CO-105

PACCAR Inc

CORPORATE ENVIRONMENTAL

July 11, 2002

Eva Chu
Alameda County
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

JUL 16 2002

Re: 2002 Groundwater Monitoring Results
4240 East 14th Street (High Street), Oakland, CA

Dear Eva:

Enclosed please find one (1) paper copy of the 2002 Annual Groundwater Monitoring Report dated July 5, 2002 which was prepared by AllWest Environmental.

At this time and per your letter dated September 12, 2001, we are submitting this report and requesting site closure at this property.

If you have any questions, please contact me at vicki.zumbrunnen@paccar.com or 425-468-7055.

Sincerely,

V. L. ZumBrunnen
Project Manager

Enclosure

Cc: B. N. Holliday
L. C. Robbins
Randi Val Morrison – CSK Auto Inc

AllWest Environmental, Inc.

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2002 ANNUAL GROUNDWATER MONITORING REPORT

Grand Auto #43
4240 East 14th Street
Oakland, California

PREPARED FOR:

PACCAR, Inc.
Corporate Environmental Department
P.O. Box 1518
Bellevue, WA 98009

ALLWEST PROJECT No. 22054.28
July 5, 2002

PREPARED BY:

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AllWest

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AllWest

2002 Annual Groundwater Monitoring Report

Grand Auto #43
4240 East 14th Street
Oakland, California

I. INTRODUCTION

This report presents the results of the 2002 annual groundwater monitoring event conducted by AllWest Environmental at the former Grand Auto Retail Store #43, Oakland, California, on May 21, 2002. The sampling event involved the monitoring of the four on-site groundwater wells, MW-1, MW-2, MW-3A and MW-4. Included in this report is an abbreviated site setting, a description of field activities, a summary of analytical results, our interpretation of the data and conclusions. Supporting information such as site figures, sampling logs, and laboratory reports are included as attachments or appendices to this report.

The purpose of this report is to present findings from the recent groundwater sampling of the four on-site groundwater monitoring wells, to demonstrate that the residual chemicals in the site groundwater are naturally attenuating, and to present the findings of the investigation to the Alameda County Health Care Services (ACHCS) and Regional Water Quality Control Board (RWQCB) for their review and to petition the ACHCS and the RWQCB to grant Site Soil and Groundwater Closure status for the subject property.

II. PROJECT BACKGROUND

A. Site Setting

The approximately 1.2 acre Grand Auto retail facility is located at the northwest corner of High Street and International Boulevard (formerly 14th Street) in Oakland, California. The site currently is used as a Kragen retail merchandise facility. Previously the site also was used for retail gasoline sales and had underground fuel storage tanks and a car wash with an associated drainage sump. The underground fuel tanks were removed in 1986. The car wash drainage sump was removed in August 1992. During October 1993, the remaining fuel conveyance piping associated with the former underground fuel storage tanks was excavated and removed from the site.

When environmental activities were initiated at the subject property, the former Super Tire store at 4256 East 14th Street (currently All Mufflers Discounted) located southeast of the subject property was included as part of the Grand Auto site. Subsequently, the former Super Tire store was considered by both PACCAR and ACHCS as a separate site. In its

letter to PACCAR dated December 27, 1993, ACHCS indicated that no further action was required for soil-related issues at the former Super Tire store. In a second letter dated November 20, 2000, ACEHS approved the destruction of a single groundwater well, HC-1, located on the former Super Tire facility.

Review of previous work indicated that the site is underlain by an irregularly layered sequence of silty to gravelly sand lenses separated by clayey silt to depth of 46 feet. The groundwater gradient in this area is very flat, thus the determination of the groundwater flow direction is difficult to assess. Regionally, groundwater is typically reported to flow from the east to the west from the Oakland Hills towards the San Francisco Bay. Groundwater levels continued to show a gradual increase in groundwater levels since the California drought years of the late 1980s and early 1990s.

Several series of site investigations and remedial activities have be performed at the property since the USTs were removed in 1986. They include drilling of borings at the former location of the USTs, collection of soil samples during removal of the car wash sump, installation and periodic sampling of monitoring wells, removal of conveyance piping, preparation of a closure report, completion of a risk assessment, an issuance of a closure letter for soil by the ACHS in 1996, the reestablishing of groundwater monitoring in 1999, an issuance of a no further remedial action letter by the ACHS in 2000, and the abandonment of two wells and replacement on one well in 2001. A summary of this work was presented in AllWest's "Annual Groundwater Monitoring and Well Destruction Report" dated August 27, 2001.

III. GROUNDWATER SAMPLING AND FIELD OBSERVATIONS

This groundwater monitoring event included gauging the depth to groundwater to calculate the groundwater flow direction and gradient, and sampling of the wells to further demonstrate that the chlorinated constituents are naturally attenuating. The sampling of the four wells, MW-1 through MW-4 occurred May 21, 2002. In addition, a duplicate sample (MW-3A-2)was collected from well MW-3A

A. Sampling Protocols

AllWest's standard groundwater sampling protocol, as presented in Appendix A, was generally followed. As per these protocols, an electronic sounder was utilized to measure the depth to groundwater in each well. Each well was then purged a minimum of three well volumes using a 3" disposable bailer. During purging, groundwater field parameters (temperature, pH, and conductivity) were monitored and recorded on a field log. After purging, samples were collected using a disposable Teflon bailer from each well for chemical analysis. Copies of the groundwater sampling field logs are presented in Appendix A. The purged groundwater was temporary stored on site in 55-gallon drums and was removed from the site June 19, 2002 by IWM, a State licensed hazardous waste transporter. The purge

water was transported to Seaport Environmental in Redwood City, California under appropriates state and local regulations.

B. Well Sampling Purge Characteristics

The groundwater observed during purging varied from clear to slightly cloudy. Field parameters measured were all within normal ranges for shallow groundwater in this portion of Oakland. pH measured in the samples ranged 6.42 to 7.40. Conductivity levels were measured between 422 *u*S to 647 *u*S. Temperatures were measured between 65.2° to 76.3° F.

C. Groundwater Depth and Gradient

The depth to groundwater ranged between 23.46 feet below ground surface (bgs) in MW-4 to 25.04 feet bgs in MW-3A. As compared to previous groundwater levels, the measurements conducted during this investigation continued to show a gradual increase from the California drought years of the late 1980s and early 1990s. For detailed information of groundwater elevations with time, please see Table 2.

In comparison to mean sea level (MSL), groundwater elevations between the wells varied only slightly (0.04 feet). As shown on Figure 3, groundwater elevations ranged from a low of 5.62 feet MSL from MW-4 to a high of 5.66 feet MSL from MW-3A. The groundwater flow direction measured during this sampling event was towards east. The groundwater gradient calculated in the vicinity of MW-1, MW3A and MW-4 is 0.002 feet/foot. As noted during previous investigations, groundwater gradients have historically been very flat.

IV. LABORATORY ANALYSES

The collected groundwater samples were forwarded to STL Chromalab of Pleasanton, California, a state certified analytical laboratory, for chemical analyses. The samples were analyzed to detect the presence of halogenated volatile organic compounds (HVOCs) including chlorinated solvents by EPA Method 8021B.

A. Halogenated Volatile Organic Compounds Results (HVOCs)

PCE and its common degradation product, TCE were detected in all four groundwater samples collected during the 2002 investigation. The degradation product cis-1,2-DCE was only detected in well MW-2. Cis-1,2,-DCE was previously detected in all wells during the 2001 sampling event. Concentrations of PCE ranged from a high of 140 parts per billion (ppb) from MW-1 to a low of 6.3 ppb from MW-2. TCE followed similar trends as PCE but at lower concentrations. The maximum concentration of TCE was reported from MW-3A at 16 ppb. The maximum concentration of cis-1,2-DCE was reported from MW-2 at 0.84 ppb.

The only other HVOCs detected above their respective laboratory detection limits during the 2002 sampling event included dichlorodifluoromethane (Freon 12) and carbon tetrachloride.

Freon 12 was reported in three groundwater wells. The maximum concentration of Freon 12 was reported from MW-2 at 44 ppb which is slightly higher than the 2001 sampling event of 38 ppb. Carbon tetrachloride was only reported in one groundwater sample. Carbon tetrachloride was reported from MW-2 at 0.61 ppb which is slightly down from 0.83 ppb from the previous sampling event. Other HVOCs, including 1,1,1-TCA, 1,2-DCA, vinyl chloride and chloroform previously detected in groundwater samples collected from the wells were not detected above their respective laboratory detection limits during the 2002 sampling event.

B. Laboratory QA/QC

A review of laboratory internal quality assurance/quality control (QA/QC) report indicates the method blank and sample spike data are within the laboratory recovery limits. The results reported from the field duplicate sample (MW-3A-2) collected from MW-3A were similar. The laboratory QA/QC report indicated that the groundwater samples were analyzed within the acceptable EPA holding time. Based on the laboratory QA/QC report, the analysis data from Chromalab are considered to be of good quality. A copy of the laboratory analytical reports and chain-of-custody records are presented in the LABORATORY RESULTS section of this report. A summary of the analytical results is presented on Table 3.

V. DISCUSSION AND CONCLUSIONS

A. Spatial Distribution of Chemical Constituents

A review of the spatial distribution of the chemical observed during the 2002 sampling and previous groundwater sampling events do not indicate a clear source for the chemicals being detected. Based on sampling results, it appears that the chlorinated solvents being detected are found in both the up and down gradient monitoring wells at property and likely are a regional occurrence.

B. Contaminant Trend Analyses

The chlorinated solvent concentrations have generally remained stable since the last sampling period. The maximum concentration of PCE from the 2002 sampling round is 140 ppb which is well below the historic maximum concentration of 340 ppb reported from a 1994 sampling event. Similar decreasing trends were noted for TCE. Currently, cis-1,2 DCE is being detected in only one well as compared to 2001 when it was detected in all four wells sampled. For further details on the contaminant concentrations over time, please see Table 3.

Ratios of the chlorinated solvents are commonly used to assess the age of contaminant releases. This is based on the assumption that most PCE plumes originate as a pure product of PCE as the result from leakage or spillage from dry cleaning facilities, and through time, the PCE will naturally biodegrade to TCE and cis-1,2-DCE and ultimately vinyl chloride as the plume disperses in the down gradient flow direction.

The ratios of PCE to TCE from this investigation (from 5:1 to 10:1) coupled with the flat groundwater gradient indicate that this plume likely originated from a nearby dry cleaners, probably located southeast of the subject property.

This PCE to TCE and cis-1,2-DCE ratio was observed in all of the wells sampled except for MW-2 which currently has about equal amounts of PCE to TCE. From 1993 to 1995, TCE has been reported to be more than 7 times higher than PCE indicating that the TCE from this location is probably not exclusively a degradational product of PCE. However, since sampling was reinstated in 1999, the levels of TCE in this well have significantly decreased from a high of 130 ppb in September 1994 to 7.7 ppb in May 2002, which is only slightly above the drinking water standard (MCL) of 5 ppb.

A review of the trends of the PCE concentrations detected in the wells at the property since sampling recommenced in 1999 indicates a general decrease in the concentration of PCE in MW-1 and rather steady state condition in wells MW-2, MW-3A and MW-4. Concentrations of TCE and cis-1,2-DCE have shown a general steady state decrease in concentration in all wells over this same time period.

VI. CONCLUSIONS AND RECOMMENDATIONS

The results of the 2002 groundwater sampling event indicate that the shallow groundwater of the subject property is impacted with chlorinated solvents. The spatial distribution of the chlorinated solvents do not indicate a clear source area due to similar constituent concentrations and flat hydraulic gradient of the area. However, based on the ratio of PCE to TCE and cis-1,2-DCE, the likely source of the bulk of the chlorinated solvents is the former or existing dry cleaners located southeast of the subject property.

