

**SINCE 1955** 

DETAILING

QUIK LUBE

January 20, 2011

Mark Detterman Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

SUBJECT:

RO0000451

Hutch's Car Wash 17945 Hesperian Blvd. San Lorenzo, CA 94580

Dear Mr. Detterman:

**RECEIVED** 

9:18 am, May 23, 2012

Alameda County Environmental Health

Attached please find a copy of the most recent groundwater sampling report for the above referenced site. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,

Allen Kirk Hutchison

Attachment



January 12, 2011

### GROUNDWATER MONITORING REPORT DECEMBER 2010 GROUNDWATER SAMPLING ASE JOB NO. 3411

at Hutch's Carwash 17945 Hesperian Boulevard San Lorenzo, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
55 Oak Court, Suite 220
Danville, CA 94526
(925) 820-9391



### 1.0 INTRODUCTION

The following is a report detailing the results of the December 27, 2010 groundwater sampling at the Hutch's Carwash property located at 17945 Hesperian Boulevard in San Lorenzo, California (Figures 1 and 2).

#### 2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On December 27, 2010, ASE measured the depth to water in each site monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. No free-floating hydrocarbons or sheen were observed in any of the monitoring wells. Groundwater elevation data is presented in Table One.

The groundwater flow is to the west at a gradient of 0.016-feet/foot. Groundwater elevation (potentiometric surface) contours are plotted on Figure 2.

#### 3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On December 27, 2010, ASE collected a groundwater sample from all three monitoring wells for analyses. Monitoring wells MW-2 and MW-3 were sampled for the first time in at least eight years at the request of the Alameda County Health Care Services Agency (ACHCSA) to confirm current conditions as a preparation for possible case closure. Prior to sampling, the monitoring wells were purged of three well casing volumes of groundwater. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Samples were then collected using disposable polyethylene bailers. The groundwater samples were decanted from the bottom of the bailers using a low-flow emptying device into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, labeled, and stored on ice for transport to Kiff Analytical, LLC of Davis, California (CA ELAP #2236) under appropriate chain of custody documentation.

The well sampling purge water was contained in a sealed and labeled 55-gallon steel drum. The well sampling field logs are included as Appendix A.

The groundwater samples were analyzed by Kiff Analytical, LLC for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) and five fuel oxygenates, including methyl tertiary butyl ether (MTBE) by EPA Method 8260B.

The analytical results are tabulated in Table Two, and copies of the certified analytical report and chain of custody form are included in Appendix B.



### 4.0 RESULTS AND CONCLUSIONS

The groundwater sample collected from monitoring well MW-1 contained 98 parts per billion (ppb) TPH-G, 75 ppb MTBE, 19 ppb tert-amyl methyl ether (TAME), and 14 ppb tert-butanol (TBA). The TPH-G and MTBE concentrations are slightly higher than the concentrations in May 2010, but lower than the December 2009 results. There appears to be a long term decreasing trend in hydrocarbon concentrations. No BTEX has been detected since 2006. No hydrocarbons or oxygenates were detected in the groundwater samples collected from monitoring wells MW-2 and MW-3.

The MTBE and TBA concentrations in the groundwater sample collected from monitoring well MW-1 exceeded the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs) presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document dated May 2008 for sites where water is a current or potential source of drinking water. However, the MTBE and TBA concentrations did not exceed the ESLs for sites where groundwater is not a current or potential source of drinking water.

#### 5.0 **RECOMMENDATIONS**

A workplan to conduct a soil vapor survey will be prepared during the next quarter.

### 6.0 REPORT LIMITATIONS

The results presented in this report represent conditions at the time of groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.



Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Robert E. Kitay, P.G., R.E.A. Senior Geologist

Attachments: Figures 1 and 2

Appendices A and B

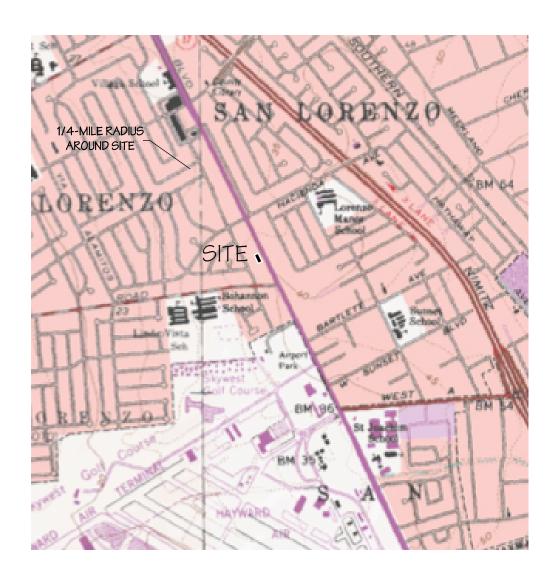
cc: Mr. Kirk Hutchison, Hutch's Car Wash

Mr. Mark Detterman, Alameda County Health Care Services Agency



## **FIGURES**



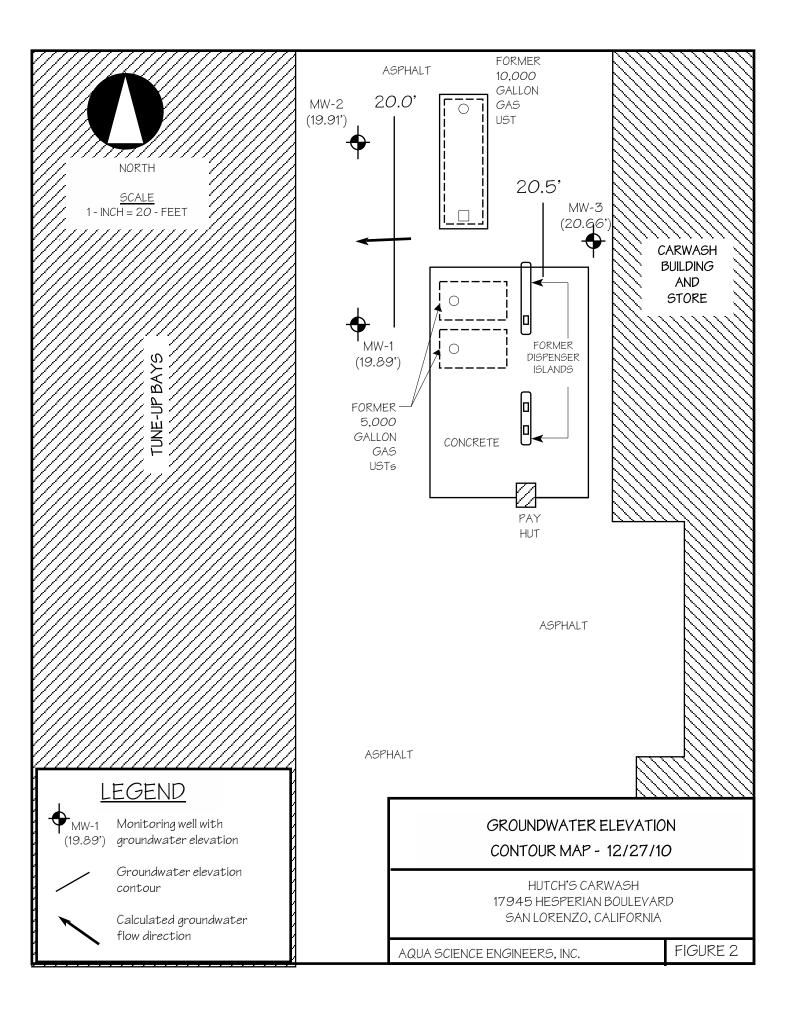


## SITE LOCATION MAP

HUTCH'S CARWASH 17945 HESPERIAN BOULEVARD SAN LORENZO, CA

AQUA SCIENCE ENGINEERS, INC.

