. The MDL is calculated at the 99% confidence level from seven repetitive measurements on a sample whose concentration does not exceed 10 times the estimated MDL (Glasser et. al. 1981; Long and Winefordner, 1983). Generating an MDL study, a sample is prepared in the appropriate matrix with components near the estimated MDL, which is about 3 times the instrument noise level. This sample is run seven consecutive times and the standard deviation (S) is calculated. The MDL is determined using the following formula: MDL = 3.14*S

ND Not Detected – a reported limit

NA Not Applicable

RPD Relative Percent Difference

The relative percent difference for a pair of duplicate samples is calculated from repetitive runs on sample pairs representative of the types of samples that are analyzed. The RPD provides information on the precision or reproducibility of the actual measurement process. The RPD is calculated for a particular compound from the average using the following formula:

$$RPD(\%) = \frac{\text{Difference} * 100}{\text{Average}}$$

RSD Relative Standard Deviation

The relative standard deviation is reported as a percentage deviation at a particular concentration using the following equation:

$$RSD\ (\%) = \frac{S * 100}{\text{Average}}$$

DEFINITIONS

ppbV $= \frac{\text{\# nanomoles cmpd}}{\text{\# moles air}} = \frac{\text{ppbC}}{\text{\# carbons in cmpd}}$

Compound is reported as ppb of compound by Volume

This unit is temperature independent

ug/m^3 $= \text{ppbV} \times \frac{\text{MW compound}}{23.68}$

Compound is reported as ug of a compound in a m^3 of air

23.68 is the molar volume of a gas at 60° F and 1 atm pressure

MW = molecular weight

This unit is temperature dependent

ppbC = ppbV x # carbons in compound

APPENDIX C

SOIL BORING LOGS

THE TWINING LABORATORIES, INC. EST. 1893

LOG OF SOIL BORING

BORING S-1

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: V. Bennett

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 13 Feet

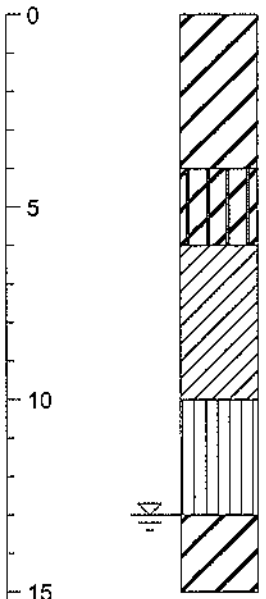
Project Number: A07281.02

Date Started: 08/01/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CH	CLAY, Medium brown, plastic, dry, no odor		
5		CH-MH	SILTY, Clay, medium brown, plastic, dry, no odor		PID = 0
		CL	CLAY, Silty, gray green, plastic, dry, no odor		PID = 0 PID = 1
10		ML	SILT, Brown, stiff, damp, petroleum odor		PID = 43
		CH	CLAY, Medium brown, plastic, wet, petroleum odor		
15			Bottom of Boring		PID = 146
20					
25					
30					

Notes: *Vapor sample taken 2 feet bgs*
Sheen to water
Static water level measured at 9 feet bsg

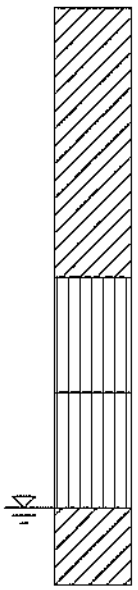
THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-2

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: V. Bennett
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 13 Feet

Project Number: A07281.02
Date Started: 08/01/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Light Gray, lean, dry, low plastic, no odor		
5					
		ML	CLAYEY, Silt, light gray		PID = 0
10		ML	SILT with some sand, some petroleum odor, damp		PID = 0
		CL	CLAY, medium brown, lean, damp		PID = 0
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *Free water 13 feet. Static water at 9 feet*
Sheen on water no dissolved oxygen (D.O.) or Oxygen reduction potential (O.R.P) measurement tak
Vapor sample at 2 feet

THE TWINING LABORATORIES, INC. EST. 1893

LOG OF SOIL BORING

BORING S-3

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: V. Bennett

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 13 Feet

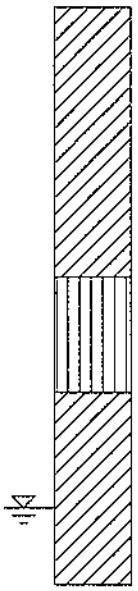
Project Number: A07281.02

Date Started: 08/01/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Light gray, dry, no odor, stiff		
5		ML	SILT, light brown, dry, no odor		PID = 5
			SILT, Clay, medium grain, dry, no odor		PID = 15
10		CL	SILTY Clay		PID = 288
			SILTY with some sand, medium brown, wet, lean, petroleum odor		
15			Bottom of Boring		PID = 81
20					
25					
30					

Notes: *Sheen on product at 15 feet. Static water at 10.34 feet*
D.O. = 1.83 EC = 11.62 uS ORP + 124
PH = 6.58

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LOG OF SOIL BORING

BORING S-4

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: V. Bennett

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 13 Feet

Project Number: A07281.02

Date Started: 08/01/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Stiff, medium brown to black, dry, no odor		
			CLAY, gray green, stiff, no odor		
5					PID = 6
10					PID = 1
		ML	SILT, Light brown, stiff, some clay		
			CLAYEY Silt, gray brown, stiff, no odor, damp		PID = 1
		SM	SAND, very fine with silt, light brown, some odor, damp		PID = 1
15			Bottom of Boring		
20					
25					
30					

Notes: *13 feet free water. Static water 9.12 feet*
EC = 986.6 uS ORP = 127 Temp = 27.5° C 6.58 662 ppm TDS

THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-5

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: V. Bennett

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 13 Feet

Project Number: A07281.02

Date Started: 08/01/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Dark brown to black, no odor, dry, lean		PID = 1
5		ML	SILT with clay, light brown, friable, no odor, dry		PID = 1
10		CL	CLAY, gray green, no odor, damp		
		ML	SILT, gray green, friable, damp, no odor		PID = 1
15					PID = 1
			Bottom of Boring		
20					
25					
30					

Notes: *D.O. = 3.45 mg/2 EC = 1008 uS PH = 6.74 Temp = 28.1° C ORP + 93*
Vapor sample taken at 4.5 feet S-5 more permeable
system tight - 10 minute tests

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LOG OF SOIL BORING

BORING S-6

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: V. Bennett

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 13 Feet

Project Number: A07281.02

Date Started: 08/01/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Gray brown, lean, no plasticity, no odor, dry		
5			CLAY, Light brown, lean, no odor, dry		PID = 0
					PID = 0
10					PID = 1
		ML	SILT, Light brown, some very fine sand, damp, no odor		PID = 0
15			SILT, gray green, friable?, wet, no odor		PID = 1
			Bottom of Boring		
20					
25					
30					

Notes: *Static water to 10.62 feet*
EC = 1043 ORP + 102 Temp = 27.3° C TDS = 712.8 ppm
5 feet to 6

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LOG OF SOIL BORING

BORING S-7

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: V. Bennett
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 13 Feet