Based on site specific results and current health risk based action levels, it is unlikely that the residual contamination in the site groundwater poses as an unacceptable risk to human health or the environment. See "AllWest Environmental, Site Closure and Groundwater Monitoring Report, Grand Auto Store No. 43, 4240 East 14th Street, Oakland California, August 15, 2000." Based on the above and that the likely source of the chemicals currently being detected at the property is from an off-site source and not from historical use of the property, AllWest recommends Site Closure status be granted for the subject property by the ACHCS and the RWQCB.

VII. REPORT LIMITATIONS

The work described in this report is performed in accordance with the Environmental Consulting Agreement between PACCAR and AllWest Environmental, dated September 20, 1999. AllWest has prepared this report for the exclusive use of PACCAR for this particular project and in accordance with generally accepted practices at the time of the work. No other warranties, certifications or representation, either expressed or implied are made as to the professional advice offered. The

services provided for PACCAR were limited to their specific requirements; the limited scope allows for AllWest to form no more than an opinion of the actual site conditions.

The conclusions and recommendations contained in this report are made based on observed conditions existing at the site, laboratory test results of the submitted samples, and interpretation of a limited data set. It must be recognized that changes can occur in subsurface conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the subsurface can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest cannot be held accountable for the accuracy of the test data from an independent laboratories nor for any analyte quantities falling below the recognized standard detection limits for the method utilized by the independent laboratories.

Table 1 - Well Construction Details and Field Parameters

Grand Auto #43
4240 East 14th Street Oakland, California
Oakland, California

AllWest Project Number 22054.28

Well Number	Surface Elevation (ft MSL)	Top of Casing (ft MSL)	Total Depth (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Well Diameter (Inches)
MW-1	30.8	30.53	43	33	43	4
MW-2	30.7	30.41	45	31	45	4
MW-3	30.7	30.31	45	30	45	4
MW-3A	30.9	30.70	41	20	41	4
MW-4	29.5	29.08	45	30	45	4
HC-1	28.7	28.33	42	30	42	4

Well Number	Date	pH	Conduc. (uS)	Temp. (oF)
MW-1	21-May-02	6.69	626	66.9
MW-2	21-May-02	6.95	642	65.4
MW-3A	21-May-02	6.90	433	64.1
MW-4	21-May-02	6.47	572	67.3
HC-1	21-May-02	NM	NM	NM

Notes:
MW-3 was replaced by MW-3A on May 25, 2000
HC-1 was abandoned on June 18, 2001
bgs = below ground surface
MSL = mean sea level
NM = not measured
Elevations relative to City of Oakland datum

TABLE 2 - Groundwater Elevations
4240 East 14th Street
Oakland, California
Groundwater Elevations

Project Number 22054.28

Well Number	Top of Well Casing Feet above MSL	Depth to Groundwater Feet bgs	Groundwater Elevation Feet above MSL	Date Collected
MW-1	30.53	24.91	5.62	21-May-02
MW-1	30.53	25.67	4.86	19-Jun-01
MW-1	30.53	27.40	3.13	4-Nov-99
MW-1	30.53	28.18	2.35	10-May-96
MW-1	30.53	29.34	1.19	15-Sep-95
MW-1	30.53	30.83	-0.30	31-Jan-95
MW-1	30.53	32.44	-1.91	20-Sep-94
MW-1	30.53	33.04	-2.51	7-Jun-94
MW-1	30.53	34.60	-4.07	18-Feb-94
MW-1	30.53	35.30	-4.77	17-Nov-93
MW-1	30.53	34.93	-4.40	4-Aug-93
MW-1	30.53	35.45	-4.92	5-May-93
MW-2	30.41	24.78	5.63	21-May-02
MW-2	30.41	25.54	4.87	19-Jun-01
MW-2	30.41	27.28	3.13	4-Nov-99
MW-2	30.41	28.06	2.35	10-May-96
MW-2	30.41	29.19	1.22	15-Sep-95
MW-2	30.41	30.71	-0.30	31-Jan-95
MW-2	30.41	32.40	-1.99	20-Sep-94
MW-2	30.41	32.92	-2.51	7-Jun-94
MW-2	30.41	34.46	-4.05	18-Feb-94
MW-2	30.41	35.18	-4.77	17-Nov-93
MW-2	30.41	34.79	-4.38	4-Aug-93
MW-2	30.41	35.32	-4.91	5-May-93
MW-3A	30.70	25.04	5.66	21-May-02
MW-3A	30.70	25.81	4.89	19-Jun-01
MW-3	30.31	27.22	3.09	4-Nov-99
MW-3	30.31	27.96	2.35	10-May-96
MW-3	30.31	29.11	1.20	15-Sep-95
MW-3	30.31	30.62	-0.31	31-Jan-95
MW-3	30.31	32.30	-1.99	20-Sep-94
MW-3	30.31	32.83	-2.52	7-Jun-94
MW-3	30.31	34.38	-4.07	18-Feb-94
MW-3	30.31	35.13	-4.82	17-Nov-93
MW-3	30.31	34.70	-4.39	4-Aug-93
MW-3	30.31	35.22	-4.91	5-May-93
MW-4	29.08	23.46	5.62	21-May-02
MW-4	29.08	24.20	4.88	19-Jun-01
MW-4	29.08	25.92	3.16	4-Nov-99
MW-4	29.08	26.70	2.38	10-May-96
MW-4	29.08	27.86	1.22	15-Sep-95
MW-4	29.08	29.38	-0.30	31-Jan-95
MW-4	29.08	31.07	-1.99	20-Sep-94
MW-4	29.08	31.60	-2.52	7-Jun-94
MW-4	29.08	33.14	-4.06	18-Feb-94
MW-4	29.08	33.90	-4.82	17-Nov-93
MW-4	29.08	33.47	-4.39	4-Aug-93
MW-4	29.08	33.98	-4.90	5-May-93

TABLE 3 - Groundwater Analytical Results

4240 East 14th Street
Oakland, California

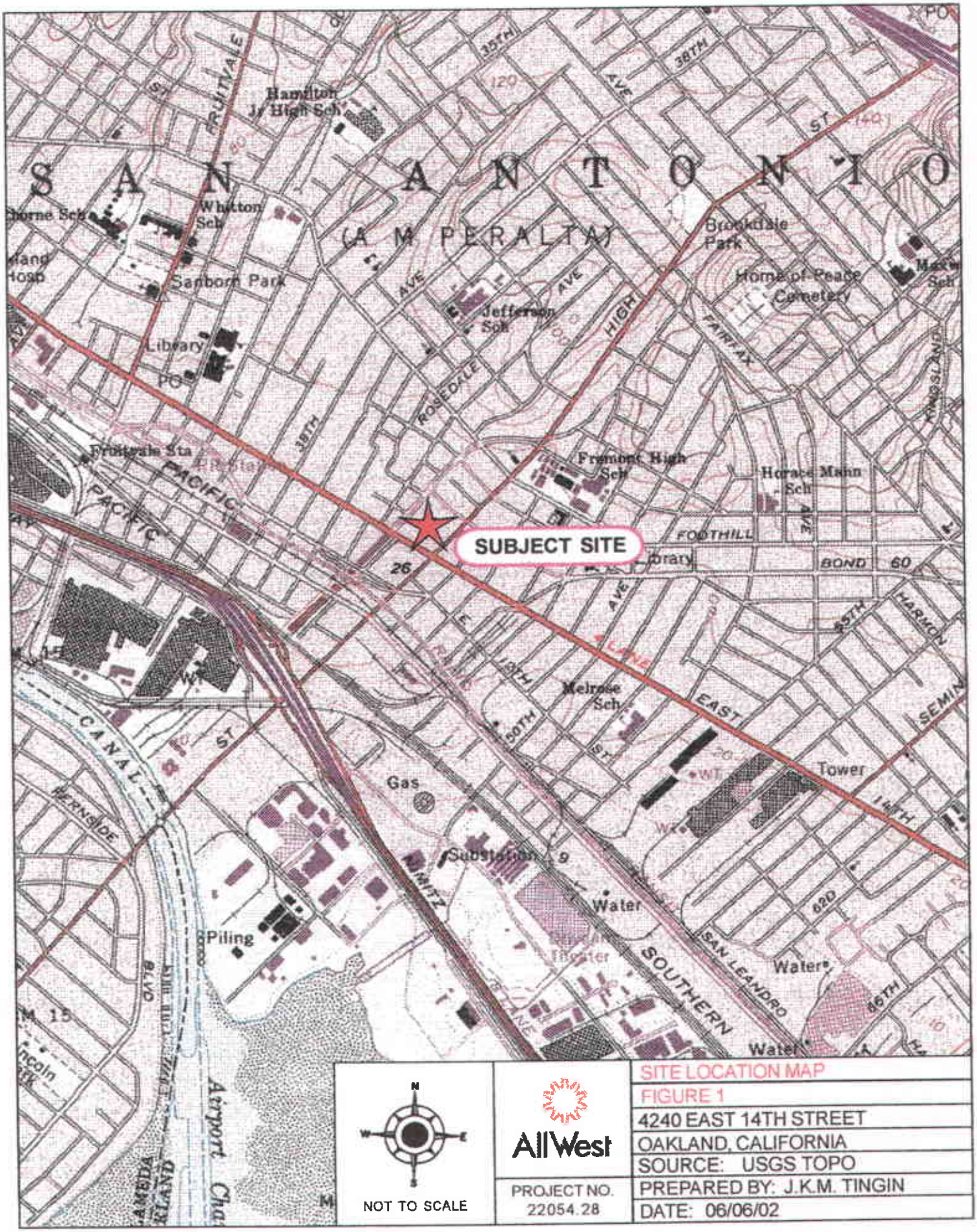
Project Number 2201054.28
All results in parts per billion (ppb)

