

Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

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Mr. Jerry Harbert 46765 Mountain Cove Drive Indian Wells, California 92210

Subject:

Groundwater Monitoring Report - Second Quarter 2002

Harbert Transportation

19984 Meekland Avenue, Hayward, California

Dear Mr. Harbert:

This report describes groundwater monitoring activities conducted by Weber, Hayes and Associates at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California, during the second quarter 2002. This report has been prepared pursuant to a directive from the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health) regarding a release of petroleum hydrocarbons from underground storage tanks at the site.

EXECUTIVE SUMMARY

The groundwater monitoring event for the second quarter 2002 took place on June 13, 2002. Groundwater elevations at the site fell an average of approximately 0.92 feet since the previous quarter (March 2002). The calculated groundwater flow direction on June 13, 2002 was to the west, which appears to be generally consistent with historical data. Groundwater analytical results from the second quarter 2002 indicate that dissolved petroleum hydrocarbons (PHCs) remain in groundwater at concentrations that exceed water quality goals in some monitoring wells downgradient of the removed underground storage tanks (USTs) and dispensers at the site, however there has been a general decrease in dissolved PHC concentrations.

Methyl-tert-Butyl Ether (MTBE) was not detected in the groundwater samples collected this quarter. MTBE has not been detected in groundwater at the site. Groundwater samples in the third quarter 2000 were analyzed for the fuel oxygenates Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, and tertiary Amyl Methyl Ether. No fuel oxygenates were detected in these groundwater samples.

At this time we recommend:

- Continuing quarterly groundwater monitoring of dissolved PHC concentrations at the site.
- Calculating additional cleanup levels for those PHCs which have not yet had cleanup levels set (ethylbenzene, xylenes, and TPH-g, see Weber, Hayes and Associates, June 18, 2001), for comparison with residual concentrations of PHCs.

INTRODUCTION

This report documents groundwater monitoring activities at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California (the site), during the second quarter 2002. This report has been prepared pursuant to a directive from the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health, August 8, 2000) regarding a release of petroleum hydrocarbons (PHCs) from underground storage tanks (USTs) at the site.

Groundwater monitoring activities conducted during this quarter included:

- 1. Measuring groundwater levels and checking for the presence of free product in all of the monitoring wells associated with the site
- 2. Measuring the physical parameters of pH, temperature, electrical conductivity, and dissolved oxygen concentration in each well
- 3. Collecting groundwater samples from each of the appropriate monitoring wells
- 4. Submitting the groundwater samples to a state-certified analytical laboratory for analysis of dissolved PHC concentrations following proper chain-of-custody procedures
- 5. Determining groundwater elevations, flow direction, and gradient in the vicinity of the site
- 6. Mapping the extent of the dissolved PHC plume in groundwater beneath the site
- 7. Preparing this technical report

Site Description And Background

The site is located at the corner of Meekland Avenue and Blossom Way in Alameda County California, at an elevation of approximately 55 feet above sea level (Figure 1). The site is relatively flat and is currently vacant.

The site was operated as a motor vehicle fueling station since the 1940's. Harbert Transportation used the site as a vehicle and fueling yard before selling the site to Durham Transportation in 1986.

In August 1989, four underground storage tanks (USTs) were removed from the site and properly disposed of. Soil and groundwater investigations at the site, conducted by Applied Geosystems, CTTS, and AGI Technologies, indicated that PHCs were present in soil and groundwater at the site. A list of reports documenting the soil and groundwater investigations is included in the Reference section. Ten groundwater monitoring wells currently exist at the site (Figure 2). Groundwater samples were not collected from these wells between September 1996 and September 2000. Documentation indicates that excavated soil from the UST removals was returned to the (reportedly plastic-lined) excavations (CTTS, November 1, 1992).

Documentation also indicates that two USTs were removed from the site in the early 1950's (CTTS, November 27, 1990). These USTs were located near the dispensers for the USTs removed in 1989.

On February 14, 2001, we collected soil samples from the site to determine the extent of PHCs remaining in the unsaturated zone in accordance with our September 7, 2000 Work Plan. Analysis of the data collected confirmed that significant concentrations of PHCs remained in soils beneath the former dispensers and in the 1989 UST excavation which was backfilled with the excavated material. We recommended excavation of these residual PHCs as an Interim Remedial Action (Weber, Hayes and Associates, June 18, 2001). Environmental Health concurred with this recommendation in a letter dated June 26, 2001.

On January 7 - 10, 2002 we conducted an interim remedial action excavation using six foot diameter augers to remove contaminated soils from the subsurface. Approximately 594 yds³ of PHC-impacted soil was removed from the subsurface and transported to an appropriate landfill facility for disposal. A pump was installed in one of the large diameter boreholes and 3,000-gallons of PHC impacted water was removed from the subsurface. Oxygen Release Compound® (ORC) was added to the saturated zone in each borehole to promote microbial growth and enhance the ability of aerobic microbes to degrade contaminants. Each borehole was backfilled with control density fill and clean fill soil to ground surface. This work was described in our February 8, 2002 report, *Large Diameter Excavation and 4th Quarter 2001 Quarterly Groundwater Monitoring*.

In the first quarter 2002, we recommend that the frequency of sampling in monitoring well MW-7 be reduced to semi-annually (second and fourth quarters) and that the frequency of sampling in monitoring wells MW-4, 8, 11 and 12 be reduced to annually (fourth quarter only). Alameda County Environmental Health concurred with our recommendations in a telephone conversation on July 29, 2002.

SUMMARY OF QUARTERLY ACTIVITIES

Groundwater Monitoring

The groundwater monitoring event for the second quarter 2002 took place on June 13, 2002. Field methods followed Weber, Hayes and Associates' standard field methodology for groundwater monitoring, which is described in Appendix A. Groundwater samples were collected from all monitoring wells at the site in accordance with directives from Environmental Health, and analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method 8015M, and benzene, toluene, ethylbenzene, and xylenes (BTEX), and Methyl tert Butyl Ether (MTBE) by EPA Method 8020. Samples with elevated detection limits or detections of MTBE were analyzed by EPA Method 8260 to confirm the presence of MTBE and provide the proper detection limit. Field data forms are also presented in Appendix A.

Free Product

Free product was not observed in any of the monitoring wells at the site.

Groundwater Elevation and Flow Direction

Groundwater elevations were calculated by subtracting the measured depth-to-groundwater from the top-of-casing elevations, which were surveyed by a state-licensed Land Surveyor. Field measurements and the calculated groundwater elevations for the site are summarized in Table 1. Groundwater elevations at the site fell an average of approximately 0.92 feet since the previous quarter (March 2002). Calculated groundwater elevations from the gauging data collected on June 13, 2002 are shown on Figure 2. Data from this quarter indicate that groundwater flow is to the west (see Figure 2). The calculated groundwater gradient on June 13, 2002 was to the west at approximately 0.002 feet per foot. Previous reports indicate that the groundwater flow direction in the vicinity of the site has generally been in a westerly direction. A table and figures summarizing previous depth to groundwater data is presented as Appendix B.

Groundwater Analytical Results

Groundwater samples were collected from all of the monitoring wells associated with the site this quarter, in accordance with directives from Environmental Health. The groundwater analytical results for this quarter are summarized below.

Summary of Groundwater Sample Analytical Results, June 13, 2002 (µg/L, ppb)

Well ID	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	300	1.1	1.4	4.0	1.8	ND
MW-4	ND	ND	ND	ND	ND	ND
MW-5	1,500	24	16	120	110	ND*
MW-6	1,600	< 1.25	4.7	67	5.3	< 1.5*
MW-7	ND	ND	ND	ND	ND	ND
MW-8	ND	ND	ND	ND	ND	ND
MW-9	5,100	140	21	490	300	< 1.5*
MW-10	1,700	0.77	6.2	3.3	2.9	ND*
MW-11	ND	ND	ND	ND	ND	ND
MW-12	ND	ND	ND	ND	ND	ND
AL/MCL	1,000	1	150	700	1,750	5

^{* =} Confirmed by GC/MS method 8260

The concentration of benzene in well MW-3 slightly exceed the groundwater quality goal/Maximum Contaminant Level (MCL) of 1 microgram per liter (μ g/L, parts per billion, ppb).

The concentrations of TPH-g and benzene in well MW-5 exceed the groundwater quality goals/Action Level (AL) and MCL of 1,000 ppb and 1 ppb, respectively.

The concentration TPH-g in well MW-6 exceeds the groundwater quality goal/AL of 1,000 ppb. Benzene was not detected, but the detection limit was raised to 1.25 ppb (due to sample dilution), which is slightly above the MCL.

The concentrations of TPH-g and benzene in well MW-9 exceed the groundwater quality goals, AL and MCL, respectively.

The concentration of TPH-g in well MW-10 exceeds the groundwater quality goal/AL.

No other PHCs exceed water quality goals/ALs/MCLs.

MTBE was not detected in any of the wells associated with the site.

Please see the Site Conceptual Model section for a discussion of the groundwater analytical results.

Analytical results for the groundwater samples collected by Weber, Hayes and Associates are summarized in Table 1. PHC concentrations detected in groundwater during the current monitoring event are shown on Figure 3. The extent of dissolved PHCs greater than 1,000 ppb TPH-g and 10 ppb benzene in groundwater are shown on Figure 4. The trend in TPH-g and benzene concentrations in wells MW-5 and 9, along with groundwater elevations over time, are shown on Figures 6 and 7.

The Certified Analytical Report for the groundwater samples is presented as Appendix C. All laboratory quality control and quality assurance data were within acceptable limits. A table and figures summarizing analytical results of groundwater samples collected by previous consultants is presented as Appendix D.

Dissolved Oxygen Measurements

Current and historic dissolved oxygen measurements collected at the site indicate generally lower levels of dissolved oxygen in PHC impacted wells compared to levels in non-impacted, upgradient wells. The decrease in dissolved oxygen in the impacted wells is shown by the dissolved oxygen concentration contour map on Figure 5. We believe this, combined with the observed decrease in dissolved PHC concentrations over time, indicates that natural attenuation of PHCs via biologic activity (bioremediation) is occurring in groundwater, with microbes using dissolved PHCs as a food source during aerobic respiration (see Bushek and O'Reilly, 1995, Table 1, Figure 5, and Appendix D).

SUMMARY

Summary of Quarterly Monitoring Results

- Concentrations of dissolved PHCs increased compared to last quarter. This is likely the result of rebound from the low concentrations which were the result of the interim remedial action conducted in January 2002.
- Free product was not observed in any of the monitoring wells at the site.
- Groundwater elevations at the site fell an average of approximately 0:92 feet since the previous quarter (March 2002).
- The groundwater flow direction on June 13, 2002 was to the west at a gradient of approximately 0.002 feet per foot. This direction is in general agreement with data collected by us in the past three quarters and previous data collected by others at the site.
- MTBE was not detected in any of the groundwater samples collected this quarter.
- TPH-g was detected at a concentration above the AL in on-site wells MW-5, MW-6, and MW-9 and in off-site well MW-10, all of which are located downgradient of the removed USTs.
- Benzene was detected at a concentration above the MCL in wells MW-3, MW-5, and MW-9.
- Current and historic measurements of dissolved oxygen collected at the site indicate aerobic bioremediation is occurring in the PHC-impacted wells.

SITE CONCEPTUAL MODEL

The Site Conceptual Model (SCM) provides a compilation of our understanding of the existing site conditions:

- Soils encountered at the site generally consisted of fat Clays and sandy Clays. The predominance of these fine grained materials indicate that cleanup of PHCs at the site would **NOT** be amenable to soil vapor extraction or related technologies.
- A review and comparison of historical groundwater analytical data with the current and recent data suggests there has been a reduction in PHC concentrations at the site of at least an order of magnitude since September 1996 (see Table 1, Figure 3, and Appendix D).
- PHCs are present in four on-site wells downgradient of the removed USTs at concentrations slightly above groundwater quality goals.

- Concentrations of PHCs exceed the Action Level for TPH-g or the MCL for benzene in wells MW-5, 6, 9, and 10.
- PHC concentrations in monitoring wells MW-5, 6, and 9 increased this quarter compared to last quarter, but show a general downward trend see Figures 6 and 7. The significant decrease in PHC concentrations observed last quarter was likely due to the January 2002 interim remedial action excavation and addition of oxygen releasing compound (ORC®) to the subsurface. We believe the rebound in dissolved PHC concentrations observed this quarter may be due to the exhaustion of the ORC® which we added to the subsurface during the excavation.
- We believe that natural attenuation/bioremediation has and will continue to remove PHCs from groundwater at the site, as evidenced by the general downward trend in TPH-g and benzene concentrations in well MW-5 and 9 shown on Figures 6 and 7.
- MTBE has not been detected in any of the soil or groundwater samples collected at the site.

MTBE is *NOT* present at the site. There are low levels of residual non-mobile PHCs in soil and groundwater that will likely degrade via natural processes over time. Excavation of source zone soil near the removed USTs and dispensers and removal of contaminated groundwater should allow natural attenuation of PHCs to complete the cleanup at the site.

RECOMMENDATIONS

At this time we recommend:

- Continuing quarterly groundwater monitoring of dissolved PHC concentrations at the site. We recommend that the frequency of sampling in monitoring wells MW-6 and 7 be reduced to semi-annually (second and fourth quarters) and that the frequency of sampling in monitoring wells MW-4, 8, 11 and 12 be reduced to annually (fourth quarter only). Wells MW-3, 5, 9, and 10 would remain on a quarterly schedule.
- Calculating additional cleanup levels for those PHCs which have not yet had cleanup levels set (ethylbenzene, xylenes, and TPH-g, see Weber, Hayes and Associates, June 18, 2001), for comparison with concentrations after the interim remedial excavation.

SCHEDULE OF ACTIVITIES FOR THE FOLLOWING QUARTER

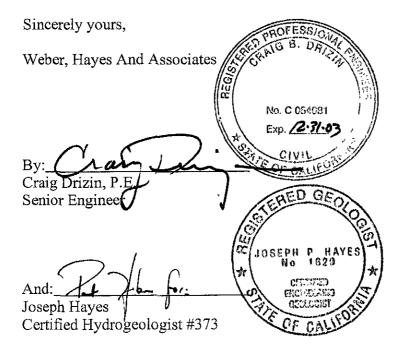
The following activities are scheduled for the next quarter:

- Quarterly groundwater monitoring according to the schedule recommended above, pending
 agreement by Environmental Health. Groundwater monitoring will include measuring the
 depth-to-groundwater, dissolved oxygen concentration, and physical parameters, and
 collecting samples from the appropriate monitoring wells and analyzing them for TPH-g,
 BTEX and MTBE by EPA Methods 8015M and 8020. All detections of MTBE will be
 confirmed by EPA Method 8260.
- Calculating cleanup levels for PHCs in soil and groundwater at the site for comparison with concentrations after the interim remedial excavation.

LIMITATIONS

Our service consists of professional opinions and recommendations made in accordance with generally accepted geologic and engineering principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and proposals in this report are based on sampling and testing which are necessarily limited. Additional data from future work may lead to modification of the opinions expressed herein.

Thank you for the opportunity to aid in the assessment and cleanup of this site. If you have any questions or comments regarding this project please call us at (831) 722 - 3580.



