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April 16, 2009

Mr. Paresh Khatri **Alameda County Environmental Health Services** 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Firrst Quarter 2009 Groundwater Monitoring Report Former AutoPro 5200 Telegraph Avenue Oakland, California

> Case Number RO0000323 Geotracker Global ID T0600100131 PSI Project No. 575-8G012

Dear Mr. Kharti:

Tri Star Partnership is pleased to submit the subject Quarterly Groundwater Monitoring Report for the subject site. Please refer to the attached report for details.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached Groundwater Monitoring Report are true and correct to the best of my knowledge, without independently investigating or verifying the information contained therein.

If you have any questions regarding this report or any aspect of the project, please call Mr. Frank Poss with PSI at 510-434-9200.

Sincerely,

George Tuma General Partner Tri Star Partnership

cc: Mr. Frank Poss, PSI



FIRST QUARTER 2009 GROUNDWATER MONITORING REPORT

> TEST ONLY SMOG STATION (FORMER AUTOPRO) 5200 TELEGRAPH AVENUE OAKLAND, CALIFORNIA

#### FIRST QUARTER 2009 GROUNDWATER MONITORING REPORT

## TEST ONLY SMOG STATION (FORMER AUTOPRO) 5200 TELEGRAPH AVENUE OAKLAND, CALIFORNIA

prepared for

# Tri Star Partnership

30 Arjang Court Alamo, California 94507

prepared by

# Professional Service Industries, Inc.

4703 Tidewater Avenue, Suite B Oakland, California 94601 (510) 434-9200

> April 15, 2009 575-8G012

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## STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

The information provided in this Groundwater Monitoring Report prepared by PSI, Project Number 575-8G012, is intended exclusively for Tri Star Partnership for the evaluation of groundwater contamination as it pertains to the subject site in Oakland, California at the time the activities were conducted. The professional services provided have been performed in accordance with practices generally accepted by other environmental professionals, geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface soil and groundwater sampling, there is no guarantee that the work conducted has identified any and all sources or locations of petroleum hydrocarbons or hazardous substances or chemicals in the soil or groundwater.

This report is issued with the understanding that Tri Star Partnership is responsible for ensuring that the information contained in this report is brought to the attention of the appropriate regulatory agency. This report has been reviewed by a geologist who is registered in the State of California and whose signature and license number appear below.

**Professional Service Industries, Inc.** 

Frank R. Poss Principal Consultant

Brand Burfield, PG 6986 Project Geologist



## 1.0 INTRODUCTION

The Subject Property is an approximately 9,100 square foot, triangular-shaped parcel located at 5200 Telegraph Avenue, on the northeastern corner of Telegraph Avenue and Claremont Avenue in Oakland, Alameda County, California (see Figure 1 – Site Location Map). The site is currently asphalt-paved and is a smog testing facility ("Test Only SMOG Station") but was formerly an auto repair facility ("Autopro Inc.") and a Shell gasoline service station. The subject site includes five former Underground Storage Tanks (USTs) located in three separate excavation areas. The three excavations include an approximately 140 square-foot former waste oil UST excavation on the northeastern portion of the property, a 750 square-foot excavation containing three former gasoline UST (and associated piping) excavation on the southern portion of the property. Locations of the existing site improvements and the former UST excavations are depicted on Figure 2.

This report summarizes the First Quarter 2009 groundwater monitoring activities conducted in March 2009 at the former UST site. The purpose of this project is to monitor petroleum hydrocarbon concentrations in groundwater to comply with the quarterly sampling requirements of the Alameda County Environmental Health Department (ACEH).

#### 2.0 SITE BACKGROUND

Previous reports and investigations have been completed at the former UST site at 5200 Telegraph Avenue, Oakland, California, while the site was operated as Autopro, an automotive repair facility. The site is currently under the regulatory oversight of the ACEH and is identified by County Fuel Leak Case Number RO0000323 and State Geotracker Global ID T0600100131.

#### 2.1 HISTORICAL SITE USE

The property is currently developed with an active automotive smog testing station. According to regulatory documents reviewed, the Subject Property has been developed as an automotive service station since at least 1973. Information obtained at the Alameda County Department of Environmental Health indicates that the Subject Property was developed as a Shell gasoline service station until 1978 and has operated as an automotive service or smog testing station until the present.

The following table summarizes the historic use of the Subject Property.

Summary							
Year(s)	Interpreted Property Use						
1973, 1978	According to Street Directories the subject property is listed as Jordan Shell Service Station.						
1984, 1989, 1990, 1994	According to Street Directories the subject property is listed as Auto Pro Inc 2. In December 1990, five underground storage tanks (USTs) were removed from the site.						
1999, 2003	According to Street Directories the subject property is listed as Auto Pro Inc.						
2008	The subject property is Test Only SMOG Station.						

## 2.2 PREVIOUS ENVIRONMENTAL SITE ACTIVITIES

This section summarizes the findings and conclusions of select previous environmental investigations and other pertinent documents (see references; Section 5) made available to PSI.

# 2.2.1 Underground Storage Tank Removal - 1990

Five USTs were removed from three different excavations at the subject site in December 1990 by Pacific Excavators (Pacific, 1991). Soil and groundwater samples collected from the UST fuel excavations contained levels of total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), benzene, toluene, ethylbenzene, total xylenes (BTEX), and total lead. In addition soil samples collected from the waste oil tank excavation contained concentrations of oil and grease (O&G). In addition, in 1991 soil was sampled and a small amount of contaminated soil was excavated and removed from the site (ESE, 1994).

# 2.2.2 Limited Soil and Groundwater Investigation - 1993

In April 1993, Environmental Science & Engineering Inc. (ESE) conducted a limited soil and groundwater investigation at the site. Two soil borings were drilled in the area of two former UST excavations through the backfill into native material, with soil and groundwater samples collected from the borings. Results of the investigation indicated concentrations of total semi-volatile petroleum hydrocarbons (TSVPH); these hydrocarbons were reported not to consist of diesel or gasoline (ESE, 1993).

## 2.2.3 Preliminary Site Assessment and Groundwater Monitoring - 1994

ESE conducted a preliminary site assessment (PSA) of the property in April 1994. The investigation consisted of drilling four soil borings, installation of four monitoring wells (MW-1 through MW-4), and collection of soil and groundwater samples. According to the investigation, soil beneath the site consisted of silty clay to between approximately 10 and 13 feet below ground surface (bgs) and groundwater was found to be approximately 11 to

13 feet bgs. Soil and groundwater samples collected during the investigation were found to contain petroleum hydrocarbons (ESE, 1994).

According to the Second Quarter 1994 Groundwater Monitoring Report, groundwater flow direction at the site is bimodal and flows both to the southwest and east, dependant upon the location at the site. According to ESE this may have been a result of the high permeability of the backfill material in the former UST excavations. The data presented in the Second Quarter 1994 monitoring report indicated that petroleum hydrocarbons are migrating off-site to the southwest and concluded that the existing monitoring well network is not sufficient to determine the extent off-site migration (ESE, 1994).

## 2.2.4 Site Assessment and Groundwater Monitoring - 1996

ESE conducted an additional soil and water investigation (in addition to quarterly groundwater sampling) to determine the on and off-site extent of the soil and groundwater contamination. The 1996 study included seven geoprobe soil borings which were drilled and sampled; a total of 14 soil and seven groundwater samples were collected during the investigation. A concentration of 1.5 mg/kg TPH-G was detected in the sample collected from boring AP-2 at 10 feet. The remaining soil samples were non-detect for all constituents of concern. TPH-D was detected at concentrations ranging from 190 and 74,000  $\mu$ g/l in groundwater samples from AP-1, AP-2, AP-3, and AP-6. TPH-G was detected at concentrations ranging between 1,400 and 14,000  $\mu$ g/l in groundwater sample from AP-6. In addition BTEX constituents were detected in groundwater samples from AP-1, AP-2, and AP-3. MTBE was detected at concentrations of 60  $\mu$ g/l and 100  $\mu$ g/l in groundwater samples from AP-3 (ESE, 1996).

Second Quarter 1996 groundwater monitoring activities at the site included sampling of monitoring wells MW-1 through MW-4. TPH-G and TPH-D were detected in MW-1, MW-3, and MW-4. BTEX constituents and MTBE were detected in MW-3 and MW-4 (ESE, 1996).

## 2.2.5 Remediation and Site Closure Report - 1999

In 1998, with approval from the ACEH, it was determined that oxygen release compounds (ORCs) would be introduced into MW-3 and MW-4 to enhance the biodegradation of the contaminant plume at the site. ORCs were placed in MW-3 and MW-4 on March 23, 1998 by QST Environmental (QST). This resulted in a slight increase of BTEX and TPH immediately after the installation of the ORCs. According to QST, the increase in hydrocarbons may have been a result of the increase in the groundwater table elevation; the increased elevation may have caused a mobilization of additional petroleum hydrocarbon constituents from the capillary fringe thus increasing concentrations. Constituents have declined or stabilized since the removal of the ORCs, and as such, QST determined that constituent reduction and degradation was enhanced by the ORC (QST, 1999).