Location	PCE	TCE	cis-1,2 DCE	FREON 12	Chloro-form	1,1,1-TCA	1,2-DCA	Vinyl Chloride	Carbon Tetrachloride	TPH-g	All others	Date Collected
MW-1	140	15	ND	ND	ND	ND	ND	ND	ND	NA	ND	21-May-02
	130	17	5.3	35	ND	ND	ND	ND	ND	NA	ND	19-Jun-01
	120	17	6.6	62	ND	ND	ND	ND	ND	ND	ND	4-Nov-99
	270	24	4.3	NR	2.6	ND 1.3	ND 1.3	ND 1.3	ND	NR	ND	10-May-96
	200	25	6.6	NR	1.4	ND 0.5	ND 0.5	NO 0.5	ND	ND	ND	15-Sep-95
	54	13	9.7	NR	ND 1	ND 1	ND 1	ND 2	ND	ND	ND	31-Jan-95
	54	13	9.3	NR	ND 1	ND 1	ND 1	ND 2	ND	ND	ND	31-Jan-95
	270	37	19	NR	ND 5	ND 5	ND 5	ND 5	ND	ND	ND	20-Sep-94
	270	36	18	NR	ND 5	ND 5	ND 5	ND 5	ND	ND	ND	20-Sep-94
	200	28	25	NR	1.6	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	7-Jun-94
	340	35	22	NR	1.5	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	7-Jun-94
	200	25	12	NR	1	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	18-Feb-94
	230	28	15	NR	1.8	ND 0.5	ND 0.5	ND 1	ND	ND	ND	17-Nov-93
	290	23	10	NR	ND 5	ND 5	ND 5	ND 10	ND	ND	ND	4-Aug-93
	300	22	8.7	37	1	ND 0.5	ND 0.5	ND 1	ND	ND	ND	28-Apr-93
	300	22	8.7	110	1.1	0.6	ND 0.5	ND 1	ND	ND	ND	28-Apr-93
	220	28	14	NR	ND 3	ND 1	--	--	ND	ND	ND	19-Jan-93
	310	28	11	NR	1.1	ND 0.5	ND 0.6	--	ND	ND	ND	10-Sep-92
MW-2	6.3	4.7	0.84	44	ND	ND	ND	ND	0.61	NA	ND	21-May-02
	9.1	5.3	1	38	ND	ND	ND	ND	0.83	NA	ND	19-Jun-01
	7.6	8.1	1.9	55	ND	ND	ND	ND	2	ND	ND	4-Nov-99
	7.2	51	13	NR	ND 1	ND 1	ND 1	ND 1	ND	NR	ND	10-May-96
	6.3	52	17	NR	ND 0.5	ND 0.5	ND 0.5	0.8	ND	ND	ND	15-Sep-95
	6.5	69	17	NR	ND 0.5	ND 0.5	0.9	0.9	ND	ND	ND	15-Sep-95
	3	60	17	NR	ND1	ND 1	ND 1	ND2	ND	ND	ND	31-Jan-95
	8	130	36	NR	ND 5	ND 5	ND 5	ND 5	ND	ND	ND	20-Sep-94
	6.9	120	31	NR	ND 0.5	ND 0.5	1.8	ND 0.5	ND	ND	ND	7-Jun-94
	4.8	75	25	NR	ND 0.5	ND 0.5	1.5	ND 0.5	ND	ND	ND	18-Feb-94
	6.1	32	8.7	NR	ND 0.5	ND 0.5	ND 0.5	ND 1	ND	ND	ND	17-Nov-93
	7.2	110	22	NR	ND 1.2	ND 1.2	ND 1.2	ND 2.4	ND	ND	ND	4-Aug-93
	7.5	32	8.5	31	0.9	0.6	0.8	ND 1	ND	ND	ND	28-Apr-93
MW-3A	120	16	ND	7.1	ND	ND	ND	ND	ND	NA	ND	2-May-02
	120	21	ND	ND	ND	ND	ND	ND	ND	NA	ND	19-Jun-01
	150	24	14	14	ND	ND	ND	ND	ND	61	ND	4-Nov-99
	160	25	7.2	NR	ND 1	ND 1	ND 1	ND 1	ND	NR	ND	10-May-96
	170	25	8.2	NR	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	15-Sep-95
	160	34	6.2	NR	ND 1	ND 1	ND 1	ND 5	ND	ND	ND	31-Jan-95
	240	37	11	NR	ND 5	ND 5	ND 5	ND 5	ND	ND	ND	20-Sep-94
	160	34	8.3	NR	0.6	0.6	ND 0.5	ND 0.5	ND	ND	ND	7-Jun-94
	85	19	5	NR	0.7	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	18-Feb-94
	170	29	12	NR	1.3	0.8	ND 0.5	ND 1	ND	ND	ND	17-Nov-93
	170	28	ND 5	NR	ND 5	ND 5	ND 5	ND 10	ND	ND	ND	4-Aug-93
	79	21	9.7	35	ND 0.5	0.8	ND 0.5	ND 1	ND	ND	ND	28-Apr-93
MW-4	70	7.7	ND	18	ND	ND	ND	ND	ND	NA	ND	21-May-02
	47	7	1.2	19	ND	ND	ND	ND	ND	NA	ND	19-Jun-01
	81	10	2.2	41	ND	ND	ND	ND	ND	ND	ND	4-Nov-99
	190	22	2.5	NR	ND 1.3	ND 1.3	ND 1.3	ND 1.3	ND	NR	ND	10-May-96
	160	24	4.4	NR	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	15-Sep-95
	140	20	4.7	NR	ND 1	ND 1	ND 1	ND 5	ND	ND	ND	31-Jan-95
	220	32	5	NR	ND 5	ND 5	ND 5	ND 5	NO	NO	ND	20-Sep-94
	140	28	7.1	NR	0.9	0.9	ND 0.5	ND 0.5	ND	ND	ND	7-Jun-94
	120	31	6	NR	1.9	0.7	ND 0.5	ND 0.5	ND	ND	ND	18-Feb-94
	87	20	6.6	NR	1	ND 0.5	ND 0.5	ND 1	ND	ND	ND	17-Nov-93
	110	16	ND 5	NR	ND 5	ND 5	ND 5	ND 10	ND	ND	ND	4-Aug-93
	78	17	3.9	28	0.6	ND 0.5	ND 0.5	ND 1	ND	ND	ND	28-Apr-93
HC-1	100	17	8.7	43	ND	ND	ND	ND	ND	ND	ND	4-Nov-99
	200	27	13	NR	ND 5	ND 5	ND 5	ND 5	ND	NR	ND	10-May-96
	170	27	14	NR	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	15-Sep-95
	120	27	11	NR	ND 1	ND 1	ND 1	ND 5	ND	ND	ND	31-Jan-95
	190	37	15	NR	ND 5	ND 5	ND 5	ND 5	ND	ND	ND	20-Sep-94
	180	42	22	NR	1	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	7-Jun-94
	140	30	13	NR	0.7	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	18-Feb-94
	150	32	11	NR	0.6	ND 0.5	ND 0.5	ND 0.5	ND	ND	ND	18-Feb-94
	130	27	16	NR	1.1	0.7	ND 0.6	ND 2	ND	ND	ND	17-Nov-93
	83	27	15	NR	ND 0.5	ND 0.5	ND 0.5	ND 1	ND	ND	ND	4-Aug-93
	46	22	13	47	ND 0.5	ND 0.5	ND 0.5	ND 1	ND	ND	ND	28-Apr-93
DUP-1 (MW-3A-2)	120	17	NO	7.3	ND	ND	ND	ND	ND	NA	ND	21-May-02
Maximum	130	16	0.84	44	ND	ND	ND	0.9	0.61	NA	ND	21-May-02
Minimum	6.3	4.7	ND	ND	ND	ND	ND	0.8	ND	NA	ND	21-May-02
Oakland Tier 1												
GW Indoor (C)	3,300	11,000	NA	NA	12,000	NA	11,000	59	260	NA	NA	
GW Indoor (H)	>sol	230,000	1,000,000	NA	800,000	> sol	830,000	NA	7,800	NA	NA	
GW Outdoor (C)	51,000	150,000	NA	NA	130,000	NA	69,000	960	4200	NA	NA	
GW Outdoor (H)	>sol	>sol	>sol	NA	>sol	> sol	5,000,000	NA	130,000	NA	NA	

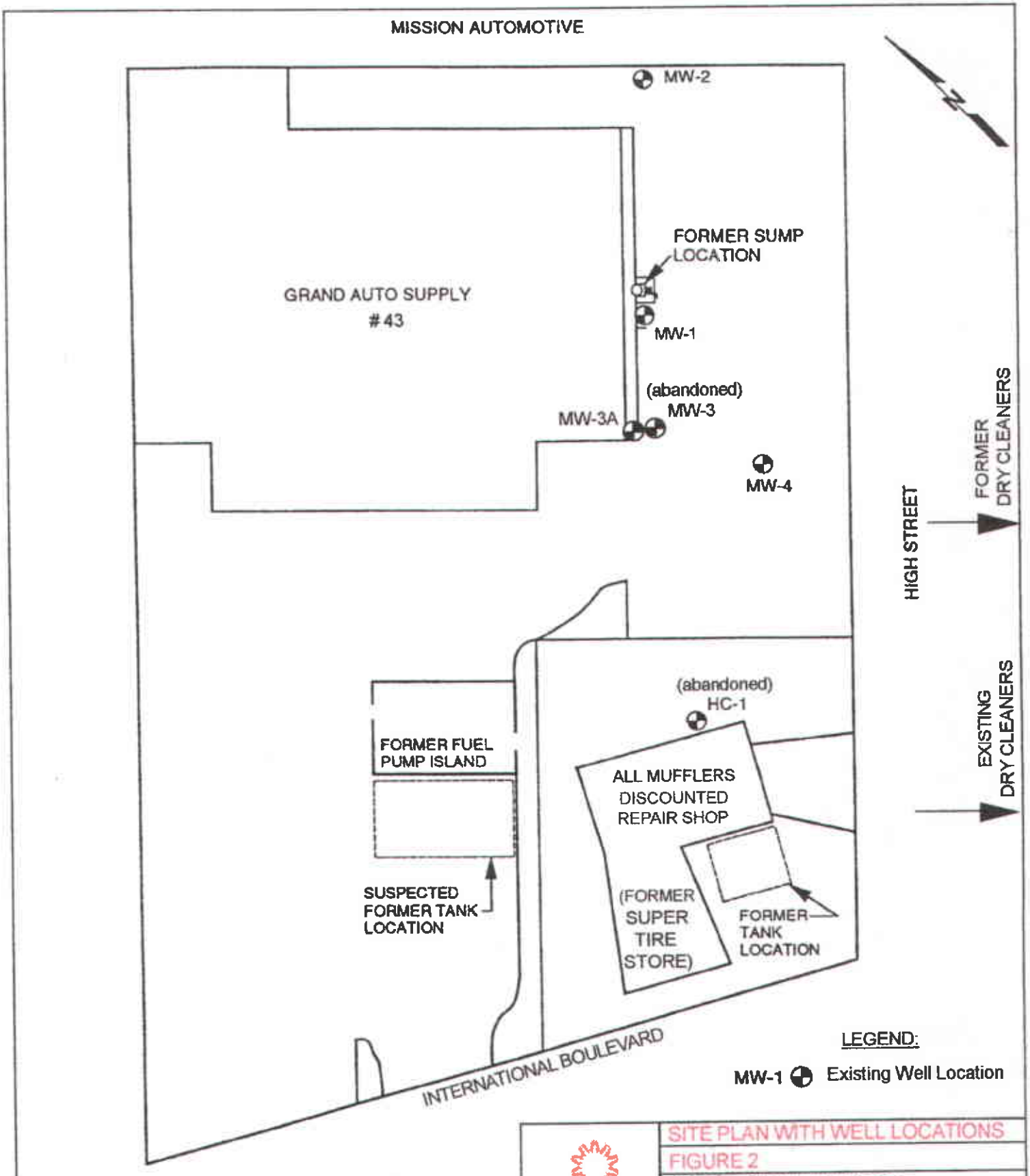
Notes:

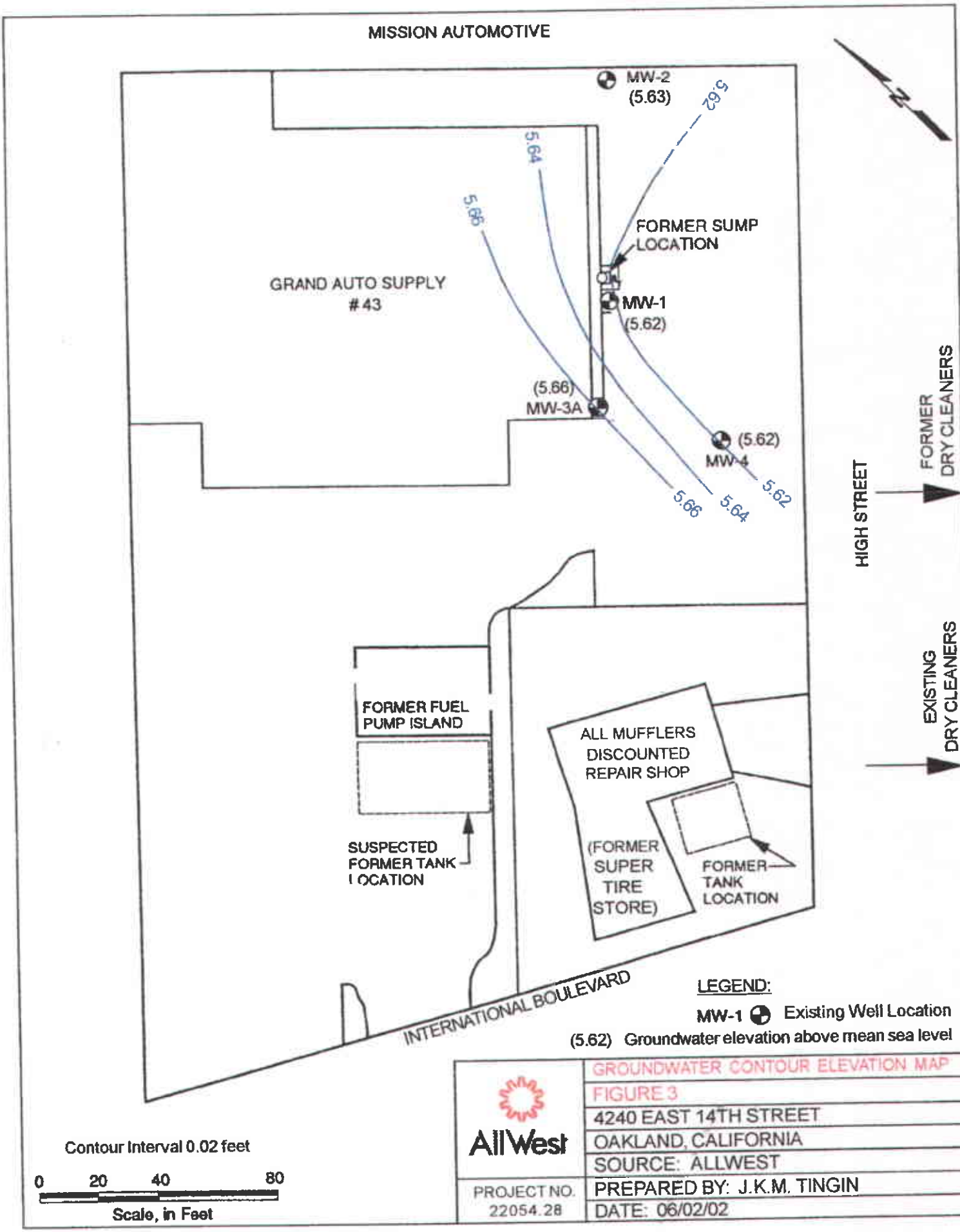
ND = not detected above laboratory method reporting limit (MRL)
NR = not reported NA = not analyzed
(C) = Type of risk (carcinogenic)
(H) = Type of risk (hazard)
Maximum/Minimum = the maximum or minimum concentration detected during the 2002 sampling event