Attachments:

Table 1 Figure 1 Figure 2 Figure 3 Figure 4 Figure 5 Figure 6 Figure 7	Summary of Groundwater Elevation and PHC Analytical Data Location Map Site Plan with Groundwater Elevations Site Plan with PHC Concentrations in Groundwater Site Plan with Extent of TPH-g and Benzene in Groundwater Site Plan with Dissolved Oxygen Contours TPH-g and Elevation MW-5 and MW-9 Benzene and Elevation MW-5 and MW-9
Appendix A Appendix B Appendix C Appendix D	Field Methodology for Groundwater Monitoring and Field Data Forms Summary of Historical Depth to Groundwater Measurements, Groundwater Elevations, and Groundwater Flow Direction - AGI Technologies, Inc. Certified Analytical Report - Groundwater Samples Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.

c: Mr. Amir Gholami, Alameda County Environmental Health

Mr. Jeff Lawson

Ms. Laurie Berger

Mr. Gregg Petersen, Durham Transportation

Mr. Chuck Headlee, San Francisco Bay Regional Water Quality Control Board

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Table 1: Summary of Groundwater Elevation and PHC Analytical Data Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca. Weber, Hayes and Associates Project H9042

Well	Date	Screened	Surveyed	Depth to	Calculated			Labor	atory Analytical	Results		,	1	ield
	Date	Interval	T.O.C.	Groundwater	Groundwater		···						Measu	rements
I.D.		(feet below ground surface)	Elevation (feet)	(fect below ground surface)	Elevation (fect)	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	F.O.'s	D.O.	ORP
		<u> </u>		ground sarjace)	() ELI/	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(mV)
MW-3		20 - 40?	55 44					,	·					
	13-Jun-2002		ļ	22 92	32 52	300	1.1	1.4	40	18	ND	ļ. <u></u> .	014	194
	21-Mar-2002	-		21 96	33 48	240	0 94	2.5	12	11.7	ND ND		01	
	18-Dec-2001	-	1	23.59	31 85	270	16	1.7	13	5.4	ND			ļ., <u></u> ,
	20-Sep-2001	-		24 16	31 28	380	1.7	2.6	32	8.9	ND		04	
	20-Jun-2001		•	23 55	31 89	760	44	2.4	62	23	ND*			
	29-Mar-2001	.	ļ	22 02	33 42	170	1,1	ND	10	1.6	ND		0.6	
	12-Jan-2001		ļ	23.41	32,03	310	2.4	2,2	4.4	10	ND		0.7	
	27-Sep-2000	 -	<u> </u>	23.09	32 35	430	ND	ND	44	ND	ND	ND	11	
MW-4		20 - 40?	55.71		1							,		
	13-Jun-2002	1		23.15	32.56	ND	ND	ND	ND	ND	ND		0.20	392
	21-Mar-2002	-		22.15	33.56	ND	ND	ND	ND	ND	ND		0.2	
	18-Dec-2001	-		23 80	31.91	ND	ND	0.9	ND	ND	ND			
	20-Sep-2001	4		24.32	31.39	ND_	ND	ND	ND	ND	ND	<u> </u>	0.4	<u> </u>
	20-Jun-2001	. 1		23.74	31 97	ND_	ND	ND	ND	ND	ND			
	29-Mar-2001	1		22 22	33 49	ND	ND	42	ND	ND	ND		0.5	
	12-Jan-2001			23 60	32 11	ND	ND	DN	ND	ND	ND		0.7	
	27-Sep-2000			23 25	32 46	ND	ND	ND	ND	ND	ND	ND	2.5	
MW-5		25 - 45	56 03		P									
	13-Jun-2002		Į	23.57	32 46	1,500	24	16	120	110	ND*		0 06	144
	21-Mar-2002]		24.69	31,34	360	11	9.4	28	62	ND		01	
	18-Dec-2001	1	İ	23 15	32.88	780	21	12	86	94	ND*			
	20-Sep-2001	<u> </u>		24.75	31.28	2,300	46	41	280	330	ND*		0.3	
	20-Jun-2001	1		24 15	31.88	6,500	120	130	740	940	ND*			
	29-Mar-2001			22 69	33 34	13,000	220	510	1,000	2,700	ND*		0.4	
	12-Jan-200 i]		23 97	32 06	1,100	62	40	150	290	ND*		03	
	27-Sep-2000			23,69	32 34	18,000	840	2.9	1,200	3,500	< 30	ND	0,4	
MW-6		25 - 45	56.01										<u></u>	
	13-Jun-2002	1		23.53	32.48	1,600	<1 25	47	67	5.3	< 1.5*		0.53	233
	21-Mar-2002	1		23 11	32.90	750	0.77	12	39	3 2	ND*		0.1	
	18-Dec-2001	1		24 16	31 85	3,700	33	8 7	320	110	< 1.5*			
	20-Sep-2001	1		24 72	31,29	2,500	11	86	240	94	ND*		0.3	
	20-Jun-2001		ļ	24 13	31 88	1,800	14	4.6	160	79	ND*			
	29-Mar-2001]	22 56	33 45	610	2 2	ND	37	4.6	ND*		0.5	1
	12-Jan-2001			23.97	32 04	2,300	16	3.5	290	83	ND*	_	0.5	
	27-Sep-2000	<u> </u>		23.56	32 45	1,300	ND	4.3	200	17	ND	ND	0.5	

Table 1: Summary of Groundwater Elevation and PHC Analytical Data Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca. Weber, Hayes and Associates Project H9042

Well	Date	Screened Interval	Surveyed T.O.C.	Depth to Groundwater	Calculated Groundwater			Labor	atory Analytical	Results	· · · · · · · · · · · · · · · · · · ·		Fi. Measu	eld ements
I.D.		(feet below ground surface)	Elevation (feet)	(feet below ground surface)	Elevation (feet)	TPH-g (ng/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (118/L)	F.O.'s (ng/L)	D.O. (mg/L)	ORP (mV)
MW-7		25 - 45	56.66					4				<u></u>		
	13-Jun-2002			24 07	32 59	ND	ND	ND	ND	ND	ND		0 20	370
	21-Mar-2002	}		23 05	33,61	DN	ND	ND	ND	ND	ND		0	~
	18-Dec-2001]	Ì	24 70	31.96	290	ND	ND	119	4.6	ND			
į	20-Sep-2001]	1	25.27	31,39	290	0.98	ND	12	4.5	ND*		0.4	
	20-Jun-2001]		24.68	31 98	430	2.4	0.96	30	9.7	ND*			
	29-Mar-2001]		23.10	33.56	ND	ND	ND	ND	NĐ	ND		0,5	
	12-Jan-2001	_		24 49	32.17	1,600	13	0.86	150	35	ND*		0.5	
<u> </u>	27-Sep-2000			24,18	32,48	270	13	66	11	ДИ	ND	ND	0.5	
MW-8		20 - 40	56.16											
	13-Jun-2002	1		23 54	32 62	ND	ND	ND	ND	ND	ND		1 96	394
	21-Mar-2002]		22 51	33 65	ND	ND	ND	ND	ND	ND		2.4	
	18-Dec-2001	1		24 16	32 00	ND	ND	ND	ND	ND	ND			
	20-Sep-2001	1		24 68	31.48	ND	ND	ND	ND	ND	ND		16	
	20-Jun-2001			24 09	32.07	ND	ND	ND	ND	ND	ND			
	29-Mar-2001		ĺ	22.56	33.60	ND	ND	0.8	ND	ND	ND		19	
ļ	12-Jan-2001		<u> </u>	23,93	32,23	ND	ND	ND	ND	ND	ND		2 1	
	27-Sep-2000			23,59	32 57	ND	ND	ND	ND	ND	ND	ND	1.9	
MW-9		20 - 40	55 21											
#	13-Jun-2002	1	\	22,76	32 45	5,100	140	21	490	300	< 1.5*		0.14	135
İ	21-Mar-2002	_		21 76	33.45	510	26	46	50	52	ND		0.1	
	18-Dec-2001			23,38	31.83	6,400	640	120	630	1,300	< 1.5*			
	20-Sep-2001			23.94	31.27	3,400	270	38.0	390	430	ND*		03	
	20-Jun-2001	_	}	23,36	31.85	8,300	330	88 0	850	1,700	< 0.6*			
	29-Mar-2001	_		21,61	33 60	1,600	i10	14.0	240	150	ND*		0.4	
	12-Jan-2001	1	<u> </u>	23 17	32,04	10,000	550	1100	1,200	2,200	ND*		0.5	
ļ	27-Sep-2000	-		22 90	32.31	1,000	40	6.7	110	55	ND	ND	0.5	
MW-10		25 - 40	54.74		1			r						
	13-Jun-2002	4		22,56	32.18	1,700	0.77	62	3.3	2.9	< 0.3*		0.28	201
	21-Mar-2002	4		21 53	33,21	1,500	ND	11	3,1	ND	ND*		0.1	
1	18-Dec-2001	4		21,11	33.63	1,500	7.9	2.9	ND	ND	< 0.6*	<u> </u>		
	20-Sep-2001	4		23 70	31.04	1,200	6	9.9	1.2	3.9	ND*	 	0.4	
	20-Jun-2001	4	•	23,17	31.57	810****	3	16	51	13	ND*			
	29-Mai-2001	4	}	21 63	33,11	600****	2	0.65	ND	0.72	ND		0.5	
	12-Jan-2001	-		22.99	31.75	530	3.7	19	21	4.5	ND		06	
<u></u>	27-Sep-2000	<u></u>	<u> </u>	22.72	32 02	880	ND	ND	ND	ND	ND	ND	0 4	<u></u>

Table I: Summary of Groundwater Elevation and PHC Analytical Data Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca. Weber, Hayes and Associates Project H9042

Well	Date	Screened Interval	Surveyed T.O.C.	Depth to Groundwater	Calculated Groundwater			Labor	atory Analytical	Results			Fie Measur	
I.D.		(feet below ground surface)	Elevation (feet)	(fect below ground surface)	Elevation (feet)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	F.O.'s (ug/L)	D.O, (mg/L)	ORP (mV)
MW-11		25 - 40	55.20							<u></u>		<u></u>		
	13-Jan-2002			22.78	31.96	ND	ND	ND	ND	ND	ND		0.15	380
į	21-Mar-2002	1		21 76	32 98	ND	ND	ND	ND	DИ	NĎ		01	
	18-Dec-2001	1		23 39	31.35	ND	ND	0.56	ND	ND	ND	-		-
i	20-Sep-2001			23.87	30.87	ND	ND	ND	ND	ND	МD		04	-
ļ	20-Jun-2001)		23 39	31.35	ND	ND	ND	ND	ND	ND			
	29-Mar-2001]		21.84	32,90	ND	ND	4.5	ND	ND	ND		06	
	12-Jan-2001	<u> </u>		23.21	31.53	ND	ND	2 1	ND	ND	ND		0.6	
	27-Sep-2000			<u>2</u> 2 43	32.31	63	ND	ND	מא	ND	ND	ND	0.6	
MW-12		25 - 40	56.49		,									
	13-Jun-2002	_		23.86	32.63	ND	ND	ND	ND	ND	ND		0.51	400
	21-Mar-2002	1		22.86	33.63	ND	ND	ND	ND	ND	ND		0.7	
	18-Dec-2001	_		24 49	32 00	ND	ND	0.86	ND	ND	МD			
	20-Sep-2001	_		24.95	31.54	ND	ND	ND	ND	ND	ND		0.7	
	20-Jun-2001	1	•	24.47	32.02	ND	ND	ND	ND	ИD	ND			
	29-Mar-2001	_		22 91	33 58	ND	ND	5 0	ND	ND	ND		1	
	12-Jan-2001	_		24.28	32.21	ND	ND	1,1	ND	ND	ND		1	
	27-Sep-2000			23.98	32 51	ND	ND	ND	ND	ND	ND	ND	1.2	
	Laborato	ry's Practical	Quantitatio	n Limit (PQL);		50	0.5	0.5	0.5	1	5 5	5	Field	Field
	State I	Maximum Co	ntaminánt L	evel (MCL):		1,000**	1	1,50	700	1,750	5****	0,5	Instrum ent	Instrument

Notes:

TOC = Top of Casing Elevation Calculated groundwater elevation = TOC - Depth to Groundwater Referenced to NGVD

1PH-g = Total Petroleum Hydrocarbons as gasoline MTBE = Methy - tert - Butyl Ethei
FO's = Puel Oxygenates = Di-isopropyl ether (DIPE), tertiary Butyl Alcohol (TBA), Ethyl tertiary Butyl Ethei (ETBE), tertiary amyl Methyl Ethei (TAME)

VOC's = Volatile Organic Compounds D.O = Dissolved Oxygen

ug'L = mucrograms per liter, parts per billion, mg'L = mulingrams per liter, parts per million ND = Not Detected at the Practical Quantitation Limit (PQL), < X = Not Detected at the elevated because of sample dilution

ND = Not Detected at the Fractical Quantitation Limit Quely, **

= Data not collected or measured, or analysis not conducted
MCL = Maximum Contaminant Level for drinking water in California (Department of Health Services)

* Confirmed by GCMS method 8260

** = Secondary MCL / water quality goal

*** = Secondary MCL / water quality goal

^{**** =} Laboratory Report indicates results within quantitation range, chromatographic pattern not typical of fuel



Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

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Letter of Transmittal

to:

Mr. Jerry Harbert

46765 Mountain Cove Drive Indian Wells, California 92210

from:

Craig Drizin

re:

Harbert Transportation, 19984 Meekland Avenue, Hayward, California

date:

c:

January 9, 2001

Number of Copies	Date of Documents	Description
1	September 12, 2002	Groundwater Monitoring Report - Second Quarter 2002

2 My 2 Mys

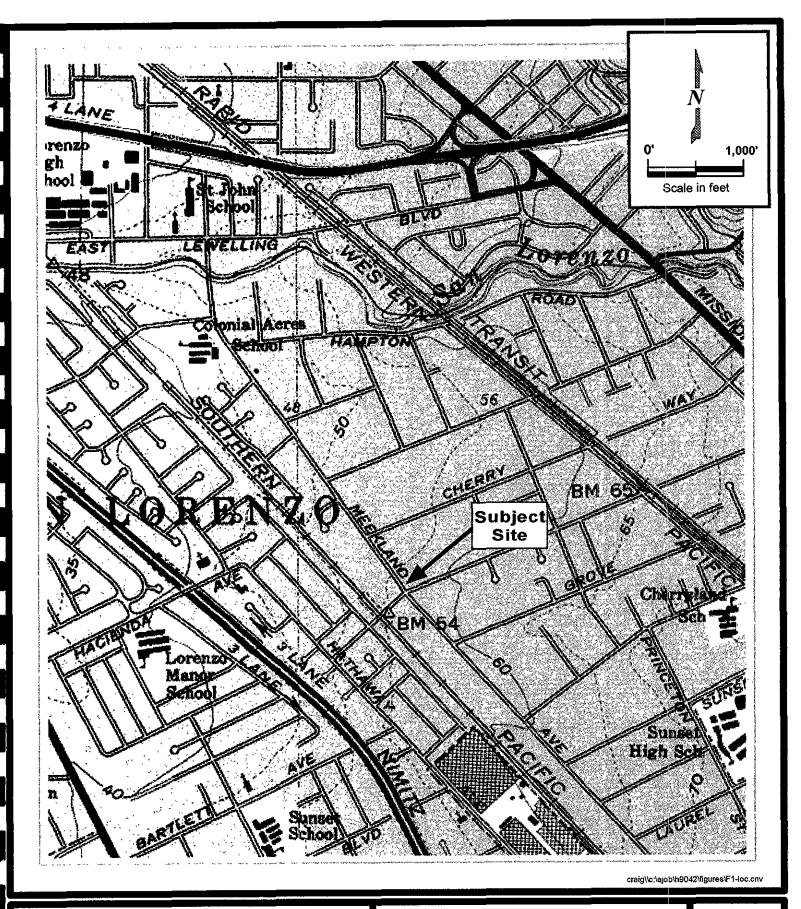
Mr. Amir K. Gholami Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502 - 6577

Mr. Jeff Lawson Silicon Valley Law Group 152 N. Third Street, Suite 900 San Jose, California 95112

Ms. Laurie Berger 905 Emerald Hill Road Redwood City, California 94061

Mr. Gregg Petersen Durham Transportation 9011 Mountain Ridge Drive, Travis Building, Suite 200 Austin, Texas 78759 - 7275

Mr. Chuck Headlee San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, California 94612



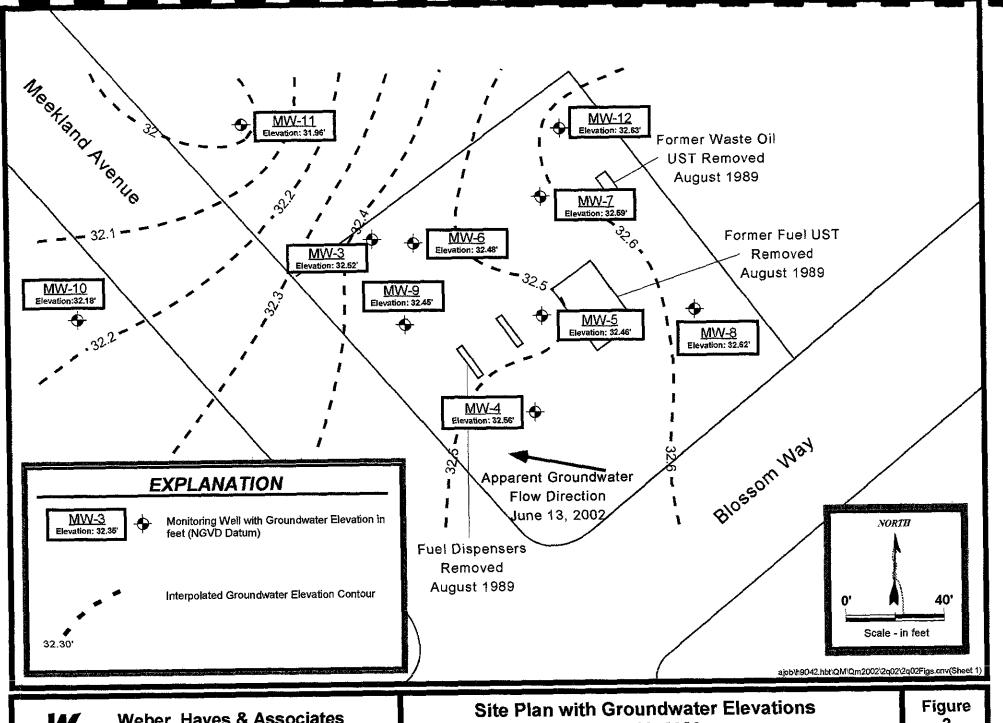


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Location Map

Former Harbert Transportation Facility 19984 Meekland Avenue Hayward, California

Figure Job# H9042



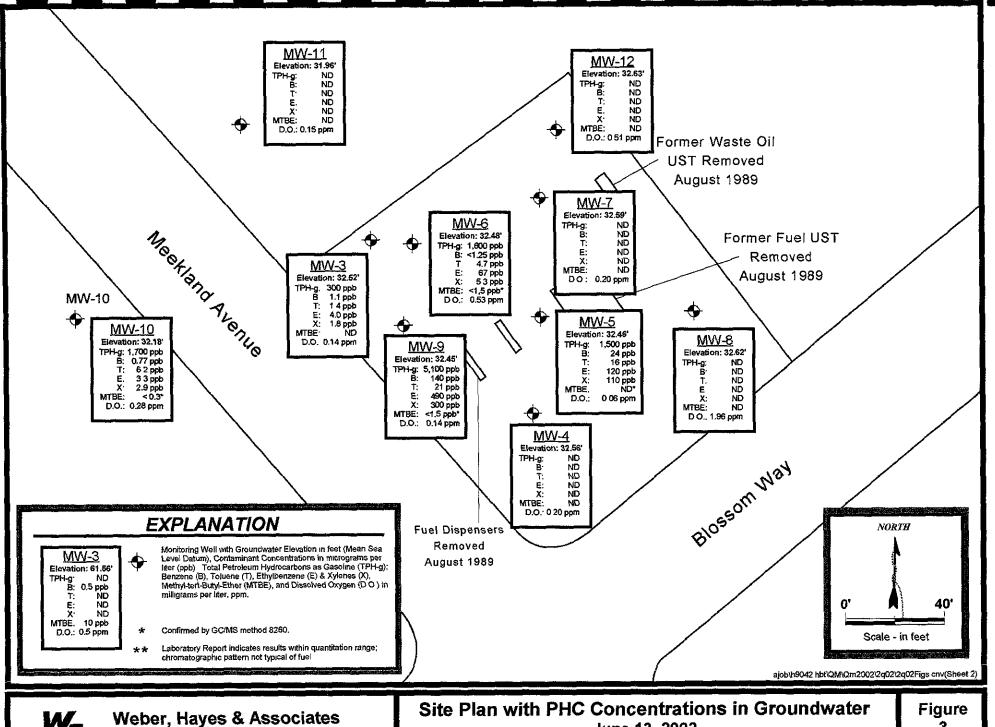


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June 13, 2002

Former Harbert Transportation Facility 19984 Meekland Avenue, Hayward, California

