

September 30, 2004

RO2514 V

REPORT
of
SOIL AND GROUNDWATER ASSESSMENT
ASE JOB NO. 3928

at
Kim Property
925-949 West Grand Avenue
Oakland, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
208 West El Pintado Road
Danville, CA 94526
(925) 820-9391

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1.0 INTRODUCTION

This submittal presents Aqua Science Engineers, Inc. (ASE's) report for a soil and groundwater assessment at 925-949 West Grand Avenue in Oakland, California (Figure 1). The proposed site assessment activities were initiated by Mr. Chong Kim, the new owner of the property, as required by the Alameda County Health Care Services Agency (ACHCSA). The site assessment activities were designed to further define the extent of soil and groundwater contamination at the site related to volatile organic compounds (VOCs), assumed to be related to the previous dry cleaning operations at the site, and petroleum hydrocarbons, which has an unknown source at this time.

2.0 BRIEF SITE HISTORY AND BACKGROUND INFORMATION

The site is located in a mixed commercial/residential area of Oakland, on the southwest corner of the intersection of West Grand Avenue and Market Street.

2.1 June 2000 Phase I Environmental Assessment

According to a Phase I Environmental Site Assessment prepared by AEI Consultants in June 2000, the site contained a dry cleaning operation at 941 West Grand Avenue. The dry cleaner operated at the site for approximately 10 years and was issued a violation for the improper disposal of waste in 1986.

The site was also previously occupied by Foster & Kleiser Company and previously contained an auto and truck storage area, an auto repair area, gas, oil and paint storage areas, dip painting areas, advertising sign painting area, and a warehouse.

The report also noted an adjacent property (905 West Grand Avenue) that previously contained three underground fuel storage tanks (USTs). Although case closure has been granted by the ACHCSA for 905 West Grand Avenue, AEI suggested that the fuel release at 905 West Grand Avenue likely had impacted the site based on the proximity of the 905 West Grand Avenue property to the site and the groundwater flow direction.

AEI recommended a soil and groundwater assessment for the site and a magnetometer survey to locate any potential USTs that may have been present beneath the site.

2.2 March 2002 Phase II Subsurface Investigation

In March 2002, AEI Consultants drilled five soil borings at the site. Three borings were drilled in suspected locations of previous gas and oil storage, and two borings were drilled in the former dry cleaning area (Figure 2).

No significant petroleum hydrocarbon concentrations were detected in soil samples collected in areas of suspected gas and oil storage. Groundwater samples collected from these borings contained up to 460 parts per billion (ppb) total petroleum hydrocarbons as gasoline (TPH-G) and 380 ppb total petroleum hydrocarbons as diesel (TPH-D). Only relatively low concentrations of ethylbenzene and total xylenes (0.73 ppb ethylbenzene and 1.3 ppb total xylenes) were detected in one of the three borings. No benzene, toluene, or methyl tertiary butyl ether (MTBE) were detected in any of the groundwater samples collected from these borings.

Both soil and groundwater samples collected from the borings drilled in the former dry cleaning area contained significant concentrations of petroleum hydrocarbons and VOCs. Soil samples collected from 8-feet below ground surface (bgs) contained up to 2.5 parts per million (ppm) TPH-G, 0.017 ppm benzene, 0.21 ppm toluene, 0.12 ppm ethylbenzene, 0.011 ppm xylenes, 0.0051 ppm trichloroethene (TCE), 0.022 ppm tetrachloroethene (PCE), 0.14 ppm cis-1,2-dichloroethane (cis-1,2-DCE) and 0.012 ppm vinyl chloride. Groundwater samples collected from these borings contained 140,000 ppb TPH-G, 810 ppb benzene, 1,900 ppb toluene, 470 ppb ethylbenzene, 14,000 ppb total xylenes, 550 ppb cis-1,2-DCE and 60 ppb vinyl chloride.

2.3 May 2003 Soil and Groundwater Investigation

In May 2003, Eras Environmental drilled five soil borings (A through E) at the site (Figure 2). Borings A through D were located downgradient of the former dry cleaning area. Boring E was located between the dry cleaner and the former gasoline station at 905 West Grand Avenue. Only very low hydrocarbon concentrations of up to 10 ppm TPH-G and 0.2 ppm TPH-G were detected in soil samples collected between 10.5 and 11.5-feet bgs in borings A and E, respectively. No hydrocarbons were detected in soil samples collected from any of the remaining borings. No VOCs or MTBE were detected in soil samples collected from any of the borings. Groundwater samples collected from boring E contained 4,300 ppb TPH-G and 190 ppb n-propylbenzene. No MTBE was detected in groundwater

samples collected from this boring. TPH-G was also detected in groundwater samples collected from boring A at 100 ppb. No TPH-G was detected in groundwater samples collected from the remaining borings. Groundwater samples collected from borings A through D also contained up to 35 ppb MTBE, 1.6 ppb TCE, 5.0 ppb cis-1,2-DCE and 1.6 ppb vinyl chloride.

3.0 SCOPE OF WORK (SOW)

ASE has prepared the following scope of work (SOW) to define the extent of elevated hydrocarbon concentrations on and surrounding the site.

- 1) Prepare a workplan for approval by the ACHCSA.
- 2) Obtain a drilling permit from the Alameda County Public Works Agency (ACPWA). Obtain excavation and encroachment permits from the City of Oakland.
- 3) Drill three (3) soil borings to 25-feet bgs at the site for the installation of groundwater monitoring wells.
- 4) Analyze one soil sample collected from each soil boring at a CA-DHS certified environmental laboratory for TPH-G, benzene, toluene, ethyl benzene and total xylenes (collectively known as BTEX), five oxygenates (including MTBE), and halogenated volatile organic compounds (HVOCs) by EPA Method 8260, and TPH-D by EPA Method 8015.
- 5) Install 2-inch diameter groundwater monitoring wells in each boring described in task 3.
- 6) Develop the monitoring wells.
- 7) Collect groundwater samples from each monitoring well for analyses.
- 8) Analyze the groundwater samples at a CA-DHS certified analytical laboratory for TPH-G, BTEX, five oxygenates (including MTBE), and HVOCs by EPA Method 8260, and TPH-D by EPA Method 8015.
- 9) Survey the top of casing elevation of each well, and determine the groundwater flow direction and gradient beneath the site.

- 10) Drill additional soil borings at the site to further define the extent of soil and groundwater contamination. Three borings will be located in pre-determined locations. Additional borings, if needed, will be located based on the groundwater flow direction.
- 11) Analyze one soil and one groundwater sample from each boring at a CA-DHS certified analytical laboratory for TPH-G, BTEX, five oxygenates (including MTBE), and HVOCs by EPA Method 8260, and TPH-D by EPA Method 8015.
- 12) Backfill borings with neat cement following the collection of the soil and groundwater samples.
- 13) Prepare a report detailing the methods and findings of this assessment.

4.0 DRILL SOIL BORINGS FOR THE COLLECTION OF SOIL AND GROUNDWATER SAMPLES

4.1 Permits

Prior to drilling, ASE obtained drilling permits from the Alameda County Public Works Agency (ACPWA). ASE also obtained an excavation permit to allow for the drilling of soil borings in the City of Oakland's right of way. Copies of these permits are presented in Appendix A. ASE also notified Underground Service Alert (USA) to have underground public utilities in the vicinity of the site marked prior to drilling.

4.2 Drill Soil Borings and Collect Soil and Groundwater Samples

On August 9, 2004, Vironex, Inc. of San Leandro, California drilled soil borings SB-F, SB-G and SB-H using a Geoprobe direct-push hydraulic sampling rig. Boring locations are presented in Figure 2.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. The soil samples were collected by driving a Macro-Core sampler lined with acetate tubes into the ground using hydraulic direct push methods. Selected soil samples were cut, trimmed, sealed with Teflon squares and plastic end caps, labeled, and chilled in an ice chest with wet ice for transport to Kiff Analytical, LLC of Davis, California (CA DHS ELAP #2236) under appropriate chain of custody documentation. Soil from the remaining tubes was described by the site geologist using

the Unified Soil Classification System (USCS) and was screened for VOCs using a photoionization detector (PID). The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the VOCs were allowed to volatilize, the PID measured the vapor in the bag through a small hole punched in the bag. PID readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory. The PID readings are listed on the boring logs presented in Appendix B.