Figure 1





## **TABLES**

### TABLE ONE Groundwater Elevation Data Hutch's Carwash 17945 Hesperian Blvd., San Lorenzo, CA

Well	Date of	Top of Casing	Depth to	Groundwater
ID	Measurement	Elevation	Water	Elevation
		(Relative to Mean Sea Level)	(feet)	(project data)
MW-1	10/6/99	35.00	15.58	19.42
	1/13/00		15.58	19.42
	4/12/00		14.75	20.25
	7/19/00		15.29	19.71
	10/25/00		15.56	19.44
	1/16/01		15.22	19.78
	4/4/01		15.05	19.95
	7/6/01		15.49	19.51
	10/1/01		15.78	19.22
	1/7/02		13.83	21.17
	4/2/02		14.83	20.17
	7/9/02		15.41	19.59
	10/1/02		15.70	19.3
	1/24/03		14.69	20.31
	7/25/03		15.41	19.59
	1/16/04		14.73	20.27
	7/14/04		15.54	19.46
	1/29/05		14.38	20.62
	7/22/05		15.23	19.77
	1/25/06		14.00	21.00
	6/10/06		15.13	19.87
	1/26/07		15.30	19.70
	7/5/07		15.46	19.54
	1/30/08		14.32	20.68
	1/27/09		15.43	19.57
	12/8/09		15.57	19.43
	5/21/10		15.06	19.94
	12/27/10		15.11	19.89
MW-2	10/6/99	35.21	15.84	19.37
	1/13/00		15.78	19.43
	4/12/00		14.94	20.27
	7/19/00		15.54	19.67
	10/25/00		15.81	19.4
	1/16/01		15.50	19.71
	4/4/01		15.28	19.93
	7/6/01		15.73	19.48
	10/1/01		16.06	19.15
	1/7/02		14.08	21.13
	4/2/02		15.04 15.66	20.17
	7/9/02 10/1/02		15.66 15.66	19.55
	1/24/03		15.96	19.25
	7/25/03		14.90 15.68	20.31 19.53
			14.93	20.28
	1/16/04 7/14/04		15.81	19.40
	1/29/05		14.90	20.31
	7/22/05		15.46	19.75
	1/25/06		14.16	21.05
	6/10/06		15.40	19.81
	1/26/07		15.55	19.66
	7/5/07		15.72	19.49
	1/30/08		14.51	20.70
	1/27/09		15.67	19.54
	12/8/09		15.85	19.36
	5/21/10		15.29	19.92
	12/27/10		15.29 15.30	19.92 19.91

TABLE ONE Groundwater Elevation Data Hutch's Carwash 17945 Hesperian Blvd., San Lorenzo, CA

Well	Date of	Top of Casing	Depth to	Groundwater
ID	Measurement	Elevation	Water	Elevation
		(Relative to Mean Sea Level)	(feet)	(project data)
MW-3	10/6/99	34.47	14.98	19.49
14114-0	1/13/00	54.47	14.98	19.49
	4/12/00		14.09	20.38
	7/19/00		14.70	19.77
	10/25/00		14.98	19.49
	1/16/01		14.58	19.49
	4/4/01		14.43	20.04
	7/6/01		14.45	19.62
	10/1/01		15.21	19.26
	1/7/02		13.24	21.23
	4/2/02		14.20	20.27
	7/9/02		14.20	19.66
	10/1/02			19.35
			15.12	
	1/24/03		14.05 14.82	20.42
	7/25/03			19.65
	1/16/04		14.08	20.39
	7/14/04		14.94	19.53
	1/29/05		14.03	20.44
	7/22/05		14.59	19.88
	1/25/06		13.31	21.16
	6/10/06		14.53	19.94
	1/26/07		14.69	19.78
	7/5/07		14.88	19.59
	1/30/08		13.64	20.83
	1/27/09		14.83	19.64
	12/8/09		14.98	19.49
	5/21/10		14.44	20.03
	12/27/10		13.81	20.66