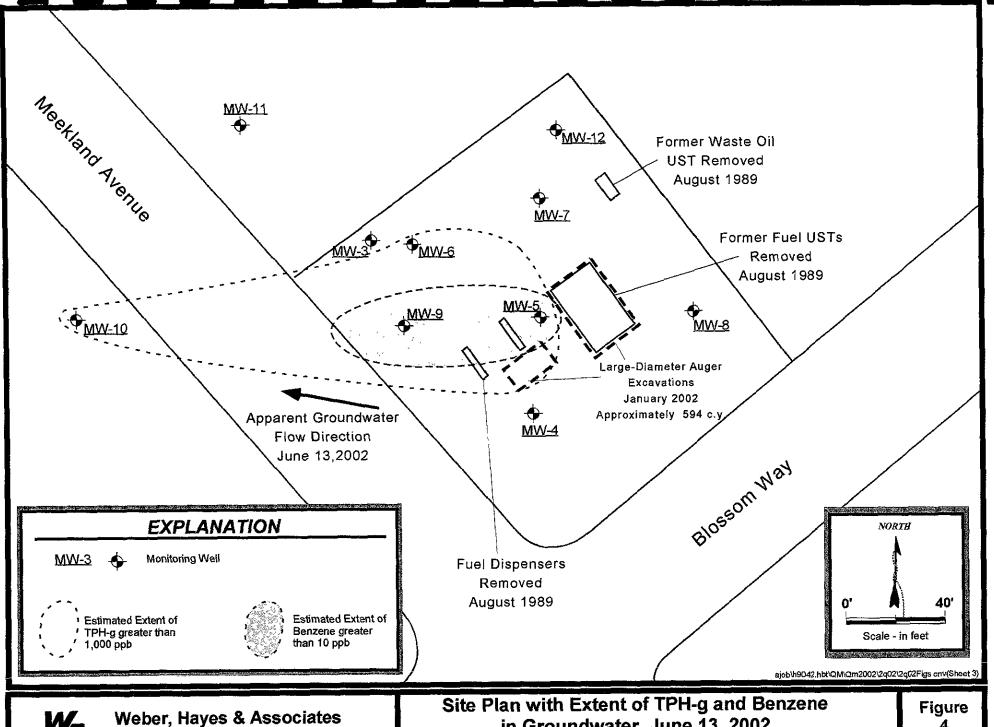




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June 13, 2002

Former Harbert Transportation Facility 19984 Meekland Avenue, Hayward, California

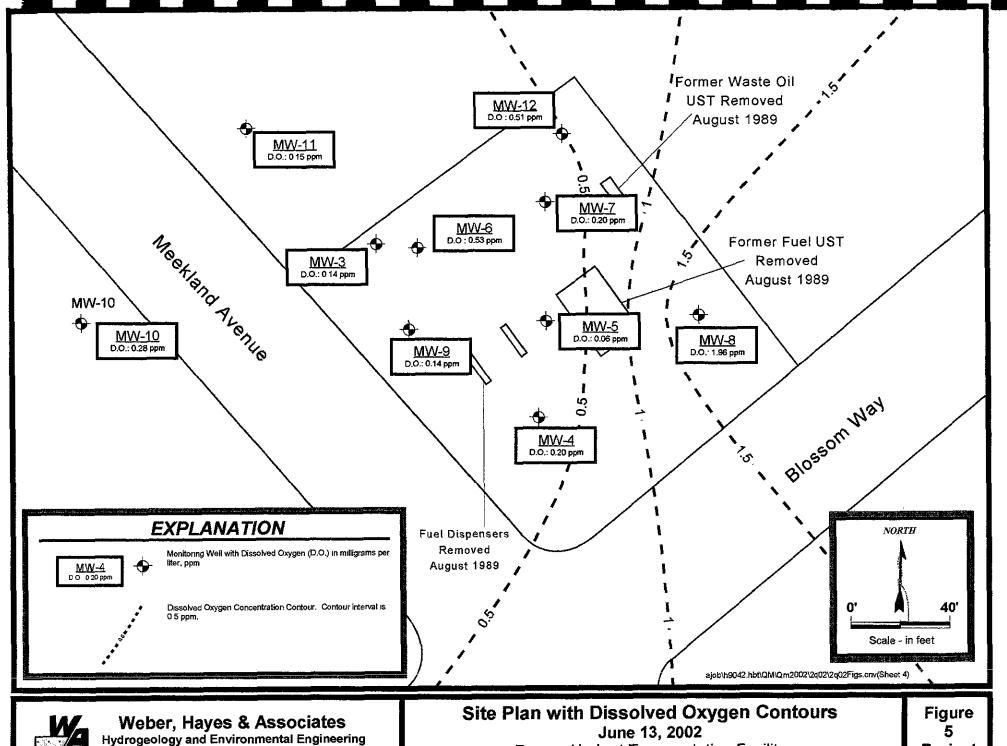




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in Groundwater, June 13, 2002

Former Harbert Transportation Facility 19984 Meekland Avenue, Hayward, California





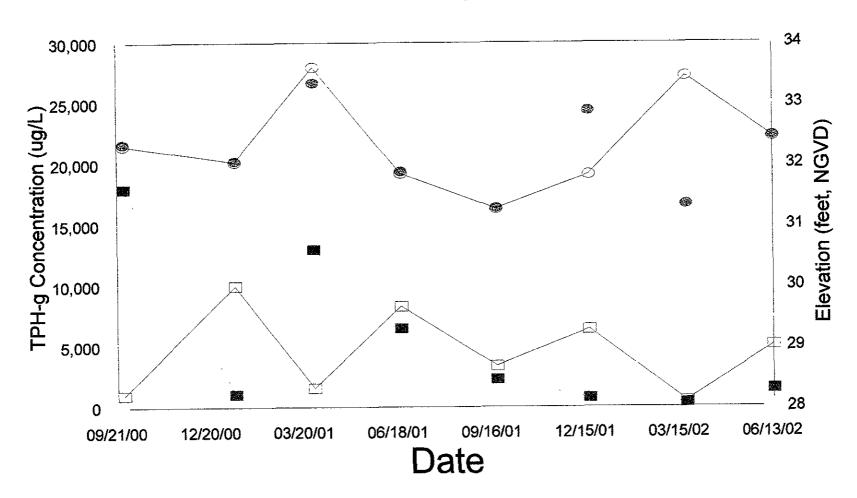
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Former Harbert Transportation Facility 19984 Meekland Avenue, Hayward, California

Figure 6

TPH-g and Elevation MW-5 and MW-9

Harbert Transportation

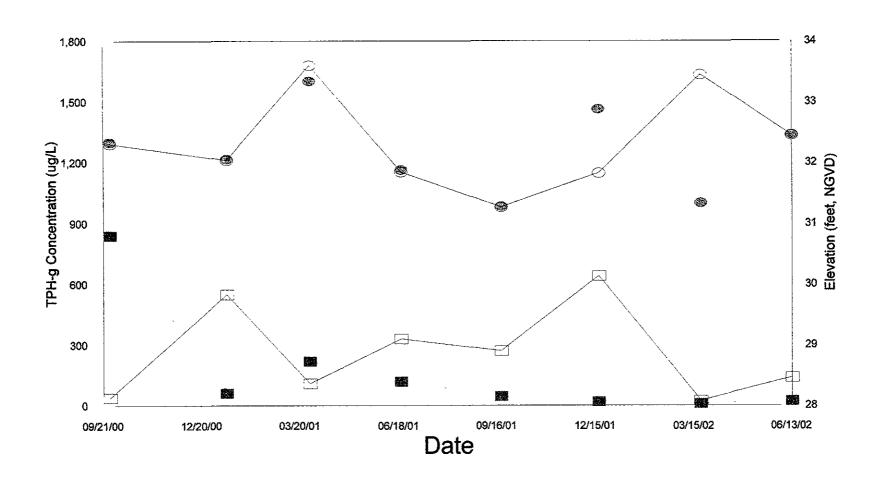


Elevation MW-5
TPH-g MW-5
Elevation MW-9
TPH-g MW-9

Figure 7

Benzene and Elevation MW-5 and MW-9

Harbert Transportation



■ Elevation MW-5
■ Benzene MW-5
— Elevation MW-9
— Benzene MW-9

Appendix A

Field Methodologies for Groundwater Monitoring and Field Data Forms

Appendix A

Field Methodologies for Groundwater Monitoring

Weber, Hayes and Associates' groundwater monitoring field methodology is based on procedures specified in the LUFT Field Manual. The first step in groundwater well sampling is for Weber, Hayes and Associates field personnel to measure the depth-to-groundwater to the nearest hundredth (0.01) of a foot with an electric sounder. If the well appears to be pressurized, or the groundwater level is fluctuating, measurements are made until the groundwater levels stabilizes, and a final depth-to groundwater measurement is taken and recorded. After the depth-to-groundwater is measured, the well is then checked for the presence of free product with a clear, disposable polyethylene bailer. If free product is present, the thickness of the layer is recorded, and the product is bailed to a sheen. All field data (depth-to-groundwater, well purge volume, physical parameters, and sampling method) is recorded on field data sheets (see attached). Because removing free product may skew the data, wells that contain free product are not used in groundwater elevation and gradient calculations.

After measuring the depth-to-groundwater, each well, starting with the cleanest well (based on analytical results from the last sampling event), is purged with a low flow submersible electric pump. During purging the physical parameters of temperature, conductivity, pH, dissolved oxygen (D.O.) concentration, and Oxidation-Reduction Potential (ORP) of the purge water are monitored with a QED MP20 Micropurge Flow-Through-Cell and Meter to insure that these parameters have stabilized (are within ~ 15 percent of the previous measurement). The QED MP20 Meter is capable of contiguously monitoring the physical parameters of the purge water via the flow through cell and providing an alarm to indicate when the physical parameters have stabilized to the users specifications. Purging is determined to be complete (stabilized aquifer conditions reached) after the removal of approximately three to five well volumes of water or when the physical parameters have stabilized. Dissolved oxygen and ORP measurements are used as an indicator of intrinsic bioremediation within the contaminant plume. All field instruments are calibrated before use.

All purge water is stored on site in DOT-approved, 55-gallon drums for disposal by a state-licensed contractor pending laboratory analysis for fuel hydrocarbons.

After purging, the water level in the well is allowed to recover to 80 percent of its original depth before a sample is collected. After water level recovery, a groundwater sample is collected from each well with a new, disposable bailer, and decanted into the appropriate laboratory-supplied sample container(s). The sample containers at this site were 40-ml. vials. Each vial was filled until a convex meniscus formed above the vial rim, then sealed with a Teflon®-septum cap, and inverted to insure that there were no air bubbles or head space in the vial. All samples are labeled in the field and transported in insulated containers cooled with blue ice to state-certified laboratories under proper chain of custody procedures.

All field and sampling equipment is decontaminated before, between, and after measurements or sampling by washing in an Liqui-Nox and tap water solution, rinsing with tap water, and rinsing with distilled water.

Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

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INDICATE	ATTACHMENTS	THAT APPLY	,
TIMPICATE	WITHCHMENTS	LINK LAFFE	ι

Data Sheets 11 % COC's 11 Site Map Photo Sheet Chargeable Materials

Job Name: Harbert Transportation	Date: 6/13/02
Field Location: 19984 Meekland Avenue, Hayward	Study #: H9042.Q
Field Tasks: Drilling YSampling YOther 2 nd Quarter 2002 Well Sampling	Weather Conditions: Foday + Col
Personnel/Company onsite: (Weber, Haves and Associates	

FIELD WORK PLANNING: Performed on: 6/12/02

Meet with project manager: X yes, or no.

Number of wells to be sampled: Ten Wells, with D.O. in all wells Sample wells: MW-3, 4, 5, 6, 7, 8, 9, 10, 11, 12 for TPH-g, BTEX, and MTBE.

Proposed sampling date: 6/13/02

TIME: 0645

Arrive onsite to perform 2⁻¹ Ouarter Monitoring Well Sampling.

Send all analytical to Entech Analytical Laboratory.

INITIALS:

All sampling is conducted according to Standard Operating Procedure (SOP) 10I/

-Water Quality Sampling Information for each well sampled is recorded on following pages.

-Upon sampling, all samples are placed immediately in coolers containing blue ice.

-After sampling each well all equipment is decontaminated according to SOP 10B/.

-All purge water is properly disposed in 55-gallon drums to be purged at a later date.

-All samples are recorded on field Chain-of-Custody Sheets for transport to Laboratory.

BEGIN CALIBRATION:

QED MP20 Flow Through Cell: Temp = 16.216 pH = 7.40 & 00 m, EC = 1.415 / Barometric Pressure = 470 D.O. % Saturation = 1ω %, ORP = \sqrt{A}

BEGIN SAMPLING ALL WELLS:

MU.P \overline{W} 7-10 MW.3 MUS MU.9 MWI -See information below for general monitoring well information this sampling round.

All well will be purged until the QED MP20 unit indicates that the water quality parameters (pH, Conductivity, Temp, D.O., and ORP) have stabilized to within ~ 15 % or once four casing volumes in the column requiring sampling have been removed(see Water Quality Sampling Field Forms for details). Wells will be purged from bottom-up and will follow standard operating procedures by WHA. Wells will be sampled using a bladder pump, or disposable bailer.

Signature of Field Personnel & Date

E:\AJOB\H9042.hbt\QM\QM2002\2q02\QMFIELD.WPD



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Location	GW Depth (TOC)	Total Depth of Well	D.O. (mg/L)	ORP (mV)	Floating Product (comments).
MW:3	22.42'	40.	0.19	194	No FP, Slight Odor
MW. Y	23. 5	40'	0.20	6-17 392	No FP, NoOdor
MW · 5	23.57	ч 5'	۵.06	[44	Noff, Slight Odor.
W17-6	23.53	45.	O . 5%	233	Noff, Stylt Odor
MW-7	24.07'	40	۵.20	370	Noff, NoOlor
M17-8	25.54	46.	1.96	394	Noff NoOdw
W17- d	22.76	40'	0.14	135	No FP Slyht-Moderate Ode
01·WM	22.56'	40.	0,28	201	NoFP, Mod-Hoh Odor
MD-II	22.78	40.	0.15	2 90	No FP, No Od~
W17.15	23.86	40.	0.51	400	No FP, No Odor
\ <u>\a</u>	<u> </u>				
		MS WERE LEFT O			E GAL. ZCO.
DRUMS W	VILL BE PURGEI	O ON			- 1/13 m
E:\AJ	OB\H9042.hbt\QM\Q	M2002\2q02\QMFIELD.	WPD	Signatu	re of Field Personnel & Date

Project N	ame/No.:	Hubert	Trusport	m hom	H 904	Z. Q		6/13/02			······································	***************************************
Sample N		7.2					Sample I	_ocation	: MW.	3		
Samplers	Name: (ChadTy	h				Recorde	d by:	27			
Purge Eq	uipment:	1					Sample F	Equipme	nt:			
	_	sposable or <i>i</i>	Acrylic					Χ		Disposab		
X	Whaler#									Whaler#	·	
	Bladder P Submersit	•								Bladder F	rump ible Pump	
A 1	-	•	J4 I1-				NII	1 7		•	•	
		d (cricle all t -2-DGA, EDB, 8		enetoc			Numper		es or Bo . ኒ V까ኒ ',	ttle Used	•	
	l, Stoddard		zoo - uer Oxyg	SHERES	•			W R T O C)		
	o. Paramet											
Well Num	ber:	MW.3				Well Dia	meter:	~.··	with Ca	sing Volun	ne of:	
Depth to \		22.92	TOC	0				·			" = (0.16 G	
Well Dept Height W-		13. 08. 40.	BGS or TO		th to wa	iter)					" = (0.65 G " = (1.02 G	
Volume in	Well:	2.732	gallons (cas	sing volun						6	= (1.47 G)	allon/Feet
Gallons to			gallons (vol	ume X 4)						8	" = (2.61 G	allon/Feet
Lab:	Ented	<u> </u>				Transpor	rtation:		writer	-		
Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	рН	ORP (mV)	V) Turbidity: Color, Fines					
الدي	(Galloris)	16.30	0.551	9.31	6.83	344	Low Clear, TracaFines					Stabilized
	2.	18.61	0.706		T		1	01-		-	E	
1105				2.10	6.93	· · · · · · · · · · · · · · · · · · ·	LOW.	ريب اقت	ar	/ Yhea	11665 1	
1108	4	18.71	0.754	8.41	6.91	198					1	
llio	Ь	18.73	0.703	0.23	6.93	196						
1112	8	16.37	0.703	0.18	6.92	195					<u> </u>	
11 14	10	18.76	U.702	0.15	6.92	194					<u> </u>	<u> </u>
1116	12	18.78	0.702	0.14	6.92	194	,	,	Į.		<u>l</u>	Issuerus
STOP	- Purna	· Con ple!										
VX 6	۵۱۰ مادر	· · ·										
(0,0)		Wait	for 80% w	ell volu	me red	covery p	rior to s	amplii	 1g.			
	<u>.</u>		te depth to v					•	-			
						nal well volur		ets.		4		
	Ori	iginal Height of	Water Column	= <u>1108</u>	_ x 0.8 ≖	13.664	(Well Dep	th) 70	= Depth to	water Z4.	34.	
Time: 1118	1st measured	depth to water	22.41	feet below			is well w	ithin 80% d	of original v	well casing v	olume: Yes	No
Time:	1st measured	l depth to water I depth to water	7	feet below	•		ls well w	ithin 80% d	of original v	well casing v	olume: Yes	No
Time:	1st measured	depth to water	,	feet below	•		ls well w	ithin 80% o	of original v	well casing v	olume: Yes	No
				6.	ملمسد	Mall						
				38	ample	AAGII						
Time:	1(1 %		Sample ID:	1	C.W				De	epth: 22.6	11' feet be	low TOC
•									_,			
Comments	: N	· Flooly P	wdat s	1.7ht	Odor.							