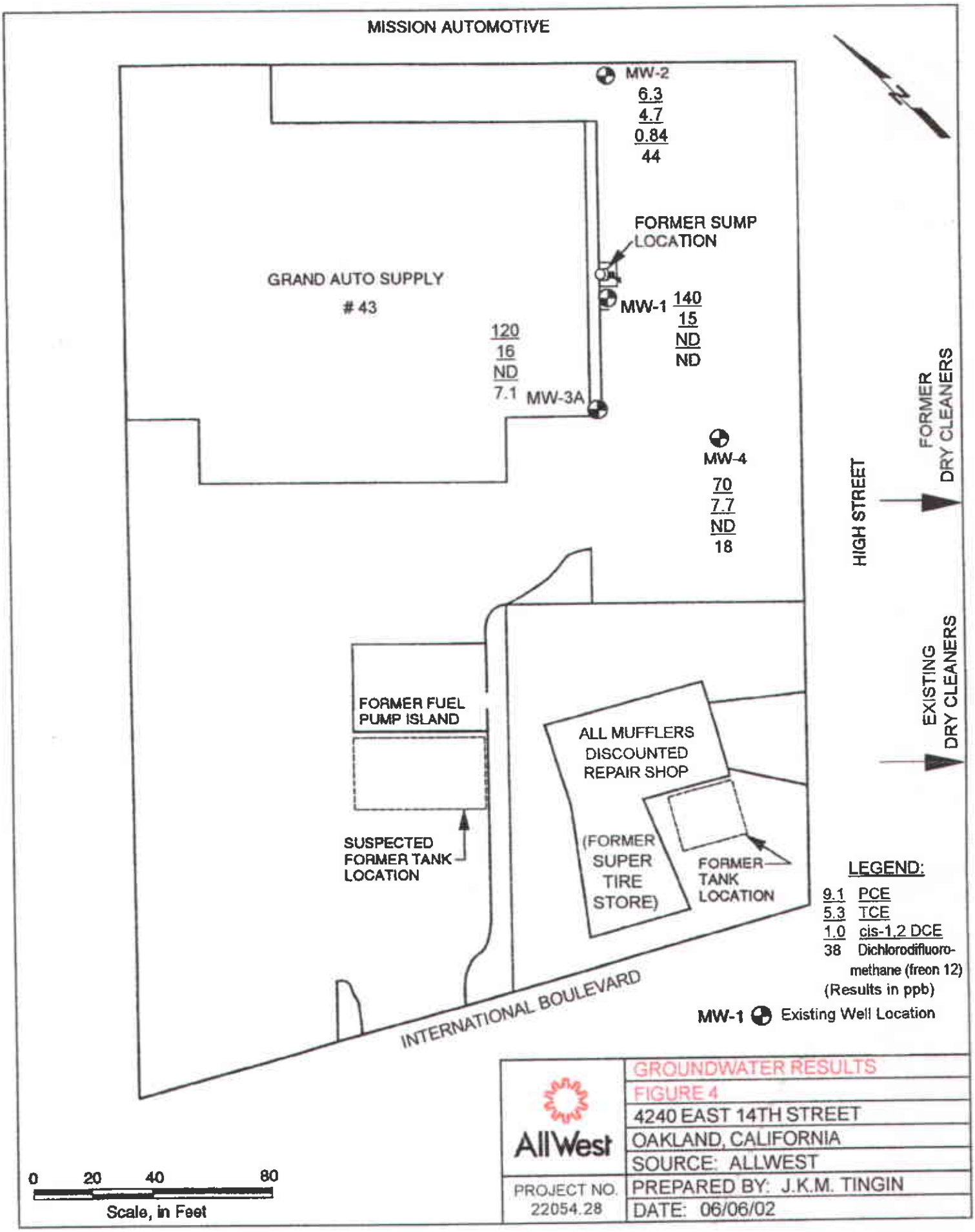
DUP = duplicate sample(MW-3A-2) collected from well MW-3A
The number behind ND is the dection limit
TPHg analysis discontinued in 2001 per ACHCS concurance



N W E S	AllWest	SITE LOCATION MAP
		FIGURE 1
		4240 EAST 14TH STREET
		OAKLAND, CALIFORNIA
		SOURCE: USGS TOPO
NOT TO SCALE	PROJECT NO. 22054.28	PREPARED BY: J.K.M. TINGIN
		DATE: 06/06/02


MISSION AUTOMOTIVE
MW-2
FORMER SUMP LOCATION
GRAND AUTO SUPPLY #43
MW-1
(abandoned) MW-3
MW-3A
MW-4
HIGH STREET
FORMER DRY CLEANERS
EXISTING DRY CLEANERS
(abandoned) HC-1
FORMER FUEL PUMP ISLAND
ALL MUFFLERS DISCOUNTED REPAIR SHOP
(FORMER SUPER TIRE STORE)
FORMER TANK LOCATION
SUSPECTED FORMER TANK LOCATION
INTERNATIONAL BOULEVARD
LEGEND:
MW-1 Existing Well Location
0 20 40 80
Scale, in Feet
Note:
MW-3A replaced MW-3 on 05/25/00 and HC-1 abandoned on 06/18/01.
AllWest
PROJECT NO. 22054.28
SITE PLAN WITH WELL LOCATIONS
FIGURE 2
4240 EAST 14TH STREET
OAKLAND, CALIFORNIA
SOURCE: ALLWEST
PREPARED BY: J.K.M. TINGIN
DATE: 06/06/02


MISSION AUTOMOTIVE
MW-2
(5.63)
5.62
5.64
5.66
FORMER SUMP
LOCATION
GRAND AUTO SUPPLY
#43
MW-1
(5.62)
(5.66)
MW-3A
(5.62)
MW-4
5.66
5.64
5.62
HIGH STREET
FORMER
DRY CLEANERS
EXISTING
DRY CLEANERS
FORMER FUEL
PUMP ISLAND
ALL MUFFLERS
DISCOUNTED
REPAIR SHOP
(FORMER
SUPER
TIRE
STORE)
FORMER
TANK
LOCATION
SUSPECTED
FORMER TANK
LOCATION
INTERNATIONAL BOULEVARD
LEGEND:
MW-1 Existing Well Location
(5.62) Groundwater elevation above mean sea level
Contour Interval 0.02 feet
0 20 40 80
Scale, in Feet
AllWest
GROUNDWATER CONTOUR ELEVATION MAP
FIGURE 3
4240 EAST 14TH STREET
OAKLAND, CALIFORNIA
SOURCE: ALLWEST
PROJECT NO.
22054.28
PREPARED BY: J.K.M. TINGIN
DATE: 06/02/02


MISSION AUTOMOTIVE
MW-2
6.3
4.7
0.84
44
FORMER SUMP LOCATION
GRAND AUTO SUPPLY
43
MW-1 140
15
ND
ND
120
16
ND
7.1
MW-3A
MW-4
70
7.7
ND
18
HIGH STREET
FORMER DRY CLEANERS
EXISTING DRY CLEANERS
FORMER FUEL PUMP ISLAND
ALL MUFFLERS DISCOUNTED REPAIR SHOP
(FORMER SUPER TIRE STORE)
FORMER TANK LOCATION
SUSPECTED FORMER TANK LOCATION
INTERNATIONAL BOULEVARD
LEGEND:
9.1 PCE
5.3 TCE
1.0 cis-1,2 DCE
38 Dichlorodifluoro-methane (freon 12)
(Results in ppb)
MW-1 Existing Well Location
0 20 40 80
Scale, in Feet
AllWest
GROUNDWATER RESULTS
FIGURE 4
4240 EAST 14TH STREET
OAKLAND, CALIFORNIA
SOURCE: ALLWEST
PROJECT NO. 22054.28
PREPARED BY: J.K.M. TINGIN
DATE: 06/06/02

Submission #: 2002-05-0342

Date: May 31, 2002

SEVERN TRENT SERVICES

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www.stl-inc.com
www.chromalab.com
CA DHS ELAP#2496

Allwest Environmental
530 Howard Street, Suite #300
San Francisco, CA 94105

Attn: Mr. Michael Siembieda

Project: 21082.28
Pacaar 2002

Dear Mr. Siembieda,

Attached is our report for your samples received on Tuesday May 21, 2002
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after July 5, 2002 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@chromalab.com

Sincerely,

Vincent Vancil
Project Manager

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

Halogenated Volatile Organic Compounds by 8021

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www.chromalab.com

CA DHS ELAP#2496

Allwest Environmental	✉ 530 Howard Street, Suite #300 San Francisco, CA 94105
Attn: Michael Siembieda	Phone: (415) 391-2510 Fax: (415) 391-2008
21082.28	Project: Pacaar 2002

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	05/21/2002 11:50	1

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

Halogenated Volatile Organic Compounds by 8021

Allwest Environmental
Attn: Michael Siembieda

Test Method: 8021B
Prep Method: 5030B

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#2496

Sample ID: **MW-1**
Project: 21082.28
Pacaar 2002

Sampled: 05/21/2002 11:50
Matrix: Water
Sample/Analysis Flag: o (See Legend & Note section)