### TABLE TWO Summary of Analytical Results for GROUNDWATER Samples Hutch's Carwash

### 17945 Hesperian Blvd., San Lorenzo, CA All results are in parts per billion (ppb)

Well ID									
& Dates				Ethyl-	Total				Other
Sampled	TPH-G	Benzene	Toluene	benzene	Xylenes	MTBE	TAME	TBA	Oxygenates
MW-1									
10/6/99	1,500	3.3	2.3	27	72	120			
1/13/00	1,500	15	19	19	33	650			
4/12/00	1,700	18	13	45	79	2,600			
7/19/00	2,200	31	< 5.0	81	100	2,000			
10/25/00	3,300	20	< 5.0	98	9.4	3,300			
1/16/01	4,100	34	14	60	120	1,300			
4/4/01	2,900	14	< 0.5	34	32	2,000			
7/6/01	1,300	4.4	< 0.5	12	13	700			
10/1/01	1,100	4.1	< 0.5	18	19	520			
1/7/02	1,400	34	< 0.5	13	15	1,300			
4/2/02	1,900	30	6.7	24	3 <i>0</i>	1,000			
7/9/02	1,500	26	< 5.0	12	8.6	820			
10/1/02	830	3.6	< 2.5	7.4	2.9	520			
1/24/03	1,300	6.2	< 5.0	12	< 5.0	680			
7/25/03	520	15	< 1.0	11	1.0	250			
1/16/04	540	3.9	< 2.5	8.3	3.1	290			
7/14/04	220	< 1.0	< 1.0	8.1	< 1.0	140			
1/29/05	160	1.0	< 0.5	2.5	< 1.0	60			
7/22/05	380	2.5	< 1.0	9.1	< 2.0	210			
1/25/06	250	1.2	< 1.0	3.3	< 2.0	220			
6/10/06	< 100	< 1.0	< 1.0	1.3	< 2.0	180			
1/26/07	< 50	< 0.5	< 0.5	< 0.5	< 1.0	18			
7/5/07	< 50	< 0.5	< 0.5	< 0.5	< 1.0	37			
1/30/08	< 200	< 2.0	< 2.0	< 2.0	< 4.0	290			
1/27/09	140	< 0.5	< 0.5	< 0.5	< 0.5	170			
12/8/09	170	< 0.5	< 0.5	< 0.5	< 0.5	150			
5/20/10	69	< 0.5	< 0.5	< 0.5	< 0.5	33			
12/27/10	98	< 0.50	< 0.50	< 0.50	< 0.50	75	19	14	< 0.50

## TABLE TWO Summary of Analytical Results for GROUNDWATER Samples Hutch's Carwash

### 17945 Hesperian Blvd., San Lorenzo, CA All results are in parts per billion (ppb)

Well ID				FEL I	T - E -1				0.51
& Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
Заттрієй	ITTFO	Denzene	TOTUCTIC	DELIZELE	Луюнов	IVITUL	17 NVIL	TDN	Oxygenates
<u>MW-2</u>									
10/6/99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	18			
1/13/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	16			
4/12/00	< 100	< 1.0	< 1.0	< 1.0	< 1.0	240			
7/19/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
10/25/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	6			
1/16/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	8			
4/4/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
7/6/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	6			
10/1/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	21			
1/7/02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
4/2/02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
7/9/02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
12/27/10	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50
MW-3									
10/6/99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
1/13/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
4/12/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
7/19/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
10/25/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0			
12/27/10	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50
ESL (DW)	100	1	40	30	20	5	NE	12	Varies
ESL (NDW)	210	46	130	43	100	1,800	NE	18,000	Varies

#### Notes:

ESL = Environmental screening level presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (May 2008)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

DW = Groundwater is considered a current or potential source of drinking water

NDW = Groundwater is not considered a current or potential source of drinking water

Most current data is in **Bold** 

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory reporting limit

NE = Not established

<sup>\*</sup> EPA Method 8020/EPA Method 8260 (MTBE confirmation)

 $<sup>\</sup>ensuremath{^{**}}$  Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard

<sup>\*\*\*</sup> Sample contains a discrete peak in addition to gasoline



## **APPENDIX A**

Well Sampling Field Logs

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME Hutch's Car W JOB NUMBER 3411	DATE OF SAMPLING 12-27-10
WELLID. MW-1	SAMPLER PK
TOTAL DEPTH OF WELL 260'	WELL DIAMETER 2
	· II TIME OF MEASUREMENT 1257
PRODUCT THICKNESS -6	
DEPTH OF WELL CASING IN WATER 10.8	9
NUMBER OF GALLONS PER WELL CASING VOLU	ME 1.85
NUMBER OF WELL CASING VOLUMES TO BE REM	MOVED 3
REQUIRED VOLUME OF GROUNDWATER TO BE F	PURGED PRIOR TO SAMPLING 5.5
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER
TIME EVACUATION STARTED 1335	TIME EVACUATION COMPLETED 1350
TIME SAMPLES WERE COLLECTED 1350	0
DID WELL GO DRY NO	AFTER HOW MANY GALLONS
VOLUME OF GROUNDWATER PURGED 55	2 gn
SAMPLING DEVICE NEW DISF	POSABLE BAILER
SAMPLE COLOR Sight guller brown	ODOR/SEDIMENT None/ Slight yullow-brown 5.

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH.	CONDUCTIVITY
1	19.3	6-9	780
2	19.2	6.9	780
.3	19-2	6-9	780

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
Mw-1	5	40 m1 VOA	TPH-6-1 BIEX/MOZ	114
			<u> </u>	

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME HUTCL'S CON Wingh	
JOB NUMBER 3411	DATE OF SAMPLING 12-27-10
WELLID. MW-Z	SAMPLER RIC
TOTAL DEPTH OF WELL 27.0	WELL DIAMETER $\boldsymbol{\nu}''$
DEPTH TO WATER PRIOR TO PURGING 15-30	TIME OF MEASUREMENT 1251
PRODUCT THICKNESS &	
DEPTH OF WELL CASING IN WATER 11-7	
NUMBER OF GALLONS PER WELL CASING VOLUME 2	0
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PR	IOR TO SAMPLING 60 3a/
EQUIPMENT USED TO PURGE WELL NEW	DISPOSABLE BAILER
TIME EVACUATION STARTED 1305	TIME EVACUATION COMPLETED 1320
TIME SAMPLES WERE COLLECTED 13 20	
DID WELL GO DRY NO	AFTER HOW MANY GALLONS
VOLUME OF GROUNDWATER PURGED 60 90/	
SAMPLING DEVICE NEW DISPOSABLE B.	AILER
SAMPLE COLOR publid brown	ODOR/SEDIMENT None/ brown Silt

### CHEMICAL DATA

YOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
i	19.3	6.8	830
2	19.3	68	820
3	19-3	6.8	820

### SAMPLES COLLECTED

1.23	SAMPLE	1.5	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	MW	2_	5	40-M VOA	18H-UBJEX/MI	& HU
	<u> </u>				, ,	

## AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME HUTCL'S CON Wash	
JOB NUMBER 3411	DATE OF SAMPLING 12-27-10
WELLID. MW-3	SAMPLER PC
TOTAL DEPTH OF WELL 27.0	WELL DIAMETER 2
DEPTH TO WATER PRIOR TO PURGING 13.81	TIME OF MEASUREMENT 12:45
PRODUCT THICKNESS	
DEPTH OF WELL CASING IN WATER 13-19	
NUMBER OF GALLONS PER WELL CASING VOLUME Z	.2
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PR	RIOR TO SAMPLING 66 9a
EQUIPMENT USED TO PURGE WELL NEV	VDISPOSABLE BAILER
TIME EVACUATION STARTED 1410	TIME EVACUATION COMPLETED 14 30
TIME SAMPLES WERE COLLECTED 1430	
DID WELL GO DRY NO	AFTER HOW MANY GALLONS
VOLUME OF GROUNDWATER PURGED 6-6 5-	
SAMPLING DEVICE NEW DISPOSABLE B	SAILER
SAMPLE COLOR Slight yellow brown	ODOR/SEDIMENT None/ yellow brown 5:17
	( '

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	18.3	69	790
2	18.2	6.9	810
3	18.2	6.9	810

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-3	-5	yound VOA	TPH-6-10TEX/MT	X K/
			, ,	



### **APPENDIX B**

Certified Analytical Report and Chain of Custody Documentation



Date: 01/04/2011

### Laboratory Results

Robert Kitay Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 Danville, CA 94526

Subject: 3 Water Samples

Project Name: Hutch's Car Wash

Project Number: 3411

Dear Mr. Kitay,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Date: 01/04/2011

Subject: 3 Water Samples
Project Name: Hutch's Car Wash

Project Number: 3411

### **Case Narrative**

Matrix Spike/Matrix Spike Duplicate results associated with samples MW-1, MW-2, and MW-3 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.