Project Number: A07281.02
Date Started: 08/02/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Dark brown, lean, stiff, no odor, dry		
5		ML	SILT, Clayey, medium brown, no odor, dry, stiff		PID = 0
					PID = 0
			SILT, Light green, plastic, water n/o, damp		
10					PID = 0
		CH	CLAY, Light green, fat, some petroleum odor, wet		
15			Bottom of Boring		PID = 12
20					
25					
30					

Notes: *14 feet TD 12 feet free water, 9.3 feet standing*
D.O. = .95 mg/L EC = 1021 uS Temp = 25°C ORP + 151
PH = 6.61 TDS = 688 ppm
Sheen on water Petroleum odor

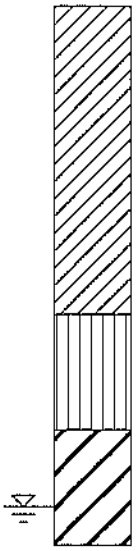
THE TWINING LABORATORIES, INC. EST. 1899

LOG OF SOIL BORING

BORING S-8

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: V. Bennett
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 13 Feet

Project Number: A07281.02
Date Started: 08/02/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A



DEPTH (feet)	USCS	Soil Description	Blows per foot	Remarks
0	CL	CLAY, Dark brown, stiff, lean, no odor, dry		
5		SILTY, Medium brown, lean, stiff, clay, dry, no odor		PID = 0
				PID = 0
10	ML	CLAYEY Silt, light gray to green, some very fine sand, damp 10 feet, slight petroleum odor		PID = 0
	CH	SILTY Clay, plastic, damp, no odor		PID = 65
15		Bottom of Boring		
20				
25				
30				

Notes: *Static water to 8.3 feet bgs*
D.O. = .52 ms EC =1072 uS Temp = 25.4°C ORP + 130
PH = 6.67 TDS = 730 ppm 4 1/2 - 2 feet - tight
Vapor sample taken 1 1/2 feet bgs 25 inches Hg to 5 inches hg

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LOG OF SOIL BORING

BORING S-9

Project: Skywest Plaza

Project Number: A07281.02

Location: NW Corner of Hesperian & A

Date Started: 08/02/05

Logged By: V. Bennett

Date Completed: 08/05/05

Drilled By: Jeff Edmond

Drill Type: Direct Push

Auger Type: Direct Push

Depth to Groundwater: 13 Feet

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Dark brown to black clay, dry, no odor, lean, not plastic		
5		CH	CLAY, Dark Brown mottled brown, clay, plastic, no odor, dry		PID = 0
					PID = 0
10			GRAY Mottled brown, fat clay, moist, fat, petroleum odor, plastic		PID = 0
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *EC = 1262 uS PH = 6.7 Temp = 24.4°C ORP = + 65*
TDS = 866 ppm DO = 0.92 mg/L

THE TWINING LABORATORIES, INC. EST. 1888

LOG OF SOIL BORING

BORING S-10

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 8.21 feet

Project Number: A07281.02
Date Started: 08/02/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Black, dense silty, lean, non plastic, dry, odor		
5		CH	FAT Clay, brown silty 47 fat, plastic, moist, odor		PID = 35
		CL	FAT Clay, Gray, 7 inches 14 inches fat, plastic, moist to wet with depth, odor, sheen		PID = 60
10					PID = 543
15			Bottom of Boring		PID = 238
20					
25					
30					

Notes: *D.O. = 0.95 mg/L Temp = 23.9°C EC = 1189 uS ORP = + 20*
PH = 6.57

THE TWINING LABORATORIES, INC. (EST. 1808)

LOG OF SOIL BORING

BORING S-11

Project: Skywest Plaza
Project Number: A07281.02
Location: NW Corner of Hesperian & A
Date Started: 08/02/05
Logged By: Matt F
Date Completed: 08/05/05
Drilled By: Jeff Edmond
Drill Type: Direct Push
Auger Type: Direct Push
Depth to Groundwater: 8.62 feet
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	CLAY, Dark brown to black, silty lean, dry, lean, no plastic, no odor		
5			CLAY, Brown, silty, lean, dry, non plastic, no odor		PID = 13
		CH	CLAY, Gray, Sitly lean, moist, non plastic, lean, sheen, odor,		PID = 95
10					PID = 610
15			Bottom of Boring		PID = 208
20					
25					
30					

Notes: *D.O. = 1.00 mg/L Temp = 24.0°C EC = 1150 uS ORP = + 50*
PH = 6.62 TDS = 790.2 ppm

THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-12

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: Matt F

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 8.62 feet

Project Number: A07281.02

Date Started: 08/02/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		OL	CLAYEY Silt dark brown to black, dry, organic, with gravel, dense, no odor, non plastic		
5		CL	BROWN, Sandy silty, clay, dense, moist, no odor, lean, non plastic		PID = 0
					PID = 0
		CH	BROWN, Moist, silty clay, fat, plastic, no odor, dense		
10					PID = 0
			GRAY, Wet, silty clay, fat, plastic, odor, dense		
15			Bottom of Boring		PID = 12
20					
25					
30					

Notes: *D.O. = 1.31 mg/L Temp = 22.2°C EC = 1025 uS ORP = + 16*
PH = 6.76 TDS 702.8 ppm

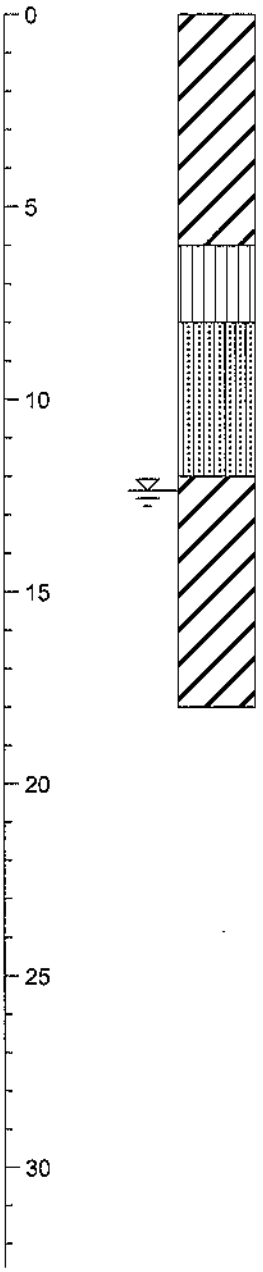
THE TWINING LABORATORIES, INC. EST. 1899

LOG OF SOIL BORING

BORING S-13

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 12.38 feet

Project Number: A07281.02
Date Started: 08/03/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
		CH	SILTY Clay, dark brown to brown, moist, fat, plastic, dense, no odor		PID = 0
		ML	CLAYEY Silt, brown, moist, lean, non plastic, no odor		PID = 0
		SM	SANDEY Silt, brown, moist, no odor		PID = 0
		CH	FAT Clay, brown mottled gray, plastic, moist, no odor		PID = 0
			Bottom of Boring		PID = 0

Notes: *D.O. = 2.65 mg/L Temp = 22.9°C EC = 860.5 uS ORP = + 94*
PH = 7.24 TDS 585.7 ppm