QST conducted a risk assessment as part of their site closure report. The evaluation focused on MW-1 through MW-4, the closest wells to the source. Concentrations of constituents in MW-5 (a nearby off-site Chevron well) indicate that the plume has stabilized in the downgradient (southwest) direction. The risk assessment was tied to the identification of the constituents of concern, potential pathways in environmental media, and potential receptors of exposure. According to the report the objectives of the site conceptual model have been realized through the identification of soil and groundwater as the environmental media for remedial action via soil vapor extraction and water entrainment. Receptors of potential exposure were based on residential land use and groundwater as a drinking water resource (QST, 1999).

Based on the 1996 ESE site investigation report, off-site soil between the Chevron Station and the subject property did not appear to be impacted by hydrocarbon contamination. Groundwater samples collected at the time of the 1996 investigation indicated concentrations of TPH-G, TPH-D, BTEX, and MTBE. Based on a 1996 soil vapor study, the Autopro plume and the Chevron plume are intermingled and the downgradient concentrations could not be accurately ascertained.

Based on exposure and toxicity assessments as part of the risk assessment, and since the site is surfaced with asphalt and concrete, repeat exposure to the constituents of concern is unlikely. The Environmental Protection Agency (EPA) Preliminary Remediation Goal (PRG) for industrial properties for benzene was exceeded in one soil sample collected in 1996. According to QST, the absence of benzene in groundwater at the site eliminates the possibility of vertical migration upward into soil vapor (QST, 1999).

#### 2.2.6 Quarterly Monitoring and Utility Backfill Sampling – 2004

According to Second Quarter 2004 sampling data TPH-G was detected at concentrations of 530, 33,000, and 1,700  $\mu$ g/l in MW-1, MW-3, and MW-4 respectively. TPH-D was detected at concentrations between 56 and 1,200  $\mu$ g/l in MW-1 through MW-4. Ethylbenzene was detected at concentrations of 0.67  $\mu$ g/l in MW-4 and total xylenes were detected at concentrations of 5.6 and 1.22  $\mu$ g/l in MW-3 and MW-4. Total petroleum hydrocarbons as motor oil (TPH-MO), benzene, toluene and fuel oxygenates were not detected during the sampling event. Monitoring well MW-5, was damaged at the time of sampling, thus was not sampled (MACTEC, 2004).

According to Third Quarter 2004 sampling data TPH-G was detected at concentrations of 260, 13,000, and 1,800  $\mu$ g/l in MW-1, MW-3, and MW-4 respectively. TPH-D was detected at concentrations between 74 and 2,500  $\mu$ g/l in MW-1 through MW-4. TPH-MO, BTEX, and fuel oxygenates were not detected during the Third Quarter Sampling event (MACTEC, 2004).

In August 2004, two borings were advanced to approximately 16 feet bgs adjacent to the sanitary sewer line and storm drain line to investigate if the utility corridor was a conduit for contamination migration. This investigation was performed at the request of the ACEH in a letter dated December 24, 2002. The intent of the investigation was to obtain grab groundwater samples from each of the utility trench backfills. However, the boring adjacent to the sanitary sewer line was dry. Therefore, samples were obtained only from the storm drain backfill. The samples collected from the storm drain backfill were tested for TPH-G, TPH-D, benzene, toluene, ethylbenzene and xylenes were detected at concentrations of 57,000, 29,000, 9.5, 36, 11, and 29  $\mu$ g/l respectively. Concentrations of contaminants of concern in the areas explored suggest that the release from the site has migrated to the utility trenches, which have acted as a preferential pathway for the contaminants (MACTEC, 2004).

According to the Second and Third Quarter 2004 Monitoring Report (MACTEC, 2004) the slotted casing in each of the wells (MW-1 through MW-4) is below the groundwater level. Since the interval of slotted casing in a well should span the surface of the groundwater aquifer being monitored, the slotted casing in these wells is considered to have been improperly placed at construction. The report indicates that, while these improperly placed slotted intervals will likely have little impact in the monitoring of groundwater levels and contaminant trends, they may adversely affect the ability to determine the presence of free floating product in groundwater at the site.

According to Fourth Quarter 2004 sampling data TPH-G was detected at concentrations of 710, 5,100, and 2,300  $\mu$ g/l in monitoring wells MW-1, MW-3, and MW-4 respectively. TPH-D was detected at concentrations between 53 and 3,300  $\mu$ g/l in all wells except Chevron well MW-2. TPH-MO was detected at concentrations of 450 and 1,400  $\mu$ g/l in MW-1 and MW-4. Benzene concentrations in MW-3 exceeded the California State Drinking Water Standard Maximum Contaminant Level (MCL) of 1.0  $\mu$ g/l; the remaining BTEX concentrations did not exceed MCLs for this sampling event. Groundwater flow at the time of sampling was to the northeast which is inconsistent with historical flow to the south/southwest; the reason for the change was unknown and was thought to be a result of heavy rainfall (MACTEC, 2005).

## 2.2.7 Site Recommendations From the ACEH - 2008

According to a letter from the Alameda County Environmental Health Services Department, dated March 28, 2008, analytical data from the Fourth Quarter 2004 Groundwater Monitoring Report was determined to be insufficient since all monitoring wells at the site have their slotted casing below groundwater. Depth to groundwater at the site ranges between 8 and 13 feet bgs; however MW-1 is screened from 15-30 feet and MW-2, MW-3, and MW-4 are screened between 15-25 feet. As a result, concentrations of contaminants detected in the groundwater samples may not be representative of actual site conditions. In addition, grab groundwater samples collected at a nearby cross-gradient site in 2007 indicated concentrations of TPH-G in all three samples. The ACEH stated that further evaluation of preferential pathways and additional off-site plume delineation is warranted at the site and that hydrocarbon concentrations in downgradient well MW-3 warranted further characterization of the onsite plume. Since groundwater monitoring at the site has not been conducted since

Fourth Quarter 2004, the ACEH recommended that quarterly monitoring be initiated and the wells be re-developed at the site. In addition it was recommended that a new site conceptual model be developed for the subject property and that all analytical data from 2001 onward be submitted via the SWRCB Geotracker website, with all reports from July 1, 2005 onward be submitted to the website as well (ACEH, 2008).

#### 2.2.8 Monitoring Well Redevelopment

On December 16, 2008, all four monitoring wells (MW-1 through MW-4) were redeveloped via the surge-block method to remove silt or clay from the surrounding formation that were caught in the filter pack, and to improve groundwater flow into the monitoring well. After the surge, the wells were purged to remove suspended sediment from the well and to encourage new water to flow into the well from the surrounding soil formation. This series of procedures was repeated three times to each of the monitoring wells with the exception of MW-1.

In monitoring well MW-1, the block was only able to be lowered approximately 14 feet into the well before it became lodged. Several attempts were made to get past the blockage with no success. Fortunately, the well recharged easily during purging, suggesting that the filter pack and screen are in good working order.

#### 2.2.9 Monitoring Well Evaluation

In a letter from the Alameda County Environmental Health Services (ACEH) dated March 28, 2008, they expressed concern that the wells were constructed incorrectly such that groundwater levels were above the slotted casing interval of the wells. ACEH is concerned that the "drowned wells" are affecting the detected contaminant concentrations in the wells. On December 22, 2008, the groundwater level was at approximately 8 feet below ground surface (bgs). The references reviewed indicate that the wells are screened from 15-25 feet bgs, with the exception of MW-1 which is screened from 15-30 feet bgs. Based on this data, the top of the screens remain below groundwater levels.

During groundwater sampling, the bottom of each well was sounded to determine the total depth. It was determined that the sounded depths below the top of casing are 26.07, 24.69, 14.54, and 15.69 feet for MW-1 through MW-4 respectively. With the exception of MW-2, these measured depths do not agree with the installation data for the wells; the depths of MW-1, MW-3, and MW-4 all measure to be about 5 to 10 feet less than their stated depth at installation.

There are several possible causes for the discrepancy between the installed and sounded depths of these wells;

- 1. Incorrect installation data.
- 2. Blockage (with a bailer for example).
- 3. Filling of the well casing (by siltation or man-made fill)

Sometime between the ESE 1996 report and the MACTEC 2004 monitoring report, wells MW-3 and MW-4 have "lost" 10 feet of depth. Since the sounded depths of MW-3 and MW-4 would put the current bottom of the well at or above the installed slotted casing, and since both of these wells had no problems producing groundwater, the most likely causes of the discrepancy are either incorrect installation data of a partial blockage of the wells.

# 3.0 GROUNDWATER MONITORING ACTIVITIES

#### 3.1 GROUNDWATER ELEVATION AND HYDRAULIC GRADIENT

Prior to sampling, the depth to groundwater in each monitoring well was measured in accordance with the field procedures outlined in Section 3.2 using an electric water level indicator. Water levels are read from the top of the monitoring well casing (TOC) to an accuracy of 0.01 foot. This is performed in order to calculate the groundwater elevations and to determine the groundwater gradient. Before and after each use, the water level indicator was decontaminated to prevent cross-contamination of the wells.

Depth to groundwater, measured on March 4, 2009, and calculated groundwater elevations are presented in Table 1. Groundwater surface contours representing March 4, 2009, water levels beneath the site are shown on Figure 2. Based on the water level measurements obtained, the groundwater flow direction at the subject site is generally toward the south with a hydraulic gradient of approximately 0.01. The groundwater level from MW-4 was not used for this gradient and direction calculation because the level conflicted with the other three monitoring wells. Historically the hydraulic gradient has been determined to be to the southwest with the exception of a few instances of bimodal flow (ESE, 1994 and MACTEC, 2005). The unexpected direction of the gradient may be due to an incorrect top of casing survey elevation on some of the wells.