Date: 01/04/2011

Project Name: Hutch's Car Wash

Project Number: 3411

Sample: MW-1 Matrix: Water Lab Number: 75882-01

Sample Date :12/27/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 10:20
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 10:20
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 10:20
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 10:20
Methyl-t-butyl ether (MTBE)	75	0.50	ug/L	EPA 8260B	12/29/10 10:20
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 10:20
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 10:20
Tert-amyl methyl ether (TAME)	19	0.50	ug/L	EPA 8260B	12/29/10 10:20
Tert-Butanol	14	5.0	ug/L	EPA 8260B	12/29/10 10:20
TPH as Gasoline	98	50	ug/L	EPA 8260B	12/29/10 10:20
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	12/29/10 10:20
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/29/10 10:20
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/29/10 12:14
Octacosane (Silica Gel Surr)	96.6		% Recovery	M EPA 8015	12/29/10 12:14



Date: 01/04/2011

Project Name: Hutch's Car Wash

Project Number: 3411

Sample: MW-2 Matrix: Water Lab Number: 75882-02

Sample Date :12/27/2010

Parameter Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:18
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/29/10 13:18
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/29/10 13:18
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/29/10 13:18
Toluene - d8 (Surr)	97.6		% Recovery	EPA 8260B	12/29/10 13:18
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/29/10 11:29
Octacosane (Silica Gel Surr)	99.8		% Recovery	M EPA 8015	12/29/10 11:29



Date: 01/04/2011

Project Name: Hutch's Car Wash

Project Number: 3411

Sample: MW-3 Matrix: Water Lab Number: 75882-03

Sample Date :12/27/2010

Parameter Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/29/10 13:49
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/29/10 13:49
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/29/10 13:49
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	12/29/10 13:49
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	12/29/10 13:49
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/29/10 13:12
Octacosane (Silica Gel Surr)	87.6		% Recovery	M EPA 8015	12/29/10 13:12

Date: 01/04/2011

QC Report : Method Blank Data

Project Name : **Hutch's Car Wash** 

		Method			Б.,
Parameter	Measured Value	Reporting Limit	g <u>Units</u>	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/29/2010
Octacosane (Silica Gel Surr)	99.4		%	M EPA 8015	12/29/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/29/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/29/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/29/2010
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	12/29/2010
Toluene - d8 (Surr)	101		%	EPA 8260B	12/29/2010

			Method				
		Measured	Reporti	ng	Analysis	Date	
Paran	neter	Value	Limit	Units	Method	Analyzed	