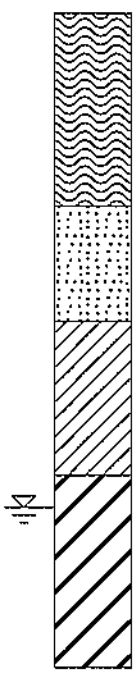
THE TWINING LABORATORIES, INC. (EST. 1898)

LOG OF SOIL BORING

BORING S-14

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 12.84 feet

Project Number: A07281.02
Date Started: 08/03/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		OL	SILTY Clay, brown to dark brown, organic, dry, lean, non plastic, no odor		PID = 0
5		SP	SAND, Brown, fine to medium, moist, no odor		PID = 0
		CL	SILTY Clay, brown, Moist, lean, non plastic, moist, no odor		PID = 0
10		CH	CLAY, Silty, brown, moist, plastic, no odor		PID = 0
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 1.75 mg/L Temp = 22.0°C EC = 533.1 uS ORP = + 65*
PH = 7.12 TDS 358 ppm

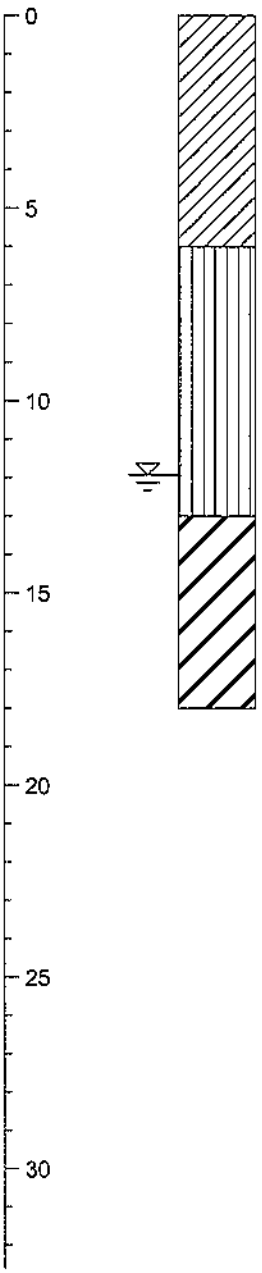
THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-15

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 11.93 feet

Project Number: A07281.02
Date Started: 08/03/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
		CL	SILTY Clay, dark brown to brown, dry, lean, no odor, non plastic		0 ppm
		ML	CLAYEY Silt, brown, lean, non plastic, no odor, moist		PID = 0
			CLAYEY Silt, brown, lean, no plastic, moist, no odor		PID = 0
		CH	SILTY Clay, brown, silty clay, moist, fat, plastic, no odor		PID = 0
			Bottom of Boring		PID = 0

Notes: *D.O. = 3.95 mg/L Temp = 23.4°C EC = 825 uS ORP = + 110*
PH = 6.82 TDS 558 ppm

THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-16

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: Matt F

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 10.33 feet

Project Number: A07281.02

Date Started: 08/03/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		OL	SILTY Clay, black, dry, lean, non plastic, no odor		
5		CL	SILTY Clay, brown, moist, lean, non plastic, no odor		PID = 0
					PID = 0
10		CH	SILTY Clay, brown, mosit, fat, plastic, no odor		PID = 0
			SILTY Clay, gray, moist, fat, plastic, odor		
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 1.18 mg/L Temp = 23.7°C EC = 907.5 uS ORP = + 112*
PH = 6.87 TDS 618 ppm

THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-17

Project: Skywest Plaza

Project Number: A07281.02

Location: NW Corner of Hesperian & A

Date Started: 08/03/05

Logged By: Matt F

Date Completed: 08/05/05

Drilled By: Jeff Edmond

Drill Type: Direct Push

Auger Type: Direct Push

Depth to Groundwater: 11.55 feet

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CH	SILTY Clay, black to brown, fat, plastic, moist, no odor		PID = 0
5		ML	CLAYEY Silt, brown, lean, non plastic, moist, no odor		PID = 0
10		CH	SILTY Clay, brown, mosit, fat, plastic, no odor		PID = 0
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 1.66 mg/L Temp = 24.2°C EC = 935 uS ORP = + 88*
PH = 7.10 TDS 634.5 ppm

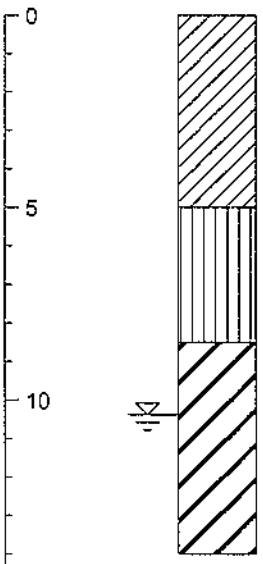
THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-18

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 10.38 feet

Project Number: A07281.02
Date Started: 08/03/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
		CL	SILTY Clay, dark brown to brown, lean, non plastic, dry, no odor		PID = 0
		ML	CLAYEY Silt, brown, non plastic, moist, no odor		PID = 0
		CH	SILTY Clay, gray to green, fat, plastic, moist, odor		PID = 0
			Bottom of Boring		PID = 0

Notes: *D.O. = 1.93 mg/L Temp = 27.2°C EC = 1103 uS ORP = + 85*
PH = 6.78 TDS 755.5 ppm

THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-19

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 10.69 feet

Project Number: A07281.02
Date Started: 08/02/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	SILTY Clay, dark brown to black, dry, lean, no odor, non plastic		
		CH	SILTY Clay, brown, fat, plastic, dry to moist, no odor		PID = 0
5		ML	CLAYEY Silt, brown, moist, lean, non plastic, dense, no odor		PID = 0
10					PID = 0
		CH	SILTY Clay, brown, fat, moist, plastic, no odor		
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 1.28 mg/L Temp = 26.4°C EC = 929.0 uS ORP = + 81*
PH = 7.03 TDS 629.5 ppm

THE TWINING LABORATORIES, INC. EST. 1893

LOG OF SOIL BORING

BORING S-20

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: Matt F

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 10.97 feet

Project Number: A07281.02

Date Started: 08/04/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		OL	SILTY Clay, dark brown to black, dry, lean, non plastic, no odor		
5					PID = 0
		CL	SILTY Clay, brown, moist, lean, non plastic, no odor		PID = 0
10					PID = 0
		CH	SILTY Clay, brown, fat, plastic, no odor, moist		
15			FAT Clay, gray, plastic, odor		PID = 0
			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = .58 mg/L Temp = 22.5°C EC = 1067 uS ORP = + 55*
PH = 8.2 TDS 733 ppm

THE TWINING LABORATORIES, INC.