Lab Sample ID: 2002-05-0342-001
Received: 05/21/2002 18:43

Extracted: 05/30/2002 12:29
QC-Batch: 2002/05/30-01.25

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	10	ug/L	10.00	05/30/2002 12:29	
Vinyl chloride	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Chloroethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Trichlorofluoromethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,1-Dichloroethene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Methylene chloride	ND	50	ug/L	10.00	05/30/2002 12:29	
trans-1,2-Dichloroethene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
cis-1,2-Dichloroethene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,1-Dichloroethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Chloroform	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,1,1-Trichloroethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Carbon tetrachloride	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,2-Dichloroethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Trichloroethene	15	5.0	ug/L	10.00	05/30/2002 12:29	
1,2-Dichloropropane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Bromodichloromethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
2-Chloroethylvinyl ether	ND	5.0	ug/L	10.00	05/30/2002 12:29	
trans-1,3-Dichloropropene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
cis-1,3-Dichloropropene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,1,2-Trichloroethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Tetrachloroethene	140	5.0	ug/L	10.00	05/30/2002 12:29	
Dibromochloromethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Chlorobenzene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Bromoform	ND	20	ug/L	10.00	05/30/2002 12:29	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,3-Dichlorobenzene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,4-Dichlorobenzene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
1,2-Dichlorobenzene	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Trichlorotrifluoroethane	ND	5.0	ug/L	10.00	05/30/2002 12:29	
Chloromethane	ND	10	ug/L	10.00	05/30/2002 12:29	
Bromomethane	ND	10	ug/L	10.00	05/30/2002 12:29	
Surrogate(s)						
1-Chloro-2-fluorobenzene	88.6	70-130	%	10.00	05/30/2002 12:29	

Submission #: 2002-05-0342

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CA DHS ELAP#2496

Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Method Blank **Water** **QC Batch # 2002/05/30-01.25**

MB: 2002/05/30-01.25-004 Date Extracted: 05/30/2002 11:38

Compound	Result	Rep.Limit	Unit	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	05/30/2002 11:38	
Vinyl chloride	ND	0.5	ug/L	05/30/2002 11:38	
Chloroethane	ND	0.5	ug/L	05/30/2002 11:38	
Trichlorofluoromethane	ND	0.5	ug/L	05/30/2002 11:38	
1,1-Dichloroethene	ND	0.5	ug/L	05/30/2002 11:38	
Methylene chloride	ND	5.0	ug/L	05/30/2002 11:38	
trans-1,2-Dichloroethene	ND	0.5	ug/L	05/30/2002 11:38	
cis-1,2-Dichloroethene	ND	0.5	ug/L	05/30/2002 11:38	
1,1-Dichloroethane	ND	0.5	ug/L	05/30/2002 11:38	
Chloroform	ND	0.5	ug/L	05/30/2002 11:38	
1,1,1-Trichloroethane	ND	0.5	ug/L	05/30/2002 11:38	
Carbon tetrachloride	ND	0.5	ug/L	05/30/2002 11:38	
1,2-Dichloroethane	ND	0.5	ug/L	05/30/2002 11:38	
Trichloroethene	ND	0.5	ug/L	05/30/2002 11:38	
1,2-Dichloropropane	ND	0.5	ug/L	05/30/2002 11:38	
Bromodichloromethane	ND	0.5	ug/L	05/30/2002 11:38	
2-Chloroethylvinyl ether	ND	0.5	ug/L	05/30/2002 11:38	
trans-1,3-Dichloropropene	ND	0.5	ug/L	05/30/2002 11:38	
cis-1,3-Dichloropropene	ND	0.5	ug/L	05/30/2002 11:38	
1,1,2-Trichloroethane	ND	0.5	ug/L	05/30/2002 11:38	
Tetrachloroethene	ND	0.5	ug/L	05/30/2002 11:38	
Dibromochloromethane	ND	0.5	ug/L	05/30/2002 11:38	
Chlorobenzene	ND	0.5	ug/L	05/30/2002 11:38	
Bromoform	ND	2.0	ug/L	05/30/2002 11:38	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	05/30/2002 11:38	
1,3-Dichlorobenzene	ND	0.5	ug/L	05/30/2002 11:38	
1,4-Dichlorobenzene	ND	0.5	ug/L	05/30/2002 11:38	
1,2-Dichlorobenzene	ND	0.5	ug/L	05/30/2002 11:38	
Trichlorotrifluoroethane	ND	0.5	ug/L	05/30/2002 11:38	
Chloromethane	ND	1.0	ug/L	05/30/2002 11:38	
Bromomethane	ND	1.0	ug/L	05/30/2002 11:38	
Surrogate(s)					
1-Chloro-2-fluorobenzene	83.7	70-130	%	05/30/2002 11:38	

Submission #: 2002-05-0342

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CA DHS ELAP#2496

Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2002/05/30-01.25**

LCS: 2002/05/30-01.25-002 Extracted: 05/30/2002 09:55 Analyzed: 05/30/2002 09:55

LCSD: 2002/05/30-01.25-003 Extracted: 05/30/2002 10:46 Analyzed: 05/30/2002 10:46

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery		RPD	Ctrl.Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recover	RPD	LCS	LCSD
1,1-Dichloroethene	21.7	22.3	20.0	20.0	108.5	111.5	2.7	70-130	20		
Trichloroethene	21.4	22.2	20.0	20.0	107.0	111.0	3.7	70-130	20		
Chlorobenzene	21.8	21.3	20.0	20.0	109.0	106.5	2.3	70-130	20		
Surrogate(s)											
1-Chloro-2-fluorobenz	24.8	22.4	20	20	124.0	112.0		70-130			

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

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CA DHS ELAP#2496

Halogenated Volatile Organic Compounds by 8021

Legend & Notes

Test Method: 8021B

Prep Method: 5030B

Analysis Flags

o Reporting limits were raised due to high level of analyte present in the sample.

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

Halogenated Volatile Organic Compounds by 8021

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CA DHS ELAP#2496

Allwest Environmental	✉ 530 Howard Street, Suite #300 San Francisco, CA 94105
Attn: Michael Siembieda	Phone: (415) 391-2510 Fax: (415) 391-2008
21082.28	Project: Pacaar 2002

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	05/21/2002 11:45	2
MW-4	Water	05/21/2002 10:50	5

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

Halogenated Volatile Organic Compounds by 8021

Allwest Environmental
Attn: Michael Siembieda

Test Method: 8021B
Prep Method: 5030B

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1220 Quarry Lane
Pleasanton, CA 94566

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www.stl-inc.com
www.chromalab.com

CA DHS ELAP#2496

Sample ID: **MW-2**
Project: 21082.28
Pacaar 2002

Sampled: 05/21/2002 11:45
Matrix: Water

Lab Sample ID: 2002-05-0342-002
Received: 05/21/2002 18:43

Extracted: 05/29/2002 12:59
QC-Batch: 2002/05/29-01.25

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	44	1.0	ug/L	1.00	05/29/2002 12:59	
Vinyl chloride	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Chloroethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Trichlorofluoromethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Methylene chloride	ND	5.0	ug/L	1.00	05/29/2002 12:59	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
cis-1,2-Dichloroethene	0.84	0.50	ug/L	1.00	05/29/2002 12:59	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Chloroform	ND	0.50	ug/L	1.00	05/29/2002 12:59	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Carbon tetrachloride	0.61	0.50	ug/L	1.00	05/29/2002 12:59	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Trichloroethene	4.7	0.50	ug/L	1.00	05/29/2002 12:59	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Bromodichloromethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	05/29/2002 12:59	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Tetrachloroethene	6.3	0.50	ug/L	1.00	05/29/2002 12:59	
Dibromochloromethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Chlorobenzene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Bromoform	ND	2.0	ug/L	1.00	05/29/2002 12:59	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	05/29/2002 12:59	
Chloromethane	ND	1.0	ug/L	1.00	05/29/2002 12:59	
Bromomethane	ND	1.0	ug/L	1.00	05/29/2002 12:59	
Surrogate(s)						
1-Chloro-2-fluorobenzene	83.9	70-130	%	1.00	05/29/2002 12:59	

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

Halogenated Volatile Organic Compounds by 8021

Allwest Environmental
Attn: Michael Siembieda

Test Method: 8021B
Prep Method: 5030B

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1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
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www.stl-inc.com
www.chromalab.com

CA DHS ELAP#2496

Sample ID: **MW-4**
Project: 21082.28
Pacaar 2002

Sampled: 05/21/2002 10:50
Matrix: Water

Lab Sample ID: 2002-05-0342-005
Received: 05/21/2002 18:43

Extracted: 05/29/2002 15:14
QC-Batch: 2002/05/29-01.25

Sample/Analysis Flag: o (See Legend & Note section)

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	18	5.0	ug/L	5.00	05/29/2002 15:14	
Vinyl chloride	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Chloroethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Trichlorofluoromethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,1-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Methylene chloride	ND	25	ug/L	5.00	05/29/2002 15:14	
trans-1,2-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
cis-1,2-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,1-Dichloroethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Chloroform	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,1,1-Trichloroethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Carbon tetrachloride	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,2-Dichloroethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Trichloroethene	7.7	2.5	ug/L	5.00	05/29/2002 15:14	
1,2-Dichloropropane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Bromodichloromethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
2-Chloroethylvinyl ether	ND	2.5	ug/L	5.00	05/29/2002 15:14	
trans-1,3-Dichloropropene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
cis-1,3-Dichloropropene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,1,2-Trichloroethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Tetrachloroethene	70	2.5	ug/L	5.00	05/29/2002 15:14	
Dibromochloromethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Chlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Bromoform	ND	10	ug/L	5.00	05/29/2002 15:14	
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,3-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,4-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
1,2-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Trichlorotrifluoroethane	ND	2.5	ug/L	5.00	05/29/2002 15:14	
Chloromethane	ND	5.0	ug/L	5.00	05/29/2002 15:14	
Bromomethane	ND	5.0	ug/L	5.00	05/29/2002 15:14	
Surrogate(s)						
1-Chloro-2-fluorobenzene	94.6	70-130	%	5.00	05/29/2002 15:14	

Submission #: 2002-05-0342

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Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Method Blank **Water** **QC Batch # 2002/05/28-01.25**

MB: 2002/05/28-01.25-004 Date Extracted: 05/28/2002 10:36

Compound	Result	Rep.Limit	Unit	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	05/28/2002 10:36	
Vinyl chloride	ND	0.5	ug/L	05/28/2002 10:36	
Chloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Trichlorofluoromethane	ND	0.5	ug/L	05/28/2002 10:36	
1,1-Dichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
Methylene chloride	ND	5.0	ug/L	05/28/2002 10:36	
trans-1,2-Dichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
cis-1,2-Dichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
1,1-Dichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Chloroform	ND	0.5	ug/L	05/28/2002 10:36	
1,1,1-Trichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Carbon tetrachloride	ND	0.5	ug/L	05/28/2002 10:36	
1,2-Dichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Trichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
1,2-Dichloropropane	ND	0.5	ug/L	05/28/2002 10:36	
Bromodichloromethane	ND	0.5	ug/L	05/28/2002 10:36	
2-Chloroethylvinyl ether	ND	0.5	ug/L	05/28/2002 10:36	
trans-1,3-Dichloropropene	ND	0.5	ug/L	05/28/2002 10:36	
cis-1,3-Dichloropropene	ND	0.5	ug/L	05/28/2002 10:36	
1,1,2-Trichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Tetrachloroethene	ND	0.5	ug/L	05/28/2002 10:36	
Dibromochloromethane	ND	0.5	ug/L	05/28/2002 10:36	
Chlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
Bromoform	ND	2.0	ug/L	05/28/2002 10:36	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	05/28/2002 10:36	
1,3-Dichlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
1,4-Dichlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
1,2-Dichlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
Trichlorotrifluoroethane	ND	0.5	ug/L	05/28/2002 10:36	
Chloromethane	ND	1.0	ug/L	05/28/2002 10:36	
Bromomethane	ND	1.0	ug/L	05/28/2002 10:36	
Surrogate(s)					
1-Chloro-2-fluorobenzene	84.2	70-130	%	05/28/2002 10:36	

Submission #: 2002-05-0342

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Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Method Blank **Water** **QC Batch # 2002/05/29-01.25**