Date: 01/04/2011

Project Name : Hutch's Car Wash

QC Report : Matrix Spike/ Matrix Spike Duplicate

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicat Spiked Sample Percent Recov.		Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)														
	BLANK	<50	1000	1000	862	887	ug/L	M EPA 8015	12/29/10	86.2	88.7	2.87	70-130	25
Benzene														
	75882-01	<0.50	40.0	40.0	38.2	37.7	ug/L	EPA 8260B	12/29/10	95.6	94.2	1.46	80-120	25
Diisopropyl ether														
Ethyl-tert-butyl ethe	75882-01	<0.50	40.0	40.0	39.0	39.4	ug/L	EPA 8260B	12/29/10	97.5	98.5	0.964	80-120	25
Euryi-tert-butyi etile	75882-01	<0.50	40.0	40.0	40.0	40.5	ug/L	EPA 8260B	12/29/10	99.8	101	1.43	76.5-120	25
Ethylbenzene	70002 01	0.00	10.0	10.0	10.0	10.0	ug/L	217(02002	12/20/10	00.0	101	1.10	70.0 120	20
	75882-01	<0.50	40.0	40.0	40.3	39.6	ug/L	EPA 8260B	12/29/10	101	99.0	1.71	80-120	25
Methyl-t-butyl eth	er													
	75882-01	75	39.9	39.9	95.1	95.2	ug/L	EPA 8260B	12/29/10	51.0	51.3	0.594	69.7-121	25
P + M Xylene														
Tant Dutamal	75882-01	<0.50	40.0	40.0	40.3	40.1	ug/L	EPA 8260B	12/29/10	101	100	0.539	76.8-120	25
Tert-Butanol	75000 01	1.1	200	200	100	100	/	EDV 6360D	12/20/10	02.2	02.0	0.107	90 120	25
Tert-amyl-methyl e	75882-01 ther	14	200	200	198	198	ug/L	EPA 8260B	12/29/10	94.4	92.0	0.187	80-120	25
. s.c amyr maaryr o	75882-01	19	40.0	40.0	53.8	54.3	ug/L	EPA 8260B	12/29/10	87.6	88.9	1.41	78.9-120	25

Date: 01/04/2011

Project Name : Hutch's Car Wash

QC Report : Matrix Spike/ Matrix Spike Duplicate

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Spiked Sample Date Percen Analyzed Recov.	Duplicat Spiked Sample Percent Recov.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene													
	75882-01	<0.50	40.0	40.0	38.7	37.8	ug/L	EPA 8260B	12/29/10 96.8	94.4	2.54	80-120	25

Date: 01/04/2011

Project Name : Hutch's Car Wash

QC Report : Laboratory Control Sample (LCS)

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.2	ug/L	EPA 8260B	12/29/10	96.3	80-120
Diisopropyl ether	40.2	ug/L	EPA 8260B	12/29/10	100	80-120
Ethyl-tert-butyl ether	40.2	ug/L	EPA 8260B	12/29/10	102	76.5-120
Ethylbenzene	40.2	ug/L	EPA 8260B	12/29/10	103	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	12/29/10	104	69.7-121
P + M Xylene	40.2	ug/L	EPA 8260B	12/29/10	103	76.8-120
TPH as Gasoline	501	ug/L	EPA 8260B	12/29/10	96.6	70.0-130
Tert-Butanol	201	ug/L	EPA 8260B	12/29/10	97.0	80-120
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	12/29/10	100	78.9-120
Toluene	40.2	ug/L	EPA 8260B	12/29/10	100	80-120

Aqua Science Engineers, Inc. 55 Oak Court, Suite 220 Danville, CA 94526 (925) 820-9391 FAX (925) 837-4853