#### 3.2 GROUNDWATER SAMPLING

On March 4, 2009, groundwater samples were collected from monitoring wells MW-1 through MW-4 at the project site. The following procedures for well monitoring, well purging and water sampling were implemented while sampling the wells:

- 1. All non-dedicated equipment was washed prior to entering the well with an Alconox solution, followed by a deionized water rinse.
- 2. Prior to purging the wells, depth to water was measured using a groundwater interface probe to an accuracy of 0.01 foot. The measurements were made to the top of the well casing on the north side.
- 3. The monitoring wells were purged of a minimum of three well volumes of water until pH, conductivity, and temperature stabilized. The wells were purged with a new, single-use dedicated bailer.

- 4. Water samples were collected with a single-use disposable bailer after the well had been purged. The water collected was immediately decanted into laboratory-supplied vials and bottles. The containers were filled, capped, labeled, and placed in a chilled cooler prior to delivery at the laboratory for analysis.
- 5. Chain of custody procedures, including chain of custody forms, were used to document water sample handling and transport from collection to delivery at the laboratory for analyses.
- 6. Purged water was contained in a DOT approved 55-gallon drum and left on site for proper disposal. The drum was labeled with the contents, date, well number, client name, and project number.

The purge logs are presented in Appendix A.

## 3.3 LABORATORY ANALYSIS, RESULTS, AND DISCUSSION

Three groundwater samples were submitted for analysis to SunStar Laboratories, Inc of Lake Forest, California, a State of California certified environmental analytical laboratory. The samples were analyzed for the following:

- Total Petroleum Hydrocarbons as Gasoline (TPH-G) using EPA Method 8015M
- Total Petroleum Hydrocarbons as Diesel (TPH-D) using EPA Method 8015M
- Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) using EPA Method 8015M
- Volatile Organic Compounds (VOCs) and fuel oxygenates using EPA Method 8260B

The following are the results of the groundwater analysis:

- TPH-G was detected above the laboratory reporting limit of 50 micrograms per liter (µg/L) in the groundwater samples from MW-1 (360 µg/L), MW-3 (1,300 µg/L), and MW-4 (3,400 µg/L).
- TPH-D was detected above the laboratory reporting limit of 50 μg/L in the groundwater samples from MW-1 (64 μg/L), MW-3 (410 μg/L), and MW-4 (1,000 μg/L).
- TPH-MO was not detected at or above the laboratory reporting limit in any of the groundwater samples collected.

- VOCs associated with hydrocarbon contamination were detected above their respective laboratory reporting limit in the groundwater samples collected from all four wells;
  - o Benzene at 2.2 μg/L in MW-4
  - $\circ~$  Ethylbenzene at 0.63 µg/L in MW-1, 0.76 µg/L in MW-2, and 1.1 µg/L in MW-3, and 3.9 µg/L in MW-4
  - $\circ$  Naphthalene at 1.3 µg/L in MW-1, 1.4 µg/L in MW-2, and 1.7 µg/L in MW-3, and 2.5 µg/L in MW-4
  - o Toluene at 3.1 μg/L in MW-4
  - $\circ~$  Total Xylenes at 1.1  $\mu g/L$  in MW-1, 1.7  $\mu g/L$  in MW-2, and 1.2  $\mu g/L$  in MW-3, and 8.68  $\mu g/L$  in MW-4

A summary of the laboratory results for groundwater samples is presented in Table 2. Copies of the laboratory report and chain of custody records are presented in Appendix B.

The groundwater analytical results were compared to their respective San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Residential Land Use where and groundwater is a drinking water resource. Groundwater samples MW-1, MW-3, and MW-4 had the following constituents greater then their respective ESL;

- TPH-G in MW-1 at 360 μg/L, MW-3 at 1,300 μg/L, and MW-4 at 3,400 μg/L (ESL of 100 μg/L)
- TPH-D in MW-1 at 150 μg/L, MW-3 at 410 μg/L, and MW-4 at 1,000 μg/L (ESL of 100 μg/L)
- Benzene in MW-4 at 2.2  $\mu$ g/L (ESL of 1  $\mu$ g/L)

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

PSI conducted groundwater monitoring activities on March 4, 2009. The results of the monitoring event are summarized below.

- Based on our field measurements, groundwater at the site flows generally toward the south under a hydraulic gradient of 0.01.
- TPH-G and TPH-D were only detected in the groundwater samples from monitoring wells MW-1, MW-3, and MW-4.
- VOCs were detected in all the groundwater samples from all four monitoring wells.
- All of the groundwater analytical results were below their respective RWQCB ESLs with the exception of the groundwater samples from MW-1, MW-3, and MW-4. The groundwater samples from MW-1, MW-3, and MW-4 had TPH-G and TPH-D above their respective ESL, and MW-4 had benzene above its ESL.

Based on the soil and groundwater analytical results, it appears that TPH-G, TPH-D and VOC impacted groundwater is present in the area of the former UST excavations. The groundwater flow direction has primarily been to the southwest in the previous quarters, with a few exceptions in which the flow is reversed to the northwest in a bimodal fashion.

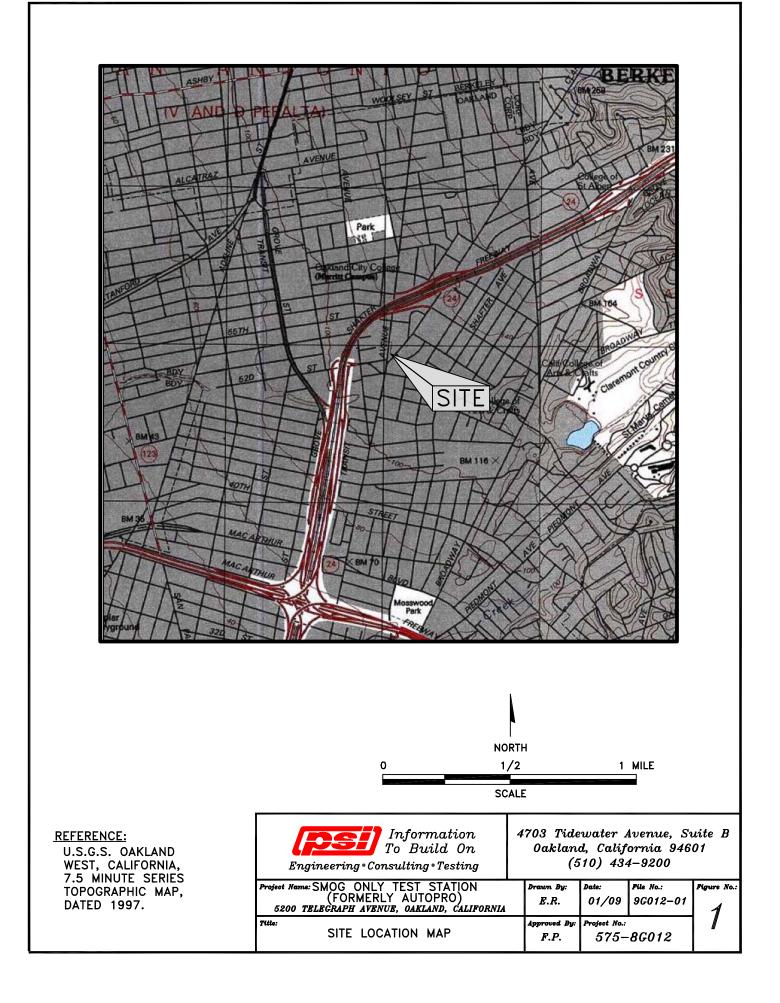
PSI recommends the monitoring wells be re-evaluated during the Second Quarter 2009 Groundwater Monitoring event for groundwater flow confirmation and well depth. Furthermore, PSI recommends continued quarterly groundwater monitoring at the site until case closure has been granted.

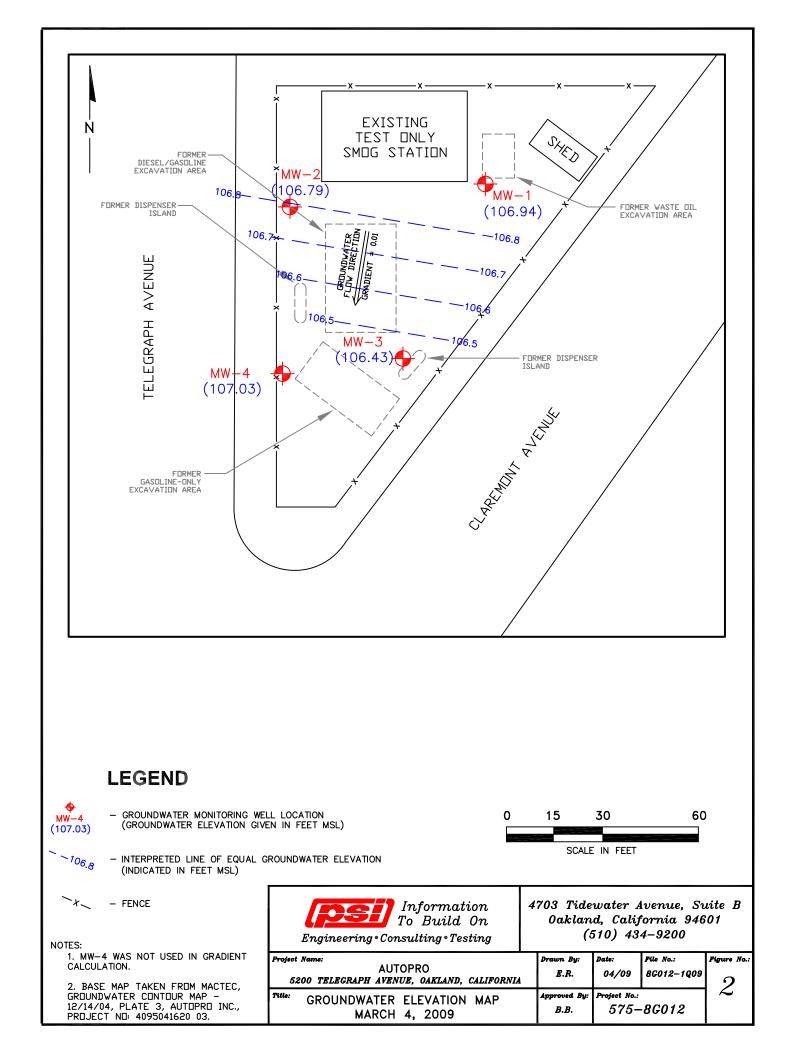
In regards to the ACEH letter dated March 28, 2008, PSI will submit a workplan to characterize the contaminant source area, study the preferential pathways of the contaminants, address the drowned wells, and the need for re-surveying the wells.

#### 5.0 REFERENCES

- 1. Pacific Excavators, January 24, 1991, "Autopro soils report, 5200 Telegraph Avenue, Oakland, California."
- 2. Environmental Science & Engineering, Inc, April 19, 1993, "Auto Pro 5200 Telegraph Avenue, Oakland, California."
- 3. Environmental Science & Engineering, Inc, August 16, 1994, "Second Quarter Groundwater Monitoring Report, Remedial Investigation, 5200 Telegraph Avenue, Oakland, California."
- 4. Environmental Science & Engineering, Inc, September 5, 1996, "Additional Soil and Groundwater Investigation and Second Quarter 1996 Groundwater Monitoring Report, 5200 Telegraph Avenue, Oakland, California
- US Geological Survey (USGS), 1997 Oakland West Quadrangle, California, 7.5 Minute Series (topographic), United States Department of the Interior, Scale: 1:24,000.
- 6. QST, Inc, July 8, 1999, "Site Closure Report Auto Pro, 5200 Telegraph Avenue, Oakland, California."
- 7. MACTEC, November 30, 2004, "Quarterly Monitoring Second and Third Quarters and Backfill Sampling Summary, Auto Pro Site 5200 Telegraph Avenue, Oakland, California"
- 8. MACTEC, February 10, 2005, "Quarterly Monitoring Fourth Quarter, Auto Pro Site 5200 Telegraph Avenue, Oakland, California"
- Alameda County Health Care Services Agency, Environmental Health Services Department (ACEH), March 28, 2008, "Fuel Leak Case No. RO0000323 and Geotracker ID T0600100131, Auto Pro 5200 Telegraph Avenue, Oakland, California.

**FIGURES** 





TABLES

# TABLE 1

# SUMMARY OF GROUNDWATER ELEVATIONS Test Only SMOG Station (Former Autopro) 5200 Telegraph Avenue, Oakland, CA

Well Number	TOC Elevation (ft msl)	Date	Date Depth to Groundwater (ft)	
MW-1	115.44	12/22/08	11.67	103.77
		3/4/09	8.50	106.94
MW-2	114.62	12/22/08	10.96	103.66
		3/4/09	7.83	106.79
MW-3	113.90	12/22/08	10.30	103.60
		3/4/09	7.47	106.43
MW-4	114.25	12/22/08	10.36	103.89
		3/4/09	7.22	107.03

Notes:

ft msl = feet with respect to mean sea level

# TABLE 2SUMMARY OF GROUNDWATER ANALYTICAL RESULTSTest Only SMOG Station (Former Autopro)5200 Telegraph Avenue, Oakland, CA

Sample Number	Date	TPH-G	TPH-D	Benzene	n-Butyl- benzene	sec-Butyl- benzene	tert-Butyl- benzene	Isopropyl- benzene	Ethyl- benzene	p- Isopropyl- toluene	Naph- thalene	n-Propyl- benzene	Toluene	1,2,4- Trimethyl- benzene	1,3,5- Trimethyl- benzene	Total Xylenes
MW-1	12/22/08	390	150	<0.5	5.5	3.9	<1.0	3.2	<0.50	<1.0	2.0	7.3	<0.5	<1.0	<1.0	<1.5
	3/4/09	360	64	<0.5	1.8	1.8	<1.0	1.3	0.63	<1.0	1.3	2.8	<0.5	<1.0	<1.0	1.1
MW-2	12/22/08	<50	<50	<0.5	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.5
	3/4/09	<50	<50	<0.5	<1.0	<1.0	<1.0	<1.0	0.76	<1.0	1.4	<1.0	<0.5	1.1	<1.0	1.7
MW-3	12/22/08	3,600	1,400	<0.5	<1.0	<1.0	<1.0	39	<0.50	14	<1.0	60	<0.5	<1.0	23	9.8
	3/4/09	1,300	410	<0.5	8.4	6.2	1.0	11	1.1	3.6	1.7	22	<0.5	<1.0	<1.0	1.2
MW-4	12/22/08	1,200	700	<0.5	18	9.3	<1.0	10	<0.50	9.0	<1.0	21	<0.5	<1.0	<1.0	<1.5
	3/4/09	3,400	1,000	2.2	17	7.4	<1.0	34	3.9	8.3	2.5	67	3.1	<1.0	1.8	8.68

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel

The units for all presented values are  $\mu g/L = Micrograms$  per liter

< = The "less than" symbol indicates not detected above the laboratory reporting limit shown.

All VOCs not listed were below laboratory reporting limit.

# <u>APPENDIX A</u>

GROUNDWATER PURGE LOGS AND WATER LEVEL DATA

		FLU	ID MEAS	JREMEN		ΑΤΑ		
							SHEET: 1 (	OF 1
DATE:	3/4/2009	PROJECT NAME:	Tristar		<u> </u>	PROJECT NO: 57	5-8G012	
	AEASUREMENT INS	TRUMENT:	SOLINST			SERIAL NO:	12080	
PRODUCT DETE	CTION INSTRUMEN	IT:				SERIAL NO:		
EQUIP. DECON:			T/DEION 1 RINSE			FREE FINAL RINSE	TAP WATER F	INAL RINSE
	TER WASH	LIQUINOX WASH		DN 2 RINSE	OTHER SOLVENT	I DIST/DEION	FINAL RINSE	
WELL NUMBER	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION	DEPTH TO PRODUCT BELOW TOC	DEPTH TO WATER BELOW TOC	WELL DEPTH BELOW TOC	PRODUCT THICKNESS	WATER TABLE ELEVATION	ACTUAL TIME
MW-1		115.44		8:50	26.07			11:37
MW-2		114.62		7.83	24.69			11:33
MW-3		113.9		7.47	14.54			11: 42
MW-4		114.25		7.22	15.69			11:40
						ļ		
	Wells Op	ened 6	otueen	10:48-	11:10			-
						ļ		
121 1			· · · · ·				·	
	All wells	had wat		ox, but	well caps	weres	ocure a	
	Kryt Vai	n water	out of	the u	e//	·		
								<u> </u>
								ļ
						ļ		
	5						<u> </u>	

REMEMBER TO CORRECT PRODUCT THICKNESS FOR DENSITY BEFORE CALCULATING WATER TABLE ELEVATION

PREPARED BY: EZEKIEL ROBLES

		V	VELL P	URGIN	IG ANI	) SAM	PLING	DATA	
							WELL N	O: MW-1	
DATE:	3/4/2009	PROJE	CT NAME: TR	RISTAR			PROJEC	CT NO: 575-80	G012
WEATHER		ONS:	Enterr	nitter	it S	hower	· -	53°F	
WELL DIA	METER (IN	۱.)	1	X 2	4	6			
SAMPLE			DWATER	WAST	EWATER		FACE WATE		२
WELL DEI	РТН (ТОС)	2	6.07	FT	. DEPTH 1	O WATER	BEFORE PU	RGING (TOC)	8,50 FT.
LENGTH	OF WATER		7.57	FT	CALCUL	ATED ON	E WELL VO	LUME <sup>1</sup> :	3, 0 GAL.
PURGING	DEVICE:	PC				ATED 2	DISPOSA		
SAMPLIN	G DEVICE:	PC	DLY BAILER			ATED	DISPOSA		NTAMINATED
EQUIP. DI			P WATER W			ISOPROPA		ANALYTE FREE	
	CONOX WA QUINOX WA			ON 1 RINSE	_			DIST/DEION FII	
						PRESERV			
			SERIAL NO	:					
					SI 556 MPS	Serial # N		1	
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP □ ºF ☑ ℃	SPECIFIC CONDUCT.	рН	DEPTH TO GROUND WATER	×	WATER APPEAR CL=CLEAR CO=CLOUDY	(EVIDE)	REMARKS NT ODOR, COLOR, PID)
12:00		107-0	ind C	1 1 7			TU=TURBID	ji la d	DI //la
13:08	INITIAL 4		441,mS	6.57			CL	PYOLOGE BAA	Odor/ Clear 1 Brown
13:15		19,19	431				11		1 Drown 1 11
13:20 17:17	8	19.31	440	6.61			11	11	1 11
13:27		11,21	170	0,-20					
								·	
							1		
							+		
								<u> </u>	
				<u> </u>			1		· · · · · · · · · · · · · · · · · · ·
				<u> </u>					
DEPTH T	O WATER		JRGING (TO	c) 9,7	6 FT.	SAMPLE	FILTERED		O SIZE
NOTES:					SAMPLE 1	гіме: /	3:33	ID#	MW-1
					DUPLICAT		TIME:	ID#:	
					EQUIP. BI	ANK:	TIME:	ID#:	
					PREPARE	D BY:	EZEKIE	EL ROBLES	

A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

	WELL PURGING AND SAMPLING DATA											
							WELL N	O: MW-	2			
DATE:	3/4/2009	PROJE	CT NAME: T	RISTAR			<u> </u>	CT NO: 575-				
WEATHER	R CONDITI	ONS:	Interm,	Hent	She	mer	rs 2	= 530	F			
WELL DIA	METER (IN	N.)	1	X 2	4	6						
SAMPLE	TYPE:		DWATER	WAST	EWATER	🗌 sui		R 🗌 ОТНІ				
WELL DE	PTH (TOC)	2	4.69	FT	. DEPTH 1	O WATE	R BEFORE PU	RGING (TOC)	7.83	FT.		
LENGTH	OF WATER	× //	5,86	FT		ATED O	NE WELL VO	LUME <sup>1</sup> :	2.9	GAL.		
PURGING	DEVICE:	PC	OLY BAILER			ATED	X DISPOSA		ONTAMINATED			
SAMPLIN	G DEVICE:	: PC	DLY BAILER									
EQUIP. D						ISOPROF						
	CONOX WA			ON 1 RINSE			SOLVENT 🕱		R DRY			
	ER PRESE			PRESERVE				<u> </u>		-		
			SERIAL NO	);			M61171 AN					
ACTUAL TIME (MIN)	CUMUL VOLUME PURGED (GAL)	TEMP □ °F I ℃		рН	DEPTH TO GROUND WATER	j.	WATER APPEAR CL=CLEAR CO=CLOUDY	(EVID	REMARKS ENT ODOR, COLOR, PID)			
12:10	INITIAL	18.02	295 25	6.55				No Odor	1Clear			
12:16	4	18.50	300	6.49				11	Brown			
12:22	8	18.48	298	6.46			10	1 1	11			
12:28	12	18.55	297	6.28			- 11	1.	9			
12:3Z	15	18.55	295	6.44			11	11	11			
12:39	18	18,63	296	6.40			11	11	11			
		<u> </u>	-	ļ								
L												
			<u> </u>									
L	O WATER		JRGING (TC	0)7,9	<u>,                                     </u>	L	N 20 .		NO SIZE			
NOTES:					SAMPLE 1		12:44	ID#	MW-2			
								1D#:				
					EQUIP. BL			ID#:				
					PREPARE	UBT:	EZEKIE	EL ROBLES				

1 A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

		V	VELL P	URGIN	G ANI	D SAN	IPLING	DATA	
							WELL N	O: MW-3	}
DATE:	3/4/2009	PROJEC	CT NAME: TI	RISTAR			PROJEC	CT NO: 575-8	G012
WEATHER		ONS:	Partial	ly Cle	udy	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	560	F	
WELL DIA	METER (II	۱.)	1	X 2	4	6			
SAMPLE	TYPE: [		OWATER	U WAST	EWATER		FACE WATE		R
WELL DE	РТН (ТОС)		4.54	FT.	DEPTH 1	TO WATER	BEFORE PU	RGING (TOC)	7,47 FT.
LENGTH	OF WATER	7.	07	FT.	CALCUI	ATED ON	IE WELL VO		, <u>3</u> GAL.
PURGING	DEVICE:	PC	DLY BAILER			ATED [	X DISPOSA		
SAMPLIN	G DEVICE:	PC	OLY BAILER			ATED [	X DISPOSA		
EQUIP. D			P WATER W			ISOPROP			
	CONOX WA QUINOX WA			ON 1 RINSE				DIST/DEION F	
			: X LABI			PRESER			
			SERIAL NO	:			461171 AN		<u> </u>
						Serial # N			D51412/2
ACTUAL TIME	CUMUL. VOLUME	TEMP	SPECIFIC CONDUCT.	рH	DEPTH TO GROUND		WATER APPEAR	(EVIDE	REMARKS NT ODOR, COLOR, PID)
(MIN)	PURGED (GAL)	X°C			WATER		CL=CLEAR CO=CLOUDY TU=TURBID		
14:41	INITIAL	18,79	113~5	6.81	ì		CL	Hydrocarbo,	Dor/ Clear
14:44	2	19.68	117	6.87			17	11	17
14:48	4	19.66	118	6.81			11	11	
14:53	6	19,64	120	6.77			11	((	11
		ļ							<u></u>
				]					·····
					).7	CAMPLE			10 8175
NOTES:	U WATER		JRGING (TO	0.8.0	SAMPLE 1	1			M/1//_ 7
NOTES:					DUPLICAT		<u>/4:57</u> TIME:	<u> </u>	11100-5
					EQUIP. BL			ID#:	
					PREPARE				

1 A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

		-						
			NELL P	UKGIN		J SAIVI		·
DATE:	3/4/2009		CT NAME: TI					CT NO: 575-8G012
			0		~			······································
		/	Partía		loud	<u> </u>		
	METER (II			<u> </u>	4	6		
SAMPLE							ACE WATE	
WELL DE	PTH (TOC)		5.69	FT	. DEPTH T	TO WATER I	BEFORE PU	$\frac{1}{7,22} \text{ FT}$
LENGTH	OF WATEF	2	8.47	FT	CALCUL	ATED ON	E WELL VO	LUME <sup>1</sup> : /,5 GAL
PURGING	DEVICE:	P	OLY BAILER			ATED X	] DISPOSA	
SAMPLIN	G DEVICE:	: P(	OLY BAILER			ATED X	DISPOSA	
EQUIP. D			P WATER W		Ξ	ISOPROPA		ANALYTE FREE FINAL RINSE
				ON 2 RINSE			R FINAL RIN	
_						PRESERV	ED	
WAIERA			SERIAL NO		81 556 MPS	Serial # M	61171 AN	
ACTUAL	CUMUL.	TEMP	SPECIFIC	рН	DEPTH		WATER	REMARKS
TIME (MIN)	VOLUME	∣□°F ⊠°C	CONDUCT		TO GROUND WATER		APPEAR CL=CLEAR	(EVIDENT ODOR, COLOR, PID)
(1411.4)	(GAL)				WATER		CO=CLOUDY	
12'06	INITIAL	18.90	409,45	1.56				Hydrixarben Odor / Clear
10.50		19,40	408	6.61			60	11 Grey
13,37	2		· · · · ·					71 / 11
17.02		19.49	396	6.62			TU	
14.0S	6	1952	398	6.60			1.1	
				ļ				
		<u> </u>						
						<b>}</b>	1	
			<u> </u> URGING (TO					I □ YES ⊠ NO SIZE
NOTES:				- T - 1	SAMPLE 1		4:08	
NUTES:					DUPLICAT		TIME:	<u>ID# MW-9</u> ID#:
<u> </u>					EQUIP. BL		TIME:	ID#:
					PREPARE	D BY:	EZEKIE	EL ROBLES

<sup>1</sup> A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

# <u>APPENDIX B</u>

LABORATORY REPORTS AND CHAIN-OF-CUSTODY RECORDS



PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

07 April 2009

Ezekiel Robles PSI -- Oakland 4703 Tidewater Ave Ste B Oakland, CA 94601 RE: Tristar

Enclosed are the results of analyses for samples received by the laboratory on 03/10/09 10:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kim P. Diton

Kevin Dixon Project Coordinator



PSI Oakland	Project: Tristar	
4703 Tidewater Ave Ste B	Project Number: 575-8G012	Reported:
Oakland CA, 94601	Project Manager: Ezekiel Robles	04/07/09 13:43

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	T900196-01	Water	03/04/09 13:33	03/10/09 10:30
MW-2	T900196-02	Water	03/04/09 12:44	03/10/09 10:30
MW-3	T900196-03	Water	03/04/09 14:57	03/10/09 10:30
MW-4	T900196-04	Water	03/04/09 14:08	03/10/09 10:30

SunStar Laboratories, Inc.