Sample N	o.: M.	۵.4					Sample L	ocation: Ma	<u> </u>	
Samplers	Name: (Chid Tay					Recorded	i by: CT		
Purge Equ		1					Sample E	quipment:		
	-	sposable or A	crylic				-	_ χ	Disposable Bailer	
Ж	Whaler#	1							Whaler #	
	Bladder P	ump							Bladder Pump	
	Submersit	ole Pump					 		Submersible Pump	
Analyses	Requested	i (cricle ali ti	nat apply):					and Types of E		
		2-DGA, EDB, 8	260 Fuel Oxyg	enates				5 r40 LLVMY>		
TPH-diese										
Intrinsic Bi										
Weil Numi Depth to V		MW.4 23.15	TOC			Well Dia	meter:	with C	asing Volume of: 2" = (0.16 Gal	lon/Fee
Well Depti			BGS or TO	С					4" = (0.65 Gal	lon/Fee
Height W-	Column:	16.85	feet (well de						5" = (1.02 Gal	
Volume in Gallons to			gallons (ca: gallons (vol		ne X hei	ght)			6" = (1.47 Gai 8" = (2.61 Gai	
			gallons (voi	une A 4)		Transpa	station :	Cour	•	
Lab:	Entern	<u> </u>				Transpo	riation.			
Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	На	ORP (mV)	Turbidity: Color, Fines			
orro	b	14.47	0.372	9.03	6.68	407	Hisk	Brown.	Memi Fines	
0872	۳_	18.73	0.853	······································	1.88		Moder	nte: Bnu	Many Fines	
0126	4	18.94	0.657		1.87	f	Low	: Cleur-1	Swwn, Minor Fins	
ひとる	b	18.96	6.660	0.37	6.87	398	604	: Clear	- Trece Fines	
Ø833	8	18.95	0.663	0.29	6.87	396				
0835	10	18.43	0.665		6.88	394				
0838	12	18.43	0.667	0.20	6.87	342	\downarrow	\ \ \	Ţ	سسنا
STOP.	- Puny	e Com plat								
	Ú	(
		Wait	or 80% w	rell volu	me re	covery	orior to s	ampling.		
		Calcula	te depth to v	water (fro	m TOC)	, for 80%	well volum	e recovery:		·
						nal well volur				
	Ori	ginal Height of V	Vater Column :	= 16.85	_x 0.8 =	13.48	(Well Depti	n) <u>40'</u> = Depth i	to water <u>21.5</u> 2 '	
Time: •36.21	Mat maneuro	d depth to water,	23.26	feet helow	7		ls well w	ithin 80% of origins	al well casing volume: Yes	No
Time: \		d depth to water,	\	feet below	٦				al well casing volume: Yes	No_
		d depth to water,	100	feet below	٦,		is well w	ithin 80% of origina	al well casing volume: Yes	749_
				_						
				S	<u>ample</u>	Well	······································			····
Time:	0939	_	Sample ID:		4W.4			1	Depth: <u>23.26'</u> feet be	low TO
	_	. 1 - 1	Λ	- 1						
Comments	: Not	Hosting Prod	it. N.	s Adoc						

Sample N	0.: ML	3.5		ı	****		Sar	nple l	ocation	: MW	· <u>S</u>		·
Samplers	Name: (Ch-ITy					Rec	corde	lby: C	भ			
Purge Eq		7					Sar	nple E	quipme	ent:			
	,	sposable or A	Acrylic					•	Χ		Disposa	able Bailer	
X	_Whaler#	3_									Whaler	#	
	Bladder P	•							<u> </u>		Bladde	•	
	Submersil	ole Pump									Subme	rsible Pump	I
	The same of the sa	d (cricle all t					Nui			es of Bo	ttle Use	ed:	
		2-DGA, EDD, 8	260 Fuel Oxyg	enates				ដ្ឋ	*40~1	NM,			
	l, Stoddare o: Paramel			<u></u>					-				<u> </u>
Well Num		MU·S				Well Dia	mete)r•	4"	with Cas	ing Vol	ume of	<u> </u>
Depth to		23.57	тос			TO DIA	11164	***	 	With Ode	mig von	2" = (0.16	Gallon/F
Well Dept			BGS or TO									4" = (0.65	
неіgnt w. Volume ir		21,43.	gallons (cas									5" = (1.02 6" = (1.47	
Gallons to			gallons (vol			 ,						8" = (2.61	
Lab: 🗜	Intech					Transpo	rtati	on:	Gur	/	 		
Tlme (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D O. (ppm)	рН	ORP (mV)			Tur	bidity: Cold	r, Fines		Micropu Paramai Stabiliz
1354	0	18.54	0.614	7.20	6.72	164	11	. A. :	D., k	Gara	Μ	. E. 4	
13 55	2_	18.63	0.683	Z.83	6.74	152	1	7.	Cla	- G	V- (C- C-	y Fr. 5 1	
1357	5	18.95	0.687	0.57	6.80	142	1000	, <u>, , , , , , , , , , , , , , , , , , </u>	CIENT	1 347	<u> </u>	1 marriag	
1400	10	19.19	0.659	٥. ١٦	6.85	14(· · ·		
1404	15	19.17	0.621	0.27	6.86	140		-	 				
1407	20	19.13	0.63 4	0.36	6.87	150					 		
1411	25	19.06	0.674	0.17	6.89	150							
1415	30	19.00	0.707	0.11	6. 8 S	150							
1422	40	18.47	0.727	0.06	1.90	144		,	•	Į			سا
	<u></u>	Wait f	or 80% w	ell volu	me re	covery p	rio	r to s	amplir	ıg.	•	· · · · · · · · · · · · · · · · · · ·	
 		Calcula	te depth to v					volum	e recove	ery:			
	0-	ginal Height of \			_	al well volui וויט עו		all Dani	പ്പുട്	- Danth ta	3	1 2 8 '	
	Oi	ginal reight of	water Column	- (-) 17 0	_ x u.o	11,133	(vv	ен рер	n <u>) 43</u>	- Depin to	water	1, 50	
		depth to water										volume: Yes	
		i depth to water, I depth to water,										volume: Yes	
illile, <u>1199</u>	istineasuret	i deptir to water,		leet below			18	s well w	เกเก 80% (original w	en casing	yvolume: Yes	
				Sa	ample	Well							
Time:	14.26	· Flusty	Sample ID:	<u> </u>						De	pth: 3	<u>೦.೭1'</u> feet	below TC
			•										

Project N	ame/No.:	Harbert T	n-s putch	/49	। ०५२ - C	<u> </u>	Date: 6/1:	2/or		-
Sample N	10.: MU	7.9		Sample Location: Mಟ-6						
Samplers	Name: C	had Tyl		Recorded by:						
Purge Eq	uipment:	sposable or A					Sample Equ	uipment: Y	Disposable Bailer	
χ	_Whaler#					Whaler #				
	_Bladder P	•				Bladder Pump				
	_Submersil	·							Submersible Pump	
		d (cricle all t						d Types of Bo	ttle Used:	
	EXAMTEE, 4- ol, Stoddare	2 DOA, EDB, 8	260 Fuel Oxyg	enates			584	omb Votis	——————————————————————————————————————	
	io. Paramel									
Well Num		Wm.6				Well Dia	meter: "	l`* with Ca	sing Volume of:	
Depth to	Water:	23531							2" = (0.16)	
Well Dept		45.	BGS or TO		th to ur	stor)			4'' = (0.65) $5'' = (1.02)$	
Height W-			feet (well de gallons (cas						6" = (1.47 (
Gallons to			gallons (vol			4 ,			8" = (2.61 (
Lab:	Entech					Transpo	rtation:	Course		
Time (24 hr)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	рН	ORP (mV)		Turbidity: Col	or, Fines	Micropurge Paramaters Stabilized
	(Galloris)	18.27	0.681	5. <i>c</i> v	6.91	216	11 1:7	\ \ \ G	M . I	
1138				1.11	6.82		1	1 C C	, Mary Fire, Mary Fire,	
1141	3	18.66	0.60			241		,	1	
1148	10	18.97	0.675	0.67	6.94	763	Law:	Clear	Trace Fines	
1153	15	18.98	0.660	6.56	6.92	245				
11 58	20	19.00	0.653	0.53	6.91	233	J		<u> </u>	l
STOP	Param	tus 31	bilized.	Pune	Comp	ete.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
1			:	,			•			
1										
1 6	13/0-									
L	<u> </u>	Wait 1	for 80% w	ell volu	me rec	coverv r	rior to sar	nnling.		
							well volume r			
					_	naí well volu				
	Or	iginal Height of	Water Column	= 21.47	= 8.0 x	17. 176	(Well Depth)_	<u>45</u> = Depth to	water <u>27.82</u>	
Time: 1156	1at magaura	d depth to water	2.4.04	feet below			le well within	90% of originals	vell casing volume: Yes	No
				feet below	-			_	vell casing volume: Yes _ vell casing volume: Yes _	
Time: \\	1st measure	d depth to water d depth to water	, \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	feet below	•		is well within	n 80% of original v	vell casing volume: Yes_	\KI
				e.	amplo	Mali				
		· -	<u></u>		ample	AAGII				 -
Time:	1158	· Florty Pro	Sample ID:	<u> </u>	10.6			De	epth: <u>24.04'</u> feet b	elow TOC
Comments	s: K∆o	Flusha Pro	L.L 51	abto	lina.					
20.711.101110		, , , , , , , , , , , , , , , , , , , 		J	- X X					

Project N	ame/No.:	Hurbert	Trucspor	Atron/1	14042	· Q	Date: 6	13/02					
Sample No.: MW.7								Sample Location: M以・デ					
Samplers Name: At Chatyl								Recorded by: CT					
Purge Equipment:								Sample Equipment:					
	•	sposable or /	Acrylic	X Disposable Bailer									
<u> </u>	_Whaler#					WI	haler #						
	_Bladder P	•					adder Pump						
	_Submersit	ole Pump		Submersible Pump									
		d (cricle all t		Number and Types of Bottle Used:									
	***************************************	2 DCA, EDB, 8	260 Fuel Oxyg	5	ix40~LW	<u> 1'1</u>							
	u, Stoddard io, Paramet												
		MW.7	. , ,		,	Wall Dia	motor.	u	h Coolne	Volume of:			
Well Num Depth to \		24.07	TOC			wen Dia	meter:	WIL	n Casing	y volume of: <u>2" = (0.16</u> G	allon/Feet		
Well Dept	h:	40'	BGS or TO							4'' = (0.65 G)	allon/Feet		
Height W-		15.43.	feet (well de	epth - dep	th to wa	iter)				5" = (1.02 G			
Volume in Gallons to			gallons (cas gallons (vol			gnt)				6" = (1.47 G 8" = (2.61 G			
	Entech		.ga.10.10 (10.	, a		Transpo	rtation:	Courser		0 (2.0.0			
Lab.						пинэро	ration. (Launer					
Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pН	ORP (mV)		Turbidi	ty: Color, F	ines	Micropurge Paramaters Stabilized		
0439	0	1ሕ 56	0.630	6.15	6.83	403	H., h:	Brown,	Mar	Fines			
0141	2_	18.18	0.65	1.86	6.86	400	Moder	te: Br	ww	Moderate Frag			
0943	Ч	/8.35	0.656	1.18	6.85	397				, Miniskus			
0948	ষ্ঠ	18.45	0.150	0.57	6.86	388	1	}		1			
0952	12	18.45	0.650	0.30	6.86	380							
0957	16	18.46	0.150	0.20	6.86	370	Ţ	Ų		1	harrens		
STOP.	Purume	ters 5 holy	hzed	Pame (امان سر عالم	7 .							
1									····				
UT 61	ala						<u> </u>						
10, 91	tala	Wait t	for 80% w	ell volu	me re	COVERV I	rior to e	amnling					
			te depth to v										
						nal well volu			TARREST MANAGEMENT				
	Or	iginal Height of	Water Column	= 13.93	_ x 0.8 =	12.744	(Well Depth	1) 40. = D	epth to wat	ter 27.26#			
T 1000	4.1	l desette to the second	24 (3)	e45 1			1 11 11						
		d depth to water			-					casing volume. Yes _ casing volume: Yes _			
Time:	1st measured	d depth to water d depth to water	Tar	feet below	-					casing volume: Yes			
		,	,	_					3				
				Sa	ample	Well		** · · <u>· · · · · · · · · · · · · · · · </u>			-		
Time:	1000		Sample ID:						•	n: <u>24/3</u> feet be	elow TOC		
Comments	s: No	Floating 7	Product. 1	Vo odar	<u></u>								
		v											

Project Na Sample N	o M		•	·			Sami	ple Loca	tion: Mu	3 · 8			
_		Chad To	~/~	*****				orded by:					
			1		<u> </u>								14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
Purge Equipment: Bailer: Disposable or Acrylic								Sample Equipment: X Disposable Bailer					
χ		•									aler#_		
	Bladder P	ump								Blad	lder Pur	mp	
	Submersil	ble Pump								Subi	mersible	e Pump	
Analyses	Requested	d (cricle all t	hat apply):				Num	ber and '	Types of E	otție t	Jsed:		
		2-DOA, EDB, 8	260 Fuel Oxyg	enates			······································	51	10 ~ L UDA	زا			***********
	l, Stoddard												
ntrinsic Bi	o. Paramet												
Vell Num Depth to \		Wr7-8	тос			Well Dia	meter	:	with C			of: (0,16 Gal	lon/Fee
Vell Dept		40'	BGS or TO	С						4	2 2 ×	(0.65 Gai	lon/Fée
leight W-	Column:	16.48.	feet (well de							1		(1.02 Gal	
/olume in Salions to		10.699	gallons (cas gallons (vol	sing volun lume X 4\	ne X hei	gnt)						(1.47 Gal (2.61 Gal	
	Entech		ganono (voi			Transpo	rtatios	n.	Course		•		
.ap:	PAICON			•		Hallsho	latio						
Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	рΗ	ORP (mV)			Turbidity: C	olor, Fine	es		Micropurg Paramate Stabilized
0726	0	17.70	0.531	5.51	7,05	380	Mo	dente	· Brow.	, I	M. w. or	Fing	
0728	2	18.05	0.529	2.27		368	Lo	ى، Cle	241-B10	٠,	Min	or Finis	
0733	5	18.20	0.555	1.42	7.04	371			eur,				
0739	10	18.27	0.568	1.54	7.00	388							<u> </u>
0746	15	18.28	0.581	1.83	7.w	391							
0752	20	18.28	0.586	1,93	7.w	393							
0757	23	18.26	0.588	1.46	6.98	394	V		V		J		
STOP -	· D	tus Stub	lised Po	AME Cam	a te.								
1	1	103 01	11000	7= ===	ę			·					
(07 6/n	101	Wait t	or 80% w	ell volu	me rec	covery r	rior	to sam	olina.				J
			te depth to v										
				Calculate 80									
	Ori	ginal Height of V	Vater Column =	= 11.46	× 0.8 =	13.168	- (Well	Depth) Y	<u>O'</u> = Depth t	o water .	26.87	·	
·ima: 4154	1et manaura	d depth to water,	23.85	feet helow			ls v	well within 8	0% of origina	ıl well ca	sina volu	me: Yes 🛩	-No
ime:		d depth to water		feet below					0% of origina		-		No
ime:\o	1st measured	d depth to water,	19	feet below 1			ls v	vell within 8	0% of origina	il well ca	sing volur	me: Yes	No CT
				•		lAfa II							
			***************************************	38	mple	AAGII							
Time:	0759		Sample ID:	~	14.8				ľ	Depth: <u>∡</u>	<u> 28 . 85</u>	feet be	low TO
Comments		tooky Pro	Lit. No	Oda									
Jonnie 11(9	. 1001	G					". 7			······			~

Project N	ame/No.:	Hurbert	Transpo	orthon	149	042.0	Date	=: 6/13/a	-				
	10.: MW				·			ple Location					
Samplers	Name: C	hadTayl	<u> </u>	<i></i>			Rec	orded by:	CT	· · · · · · · · · · · · · · · · · · ·			
Purge Eq	uipment:	/		Sample Equipment:									
	-	sposable or A	Acrylic	Disposable Bailer									
X	_Whaler#_ Bladder Pi						aler # dder Pump						
	_biadder Pi Submersit	•		Submersible Pump									
Analyses	-	d (cricle all t	hat annly):				Num	ber and Typ		•			
		2-DGA, EDB, 8		enates			- TOTAL	= =	"FMA:	3 550.			
-TPH-diese	I , Stoddard	-Solvent											
<u> Intrinsie-Bi</u>	o-Paramet	ers											
Well Num		MW-9				Well Dia	mete	r: <u> </u>	with Casing		H/5" + -4		
Depth to \ Well Dept			TOC BGS or TO	С						2" = (0.16 Ga) 4" = (0.65 Ga)			
Height W-	Column:	17.24	feet (well de	epth - dept						5" = (1.02 Ga	ilon/Feet		
Volume in Gallons to		11.206°	gallons (ca: gallons (vol		ie X hei	ght)				6" = (1.47 Ga 8" = (2.61 Ga			
Lab:	Enterh		, 92	,		Transpo	rtatio	n: <i>C</i> ₂	write	(======================================			
		T		-	 					· · · · · · · · · · · · · · · · · · ·			
Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	рH	ORP (mV)		·	rbidity: Color, Fi		Micropurge Paramaters Stebilized		
1319	0	१ १. ५५	0.601	7.67	6.67	116	ا_ ا	w: Clean	r - Gry	Muny Fues Trace Fines			
1319	2	19.60	0.652	2.33	6.67	144	1,0	sus Cl	ear /	ruce fines			
1321	5	19.30	0.638	0.95	6.83	124			<u> </u>				
1324	10	19.37	0.626	0.49	18.6	125							
1327	15	19.39	0.627	0.27	6.86	128		,					
1330	20	19.59	0.630	0.16	88.8	132							
1332	23	19.40	0.627	6.14	6.87	135		,	,	J	<i>L</i>		
STOP	- Parame	ers Shi	rilized.	Pune (مسمال	.te.							
\46	,sh-			- 0	7								
<u> </u>	· · · · · · · · · · · · · · · · · · ·	Wait	or 80% w	ell volu	me rec	covery p	rior	to sampli	ng.	······································	<u></u>		
		Calcula						olume recove	ery;				
	Ori	iainal Haiaht af 1		Calculate 80' – มหา	_			ill Depth) 40.	- Dooth to wate	× 26.7.1			
	Off	giriai i seigini oi i	vvater Column	- <u> 11.61</u>	_ X U.B =	10:16	(п Бериі) 10	- Deptil to wate	31			
		depth to water								asing volume: Yes <u>-</u>			
Time: 6	_1st measured Viet measured	i depth to water I depth to water	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	feet below feet below				Is well within 80% of original well casing volume: Yes No No 1s well within 80% of original well casing volume: Yes No 1					
Ting	43(110030100	depii) to water	· ———·	. 1006 061044			13	Wen Willin 0070	or original well d	asing volume. Tes	1403		
				Sa	ımple	Well							
Time:	1334		Sample ID:	23.0	M CO	1- MO-9			Depth	: 23.07 feet bel	ow TOC		
Comments	:	No Flory	Product.	5lyht	·M.d.	.te Oc	lor_						
									· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project N	ame/No.:	Harbert 7	musput	hun /	19042	. Q	Date: Attail 6/13/02
Sample N		W.10	· · · · · · · · · · · · · · · · · · ·				Sample Location: MU . (C)
Samplers	Name: C	Thattal	<u> </u>			··········	Recorded by: CT
Purge Eq	uipment:	- 1					Sample Equipment:
	-	sposable or A	Acrylic				Υ Disposable Bailer
	Whaler#	3					Whaler #
	Bladder P	•					Bladder Pump
	Submersi						Submersible Pump
		d (cricle all t	•				Number and Types of Bottle Used:
TPH-gas, &T		-2 DCA-EDB-8	260-Fuel Oxyg	enates			Sk40-L UMS
-r≁n-ciese -Intrinsic-Bi							
Well Num		MWIC				ein IIaW	meter:with Casing Volume of:
Depth to \			TOC			Wen Dia	2" = (0.16 Gallon/Fee
Well Dept		40'	BGS or TO				4" = (0.65 Gallon/Fe
Height W-		17. 44'	feet (well di				5" = (1.02 Gallon/Fe
Volume in Gallons to		17.236.	gallons (ca: gallons (voi		ie x nei	gnt)	6" = (1.47 Gallon/Fee 8" = (2.61 Gallon/Fee
	Entech		.5	,		Transpo	·
Edb. 1				· _V		Пипоро	Table 11: Co William
Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	рН	ORP (mV)	Turbidity: Color, Fines Alteropurg. Paramater Stabilized
1227	0	18.17	0.995	4.85	6.72	256	Law: Clear-Brown Minorfing
1228	2_	18.48	0.921	1.25	6.65	215	Low: Clear Tructines
1230	5	18.73	6.897	0.57	6.64	221	
1234	10	18.81	0.885	0.19	6.65	201	
1239	12	18.83	0.866	0.12	6.15	207	
1243	20	18.82	0.882	0.49	6.65	202	
1247	2.5	18.85	0.810	0.28	6.65	201	
SIDP	- Parame	ters St.L	lized i	mrye C	م سیالو	te.	
las				U	1		
<u> </u>		Wait	for 80% w	ell volu	me re	covery p	orior to sampling.
		Calcula	te depth to	water (fro	m TOC	, for 80%	well volume recovery:
					_	nal well volu	
	Or	iginal Height of	Water Column	= <u> 14 44 </u>	_ x 0.8 =	13, 754	- (Well Depth) 40. = Depth to water 26.05.
Time: 1248	1st measure	d denth to water	12.65	feet below			Is well within 80% of original well casing volume: YesNo
Time. 1	1st measure	d depth to water		feet below			is well within 80% of original well casing volume: Yes No
Time. VI	1st measure	d depth to water d depth to water d depth to water	, \4	feet below			ls well within 80% of original well casing volume. Yes No
				Sa	ample	Well	
Time:	1248	Flooring	Sample ID:	~	14.10		Depth: 2 %-65' feet below TOO
Oo. wa		E1).	211	M	. ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ	11.1 /	Har.
Comments	· _ \)_	rlo.my	Trolair.	110	i chute.	117 h	A101 2

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GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project N	ame/No.:	Harbert	Truns por	totion	11 904	Z.Q	Date: 6/13/oc	
Sample N	lo.: Mui	»·V	<u> </u>				Sample Location: MUM	
Samplers	Name: (Chultyh					Recorded by:	
Purge Eq		1					Sample Equipment:	
94	-	sposable or A	Acrylic				χ Disposable Bailer	
X	- _Whaler#.	•	·				Whaler #	
	_Bladder P	ump					Bladder Pump	
	_Submersit	ole Pump					Submersible Pump	
Analyses	Requested	d (cricle all t	hat apply):				Number and Types of Bottle Used:	
TPH-gae B1	EXMITBE, 1	2-DCA, EDB, 8	260 Fuel Oxyg	enales			5x40-1 With's	
	el, Stoddare				····			
Intrinsic Bi	io. Paramet	ers			·····			
Well Num			·			Well Dia	meter: 2" with Casing Volume of:	to develope a supple a recomment of the supple description of
Depth to \ Well Dept		<u> 22.78'</u> - 40'	TOC BGS or TO	_			2" = (0.16 G) $4" = (0.66 G)$	
Height W-			feet (well de		th to wa	ter)	5" = (1.02 G	
Volume In		2.7552	gallons (ca:	sing volun			6" = (1.47 G	allon/Feet
Gallons to	o purge:	11.02	gallons (vol	ume X 4)			8" = (2.61 G	allon/Feet
Lab:	Entech					Transpo	rtation: Courses	
T -	Volume		0	- no	<u> </u>			Micropurge
(24 hr.)	Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pΗ	ORP (mV)	Turbidity: Color, Fines	Paramaters Stabilized
1024	0	15.71	0.883	7.95	6.71	397	High: Brown, Man, Francy Moderate: Brown, Minorfins	<u> </u>
1021	2	17.51	0.934	1. 14	6.75	314	Moderate: Brown, Minortius	
1529	4	17.58	0.926	0.74	6.74	343	Low Clear - Brown Tracks	
1031	6	17.61	0.921	0.36	6.75	389	, , , , , , , , , , , , , , , , , , ,	
دددا	8	17.63	0.122	0.25	6.75	386	Low: Clear, Tractimes	
1035	10	17.63	0.920	0.14	6.77	383	•	
1037	12	17.69	0.921	0.15	6.76	380		Inchin
STOP -	Punje	Constitu						
\ablu	11	3,00,0						1
10000	,,	\/\/ait t	for 80% w	eli volu	me rec	COVORY F	rior to sampling.	
							well volume recovery:	
	 					nal well volui		
	Ori	ginal Height of			_		- (Well Depth) 40 = Depth to water 21.22	
								_
		depth to water		feet below			Is well within 80% of original well casing volume: Yes	
Time:	1st measured	l depth to water I depth to water	· \ \\	feet below feet below f			is well within 80% of original well casing volume: Yes ls well within 80% of original well casing volume: Yes	
<u>-</u>	Iat Illeasuret	depin to water		IGE! DOIOW			is well within 60 % of Original well casing volune. Tes	
				Sa	ample	Well		
Time:	1039		Sample ID:	Mı	<u> ಎ. ॥</u>		Depth: 12.11' feet be	olow TOC
		Florty P	. , 1					
Comments	:: N _c	Flootry P	nodart.	No Od	<u>~</u>			

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GROUNDWATER MONITORING WELL SAMPLING INFORMATION

		Hurbert	Transpor	totan /	H 9092	<u> ()</u>	Date: 6/13/or	····
Sample N		1472		······································		· · · · · · · · · · · · · · · · · · ·	Sample Location: MW-12	
Samplers	Name: C	hadTayla			, , ,		Recorded by: CT	
Purge Eq	uipment:	/					Sample Equipment:	
		isposable or A	Acrylic				Disposable Bailer	
	_Whaler#						Whaler #	
,	_Bladder P						Bladder Pump	
	_Submersi	•					Submersible Pump	
		d (cricle all t					Number and Types of Bottle Used:	
	Stoddard	, 2-DGA, EDB, 8 I-Solvent	260 Fuel Oxyg	enates			5x40~LUOA>	
	io. Parame	-						
Well Num		MUIT				Well Dia	meter: 2 " with Casing Volume of:	
Depth to		23.86				7101. 1514	2" = (0.16 Gallo	n/Fee
Well Dept		40.	BGS or TO		th to we	stor)	4" = (0.65 Gallo	
Volume in			feet (well de gallons (cas				5" = (1.02 Gallo 6" = (1.47 Gallo	
Gallons to			gallons (vol	-		,	8" = (2.61 Gallo	
Lab:	Entreil					Transpo	rtation: Goutier	
Time (24 hr.)	Volume Purged	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	рН	ORP (mV)	Turbidity: Color, Fines	licropurge aramaters Stabilized
0901	(Gallons)	16.88	a . 559	6.17	6.64	392		
				2.60	6.62		Moderate: Bismin, Moderateting Low: Clear-Brown, MinorFrom,	
0903	2	17.72	0.622		 	· · · · · · · · · · · · · · · · · · ·	Low: Clear-Duwn, Minestra	
0906	4	17.99	0.624		6.60	404		
6909	6	18.01	0.626	0.75	6.64	403		
0911	3	18.04	0.628	0.55	6.63	403		
0418	lo	18.06	0.629	0.50	6.65	401		
0116	12	1 8.06	0.651	0.81	6.65	400	1 1	r
STOP	- Purne	Complete						
\cr 610	1	,						
/M M	17.	Wait	or 80% w	ell volu	me re	covery p	prior to sampling,	
		Calcula	te depth to v	vater (fro	m TOC), for 80%	well volume recovery:	
					_	nal well volu		
	Or	iginal Height of	Water Column	= 1844.	_ x 0.8 =	12. 4/2	(Well Depth) <u> 40 </u>	
Time: 0919	1st measure	d depth to water	23.91	feet below	<u>.</u>		Is well within 80% of original well casing volume: Yes	Ño
Time:	1st measure	d depth to water		feet below	•		ls well within 80% of original well casing volume: Yes1	No
Time. 10	1st measure	d depth to water	<u> </u>	feet below	•		ls well within 80% of original well casing volume: Yes	1001
				Sa	ample	Well		
Time	0919		Sample ID:				Depth: 23.91 feet below	v TOC
inie.						· ·	Dopuit, a di leet below	. , 50
Comments	s: N	o Flustry	Produst.	No Ode	٠.			
		0						

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Groundwater Monitoring Report - Second Quarter 2002 19984 Meekland Avenue, Hayward, California September 12, 2002

Appendix B

Summary of Historical Depth to Groundwater Measurements, Groundwater Elevations, and Groundwater Flow Direction - AGI Technologies, Inc.

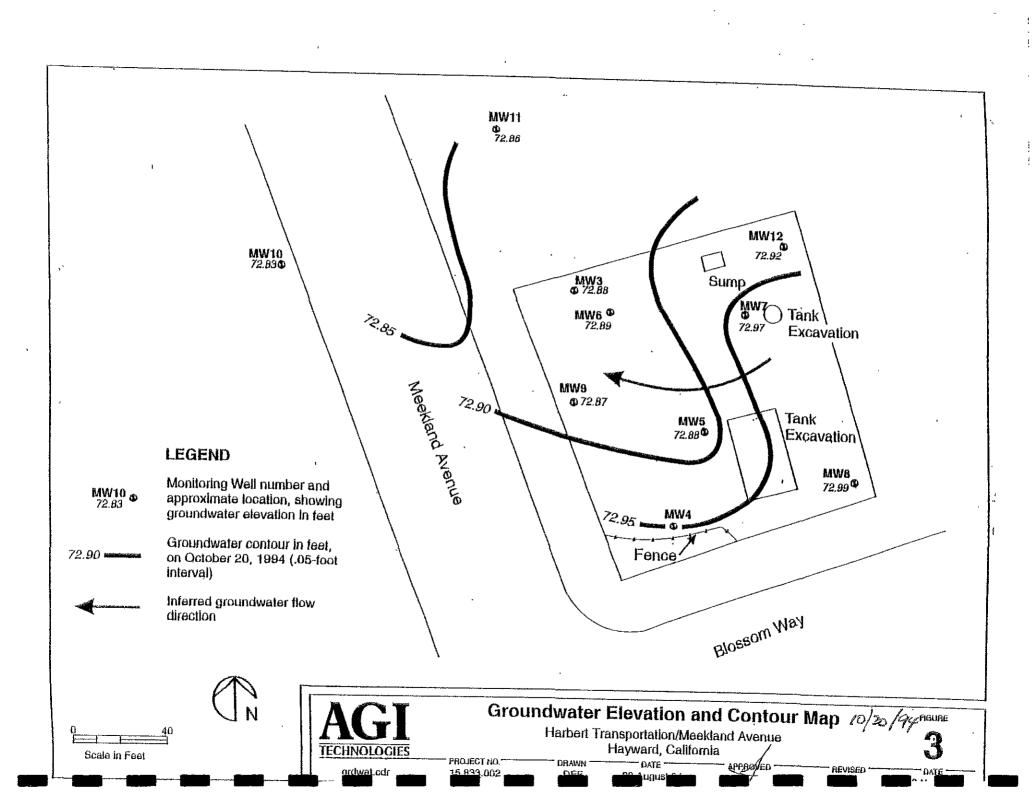


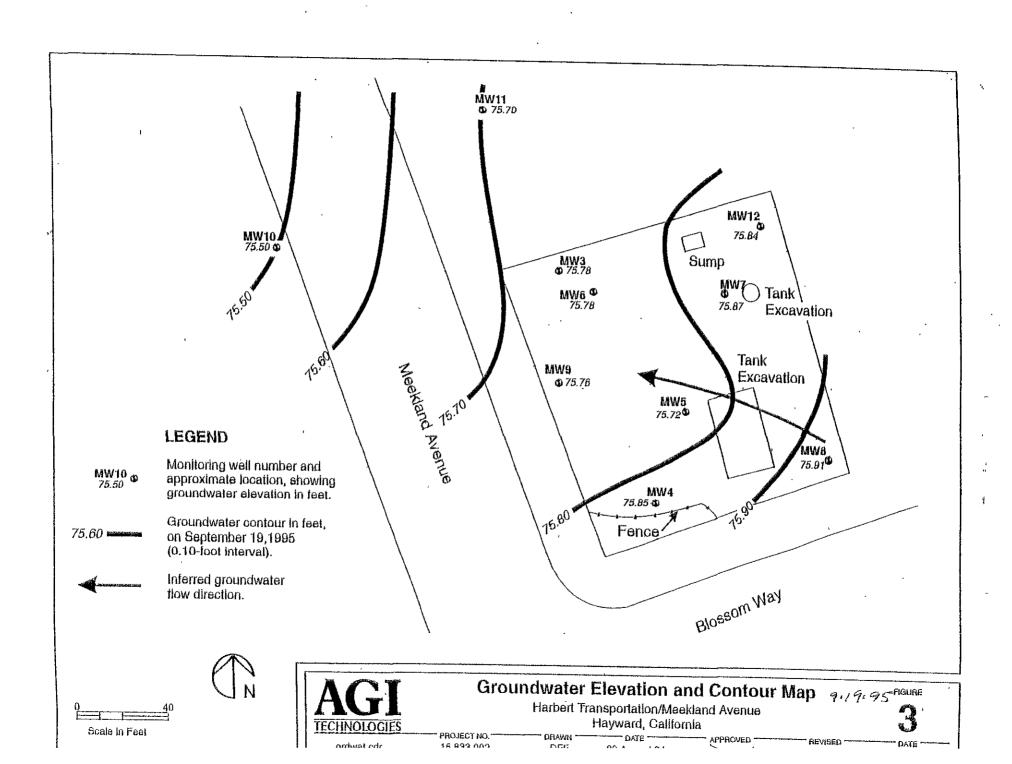
Table 1
Groundwater Elevation Data
Harbert Transportation/Meekland Avenue
Hayward, California