LOG OF SOIL BORING

BORING S-21

Project: Skywest Plaza

Location: NW Corner of Hesperian & A

Logged By: Matt F

Drilled By: Jeff Edmond

Auger Type: Direct Push

Depth to Groundwater: 11.42 feet

Project Number: A07281.02

Date Started: 08/04/05

Date Completed: 08/05/05

Drill Type: Direct Push

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	SILTY Clay with gravel, gray brown, (fill)		
		CH	SILTY Clay, brown, moist, fat, plastic, no odor		PID = 0
5		SW	DRY Sand, brown, Fine to coarse		PID = 0
		CH	SILTY Clay, brown, moist, fat, no odor, plastic		PID = 0
10					PID = 0
15					PID = 0
			SILTY Clay, gray, moist, fat, odor, plastic		PID = 0
20			Bottom of Boring		
25					
30					

Notes: *D.O. = 1.22 mg/L Temp = 24.1°C EC = 845.5 uS ORP = + 18*
PH = 7.30 TDS 575.4 ppm

THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-22

Project: Skywest Plaza

Project Number: A07281.02

Location: NW Corner of Hesperian & A

Date Started: 08/02/05

Logged By: Matt F

Date Completed: 08/05/05

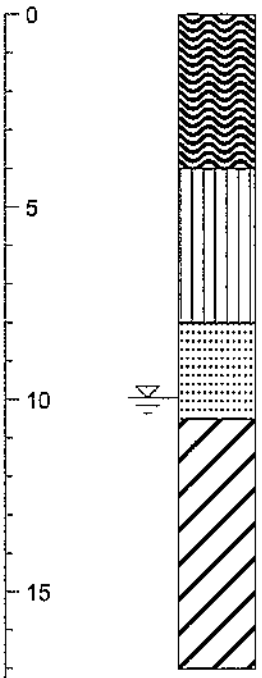
Drilled By: Jeff Edmond

Drill Type: Direct Push

Auger Type: Direct Push

Depth to Groundwater: 9.95 feet

Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		OH	SILTY Clay, dark brown to brown, dry fat, plastic, no odor		
5		ML	CLAYEY Silt, brown, dry, lean, no plastic, no odor		PID = 0
					PID = 0
		SW	SILTY, Brown, moist, fine to coarse sand with gravel		
10		CH	SILTY Clay, brown, moist, dense, no odor, fat, plastic		PID = 0
15			SILTY Clay, gray and brown, moist, dense, no odor, fat, plastic		PID = 0
			Bottom of boring		PID = 0
20					
25					
30					

Notes: *D.O. = 2.40 mg/L Temp = 27.4°C EC = 708 uS ORP = + 140*
PH = 6.72 TDS 473.8 ppm

THE TWINING LABORATORIES, INC. EST. 1808

LOG OF SOIL BORING

BORING S-23

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 10.99 feet

Project Number: A07281.02
Date Started: 08/04/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CH	SILTY Clay, dark brown to black, dry, fat, plastic, no odor		
5					PID = 0
		CL	SILTY Clay, brown, lean, moist, non plastic, no odor		PID = 0
10		CH	SILTY Clay, brown, moist, fat, plastic, slight odor		PID = 0
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 1.33 mg/L Temp = 26.6°C EC = 1125 uS ORP = + 94*
PH = 6.69 TDS 772 ppm

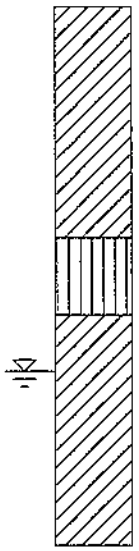
THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-24

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 9.47 feet

Project Number: A07281.02
Date Started: 08/04/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	SILTY Clay, dark brown to brown, lean, non plastic, no odor		
5					PID = 0
		ML	CLAYEY Silt, moist, brown, no odor, lean, non plastic		PID = 0
		CL	SILTY Clay, brown, moist, lean, non plastic, odor		
10					PID = 30
			Bottom of Boring		PID = 22
15					
20					
25					
30					

Notes: *D.O. = 1.30 mg/L Temp = 27.0°C EC = 1066 uS ORP = + 132*
PH = 6.66 TDS 727.7 ppm

THE TWINING LABORATORIES, INC.

LOG OF SOIL BORING

BORING S-25

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 9.43 feet

Project Number: A07281.02
Date Started: 08/04/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		OL	SILTY Clay, brown to black, lean, non plastic, no odor, dry		
					PID = 0
5		ML	CLAYEY Silt, brown, moist, lean, non plastic, no odor		PID = 0
		CH	SILTY Clay, brown, moist, fat, non plastic, no odor		
10					PID = 0
			SILTY Clay, gray, moist, fat, plastic, odor		
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 1.00 mg/L Temp = 27.0°C EC = 1087 uS ORP = + 86*
PH = 6.77 TDS = 751.5

THE TWINING LABORATORIES, INC. EST. 1899

LOG OF SOIL BORING

BORING S-26

Project: Skywest Plaza

Project Number: A07281.02

Location: NW Corner of Hesperian & A

Date Started: 08/04/05

Logged By: Matt F

Date Completed: 08/05/05

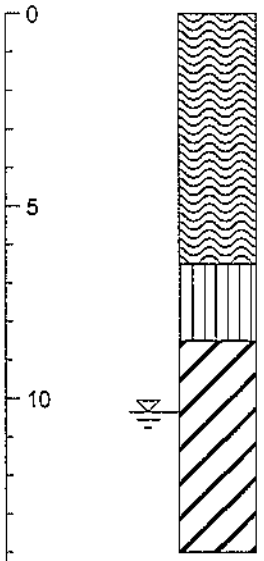
Drilled By: Jeff Edmond

Drill Type: Direct Push

Auger Type: Direct Push

Depth to Groundwater: 10.35 feet

Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		OL	SILTY Clay, dark brown to brown, dry, lean, non plastic, no odor		
5					PID = 0
		ML	CLAYEY Silt, brown, moist, lean, non plastic, no odor		PID = 0
		CH	SILTY Clay, brown, moist, fat, plastic, no odor		
10					PID = 0
			SILTY Clay, gray, moist, fat, plastic, odor		
			Bottom of Boring		PID = 0
15					
20					
25					
30					

Notes: *D.O. = 0.72 mg/L Temp = 26.8°C EC = 1028 uS ORP = + 77*
PH = 6.92 TDS = 699.9

THE TWINING LABORATORIES, INC. EST. 1898

LOG OF SOIL BORING

BORING S-27

Project: Skywest Plaza
Project Number: A07281.02
Location: NW Corner of Hesperian & A
Date Started: 08/04/05
Logged By: Matt F
Date Completed: 08/05/05
Drilled By: Jeff Edmond
Drill Type: Direct Push
Auger Type: Direct Push
Depth to Groundwater: 10.23 feet
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	SILTY Clay, brown to dark brown, dry, lean, non plastic, no odor		
5					PID = 0
					PID = 0
		CH	SILTY Clay, brown, moist, lean, non plastic, non plastic		
10		ML	CLAYEY Silt, brown, moist, lean, non plastic, no odor		PID = 0
		CL	SILTY Clay, brown, moist, lean, non plastic, no odor		
15			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 118 mg/L Temp = 21.1°C EC = 1100 uS ORP = + 153*
PH = 6.91 TDS = 760.3

THE TWINING LABORATORIES, INC. EST. 1895

LOG OF SOIL BORING

BORING S-28

Project: Skywest Plaza

Project Number: A07281.02

Location: NW Corner of Hesperian & A

Date Started: 08/05/05

Logged By: Matt F

Date Completed: 08/05/05

Drilled By: Jeff Edmond

Drill Type: Direct Push

Auger Type: Direct Push

Depth to Groundwater: 10.25 feet

Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	SILTY Clay, brown to dark brown, dry, lean, non plastic, no odor		
5					PID = 0
		ML	CLAYEY Silt, brown, moist, lean, non plastic, no odor		PID = 0
10		CH	SILTY Clay, brown, moist, fat, plastic, no odor		PID = 0
			Bottom of Boring		PID = 0
15					
20					
25					
30					

Notes: *D.O. = 0.83 mg/L Temp = 21.8°C EC = 1151 uS ORP = + 152*
PH = 6.97 TDS = 794.8

THE TWINING LABORATORIES, INC.

LOG OF SOIL BORING

BORING S-29

Project: Skywest Plaza
Location: NW Corner of Hesperian & A
Logged By: Matt F
Drilled By: Jeff Edmond
Auger Type: Direct Push
Depth to Groundwater: 12.32 feet

Project Number: A07281.02
Date Started: 08/05/05
Date Completed: 08/05/05
Drill Type: Direct Push
Elevation: N/A

DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	SILTY Clay, brown to dark brown, dry, lean, no odor, non plastic		
5					PID = 0
					PID = 0
10					PID = 0
		ML	CLAYEY Silt, brown, lean, non plastic, no odor, mosit		
15					PID = 0
		CH	SILTY CLay, brown, fat, plastic, no odor, moist		
			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 0.80 mg/L Temp = 25.7°C EC = 1085 uS ORP = + 117*
PH = 6.76 TDS = 746.5

THE TWINING LABORATORIES, INC. EST. 1993

LOG OF SOIL BORING

BORING S-30

Project: Skywest Plaza

Project Number: A07281.02

Location: NW Corner of Hesperian & A

Date Started: 08/05/05

Logged By: Matt F

Date Completed: 08/05/05

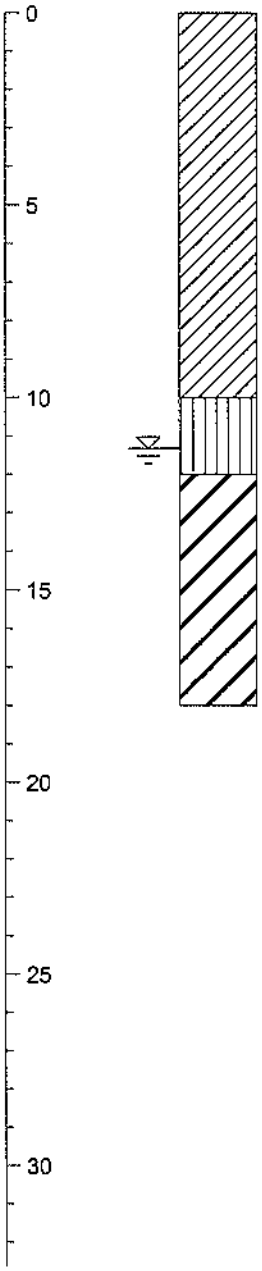
Drilled By: Jeff Edmond

Drill Type: Direct Push

Auger Type: Direct Push

Depth to Groundwater: 11.33 feet

Elevation: N/A



DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Blows per foot	Remarks
0		CL	SILTY Clay, dark brown to brown, lean, dry, non plastic, no odor		
5					PID = 0
					PID = 0
10		ML	CLAYEY Silt, brown, moist, lean, non plastic, no odor		PID = 0
		CH	SILTY Clay, brown, moist, fat, non plastic, no odor		
15					PID = 0
			Bottom of Boring		PID = 0
20					
25					
30					

Notes: *D.O. = 0.90 mg/L Temp = 26.2°C EC = 1047 uS ORP = + 60*
PH = 7.21 TDS = 728

KEY TO SYMBOLS

Symbol	Description
Strata symbols	
	High plasticity clay
	Inorganic silts and clays
	LEAN CLAY (CL)
	SILT, Sandy (ML)
	SAND, Silty (SM)
	Low plasticity organic silts
	SAND, Poorly Graded (SP)
	SAND, Well Graded (SW)
	High plasticity organic clays

Symbol	Description
Misc. Symbols	
▽	Water table during drilling

Notes:

1. Test borings were drilled on 08/01/05 - 08/05/05 using a Geoprobe 5420 equipped with 2.0" Direct push.

2. Test boring locations were located by measuring wheel with reference to the existing site features.

3. These logs are subject to the limitations, conclusions, and recommendations in this report.

4. Results of tests conducted on samples recovered are reported on the logs. Abbreviations used are:

APPENDIX D

MATERIAL SAFETY DATA SHEETS (MSDSs)

Oxygen Release Compound – Advanced (ORC *Advanced*™)
MATERIAL SAFETY DATA SHEET (MSDS)

Last Revised: April 5, 2005

Section 1 - Material Identification

Supplier:

REGENESIS

1011 Calle Sombra
San Clemente, CA 92673

Phone: 949.366.8000

Fax: 949.366.8090

E-mail: info@regenesis.com

Chemical Description:	A mixture of Calcium OxyHydroxide [$CaO(OH)_2$], Calcium Hydroxide [$Ca(OH)_2$], and Calcium Carbonate [($CaCO_3$)].
Chemical Family:	Inorganic Chemical
Trade Name:	Advanced Formula Oxygen Release Compound (ORC *Advanced*™)
Product Use:	Used to remediate contaminated soil and groundwater (environmental applications)

Section 2 – Other Designations

CAS No.	Chemical
666235-17-2	**(Hydrated) Calcium OxyHydroxide [$CaO(OH)_2$]**
666235-17-2	**(Hydrated) Calcium Oxide Peroxide [$CaO(OH)_2$]**
1305-62-0	**Calcium Hydroxide [$Ca(OH)_2$]**
1317-65-3	**Calcium Carbonate ($CaCO_3$)**

Section 3 – Physical Data

Form:	Powder
Color:	White to Pale Yellow
Odor:	Odorless
Melting Point:	527 °F (275 °C) - Decomposes
Boiling Point:	Not Applicable (NA)
Flammability/Flash Point:	NA
Auto- Flammability:	NA
Vapor Pressure:	NA
Self-Ignition Temperature:	NA
Thermal Decomposition:	527 °F (275 °C) - Decomposes
Bulk Density:	0.5 – 0.65 g/ml (Loose Method)
Solubility:	1.65 g/L @ 68° F (20° C) for calcium hydroxide.
Viscosity:	NA
pH:	11-13 (saturated solution)
Explosion Limits % by Volume:	Non-explosive
Hazardous Decomposition Products:	Oxygen, Hydrogen Peroxide, Steam, and Heat
Hazardous Reactions:	None

Section 4 – Reactivity Data

Stability:	Stable under certain conditions (see below).
Conditions to Avoid:	Heat and moisture.
Incompatibility:	Acids, bases, salts of heavy metals, reducing agents, and flammable substances.
Hazardous Polymerization:	Does not occur.