# **Chain of Custody**

75882

OAND ED IO			_														PAG	E	of	1
SAMPLER (SIGNATURE)						PRO	JECT	NAME	Н	. Let	5 6	·	/ )	c </td <td></td> <td></td> <td>IOB</td> <td>NO</td> <td>211</td> <td>//</td>			IOB	NO	211	//
but C. Kty						ADD	RESS	179	<del></del>	Hero.	eria	- BI	J. M	434 600	1		JOB	NO	39	
ANALYSIS REQUEST				-	┰┸	I_	1	<del></del>			1	T	<u> </u>	<u> </u>	1		<u>.,,, , , , , , , , , , , , , , , , , , </u>	<u> </u>		
SPECIAL INSTRUCTIONS:		<del></del>				2 3	┧		ς s				SNO		FIC					!
					EX (	1.1	E OH		3ANK	CVEC	i	İ	ARB C		TTH S 8015)			<u> </u>		
					TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL 3/5, 12 cm (EPA 3510/8015) Clean up	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	ଅଟ	SEMI-VOLATILE ORGANICS (EPA 625/8270)	Pb (TOTAL or DISSOLVED) (EPA 6010)		FUEL OXYGENATES (EPA 8260)	PURGEABLE HALOCARBONS (EPA 601/8010)	TPH-G/BTEX/5 OXYS (EPA METHOD 8260)	MULTI-RANGE HYDROCARBONS WITH SILICA GEL CLEANUP (EPA 8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	ତ୍ର	l _		
					/ MTE	EL *	EL & 18015	CAM 17 METALS (EPA 6010+7000)	ATILE 8270)	0.0	Si C	GEN	BLE 1	505 505	NGE	ORG, 240/8	LUFT METALS (5) (EPA 6010+7000)	COMPOSITE 4:1		÷
SAMPLE ID.	<u> </u>		ž	чти	-GAS 5030	DIES 3510	OIES 3510	M 171	1-VOI 625/1	105 105 105 105 105 105 105 105 105 105	PESTICIDES (EPA 8081)	8260 8260	1GEA 1 601/	G/BT MET	2CEA	TILE 624/8	MET 6010	Posi		
	DATE	TIME	MATRIX	QUANTITY	TPH (EPA	TPH (EPA	TPH. (EPA	Ş⊕.	SEN (EPA	9. (E.P.)	PES (EPA	EPA (EPA	29	TPH (EPA	MULHYDI	VOLA (EPA	LUFT (EPA	COMI	EDF	
MW-1	12-27-10	1350	W	5		X								X	-				×	01
MW-2		1320	1			×								×					×	02
MW-2 MW-3	1	1430	V	V		X			<u> </u>					×					×	03
·									<u> </u>										×	<u> • 9</u>
													L				<u>.</u>			
																				<del></del>
																				<del></del>
	<del> </del>		<del>                                     </del>	$\vdash$				·												
	+		-	$\vdash$												-				
	-		_	$\vdash$																
				$\vdash$				,									<u> </u>			
DELINOUS DEL				<u> </u>					_	لرحا	7								·	
RELINQUISHED BY: 1248 R	ECEIVE	D BY:		/		RELI	NQUIS	HED B	Y:		REC	EIVED	BY LA	BORAT	ORY:	CO	MMENT	S:		
In Ching (time) (s											1 2	1		125	50					
12-28-10	ignature)			(time	)	(sign	ature)		(tim	e)	(sign	lature)		(tim		1				
hobort E.K.tax	,					l			•		15	۵ مر	).oec		<b>- - -</b> 1 / 2	-	TU	RN ARG	OUND.	TIME
(printed name) (date) (p	rinteg na	me)		(date	9)	(print	ed parr	ne)	(dat	<u></u>	(prin	Gall	(2)	12	7810	STA				ir 72Hr
Company-ASE, INC.	-mnon:	•		,	•	1 /		.~,	. (uai	<del>-</del> )	(bun	ieu nam	<del>(е)</del> Д. 4	(dat	e) 7/		HER:	2 2711	+0	1201
9	ompany-		-			Com	oany-			<del></del>	Com	ted nam	1114	yr	CAU .					



SRG#:

SAMPLE RECEIPT CHECKLIST

75882

Date: 12810

RECEIVER

Project ID: Itutalis Car Wash
Method of Receipt: Courier Over-the-counter Shipper
COC Inspection  Is COC present?  Custody seals on shipping container?  Is COC Signed by Relinquisher?  Is sampler name legibly indicated on COC?  Is analysis or hold requested for all samples  Is the turnaround time indicated on COC?  Is COC free of whiteout and uninitialed cross-outs?  Yes  No  Yes  No  Yes  No  Yes  No  Yes  No  No  No  No  No  No  No  No  No  N
Sample Inspection Coolant Present:
Are the Sample ID's indicated: On COC On sample container(s) On Both Not indicated If Sample ID's are listed on both COC and containers, do they all match? Yes No Not indicated If project ID indicated: On COC On sample container(s) On Both Not indicated If project ID is listed on both COC and containers, do they all match? Yes No Not indicated If collection dates indicated: On COC On sample container(s) On Both Not indicated If collection dates are listed on both COC and containers, do they all match? Yes No Not indicated If collection times indicated: On COC On sample container(s) On Both Not indicated If collection times are listed on both COC and containers, do they all match? Yes No Not indicated If collection times are listed on both COC and containers, do they all match? Yes No Not indicated If collection times are listed on both COC and containers, do they all match? Yes No Not indicated
COMMENTS: