ADDITIONAL SUBSURFACE INVESTIGATION AT THE PROPERTY LOCATED AT 400 SAN PABLO AVENUE, ALBANY, CALIFORNIA NOVEMBER 15, 1996

PREPARED FOR: MR. MURRAY STEVENS KAMUR INDUSTRIES 2351 SHORELINE DRIVE ALAMEDA, CA 94501

BY: SOIL TECH ENGINEERING, INC. 1761 JUNCTION AVENUE SAN JOSE, CALIFORNIA 95112

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November 5, 1996

File No. 8-90-421-SI

Mr. Murray Stevens Kamur Industries, Inc. 2351 Shoreline Drive Alameda, CA 94501

SUBJECT:

ADDITIONAL SUBSURFACE INVESTIGATION FOR

THE PROPERTY Located at 400 San Pablo Avenue,

in Albany, California

Dear Mr. Stevens:

Enclosed is a report summarizing the results of an additional subsurface investigation conducted by Soil Tech Engineering, Inc. (STE) at the subject site located at 400 San Pablo Avenue, in Oakland, California.

During the current phase of investigation, three additional monitoring wells were installed at the site. The three newly installed wells along with the four existing on-site wells were surveyed, monitored and sampled. Table 1 and 2 summarize the results of soil and groundwater investigation results.

We recommend continuation of groundwater monitoring and sampling for one year and eventual re-evaluation of site condition. We also recommend conducting a risk assessment for the subject site in order to evaluate the potential risk due to the levels of contaminants at the site. A copy of this report should be submitted to Alameda County Health Department.

If you have any questions or require additional information, please contact our office at (408) 441-1881 at your convenience.

Sincerely,

SOIL TECH ENGINEERING, INC.

MANEESHA UPADHYAY PROJECT GEOLOGIST LAWRENCE KOO, P.E.

C.E. #34928

FRANK HAMEDI-FARD GENERAL MANAGER

ADDITIONAL SUBSURFACE INVESTIGATION FOR THE PROPERTY LOCATED AT 400 SAN PABLO AVENUE ALBANY, CALIFORNIA NOVEMBER 15, 1996

INTRODUCTION:

This report presents the results of an additional subsurface investigation conducted by Soil Tech Engineering, Inc. (STE) for Mr. Steven's property located at 400 San Pablo Avenue, in Albany, California (Figure 1). The purpose of this investigation was to characterize and delineate subsurface petroleum hydrocarbons contamination at the subject site down-gradient of El Cerrito creek.

The supplemental subsurface investigation was conducted in accordance with STE's work plan dated July 16, 1996 and Alameda County Health Department guidelines.

SITE DESCRIPTION:

The site is located at 400 San Pablo Avenue, in Albany, California, approximately one mile east of San Francisco Bay (see Figure 1). The site is bordered by El Cerrito Creek to the north, San Pablo Avenue to the east and Adams Street to the west. The surrounding area consists of light commercial and residential buildings (Figure 2).

BACKGROUND:

Site History:

The site was vacant until the late 1950's when Plaza Car Wash and the adjacent Norge Dry Cleaner buildings were constructed. The three underground fuel storage tanks were installed on the site in 1970.

The observation of petroleum free-product in the adjacent El Cerrito Creek, on July 3, 1989, prompted the Albany Fire Department to install absorbent materials and a boom as a temporary containment measure. A storm drain, which borders the site on the west, was found to be the source of petroleum products discharged into El Cerrito Creek.

The inventory reconciliation records for Plaza Car Wash, reviewed by Kamur Industries in July 1989, showed discrepancies in the unleaded gasoline inventory. A product line test, conducted in mid-July 1989, confirmed a small leak in the unleaded gasoline fuel lines beneath the pump island. The leak was repaired and approximately five to ten cubic yards of gasoline contaminated soil was removed from beneath the line. Analytical results of a composite sample of the excavated soil revealed Total Petroleum Hydrocarbon (TPH) concentration of 7,500 parts per million (ppm).

Site Investigation:

Subsurface Consultants, Inc. (SCI) was retained by Kamur Industries to perform a site assessment. In August 1989, SCI drilled five soil borings and obtained soil samples for laboratory analysis. Four of the soil borings were converted to monitoring wells. Laboratory analysis showed the presence of gasoline contaminants in all soil and groundwater samples.

Per California Regional Water Quality Control Board (CRWQCB) staff request, water samples were also obtained from El Cerrito Creek and the storm drain outlet on August 3, 1989. Laboratory analysis revealed high levels of dissolved hydrocarbons at the storm drain outlet and low levels approximately 20 feet down-stream.

A soil vapor study (SVS), conducted by SCI in the area of the Plaza Car Wash and adjacent properties, revealed the presence of hydrocarbon contamination in the soil.

On September 19, 1989, Pacific Pipeline Survey conducted a video inspection of the Adams Street storm drain. The inspection revealed excess concrete along the pipe bottom, a bent area across the pipe section and large cracks in the pipe. The bent area was considered to be the most likely location for petroleum products to enter the storm drain pipe and eventually discharge into El Cerrito Creek.

Storm drain pipe joints exposed during sump installation procedures were sealed with mortar. All excavated soils found to be contaminated (when screened with organic vapor analyzer) were removed and stored on-site pending proper disposal. Stockpiled soils from the product line repair and sump installation areas were treated on-site and transported to the West Contra Costa Sanitary Landfill for disposal.

In December 1989, Kamur industries retained International Technology Environmental Services (ITES) to conduct monitoring and sampling of on-site monitoring wells, the Adams Street sump and El Cerrito Creek. Monitoring and sampling was conducted on a monthly basis from December 1989 through May 1990. All on-site wells showed high levels of dissolved hydrocarbons, and one well showed traces of floating product. The sump also indicated high levels of dissolved hydrocarbons. The El Cerrito Creek samples, taken after each significant rainstorm, showed non-detectable levels in the upstream station; the storm drain outlet samples showed moderate levels of dissolved hydrocarbons and the down-stream station showed fairly low to non-detectable levels.

In September 1990, Kamur Industries, Inc. retained Alpha Geo Services, Inc. (AGS) and STE to remove three underground tanks, conduct soil sampling and excavate, characterize and dispose of contaminated soil. In addition, STE conducted water sampling of El Cerrito Creek during rainy months per Regional Water Quality control Board (RWQCB) requirements and installed additional monitoring wells as requested by Alameda County Health Department (ACHD).

The details of tank removal, soil sampling and excavation of contaminated soil are described in AGS and STE reports titled "Removal of 3 Underground Storage Tanks" dated January 9, 1991 and "Underground Tank Soil Sampling and Excavation Report" dated January 15, 1991. The report on soil treatment and disposal is included in STE's report titled "Report on Soil Remediation at the Plaza Car Wash" dated May 13, 1991.

In February 1991, STE installed two on-site monitoring wells (STMW-1 and STMW-2). In addition, the on-site wells MW-1 and MW-4 were abandoned during soil excavation of the former underground tank area. The investigation detected no free floating product in the wells. Dissolved hydrocarbons were detected in all on-site and off-site wells. The details of this subsurface investigation is described in the STE's report titled "Report of Supplemental Subsurface Investigation for Kamur Industries, Inc. at the Plaza Car Wash" dated May 14, 1991.

SUMMARY OF RESULTS OF PREVIOUS INVESTIGATION:

The soil material beneath the site consists of an irregular layer of clayey silt and sandy clay with some lenses of gravel.

Results of previous subsurface investigation indicated that the shallow groundwater at the site is impacted with the dissolved petroleum hydrocarbons; namely TPHg and BTEX. Dissolved hydrocarbons in groundwater are yet to be delineated off-site northeast and west of the site.

Groundwater was encountered at the site at an average depth of 5 to 6.5 feet below grade. The direction of groundwater flow was approximately north to northwest. The groundwater appears to be in unconfined condition. The highest concentration of dissolved TPHg was detected in groundwater from the northern and eastern part of the site.

OBJECTIVE:

The objective of this investigation was to characterize and delineate subsurface petroleum hydrocarbons contamination at the subject site down-gradient of El Cerrito Creek.

FIELD ACTIVITIES:

Three additional groundwater monitoring wells were installed in soil borings advanced on the site on November 4, 1996.

Permits to install groundwater monitoring wells were obtained from Alameda County – Zone 7 Water Agency prior to drilling. A copy of the well permit is included in the Appendix "G" of this report. All utility lines were located prior to drilling.

STE conducted the field work for this investigation which occurred in November, 1996. Field work included the advancement of three soil borings (STMW-3, STMW-4 and STMW-5),

soil sampling, installation of three monitoring wells, development of the wells, water sampling and chemical analysis of soil and ground water samples. The well borings were drilled using a truck mounted mobile drill rig B - 40L, equipped with eight-inch diameter, hollow-stem, continuous flight augers. STE staff geologist observed the drilling operations and prepared a lithologic log of each soil boring. These logs are presented in Appendix "D".

The three soil borings (STMW-3, STMW-4 and STMW-5) were drilled to a depth of 15 feet below grade. Groundwater was first encountered at depths of approximately 7 feet, 11 feet and 10 feet respectively, below grade in the borings while drilling.

SOIL SAMPLING:

Soil samples were collected at a depth of six-feet in each soil boring by advancing a modified California split-spoon sampler through the hollow stem of the augers. The sampler was driven a maximum of 18 inches, using a 140-pound hammer with a 30-inch drop.

The soil samples were retained for chemical analysis in two-inch diameter brass liners by covering both ends of the liner with aluminum foil, and sealing with plastic end caps and tape. The samples were labeled and stored in a chilled ice chest and later transported on ice to a state-certified laboratory along with appropriate chain-of-custody documentation.

Soil samples in brass liners were described according to the Unified Soil Classification System. The descriptions are shown on the boring logs presented in Appendix "D".

CREEK SAMPLING:

Per request of Alameda County Health Department, Hazardous Waste Specialist, Ms. Juliet Shin, three grab water samples were collected, one from the storm drain outlet to the creek, one approximately 50 feet down-gradient of first sampling point, and the third one (approximately 500 feet from first sampling point) from the storm drain on Adams Street. The samples were collected in glass vials, labeled, placed in an ice-chest and transported to Priority Environmental Labs under appropriate chain-of-custody.

MONITORING WELL CONSTRUCTION:

Following completion of each boring, a monitoring well was constructed within the borehole. The wells were constructed of two-inch diameter Schedule 40, flush threaded PVC well casing with bottom cap. The detailed construction of the three wells are shown in Piezometric Schematic presented in Appendix "D".

SOIL DESCRIPTION:

As shown on the logs the native soils encountered below surface grade consist predominantly of stiff sandy silty clays with minor gravel.

lyzed by Priority Environmental Laboratory in

MW-4-6 and STMW-5

LABORATORY SOIL ANALYSIS:

Soil samples from each well boring were analyzed by Priority Environmental Laboratory in Milpitas, California. Soil samples STMW-3-6, STMW-4-6 and STMW-5-6 were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPHg), Benzene, Toluene, Ethyl Benzene and Total Xylenes (BTEX), Volatile Organic Compounds (VOCs) and Methyl Tertiary Butyl Ether (MTBE).

As shown in Table 1, concentrations of TPHg and BTEX in soil samples STMW-3-6 and STMW-4-6 were below laboratory detection limit. STMW-5-6 detected low levels of TPHg and BTEX. All three soil samples detected VOCs and MTBE below laboratory detection limit.

LABORATORY ANALYSIS OF WATER SAMPLES FROM CREEK AND STORM DRAIN:

The three grab water samples (W-1, W-2 and W-3) were analyzed for TPHg, BTEX and VOCs per EPA 601. W-1 detected low levels of TPHg and BTEX. Concentrations of TPHg and BTEX in W-2 and W-3 were below laboratory detection limit. All three samples detected VOCs and MTBE below laboratory detection limit.

LABORATORY GROUNDWATER ANALYSIS:

Following well completion, the three monitoring wells (STMW-3, STMW-4 and STMW-5) were developed on November 10, 1996. The three newly installed wells along with the four

existing on-site wells were surveyed, monitored and sampled on November 14, 1996. All monitoring and sampling was conducted in accordance with the existing Local and State Fuel Leak Guidelines.

The seven water samples collected from the seven on-site wells (MW-2, MW-3 and STMW-1 through STMW-5) were analyzed for TPHg, BTEX and MTBE. In addition, sample from MW-3 was analyzed for Volatile Organic Compounds (VOCs) per EPA method 601. The results indicate concentrations of TPHg and BTEX below laboratory detection limit in MW-2, STMW-4 and STMW-5. Low to moderate levels of TPHg were detected in MW-3, STMW-1, STMW-2 and STMW-3 while low levels of BTEX were detected in these four wells. Concentration of VOCs in MW-3 and STMW-5 were below laboratory detection limit. All seven samples detected MTBE below the laboratory detection limit.

GROUNDWATER FLOW DIRECTION:

A level and depth survey of the wells was conducted by STE in order to determine the water elevations. These data were used to compute groundwater flow direction.

The results of the well survey indicate a westerly direction of groundwater flow as of November 14, 1996 (Figure 2).

RECOMMENDATIONS:

STE recommends continuation of quarterly groundwater monitoring and sampling for one year. The proposed program should then be re-evaluated at the end of one year.

An alternative risk assessment for the subject site is also recommended. This would provide further insight into future remedial measures and the extent of risk involved as a result of the subsurface hydrocarbons plume.

A copy of this report should be sent to Alameda County Health Department (ACHD) and California Regional Water Quality Control Board - San Francisco Bay Region (CRWQCB-SFBR).

LIMITATIONS AND UNIFORMITY OF CONDITIONS:

The monitoring well installation services or soil and water sampling for pollution on this project was a direct request by Soil Tech Engineering Inc.'s client. These installations were performed to meet the existing requirements for fuel leak regulations.

This service does not make Soil Tech Engineering, Inc. liable for future maintenance, repairs, damages, injury to third party or any other elements causing future problems.

The locations of these monitoring wells are approximate and should not be used for any reference point, surveying, or any other use except studying groundwater.

Any recommendations that were made in this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings.

This report is issued with the understanding that it is the responsibility of the owner or his representative to ensure that the information and recommendations contained herein are called to the attention of the State and Local Environmental Agency.

The findings of this report are based on the results of an independent laboratory and are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man, on this property or adjacent properties.

APPENDIX "A"

TABLE 1
GROUNDWATER MONITORING DATA (feet) AND
ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	T	E	X	МТВЕ	VOCs
12/10/92	STMW-1 (100.62)	14	4	6.61	94.01	Light sheen Mild pet, odor	35	0.054	0.079	0.083	0.22	NA	NA_
03/18/93	(11/0/1/2)			6.68	90.13	L. rainbow sheen Mild pet odor	19	0.049	0.052	0.055	0.18	NA	NA
07/13/93	<u> </u>			7.13	89.68	NMFP Strong pet. odor	17	0.034	0.043	0.017	NA	NA	NA
10/11/93				7.26	89.55	NMFP Strong pet, odor	51	2.1	2,4	0.53	2.6	NA	NA
01/07/94				7.15	89.66	NMFP Strong pet. odor	29	1.5	1.6	0.45	2.5	NA	NA
04/06/94				7.10	89.71	NMFP Strong pet. odor	20	1.1	0.56	0.30	1.6	NA	NA
08/03/94				5.70	91.11	NMFP Strong pet, odor	43	1.0	1.7	0.64	4.7	NA	NA
11/08/94				6.47	90.34	Brown NMFP Strong pet, odor	92	9.0	12.0	1.6	9.1	NA	NA
02/16/95				6.96	89.85	Rainbow sheen/NMFP Strong pet, odor	150	0.85	0.54	0.40	1.2	NA	NA
05/19/95				6.84	89.97	Brown NMFP Strong pet, odor	59	0.4	0.33	0.17	0.61	NA	NA
08/18/95	<u> </u>			4.64	92.17	Brown NMFP Strong pet. odor	300	0.88	0.78	0.54	1.7	NA	NA
11/30/95				7.34	89.47	Thick brown sheen spots Mild pet. odor	67	0.8	0.91	0.39	1.5	NA	NA
02/29/96				7.83	88.98	NMFP Strong pet. odor	71	0.12	0.095	0.018	0.26	NA	ND
06/07/96		<u> </u>		7.10	89.71	NMFP Strong pet, odor	36	0.21	0.14	0.081	0.21	NA	ND
11/14/96	(96.81) resurveyed			7.29	89.52	Brown NMFP Mild pet, odor	140	0.48	0.49	0.42	1.2	ND	NA

140,000ppb 480ppb

TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	МТВЕ	VOCs
12/10/92	STMW-2 (100.63)	14	4	6.39	94.24	Light rainbow sheen Mild pet, odor	44	0.084	0.096	0.12	0.35	NA	NA
03/18/93	(100.0.1)			6.50	94.13	L. rainbow sheen Mild pet. odor	9.2	0.022	0.031	0.04	0.11	NA	NA
07/13/93				6.95	93.1	No sheen Light sewage odor	9.3	0.018	0.024	0.026	0.089	NA	NA
10/11/93				7.09	93.54	NMFP Strong pet, odor	62	2.8	3.9	0.67	4.4	NA	NA
01/07/94	<u></u>			6.93	93.70	Rainbow sheen Mild pet. odor	22	1.1	1.0	0.28	1.8	NA	NA
04/06/94				6.84	93.79	NMFP Strong pet. odor	6.6	0.49	0.14	0.33	0.062	NA	NA
08/03/94				7.10	93.53	NMFP Mild pet, odor	4	0.25	0.052	0.055	0.24	NA	NA
11/08/94				6.19	94.44	Brown NMFP Strong pet, odor	10	0.73	0.79	0.20	1.3	NA	NA
02/16/95				6.72	93.91	Rainbow sheen/NMFP Strong pet. odor	37	0.23	0.088	0.092	0.32	NA	NA
05/19/95				6.61	94.02	Brown sheen spots Light pet, odor	9.3	0.040	0.016	0.022	0.068	NA	NA
08/18/95				7.09	89.70	Brown NMFP Light pet odor	210	0.72	0.55	0.52	1.4	NA	NA
11/30/95				7.07	89.72	Rainbow sheen spots Light pet, odor	66	0.66	0.51	0.37	1.5	NA	NA
02/29/96	(96.79) resurveyed			7.57	89.22	Rainbow sheen Light pet odor	33	0.075	0.055	0.052	0.15	NA	ND
06/07/96	iesai veyed			6.74	90.05	Rainbow sheen Light pet odor	92	0.25	0.075	0.18	0.47	NA	ND
11/14/96				6.96	89.83	Rainbow sheen spots Light pet, odor	39	0.38	0.23	0.27	0.72	ND	NA

TABLE 1 CONT'D. GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./	Depth	Depth	Depth to	GW	Well	TPHg	В	T	E	X	MTBE	VOCs
	Elevation	of Well	to Perf.	Water	Elev.	Observation							
11/14/96	STMW-3	15	2.5	5.34	89.90	No sheen or odor	0.24	0.0091	0.0028	0.0047	0.013	ND	ND
	(95.24)										w		1. 2 de 1 - 1 de 1 de 1
1.1931.1.16美华基			send distribut	gurugiket					Mare -			24 Mar.	ic Planyagu
11/14/96	STMW-4	15	2	4.67	89.74	No sheen or odor	ND	ND	ND	ND	ND	ND	ND
	(94.41)										<u> </u>		
ormado diferêndas	et skapetholska.	Salid Lende	alas Malayun	-facilitation care		Septiminate services in the second		linkumic jes	- il describer		4400		1040
11/14/96	STMW-5	15	2	5.20	89.29	No sheen or odor	ND	ND	ND	ND	ND	.ND	ND
	(94.49)											<u> </u>	

TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	T	Œ	X	МТВЕ	VOCs
12/10/92	MW-2 (99.39)	11.50	5	4.94	94.45	No sheen Mild pet, odor	7.2	0.015	0.023	0.032	0.082	NA	NA
03/18/93	(99.39)	 		5.11	94.28	No sheen Light sewage odor	1.4	0.0083	0.011	0.013	0.048	NA	NA
07/13/93				5.53	93.86	Rainbow sheen Light pet, odor	2.4	0.0047	0.0062	0.0068	0.025	NA	NA
10/11/93				5.64	93.75	No sheen or odor	0.41	0.043	0.0026	0.0045	0.012	NA	NA
01/07/94				5.52	93.87	No sheen or odor	0.24	0.025	0.0031	ND	0.020	NA	NA
04/06/94	<u></u>	 	1	5.82	93.57	No sheen or odor	0.24	0.025	0.0031	ND	0.02	NA	NA
08/03/94			1	7.47	91.92	No sheen or odor	0.50	0.057	0.001	0.017	0.025	NA	NA
11/08/94				4.69	94.70	No sheen Mild sewage odor	8.0	0.65	0.085	0.50	1.0	NA	NA
02/16/95				5.31	94.08	No sheen or odor	0.66	0.0064	0.001	0.0056	0.0089	NA	NA
05/19/95				5.17	94.22	No sheen Mild sewage odor	1.9	0.011	0.010	0.023	0.026	NA	NA
08/18/95				5.65	89.57	No sheen Light sewage odor	1.8	0.015	0.0016	0.015	0.020	NA	NA
11/30/95				5.64	89.58	No sheen or odor	0.12	0.0093	ND	0.0005	0.0035	NA	NA
02/29/96	(95.22) resurveyed	 		4.61	90.61	No sheen Light sewage odor	1.2	0.0061	0.0012	0.0062	0.0087	NA	ND
06/07/96	16Sui veyeu	-		5.37	89.85	No sheen Light sewage odor	ND	ND	ND	ND	ND	NA	ND
11/14/96				5.55	89.67	No sheen No odor	ND	ND	ND	ND	ND	ND	NA

TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	В	Т	E	X	MTBE	VOCs
12/10/92	MW-3	12	5	4.42	95.67	Light sheen	94	0.4	0.41	0.43	1.1	NA	NA
12, 10, 22	(100.09)				11	Strong pet, odor	<u> </u>	Li					
03/18/93	(100.012)			5.39	94.70	Strong pet, odor Thick NMFP	51	0.092	0.13	0.16	0.59	NA	NA
05,10,75			1		l 1	Mild pet, odor	l						<u> </u>
07/13/93				6.07	94.02	L. rainbow sheen spots	80	0.16	0.21	0.23	0.82	NA	NA
01113173]			Strong pet, odor		 					
10/11/93		 	1	6.34	93.75	NMFP	180	14.0	8.8	0.32	9.4	NA	NA.
10/11/93				0.51	331,70	Strong pet_odor							
01/07/04			 	6.34	93.75	NMFP	120	9.5	4.6	7.8	0.23	NA	NA
01/07/94] 1	0.54] 23,73	Strong pet, odor	1						
0.4/0.6/0.4		 		6.14	93.95	No sheen or odor	3.0	0.12	0.023	0.022	0.19	ÑA	NA
04/06/94				0.14	93.93	140 Sheen of odor	1 3.0	•	0.025	0.022	4.25		-
		 	 	6.34	93.75	Few sheen spots	0.2	6.5	5.7	1.5	18.0	NA	NA
08/03/94				0.34	93.73	-	0.2	0.5	5.,		10.0	1	
		<u> </u>		2.00	06.00	Mild pet. odor Brown NMFP	86	7.4	8.5	2.2	12.0	NA	NA
11/08/94			. 1	3.89	96.20		00	7.4	J.,	2.2	12.0	197	1
			1			Strong pet. odor	59	0.28	0.12	0.12	0.57	ŇA	NA
02/16/95	ł			5.90	94.19	Brown NMFP	39	U.Z6	0.12	0.14	0.57	INA	'''
i		<u> </u>				Strong pet. odor		1	0.060	0.040	0.16	NA	NA
05/19/95				4.15	95.94	Brown NMFP	12	0.15	0.068	0.069	0.16	INA	INA
	,					Strong pet, odor				0.000		 	
08/18/95				6.08	89.54	Brown NMFP	33	0.074	0.028	0.038	0.10	NA	NA
	į					Mild pet. odor	<u> </u>		<u> </u>				
11/30/95				6.26	89.36	Rainbow sheen spots	100	1.3	0.51	0.25	2.4	NA	NA
11/30/23		1				Light pet. odor	i				<u> </u>		
02/29/96	(95.62)		<u> </u>	4.37	91.25	Rainbow sheen spots	15	0.012	0.0038	0.010	0.024	NA NA	Det.
02/29/90	1		1			Mild pet, odor	ļ					1	l
06/07/96	resurveyed	+	 	5.90	89.72	Rainbow sheen spots	5.2	0.023	0.0069	0.014	0.034	NA	Det.
06/07/30			1	[",,,,,	1	Mild pet, odor				1		l	1
1111405	 	+	- 	6.14	89.48	Rainbow sheen	33	0.32	0.13	0.25	0.62	ND	ND
11/14/96	1			0.14	65.40	Light net, odor	1 "	7	1	,			
				<u> </u>	<u> </u>	DIKIII Der odol		_!	1	l			

TABLE 1 CONT'D. CREEK WATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Sample I.D	Location	Sample Observation	TPHg	В	Т	E	X	МТВЕ	VOCs
11/04/96	W-1	Storm drain outlet	Rainbow sheen Mild sewage odor	1.3	0.0078		0.011	0.014	ND	ND
Har Wall St	gadenary.	医 医腹骨管 医丘丘氏 医皮肤 医皮肤								
11/04/96	W-2	50' down-gradient from storm drain	No sheen or odor	ND	ND	ND	ND	ND	ND	ND
14 1 1 1 2 3 4 4 4				R Spirit						
11/04/96	W-3	500' from storm drain outlet/on Adams Street	No sheen Mild sewage odor	ND	ND	ND	ND	ND	ND	ND

TABLE 2 SOIL SAMPLE OBSERVATIONS AND ANALYTICAL RESULTS (mg/Kg)

Date	Sample I.D.	Depth (ft.)	Sample Observation	TPHg	В	T	E	X	MTBE
11/04/96	STMW-3-6	6	No odor	ND	ND	ND	ND	ND	ND
	ana a sa sanaharan	Jaling Baye Kat G. Aspert at G. 1944.		gyngrasiën y ngaljo		gajantingaja	ii. juliyoy ji bashin		ranteella.
11/04/96	STMW-4-6	6	No odor	ND	ND	ND	ND	ND	ND
		ne (Classic See Agenta grass	njajujustes iz izprece Aleksis (1904)	Harriston (H	(agenty and in a co		Terestal total person	guptupul (Cla	
11/04/96	STMW-5-6	6	Mild petroleum odor	3.1	0.044	ND	0.0092	0.0089	ND
t nagatiyak ka Lanasa (k	Singa Siyana ng Makka Basilin. Singa sa Siyana		<u> </u>						3-F

TABLE 3 GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)

Date	Well I.D.	Volatile Organic Compounds	Concentration (mg/L)
02/29/96	MW-3	1,2 - Dichloroethane (Total)	0.035
		Chloroform	0.16
		Trichloroethane	0.11
		Tetrachloroethane	0.08
06/07/96	MW-3	Chloroform	0.031
<u>. </u>		Trichloroethene	0.11
	<u> </u>	Tetrachloroethene	0.61
		Tetrachloroethene	0.61

STMW-5

Bosed on the feet that

VOC, not estantified in Storm drain,

but identified in new-3, indicates

that chlorinatudes are resulting

that chlorinatudes are resulting

TABLE 1,2 and 3 GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

TPHg - Total Petroleum Hydrocarbons as Gasoline

B - Benzene

T - Toluene

E - Ethyl Benzene

X - Total Xylenes

ND - Not Detected

NA- Not Analyzed

N/A - Not Applicable

GW Elev. - Groundwater Elevation

MTBE - Methyl Tertiary Butyl Ether

NMFP - Non-Measurable Floating Product

Pet. - Petroleum

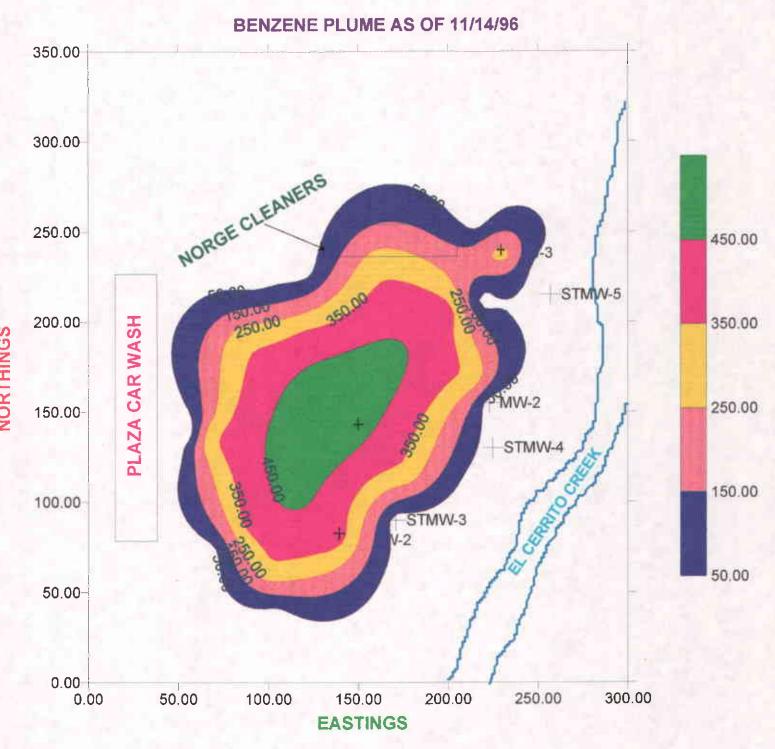
VOCs - Volatile Organic Compounds

L. - Light

Perf. - Perforation

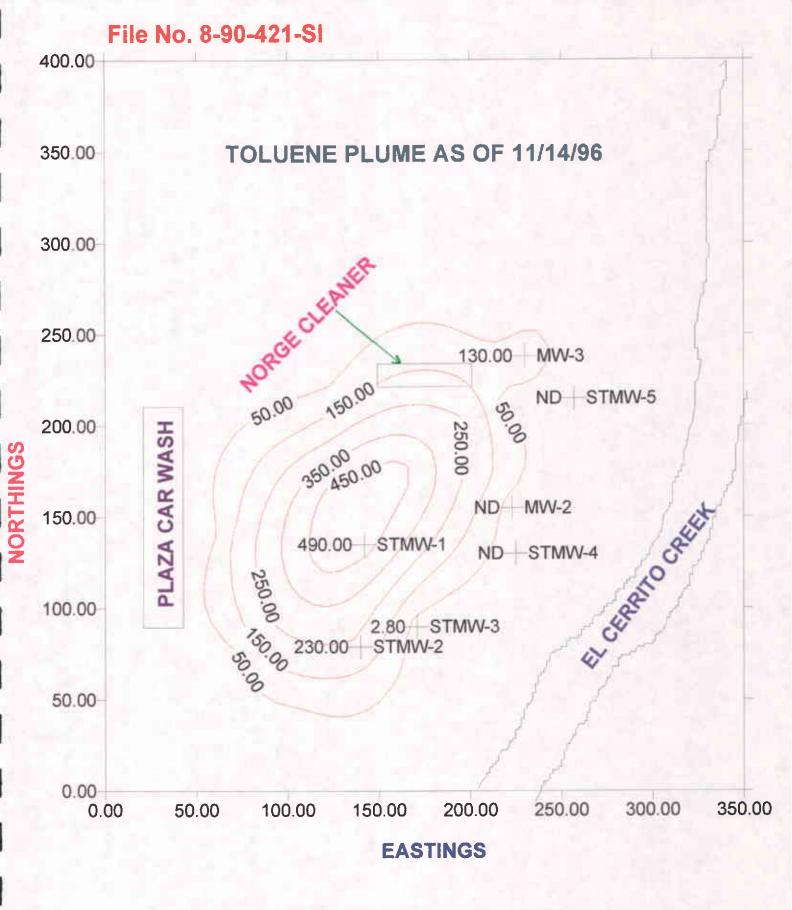
Det. - Detected (see TABLE 3)

File No. 8-90-421-SI



SOIL TECH ENGINEERING, INC.

Note: The location/dimensions of buildings are merely relative (not to scale)

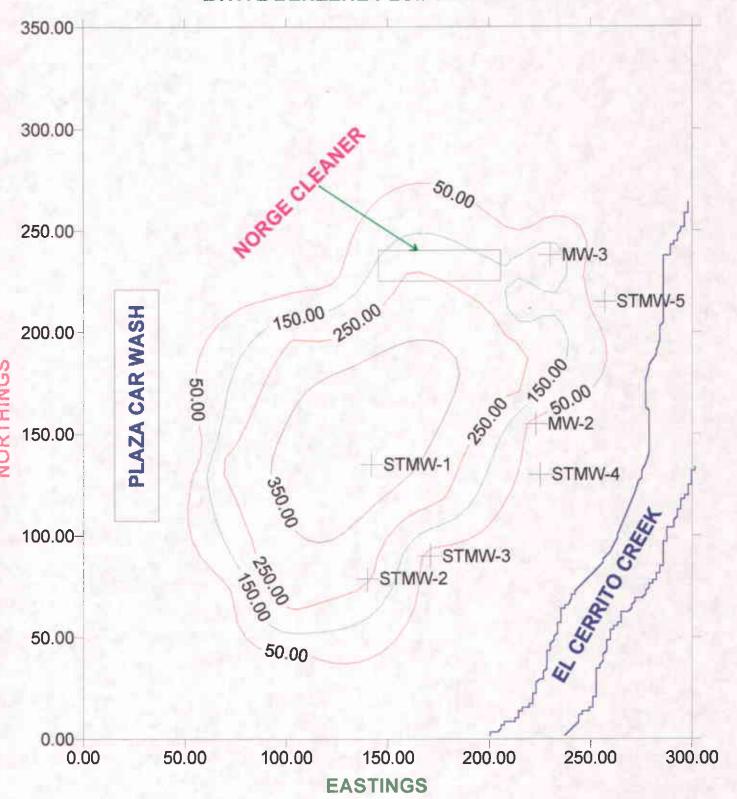


SOIL TECH ENGINEERING, INC.

Note: The location/dimensions of buildings are merely relative (not to scale)

File No. 8-90-421-SI

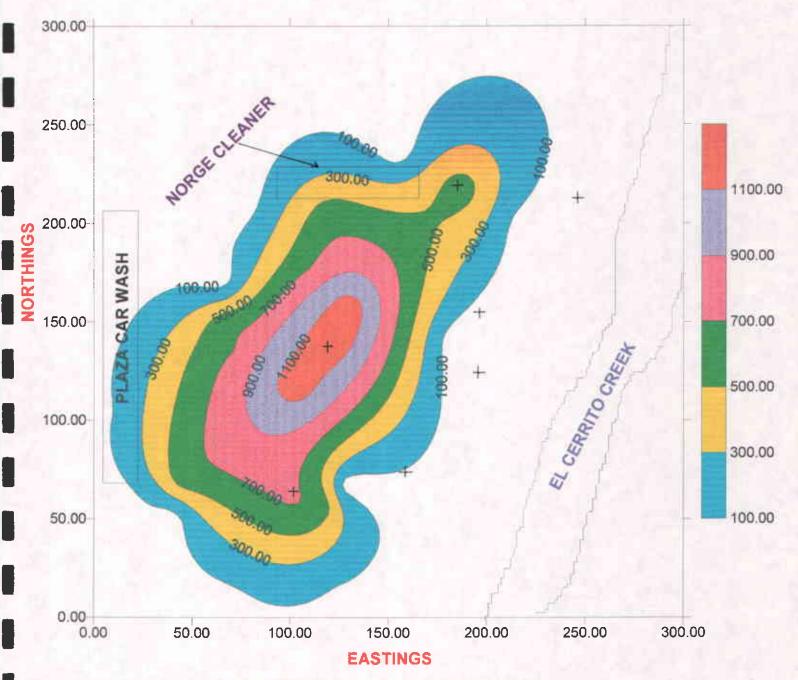
ETHYL BENZENE PLUME AS OF 11/14/96



SOIL TECH ENGINEERING, INC.

Note: The location/dimensions of buildings is merely relative (not to scale)

TOTAL XYLENE PLUME AS OF 11/14/96



SOIL TECH ENGINEERING, INC.

Note: The location/dimensions of buildings are merely relative (not to scale)

APPENDIX "B"

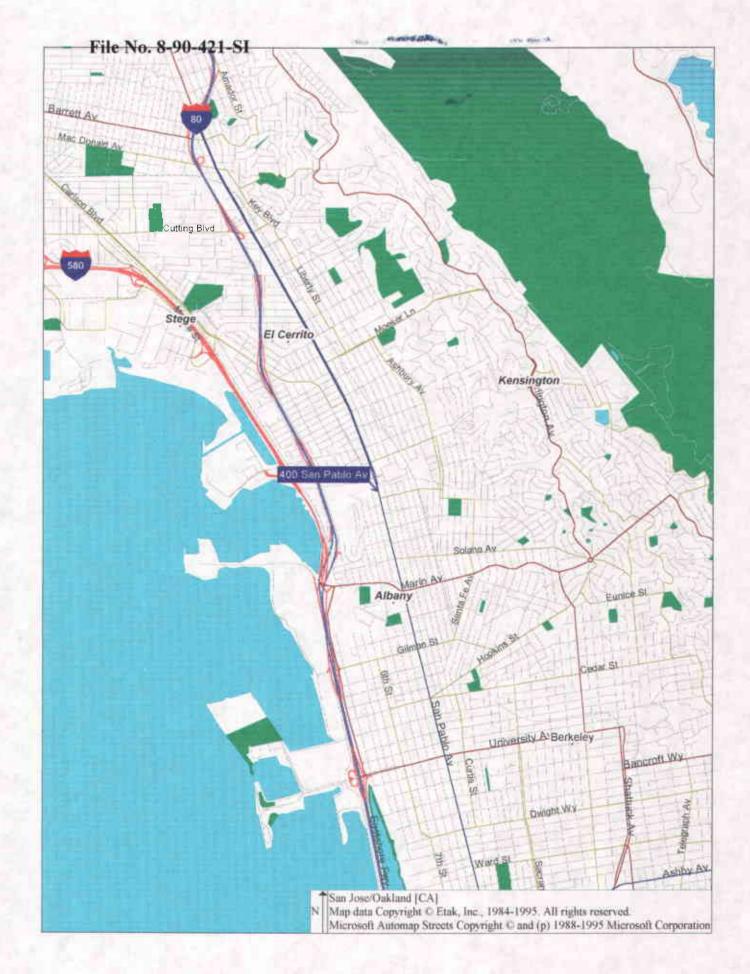
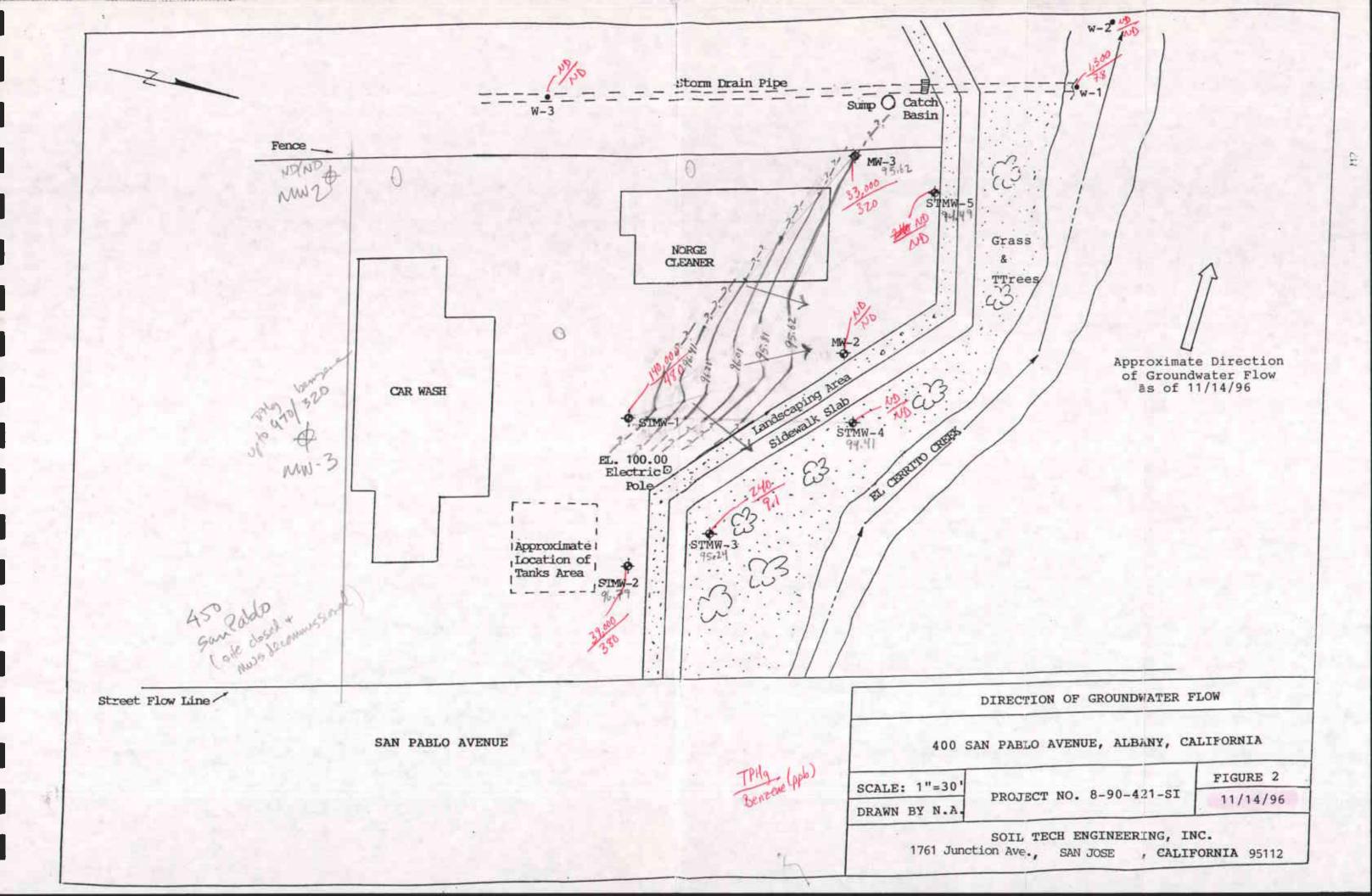


Figure 1 SOIL TECH ENGINEERING, INC.



APPENDIX "C"

DRILLING AND SOIL SAMPLING PROCEDURE

A hand auger was used in drilling the soil boring to the desired depth (see the Boring Log for more details).

Prior to drilling, all drilling equipment (i.e. auger, pin, drilling head) was thoroughly steamcleaned to minimize the possibility of cross-contamination and/or vertical migration of possible contaminants.

In addition, prior to obtaining each individual soil sample, all sampling tools, including sampler and brass liners were thoroughly washed in a Tri-sodium Phosphate (TSP) solution followed by a rinse in distilled water.

During the drilling operation, relatively undisturbed soil samples were taken from the required depth by forcing a 2-inch I.D. sampler insert with a brass liner into the ground by means of a 40-lb. hammer falling 30-inches at various depths.

The samplers withdrew relatively undisturbed soil. In general, the first section of soil from the sampler (shoe) was used in the field for lithologic inspection and evidence of contamination. The selected brass liner was immediately trimmed, the ends of the brass liner were covered tightly with aluminum foil and plastic caps, sealed with tape, labeled, placed in a plastic bag and stored in an ice chest in order to minimize the escape of any volatiles present in the samples. Soil samples for analysis were sent to a state-certified hazardous waste laboratory accompanied by a chain-of-custody record.

SOP1

Soil samples collected at each sampling interval were inspected for possible contamination (odor or peculiar colors). Soil vapor concentrations were measured in the field by using a Photoionization Detector (PID), PhotoVac Tip Air Analyzer. The soil sample was then sealed in a ZipLoc plastic bag and placed in the sun to enhance volatilization of the hydrocarbons from the sample. The purpose of this field analysis was to qualitatively determine the presence or absence of hydrocarbons and to establish which soil samples would be analyzed at the laboratory. The data was recorded on the drilling log at the depth corresponding to the sampling point.

Other soil samples might be collected to document the stratigraphy and estimate relative permeability of the subsurface materials.

Soil tailings obtained during drilling were stored at the site, pending the analytical test results to determine proper disposal.

SOP1 cont'd

MONITORING WELL INSTALLATION

The boreholes for the monitoring wells were hand augered with a diameter of at least two inches larger than the casing outside diameter (O.D.).

The monitoring wells were cased with threaded, factory-perforated and blank, schedule 40 P.V.C. The perforated interval consisted of slotted casing, generally 0.010 to 0.040 inch wide by 1.5 inch long slot size, with 42 slots per foot (slots which match formation grain size as determined by field grain-size distribution analysis). A P.V.C. cap was fastened to the bottom of the casing (no solvents, adhesive, or cements were used), the well casing was thoroughly washed and steam-cleaned.

After setting the casing inside the borehole, kiln-dried sand or gravel-filter material was poured into the annular space to fill from the bottom of the boring to two feet above the perforated interval. A one to two feet thick bentonite plug was placed above this filter material to prevent grout from infiltrating down into the filter material. Approximately one to two gallons of distilled water were added to hydrate the bentonite pellets. Then the well was sealed from the top of the bentonite seal to the surface with concrete or neat cement containing about 5% bentonite (see Well Construction Detail).

File No. 8-90-421-SI

To protect the well from vandalism and surface water contamination, Christy boxes with a special type of Allen screw were installed around the well head, (for wells in parking lots, driveways and building areas). Steel stove pipes with padlocks were usually set over well-heads in landscaped areas.

In general, groundwater monitoring wells extend to the base of the upper aquifer, as defined by the consistent (less than 5 feet thick) clay layer below the upper aquifer, or at least 10 to 15 feet below the top of the upper aquifer, whichever is shallower. The wells do not extend through the laterally extensive clay layer below the upper aquifer. The wells are terminated one to two feet into such a clay layer.

SOP2 cont'd

WELL DEVELOPMENT

For all newly installed groundwater monitoring wells, the well casing, filter pack and adjacent formations were cleared of disturbed sediment and water.

Well development techniques included pumping, bailing, surging, swabbing, jetting, flushing or air lifting by using a stainless steel or Teflon bailer, a submersible stainless steel pump, or air lift pump. The well development continued until the discharged water appeared to be relatively free of all turbidity.

All water and sediment generated by well development were collected in 55-galion steel drums (Department of Transportation approved), closed-head (17-H) for temporarily storage, and were then disposed of properly, depending on analytical results.

To assure that cross-contamination did not occur between wells, all well development tools were steam-cleaned or thoroughly washed in a Tri-sodium Phosphate (TSP) solution followed by a rinse in distilled water before each well development.

GROUNDWATER SAMPLING

Prior to collection of groundwater samples, all of the sampling equipment (i.e. bailer, cables, bladder pump, discharge lines and etc.) was cleaned by pumping TSP water solution followed by distilled water.

Prior to purging, the well "Water Sampling Field Survey Forms" were filled out (depth to water and total depth of water column were measured and recorded). The well was then bailed or pumped to remove four to ten well volumes or until the discharged water temperature, conductivity and pH stabilized. "Stabilized" is defined as three consecutive readings within 15% of one another.

The groundwater sample was collected when the water level in the well recovered to 80% of its static level.

Forty milliliter (ml.), glass volatile organic analysis (VOA) vials with Teflon septa were used as sample containers. The groundwater sample was decanted into each VOA vial in such a manner that there was a meniscus at the top. The cap was quickly placed over the top of the vial and securely tightened. The VOA vial was then inverted and tapped to see if air bubbles were present. If none were present, the sample was labeled and refrigerated for delivery under chain-of-custody to the laboratory. The label information would include a sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

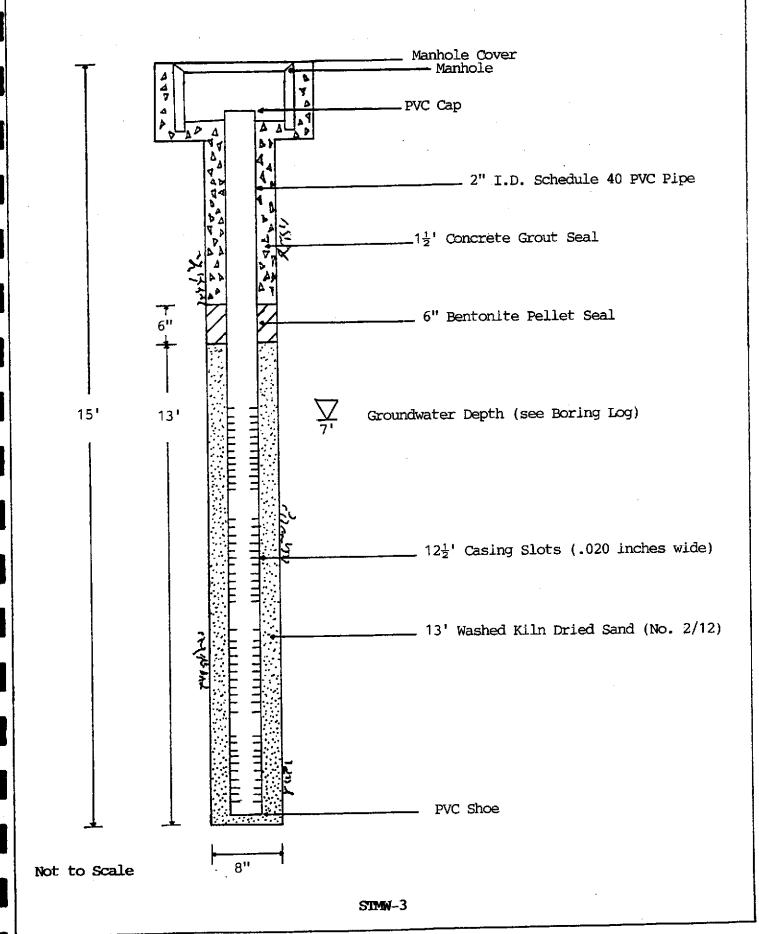
SOP4

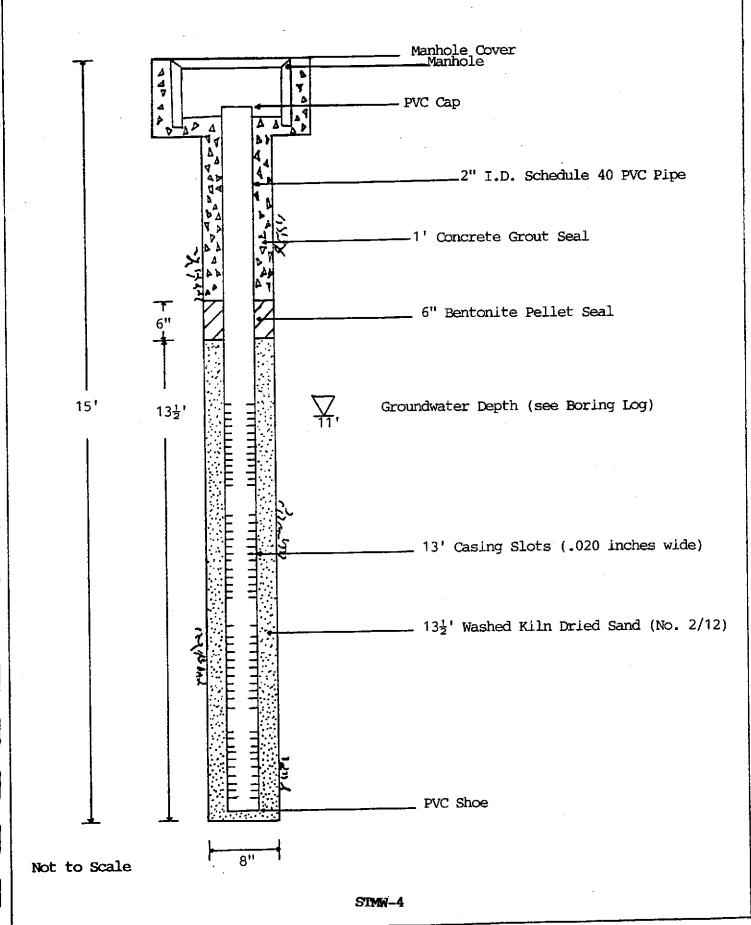
APPENDIX "D"

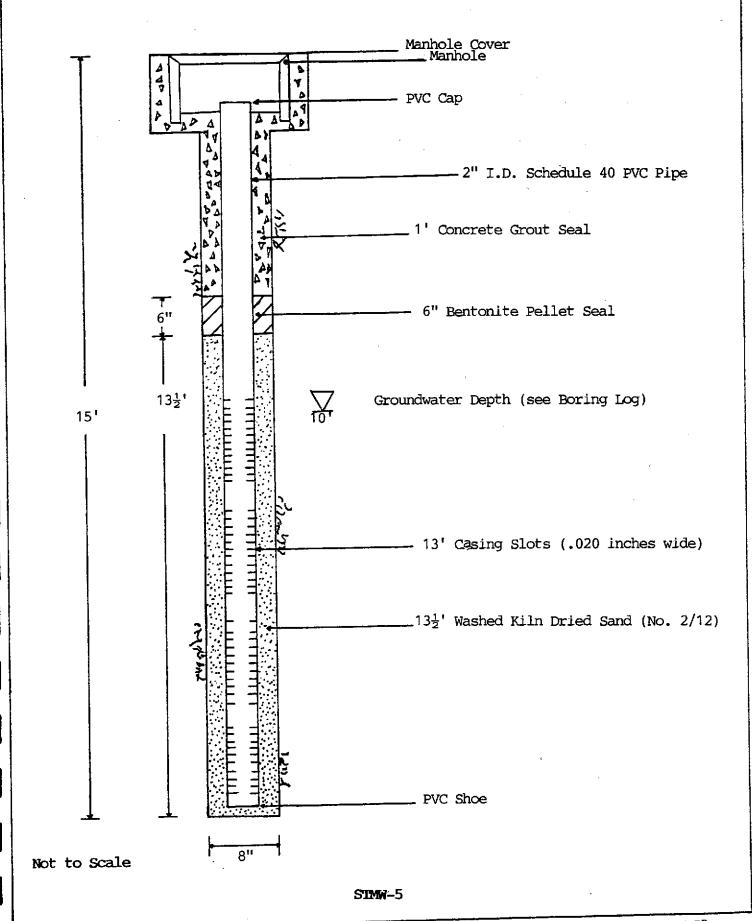
Remerks

8-90-421-SI File No. Logged By: Maneesha Upadhyay STMW-4 **Exploratory Boring Log** Boring No. Date Drilled: 11/04/96 Approx. Elevation 8-inch **Boring Diameter Drilling Method** Sampling Mathod Mobile drill rig B-40L Field Test for Total Ionization Unifiled Soff Clessification: Sample No. DESCRIPTION Dark brown silty clay with some gravel, loose. CLNo change except interspersed with very coarse gravel. Color changes to dark olive-grey silty clay, moist, stiff. α STMW-4-6 Color changes to light olive-brown sandy silty clay with CLcoarse gravel, moist. 2.5Y Munsell Color: HUE ∇ First groundwater encountered at 11 feet. Boring terminated at 15 feet. Remarks

File No. 8-90-421-SI Maneesha Upadhyay Logged By: Exploratory Boring Log STMW-5 Boring No. Date Drilled: 11/04/96. Approx. Elevation Boring Diameter 8-inch **Dritting Method** Sampling Method Mobile drill rig B-40L Field Test for Total Ionization Unified Soll Clessification Penetration Resistance Blows/6" Sample No. DESCRIPTION 3-inch concrete. CLDark brown siltyclay with some gravel, loose. Dark brown silty clay with some gravel, loose. Color changes to black sandy clay with coarse gravel, stiff, mild petroleum odor, moist. STMV-5-6 \mathbf{CL} ∇ First groundwater encountered at 10 feet. Color changes to light olive-brown sandy silty clay with α coarse gravel, moist. Boring terminated at 15 feet. Remerks







APPENDIX "E"



Precision Environmental Analytical Laboratory

November 09, 1996

PEL # 9611005

SOIL TECH ENGINEERING

Attn: Noori Ameli

Re: Three soil samples for Gasoline/BTEX with MTBE analysis.

Project name: Plaza Car Wash

Project location: 400 San Pablo Ave., - Albany

Project number: 8-90-421-SI

Date sampled: Nov 04, 1996

Date extracted: Nov 06-08, 1996

Date submitted: Nov 05, 1996 Date analyzed: Nov 06-08, 1996

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	MTBE	Benzene (ug/Kg)	Toluene	Ethyl Benzene (ug/Kg)	Total Xylene (ug/Kg)
STMW-3-6 STMW-4-6 STMW-5-6	N.D. N.D. 3.1	N.D. N.D. N.D.	N.D. N.D. 44	N.D. N.D. N.D.	N.D. N.D. 9.2	N.D. N.D. 8.9
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	86.1%		84.7%	112.6%	83.5%	87.7%
Detection limit	1.0	5.0	5.0	5.0	5.0	5.0
Method of Analysis	5030 / 8015	8020	8020	8020	. 8020	8020

____David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035

Tel: 408-946-9636 Fax: 408-946-9663



Precision Environ

Environmental Analytical

Laboratory

November 09, 1996

COMPOUND NAME

PEL # 9611005

SOIL TECH ENGINEERING

Attn: Noori Ameli

Project name:Plaza Car Wash

Project number: 8-90-421-Si

Project location: 400 San Pablo Ave., - Albany, CA.

Sample I.D.: STMW-3-6

Date Sampled: Nov 04, 1996

Date Submitted: Nov 05, 1996

Date Analyzed: Nov 06-08, 1996

Detection limit:

5.0 ug/Kg

Method of Analysis: EPA 8010

CONCENTRATION

SPIKE RECOVERY

COMPOUND NAME	(ug/Kg)	(%)
Chloromethane	N.D.	
Vinyl Chloride	N.D.	
Bromomethane	N.D.	
Chloroethane	N.D.	
Trichlorofluoromethane	N.D.	
1,1-Dichloroethene	N.D.	
Methylene Chloride	N.D.	
1,2-Dichloroethene (TOTAL)	N.D.	81.4
1,1-Dichloroethane	N.D.	98.4
Chloroform	N.D.	108.5
1,1,1-Trichloroethane	N.D.	
Carbon Tetrachloride	N.D.	
1,2-Dichloroethane	N.D.	
Trichloroethene	N.D.	93.7
1,2-Dichloropropane	N.D.	88.7
Bromodichloromethane	N.D.	
2-Chloroethylvinylether	N.D.	
Trans-1,3-Dichloropropene	N.D.	
Cis-1,3-Dichloropropene	N.D.	
1,1,2-Trichloroethane	N.D.	
Tetrachloroethene	N.D.	96.3
Dibromochloromethane	N.D.	
Chlorobenzene	N.D.	
Bromoform	N.D.	
1,1,2,2-Tetrachloroethane	N.D.	
1,3-Dichlorobenzene	N.D.	
1,4-Dichlorobenzene	N.D.	
1,2-Dichlorobenzene	N.D.	

David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663



Precision

Environmental

Analytical Laboratory

November 09, 1996

PEL # 9611005

SOIL TECH ENGINEERING

Attn: Noori Ameli

Project name:Plaza Car Wash

Project number: 8-90-421-Si

Project location: 400 San Pablo Ave., - Albany, CA.

Sample I.D.: STMW-5-6

Date Sampled: Nov 04, 1996

Date Analyzed: Nov 06-08, 1996

Date Submitted: Nov 05, 1996

Method of Analysis: EPA 8010

Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY
Chloromethane	N.D.	
Vinyl Chloride	N.D.	
Bromomethane	N.D.	
Chloroethane	N.D.	
Trichlorofluoromethane	N.D.	
1,1-Dichloroethene	N.D.	
Methylene Chloride	N.D.	
1,2-Dichloroethene (TOTAL)	N.D.	81.4
1,1-Dichloroethane	N.D.	98.4
Chloroform	N.D.	108.5
1,1,1-Trichloroethane	N.D.	
Carbon Tetrachloride	N.D.	
1,2-Dichloroethane	N.D.	
Trichloroethene	N.D.	93.7
1,2-Dichloropropane	N.D.	88.7
Bromodichloromethane	N.D.	
2-Chloroethylvinylether	N.D.	
Trans-1,3-Dichloropropene	N.D.	
Cis-1,3-Dichloropropene	N.D.	
1,1,2-Trichloroethane	N.D.	
Tetrachloroethene	N.D.	96.3
Dibromochloromethane	N.D.	
Chlorobenzene	N.D.	
Bromoform	N.D.	
1,1,2,2-Tetrachloroethane	N.D.	
1,3-Dichlorobenzene	N.D.	
1,4-Dichlorobenzene	N.D.	
1,2-Dichlorobenzene	N.D.	<u> </u>

David Duong

1764 Houret Court Milpitas,

Laboratory Director

CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663



Precision

Environmental

Analytical Laboratory

November 09, 1996

PEL # 9611005

SOIL TECH ENGINEERING

Project name:Plaza Car Wash

Attn: Noori Ameli

Project number: 8-90-421-Si

Project location: 400 San Pablo Ave., - Albany, CA.

Sample I.D.: STMW-4-6

Date Sampled: Nov 04, 1996

Date Analyzed: Nov 06-08, 1996

Date Submitted: Nov 05, 1996

Method of Analysis: EPA 8010

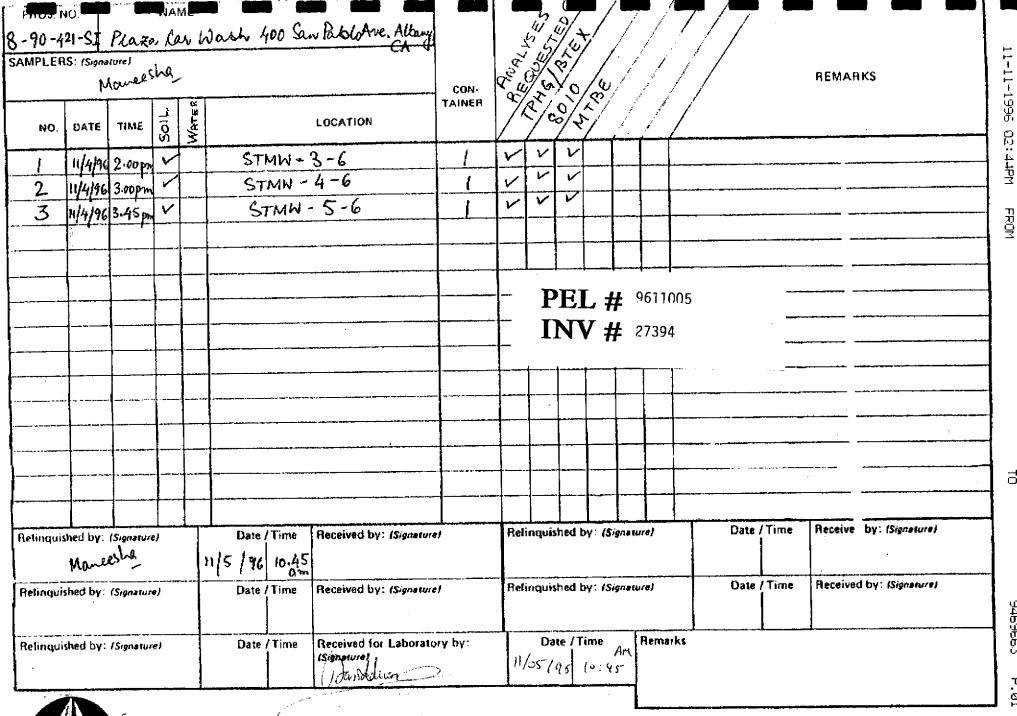
Detection limit: 5.0 ug/Kg

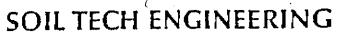
SPIKE RECOVERY CONCENTRATION COMPOUND NAME (%) (na/Ka)

	(ug/Kg)	(%)
Chloromethane	N.D.	
Vinyl Chloride	N.D.	
Bromomethane	N.D.	
Chloroethane	N.D.	
Trichlorofluoromethane	N.D.	
1,1-Dichloroethene	N.D.	
Methylene Chloride	N.D.	
1,2-Dichloroethene (TOTAL)	N.D.	81.4
1,1-Dichloroethane	N.D.	98.4
Chloroform	N.D.	108.5
1,1,1-Trichloroethane	N.D.	
Carbon Tetrachloride	N.D.	
1,2-Dichloroethane	N.D.	
Trichloroethene	N.D.	93.7
1,2-Dichloropropane	N.D.	88.7
Bromodichloromethane	N.D.	
2-Chloroethylvinylether	N.D.	
Trans-1,3-Dichloropropene	N.D.	
Cis-1,3-Dichloropropene	N.D.	
1,1,2-Trichloroethane	N.D.	
Tetrachloroethene	N.D.	96.3
Dibromochloromethane	N.D.	
Chlorobenzene	N.D.	
Bromoform	N.D.	
1,1,2,2-Tetrachloroethane	N.D.	
1,3-Dichlorobenzene	N.D.	
1,4-Dichlorobenzene	N.D.	
1,2-Dichlorobenzene	N.D.	

David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663





Environmental and Geotechnical Engineers

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SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers



Precision Environmental Analytical Laboratory

November 18, 1996

PEL # 9611027

SOIL TECH ENGINEERING

Attn: Noori Ameli

Re: Seven water samples for Gasoline/BTEX with MTBE analysis.

Project name: 400 San Pablo Ave., - Albany

Project number: 8-90-421-SI

Date sampled: Nov 14, 1996

Date extracted: Nov 14-16, 1996

Date submitted: Nov 14, 1996

Date analyzed: Nov 14-16, 1996

RESULTS:

SAMPLE I.D.	Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Total Xylene
1.0.	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3	33000	N.D.	320	130	250	620
STMW-1	140000	N.D.	480	490	420	1200
STMW-2	39000	N.D.	380	230	270	720
STMW-3	240	N.D.	9.1	2.8	4.7	13
STMW-4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
STMW-5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	96.3%		100.9%	101.9%	112.5%	104.5%
Detection limit	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	603	602	602	602	602

David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663



Environmental Analytical Laboratory Precision

November 08, 1996

PEL # 9611027

SOIL TECH ENGINEERING

Attn: Noori Ameli

Project name: 400 San Pablo Ave-Albany Project number: 8-90-421-SI

Sample I.D.: STMW-5

Date Sampled: Nov 14, 1996

Method of Analysis: EPA 601

Date Submitted: Nov 14, 1996

Date Analyzed: Nov 15-18, 1996

Detection limit: 0.5 ug/L

CONCENTRATION SPIKE RECOVERY COMPOUND NAME

COMPOUND MAIL	(ug/L)	(%)
Chloromethane	N.D.	
Vinyl Chloride	N.D.	
Bromomethane	N.D.	
Chloroethane	N.D.	
Trichlorofluoromethane	N.D.	
1,1-Dichloroethene	N.D.	
Methylene Chloride	N.D.	
1,2-Dichloroethene (TOTAL)	N.D.	102.6
1,1-Dichloroethane	N.D.	
Chloroform	N.D.	105.5
1,1,1-Trichloroethane	N.D.	
Carbon Tetrachloride	N.D.	
1,2-Dichloroethane	N.D.	
Trichloroethene	N.D.	99.8
1,2-Dichloropropane	N.D.	
Bromodichloromethane	N.D.	
2-Chloroethylvinylether	N.D.	
Trans-1,3-Dichloropropene	N.D.	
Cis-1,3-Dichloropropene	N.D.	
1,1,2-Trichloroethane	N.D.	
Tetrachloroethene	N.D.	77.1
Dibromochloromethane	N.D.	
Chlorobenzene	N.D.	
Bromoform	N.D.	
1,1,2,2-Tetrachloroethane	N.D.	
1,3-Dichlorobenzene	N.D.	
1,4-Dichlorobenzene	N.D.	
1,2-Dichlorobenzene	N.D.	

David Duong Laboratory Director

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Environmental Analytical Laboratory Precision

November 08, 1996

PEL # 9611027

SOIL TECH ENGINEERING

Attn: Noori Ameli

Project name: 400 San Pablo Ave-Albany Project number: 8-90-421-SI

Sample I.D.: MW-3

Date Sampled: Nov 14, 1996

Date Submitted: Nov 14, 1996

Date Analyzed: Nov 15-18, 1996

Detection limit: 0.5 ug/L Method of Analysis: EPA 601

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	
Vinyl Chloride	N.D.	
Bromomethane	N.D.	
Chloroethane	N.D.	
Trichlorofluoromethane	N.D.	=====
1,1-Dichloroethene	N.D.	
Methylene Chloride	N.D.	
1,2-Dichloroethene (TOTAL)	N.D.	102.6
1,1-Dichloroethane	N.D.	
Chloroform	N.D.	105.5
1,1,1-Trichloroethane	N.D.	
Carbon Tetrachloride	N.D.	
1,2-Dichloroethane	N.D.	
Trichloroethene	N.D.	99.8
1,2-Dichloropropane	N.D.	
Bromodichloromethane	N.D.	
2-Chloroethylvinylether	N.D.	
Trans-1,3-Dichloropropene	N.D.	
Cis-1,3-Dichloropropene	N.D.	
1,1,2-Trichloroethane	N.D.	
Tetrachloroethene	N.D.	77.1
Dibromochloromethane	N.D.	
Chlorobenzene	N.D.	
Bromoform	N.D.	
1,1,2,2-Tetrachloroethane	N.D.	
1,3-Dichlorobenzene	N.D.	
1,4-Dichlorobenzene	N.D.	
1,2-Dichlorobenzene	N.D.	

David Duong Laboratory Director

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PROJ. N 8-90-42		4-0°	NA So		ablo h		ALBANY			SAS	(2) (2) (1)	\ \				//	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
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SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers



Precision Environmental Analytical Laboratory

November 09, 1996

PEL # 9611006

SOIL TECH ENGINNERING

Attn: Noori Ameli

Re: Three water samples for Gasoline/BTEX with MTBE analysis.

Project name: Plaza Car Wash

Project location: 400 San Pablo Ave., - Albany, CA.

Project number: 8-90-421-SI

Date sampled: Nov 04, 1996

Date extracted: Nov 05-08, 1996

Date submitted: Nov 05, 1996 Date analyzed: Nov 05-08, 1996

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	(ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
W-1 W-2 W-3	1300 N.D. N.D.	N.D. N.D. N.D.	7.8 N.D. N.D.	1.7 N.D. N.D.	11 N.D. N.D.	14 N.D. N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	86.1%		84.7%	112.6%	83.5%	87.7%
Detection limit	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	602	602	602	602	602

David Duong Laboratory Director

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Environmental Analytical Laboratory Precision

November 09, 1996

PEL # 9611006

SOIL TECH ENGINEERING

Attn: Noori Ameli

Project name: Plaza Car Wash

Project number: 8-90-421-SI

Project location: 400 San Pablo Ave., - Albany, CA.

Sample I.D.: W-1

Date Sampled: Nov 04, 1996

Date Submitted: Nov 05, 1996

Date Analyzed: Nov 05-08, 1996

Method of Analysis: EPA 601

Detection limit: 0.5 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	
Vinyl Chloride	N.D.	
Bromomethane	N.D.	
Chloroethane	N.D.	
Trichlorofluoromethane	N.D.	
1,1-Dichloroethene	N.D.	
Methylene Chloride	N.D.	
1,2-Dichloroethene (TOTAL)	N.D.	102.6
1,1-Dichloroethane	N.D.	
Chloroform	N.D.	105.5
1,1,1-Trichloroethane	N.D.	
Carbon Tetrachloride	N.D.	
1,2-Dichloroethane	N.D.	
Trichloroethene	N.D.	99.8
1,2-Dichloropropane	N.D.	
Bromodichloromethane	N.D.	
2-Chloroethylvinylether	N.D.	
Trans-1,3-Dichloropropene	N.D.	
Cis-1,3-Dichloropropene	N.D.	
1,1,2-Trichloroethane	N.D.	77.1
Tetrachloroethene	N.D.	,,,,
Dibromochloromethane	N.D.	
Chlorobenzene	N.D. N.D.	
Bromoform		
1,1,2,2-Tetrachloroethane	N.D.	
1,3-Dichlorobenzene	N.D. N.D.	
1,4-Dichlorobenzene		
1,2-Dichlorobenzene	N.D.	. . –

David Duong Laboratory Director

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Precision Environmental Analytical Laboratory

November 09, 1996

PEL # 9611006

SOIL TECH ENGINEERING

Attn: Noori Ameli

Project name: Plaza Car Wash Project number: 8-90-421-SI Project location: 400 San Pablo Ave., - Albany, CA.

Sample I.D.: W-2

Date Sampled: Nov 04, 1996

Date Submitted: Nov 05, 1996

Date Analyzed: Nov 05-08, 1996

Method of Analysis: EPA 601

Detection limit: 0.5 ug/L

SPIKE RECOVERY CONCENTRATION COMPOUND NAME (왕) (ug/L) N.D. Chloromethane N.D. Vinyl Chloride N.D. Bromomethane N.D. Chloroethane Trichlorofluoromethane N.D. N.D. 1,1-Dichloroethene N.D. Methylene Chloride 1,2-Dichloroethene (TOTAL) N.D. 1,1-Dichloroethane N.D. 105.5 N.D. Chloroform N.D. 1,1,1-Trichloroethane N.D. Carbon Tetrachloride N.D. 1,2-Dichloroethane 99.8 N.D. Trichloroethene N.D. 1,2-Dichloropropane N.D. Bromodichloromethane 2-Chloroethylvinylether N.D. N.D. Trans-1,3-Dichloropropene Cis-1,3-Dichloropropene N.D. N.D. 1,1,2-Trichloroethane 77.1 N.D. Tetrachloroethene Dibromochloromethane N.D. Chlorobenzene N.D. N.D. Bromoform N.D. 1,1,2,2-Tetrachloroethane N.D. 1,3-Dichlorobenzene N.D. 1,4-Dichlorobenzene N.D. 1,2-Dichlorobenzene

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Environmental Analytical Laboratory

November 09, 1996

PEL # 9611006

SOIL TECH ENGINEERING

Attn: Noori Ameli

Project name: Plaza Car Wash

Project number: 8-90-421-SI

Project location: 400 San Pablo Ave., - Albany, CA.

Sample I.D.: W-3

Date Sampled: Nov 04, 1996

Date Submitted: Nov 05, 1996

Date Analyzed: Nov 05-08, 1996

Method of Analysis: EPA 601

Detection limit: 0.5 ug/L

COMPOUND NAME	(ug/L)	SPIKE RECOVERY (%)
Chloromethane	N.D.	
Vinyl Chloride	N.D.	
Bromomethane	N.D.	
Chloroethane	N.D.	
Trichlorofluoromethane	N.D.	
1,1-Dichloroethene	N.D.	
Methylene Chlcride	N.D.	
1,2-Dichloroethene (TOTAL)	N.D.	102.6
1,1-Dichloroethane	N.D.	
Chloroform	N.D.	105.5
1,1,1-Trichloroethane	N.D.	
Carbon Tetrachloride	N.D.	
1,2-Dichloroethane	N.D.	
Trichloroethene	N.D.	99.8
1,2-Dichloropropane	N.D.	
Bromodichloromethane	N.D.	
2-Chloroethylvinylether	N.D.	
Trans-1,3-Dichloropropene	N.D.	
Cis-1,3-Dichloropropene	N.D.	
1,1,2-Trichloroethane	N.D.	
Tetrachloroethene	N.D.	77.1
Dibromochloromethane	N.D.	
Chlorobenzene	N.D.	
Bromoform	N.D.	
1,1,2,2-Tetrachloroethane	N.D.	
1,3-Dichlorobenzene	N.D.	
1,4-Dichlorobenzene	N.D.	
1,2-Dichlorobenzene	N.D.	

David Duong Laboratory Director

CA. 95035 1764 Houret Court Milpitas,

Fax: 408-946-9663 Tel: 408-946-9636

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SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers

APPENDIX "F"

CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

REMOVED

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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

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