Section 5 - Regulations

TSCA Inventory List:	Listed

CERCLA Hazardous Substance (40 CFR Part 302)

Listed Substance:	No
Unlisted Substance:	Yes
Reportable Quantity (RQ):	100 pounds
Characteristic(s):	Ignitibility
RCRA Waste Number:	D001

SARA, Title III, Sections 302/303 (40 CFR Part 355 – Emergency Planning and Notification)

Extremely Hazardous Substance:	No

SARA, Title III, Sections 311/312 (40 CFR Part 370 – Hazardous Chemical Reporting: Community Right-To-Know

Hazard Category:	Immediate Health Hazard Fire Hazard
Threshold Planning Quantity:	10,000 pounds

SARA, Title III, Section 313 (40 CFR Part 372 – Toxic Chemical Release Reporting: Community Right-To-Know

Extremely Hazardous Substance:	No	
WHMIS Classification:	C	Oxidizing Material Poisonous and Infectious Material
	D	Material Causing Other Toxic Effects – Eye and Skin Irritant
Canadian Domestic Substance List:	Listed, DSL/NDSL Record Number - 3929	

This product has been classified in accordance with the hazard criteria of the Canadian Public Railway (CPR) and this MSDS contains all of the information required by the CPR.

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage: Keep in tightly closed container. Store in dry area, protected from heat sources and direct sunlight.

Handling: Clean and dry processing pipes and equipment before operation. Never return unused product to the storage container. Keep away from incompatible products. Containers and equipment used to handle this product should be used exclusively for this material. Avoid contact with water or humidity.

Personal Protective Equipment (PPE)

Engineering Controls:

Calcium Hydroxide	Calcium Carbonate
ACGIH® TLV® (2000)	ACGIH® TLV® (2000)
5 mg/m^3 TWA	10 mg/m^3 TWA
OSHA PEL	OSHA PEL
Total dust–15 mg/m^3 TWA	Total dust–15 mg/m^3 TWA
Respirable fraction–	Respirable fraction–
5 mg/m^3 TWA	5 mg/m^3 TWA
NIOSH REL (1994)	NIOSH REL (1994)
5 mg/m^3	Total dust–10 mg/m^3 TWA
	Respirable fraction-
	5 mg/m^3 TWA

Respiratory Protection: For many conditions, no respiratory protection may be needed; however, in dusty or unknown atmospheres use a NIOSH approved dust respirator.

Hand Protection: Impervious protective gloves made of nitrile, natural rubbber or neoprene.

Eye Protection: Use chemical safety goggles (dust proof).

Skin Protection: For brief contact, few precautions other than clean clothing are needed. Full body clothing impervious to this material should be used during prolonged exposure.

Section 6 – Protective Measures, Storage and Handling (cont)	
Other:	Safety shower and eyewash stations should be present. Consultation with an industrial hygienist or safety manager for the selection of PPE suitable for working conditions is suggested.
Industrial Hygiene:	Avoid contact with skin and eyes.
Protection Against Fire & Explosion:	NA

Section 7 – Hazards Identification	
Emergency Overview:	Oxidizer – Contact with combustibles may cause a fire. This material decomposes and releases oxygen in a fire. The additional oxygen may intensify the fire.
Potential Health Effects:	Irritating to the mucous membrane and eyes. If the product splashes in ones face and eyes, treat the eyes first. Do not dry soiled clothing close to an open flame or heat source. Any clothing that has been contaminated with this product should be submerged in water prior to drying.
Inhalation:	High concentrations may cause slight nose and throat irritation with a cough. There is risk of sore throat and nose bleeds if one is exposed to this material for an extended period of time.
Eye Contact:	Severe eye irritation with watering and redness. There is also the risk of serious and/or permanent eye lesions.
Skin Contact:	Irritation may occur if one is exposed to this material for extended periods.
Ingestion:	Irritation of the mouth and throat with nausea and vomiting.

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage/Gas Leakage:	Collect in suitable containers. Wash remainder with copious quantities of water.
Extinguishing Media:	See next.
Suitable:	Large quantities of water or water spray. In case of fire in close proximity, all means of extinguishing are acceptable.
Further Information:	Self contained breathing apparatus or approved gas mask should be worn due to small particle size. Use extinguishing media appropriate for surrounding fire. Apply cooling water to sides of transport or storage vessels that are exposed to flames until the fire is extinguished. Do not approach hot vessels that contain this product.
First Aid:	After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Consult an opthalmologist in all cases.
Eye Contact:	Flush eyes with running water for 15 minutes, while keeping the eyelids wide open. Consult with an ophthalmologist in all cases.
Inhalation:	Remove subject from dusty environment. Consult with a physician in case of respiratory symptoms.
Ingestion:	If the victim is conscious, rinse mouth and admnister fresh water. DO NOT induce vomiting. Consult a physician in all cases.
Skin Contact:	Wash affected skin with running water. Remove and clean clothing. Consult with a physician in case of persistent pain or redness.
Special Precautions:	Evacuate all non-essential personnel. Intervention should only be done by capable personnel that are trained and aware of the hazards associated with this product. When it is safe, unaffected product should be moved to safe area.

Section 8 – Measures in Case of Accidents and Fire (cont)

Specific Hazards:	Oxidizing substance. Oxygen released on exothermic decomposition may support combustion. Confined spaces and/or containers may be subject to increased pressure. If product comes into contact with flammables, fire or explosion may occur.

Section 9 – Accidental Release Measures

Precautions:	Observe the protection methods cited in Section 3. Avoid materials and products that are incompatible with product. Immediately notify the appropriate authorities in case of reportable discharge (> 100 lbs).
Cleanup Methods:	Collect the product with a suitable means of avoiding dust formation. All receiving equipment should be clean, vented, dry, labeled and made of material that this product is compatible with. Because of the contamination risk, the collected material should be kept in a safe isolated place. Use large quantities of water to clean the impacted area. See Section 12 for disposal methods.

Section 10 – Information on Toxicology

Toxicity Data	
Acute Toxicity:	Oral Route, LD_{50}, rat, > 2,000 mg/kg (powder 50%) Dermal Route, LD_{50}, rat, > 2,000 mg/kg (powder 50%) Inhalation, LD_{50}, rat, > 5,000 mg/m^3 (powder 35%)
Irritation:	Rabbit (eyes), severe irritant
Sensitization:	No data
Chronic Toxicity:	In vitro, no mutagenic effect (Powder 50%)
Target Organ Effects:	Eyes and respiratory passages.

Section 11 – Information on Ecology

Ecology Data	
	10 mg $Ca(OH)_2$/L: pH = 9.0
	100 mg $Ca(OH)_2$/L: pH = 10.6
Acute Exotoxicity:	Fishes, Cyprinus carpio, LC_{50}, 48 hrs, 160 mg/L
	Crustaceans, Daphnia sp., EC_{50}, 24 hours, 25.6 mg/L
	(Powder 16%)
Mobility:	Low Solubility and Mobility
	Water – Slow Hydrolysis.
	Degradation Products: Calcium Hydroxide
Abiotic Degradation:	Water/soil – complexation/precipitation. Carbonates/sulfates present at environmental concentrations.
	Degradation products: carbonates/sulfates sparingly soluble
Biotic Degradation:	NA (inorganic compound)
Potential for Bioaccumulation:	NA (ionizable inorganic compound)
Comments:	Observed effects are related to alkaline properties of the product. Hazard for the environment is limited due to the product properties of: • No bioaccumulation • Weak solubility and precipatation as carbonate or sulfate in an aquatic environment. Diluted product is rapidly neutralized at environmental pH.
Further Information:	NA

Section 12 – Disposal Considerations

Waste Disposal Method:	Consult current federal, state and local regulations regarding the proper disposal of this material and its emptied containers.

Section 13 – Shipping/Transport Information

D.O.T Shipping Name:	Oxidizing Solid, N.O.S [A mixture of Calcium OxyHydroxide [$CaO(OH)_2$], Calcium Hydroxide [$Ca(OH)_2$], and Calcium Carbonate ($CaCO_3$).]
UN Number:	1479
Hazard Class:	5.1
Label(s):	5.1 (Oxidizer)
Packaging Group:	II
STCC Number:	4918717

Section 14 – Other Information

HMIS® Rating	Health – 2 Flammability – 0	Reactivity – 1 PPE - Required

HMIS® is a registered trademark of the National Painting and Coating Association.

NFPA® Rating	Health – 2 Flammability – 0	Reactivity – 1 OX

NFPA® is a registered trademark of the National Fire Protection Association.

Reason for Issue: Update toxicological and ecological data

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available.

Regen OX – Part A (Oxidizer Complex)

Material Safety Data Sheet (MSDS)

Last Revised: April 12, 2005

Section 1 – Supplier Information and Material Identification

Supplier:

REGENESIS
1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Description:	A mixture of sodium percarbonate [$2Na_2CO_3 \cdot 3H_2O_2$], sodium carbonate [Na_2CO_3], sodium silicate and silica gel.
Chemical Family:	Inorganic Chemicals
Trade Name:	Regen Ox – Part A (Oxidizer Complex)
Product Use:	Used to remediate contaminated soil and groundwater (environmental applications)

Section 2 – Chemical Information/Other Designations

CAS No.	Chemical
15630-89-4	Sodium Percarbonate
497-19-8	Sodium Carbonate
1344-09-8	Silicic Acid, Sodium Salt and Sodium Silicate
63231-67-4	Silica Gel

Section 3 – Physical Data

Form:	Powder
Color:	White
Odor:	Odorless
Melting Point:	NA
Boiling Point:	NA

Section 3 – Physical Data (cont)	
Flammability/Flash Point:	NA
Vapor Pressure:	NA
Bulk Density:	0.9 – 1.2 g/cm^3
Solubility:	Min 14.5g/100g water @ 20 °C
Viscosity:	NA
pH (3% solution):	~ 10.5
Decomposition Temperature:	Self-accelerating decomposition with oxygen release starts at 50 °C.

Section 4 – Reactivity Data	
Stability:	Stable under normal conditions
Conditions to Avoid/Incompatibility:	Acids, bases, salts of heavy metals, reducing agents, and flammable substances
Hazardous Decomposition Products:	Oxygen. Contamination with many substances will cause decomposition. The rate of decomposition increases with increasing temperature and may be very vigorous with rapid generation of oxygen and steam.

Section 5 – Regulations	
TSCA Inventory Listed:	Yes
CERCLA Hazardous Substance (40 CFR Part 302)	
Listed Substance:	*No*
Unlisted Substance:	*Yes*
SARA, Title III, Sections 313 (40 CFR Part 372) – Toxic Chemical Release Reporting: Community Right-To-Know	
Extremely Hazardous Substance:	No
WHMIS Classification:	C, D2B
Canadian Domestic Substance List:	Appears

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage:	Oxidizer. Store in a cool, well ventilated area away from all sources of ignition and out of the direct sunlight. Store in a dry location away from heat and in temperatures less than 40 °C. Keep away from incompatible materials and keep lids tightly closed. Do not store in improperly labeled containers. Protect from moisture. Do not store near combustible materials. Keep containers well sealed. Store separately from reducing materials. Avoid contamination which may lead to decomposition.
Handling:	Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists or dust. Do not eat, drink or smoke in the work area. Label containers and keep them tightly closed when not in use. Wash hands thoroughly after handling.

Personal Protective Equipment (PPE)

Engineering Controls:	General room ventilation is required if used indoors. Local exhaust ventilation, process enclosures or other engineering controls may be needed to maintain airborne levels below recommended exposure limits. Avoid creating dust or mists. Maintain adequate ventilation at all times. Do not use in confined areas. Keep levels below recommended exposure limits. To determine actual exposure limits, monitoring should be performed on a routine basis.
Respiratory Protection:	For many conditions, no respiratory protection is necessary; however, in dusty or unknown conditions or when exposures exceed limit values a NIOSH approved respirator should be used.
Hand Protection:	Wear chemical resistant gloves (neoprene, rubber, or PVC).

Section 6 – Protective Measures, Storage and Handling (cont)

Eye Protection:	Wear chemical safety goggles. A full face shield may be worn in lieu of safety goggles.
Skin Protection:	Try to avoid skin contact with this product. Chemical resistant gloves (neoprene, PVC or rubber) and protective clothing should be worn during use.
Other:	Eye wash station.
Protection Against Fire & Explosion:	Product is non-explosive. In case of fire, evacuate all non-essential personnel, wear protective clothing and a self-contained breathing apparatus, stay upwind of fire, and use water to spray cool fire-exposed containers.

Section 7 – Hazards Identification

Potential Health Effects	
Inhalation:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath, and irritations to mucous membranes, nose and throat.
Eye Contact:	Causes irritation, redness and pain.
Skin Contact:	Causes slight irritation.
Ingestion:	May be harmful if swallowed (vomiting and diarrhea).

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage:	Eliminate all ignition sources. Evacuate unprotected personnel and never exceed any occupational exposure limit. Shovel or sweep spilt material into plastic bags or vented containers for disposal. Do not return spilled or contaminated material to the inventory.
Extinguishing Media:	Water
First Aid	
Eye Contact:	Flush eyes with running water for at least 15 minutes with eyelids held open. Seek a specialist.
Inhalation:	Remove affected person to fresh air. Seek medical attention if the effects persist.
Ingestion:	If the individual is conscious and not convulsing, give two-four cups of water to dilute the chemical and seek medical attention immediately. **Do Not** induce vomiting.

Section 8 – Measures in Case of Accidents and Fire (cont)

Skin Contact:	Wash affected areas with soap and a mild detergent and large amounts of water.

Section 9 – Accidental Release Measures

Precautions:	
Cleanup Methods:	Shovel or sweep spilt material into plastic bags or vented containers for disposal. Do not return spilled or contaminated material to the inventory.

Section 10 – Information on Toxicology

Toxicity Data	
LD50 Oral (rat):	2,400 mg/kg
LD50 Dermal (rabbit):	Min 2,000 mg/kg
LD50 Inhalation (rat):	Min 4,580 mg/kg

Section 11 – Information on Ecology

Ecology Data	
Ecotoxicological Information:	NA

Section 12 – Disposal Considerations

Waste Disposal Method	
Waste Treatment:	Dispose of in an approved waste facility operated by an authorized contactor in compliance with local regulations.
Package (Pail) Treatment:	The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

Section 13 – Shipping/Transport Information

D.O.T. Shipping Name:	Oxidizing Solid, N.O.S. [A mixture of sodium percarbonate [$2Na_2CO_3 \cdot 3H2O_2$], sodium carbonate [Na_2CO_3], sodium silicate and silica gel.]
UN Number:	1479
Hazard Class:	5.1
Labels:	5.1 (Oxidizer)
Packaging Group:	III

Section 14 – Other Information

HMIS® Rating	Health – 1 (slight)	Reactivity – 1 (slight)
	Flammability – 0 (none)	Lab PPE – goggles, gloves, and lab coat

HMIS® is a registered trademark of the National Painting and Coating Association.