Kim P. Dixon

Kevin Dixon, Project Coordinator



PSI Oakland		Proje	ct: Trista	ır						
4703 Tidewater Ave Ste B	-								Reported:	
Oakland CA, 94601		Project Manager: Ezekiel Robles							3:43	
		N	AW-1							
		T90019		ater)						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note	
7 lind ye	Result				Duten	Trepared	TinutyZeu	Method	11010	
Extractable Petroleum Hydrocarb	ong by <b>8015</b> C	SunStar La	aborato	ries, Inc.						
C6-C12 (GRO)	0.36	0.050	mg/l	1	9031006	03/10/09	03/10/09	EPA 8015C		
C13-C28 (DRO)	0.064	0.050	"	"	"	"	"	"		
C29-C40 (MORO)	ND	0.10	"	"		"				
Surrogate: p-Terphenyl		94.2 %	65-	135	"	"	"	"		
Volatile Organic Compounds by E	PA Method 82	60B								
Bromobenzene	ND	1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B		
Bromochloromethane	ND	1.0	"	"		"	"	"		
Bromodichloromethane	ND	1.0	"	"		"				
Bromoform	ND	1.0	"	"			"	"		
Bromomethane	ND	1.0	"	"			"	"		
n-Butylbenzene	1.8	1.0	"	"			"	"		
sec-Butylbenzene	1.8	1.0	"	"		"	"			
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"		
Carbon tetrachloride	ND	0.50	"	"		"				
Chlorobenzene	ND	1.0	"	"		"	"			
Chloroethane	ND	1.0	"	"		"	"			
Chloroform	ND	1.0	"	"	"	"	"	"		
Chloromethane	ND	1.0	"	"		"	"			
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"		
Dibromochloromethane	ND	1.0	"	"		"	"			
1,2-Dibromo-3-chloropropane	ND	1.0		"		"				
1,2-Dibromoethane (EDB)	ND	1.0		"		"				
Dibromomethane	ND	1.0		"		"				
1,2-Dichlorobenzene	ND	1.0		"		"				
1,3-Dichlorobenzene	ND	1.0		"		"				
1,4-Dichlorobenzene	ND	1.0	"	"		"	"	"		
Dichlorodifluoromethane	ND	0.50		"		"				
1,1-Dichloroethane	ND	1.0		"		"				
1,2-Dichloroethane	ND	0.50		"		"				
1,1-Dichloroethene	ND	1.0	"	"			"	"		

SunStar Laboratories, Inc.

Kim P. Dixon



PSI Oakland		Proje	ct: Trista	r							
4703 Tidewater Ave Ste B											
Oakland CA, 94601	I	Project Manager: Ezekiel Robles							<b>Reported:</b> 04/07/09 13:43		
		Ν	/W-1								
		T90019		ater)							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note		
		SunStar La									
Volatile Organic Compounds by F	EPA Method 8260			ites, inc.							
cis-1,2-Dichloroethene	ND	1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B			
rans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"			
1,2-Dichloropropane	ND	1.0	"	"			"	"			
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"			
2,2-Dichloropropane	ND	1.0	"	"		"	"	"			
1,1-Dichloropropene	ND	1.0	"		"	"	"	"			
cis-1,3-Dichloropropene	ND	0.50	"	"	"		"	"			
rans-1,3-Dichloropropene	ND	0.50	"	"			"				
Hexachlorobutadiene	ND	1.0	"	"			"	"			
Isopropylbenzene	1.3	1.0	"	"			"	"			
p-Isopropyltoluene	ND	1.0	"	"			"	"			
Methylene chloride	ND	1.0	"	"			"	"			
Naphthalene	1.3	1.0	"	"			"				
n-Propylbenzene	2.8	1.0	"	"			"	"			
Styrene	ND	1.0	"	"	"		"	"			
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"		"	"			
1,1,1,2-Tetrachloroethane	ND	1.0	"	"			"	"			
Tetrachloroethene	ND	1.0	"	"			"	"			
1,2,3-Trichlorobenzene	ND	1.0	"	"			"	"			
1,2,4-Trichlorobenzene	ND	1.0	"	"			"	"			
1,1,2-Trichloroethane	ND	1.0	"	"			"				
1,1,1-Trichloroethane	ND	1.0	"	"			"	"			
Frichloroethene	ND	1.0	"				"	"			
Frichlorofluoromethane	ND	1.0	"				"	"			
1,2,3-Trichloropropane	ND	1.0	"				"	"			
1,3,5-Trimethylbenzene	ND	1.0	"				"	"			
1,2,4-Trimethylbenzene	ND	1.0	"				"				
Vinyl chloride	ND	1.0	"				"				
Benzene	ND	0.50	"				"				
Toluene	ND	0.50	"				"				
Ethylbenzene	0.63	0.50	"				"				
m,p-Xylene	1.1	1.0	"								

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland 4703 Tidewater Ave Ste B Oakland CA, 94601		Proje Project Numb roject Manag		G012				<b>Reported</b> 04/07/09 13	
		N T90019	AW-1 6-01 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries, Inc.					
Volatile Organic Compounds by El	PA Method 8260	B							
o-Xylene	ND	0.50	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"		"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %	77.1-110		"	"	"	"	S-GC
Surrogate: Dibromofluoromethane		107 %	66.3-111		"	"	"	"	
Surrogate: Toluene-d8		102 %	84.7	-109	"	"	"	"	

SunStar Laboratories, Inc.

Kim P. Diton

Kevin Dixon, Project Coordinator



PSI Oakland 4703 Tidewater Ave Ste B	5							Reported:	
Oakland CA, 94601		Project Manag	04/07/09 13:43						
		Ν	AW-2						
		T90019	6-02 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
		SunStar La	aborato	ries, Inc.					
Extractable Petroleum Hydrocarbons	by 8015C								
C6-C12 (GRO)	ND	0.050	mg/l	1	9031006	03/10/09	03/10/09	EPA 8015C	
C13-C28 (DRO)	ND	0.050	"	"	"	"	"	"	
C29-C40 (MORO)	ND	0.10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		107 %	65-	135	"	"	"	"	
Volatile Organic Compounds by EPA	Method 82	60B							
Bromobenzene	ND	1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"		"	"	
Chloromethane	ND	1.0	"	"	"		"	"	
2-Chlorotoluene	ND	1.0	"	"	"		"	"	
4-Chlorotoluene	ND	1.0	"	"	"		"	"	
Dibromochloromethane	ND	1.0	"	"	"		"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"			"	"	
Dibromomethane	ND	1.0	"	"		"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"			"	"	
1,3-Dichlorobenzene	ND	1.0	"	"			"	"	
1,4-Dichlorobenzene	ND	1.0	"	"			"	"	
Dichlorodifluoromethane	ND	0.50	"	"			"	"	
1,1-Dichloroethane	ND	1.0	"	"		"	"	"	
1,2-Dichloroethane	ND	0.50	"	"		"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"		

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland		-	ct: Trista						
4703 Tidewater Ave Ste B	F	Project Numb		Reported:					
Oakland CA, 94601	P	roject Manag	er: Ezeki	el Robles				04/07/09 13	:43
		N	AW-2						
		T90019		ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tildiye					Duten	Trepared	7 mary 200	Wiethod	Trote.
		SunStar La	aborato	ries, Inc.					
Volatile Organic Compounds by cis-1,2-Dichloroethene	<u>Y EPA Method 8260</u> ND	<b>B</b> 1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
trans-1,2-Dichloroethene	ND	1.0	" "	"	"	"	"	LIA 0200D	
1,2-Dichloropropane	ND ND	1.0		"			"		
1,3-Dichloropropane	ND ND	1.0		"			"		
2,2-Dichloropropane	ND	1.0		"			"		
1,1-Dichloropropene	ND	1.0					"		
cis-1,3-Dichloropropene	ND	0.50		"				"	
trans-1,3-Dichloropropene	ND	0.50		"					
Hexachlorobutadiene	ND	1.0		"		"			
Isopropylbenzene	ND	1.0		"					
p-Isopropyltoluene	ND	1.0							
Methylene chloride	ND	1.0							
Naphthalene	1.4	1.0							
n-Propylbenzene	ND	1.0		"				"	
Styrene	ND	1.0					"		
1,1,2,2-Tetrachloroethane	ND	1.0		"				"	
1,1,1,2-Tetrachloroethane	ND	1.0							
Tetrachloroethene	ND	1.0		"				"	
1,2,3-Trichlorobenzene	ND	1.0							
1,2,4-Trichlorobenzene	ND	1.0							
1,1,2-Trichloroethane	ND	1.0							
1,1,1-Trichloroethane	ND	1.0							
Trichloroethene	ND	1.0							
Trichlorofluoromethane 1,2,3-Trichloropropane	ND ND	1.0 1.0		"			"		
1,2,5-Trimethylbenzene	ND ND	1.0					"		
1,2,4-Trimethylbenzene	ND 1.1	1.0					"		
Vinyl chloride	I.I ND	1.0		"			"		
Benzene	ND ND	0.50		"			"		
Toluene	ND ND	0.30					"		
Ethylbenzene	0.76	0.50					"		
Etnylbenzene m,p-Xylene									
ш,р-луше	1.7	1.0							

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland 4703 Tidewater Ave Ste B Oakland CA, 94601	<b>Reported</b> 04/07/09 13								
			MW-2 6-02 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries, Inc.					
Volatile Organic Compounds by EF	A Method 8260	В							
o-Xylene	ND	0.50	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10		"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		116 %	77.1	-110	"	"	"	"	S-GC
Surrogate: Dibromofluoromethane		106 %	66.3	-111	"	"	"	"	
Surrogate: Toluene-d8		102 %	84.7	-109	"	"	"	"	

SunStar Laboratories, Inc.

Kim P. Diton

Kevin Dixon, Project Coordinator



PSI Oakland		Proje	ct: Trista	ar					
4703 Tidewater Ave Ste B		Project Numb						Reported	:
Oakland CA, 94601		Project Manag						04/07/09 13	
			MW-3						
Г		<b>T90019</b>	6-03 (W	(ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries Inc.		1	,		
Extractable Petroleum Hydrocarl	bons by 8015C		aboi ato	i ics, inc.					
C6-C12 (GRO)	1.3	0.050	mg/l	1	9031006	03/10/09	03/10/09	EPA 8015C	
C13-C28 (DRO)	0.41	0.050	"		"	"	"	"	
C29-C40 (MORO)	ND	0.10	"		"	"	"	"	
Surrogate: p-Terphenyl		103 %	65-	-135	"	"	"	"	
Volatile Organic Compounds by I	EPA Method 826	0B							
Bromobenzene	ND	1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	8.4	1.0	"	"	"	"	"	"	
sec-Butylbenzene	6.2	1.0	"	"	"	"	"	"	
tert-Butylbenzene	1.0	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"		"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"		"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0		"				"	
Dichlorodifluoromethane	ND	0.50	"	"		"	"	"	
1,1-Dichloroethane	ND	1.0		"			"	"	
1,2-Dichloroethane	ND	0.50		"			"	"	
1,1-Dichloroethene	ND	1.0		"			"	"	
cis-1,2-Dichloroethene	ND	1.0			"	"	"		

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland		-	ct: Trista						
4703 Tidewater Ave Ste B		Project Numb						Reported:	
Oakland CA, 94601	I	Project Manag	er: Ezeki	el Robles				04/07/09 13	:43
			AW-3						
		T90019	6-03 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries, Inc.					
Volatile Organic Compounds by	EPA Method 8260	)B							
trans-1,2-Dichloroethene	ND	1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0		"	"	"	"		
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"		"	"	
Hexachlorobutadiene	ND	1.0	"	"	"		"	"	
Isopropylbenzene	11	1.0	"	"	"	"	"		
p-Isopropyltoluene	3.6	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	1.7	1.0		"	"	"	"	"	
n-Propylbenzene	22	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"			"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0		"		"	"		
1,2,4-Trichlorobenzene	ND	1.0		"		"	"		
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"		
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0		"	"	"	"		
Benzene	ND	0.50	"	"		"	"	"	
Toluene	ND	0.50	"	"		"	"	"	
Ethylbenzene	1.1	0.50	"	"	"		"	"	
m,p-Xylene	1.2	1.0		"		"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland 4703 Tidewater Ave Ste B Oakland CA, 94601	<b>Reported</b> : 04/07/09 13								
		N T90019	AW-3 6-03 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries, Inc.					
Volatile Organic Compounds by El	PA Method 8260	8							
Tert-amyl methyl ether	ND	2.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"			"	
Ethyl tert-butyl ether	ND	2.0	"	"	"			"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		156 %	77.1	-110	"	"	"	"	S-GC
Surrogate: Dibromofluoromethane		108 %	66.3	-111	"	"	"	"	
Surrogate: Toluene-d8		105 %	84.7	-109	"	"	"	"	

SunStar Laboratories, Inc.

Kim P. Diton

Kevin Dixon, Project Coordinator



PSI Oakland		Proje	ect: Trist	ar					
4703 Tidewater Ave Ste B		Project Numb	er: 575-8	8G012				Reported	:
Oakland CA, 94601		Project Manag	er: Ezek	iel Robles				04/07/09 13	3:43
		1	MW-4						
		T90019		ater)					
Analyta	Result	Reporting Limit	Units	Dilution	Batch	Drananad	Analyzad	Method	Notas
Analyte	Kesuit				Datch	Prepared	Analyzed	Wiethod	Notes
		SunStar La	aborato	ries, Inc.					
Extractable Petroleum Hydrocarl		0.050	7		0001004	00/10/00	00/10/00	<b>FB</b> 4 00150	
C6-C12 (GRO)	3.4	0.050	mg/l "	1	9031006	03/10/09	03/10/09	EPA 8015C	
C13-C28 (DRO) C29-C40 (MORO)	1.0 ND	0.050 0.10						"	
	ND	97.6 %		-135	"	"	"	"	
Surrogate: p-Terphenyl			05	-155					
Volatile Organic Compounds by I									
Bromobenzene	ND	1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	17	1.0	"	"	"	"	"	"	
sec-Butylbenzene	7.4	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"		
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"		
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland		Proje	ct: Trista	ar						
4703 Tidewater Ave Ste B	Р	roject Numb	er: 575-8	3G012				<b>Reported:</b>		
Oakland CA, 94601	Pr	oject Manag	er: Ezek	iel Robles				04/07/09 13	:43	
			MW-4							
<b></b>		T90019	6-04 (W	(ater)						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
		SunStar La	aborato	ries, Inc.						
Volatile Organic Compounds by	EPA Method 8260	B								
trans-1,2-Dichloroethene	ND	1.0	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B		
1,2-Dichloropropane	ND	1.0	"	"			"	"		
1,3-Dichloropropane	ND	1.0	"	"			"	"		
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"		
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"		
Isopropylbenzene	34	1.0	"	"	"	"	"	"		
p-Isopropyltoluene	8.3	1.0	"	"	"	"	"	"		
Methylene chloride	ND	1.0	"	"	"		"	"		
Naphthalene	2.5	1.0	"	"	"		"	"		
n-Propylbenzene	67	1.0	"	"	"		"	"		
Styrene	ND	1.0	"	"	"		"	"		
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"		
Tetrachloroethene	ND	1.0	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	1.0	"		"	"	"	"		
1,1,1-Trichloroethane	ND	1.0	"		"	"	"	"		
Trichloroethene	ND	1.0	"	"	"			"		
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	1.0	"	"	"		"	"		
1,3,5-Trimethylbenzene	1.8	1.0	"	"	"	"	"	"		
1,2,4-Trimethylbenzene	ND	1.0	"	"	"		"	"		
Vinyl chloride	ND	1.0	"	"		"	"	"		
Benzene	2.2	0.50	"	"		"	"	"		
Toluene	3.1	0.50	"	"	"	"	"	"		
Ethylbenzene	3.9	0.50	"	"	"	"	"	"		
m,p-Xylene	7.9	1.0	"	"	"	"	"	"		
o-Xylene	0.78	0.50	"	"	"		"	"		
Tert-amyl methyl ether	ND	2.0	"	"	"		"	"		

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland 4703 Tidewater Ave Ste B Oakland CA, 94601	F Pi	<b>Reported:</b> 04/07/09 13:	43						
		N T90019	/IW-4 6-04 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries, Inc.					
Volatile Organic Compounds by E	PA Method 8260	В							
Tert-butyl alcohol	ND	10	ug/l	1	9031005	03/10/09	03/12/09	EPA 8260B	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"		"		"	"	
Surrogate: 4-Bromofluorobenzene		122 %	77.1	-110	"	"	"	"	S-GC
Surrogate: Dibromofluoromethane		105 %	66.3	8-111	"	"	"	"	
Surrogate: Toluene-d8		106 %	84.7	7-109	"	"	"	"	

SunStar Laboratories, Inc.

Kim P. Diton

Kevin Dixon, Project Coordinator



PSI Oakland	Project: Tristar	
4703 Tidewater Ave Ste B	Project Number: 575-8G012	Reported:
Oakland CA, 94601	Project Manager: Ezekiel Robles	04/07/09 13:43

#### Extractable Petroleum Hydrocarbons by 8015C - Quality Control

#### SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9031006 - EPA 3510C GC						,				
Blank (9031006-BLK1)				Prepared	& Analyze	ed: 03/10/	09			
C6-C12 (GRO)	ND	0.050	mg/l							
C13-C28 (DRO)	ND	0.050	"							
C29-C40 (MORO)	ND	0.10	"							
Surrogate: p-Terphenyl	3.88		"	4.00		97.1	65-135			
LCS (9031006-BS1)	Prepared & Analyzed: 03/10/09									
C13-C28 (DRO)	16.3	0.050	mg/l	20.0		81.4	75-125			
Surrogate: p-Terphenyl	3.77		"	4.00		94.3	65-135			
Matrix Spike (9031006-MS1)	So	urce: T90019	6-04	Prepared	& Analyze	ed: 03/10/	09			
C13-C28 (DRO)	16.9	0.050	mg/l	20.0	1.05	79.4	75-125			
Surrogate: p-Terphenyl	4.00		"	4.00		100	65-135			
Matrix Spike Dup (9031006-MSD1)	So	urce: T90019	6-04	Prepared & Analyzed: 03/10/09						
C13-C28 (DRO)	16.9	0.050	mg/l	20.0	1.05	79.0	75-125	0.444	20	
Surrogate: p-Terphenyl	3.80		"	4.00		95.1	65-135			

SunStar Laboratories, Inc.

Kim P. Diton

Kevin Dixon, Project Coordinator

## SunStar Laboratories, Inc. PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

PSI Oakland	Project: Tristar	
4703 Tidewater Ave Ste B	Project Number: 575-8G012	Reported:
Oakland CA, 94601	Project Manager: Ezekiel Robles	04/07/09 13:43

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

## SunStar Laboratories, Inc.

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

#### Batch 9031005 - EPA 5030 GCMS

Blank (9031005-BLK1)				Prepared: 03/10/09 Analyzed: 03/12/09
Bromobenzene	ND	1.0	ug/l	· · · · · · · · · · · · · · · · · · ·
Bromochloromethane	ND	1.0		
Bromodichloromethane	ND	1.0		
Bromoform	ND	1.0		
Bromomethane	ND	1.0		
n-Butylbenzene	ND	1.0		
sec-Butylbenzene	ND	1.0		
tert-Butylbenzene	ND	1.0		
Carbon tetrachloride	ND	0.50	"	
Chlorobenzene	ND	1.0	"	
Chloroethane	ND	1.0	"	
Chloroform	ND	1.0	"	
Chloromethane	ND	1.0	"	
2-Chlorotoluene	ND	1.0		
4-Chlorotoluene	ND	1.0	"	
Dibromochloromethane	ND	1.0	"	
1,2-Dibromo-3-chloropropane	ND	1.0		
1,2-Dibromoethane (EDB)	ND	1.0	"	
Dibromomethane	ND	1.0	"	
1,2-Dichlorobenzene	ND	1.0		
1,3-Dichlorobenzene	ND	1.0		
1,4-Dichlorobenzene	ND	1.0		
Dichlorodifluoromethane	ND	0.50		
1,1-Dichloroethane	ND	1.0		
1,2-Dichloroethane	ND	0.50		
1,1-Dichloroethene	ND	1.0		
cis-1,2-Dichloroethene	ND	1.0	"	
trans-1,2-Dichloroethene	ND	1.0		
1,2-Dichloropropane	ND	1.0		
1,3-Dichloropropane	ND	1.0		
2,2-Dichloropropane	ND	1.0		
1,1-Dichloropropene	ND	1.0		
cis-1,3-Dichloropropene	ND	0.50	"	
trans-1,3-Dichloropropene	ND	0.50		
Hexachlorobutadiene	ND	1.0		
Isopropylbenzene	ND	1.0	"	

SunStar Laboratories, Inc.

Kim P. Diton

# SunStar Laboratories, Inc. PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

PSI Oakland	Project: Tristar	
4703 Tidewater Ave Ste B	Project Number: 575-8G012	Reported:
Oakland CA, 94601	Project Manager: Ezekiel Robles	04/07/09 13:43

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

## SunStar Laboratories, Inc.

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

#### Batch 9031005 - EPA 5030 GCMS

Blank (9031005-BLK1)				Prepared: 03/10/	09 Analyze	d: 03/12/09	
p-Isopropyltoluene	ND	1.0	ug/l				
Methylene chloride	ND	1.0	"				
Naphthalene	ND	1.0	"				
n-Propylbenzene	ND	1.0	"				
Styrene	ND	1.0	"				
1,1,2,2-Tetrachloroethane	ND	1.0	"				
1,1,1,2-Tetrachloroethane	ND	1.0	"				
Tetrachloroethene	ND	1.0	"				
1,2,3-Trichlorobenzene	ND	1.0	"				
1,2,4-Trichlorobenzene	ND	1.0	"				
1,1,2-Trichloroethane	ND	1.0	"				
1,1,1-Trichloroethane	ND	1.0	"				
Trichloroethene	ND	1.0	"				
Trichlorofluoromethane	ND	1.0	"				
1,2,3-Trichloropropane	ND	1.0	"				
1,3,5-Trimethylbenzene	ND	1.0	"				
1,2,4-Trimethylbenzene	ND	1.0	"				
Vinyl chloride	ND	1.0	"				
Benzene	ND	0.50	"				
Toluene	ND	0.50	"				
Ethylbenzene	ND	0.50	"				
m,p-Xylene	ND	1.0	"				
o-Xylene	ND	0.50					
Tert-amyl methyl ether	ND	2.0	"				
Tert-butyl alcohol	ND	10	"				
Di-isopropyl ether	ND	2.0	"				
Ethyl tert-butyl ether	ND	2.0					
Methyl tert-butyl ether	ND	1.0	"				
Surrogate: 4-Bromofluorobenzene	8.99		"	8.00	112	77.1-110	S-GC
Surrogate: Dibromofluoromethane	8.47		"	8.00	106	66.3-111	
Surrogate: Toluene-d8	8.18		"	8.00	102	84.7-109	

SunStar Laboratories, Inc.

Kim P. Diton



PSI Oakland	Project: Tristar	
4703 Tidewater Ave Ste B	Project Number: 575-8G012	Reported:
Oakland CA, 94601	Project Manager: Ezekiel Robles	04/07/09 13:43

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

### SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9031005 - EPA 5030 GCMS										
LCS (9031005-BS1)				Prepared:	03/10/09	Analyzed	d: 03/12/09			
Chlorobenzene	20.5	1.0	ug/l	20.0		102	75-125			
1,1-Dichloroethene	23.1	1.0	"	20.0		116	75-125			
Trichloroethene	22.0	1.0	"	20.0		110	75-125			
Benzene	23.2	0.50	"	20.0		116	75-125			
Toluene	21.2	0.50		20.0		106	75-125			
Surrogate: 4-Bromofluorobenzene	9.15		"	8.00		114	77.1-110			S-GC
Surrogate: Dibromofluoromethane	8.37		"	8.00		105	66.3-111			
Surrogate: Toluene-d8	8.13		"	8.00		102	84.7-109			
Matrix Spike (9031005-MS1)	So	urce: T90019	6-01	Prepared:	03/10/09	Analyzed	d: 03/12/09			
Chlorobenzene	18.8	1.0	ug/l	20.0	ND	93.8	75-125			
1,1-Dichloroethene	22.3	1.0	"	20.0	ND	112	75-125			
Trichloroethene	20.2	1.0		20.0	ND	101	75-125			
Benzene	22.0	0.50	"	20.0	ND	110	75-125			
Toluene	20.4	0.50		20.0	ND	102	75-125			
Surrogate: 4-Bromofluorobenzene	9.37		"	8.00		117	77.1-110			S-GC
Surrogate: Dibromofluoromethane	8.67		"	8.00		108	66.3-111			
Surrogate: Toluene-d8	8.10		"	8.00		101	84.7-109			
Matrix Spike Dup (9031005-MSD1)	So	urce: T90019	6-01	Prepared:	03/10/09	Analyzed	d: 03/12/09			
Chlorobenzene	19.5	1.0	ug/l	20.0	ND	97.5	75-125	3.87	20	
1,1-Dichloroethene	22.8	1.0	"	20.0	ND	114	75-125	2.39	20	
Trichloroethene	21.3	1.0		20.0	ND	107	75-125	5.59	20	
Benzene	23.5	0.50		20.0	ND	117	75-125	6.69	20	
Toluene	21.4	0.50		20.0	ND	107	75-125	4.88	20	
Surrogate: 4-Bromofluorobenzene	8.76		"	8.00		110	77.1-110			
Surrogate: Dibromofluoromethane	8.68		"	8.00		108	66.3-111			
Surrogate: Toluene-d8	8.19		"	8.00		102	84.7-109			

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PSI Oakland	Project: Tristar	
4703 Tidewater Ave Ste B	Project Number: 575-8G012	Reported:
Oakland CA, 94601	Project Manager: Ezekiel Robles	04/07/09 13:43

#### **Notes and Definitions**

- S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

SunStar Laboratories, Inc.

Kim P. Diton

Kevin Dixon, Project Coordinator

# Chain of Custody Record

SunStar Laboratories, Inc. 3002 Dow Ave, Suite 212 Tustin, CA 92780 714-505-4010

Client: PSJ Address: 4703 T. Jem Phone: (570) 434-2 Project Manager: E2	iter Ave. 1200 Lekiel	ste <b>b, C</b> Fax: <u>(57</u> Robl	20) 434 es	CA 9460 -7676 EDF	-	060		Col Bat	lecto ch #	or: <u></u> #	7 <b>2</b> e	201 301	01 96	<i>Ro</i>	6/e	<u>ب</u>	_ Pag _ Clier	nt Projec		 - <u>s-86</u> .852	 012	2
Sample ID <i>MW - 1</i> <i>MW - 2</i> <i>MW - 3</i> <i>MW - 4</i>	Date Sampled		Sample Type WATER	Container Type VOA	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals				0000 Laboratory ID #		mments	/Preserva		Total # of containers
Relinquished by: (signature) EMAMS 3-6- Relinquished by: (signature) Relinquished by: (signature) Sample disposal Instructions: D	Date / Tin Date / Tin	ne ne	GSO T	y: (signature) Tacking 7 y: (signature) y: (signature) v: (signature)		06 3/10	<b>30</b> Date Date	e / T	67 ime 63	9	Re	eceiv	Cust Sea red go	ody se als inta	of conta eals Y/ act? Y/ ndition	n/na 'n/na	20 Y Y Y.2	• Cra • Die • f	eute sel re 0.05	otes EOF porting 0 mg/		 