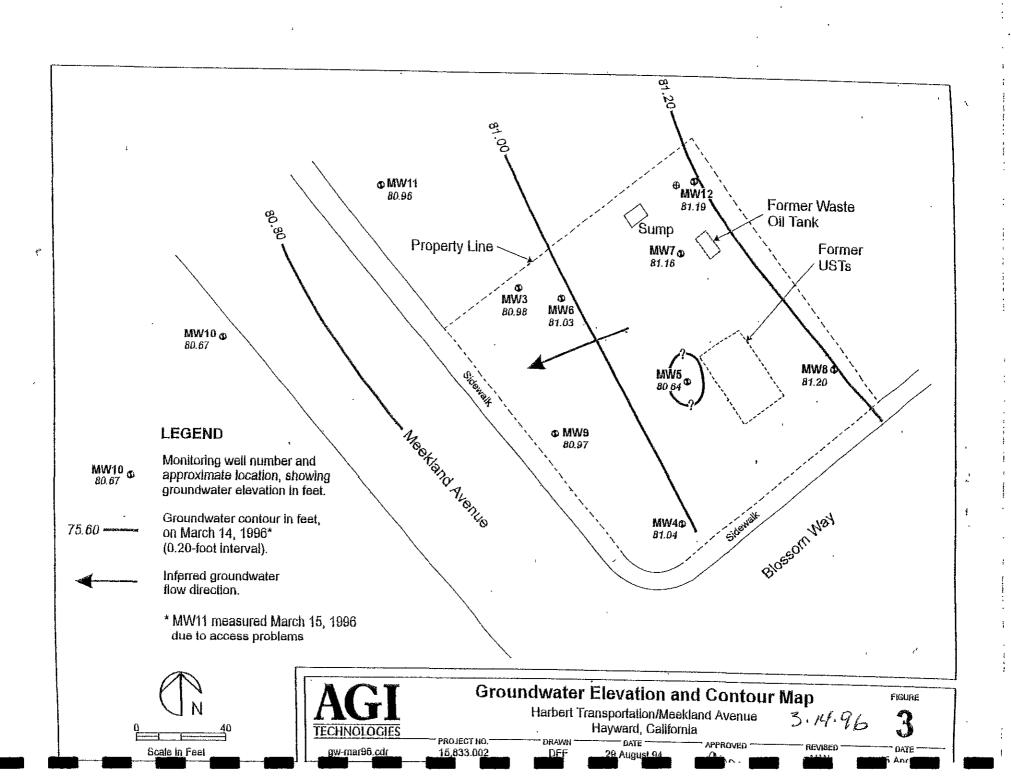
		Top of Casing	Depth to	Groundwater
Well	Date	Elevation	Groundwater	Elevation
Number	Sampled	(feet)	(ft.bgs)	(feet)
MW3	10/20/94	100.00	27.12	72.88
	09/15/95		24.22	75.78
	03/14/96		19.02	80.98
	09/26/96		23.61	76.39
MVV4	10/20/94	100.27	27.32	72.95
	09/15/95	1	24.42	75.85
	03/14/96		19.23	81.04
	09/26/96		23.85	76.42
MW5	10/20/94	100.59	27.71	72.88
	09/15/95	}	24.87	75.72
İ	03/14/96		19.95	80.64
	09/26/96		24.38	76:21
MW6	10/20/94	100.57	27.68	72.89
	09/15/95		24.79	75.78
ſ	03/14/96		19,54	81.03
	09/26/96		24.20	76.37
MW7	10/20/94	101.22	28.25	72.97
	09/15/95		25.35	75.87
1	03/14/96		20,06	81.16
1	09/26/96		24.75	76.47
8WM	10/20/94	100.72	27.73	72,99
1	09/15/95		24:81	75.91
ļ	03/14/96	-	19.52	81,20
	09/26/96		24.13	76.59
MW9	10/20/94	99.77	26.90	72.87
	09/15/95		24.01	75.76
	03/14/96		18,80	80.97
, ,	09/26/96		23,50	76, <i>2</i> 7
MW10	10/20/94	99.29	26.46	72.83
}	09/15/95		23.79	75 .50
[[03/14/96		18.62	80.67
	09/26/96		23,30	75.99
MW11	10/20/94	99.75	26,89	72.86
{	09/15/95		24.05	75.70
[03/15/96		18.79	80.96
}	09/26/96		23.53	76.22
MW12	10/20/94	101.03	28.11	72.92
	09/15/95		25.19	75.84
	03/14/96		19.84	81.19
	09/26/96		24.57	76,46

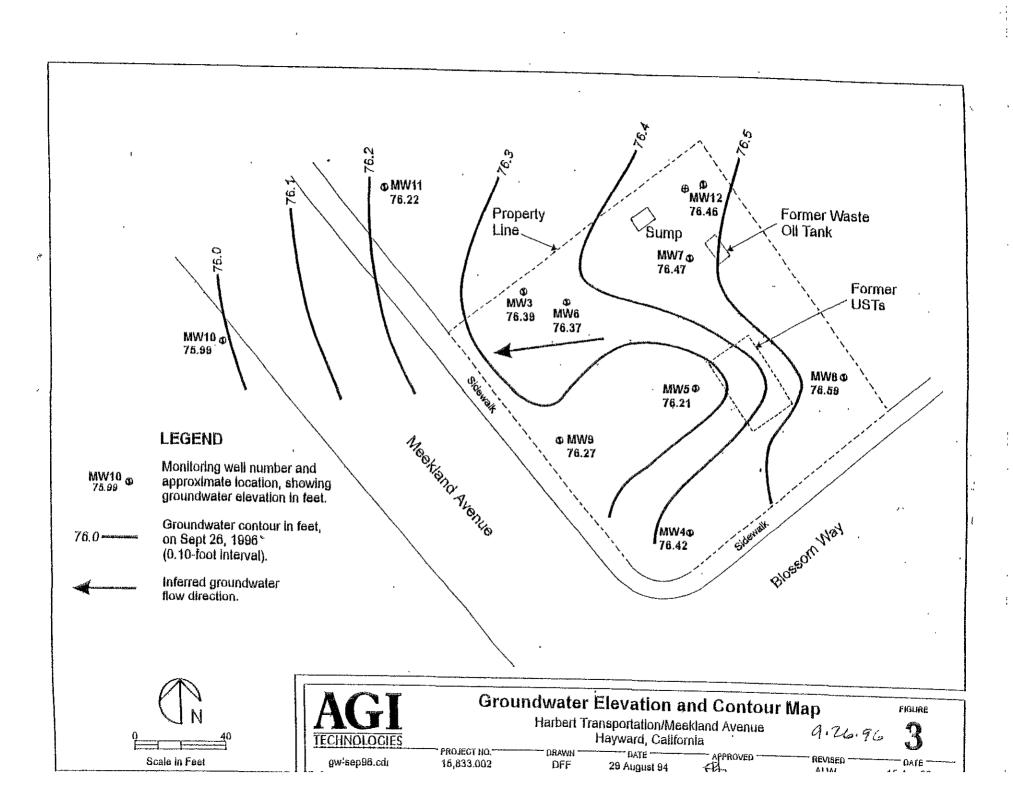
Note:

ft bgs - Feet below ground surface.









Groundwater Monitoring Report - Second Quarter 2002 19984 Meekland Avenue, Hayward, California September 12, 2002

Appendix C

Certified Analytical Report - Groundwater Samples

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

July 01, 2002

Chad Taylor

Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076

Weber, Hayes & Associates

Order:

30330

Harbert Transportation

Project Number: Project Notes:

Project Name:

H9042.Q

Date Collected:

6/13/2002

Date Received:

6/17/2002

P.O. Number:

H9042.Q

On June 17, 2002, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix Liquid

EDF Deliverables

Gas/BTEX/MTBE

Method

EDF

EPA 8015 MOD. (Purgeable)

EPA 8020

MTBE Confirmation by EPA 8260B

PDF

EPA 8260B

PDF

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02 Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D: 3033	0-001		Client San	ple ID: MV	V-3	
Sample Time:		Sam	ple Dat	te: 6/13/	2002]	Matrix: Liq	uid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	1.1		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Toluene	1.4		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Ethyl Benzene	4.0		1	0.5	0.5	μ g /L	N/A	6/23/2002	WGC62478	EPA 8020
Xylenes, Total	1.8		1	ì	1	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
•					Surroga	te	Surr	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluoro	benzene		95.9	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
•					Surroga		Surr	ogate Recovery	Conti	ol Limits (%)
				4-B	romofluoro	benzene		95.9	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	300		1	50	50	μg/L	N/A	6/23/2002	WGC62478	EPA 8015 MOD (Purgeable)
					Surroga	te	Surr	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluoro	benzene		106.9	65	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02

Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q

P.O. Number: H9042.Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple II	D: 3033	0-002		Client San	aple ID: MV	W-4	
Sample Time:		Sam	ple Dat	e: 6/13/	2002		I	Matrix: Liq	_[uid]	
Parameter	Resuit	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Toluene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Xylenes, Total	ND		1	1	1	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
•					Surroga	ıte	Surr	ogate Recovery	y Contr	ol Limits (%)
				4-B	romofluoro	benzene		105.4	6:	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
•					Surroga	ite	Surr	ogate Recovery	y Conti	oi Limits (%)
				4-B	romofluoro	obenzene		105.4	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasolme	ND		1	50	50	μg/L	N/A	6/23/2002	WGC62478	EPA 8015 MOD. (Purgeable)
					Surroga	ite	Surr	ogate Recovery	y Contr	ol Limits (%)
				4-B	romofluoro	benzene		96.4	63	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02

Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q

Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D: 3033	0-003	•	Client San	iple ID: MW	V-5	
Sample Time:		Sam	ple Dat	te: 6/13/	2002			Matrix: Liq	uiđ	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	24		2.5	0.5	1.25	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Toluene	16		2.5	0.5	1.25	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Ethyl Benzene	120		2.5	0.5	1.25	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Xylenes, Total	110		2.5	1	2.5	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
					Surrogs	ite	Surr	ogate Recovery	Cont	rol Limits (%)
				4-B	romofluoro	benzene		97.5	6:	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	17		2.5	5	12.5	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
					Surroga		Surr	ogate Recovery	Conti	ol Limits (%)
				4-Bi	romofluoro	benzene		97.5	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1500		2.5	50	125	μg/L	N/A	6/24/2002	WGC62479	EPA 8015 MOD (Purgeable)
					Surroga	te	Surre	ogate Recovery	Conti	ol Limits (%)
				4-B	romofluoro	benzene		104.7	63	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076 Attn: Chad Taylor Date: 7/1/02 Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab	Samp	le ID:	30330	-003		Client	Sample ID: M		
Sample Time:		Sa	mple	Date:	6/13/2	002					
Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	1.7	J	5	5	25	0.3	1.5	μg/L	6/26/2002	WMS11612	EPA 8260B
	Surrog	gate			Surrog	gate Re	covery		Control Limits (%	6)	
	4-Bron	nofluorobe	enzene			115.0			73 - 151		
	Dibron	nofluorom	ethane			121.0			57 - 156		
	Toluen	e-d8				114.0			77 - 150		

Comment: Sample diluted due to high concentrations of non-target compounds.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02

Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D: 3033	0-004		Client San	iple ID: MV	V-6	
Sample Time:		Sam	ple Dat	te: 6/13/	2002)	Matrix: Liq	uid	
Parameter	Result	Flag	ÐF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		2.5	0.5	1.25	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Toluene	4.7		2.5	0.5	1.25	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Ethyl Benzene	67		2.5	0.5	1.25	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Xylenes, Total	5.3		2.5	1	2.5	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
•					Surroga	ıte	Surr	ogate Recovery	Conti	ol Limits (%)
				4 - B	romofluoro	benzene		104.2	63	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		2.5	5	12.5	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
•					Surroga	ıte	Surr	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluoro	benzene		104.2	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1600		2.5	50	125	μ g /L	N/A	6/24/2002	WGC62479	EPA 8015 MOD. (Purgeable)
					Surroga	ite	Surr	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluoro	benzene		133.1	65	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02

Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q

P.O. Number: H9042.Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330	Lab Sample ID: 30330-004 Client Sample ID: MW-6										
Sample Time:		Sa	mple	Date:	6/13/2	002					
Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	5	25	0.3	1.5	μg/L	6/26/2002	WMS11612	EPA 8260B
	Surrog	gate			Surrog	gate Re	covery		Control Limits (%	6)	
	4-Bron	nofluorobe	enzene			112.0			73 - 151		
	Dibron	nofluorom	ethane			120.0			57 - 156		
	Toluen	e-d8				112.0			77 - 150		

Comment: Sample diluted due to high concentrations of non-target compounds.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02 Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D: 3033	0-005		Client San	iple ID: MV	V-7	
Sample Time:		Sam	ple Dat	e: 6/13/	2002]	Matrix: Liq	uid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Toluene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	μ g /L	N/A	6/23/2002	WGC62478	EPA 8020
Xylenes, Total	ND		1	1	1	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
•					Surroga	ite	Surr	ogate Recovery	Cont	rol Limits (%)
				4-B:	romofluor	benzene		118.8	6.	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
					Surroga		Surre	ogate Recovery	Contr	rol Limits (%)
				4-Bi	romofluor	benzene		118.8	6:	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch IB	Method
TPH as Gasoline .	ND		1	50	50	μg/L	N/A	6/23/2002	WGC62478	EPA 8015 MOI (Purgeable)
					Surroga	ite	Surr	ogate Recovery	Conti	rol Limits (%)
				4-Bi	romofluoro	benzene		105.5	6:	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02

Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q

Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D: 3033	0-006		Client San	iple ID: MV	V-8	
Sample Time:		Sam	ple Dat	te: 6/13/	2002]	Matrix: Liq	uid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Toluene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Xylenes, Total	ND		1	1	1	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
					Surroga	ite	Surr	ogate Recovery	Conti	rol Limits (%)
				4-B	romofluor	obenzene		110.4	6:	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
					Surroga		Surr	ogate Recovery	Contr	rol Limits (%)
				4-B	romofluor	obenzene		110.4	6	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	μg/L	N/A	6/23/2002	WGC62478	EPA 8015 MOD (Purgeable)
					Surroga	ite	Surr	ogate Recovery	Conti	rol Limits (%)
				4-B	romofluoro	benzene		99.1	6:	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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Weber, Hayes and Associates

120 Westgate Drive Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02 Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042,Q P.O. Number: H9042,Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D : 3033	0-007		Client San	nple ID: M	W-9	
Sample Time:		Sam	ple Dat	te: 6/13/	2002			Matrix: Lic	Įuid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	140		10	0.5	5	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Toluene	21		10	0.5	5	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Ethyl Benzene	490		10	0.5	5	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
Xylenes, Total	300		10	1	10	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
•					Surroga	ite	Surr	ogate Recover	y Conti	ol Limits (%)
				4-B	romofluoro	benzene		99.6	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		10	5	50	μg/L	N/A	6/24/2002	WGC62479	EPA 8020
					Surroga		Surr	ogate Recovery	y Contr	ol Limits (%)
				4-Bi	romofluoro	benzene		99.6	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	5100		10	50	500	μ g /L	N/A	6/24/2002	WGC62479	EPA 8015 MOD. (Purgeable)
					Surroga	te	Surre	ogate Recovery	y Contr	of Limits (%)
				4-Br	omofluoro	benzene		120.2	65	- 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02

Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q

P.O. Number: H9042.Q

Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab	Samp	le ID:	30330	-007		Client	Sample ID: M	1 W-9	
Sample Time:		Sa	ımple	Date:	6/13/2	002			Matrix: L	iquid	
Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	5	25	0.3	1.5	μg/Ľ	6/26/2002	WMS11612	EPA 8260B
	Surrog	gate			Surro	gate Re	covery		Control Limits (%	6)	
	4-Bron	notluorobe	enzene			114.0			73 - 151		
	Dibron	nofluorom	ethane			116.0			57 - 156		
	Toluen	e-d8				109.0			77 - 150		

Comment: Sample diluted due to high concentrations of non-target compounds.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

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Weber, Hayes and Associates

120 Westgate Drive Watsonville, CA 95076 Attn: Chad Taylor

Date: 7/1/02 Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.O Sampled By: Chad Taylor

Certified Analytical Report

Order ID:	30330	Lab Sa	ample I	D : 3033	0-008		Client San	iple ID: MV	V-10	
Sample Time:		Sam	ple Dat	te: 6/13/	2002		I	Matrix: Liq	uid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	0.77		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Toluene	6.2		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Ethyl Benzene	3.3		1	0.5	05	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Xylenes, Total	2.9		1	1	1	μ g /L	N/A	6/23/2002	WGC62478	EPA 8020
•					Surroga	ite	Surr	ogate Recovery	Cont	rol Limits (%)
				4-B	romofluoro	benzene		118.2	6	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	11		1	5	5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
•					Surroga	ite	Surr	ogate Recovery	Cont	rol Limits (%)
				4-B	romofluoro	benzene		118.2	6	5 - 135
Comment:	Matrix interference; see	GC/MS r	esults.							
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1700		1	50	50	μg/L	N/A	6/23/2002	WGC62478	EPA 8015 MOD (Purgeable)
					Surroga	ite	Surre	ogate Recovery	Cont	rol Limits (%)
				4-B	romofluoro	benzene		122.1	6	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Weber, Hayes and Associates

120 Westgate Drive

Watsonville, CA 95076 Attn: Chad Taylor Date: 7/1/02 Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q

Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Samp	le ID:	30330	-008		Client	Sample ID: M	IW-10		
Sample Time:		Sa	ımple	Date:	6/13/2	002			Matrix: L	iquid	
Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	0.3	0.3	μg/L	7/1/2002	WMS11617	EPA 8260B
	Surrog	gate			Surro	gate Re	covery		Control Limits (%	6)	
	4-Bron	nofluorob	enzene			109.0			73 - 151		
	Dibron	nofluorom	ethane			99.0			57 - 156		
	Toluen	e-d8				111.0			77 - 150		

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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120 Westgate Drive Watsonville, CA 95076

Attn: Chad Taylor

Date: 7/1/02 Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q P.O. Number: H9042.Q Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D: 3033	0-009		Client San	iple ID: MV	V-11	
Sample Time:		Sam	ple Dat	e: 6/13/	2002]	Matrix: Liq	uid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	$\mu g/L$	N/A	6/23/2002	WGC62478	EPA 8020
Toluene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Xylenes, Total	ND		1	1	1	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
					Surroge	ıte	Surr	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluoro	benzene		111.1	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
					Surroga	ite	Surre	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluoro	benzene		111.1	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	μ g /L	N/A	6/23/2002	WGC62478	EPA 8015 MOD. (Purgeable)
					Surroga	te	Surre	ogate Recovery	Contr	ol Limits (%)
				4-Bi	romofluore	benzene		98.3	65	5 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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120 Westgate Drive

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Attn: Chad Taylor

Date: 7/1/02

Date Received: 6/17/2002

Project Name: Harbert Transportation

Project Number: H9042.Q

P.O. Number: H9042.Q

96.0

Sampled By: Chad Taylor

Certified Analytical Report

Order ID: 30330		Lab Sa	mple I	D: 3033	0-010		Client San	iple ID: MW	7-12	
Sample Time:		Sam	ple Dat	e: 6/13/	2002]	Matrix: Liq	uid	
Parameter	Resuit	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Toluene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
Xylenes, Total	ND		1	1	1	μg/L	N/A	6/23/2002	WGC62478	EPA 8020
					Surroga	ite	Surr	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluoro	benzene		106.5	63	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	μ g /L	N/A	6/23/2002	WGC62478	EPA 8020
					Surroga		Surr	ogate Recovery	Contr	ol Limits (%)
				4-B	romofluore	benzene		106.5	65	5 - 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		l	50	50	μg/L	N/A	6/23/2002	WGC62478	EPA 8015 MOD. (Purgeable)
					Surroga	ite	Surre	ogate Recovery	Contr	ol Limits (%)

4-Bromofluorobenzene

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

65 - 135

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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Quality Control Results Summary

QC Batch #:

WGC62478

Matrix: Liquid

Units:

μg/L

Date Analyzed:

6/22/2002

Paramete	er	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Туре	% Recovery	RPD	RPD Limits	Recovery Limits
Test:	TPH	as Gasoline										
TPH as Ga	asoline	EPA 8015 N	4 ND		100		126.8	LCS	126.8			65.0 - 135.0
		Surrogate		Surrog	ate Recover	ry		Limits (%)	· ·			
		4-Bromofluorob	enzene		93.0		65 -	135				
Test:	BTE	Χ										
Benzene		EPA 8020	ND		8		7.58	LCS	. 94.8			65.0 - 135.0
Ethyl Ben:	zene	EPA 8020	ND		8		7.83	LCS	97.9			65.0 - 135.0
Toluene		EPA 8020	ND		8		7.61	LCS	95.1			65.0 - 135.0
Xylenes, to	total	EPA 8020	ND		24		23.8	LCS	99.2			65.0 - 135.0
		Surrogate		Surrog	ate Recover	ry	Control I	Limits (%)				
		4-Bromofluorob	enzene		102.9		65 -	135	·			
Test: Methyl-t-b		E by EPA 802 er EPA 8020	0 ND		8		9.32	LCS	116.5			65.0 - 135.0
		Surrogate		Surrog	ate Recover	· y	Control I	Limits (%)				
		4-Bromofluorob	enzene		102.9		65 -	135				
Test:		as Gasoline EPA 8015 M	4 ND		100		121.8	LCSD	121 8	4.02	25.00	65.0 - 135.0
IFFI as Ga		Surrogate	1 IVD	Curroa	ate Recover	***		Limits (%)				
		4-Bromofluorob	enzene	Surrog	91.4	3	65 -					
			CHZCHC									
Test:	BTE	-			o		7 77	LCSD	92.1	2.81	25.00	65.0 - 135.0
Benzene		EPA 8020	ND		8		7.37		92.1 97.4	0.51	25.00	65.0 - 135.0
Ethyl Benz	zene	EPA 8020	ND		8		7.79	LCSD			25.00	65.0 - 135.0
Toluene		EPA 8020	ND		8		7.44	LCSD	93.0	2.26		
Xylenes, to	otal	EPA 8020	ND		24		23.4	LCSD	97.5	1.69	25.00	65.0 - 135.0
1		Surrogate			ate Recover	гу		Limits (%)				
L		4-Bromofluorob	enzene		101.0		65 -	135				
Test:		E by EPA 802					0.72	1 CCD	100.1	C = 4	25.00	65.0 - 135.0
Methyl-t-b	outyl Eth		ND		8		8.73	LCSD	109.1	6.54	25.00	95.0 - 135.0
		Surrogate		-	ate Recover	'y		Limits (%)				
		4-Bromofluorob	enzene		101.0		65 -	135				

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Quality Control Results Summary

QC Batch #:
Matrix:

WGC62479

Liquid

Units:

μg/L

Date Analyzed:

6/24/2002

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test:	TPH as Gasoline								<u> </u>		
TPH as Gaso	line EPA 8015 M	ND		100		125.2	LCS	125.2			65.0 - 135.0
	Surrogate		Surrog	ate Recover	у	Control I	Limits (%)				
	4-Bromofluorobe	nzene		93.1		65 -	135				
Test: E	BTEX										
Benzene	EPA 8020	ND		8		7 69	LCS	96.1			65.0 - 135.0
Ethyl Benzen	e EPA 8020	ND		8		8.15	LCS	101.9			65.0 - 135.0
Toluene	EPA 8020	ND		8		7.76	LCS	97.0			65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		24 4	LCS	101.7			65.0 - 135.0
	Surrogate		Surrog	ate Recover	у	Control I	Limits (%)				
	4-Bromofluorobe	nzene		102.5		65 -	135				
Test: N	TBE by EPA 8020)									
Methyl-t-buty		ND		8		8.86	LCS	110.8			65.0 - 135.0
	Surrogate		Surrog	ate Recover	y	Control I	imits (%)				
	4-Bromofluorobe	nzene		102.5		65 -	135				
Test: T	PH as Gasoline			•						·	
TPH as Gaso	line EPA 8015 M	ND		100		126.	LCSD	126.0	0.64	25.00	65.0 - 135.0
	Surrogate		Surrog	ate Recover	· y	Control I	Limits (%)				
	4-Bromofluorobo	nzene		93.7		65 -	135				
Test: E	STEX			•							
Benzene	EPA 8020	ND		8		7.74	LCSD	96.8	0.65	25.00	65.0 - 135.0
Ethyl Benzen	e EPA 8020	ND		8		8.28	LCSD	103.5	1.58	25.00	65 0 - 135.0
Toluene	EPA 8020	ND		8		7.85	LCSD	98.1	1.15	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		24.8	LCSD	103.3	1.63	25.00	65.0 - 135 0
	Surrogate		Surrog	ate Recover	у	Control I	imits (%)				
	4-Bromofluorobe	nzene		105.3		65 -	135				
Test: N	TBE by EPA 8020)									
Methyl-t-buty	•	ND		8		9.06	LCSD	113.3	2.23	25.00	65.0 - 135.0
1	Surrogate		Surrog	ate Recover	У	Control I	imits (%)				
}	4-Bromofluorobe	nzene		105.3		65 -	135				1

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Quality Control Results Summary

QC Batch #:

WMS11612

Matrix:

Liquid

Units:

 $\mu g/L$

Date Analyzed:

6/26/2002

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result		% Recovery	RPD	RPD Limits	Recovery Limits
Test: MTI	BE Confirmatio	n by EPA	A 8260B								
Methyl-t-butyl Et	her EPA 8260E			20		16.7	LCS	83.5			56.0 - 135.0
	Surrogate		Surrog	ate Recove	ry	Control	Limits (%)				
	4-Bromofluoro	enzene		100.0		73 -	151				
	Dibromofluoro	nethane		97.0		57 -	156				į
	Toluene-d8			98.0		77 -	150				
Test: MTI	BE Confirmation	n by EPA	8260B						,		
Methyl-t-butyl Et				20		14.5	LCSD	72.5	14.10	25.00	56.0 - 135.0
	Surrogate		Surrog	ate Recove	ry	Control	Limits (%)				
	4-Bromofluorol	enzene		103.0		73 -	151				1
	Dibromofluoro	nethane		100.0		57 -	156				
	Toluene-d8			105.0		77 -	150				

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Quality Control Results Summary

QC Batch #:

WMS11617

Matrix: Liquid

Units: $\mu g/L$

Date Analyzed:

7/1/2002

Parameter	Method	Blank Resuit	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8	260B										
1,1-Dichloroethene	EPA 8260B	ND		20		17.4	LCS	87.0			57.3 - 132.4
Benzene	EPA 8260B	ND		20		21.1	LCS	105 5			65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		20		21.8	LCS	109.0			65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		20		17.3	LCS	86.5			56.0 - 135.0
Toluene	EPA 8260B	ND		20		21.	LCS	105.0			65.0 - 135.0
Trichloroethene	EPA 8260B	ND		20		22.1	LCS	110.5			69.7 - 143.5
	Surrogate		Surrog	ate Recover	у	Control I	imits (%)				
	4-Bromofluorob	enzene		120.0		73 -	151				
	Dibromofluorom	ethane		110.0		57 -	156				
	Dibromofluoromethane Toluene-d8			109.0		77 -	150				
Test: EPA 8	260B										
1,1-Dichloroethene	EPA 8260B	ND		20		14.	LCSD	70 0	21.66	25.00	57.3 - 132.4
Benzene	EPA 8260B	ND		20		17.2	LCSD	86.0	20.37	25.00	65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		20		17.6	LCSD	88 0	21.32	25.00	65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		20		15.3	LCSD	76.5	12.27	25.00	56.0 - 135.0
Toluene	EPA 8260B	ND		20		17.3	LCSD	86.5	19.32	25.00	65.0 - 135.0
Trichloroethene	EPA 8260B	ND		20		17.9	LCSD	89.5	21.00	25.00	69.7 - 143.5
	Surrogate		Surrog	ate Recover	y	Control I	imits (%)				
	4-Bromofluorob	enzene		113.0		73 -	151				į.
	Dibromofluorom	ethane		109.0		57 -	156				
	Toluene-d8			113.0		77 -	150				



Weber, Hayes & Associates

CHAIN -OF-CUSTODY RECORD

Hydrogeology and Environmental Engineering 120 Westgate Dr., Walsonville, CA 95076 (831) 722-3580 (831) 662-3100 Fax: (831) 722-1159

PAGE | OF |

PROJECT N	IAME AND JOB#:	Harbert Tra	nspor	tation /	H9042.Q	***************************************				-	ı	ABORATORY	Entech			
SEND CERTIFI	ED RESULTS TO:	Chad Taylo	or								TURNA	ROUND TIME	Normal	24hr Rush	48hr Rush	72hr Rush
ELECTRONIC DELIVE	·		YES		NO					•		GLOBAL I.D.:			101111111111111111111111111111111111111	7211 Room
					SAN	IPLE CO	NTAINEI	RS			REC	QUESTED A	NALYSIS			
Field Point Name	Sample	Samala		ate					Total Pe	troleum Hydr	rocarbons	Volatile C	rganics	Add	itional Anal	ysis
(GeoTracker)	Identification	Sample Depth		npled	40 mL	1 Liter	mL	Liner			Gasoline & BTEX-MTBE	1,2-DCA by	Solvents by	Fuel	Title 22	
					VOAs (preserved)	Amber Jars	Poly Bottle	Acetate or Brass	Extractable Fuel-Scan	Purgeable Fuel-Scan	by EPA Method# 8015M-&-8020	by EPA Method# 8010	by EPA Method# 8010	Oxygenates by EPA Method 8260	General, Physical and Inorganic Minerals	
MrJ-3	MU-3	22.91	6/1-	3 02	S						X			.30)330	-001
MO-4	MW.4	23.26	•	<u></u>	5						Х			3-2		SOZ
MU-5	MU.5	30.21			5						X					ಉತ್ತಿ
M7.6	MW.6	24.04			5						χ					ECY
MW.7	MW.7	24.63			- 3						χ					EES
Nr7.8	MM.8	23.85			5						X					006
MV-9	MW.9	23.07			S						χ					607
MU-10	MW-10	22.65			S						X					808
MO:II	MW-11	22.91			S						X					009
MOIR	MW.12	23.91	V		S						X					010
									,							
		<u> </u>	ļ													
													SA	MPLE CONDITION	ON:	
RECEIVE	DBY:		Date 8	& Time			1.1	RELE	ASED BY:			R Time		(circle 1)		
Sampler.	t	:	-6/13/4	1700		-		1			- 414	lur	Ambient	(Refrigerated)	Frozen	
) Allen	h	•	<u>4/14/</u>	024	HU	-		1			-		Ambient	Refrigerated	Frozen	
Hughel	L()	ĺ	<i>[][1][</i> c	الِي الْحَرَادُ	NV	-		•				<u>-</u>	Ambient	Reingerated	Frozen	
) (\\			· ·		<u> </u>	-	-				-	_	Ambient	Refngerated	Frozen	
) - (-)		•	_		·	· -							Ambient	Refngerated	Frozen	
		•			-									, wangercred	02611	
NOTES:	Mothed 9000 -1	antimo datt	by EDA 14	ahad DOGG	unib a mu	dante :	.fr		l ———	TIONAL COM		EDE of the				
If MTBE is detected by EPA confirmed 8260 detections							-	report only	-riedse	hrounce a	ınd e-mail an	EDF OF the	se results 1	to tina@we	eper-naye	s.com.
For MTBE-analyzed sample: #8260	s with non-detectable re	sults (ND) but hav	ng elevate	ed detection	ilmits, please cor	nfirm by EPA	Method						,			
Please use MDL (Minimum I	Detection Limit) for any	ridulad camples							ł							

Groundwater Monitoring Report - Second Quarter 2002 19984 Meekland Avenue, Hayward, California September 12, 2002

Appendix D

Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.



Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California

						EPA Test Meth	ods:			\$17000 William		
			8015 Modifler			8020				8010		
								Total				
	Date	TPH-G	TPH-O	ТРН-МО	Benzene	Ethylbenzene	Toluene	Xylenes	TCE	PCE	1,2-DCA	Other
Well	Sampled		μ g/L			րg/L				µg/L		µ g/L
MW1	07/86	42,000	NA	NA	5,500	NA	4,900	6,100	NA	NA	NA	
ŕ	03/90	27,000	NA	NA	2,700	491	840	800	ND	ND	ND	
	07/90	27,000	11,000	ND	4,000	ND	1,500	4,400	ND	ND	62	
	10/90	43,000	8,500	, ND	3,400	1,200	2,700	5,300	0.4	NĐ	26	
	01/91	22,000	2,700	ND	000,8	990	1,800	2,800	ND	ND	27	
	04/91	42,000	3,100	NA	5,100	1,200	3,700	3,200	ND	ND	120	
	07/91	46,000	4,300 ^a	NA	6,500	830	2,900	3,700	ND	ДИ	64	
	10/91	27,000	4,300	NA	4,400	1,100	1,400	3,200	ND	ND	25	
	01/92	27,000	14,000	NA	3,300	1,200	1,600	3,800	ND	ND	24	
	04/92	33,000	11,000 ^a	NA	8,900	1,200	3,500	3,700	ND	ND	120	
	07/92	41,000	19,000	NA	5,600	1,300	2,600	4,000	ND	ND	49	
	10/92	33,000	3,500 *	NA	4,400	1,200	2,100	4,000	ND	, ND	61	
MW3	11/89	29,000	NA	NA	4,600	680	1,100	1,100	ND	ND	36	Lead 40
	11/89	NA	NA	NA	NA	NA	NA	NA	ND	ND	36	Lead 40
	03/90	12,000	NA	NA	2,300	59	300	490	ND	ND	ND	
	07/90	7,300	990	ND	5,200	ND	440	480	ND	ND	67	
	10/90	6,200	970	ND	75	7.5	150	250	ND	ND	48	
	10/90	NA	NA	NA	NA.	NA	NA	NA	ND	ND	22	Lead 3
	01/91	4,600	680	ND	2,200	220	110	89	ND	ND	40	
	04/91	8,300	640 ²	NA	2,800	370	490	760	ND	ND	43	
	07/91	6,600	890 *	NA	2,000	250	230	380	ND	ND	29	•
	10/91	6,300	1,700 *	NА	2,000	410	330	550	ND	ND	27	
	01/92	4,000	790 ^a	NA	1,200	250	60	200	ND	ND	22	
	04/92	7,400	1,800	NA	730	370	180	640	ND	ND	19	
	07/92	3,000	2,400	NA	190	ND	2.8	410	ND	ND	30	
	10/92	5,000	970 ^a	NA	1,300	320	-45	340	ND	ND	26	
	01/93	2,300	680 ^a	NA (2)	630	180	31	330	ND	ND	13	
	06/93	5,000	1,100 a	ND	730	240	43	380	ND	ND	13	

Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California



						EPA Test Met	ods		20. 3 11.00			
			8015 Modifie	đ		8020				8010		
	Date	TPH-G	TPH-D	ТРН-МО	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	Other
Well	Sampled		μg/L			րց/Լ				μg/L		μ g/ L
MW4	11/89	ND	NA	NA	33	1.3	1	5.2	NA	NA	NA	
	03/90	ИD	NA	NA	7.4	2	2	1.1	ND :	ND.	ND	Lead 12
	07/90	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.9	l
	10/90	ND	ND	ND	ND	ND	ND	ND	0.7	ND	0.5	
	01/91	80	ND	ND	9.2	2.4	1.7	0.7	ND	ND	ND	
	04/91	1,400	130 *	NA	2,200	72	ND	17	ND	ND	ND	
	07/91	130	ND	NA	14	3.3	9.7	ND	ND	ND	0.81	
	10/91	ND	ND	NA	5.3	1	ND	0.8	ND	ND	ND	
	01/92	ND	ND	NA	6.8	1.3	ND	ND	ND	ND	ND	
	04/92	780	130 🖁	NA	ND	51	ND	4.8	ND	ND	1.6	
	07/92	ND	ND	NA	ND	ПИ	ND	ND	ND	ND	1.3	1
	10/92	100	NĐ	NA	9.5	ND	ND	2.6	ND	, ND	ND	
,	01/93	960	240 ^a	NA	200	41	4.6	9.4	ND	ND	1	j
	06/93	650	140 🖺	ND	150	21	ND	ND	ND	ND	3.7	
MW5	10/90	9,600	1,900	ND	1,200	70	160	520	ND	ND	22	Lead 3
	01/91	10,000	1,200	ND	1,600	720	200	510	ND	ND	33	2000
	04/91	18,000	860	NA	2,500	550	580	500	ND	ND	61	
	07/91	15,000	2,200 ª	NA	4,800	610	1,100	760	ND	ND	62	Ì
	10/91	14,000	3,300	NA	5,000	530	820	800	ND	ND	49	
	01/92	12,000	1,900	NA.	4,300	390	380	590	ND	ND	56	
	04/92	23,000	6,400	NA	8,600	ND	2,600	1,900	ND	ND	125	
	07/92	27,000	5,900 *	NA	6,000	ND	1,500	1,600	ND	ND	93	
	10/92	13,000	2,100 *	NA	4,600	140	470	550	ND	ND	59	
	01/93	18,000	1,900 *	NA	5,800	560	1,900	1,600	ND	ND	110	1
	01/93	19,000	2,100 ^a	NA	4,600	370	1,600	1,400		ND	120	
	06/93	22,000	2,900 *	ND	8,300	740	2,500	1,900	ND	ND	110	
	06/93	23,000	2,300 ^a	ND	9,600	730	3,000	1,900		ND	110	



Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California

						EPA Test Meth	ods	890 Y 0.83 una	459479		8334A	
			8015 Modifie	vi		8020				8010		
	Date	TPH-G	TRH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PGE 1	,2-DCA	Other
Well	Sampled	# 0.840	ήβ/L			ր g/L				hall		ր ց/ Լ
MW6	10/90	27,000	4,700	ND	2,700	450	2,900	3,300	ND	ND	40	Lead 9
	01/91	7,200	1,600	ND	1,400	ND	200	830	ND	ИD	23	
<u> </u>	04/91	17,000	800 *	NA	2,800	610	1,200	1,800	ND	ND	53	e
	07/91	11,000	1,400 *	NA	1,200	ND	380	750	ИD	ND	29	
	10/91	4,800	1,600 🖺	NA	380	69	340	730	ND	ND	22	
1	01/92	6,100	1,200 *	NA	460	180	200	590	ND	ND	26	
	04/92	7,200	1,800 ^a	NA	340	350	460	920	ND	ND	30	
	07/92	8,600	1,700 *	NA	1,300	380	280	1,100	ND	ND	35	
	10/92	1,600	110 *	NA	230	70	20	88	ND	ND	24	
	01/93	13,000	2,100 ^a	NA	2,500	370	540	2,400	ND	ND	36	
	06/93	7,400	1,900 *	ND	1,500	480	120	1,400	ND	ND	29	
MW7	10/90	14,000	2,700	ND	390	ND	18	1,200	ND	, 1.3	14	Lead 11
	01/91	4,500	1,400	ND	320	42	48	350	ND	ND	10	
	04/91	2,400	NA .	NA [*]	320	77	62	130	ND	0.6	11	
	07/91	2,000	910 *	NA	470	ND	24	88	ND	ND	9.7	
	10/91	ND	370	NA	ND	ND	ND	ND	ND	0.68	4.5	
	01/92	1,100	290	NA	230	45	7	88	ND	3.5	6.4	
	04/92	1,700	520	NA	310	78	28	170	ND	0.5	3.2	
	07/92	1,900	590 =	NA	410	78	21,	170	ND	2.1	8.7	
1	07/92 (dup)	1,200	700 8	NA	21	1	2.6	90	ND	2	8.2	
	10/92	1,800	320 *	NA	410	31	. 11	75	ND	1	7.4	
	01/93	2,100	660	NA	390	100	21	270	ND	0.6	3.7	
	06/93	4,400	1,100	ND	830	330	49	620	ND	ND	8.6	





						EPA Test Met	nods	V. 20. V. S. J. J. J. J. J. J. J. J. J. J. J. J. J.				
			8015 Modifie	d		8020				8010		
	Date	TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	***
Well	Sampled		μg/L			Jug/L				μg/L	1,4-U.A	Other µg/L
MVV8	02/91	. ND	ND	NA	ND		AUD.	4.45	**********		1 - 20,000,401,684 : 1562	Service of the servic
	04/91	ND	ND	NA.	ND	ND ND	ND ND	ND	ND	ND	ND	
	07/91	ND	ND	NA	ND	ND	ND 2	ND	ND	0.5	ND	
	10/91	ND	ND	NA	ND	ND	0.6	ND ND	ND	1.2	ND	
	01/92	ND	ND	NA.	ND	ND	ND	ND ND	ND	0.4	ND	
	04/92	ND	ND	NA	ND	ND	ND	ND	ND ND	0.68	ND	
	07/92	ND	ND	NA	ND	ND	3.3	ND	ND	0.8	ND	
	10/92	ND	ND	NA.	ND	ND	ND	ND:	ND ND	1.6	ND	
	01/93	ND	ND	NA	ND	ND	ND	ND	ND ND	1.4	ND	
	06/93	ND	ND	ND	ND	ND	ND	ND	ND	0. 8 1.4	ND	
MW9	02/91	6,000	1,600	NA	180	19	170	200	ND	ND	ND 13	
	04/91	4,200	410 4	NA	520	130	410	580	ND	, ND	13 26	
	07/91	1,900	180 *	NA	190	12	52	77	ND	6.5	12	
	10/91	880	300 🖺	NA	160	31	44	83	ND	ND	10	
	01/92	380	120 🕯	NA	14	7.6	2.2	14	ND	ND	9.6	
	04/92	2,900	700 ª	NA	510	80	260	260	ND	ND	11	
	07/92	4,400	1,360 *	NA	860	210	340	640	ND	ND	22	
	10/92	200	290 *	NA	6.8	1.4	2.1	7.8	ND	ND	12	
	01/93	8,500	740 ⁴	NA	2,400	390	620	1	ND	ND	29	
	06/93	8,200	1,300	ND	2,400	360	480	1,500	ND	ND	29	
MW10	01/92	13,000	3,700 *	NA	130	580	110	3,000	ND	ND	33	
	05/92	15,000	5,000 ª	NA	180	ND	18	2,700	ND	ND	20	
	05/92 (dup)	13,000	7,500	NA	240	490	65	2,500	ND	ND	22	
	07/92	8,100	4,400 ^a	NA	74	360	ND	1,100	ND	ND	29	
	10/92	3,200	1,500 *	NA	ND	ND	ND	320	ND	ND	25:	
	01/93	7,500	2,200	NA	130	170	·20	710	ND	ND	18	
	06/93	8,000	2,100 ^a	ND	69	7.9	ND	490	ND	ND	16	





e wither a rewi	ger erholdstationering soll or a New York (New York)	Comple was		and and a side of the said		EPA Test Method	\$		engggengesserrass Aug Siricus en Archie	(1000)	74700000000000000000000000000000000000	
			8015 Modifie			8020				8010		
	Date	TPH-G	TPH-D	ТРН-МО	5	こと こことをいいたい バーバーカル アグラルバ	an in the Park and the Control of Street, the Street, or	Total Kylenes	TCE	PGE	1,2-DCA	Other
Well	Sampled	2017. alira 2008. Alija 1885. ja 1888.	HQ/L			Serve the Months of the Alberta States		Noticed William Co.		pg/L		μ g/ L
MW11	01/92	8,200	3,200 *	NA	23	250	ND	1,100	ND	ND	ND	
	04/92	160	1,200	NA	МD	ND	NÐ	ND	ND	ND	ND	
	07/92	2,100	710 *	NA	39	100	2.3	53	ND	ND	ND	
	10/92	660	220 *	NA	2.9	19	ND	3.8	ND	ND	ND	
	10/92	770	230 *	NA	3.2	26	ND	5.7	ND	ND	ND	
	01/93	780	370 🚆	NA	10	2.1	ND	39	ND	ND	ND	
	06/93	2,500	160	ND	27	99	ND	34	ND	ND	ND	
MW12	12/92	2,800	1,700	NA	14	ND	ND	ND	ND	ND	ND	
	06/93	1,100	750 ª	ND	19	21	ND	57	ИD	ND	ИD	
B1	01/93	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	
	06/93	ND	ND	ND	ND	ND	, ND	NO	ND	ND	ND	
F3	02/93	NA	NA	NA	NA	NA	NA	NA	NA	, NA	NA	
Well	12/89	1,800	NA	NA	200	24	18	34	ND	ND	0.15	Lead 2,100
Abandoned								İ				• /
Average b		8,865	1,883	250	1,562	235	517	871	0.21	0.41	24.8	
Laboratory (Limit	Detection	50	50	500	0.5	0.5	0.5	0.5	0.4	0.4	0.4	

Notes:

- a) The detection for petroleum hydrocarbons as diesel appears to be due to the presence of lighter hydrocarbons rather than diesel.
- b) Average of sampled data, ND equals 1/2 detection limit.

μg/L - Micrograms per liter is approximately equivalent to parts per billion, depending on density of water.

NA - Not analyzed.

ND - Not detected.

TCE - Trichloroethylene.

TPH-G - Total petroleum hydrocarbons quantified as gasoline.

PCE - Tetrachloroethylene.

TPH-D - Total petroleum hydrocarbons quantified as diesel.

1,2-DCA - 1,2-Dichloroethane.

TPH-MO - Total petroleum hydrocarbons quantified as motor oil.



Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

				EPA Test Methods							
		8015	M		BETX 5030	/8020			8010		
	Date	TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DGA	PCE	TGE	
Well	Sampled	pg/L	HB/F					µg/L.	µg/L	µg/L	
MW3	07/28/94	7,700	970 *	1,800	810	ND	600	22	ND	ND	
*****	10/21/94	7,400	810	1,900	900	37	780	25	ND	ND	
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	09/26/96	NS	NS	พร	NS	NS	NS	NS	NS	NS	
MW4	07/28/94	120	ND	7.9	0.7	1.1	ND	ND	ND	ND	
	10/21/94	69	ND	3.4	ND	ND	ND	ND	ND	ND	
	09/15/95	110	ND	2.5	ND	0.85	ND	2.3	ND	ND	
	03/14/96	300	69 b	3.3	0.74	ND	ND	1.6	ND	ND	
	09/26/96	ND	ND	ND	ND	ND	ND	1.2	'ND	ND	
MW5	07/29/94	30,000	2,200	9,300	1,100	1,800	2,300	110	ND	ND	
	10/21/94	23,000	1,500	7,900	780	1,500	2,900	85	ND	ND	
	09/15/95	หร	NS	ทร	NS	NS	NS	NS	NS	NS	
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW6	07/29/94	15,000	2,100 b	3,100	1,100	71	2,000	37	ND	ND	
	10/21/94	18,000	1,500	3,900	1,200	170	3,200	35	ND	ND	
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	09/26/96	NS	NS	NS	NS	หร	NS	NS	NS	NS	
MW7	07/29/94	2,600	530 °	470	220	ND	310	2.7	6	ND	
	10/21/94	1,700	280	290	140	4.5	240	1.8	0.74	ND	
	09/15/95	NS	NS	NS	NS	NS	· NS	NS	NS	NS	
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS	



Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

					EPA Te	st Metho	xd s			
		8015	M		BETX 5030/8	020			8010	
		TPH	тен							
	Date	Gasoline	Diesel		Ethylbenzene	Toluëne	Xylenes	1,2-DCA	PCE	TCE
Well	Sampled	ha/r	ին/բ		pg/L			hâtr	µg/L	µg/L
MW8	07/28/94	ND	78 ^a	ND	ND	ND	ND	ND	ND	ND
	10/21/94	ND	ND	ND	ND	ND	ND	ND	0.72	ND
	09/15/95	ND	ND	ND	ND	ND	ND	ND	0.74	ND
	03/14/96	ND	ND	ND	ND	ND	ND	ND	0.63	ND
	09/26/96	ND	ND	ND	ND	ND	ND	ND	ND	, ND
MW9	07/28/94	6,000	1,300 €	90	170	27	370	26	ND	ND
	10/21/94	6,900	600	1,800	280	220	1,500	31	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NŞ	NS	NS ·	NS	NS	NS	NS	NS.	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW10	07/28/94	6,700	2,000 6	99	180	57	430	13	ND	ND
	10/21/94	8,600	2,000	93	200	ND	680	12	ND	ND
	09/15/95	2,100	1,900	9.9	49	ND	4.9	ND	ND	ND
	03/14/96	6,800	2,000 b	64	98	ND	33	6.5	ND	ND
	09/26/96	7,100	420	140	210	ND	3 2	9.1	ND	5.9
MW11	07/28/94	450	150 *	6.2	20	1.1	6.6	ND	ND	ND
	10/21/94	460	190	4.9	14	ND	12	ND	ND	ND
	09/15/95	9,600	550	130	180	ND	130	8.8	ND	5.6
	03/15/96	780	310 b	0.74	25	ND	1.8	ND	ND	ND
	09/26/96	480	710	ND	50	ND	ND	ND	ND	ND



Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

		8015	M		EPAT BETX 5030	est Method 8020	s		8010	
Well	Date Sampled	TPH Gasoline µg/L	TPH Diesel	Benzene El	hylbenzene		(ylenes	1,2-DGA µg/L	PGE ug/L	TCE ug/L
MW12	07/28/94 10/21/94	240 260	160	1.9	12	ND	5.8	ND	ND	ND
	09/15/95	NS	190 NS	1.9 NS	4.5 NS	ND NS	6.8 NS	ND NS	ND NS	ND NS
							- 1			ND NS NS NS

Notes:

- a) Hydrocarbons quantified as diesel are primarily due to discrete peaks not indicative of diesel fuel.
- b) Hydrocarbons quantified as diesel are primarily due to the presence of a lighter petroleum product (C₆-C₁₂), possibly gasoline.
- c) Hydrocarbons quantified as diesel are due to the presence of a lighter petroleum product (C₆-C₁₂) and discrete peaks not indicative of diesel fuel. 1,2-DCE - 1,2-dichloroethane.

PCE - Tetrachloroethene.

TCE - Trichloroethene.

ND - Not detected at or above method detection limit.

NS - Not sampled.

TPH-Gasoline - Total petroleum hydrocarbons quantified as gasoline.

TPH-Diesel - Total petroleum hydrocarbons quantified as diesel.

µg/L - Micrograms per liter, equivalent to parts per billion.