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Regen OX – Part B (Activator Complex)

Material Safety Data Sheet (MSDS)

Last Revised: March 8, 2005

Section 1 – Supplier Information and Material Identification

Supplier:

REGENESIS

1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Description:	A mixture of sodium silicate solution, silica gel and ferrous sulfate
Chemical Family:	Inorganic Chemicals
Trade Name:	Regen Ox – Part B (Activator Complex)
Product Use:	Used for environmental remediation of contaminated soils and groundwater

Section 2 – Chemical Information/Other Designations

CAS No.	Chemical
1344-09-8	Silicic acid, sodium salt; sodium silicate
63231-67-4	Silica Gel
7720-78-7	Ferrous Sulfate
7732-18-5	Water

Section 3 – Physical Data

Form:	Liquid
Color:	Blue/Green
Odor:	Odorless
Melting Point:	NA
Boiling Point:	NA
Flammability/Flash Point:	NA
Vapor Pressure:	NA

Section 3 – Physical Data (cont)

Specific Gravity	1.39 g/cm^3
Solubility:	Miscible
Viscosity:	NA
pH (3% solution):	11
Hazardous Decomposition Products:	Oxides of carbon and silicon may be formed when heated to decomposition.

Section 4 – Reactivity Data

Stability:	Stable under normal conditions
Conditions to Avoid:	none
Incompatibility:	Avoid hydrogen fluoride, fluorine, oxygen difluoride, chlorine trifluoride, strong acids, strong bases, oxidizers, aluminum, fiberglass, copper, brass, zinc, and galvanized containers.

Section 5 – Regulations

TSCA Inventory Listed:	Yes

CERCLA Hazardous Substance (40 CFR Part 302)

Listed Substance:	*No*
Unlisted Substance:	*Yes*

SARA, Title III, Sections 302/303 (40 CFR Part 355) – Emergency Planning and Notification

Extremely Hazardous Substance:	No

SARA, Title III, Sections 311/312 (40 CFR Part 370) – Hazardous Chemical Reporting: Community Right-To-Know

Hazard Category:	Acute

SARA, Title III, Sections 313 (40 CFR Part 372) – Toxic Chemical Release Reporting: Community Right-To-Know

Extremely Hazardous Substance:	No

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage:	Keep in a tightly closed container (steel or plastic) and store in a cool, well ventilated area away from all incompatible materials (acids, reactive metals, and ammonium salts). Store in a dry location away from heat and in temperatures less than 24 $^{?}$C.
Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Use with adequate ventilation. Do not use product if it is brownish-yellow in color.

Personal Protective Equipment (PPE)

Engineering Controls:	General room ventilation is required if used indoors. Local exhaust ventilation, process enclosures or other engineering controls may be needed to maintain airborne levels below recommended exposure limits. Safety shower and eyewash station should be within direct access.
Respiratory Protection:	Use NIOSH-approved dust and mist respirator where spray mist exists. Respirators should be used in accordance with 29 CFR 1910.134.
Hand Protection:	Wear chemical resistant gloves.
Eye Protection:	Wear chemical safety goggles. A full face shield may be worn in lieu of safety goggles.
Skin Protection:	Try to avoid skin contact with this product. Gloves and protective clothing should be worn during use.
Other:	
Protection Against Fire & Explosion:	Product is non-explosive and non-combustible.

Section 7 – Hazards Identification

Potential Health Effects	
Inhalation:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath, and irritations to mucous membranes, nose and throat.
Eye Contact:	Causes irritation, redness and pain.
Skin Contact:	Causes irritation. Symptoms include redness, itching and pain.
Ingestion:	May cause irritation to mouth, esophagus, and stomach.

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage (small):	Mop up and neutralize liquid, then discharge to sewer in accordance with local, state and federal regulations.
After Spillage/Leakage (large):	Keep unnecessary personnel away; isolate hazard area and do not allow entrance into the affected area. Do not touch or walk through spilled material. Stop leak if possible without risking injury. Prevent runoff from entering into storm sewers and ditches that lead to natural waterways. Isolate the material if at all possible. Sand or earth may be used to contain the spill. If containment is not possible, neutralize the contaminated area and flush with large quantities of water.
Extinguishing Media:	Material is compatible with all extinguishing media.
Further Information:	
First Aid	
Eye Contact:	Flush eyes with running water for at least 15 minutes with eyelids held open. Seek a specialist.
Inhalation:	Remove affected person to fresh air. Give artificial respiration if individual is not breathing. If breathing is difficult, give oxygen. Seek medical attention if the effects persist.
Ingestion:	If the individual is conscious and not convulsing, give two-four cups of water to dilute the chemical and seek medical attention immediately. **DO NOT** induce vomiting.
Skin Contact:	Wash affected areas with soap and a mild detergent and large amounts of water. Remove contaminated clothing and shoes.

Section 9 – Accidental Release Measures

Precautions:

PPE:	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots (see Section 6).
Environmental Hazards:	Sinks and mixes with water. High pH of this material may be harmful to aquatic life. Only water will evaporate from a spill of this material.
Cleanup Methods:	Pick-up and place in an appropriate container for reclamation or disposal. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

Section 10 – Information on Toxicology

Toxicity Data

Sodium Silicate:	When tested for primary eye irritation potential according to OECD Guidelines, Section 405, a similar sodium silicate solution produced corneal, iridal and conjunctival irritation. Some eye irritation was still present 14 days after treatment, although the average primary irritation score has declined from 29.7 after 1 day to 4.0 after 14 days. When tested for primary skin irritation potential, a similar sodium silicate solution produced irritation with a primary irritation index of 3 to abraded skin and 0 to intact skin. Human experience confirms that irritation occurs when sodium silicates get on clothes at the collar, cuffs, or other areas where abrasion may exist. The acute oral toxicity of this product has not been tested.
Ferrous Sulfate:	LD50 Oral (rat): 319 mg/kg not a suspected carcinogen.

Section 11 – Information on Ecology

Ecology Data

Ecotoxicological Information:	Based on 100% solid sodium silicate, a 96 hour median tolerance for fish of 2,320 mg/l; a 96 hour median tolerance for water fleas of 247 mg/L; a 96 hour median tolerance for snail eggs of 632 mg/L; and a 96 hour median tolerance for Amphipoda of 160 mg/L.

Section 12 – Disposal Considerations

Waste Disposal Method

Waste Treatment:	Neutralize and landfill solids in an approved waste facility operated by an authorized contactor in compliance with local regulations.
Package (Pail) Treatment:	The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

Section 13 – Shipping/Transport Information

D.O.T.	This product is not regulated as a hazardous material so there are no restrictions.

Section 14 – Other Information

HMIS® Rating	Health – 2 (moderate)	Reactivity – 0 (none)
	Flammability – 0 (none)	Lab PPE – goggles, gloves, and lab coat
	Contact – 1 (slight)	

HMIS® is a registered trademark of the National Painting and Coating Association.

Section 15 – Further Information

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