MB: 2002/05/29-01.25-004 Date Extracted: 05/29/2002 11:30

Compound	Result	Rep.Limit	Unit	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	05/29/2002 11:30	
Vinyl chloride	ND	0.5	ug/L	05/29/2002 11:30	
Chloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Trichlorofluoromethane	ND	0.5	ug/L	05/29/2002 11:30	
1,1-Dichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
Methylene chloride	ND	5.0	ug/L	05/29/2002 11:30	
trans-1,2-Dichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
cis-1,2-Dichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
1,1-Dichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Chloroform	ND	0.5	ug/L	05/29/2002 11:30	
1,1,1-Trichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Carbon tetrachloride	ND	0.5	ug/L	05/29/2002 11:30	
1,2-Dichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Trichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
1,2-Dichloropropane	ND	0.5	ug/L	05/29/2002 11:30	
Bromodichloromethane	ND	0.5	ug/L	05/29/2002 11:30	
2-Chloroethylvinyl ether	ND	0.5	ug/L	05/29/2002 11:30	
trans-1,3-Dichloropropene	ND	0.5	ug/L	05/29/2002 11:30	
cis-1,3-Dichloropropene	ND	0.5	ug/L	05/29/2002 11:30	
1,1,2-Trichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Tetrachloroethene	ND	0.5	ug/L	05/29/2002 11:30	
Dibromochloromethane	ND	0.5	ug/L	05/29/2002 11:30	
Chlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
Bromoform	ND	2.0	ug/L	05/29/2002 11:30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	05/29/2002 11:30	
1,3-Dichlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
1,4-Dichlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
1,2-Dichlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
Trichlorotrifluoroethane	ND	0.5	ug/L	05/29/2002 11:30	
Chloromethane	ND	1.0	ug/L	05/29/2002 11:30	
Bromomethane	ND	1.0	ug/L	05/29/2002 11:30	
Surrogate(s)					
1-Chloro-2-fluorobenzene	80.6	70-130	%	05/29/2002 11:30	

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Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2002/05/28-01.25**

LCS: 2002/05/28-01.25-002 Extracted: 05/28/2002 09:08 Analyzed: 05/28/2002 09:08

LCSD: 2002/05/28-01.25-003 Extracted: 05/28/2002 09:52 Analyzed: 05/28/2002 09:52

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery		RPD	Ctrl.Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recover	RPD	LCS	LCSD
1,1-Dichloroethene	22.3	22.2	20.0	20.0	111.5	111.0	0.4	70-130	20		
Trichloroethene	21.4	21.2	20.0	20.0	107.0	106.0	0.9	70-130	20		
Chlorobenzene	22.1	20.0	20.0	20.0	110.5	100.0	10.0	70-130	20		
Surrogate(s)											
1-Chloro-2-fluorobenz	25.9	21.2	20	20	129.5	106.0		70-130			

Submission #: 2002-05-0342

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Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2002/05/29-01.25**

LCS: 2002/05/29-01.25-002 Extracted: 05/29/2002 10:02 Analyzed: 05/29/2002 10:02

LCSD: 2002/05/29-01.25-003 Extracted: 05/29/2002 10:46 Analyzed: 05/29/2002 10:46

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery		RPD	Ctrl.Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recover	RPD	LCS	LCSD
1,1-Dichloroethene	23.3	23.9	20.0	20.0	116.5	119.5	2.5	70-130	20		
Trichloroethene	23.0	23.0	20.0	20.0	115.0	115.0	0.0	70-130	20		
Chlorobenzene	21.5	22.7	20.0	20.0	107.5	113.5	5.4	70-130	20		
Surrogate(s)											
1-Chloro-2-fluorobenz	22.4	23.8	20	20	112.0	119.0		70-130			

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Halogenated Volatile Organic Compounds by 8021

Legend & Notes

Test Method: 8021B Prep Method: 5030B

Analysis Flags

o Reporting limits were raised due to high level of analyte present in the sample.

Submission #: 2002-05-0342

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CA DHS ELAP#2496

Allwest Environmental	✉ 530 Howard Street, Suite #300 San Francisco, CA 94105
Attn: Michael Siembieda	Phone: (415) 391-2510 Fax: (415) 391-2008
21082.28	Project: Pacaar 2002

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-3A-1	Water	05/21/2002 10:30	3
MW-3A-2	Water	05/21/2002 10:30	4

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

Halogenated Volatile Organic Compounds by 8021

Allwest Environmental
Attn: Michael Siembieda

Test Method: 8021B
Prep Method: 5030B

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CA DHS ELAP#2496

Sample ID: **MW-3A-1**
Project: 21082.28 Pacaar 2002
Sampled: 05/21/2002 10:30
Matrix: Water
Sample/Analysis Flag: o (See Legend & Note section)

Lab Sample ID: 2002-05-0342-003
Received: 05/21/2002 18:43
Extracted: 05/29/2002 13:44
QC-Batch: 2002/05/29-01.25

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	7.1	5.0	ug/L	5.00	05/29/2002 13:44	
Vinyl chloride	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Chloroethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Trichlorofluoromethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,1-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Methylene chloride	ND	25	ug/L	5.00	05/29/2002 13:44	
trans-1,2-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
cis-1,2-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,1-Dichloroethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Chloroform	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,1,1-Trichloroethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Carbon tetrachloride	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,2-Dichloroethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Trichloroethene	16	2.5	ug/L	5.00	05/29/2002 13:44	
1,2-Dichloropropane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Bromodichloromethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
2-Chloroethylvinyl ether	ND	2.5	ug/L	5.00	05/29/2002 13:44	
trans-1,3-Dichloropropene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
cis-1,3-Dichloropropene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,1,2-Trichloroethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Tetrachloroethene	120	2.5	ug/L	5.00	05/29/2002 13:44	
Dibromochloromethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Chlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Bromoform	ND	10	ug/L	5.00	05/29/2002 13:44	
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,3-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,4-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
1,2-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Trichlorotrifluoroethane	ND	2.5	ug/L	5.00	05/29/2002 13:44	
Chloromethane	ND	5.0	ug/L	5.00	05/29/2002 13:44	
Bromomethane	ND	5.0	ug/L	5.00	05/29/2002 13:44	
Surrogate(s)						
1-Chloro-2-fluorobenzene	98.4	70-130	%	5.00	05/29/2002 13:44	

Submission #: 2002-05-0342

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Halogenated Volatile Organic Compounds by 8021

Allwest Environmental
Attn: Michael Siembieda

Test Method: 8021B
Prep Method: 5030B

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Sample ID: **MW-3A-2**
Project: 21082.28 Pacaar 2002
Sampled: 05/21/2002 10:30
Matrix: Water
Sample/Analysis Flag: o (See Legend & Note section)

Lab Sample ID: 2002-05-0342-004
Received: 05/21/2002 18:43
Extracted: 05/29/2002 14:29
QC-Batch: 2002/05/29-01.25

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	7.3	5.0	ug/L	5.00	05/29/2002 14:29	
Vinyl chloride	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Chloroethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Trichlorofluoromethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,1-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Methylene chloride	ND	25	ug/L	5.00	05/29/2002 14:29	
trans-1,2-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
cis-1,2-Dichloroethene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,1-Dichloroethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Chloroform	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,1,1-Trichloroethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Carbon tetrachloride	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,2-Dichloroethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Trichloroethene	17	2.5	ug/L	5.00	05/29/2002 14:29	
1,2-Dichloropropane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Bromodichloromethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
2-Chloroethylvinyl ether	ND	2.5	ug/L	5.00	05/29/2002 14:29	
trans-1,3-Dichloropropene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
cis-1,3-Dichloropropene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,1,2-Trichloroethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Tetrachloroethene	120	2.5	ug/L	5.00	05/29/2002 14:29	
Dibromochloromethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Chlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Bromoform	ND	10	ug/L	5.00	05/29/2002 14:29	
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,3-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,4-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
1,2-Dichlorobenzene	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Trichlorotrifluoroethane	ND	2.5	ug/L	5.00	05/29/2002 14:29	
Chloromethane	ND	5.0	ug/L	5.00	05/29/2002 14:29	
Bromomethane	ND	5.0	ug/L	5.00	05/29/2002 14:29	
Surrogate(s)						
1-Chloro-2-fluorobenzene	103.1	70-130	%	5.00	05/29/2002 14:29	

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Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Method Blank **Water** **QC Batch # 2002/05/28-01.25**

MB: 2002/05/28-01.25-004 Date Extracted: 05/28/2002 10:36

Compound	Result	Rep.Limit	Unit	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	05/28/2002 10:36	
Vinyl chloride	ND	0.5	ug/L	05/28/2002 10:36	
Chloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Trichlorofluoromethane	ND	0.5	ug/L	05/28/2002 10:36	
1,1-Dichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
Methylene chloride	ND	5.0	ug/L	05/28/2002 10:36	
trans-1,2-Dichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
cis-1,2-Dichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
1,1-Dichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Chloroform	ND	0.5	ug/L	05/28/2002 10:36	
1,1,1-Trichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Carbon tetrachloride	ND	0.5	ug/L	05/28/2002 10:36	
1,2-Dichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Trichloroethene	ND	0.5	ug/L	05/28/2002 10:36	
1,2-Dichloropropane	ND	0.5	ug/L	05/28/2002 10:36	
Bromodichloromethane	ND	0.5	ug/L	05/28/2002 10:36	
2-Chloroethylvinyl ether	ND	0.5	ug/L	05/28/2002 10:36	
trans-1,3-Dichloropropene	ND	0.5	ug/L	05/28/2002 10:36	
cis-1,3-Dichloropropene	ND	0.5	ug/L	05/28/2002 10:36	
1,1,2-Trichloroethane	ND	0.5	ug/L	05/28/2002 10:36	
Tetrachloroethene	ND	0.5	ug/L	05/28/2002 10:36	
Dibromochloromethane	ND	0.5	ug/L	05/28/2002 10:36	
Chlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
Bromoform	ND	2.0	ug/L	05/28/2002 10:36	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	05/28/2002 10:36	
1,3-Dichlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
1,4-Dichlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
1,2-Dichlorobenzene	ND	0.5	ug/L	05/28/2002 10:36	
Trichlorotrifluoroethane	ND	0.5	ug/L	05/28/2002 10:36	
Chloromethane	ND	1.0	ug/L	05/28/2002 10:36	
Bromomethane	ND	1.0	ug/L	05/28/2002 10:36	
Surrogate(s)					
1-Chloro-2-fluorobenzene	84.2	70-130	%	05/28/2002 10:36	

Submission #: 2002-05-0342

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Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Method Blank **Water** **QC Batch # 2002/05/29-01.25**

MB: 2002/05/29-01.25-004 Date Extracted: 05/29/2002 11:30

Compound	Result	Rep.Limit	Unit	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	05/29/2002 11:30	
Vinyl chloride	ND	0.5	ug/L	05/29/2002 11:30	
Chloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Trichlorofluoromethane	ND	0.5	ug/L	05/29/2002 11:30	
1,1-Dichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
Methylene chloride	ND	5.0	ug/L	05/29/2002 11:30	
trans-1,2-Dichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
cis-1,2-Dichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
1,1-Dichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Chloroform	ND	0.5	ug/L	05/29/2002 11:30	
1,1,1-Trichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Carbon tetrachloride	ND	0.5	ug/L	05/29/2002 11:30	
1,2-Dichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Trichloroethene	ND	0.5	ug/L	05/29/2002 11:30	
1,2-Dichloropropane	ND	0.5	ug/L	05/29/2002 11:30	
Bromodichloromethane	ND	0.5	ug/L	05/29/2002 11:30	
2-Chloroethylvinyl ether	ND	0.5	ug/L	05/29/2002 11:30	
trans-1,3-Dichloropropene	ND	0.5	ug/L	05/29/2002 11:30	
cis-1,3-Dichloropropene	ND	0.5	ug/L	05/29/2002 11:30	
1,1,2-Trichloroethane	ND	0.5	ug/L	05/29/2002 11:30	
Tetrachloroethene	ND	0.5	ug/L	05/29/2002 11:30	
Dibromochloromethane	ND	0.5	ug/L	05/29/2002 11:30	
Chlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
Bromoform	ND	2.0	ug/L	05/29/2002 11:30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	05/29/2002 11:30	
1,3-Dichlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
1,4-Dichlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
1,2-Dichlorobenzene	ND	0.5	ug/L	05/29/2002 11:30	
Trichlorotrifluoroethane	ND	0.5	ug/L	05/29/2002 11:30	
Chloromethane	ND	1.0	ug/L	05/29/2002 11:30	
Bromomethane	ND	1.0	ug/L	05/29/2002 11:30	
Surrogate(s)					
1-Chloro-2-fluorobenzene	80.6	70-130	%	05/29/2002 11:30	

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#2496

Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2002/05/28-01.25**

LCS: 2002/05/28-01.25-002 Extracted: 05/28/2002 09:08 Analyzed: 05/28/2002 09:08

LCSD: 2002/05/28-01.25-003 Extracted: 05/28/2002 09:52 Analyzed: 05/28/2002 09:52

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery		RPD	Ctrl.Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recover	RPD	LCS	LCSD
1,1-Dichloroethene	22.3	22.2	20.0	20.0	111.5	111.0	0.4	70-130	20		
Trichloroethene	21.4	21.2	20.0	20.0	107.0	106.0	0.9	70-130	20		
Chlorobenzene	22.1	20.0	20.0	20.0	110.5	100.0	10.0	70-130	20		
Surrogate(s)											
1-Chloro-2-fluorobenz	25.9	21.2	20	20	129.5	106.0		70-130			

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

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Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#2496

Halogenated Volatile Organic Compounds by 8021

Batch QC report

Test Method: 8021B Prep Method: 5030B

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2002/05/29-01.25**

LCS: 2002/05/29-01.25-002 Extracted: 05/29/2002 10:02 Analyzed: 05/29/2002 10:02

LCSD: 2002/05/29-01.25-003 Extracted: 05/29/2002 10:46 Analyzed: 05/29/2002 10:46

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery		RPD	Ctrl.Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recover	RPD	LCS	LCSD
1,1-Dichloroethene	23.3	23.9	20.0	20.0	116.5	119.5	2.5	70-130	20		
Trichloroethene	23.0	23.0	20.0	20.0	115.0	115.0	0.0	70-130	20		
Chlorobenzene	21.5	22.7	20.0	20.0	107.5	113.5	5.4	70-130	20		
Surrogate(s)											
1-Chloro-2-fluorobenz	22.4	23.8	20	20	112.0	119.0		70-130			

Submission #: 2002-05-0342

SEVERN TRENT SERVICES

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Pleasanton, CA 94566

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CA DHS ELAP#2496

Halogenated Volatile Organic Compounds by 8021

Legend & Notes

Test Method: 8021B Prep Method: 5030B

Analysis Flags

o Reporting limits were raised due to high level of analyte present in the sample.

SEVERN TRENT SERVICES

STL San Francisco

Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: info@chromalab.com

2002-05-0342

Reference #: [redacted]

Date 5/21/02 Page 1 of 1

Report To

Attn. Mike Siembieda
Company AllWest Environmental
Address 530 Howard St, Ste 300
Phone 415-391-2510 Email
Bill To AllWest
Sampled By: John McCain
Attn: Files
Phone: 415-391-2510

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH (EPA 8015, 8020/8021) ☐ Gas w/ ☐ BTEX ☐ MTBE	Purgeable Aromatics BTEX (EPA 8020/8021)	TEPH (EPA 8015M) ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	Fuel Oxygenates (8260B): ☐ DCA, EDB ☐ Full Oxygenate List ☐ MTBE ☐ BTEX	Purgeable Halocarbons (HVOCs) (EPA 8010/8021)	Volatile Organics GC/MS (VOCs) (EPA 8260A/8260B)	Semivolatiles GC/MS (EPA 8270)	Oil and Grease ☐ Petroleum ☐ Total (EPA 1664)	Pesticides (EPA 8081) ☐ PCBs (EPA 8082) ☐ ☐	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	W.E.T (STLC) ☐ TCLP ☐ ☐	Hexavalent Chromium pH (24h hold time for H_2O) ☐ ☐	Spec Cond. ☐ Alkalinity ☐ TDS ☐ ☐ TSS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	Chlorinated Solvents (8010)				Number of Containers
MW-1	5/21/02	11:50	H2O	HCl					X												X						3
MW-2	↓	11:45	↓	↓					X												X						3
MW-3A-1		10:30							X												X						3
MW-3A-2		10:30							X												X						3
MW-4		10:50							X												X						3
Trip blank																											

Project Info.

Project Name: Pacaar 2002
Project#: 21082.28
PO#:
Credit Card#:

TAT: (Std 5 Day) 72h 48h 24h

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD

Special Instructions / Comments:
Trip Blank not rec'd by lab. JCR 05/22/02

Sample Receipt

of Containers: 15
Head Space:
Temp: 4.9
Conforms to record:
Other

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: John McCain Time:	Signature: Time:	Signature: Time: 1843
Printed Name: John McCain Date: 5/21/02	Printed Name: Date:	Printed Name: B. Moran Date: 5/21/02
Company: AllWest Env.	Company:	Company: STL-SF

1) Received by:	2) Received by:	3) Received by:
Signature: Time: 1420	Signature: Time:	Signature: D. Harrington Time:
Printed Name: B. Moran Date: 5/21/02	Printed Name: Date:	Printed Name: D. Harrington Date: 1843
Company: STL-SF	Company:	Company: STL-SF Date: 5/21/02

Rev 01/02

Standard Operating Procedure
Groundwater Sampling

Prior to sampling, an electric water level sounder was lowered into the well casing to measure the depth to the water relative to the top of the casing. A clear poly bailer was then lowered into the well casing and partially submerged. Upon retrieval of the clear bailer, the surface of the water column retained in the bailer was examined for any floating product or product sheen.

After initial measurements were completed and recorded, the wells were purged by a disposable bailer. Approximately 3 well columns of groundwater was purged. During the purging process, the physical property (temperature, pH and conductivity) and bioparameters (dissolved oxygen and redox) of the groundwater were monitored periodically with various field meters. Purging was considered complete when physical property indicators were stabilized (consecutive readings within 10% of each other) and the purged water was free of sediments.

Groundwater sampling was conducted after the water level recovered to at least 80% of the initial level, recorded prior to purging. The groundwater samples were collected by using a disposable bailer that was discarded after the sampling event to avoid cross-contamination. Upon retrieval of the disposable bailer, the retained water was carefully transferred to appropriate pre-cleaned glassware by the analytical laboratory. A special adapter fitted to the bottom end of the bailer was used to minimize the loss of chlorinated solvents during transfer. All sample containers were fitted with a Teflon lined septum/cap and filled such that no headspace was present. After the water sample was properly transferred to the appropriate container, the container was labeled and immediately placed on ice to preserve its chemical characteristics. A well sampling log was maintained during the sampling event to document sampling activities.

Samples were field stored and transported in an insulated cooler filled with crushed ice and delivered the same day of collection to the analytical laboratory. All samples were transported to the laboratory under proper chain of custody documentation from the time of collection to the time of arrival at the laboratory.

To avoid cross-contamination, all groundwater sampling equipment that came in contact with the groundwater was thoroughly cleansed by washing it in Alconox (a non-phosphor detergent) solution and rinsed with distilled water prior to each well sampling event. Sample collection was by a disposable bailer which was discarded after each well sampling event. The purged water was temporarily stored on-site in a labeled DOT-approved 55-gallon steel drum until they were removed for off-site disposal.

Groundwater Monitoring Well Sampling Field Log

Project No.: 21082.28 (54) Project Name: Paccar 2002

Well No.: MW-7 Well Location: 4240 E. 14th St Oakland

Well Depth: 43.68 (ft.) Casing Diameter: 4" (in.)

Depth to Water: 24.91 (ft.) Date: 5/21/02 Time: 7:55

Water Column in Well: 18.77 (ft.) Well Volume: 12.3 (gal.) x 3 vol 0.653 gal/ft = 37 gal

Odor? No Free Product? No Thickness: No

Purging Method: Hand Pump ___ Submersible Pump ___ Bailer X Other ___

Time	pH	Conduc. (µS)	Temp. (°C)	Water Level	Volume Removed	Remark
11:00	7.15	497	66.1	~~NA~~	-0-	1st Bailer clear
11:15	6.82	540	66.4	✓	10	clear
11:30	6.94	611	66.1		20	v slightly cloudy
11:45	6.78	621	66.4		30	slightly cloudy
11:50	6.68	636	66.9		37	slightly cloudy

Purging Start Time: 11:00 Purging Stop Time: 11:50

Total Volume Purged: 37 (gal.) Well Dewater? NO

Water Level Prior to Sampling: 24.91 (ft.) Time: _____

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump ___

Sample Collected: 3 x 40 ML VOAs Sample No.: MW-7

Remark: take sample @ 11:50

3 VOA's

Sampler: [signature] MLS Date/Time: 5/21/02

Groundwater Monitoring Well Sampling Field Log

Project No.: 21054.28 Project Name: Paccar 2002

Well No.: MW-2 Well Location: 4240 E. 14th St Oakland

Well Depth: 46.16 (ft.) Casing Diameter: 4" (in.)

Depth to Water: 24.78 (ft.) Date: 5/21/02 Time: 08.00 0.653/gal

Water Column in Well: 21.38 (ft.) Well Volume: 14 (gal.) x 3 = 42 gallons

Odor? No Free Product? No Thickness: NO

Purging Method: Hand Pump ___ Submersible Pump ___ Bailer X Other ___

Time	pH	Conduc. (µS)	Temp. (°C)	Water Level	Volume Removed	Remark
11:15	6.75	630	65.9		0.25	
11:24	6.65	631	66.9		14	
11:35	6.66	647	66.6		28	
					[illegible]	
11:45	6.95	642	65.4		42	

Purging Start Time: _____ Purging Stop Time: _____

Total Volume Purged: _____ (gal.) Well Dewater? _____

Water Level Prior to Sampling: _____ (ft.) Time: _____

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump ___

Sample Collected: 3 x 40 ML VOAs Sample No.: MW-2

Remark: _____

Sampler: M. Sandvik Date/Time: 5/21/02

John McCain

Groundwater Monitoring Well Sampling Field Log

Project No.: 21082.28 (54) Project Name: Paccar 2002

Well No.: MW-3A Well Location: 4240 E. 14th St Oakland

Well Depth: 39.71 (ft.) Casing Diameter: 4" (in.)

Depth to Water: 25.04 (ft.) Date: 5/21/02 Time: 0750

Water Column in Well: 14.67 (ft.) (0750) Well Volume: 9.6~ (gal.) x0.653 x3 = ~30 gal/01

Odor? No Free Product? NO Thickness: NO

Purging Method: Hand Pump ___ Submersible Pump ___ Bailer X Other ___

Time	pH	Conduc. (µS)	Temp. (°F)	Water Level	Volume Removed	Remark
8:35	7.2	430	65.5		1-gal	1st Bailer. sl. cloudy
8:45	7.4	422	63.4		10 gal	
10:20	6.52	434	64.1		20 gal	
10:30	6.90	433	66.1		30 gal	

Purging Start Time: 8:35 Purging Stop Time: 10:30

Total Volume Purged: 30 (gal.) Well Dewater? No

Water Level Prior to Sampling: 25.00 (ft.) Time: ~ 9:00

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump ___

Sample Collected: 3 x 40 ML VOAs Sample No.: MW3A1 and MW3A2

Remark: Duplicate Samples - MW-3A1 and MW-3A2

take sample @ 10:30-

Sampler: M. L Stanbridge Date/Time: 5/21/02

Groundwater Monitoring Well Sampling Field Log

Project No.: 21054.28 Project Name: Paccar 2002

Well No.: MW-4 Well Location: 4240 E. 14th St Oakland

Well Depth: 44.38 (ft.) Casing Diameter: 4" (in.)

Depth to Water: 23.46 (ft.) Date: 5/21/02 Time: 7:50

Water Column in Well: 20.92 (ft.) Well Volume: 13.7 (gal.) 0.653/gal/ft 2 40 gall

Odor? NO Free Product? NO Thickness: ~~~

Purging Method: Hand Pump ___ Submersible Pump ___ Bailer X Other ___

Time	pH	Conduc. (µS)	Temp. (°C)	~~Water Level~~	Volume Removed	Remark
8:38	7.6	488	65.2		0.25	cloudy tan
8:45	7.2	555	65.2		13.7	cloudy tan
10:30	6.42	628	67.6		27.4	cloudy tan
10:50	6.47	572	67.3		41.1	cloudy tan

Purging Start Time: _____ Purging Stop Time: _____

Total Volume Purged: _____ (gal.) Well Dewater? _____

Water Level Prior to Sampling: _____ (ft.) Time: _____

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump ___

Sample Collected: 3 x 40 ML VOAs Sample No.: MW-4

Remark: _____

Sampler: [signature] + John McCain Date/Time: 5/21/02 10:50

AllWest Environmental, Inc.

Specialists in Physical Due
Diligence and Remedial Services

530 Howard Street, Suite 300
San Francisco, CA 94105
Tel 415.391.2510
Fax 415.391.2008

APPLICATION FOR AUTHORIZATION TO USE

REPORT TITLE:

To: AllWest Environmental, Inc.
530 Howard Street, Suite 300
San Francisco, CA 94105

From (Applicant): _____
(Please clearly identify name and address of person/entity applying for permission to use or copy this document)

Ladies and Gentlemen:

Applicant hereby applies for permission to rely upon *AllWest's* work product, as described above, for the purpose of: (state here the purpose for which you wish to rely upon the work product)

Applicant only can accept and rely upon *AllWest* work product under the strict understanding that Applicant is bound by all provisions in the Terms and Conditions attached to the report. Every report, recommendation, finding, or conclusion issued by *AllWest* shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. *AllWest* may withhold permission at its sole discretion or require additional re-use fees or terms.

FEES: A $500 coordination and reliance fee, payable in advance, will apply. If desired, for an additional $75 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

REQUESTED BY

_____
Applicant Company

_____
Print name and Title

_____
Signature and Date

APPROVED BY

AllWest Environmental, Inc.

_____
Print Name and Title

_____
Signature and Date

PROJECT NAME: **Grand Auto #43, 4240 East 14th Street, Oakland California**
PROJECT NUMBER: 22054.28

GENERAL CONDITIONS TO THE WORK AUTHORIZATION

AGREEMENT

It is hereby agreed that the Client retains AllWest to act for and represent it in all matters set forth in the Work Authorization attached hereto (the "Work"). Such contracts of a retainer shall be subject to and is conditioned upon the following terms, conditions, and stipulations, which terms, conditions and stipulations will also apply to any further agreements, purchase orders, or documentation regarding the Work unless modified by a writing signed by both Parties to this Agreement. Signature by client on work authorization constitutes agreement with General Conditions as stated here.

It is recognized and agreed that AllWest has assumed responsibility only for making the investigations, reports and recommendations to the Client included within the Scope of Work. The responsibility for making any disclosures or reports to any third party and for the taking of corrective, remedial, or mitigative action shall be solely that of the Client.

REIMBURSABLE COSTS/INTEREST AND ATTORNEYS FEES

1. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and typewritten reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of thirty-five cents ($.35) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.1 times the direct cost to AllWest. Any rates set orth in this Agreement are subject to reasonable increases by AllWest upon giving thirty days' written notice to Client. Reimbursable costs will be charged to the client *only as outlined* in the attached proposal if the work is for Phase I Environmental Site Assessment. A client knowingly and willingly agrees to pay interest on the balance of on unpaid invoices overdue more than 30 days at a rate of 18% per annum and all attorney fees incurred by AllWest to secure payment of unpaid invoices. AllWest may waive such fees at its discretion.

WARRANTY AND LIMITATION OF LIABILITY

2. AllWest hereby warrants that it will perform the Work with the usual degree and standard of care and skill observed by members of AllWest's profession in the same geographic area on projects of the type engaged in by AllWest. **Client's sole remedy under this Agreement shall be to request that AllWest repeat or correct any of the Work performed by AllWest which fails to meet these standards. AllWest's financial liability including attorney fees shall not exceed the dollar value of this agreement and shall be limited to direct damages.** All other damages such as loss of use, profits, anticipated profits and like losses are consequential damages for which AllWest is not liable. Client hereby releases AllWest from all liability and damage incurred by the Client or other people who are associated with the services provided by AllWest, or the employees, agents, contractors or subcontractors of AllWest, under this Agreement.

Further, Client hereby releases AllWest from any and all liability for risks or damages to the Project site. AllWest assumes no liability or duties regarding the Project site by reason of its performance of the Work at the Project. Client shall hold AllWest harmless from any liabilities or duties with respect to the work or the Project. Client shall further release, Indemnify and hold AllWest harmless from any and all claims, liabilities or damages resulting from AllWest's use of technological or design concepts, or any other concepts or uses which, though acceptable and standard at the time the decision to use them was made, are unacceptable or nonstandard beginning at the time work commences or any time thereafter. If AllWest must incur additional expenses in the work by reason or the need to incorporate new or different technologies into the Work, whether necessitated by new laws, regulations or guidelines, or by the desire of Client, Client agrees to reimburse AllWest for such expenses, as well as provide compensation for AllWest's services at the rates set forth in the Work Authorization.

Client acknowledges that AllWest and its subcontractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or an industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of assisting the Client in assessing any problem which may exist and in assisting the Client in formulating a remedial program, if such is within the Scope of Work which AllWest has assumed. Client recognizes that while necessary for investigations, commonly used exploration methods may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While backfilling with grout, or other means, according to a state of practice design, is intended to provide a seal against such passageways, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest shall not be required to sign any documents, no matter by whom requested, that would result in AllWest having to certify, guarantee, warrant or opine on conditions whose existence AllWest cannot ascertain. The CLIENT also agrees not to make resolution of any dispute with AllWest or payment of any amount due to AllWest in any way contingent upon AllWest signing any such documents.

TERMINATION

3. This Agreement may be terminated by either party upon seven (7) days' written notice should the other party substantially fail to perform in accordance with its terms through no fault of the party initiating the termination. In the event of termination which is not the fault of AllWest, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which falls within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client its reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

AllWest may issue notice to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project and take other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

DOCUMENTS

4. Any documents prepared by AllWest, including but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are and shall remain the property of AllWest whether or not said documents are actually utilized in connection with the Project. The Client shall be permitted to retain a copy of any documents provided to the Client by AllWest, but said documents may not be used by the Client on other projects or for any other purpose, except the current one, except by agreement in writing with AllWest and with appropriate compensation to AllWest.

Client shall furnish, or cause to be furnished to AllWest, all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. If CLIENT fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in their possession during the period that AllWest is actively providing expertise (30 days post the final invoice), CLIENT shall release AllWest from any and all liability for risks and damages the CLIENT incurs resulting from their reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for their accuracy or completeness. Client-provided documents will remain the property of the Client.

ACCESS TO PROJECT

5. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest.

CONFIDENTIAL INFORMATION

6. Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both Client and AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may either be applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and a unique asset of that party, and each of the Parties hereto agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

ADDITIONAL SERVICES

7. In addition to the services to be performed by AllWest as described in the Work Authorization, the following items shall for the purposes of this Agreement be termed "Additional Services": (a) work resulting from changes in scope or magnitude of the Work as described therein, (b) work resulting from changes necessary because of construction cost overruns, (c) work resulting from implementation of alternative or different designs from that first contemplated by the Parties, (d) work resulting from corrections or revisions required because of errors or omissions in construction by the building contractors, (e) work due to extended design or construction time schedules, (f) layout surveys in review of in-place constructed elements, and (g) services as an expert witness in connection with any public hearing, arbitration or proceedings of a court of record with respect to the Work on the Project.

AllWest will be compensated by Client for any Additional Services as provided under the Work Authorization.

DISPOSAL OF CONTAMINATED MATERIAL

8. Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake or arrange for handling, removal, treatment, storage, treatment of hazardous material shall be the sole responsibility of Client. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

INDEPENDENT CONTRACTOR

9. Both Client and AllWest agree that AllWest will act as an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

NOTICES

10. (a) All notices, demands or requests provided for or permitted to be given pursuant to this Agreement must be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or if mailed by first class certified mail, return receipt requested, and properly addressed as follows:

To Client: _____

To AllWest: AllWest Environmental, Inc.
530 Howard Street, Suite 300
San Francisco, California 94105

When either (i) the return receipt is signed by the addressee, (ii) the mailing is refused by the addressee, or (iii) the mailing is not delivered because the addresses moved and left no forwarding address.

b) By giving the other party to this Agreement ten (10) days' written notice thereof, the parties hereto and their respective successors and assigns shall have the right from time to time and at any time during the term of this Agreement to change their respective addresses and each shall have the right to specify its address or any other address within the United States of America.

ENTIRE AGREEMENT

11. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes all prior and contemporaneous agreements, representations and understandings of the Parties. The terms of this Agreement are contractual and not a mere recital. The undersigned have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act. This Agreement was entered into following negotiations between the Parties.

MODIFICATION / WAIVER / PARTIAL INVALIDITY

12. The terms of this Agreement may be modified only by a writing signed by both Parties. No consent or waiver, express or implied, by either party to or of any breach or default by another in the performance by the other of its obligations hereunder shall be deemed or construed to be a consent or waiver to or of any other breach or default in the performance by such other party of the same or any other obligations of such party hereunder. Failure on the part of either party to complain of any act or failure to act of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or the application thereof to any person or circumstances shall be invalid or unenforceable to any extent, the remainder of this Agreement and the application of such provisions to other persons or circumstances shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

INUREMENT / TITLES / ATTORNEYS' FEES

13. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. If any legal action or any arbitration or other proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any of the provisions of this Agreement, the successful prevailing party shall be entitled to recover reasonable attorneys' fees and other costs incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled. In addition, AllWest and Client shall be entitled to be reimbursed by the other for any attorneys' fees or other costs reasonably incurred in enforcing the terms of this Agreement in the event such fees are incurred without resorting to arbitration or litigation.

INTERPRETATION / ADDITIONAL DOCUMENTS

14. The words "Client" and "AllWest" as used herein shall include the plural as well as the singular. Words used in the neuter gender include the masculine and feminine. Words used in the masculine gender include the feminine and neuter. If there is more than one Client or Consultant, the obligations hereunder imposed on Client or AllWest or Consultant shall be joint and several. Although the printed provisions of this Agreement were drafted by the attorneys for AllWest, the terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language herein contained in an effort to reach the intended result. Each of the Parties hereto shall upon request execute and/or acknowledge and/or deliver to each other Party or to its representatives any and all further documents which may now or hereafter be necessary to enable any of the Parties to effectuate any of the provisions of this Agreement.

AUTHORITY

15. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, that the Board of Directors if required pursuant to the bylaws or resolution of the corporation approved this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture or a general partnership, the signatories below warrant that said joint venture or general partnership is properly and duly organized and existing under the laws of the respective state of its formation and pursuant to the joint venture agreement or a partnership agreement as well as by virtue of the laws of the respective state of its formation, said signatory is a joint venturer or a general partner of said joint venture or general partnership and has the power and authority to bind the joint venture or the general partnership.

COUNTERPARTS / ABSENCE OF PARTNERSHIP OR JOINT VENTURE

16. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document. It is expressly understood that the Client does not, in any way or for any purpose, become a partner of AllWest in the conduct of its business, or otherwise, or joint venturer or a member of a joint enterprise with AllWest. It is expressly understood that AllWest do not, in any way or for any purpose, become a partner of the Client in the conduct of Client's business, or otherwise, or joint venturer or a member of a joint enterprise with Client.

THIRD PARTY BENEFICIARIES / CONTROLLING LAW

17. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.