4.3 Collect Groundwater Samples from the Borings

Groundwater samples were collected from the borings using factory-cleaned, unused polyethylene bailers. The groundwater samples were decanted into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and stored in an ice chest with wet ice for transport to Kiff Analytical under chain of custody.

4.4 Equipment Decontamination and Boring Backfilling

Drilling equipment was cleaned with an Alconox solution between sampling intervals and between borings to prevent potential cross-contamination. Following collection of the soil and groundwater samples, each boring was backfilled with neat cement to the ground surface.

5.0 INSTALL GROUNDWATER MONITORING WELLS

5.1 Permits

Prior to drilling ASE obtained drilling permits from the ACPWA. ASE also obtained encroachment and excavation permits to allow for the installation of monitoring wells in the City of Oakland's right of way. Copies of these permits are presented in Appendix A.

5.2 Drill Three Soil Borings for the Installation of Groundwater Monitoring Wells

On August 9, 2004, Vironex, Inc. of San Leandro, California drilled soil borings MW-1 through MW-3 at the site using a drill rig equipped with 8-inch diameter hollow-stem augers. MW-1 was placed in Myrtle Street to the south to assist in the calculation of the ground water flow direction and gradient for the site, as well as for defining the extent of

contamination to the south. MW-2 was drilled adjacent to the location of the former dry cleaner. MW-3 was placed between the former dry cleaner and the former gas station at 905 West Grand Avenue. The well locations are shown on Figure 2. The drilling was directed by ASE associate geologist Damian Hriciga.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. The samples were collected by driving a Macro-Core sampler lined with acetate tubes using hydraulic direct-push. soil samples were immediately cut, trimmed, sealed with Teflon squares and plastic end caps, labeled, and stored in an ice chest with wet ice for transport to Kiff Analytical, LLC under chain of custody. Soil from the remaining tubes was described by the site geologist using the USCS and was screened for VOCs using a PID. The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. volatile compounds were allowed to volatilize, the PID measured the vapor in the bag through a small hole punched in the bag. PID readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory. The PID readings are listed on the boring logs presented in Appendix B.

Drilling equipment was cleaned with an Alconox solution between sampling intervals to prevent potential cross-contamination.

5.3 Monitoring Well Construction

All three monitoring wells were constructed in the borings with 2-inch diameter, 0.020-inch slotted, flush-threaded, Schedule 40 PVC well screen and blank casing. All three monitoring wells are constructed to monitor the first water bearing zone encountered. Monitoring well MW-1 is screened between 5-feet bgs and 20-feet bgs. Monitoring well MW-2 is screened between 6.5-feet bgs and 15-feet bgs. Monitoring well MW-3 is screened between 5.5-feet bgs and 20.5-feet bgs. Number 3 washed Monterey sand occupies the annular space between the borehole and the casing from the bottom of the boring to approximately 1-foot above the well screen. A 0.5-foot thick hydrated bentonite layer separates the sand from the overlying cement surface seal. The cement surface seal consists of neat Portland cement. The wellheads are secured wellplugs beneath at-grade traffic-rated well boxes. Well construction details are shown on the boring logs in Appendix B.

5.4 Monitoring Well Development

On September 8, 2004, ASE associate geologist Damian Hriciga developed all three monitoring wells using two episodes of surge-block agitation and submersible pump evacuation. Over ten well casing volumes of water were removed from the wells during development. Evacuation continued until the water removed from the wells was relatively clear. Well development purge water was contained in sealed and labeled 55-gallon steel drums and left on-site for temporary storage until off-site disposal could be arranged. No free-floating hydrocarbons or sheen were present on the surface of groundwater during well development.

5.5 Monitoring Well Sampling

On September 14, 2004, ASE associate geologist Damian Hriciga collected groundwater samples from all three monitoring wells for analysis. No free-floating hydrocarbons or sheen were present on the surface of groundwater in any of the monitoring wells.

Prior to sampling, each well was purged of four well casing volumes of groundwater. The pH, temperature, and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. Groundwater samples were removed from the monitoring wells with factory-cleaned, unused polyethylene bailers. The groundwater samples were contained in 40-ml VOA vials, preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and stored in an ice chest with wet ice for transport to Kiff Analytical under chain of custody. Well sampling purge water was contained in sealed and labeled 55-gallon steel drums and left on-site for temporary storage until off-site disposal could be arranged. The well sampling field logs are presented in Appendix C.

6.0 LITHOLOGY AND HYDROGEOLOGY

Sediments encountered beneath the site generally consisted of silty clay from the ground surface to approximately 12-feet bgs, silty sand, sandy silt or clayey gravel from approximately 12-feet bgs to approximately 20-feet bgs, and silty clay from approximately 20-feet bgs to the total depth explored of 25-feet bgs. Groundwater was encountered at approximately 12-feet bgs, and subsequently rose to approximately 10-feet bgs indicating that groundwater is under hydraulic head. Boring logs are presented in Appendix B.

7.0 SURVEY AND GROUNDWATER ELEVATIONS

On September 23, 2004, Mid Coast Engineers of Watsonville, California surveyed the top of casing elevation of each monitoring well and the ground surface elevation of each boring and monitoring well relative to mean sea level (msl). Longitude and latitude coordinates were determined from the California Coordinate System, Zone 3, NAD 83 Datum. A copy of the survey is included as Appendix D.

On September 14, 2004, ASE measured the depth to groundwater in each monitoring well prior to purging and sampling. Depth to groundwater measurements are presented in Table One. A groundwater elevation (potentiometric surface) contour map is presented as Figure 3. The groundwater appeared to flow to the southwest beneath the site at a gradient of 0.0043-feet/foot.

8.0 ANALYTICAL RESULTS FOR SOIL AND GROUNDWATER

8.1 Soil Sample Analysis

The soil samples collected from 14-feet bgs in boring MW-1, 9.5-feet bgs in borings MW-2, SB-F and SB-G, and 14.5-feet bgs in borings MW-3 and SB-H were analyzed by Kiff Analytical for TPH-G, BTEX, oxygenates and HVOCs by EPA Method 8260B, and TPH-D by EPA Method 8015. The analytical results are tabulated in Table Two, and certified analytical report and chain of custody are presented in Appendix E.

The only soil sample that contained concentrations of any of the compounds analyzed was MW-2 at 9.5-feet bgs. This sample contained 1,000 ppm TPH-G, 430 ppm TPH-D, 0.71 ppm benzene, 0.091 toluene, 15 ppm ethylbenzene, and 45 ppm total xylenes. All of these concentrations exceeded California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) environmental screening levels (ESLs) for shallow soil. The ESLs are presented in the "Screening Environmental Concerns at Sites With Contaminated Soil Groundwater" document dated July 2003. This sample also contained 0.027 ppm cis-1,2-DCE, which was below the ESL. None of the other samples analyzed contained detectable concentrations of TPH-G, TPH-D, BTEX, oxygenates or HVOCs.

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8.2 Groundwater Sample Analysis

The groundwater samples collected from borings SB-F through SB-H and monitoring wells MW-1 through MW-3 were analyzed by Kiff Analytical for TPH-G, BTEX, oxygenates and HVOCs by EPA Method 8260B, and TPH-D by EPA Method 8015. The analytical results are tabulated in Table Three, and certified analytical report and chain of custody are presented in Appendix E.

The highest TPH-D, MTBE and HVOC concentrations were detected in groundwater samples collected from boring SB-G, which is located in the upgradient corner of the site. This suggests that these compounds may be related to an upgradient, off-site source. A significant concentration of TPH-G of 1,200 ppb was also detected in groundwater samples collected from upgradient boring SB-G. The highest TPH-G and BTEX concentrations were detected in groundwater samples collected from monitoring well MW-2, which is immediately downgradient of the former dry cleaning operation at the site. Concentrations of TPH-G, benzene, ethylbenzene and total xylenes all exceeded ESLs for drinking water in this monitoring Only the benzene concentration exceeded the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking Boring SB-F, located down/crossgradient of monitoring well MW-2, contained 5,000 ppb TPH-G, 2.1 ppb benzene and 16 ppb MTBE. HVOCs were detected in the groundwater samples collected from monitoring well MW-2, located adjacent and downgradient of the former dry cleaner, which suggests that any residual low HVOC concentrations that were previously detected in this area have degraded detectable.

9.0 CONCLUSIONS

The soil sample collected from 9.5-feet bgs in MW-2 contained 1,000 ppm TPH-G, 430 ppm TPH-D, 0.71 ppm benzene, 0.091 ppm toluene, 15 ppm ethylbenzene, and 45 ppm total xylenes. None of the other soil samples analyzed contained detectable concentrations of TPH-G, TPH-D, BTEX, oxygenates or HVOCs.

The highest TPH-D, MTBE and HVOC concentrations were detected in groundwater samples collected from boring SB-G, which is located in the upgradient corner of the site. This suggests that these compounds may be related to an upgradient, off-site source. Groundwater samples collected from upgradient boring SB-G also contained 1,200 ppb TPH-G, suggesting

that some of the TPH-G detected at the site may be related to an upgradient, off-site source.

The highest TPH-G and BTEX concentrations were detected in groundwater samples collected from monitoring well MW-2, which is immediately downgradient of the former dry cleaning operation at the site. Since TPH-G and BTEX concentrations were also detected in soil at this location, it does appear that a source of gasoline was located in this area of the property. The exact source of the gasoline is not known since gasoline would not be expected at a dry cleaning operation (other than an extremely old dry cleaning operation). Concentrations of TPH-G, benzene, ethylbenzene and total xylenes all exceeded ESLs for drinking water in this monitoring well. Only the benzene concentration, however, exceeded the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water.

The downgradient and crossgradient extent of hydrocarbons at the site are not yet defined with boring SB-F located crossgradient of MW-2 containing 5,000 ppb TPH-G, 2.1 ppb benzene and 16 ppb MTBE. Some of these concentrations may, however, be related to an off-site, upgradient source.

No HVOCs were detected in the groundwater samples collected from monitoring well MW-2, located adjacent and downgradient of the former dry cleaner, which suggests that residual low HVOC concentrations that were previously detected in this area have degraded to non-detectable.

10.0 RECOMENDATIONS

Although it appears that the TPH-D and HVOC concentrations are related to an upgradient, off-site source, it is likely that the ACHCSA will require and/or investigation to confirm additional monitoring compounds are indeed related to an off-site source. In addition, although the TPH-G and BTEX concentrations are not extremely high, the ACHCSA will likely require quarterly groundwater monitoring to confirm decreasing trend in hydrocarbon concentrations prior to issuing a case It is not certain, given the hydrocarbon closure letter. concentrations detected, that soil and groundwater remediation will be Regardless of whether remediation may be required, recommends that a human health risk assessment be performed prior to any future redevelopment at the property.

11.0 REPORT LIMITATIONS

The results presented in this report represent conditions at the time of the soil and 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.

Should you have any questions or comments, please call us at (925) 820-9391.

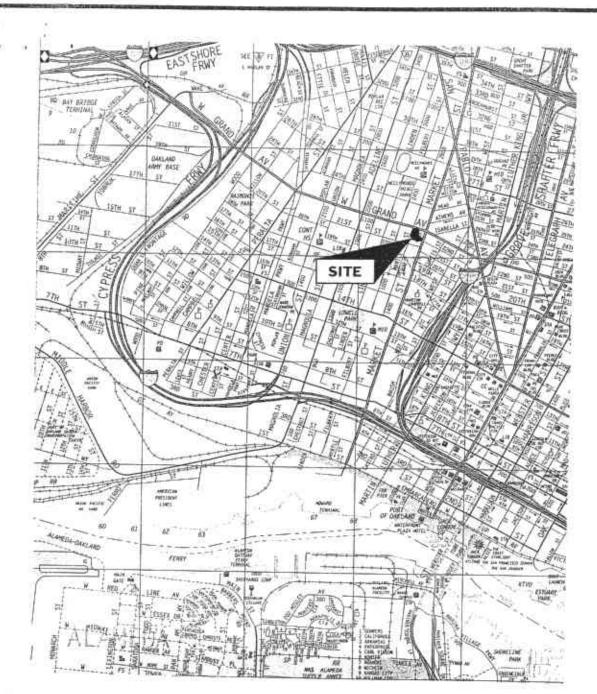
Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Robert E. Kitzy, R.G., R.E.A.

Senior Geologist

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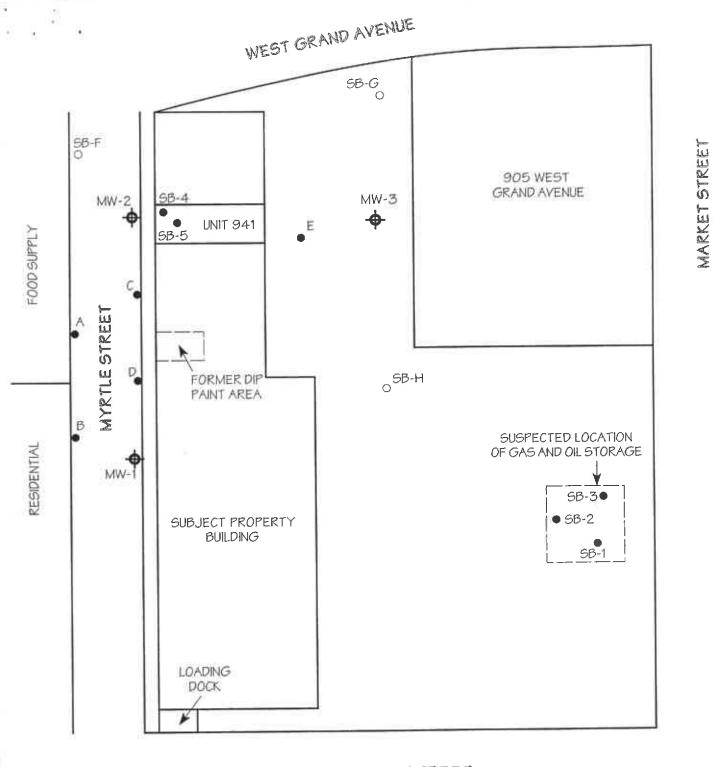


SITE LOCATION MAP

KIM PROPERTY 925-949 West Grand Avenuë Oakland, California

AQUA SCIENCE ENGINEERS, INC.

Figure 1



BASE MAP: ERAS ENVIRONMENTAL "LIMITED SOIL AND GROUNDWATER INVESTIGATION," 5/27/2003, FIGURE 2 AND AEL CONSULTANTS "PHASE II SUBSURFACE INVESTIGATION," 3/21/2/02, FIGURE 2

LEGEND

B • Previous Soll Boring

 $SB-F_O$ Soil Boring Drilled for this

Assessment

MW-1 Monto

Montoring Well

21ST STREET



<u>SCALE</u> 1INCH = 50 FEET MONITORING WELL AND SOIL BORING LOCATION MAP

KIM PROPERTY 925-949 West Grand Avenue Oakland, California

AQUA SCIENCE ENGINEERS, INC.

Figure 2

MARKET STREET

BASE MAP: ERAS EMVIRONMENTAL "LIMITED SOIL AND GROUNDWATER INVESTIGATION," 5/27/2003, FIGURE 2 AND AELCONSULTANTS "PHASE II SUBSURFACE INVESTIGATION," 3/21/2002, FIGURE 2

LEGEND

B Previous Soll Boring

SB-F Soil Boring Drilled for this Assessment

MW-1 (4.33") Montoring Well with Groundwater Elevation

> Groundwater Elevation Contour

21ST STREET



<u>SCALE</u> 1 INCH = 50 FEET GROUNDWATER ELEVATION CONTOUR MAP - 9/14/04

KIM PROPERTY 925-949 West Grand Avenue Oakland, California

AQUA SCIENCE ENGINEERS, INC.

Figure 3

TABLE ONE

Groundwater Elevation Data 925-949 West Grand Avenue, San Jose, CA

Well ID	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Groundwater Elevation (msi)
MW-1	9/14/04	15.12	10.79	4.33
MW-2	9/14/04	14.42	9.76	4.66
MW-3	9/14/04	15.20	10.11	5.09

TABLE TWO

Summary of Analytical Results of SOIL Samples Petroleum Hydrocarbons and Volatile Organic Compounds (VOCs) by EPA Method 8260B 925-949 West Grand Avenue, Oakland, California Results are in parts per million (ppm)

Well/	Sample	TPH	TPH		· · ·	Ethyl	Total		1,2-	cis-1,2-	trans-1,2-		Vinyl	Other
Boring	Depth	Gasoline	Diesel	Benzene	Toluene	Benzene	Xylenes	MTBE	DCA	DCE	DCE	TCE	Chloride	eOOV
MW-1	14.0	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 - < 0.02
MW-2	9.5	1,000	430	0.73	0.091	15	45	< 0.025	< 0.025	0.027	< 0.025	< 0.025	< 0.025	< 0.025 - < 0.04
MW-3	14.5	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 - < 0.02
SB-F	9.5	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 - < 0.02
SB-G	9.5	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 - < 0.02
SB-H	14.5	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 - < 0.02
ESL		100	100	0.044	2.9	3.3	1.5	0.023	0.0045	0,19	0.67	0.46	0.019	NA

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Concentrations in BOLD exceed ESLs

ESL = Environmental Screening Levels presented in the "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) dated July 2003.

TCE - trichloroethene

DCE - dichloroethene

TPH - total petroleum hydrocarbons

MTBE - methyl tertiary butyl ether

DCA - dichloroethane

TABLE THREE

Summary of Analytical Results of WATER Samples Petroleum Hydrocarbons and Volatile Organic Compounds (VOCs) by EPA Method 8260B 925-949 West Grand Avenue, Oakland, California Results are in parts per billion (ppb)

Well/	TPH	TPH			Ethyl	Total		1,2-	cis-1,2-	trans-1,2-		Vinyl	Other
Boring	Gasoline	Diesel	Benzene	Toluene	Benzene	Xylenes	MTBE	DCA	DCE	DCE	TCE	Chloride	VOC9
MW-1	< 50	150	< 0.5	< 0.5	< 0.5	< 0.5	0.89	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5 - < 20
MW-2	6,100	< 1,000	56	2.6	87	190	15	< 1.5	1.5	< 1.5	< 1.5	< 1.5	< 1.5 - < 20
MW-3	< 50	100	< 0.5	< 0.5	< 0.5	< 0.5	5.8	0.77	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5 - < 20
SB-F	5,000	< 1,000	2.1	2.0	1.4	3.6	16	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	<1-<50
SB-G	1,200	4,900	< 0.5	< 0.5	< 0.5	0.72	32	0.95	60	5.8	6.2	4.6	< 0.5 - < 20
SB-H	< 50	390	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5 - < 20
ESL	1 00 55	- 100 -	1.0	40	30 ja	13	5.0	0.5	6.0		5.0	0.5	JAMES NA Jejiro

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Concentrations in BOLD exceed ESLs

ESL = Environmental Screening Levels presented in the "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) dated July 2003.

TCE - trichloroethene

DCE - dichloroethene

TPH - total petroleum hydrocarbons

MTBE - methyl tertiary butyl ether

DCA - dichloroethane

APPENDIX A

Permits

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ALAMEDA COUNTY PUBLIC WORKS AGENCY

DRILLING PERMIT APPLICATION

WATER RESOURCES SECTION 199 ELMHURST ST. HAYWARD CA. 94544-1395 PHONE (5) 0) 670-5554 FAX (\$10)782-1979

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FOR APPLICANT TO COMPLETE	FOR OFFICE USE
Commission of the Control of the Con	1.10/1.0199
LOCATION OF PROJECT 925 -7/7 1) st Crand due in a	PERMIT NUMBER WUH-CH LI
tekland, ed	WELL MUMDER
	APN
	PERMIT CONDITIONS
	Citcled Permit Requirements Apply
CLIENT	Citerat A mille Kedala sulfillia Apply
Name whoma and Manuary Kam	A GENERAL
Address Land Interpret de Phone 316 - 763 1885	1. A permit application should be submitted so as to
Ely Cakland Cot Zip Sylet Z	arrive at the ACPWA office five days prior to
APPLICANT	proposed staning dute.
Kime Agen Suisane Engineers	Submit to ACPWA within 60 days after completion of
	permitted original Department of Water Resources. Well Completion Report.
Addiess 228 W. 131 Pintone Phone \$25 420 9398 1207). Permit is void if project not begun within 90 days of
Addiess 268 W. E. I Pintodo Prone 525 720 9390 2207 City Dany U. Let Zip 745 24	aleptonal date
<u>-</u>	B. WATER SUPPLY WELLS
TYPE OF PROJECT	1. Minimum surface seal thickness is two inches of
Well Construction Geotechnical Investigation	coment grout placed by tremie
Cathodic Protection II General II	2. Minimum seal deputs is 50 feet for municipal and
Water Supply D Contamination D	Industrial wells or 20 feet for domestie and irrigation wells unless a lesser depth is specially approved
Monitoring Well Destruction B	CHOUNDWATER MONITORING WELLS
FROPOSED WATER SUPPLY WELL USE	/ INCLUDING PIEZOMETERS
New Dimestic (1 Replacement Domestic (1	I. Minimum surface seal thickness is two inches of
Municipal () Imigation ()	coment grout placed by tremie.
Industrial D Other O	2. Minimum sest depth for monitoring wells is the maximum depth practicable or 20 feet
	D. GEOTECHNICAL
OFULLING METHOD:	Backfill bore hote by wernie with cement grout or coment
Hod Rolary D Air Rolary D Auger D Cable B Owher D	groups and mixture. Upper two-three feet replaced in wind
Capic G Other II	of with companied cuttings,
DRULLER'S NAME V. Tron +x	E CATHODIC
	Fill hate made 20ne with concrete placed by fremic.
DHILLER'S LICENSE NO 6-57 705927	F. WELL DESTRUCTION
	Send a map of work site. A separate permit is required for wells deeper than 45 feet.
WELL PROJECTS _	G. SPECIAL CONDITIONS MI AT
Drill Hole Diameter 3 in. Maximum	1 / 10-12
	NOTE: One application must be submitted for each well or well
Casing Diameter 2 in. Depth 30 ft. Surface Scal Depth 5 ft. Owner's Well Number (A)	destruction. Multiple borings on one application are assembled.
	for generalized and contamination investigations.
GEOTECHNICAL PROJECTS	
Number of Borings Maximum	
Hole DiameterIn. Depthfi	
STIMATED STARTING TRATES - 1 - 2 1 -	N A SI M March
ESTIMATED STARTING DATE Y 2.1 CY	1 M
	APPROVED BATE
Thereby agree to comply with all requirements of this permittand Alameda County Or	whitehouse bles 33 49
C	(a), (a), (a), (a), (b), (b), (c), (c), (c), (c), (c), (c), (c), (c
APPLICANT'S SIGNATURE THE CONTRACT DATE 4	25-04 / 1
PLEASEPRINTNAME BOBINT To KITTAY RO	
ROUSEININI NAME DEBUTT TO KUTRY	r.5-13-0 0
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ALAMEDA COUNTY PUBLIC WORKS AGENCY

DRILLING PERMIT APPLICATION

WATER RESOURCES SECTION 399 ELMRURST ST. RAYWARD CA. 94544-1395 PRONE (510) 670-5\$54 FAX (510)782-1939

FOR APPLICANT TO COMPLETE	FOR OFFICE USE
OCATION OF PROJECT 925-947 West- cond frequency	PERMIT NUMBER 1104-04-0
Ceklend e.f.	WELL NUMBER
	APN
	PERMIT CONDITIONS
The state of the s	Circled Pennit Requirements Apply
LIENT	\sim
ame changend Mang Kom	GENERAL
ddress That Total All Mone 310 - 76.3 1865	1. A permit application should be submitted so as to
- T. 10131 , CI STOIL	arrive at the ACPWA office five days prior to proposed starting date.
PPLICANT	Sobmit to ACPWA within 60 days after completion of
me Agua Science Engine 13	permitted original Department of Water Resources.
Miess 268 W. E. P. Ande Phone 225 72 13 11, 203	Well Completion Report,
V Danville 61 20 945 Zd.	1. Permit is void if project not begun within 90 days of approval date
	B. WATER SUPPLY WELLS
YPE OF PROJECT	1. Minimum surface seat thickness is two inches of
	cement grout placed by tremie.
Vell Construction Georgial Investigation [achedic Protection [] General []	Minimum scal depth is 50 feet for municipal and Industrial wells or 20 feet for domestic and irrigation
Water Supply 0 Contamination [wells unless a lesser depth is specially approved
denitoring Well Destruction []	C. GROUNDWATER MONITORING WELLS
OPOSED WATER SUPPLY WELL USE	INCLUDING PIÈZOMETERS
New Domestic D Replacement Domestic D	1. Minimum surface seat thickness is two inches of
Municipal II lengation I	coment grout placed by tremie. 2. Minimum seal depth for monitoring wells is the
ladustrial 11 Other	maximum depth practicable of 20 feet
rulling method:	D. GEOTECHNICAL
Mud Rosary D Air Rosary B Ageer B	Back fill bore hole by tremie with cement grout or cement
Cable D Other D	groups and mixture. Upper two-three feet replaced in kind or with compacted outlings.
	E. CATHODIC
ULLER'S NAME VICES -X	Fill hole saide sone with concrete placed by tremie.
ILLER'S LICENSE NO. C-57 705927	F. WELL DESTRUCTION
	Send a map of work site. A separate permit is required
	of sexual conditions - M 1 1941
ELL PROJECTS Drill Hole Director 7 in Maximum	1,000 mg
Drill Hole Diameter in, Maximum Casing Diameter in, Depth	NOTE: One application must be submitted for each well or well
Surface Seal Deput 5 1 Owner's Well Number 1/21-2	destruction. Multiple borings on one application are account.
	for growthwest and contamination investigations.
TOTECHNICAL PROJECTS	
Number of Barings Maximum Hole Diameter in Death o	
	6 4 0
TIMATED STARTING DATE + 1/22 - 27 TIMATED COMPLETION DATE 9 2 2 2 2	[A T) [U/S.
TIMATED COMPLETION DATE 9-8:2	APPROVED DATE
	WAIC
errby agree to comply with all requirements of this permit and Alameda County Ord	dinance No. 73.68
PLICANT'S SIGNATURE BEAT CONTENT DATE 4	-5-416
DATE 7	-96-7
EASE PRINT NAME ROBERT E- KITAL REV.	.5-13-00
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PUBLIC WORKS

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ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
JOB ELMHURST ST. RAYWARD CA. 94544-1395
PHONE (\$10) 670-5554
FAX (\$10)782-1939

DRILLING PERA	MIT APPLICATION
FOR APPLICANT TO COMPLETE	FOR OFFICE USE
LOCATION OF PROJECT 925-949 West Grand Wenner	PERMITNUMBER WO4-043 1 WELL NUMBER APN
CLIENT	PERMIT CONDITIONS Citcled Permit Requirements Apply
Name Chang and Moung 16m Address Zack Island of Non- Phone 510-763-765 City Colcland Coff Zip 94612	1. A permit application should be submitted to ac to arrive at the ACPWA office five days prior to
APPLICANT Name Agua Science Fosione 3 Address 208 W. El Patrado Prope 225 720 7371 013	proposed fining date. 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resource's.
City Duny, 112 (A 20 94526	B. WATER SUPPLY WELLS
TYPE OF PROJECT Well Construction George Investigation Cathodic Protection B General D Water Supply B Contamication B Monitoring Well Despression B	1. Minimum surface scal thickness is two inches of cement grout placed by tremie. 2. Minimum seal depth is 50 feet for municipal and Industrial wells or 20 feet for domestic and irrigation wells unless a leaser depth is somestic and irrigation.
PROPUSED WATER SUPPLY WELL USE New Domestic	CROUNDWATER MONTORING WELLS INCLUDING PIEZOMETERS I. Minimum surface seat thickness is two inches of cement grout placed by tremic. 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
ORILLING METHOD: Nud Rotary D Air Rotary D Auger D Cable D Other D ORILLER'S NAME Vicen A	D. GEOTECHNICAL Backfill bore hole by tremit with coment grout or coment grouts and mixture. Upper two-three feet replaced in kind or with compacted eatings. E. CATHODIC
DRILLER'S LICENSE NO. C-57- 70592-7	Fill hale anode zone with concrete placed by tremie. F. WELL DESTRUCTION Send a map of work site. A senarate negoti is a different senarate negoti is a d
WELL PROJECTS Doill Hole Diameter	for wells deeper than 45 feet SECRAL-CONDITIONS NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
CEGTECHNICAL PROJECTS Number of Boringsin Drah	good and the control of the control
ESTIMATED STARTING DATE 4 21-04 ESTIMATED COMPLETION DATE 4 22-04	APPROVED DATE ANGUE
I hereby surce to comply with all requirements of this permit and Alameda County O	rdinance No. 73-68.
PLEASE PRINT NAME BOOK E- Kitay Re	v.5-13-00

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ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION 399 ELMHURST ST. HAYWARD CA, 94544-1195 PHONE (510) 670-5554 FAX (510)782-1939

DRILLING PERMI	TAPPLICATION
FOR APPLICANT TO COMPLETE LOCATION OF PROJECT 925-949 1234 (414) 10/2 11/2	FOR OFFICE USE PERMIT NUMBER WELL NUMBER
CLIENT NAME who was Algung Kong Address Fart belong onth Alm Phone SK - 76:3 1805 City Calchered Life 20 54612	PERMIT CONDITIONS Circled Permit Requirements Apply A. GENERAL. I. A permit application should be submitted to as to arrive at the ACPWA office five days prior to
Address Zer W. F. P. Janes Phone 125 72 127 1853 City Dany Har 127 20 2452	2. Submit to ACPWA within 60 days after completion of permitted beignal Department of Water Resources. Well Completion Report. 2. Pennit is void if project not begun within 90 days of approval date. B. WATER SUPPLY WELLS
Well Construction Cothodic Protection Water Supply Maniforing Well Destruction PROPOSED WATER SUPPLY WELL USE New Dumesuic Municipal Replacement Dumesuic Municipal	I. Minimum surface seal chickness is two incket of extending grout placed by termie. 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and imigation wells unless a lesser depth is specially approved. C. CROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
Industrial () Other ()	1. Minimum surface seel thickness is two inches on coment grout placed by tremle. 2. Minimum seet depth for monitoring wells is the maximum death practicable or 20 fea. D. COTECHNICAL Backfill bere hole by tremie with cement grout ancement grouvs and mixture. Upper two-three feet replaced in yind n
DRILLER'S LICENSE NO. C - 57 705927 WELL PROJECTS Drill Hale Diameter Casing Diameter Casing Diameter	E. CATHODIC Fill hole anode zone with concrete placed by trepaie. Send a map of work site. A separate permit is required for wells deeper than 45 feet. C. SPILLE CONDITIONS D. J.
Surface Seal Depth In Owner's Well Number GEOTECHNICAL PROJECTS Number of Barings Maximum Maximum	NOTE: One application must be submitted for each well or well destruction. Multiple beings on one application are acceptable for georechnical and contamination investigations.
ESTIMATED STARTING DATE 1.2. CY ESTIMATED COMPLETION DATE 2.2.	APPROVED DATE PIGOT
APPLICANT'S SIGNATURE Solver LE STATES DATE 4.5-0 REYS-13-00	× (() /



ALAMEDA COUNTY PUBLIC WORKS AGENCY WATER RESOURCES SECTION 399 ELMHURST ST. HAYWARD, CA. 94544-1395 PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

PERMIT NO. W04-0429-0431

WATER RESOURCES SECTION GROUNDWATER PROTECTION ORDINANCE MW#I-GENERAL CONDITIONS: MONITIORING WELL.

- 1. Prior to installation of any monitoring wells into any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
- The minimum surface seal thickness two inches of coment grout placed by tremie.
- 3. All monitoring wells shall have a minimum surface cement seal depth of five (5) feet or the maximum depth practicable or twenty (20) feet.
- 4. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
- 5. Permitte, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
- No changes in construction procedures or well type shall change, as described on this permit application. This permit
 may be voided if it contains incorrect information.
- 7. Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Permit is valid from April 21 to April 22, 2004. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
- 8. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including:
- 9. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA. 94544-1395
PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

PERMIT NO. W04-0432

WATER RESOURCES SECTION GROUNDWATER PROTECTION ORDINANCE B#1-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES

- Prior to any drilling activities shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Permitte, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
- Permit is valid only for the purpose specified herein April 21 to April 22, 2004. No changes in construction
 procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells,
 without a pennit application process.
- 5. Drilling Permit(s) can be voided/canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
- 6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • FAX (510) 238-2263

Job Site 949 W GRAND AV

Parcel# 005 -0411-001-04

Appl# X0402401

Descr 2(two) monitoring wells adjacent to above address with Permit Issued 08/04/04 approved ENMI(ready for recording)

Work Type EXCAVATION-PRIVATE P

USA #

Util Co. Job #

Acctg#:

Util Fund #:

Owner KIM MYUNG S

Applent

Phone#

Lic# --License Classes--

Agent

Contractor AQUA SCIENCE ENGINEERS, INC. X (925)820-9391 487000 A C57 Arch/Engr

Applic Addr 208 WEST EL PINTADO, DANVILLE, CA., 94526

\$297.21 TOTAL FEES PAID AT ISSUANCE \$54.00 Applic \$205.00 Permit

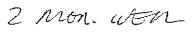
\$.00 Process

\$.00 Process \$24.61 Rec Mgmt \$.00 Gen Plan \$.00 Invstg

\$.00 Other

\$13.60 Tech Enh

JOB SITE





EXCAVATION PERMIT

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forms/ops/excavate.pg2 (04/98)

PAGE 2 of 2	XCAVATE IN STREET		ENGINEERIN
TAGE 2 01 2		Permit valid for 90 days from date	
PERMIT NUMBER X 0	402401	SITE ADDRESS/LOCATION 949 W GNAND A	/ or issuance.
APPROX. START DATE	APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)	,
CONTRACTOR'S LICENSE # AND ATTENTION:	CLASS 7000	CITY BUSINESS TAX #	
1- State law requires the secured an inquiry id 2- 48 hours prior	r to starting work, you MUS	Service Alert (USA) two working days before excavating. This permit is not valid unless SA telephone number is 1-800-642-2444. Underground Service Alert (USA) #	
Professions Code: The Contractor's Liprovided that such improvements are no burden of proving that he did not build I, as owner of the property, am exer be performed prior to sale, (3) I have restructures more than once during any th I, as owner of the property, am exel does not apply to an owner of property.	icense Law does not apply to an owner of his intended or offered for sale. If however, or improve for the purpose of sale), apt from the sale requirements of the about saided in the residence for the 12 months receyear period. (Sec. 7044 Business and	fors to construct the project, (Sec. 7044, Business and Professions Codes, The Codes	Sec. 7044, Business ough his own employees, uilder will have the ereto, (2) the work will ivision ou more than two
	Company Name _	te of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Lai shall not employ any person in any manner so as to become subject to the Worker'.	
erform the obligations with respect to st and employees, from and against any and ustained or arising in the construction of	to permittee shall be responsible for all ci feet maintenance. The permittee shall, an all suits, claims, or actions brought by a	hould become subject to the Worker's Compensation provisions of the Labor Code, is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Munical Additional Control of the Permit of Arising out of work performed under the permit or arising out of and by acceptance of the permit agrees to defend, indemnify, save and hold harmless may person for or on account of any bodily injuries, disease or illness or damage to go in consequence of permittee's failure to perform the obligations with respect to street the Director of the Office of Planning and Building.	cipal Code. It is f permittee's failure to
gnature of Permittee NA A	rovisions of Chapter 9 of Division 3 of the and that the above information is true and gent for Contractor Owner	8-4-04	actor), that I have read
ATE STREET LAST SI	PECIAL PAVING DETAIL HI EQUIRED7 G YES G NO (N	OLIDAY RESTRICTION? OLIDAY RESTRICTION? OVER UNO (7AM-9AM-& 4PM-6FM) ATE ISSUED	LYES □NO

Job Site 949 W GRAND AV

Parcel# 005 -0411-001-04

Appl# X0402400

Descr 1(one) soil boring adjacent to above address

Permit Issued 08/04/04

Work Type EXCAVATION-PRIVATE P

USA #

Util Co. Job #

Acctg#:

Util Fund #:

Applent

Phone#

Lic# --License Classes--

Owner KIM MYUNG S

Contractor AQUA SCIENCE ENGINEERS, INC. X (925)820-9391 487000 A C57

Agent

Applic Addr 208 WEST EL PINTADO, DANVILLE, CA., 94526

\$297.21 TOTAL FEES PAID AT ISSUANCE \$54.00 Applic \$205 00 0 \$.00 Proces

\$54.00 Applic \$205.00 Permit \$.00 Process \$24.61 Rec Mg \$24.61 Rec Mgmt \$.00 Invstg

\$.00 Gen Plan

\$.00 Other

\$13.60 Tech Enh



1 SOIL GONENE

EXCAVATION PERMIT TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PAGE 2 of 2

		Permit valid for 90 days from date of issuance.
PERMIT NUMBER X 0	402400	SITE ADDRESS/LOCATION
APPROX. START DATE		949 W. GRAND AV
ATTROX. START DATE	APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER
CONTENA CITORIO I VONVO		(Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AN	TO CLASS ()(9()	CITY BUSINESS TAX #
ATTENTION:	100	
1 - State law requires : secured an inquiry		Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has USA telephone number is 1-800-642-2444. Underground Service Alert (USA) #
2- 48 hours pri	or to starting work, you MU	ST CALL (510) 238-3651 to schedule an inspection.
3- 48 hours prid	or to re-paving, a compaction	n certificate is required (waived for approved slurry backfill).
OWNER/BUILDER		approved sidiry backlin).
	- -	ollowing reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to
☐ I, as owner of the property, am ex be performed prior to sale, (3) I have structures more than once during any ☐ I, as owner of the property, am ex does not apply to an owner of propert ☐ I am exempt under Sec.	d or improve for the purpose of sale), tempt from the sale requirements of the ab- resided in the residence for the 12 month three-year period. (Sec. 7044 Business an	ctors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's Linear L
WORKER'S COMPENSATION		
 I hereby affirm that I have a certifi 	cate of consent to self-insure, or a certific	cate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).
Policy #	Company Name	
□ I certify that in the performance of of California (not required for work va	the work for which this permit is issued, dued at one hundred dollars (\$100) or less	I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws
granted upon the express condition that perform the obligations with respect to and employees, from and against any a mustained or arising in the construction	the permittee shall be responsible for all street maintenance. The permittee shall, and all suits, claims, or actions brought by of the work performed under the	should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith nit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to aim by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This by the Director of the Office of Planning and Building.
bereby affirm that I am licensed under us permit and agree to its requirements	provisions of Chapter 9 of Division 3 of s, and that the above information is true a	f the Business and Professions Code and my license is in full force and effect (if contractor), that I have read and correct under penalty of law.
		8-9-04
era e raten van dilast das aut tation del 100 autori 100 de 100 a final de 100 a	Agent for Contractor Owner	Date
		HOLIDAY RESTRICTION? LIMITED: OPERATION AREA? (NOV-1-JAN-1): DYES: DNO: (7AM-9AM-&:4PM-6PM): DYES: DNO:
	,/11	S-4-0 F
. //		

CITY OF OAKLAND



250 FRANK H. OGAWA PLAZA, SUITE 2340 • OAKLAND, CALIFORNIA 94612-2031

Community and Economic Development Agency Building Services Division

(510) 238-3102 FAX (510) 238-2959 TDD (510) 238-6312

April 15, 2004

Myung Soon Kim 949 West Grand Avenue Oakland, CA 94607

RE: MINOR ENCROACHMENT PERMIT FOR 949 WEST GRAND AVENUE.

Dear Madam:

Enclosed is a Minor Encroachment Permit allowing you to encroach into the public right-of-way of Myrtle Street with two monitoring wells. Before the Minor Encroachment Permit will become effective, the persons having the legal authority to do so, must sign and properly notarize the document with a notary acknowledgement slip attached, and return to this office to the attention of Jing Wong for recordation.

If you have any questions, please call Jing Wong at 238-6314 any workday from 8:00 AM to 4:00 PM.

Sincerely,

DOMINIC MA

Supervising Civil Engineer

Recording Requested by: CITY OF OAKLAND

When Recorded Mail to:
City of Oakland
Community & Economic
Development Agency
Building Services Division,
Engineering Information
250 Frank H. Ogawa Plaza, 2nd Floor
Oakland, CA 94612

TAX ROLL PARCEL NUMBER (ASSESSOR'S REFERENCE NUMBER)

005	0411	001	04
MAP	BLOCK	PARCEL	SUB

Address: 949 West Grand Avenue

Space Above for Recorder's Use Only

MINOR ENCROACHMENT PERMIT AND AGREEMENT

Myung Soon Kim, owner of that certain property described in the Grant Deed recorded November 17, 2003, Series No. 2003678263, in the Office of the Recorder, Alameda County, California and commonly known as 949 West Grand Avenue and more particularly described in Exhibit 'A' attached hereto and made a part hereof, is hereby granted a Conditional Revocable Permit to encroach into the public right-of-way area of Myrtle Street with two monitoring wells. The location of said encroachment shall be as delineated in Exhibit 'B' attached hereto and made a part hereof.

The permittee agrees to comply with and be bound by the conditions for granting an Encroachment Permit attached hereto and made a part hereof.

This agreement shall be binding upon the undersigned, the present owner of the property described above, and his successor in interest thereof.

In witness whereof, I have set my signature this 13th day of wy, 2004.

Myung Soon Kim

Below for Official Use Only

CITY OF OAKLAND

Dated: July 13 2004

CALVIN N. WONG

Director of Building Services

For:

DEBORAH EDGERLY Interim City Manager

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

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Claire of Carry Torrux	
County of Jantyamis	w
on July 13 2004	H Ke W Al
Dare	before me, Name and Title of Officer (e.g., "Vane Doe, Notary Public")
personally appeared	148. Soon Kim
☐ personally known to me – OR – ☐ pr	oved to me on the basis of satisfactory evidence to be the person(s
·	whose harre(s) is/are subscribed to the within instrument
	and acknowledged to me that he/she/thou avantable
H. KENNETH AHN	same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s)
Office Notary Plints California	in the entity upon benefit of which the person(s) and
County & City of Sen Francisco My Comm. Expires April 11, 2008	executed the instrument.
	WITNESS my hand and official seal.
	(11/C) of A
7	- Cometition
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Signer(s) Other Than Named Above: Capacity(ies) Claimed by Signer Signer's Name:	Signer's Name: Individual Corporate Officer Title(s): Partner — Limited General Attorney-in-Fact Trustee Guardian or Conservator Gesigner Top of thumb here

,TO: ,

Myung Soon Kim

ADDRESS:

949 West Grand Avenue

Oakland, CA 94607

(APN: <u>005-0411-001-04</u>)

RE: Minor Encroachment Permit for installation of adjacent to 949 West Grand Avenue.

CONDITIONS FOR GRANTING A MINOR ENCROACHMENT PERMIT

two

monitoring

- 1. That this permit shall be revocable at the pleasure of the Director of Building Services.
- 2. That said permittee, by the acceptance, either expressed or implied, of the minor encroachment permit hereby disclaims any right, title, or interest in or to any portion of the public street area, and agrees that said temporary use of said area does not constitute an abandonment on the part of the City of Oakland of any of its rights for street purposes and otherwise.
- That said permittee shall maintain in force and effect at all times that said encroachment occupies said public area, good and sufficient public liability insurance in the amount of \$300,000 for each occurrence, and property damage insurance in the amount of \$50,000 for each occurrence, both including contractual liability, insuring the City of Oakland, its officers and employees against any and all claims arising out of the existence of said encroachment in said sidewalk area, as respects liabilities assumed under this permit, and that a certificate of such insurance and subsequent notices of the renewal thereof, shall be filed with the *Director of Building Services* of the City of Oakland, and that such certificate shall state that said insurance coverage shall not be canceled or be permitted to lapse without thirty (30) days written notice to said *Director of Building Services*. The permittee also agrees that the City may review the type and amount of insurance required of the permittee every five (5) years and may require the permittee to increase the amount of and/or change the type of insurance coverage required.
- 4. That said permittee, by the acceptance, either expressed or implied, of this revocable permit shall be solely and fully responsible for the repair or replacement of any portion or all of said improvements in the event that said improvements shall have failed or have been damaged to the extent of creating a menace or of becoming a hazard to the safety of the general public; and that the permittee shall be liable for the expenses connected therewith.
- 5. That said permittee is aware that the proposed work is out of the ordinary and does not comply with City standard installations. Permittee is also aware that the City has to conduct work in the public right-of-way which may include, but may not be limited to, excavation, trenching, and relocation of its facilities, all of which may damage encroachments. Permittee is further aware that the City takes no responsibility for repair or replacement of encroachments which are damaged by the City or its contractors. That the permittee, by the acceptance, either expressed or implied, of the encroachment permit hereby agrees that upon receipt of notification from the City, permittee shall immediately repair or replace within 30 days all damages to permittee's encroachments within the public right-of-way which are damaged by the City or its contractors in carrying out the City's work. Permittee agrees to employ interim measures required and approved by the City until repair or replacement work is completed.
- 6. That upon the termination of the permission herein granted, permittee shall immediately remove said encroachment from the street area, and any damage resulting therefrom shall be repaired to the satisfaction of the *Director of Building Services*.
- 7. That said permittee shall file with the City of Oakland for recordation a Minor Encroachment Permit and Agreement, and shall be bound by and comply with all the terms and conditions of said permit.

- 8. That said permittee shall obtain excavation permit(s) prior to construction and separate excavation permit(s prior to the removal of the monitoring wells.
- 9. That said permittee shall provide to the City of Oakland an AS BUILT plan showing the actual location o the monitoring wells. And the results of all data collected from the monitoring wells.
- 10. That said permittee shall remove the monitoring wells and repair any damage to the street area it accordance with City standards two (2) years after construction or as soon as monitoring is complete.
- 11. That said permittee shall notify the Community & Economic Development Agency, Building Services Division after the monitoring wells are removed and the street area restored to initiate the procedure to rescind the minor encroachment permit.
- 12. That the monitoring well covers installed within the sidewalk area shall have a skid-proof surface.
- 13. That the monitoring well castings and covers shall be iron and shall meet H-20 load rating. The cover shall be secured with a minimum of two stainless steel bolts. Bolts and cover shall be mounted flush with the surrounding surface. For sidewalk installations, a precast concrete utility box and non-skid cover may be needed in conjunction with the bolted cast iron cover with City approval.
- That said permittee acknowledges that the City makes no representations or warranties as to the conditions beneath said encroachment. By accepting this revocable permit, permittee agrees that it will use the encroachment area at its own risk, is responsible for the proper coordination of its activities with all other permittees, underground utilities, contractors, or workmen operating, within the encroachment area and for the safety of itself and any of its personnel in connection with its entry under this revocable permit.
- That said permittee acknowledges that the City is unaware of the existence of any hazardous substances 15. beneath the encroachment area, and permittee hereby waives and fully releases and forever discharges the City and its officers, directors, employees, agents, servants, representatives, assigns and successors from any and all claims, demands, liabilities, damages, actions, causes of action, penalties, fines, liens, judgements, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise out of or in any way connected with the physical condition or required remediation of the excavation area of any law or regulation applicable thereto, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601 et seq.), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 466 et seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401, 1450), the Hazardous Waste Control Law (California Health and Safety Code Sections 25100 et seq.), the Porter-Cologne Water Quality Control Act (California Health and Safety Code Section 13000 et seq.), the Hazardous Substance Account Act (California Health and Safety Code Sections 253000 et seq.), and the Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code Section 25249.5 et seq.).
- 16. That said permittee further acknowledges that it understands and agrees that it hereby expressly waives all rights and benefits which it now has or in the future may have, under and by virtue of the terms of California Civil Code Section 1542, which reads as follows: "A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR."
- 17. That said permittee recognizes that by waiving the provisions of this section, permittee will not be able to make any claims for damages that may exist, and to which, if known, would materially affect its decision to

agree to these encroachment terms and conditions, regardless of whether permittee's lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

- That said permittee, by the acceptance of this revocable permit, agrees and promises to indemnify, defend, and hold harmless the City of Oakland, its officers, agents, and employees, to the maximum extent permitted by law, from any and all claims, demands, liabilities damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs; collectively referred to as "claims", whether direct or indirect, known or unknown, foreseen or unforeseen, to the extent that such claims were either (1) caused by the permittee, its agents, employees, contractors or representatives, or, (2) in the case of environmental contamination, the claim is a result of environmental contamination that emanates or emanated from 949 West Grand Avenue, Oakland, California site, or was otherwise caused by the permittee, its agents, employees, contractors or representatives.
 - (b) That, if any contamination is discovered below or in the immediate vicinity of the encroachment, and the contaminants found are of the type used, housed, stored, processed or sold on or from 949 West Grand Avenue, Oakland, California site, such shall amount to a rebuttable presumption that the contamination below, or in the immediate vicinity of, the encroachment was caused by the permittee, its agents, employees, contractors or representatives.
 - (c) That said permittee shall comply with all applicable federal, state, county and local laws, rules, and regulations governing the installation, maintenance, operation and abatement of the encroachment.
- 19. That said permittee hereby does remise, release, and forever discharge, and agree to defend, indemnify, and save harmless, the City, its officers, agents and employees and each of them, from any and all actions, claims, and demands of whatsoever kind or nature, and any damage, loss or injury which may be sustained directly or by the undersigned and any other person or persons, and arising out of, or by reason of the occupation of said public property, and the future removal of the above-mentioned encroachment.
- 20. That the herein above conditions shall be binding upon the permittee and the successive owners and assigns thereof.
- 21. That said Minor Encroachment Permit and Agreement shall take effect when all the conditions hereinabove set forth shall have been complied with to the satisfaction of the *Director of Building Services*, and shall become null and void upon the failure of the permittee to comply with all conditions.

Legal Description Exhibit

City of Oakland

Parcel One:

Lots 1 to 29, inclusive, as said lots are shown on the Map of a "Resubdivision of a Portion of Block 616, Oakland, Alameda Co.. Cal." Filed May 30,1909, in Book 19 of Maps, Page 69, in the office of the county recorder of Alameda County, and a portion of Block 616, as said block is shown on Boardman's map of Oakland and vicinity, on file in the office of the county recorder of Alameda County, described as follows:

Beginning at the point of intersection of the southern line of West Grand Avenue, formerly 22nd Street, with the western line of market Street, as said streets are shown on the map firstly herein referred to; running thence North 75° west, along said line of West Grand Avenue, 250 feet to the eastern line of Myrtle Street, as said street is shown on said map; thence south 15° west along the last named line, 338.07 feet to the northern line of 21st Street, as said street is shown on said map; thence South 77°38' East along the last named line, 250.26 feet to said western line of Market Street; thence North 15°East along the last named line, 326.57 feet to the point of beginning.

Excepting there from, that portion thereof conveyed to the City of Oakland, in the deed dated January 14, 1960, recorded January 15, 1960, under recorder's series no. AR-5760, Alameda County Records.

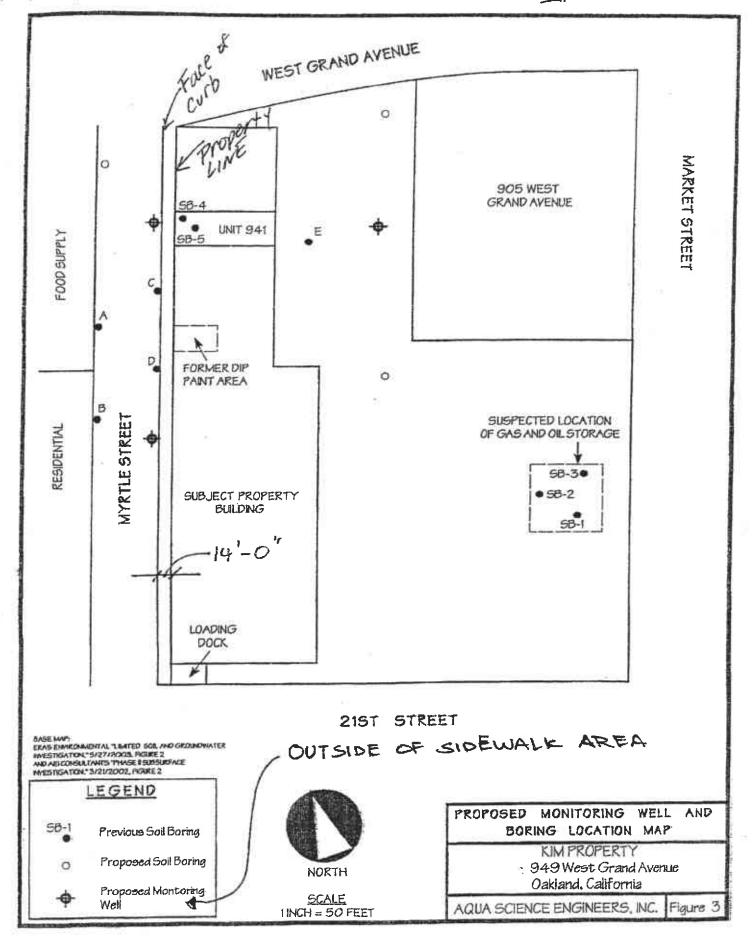
Also excepting there from, those portions thereof described in the deed from William H.Taylor to Gulf Oil Corporation of California, A Delaware Corporation, dated August 8, 1963, recorded December 2, 1963, on Reel 1059, Image 94 (Au-196899), Alameda County Records.

Parcel Two:

A portion of West Grand Avenue, formerly 22nd Street, adjacent to Lots 13, 14 and 15 in Block 616, as shown on the map of resubdivision of a portion of Block 616, filed May 31, 1906, in Book 19 of Maps, Page 69, in the office of the County Recorder of Alarneda County, described as follows:

Beginning at a point on the southern line of West Grand Avenue, formerly 22nd Street, distant thereon North 72°53'43" West, 125 feet from the intersection thereof with the western line of Market Street, as said streets are shown on said map; thence along the said line of West Grand Avenue, north 72°53'43" West, 58.04 feet to a point from which the center of a circle, having a radius of 745 feet, bears South 7°45' West; thence leaving said southern line of West Grand Avenue, on the circumference of said circle easterly, a distance of 58.53 feet to the westerly line of the land described as parcel 2 in the deed from William H. Taylor to Gulf Oil Corporation of California, dated August 8, 1963, recorded December 2, 1963, on reel 1059, Image 94 (AU-196899), Alameda County Records; and thence along the last named line, South 17°06'17" West, 7.23 feet to the point of beginning.

Assessor's parcel no. 005-0411-001-04



APPENDIX B

Boring Logs
And
Well Construction Details

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS SORING: BH-F Project Name: Kim Property Project Location: 925-949 West Grand Ave, Cakland, CA Page 1 of 1 Driller: Vironex Type of Rig: Geoprobe Size of Drill: 2.0" Diameter Logged By: Damian Hriciga Date Drilled: August 9, 2004 Checked By: Robert E. Kitay, R.G. F WATER AND WELL DATA Total Depth of Water in Well: 10.0" Statio Depth of Water in Well: 10.0" Well: Screen Stol Size: NA Total Depth of Boring: 15.0" Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler BORING LOG AND MONITORING WELL COMPLETED BORING LOG Water in Well: 10.0" BORING LOG AND MONITORING WELL COMPLETED BORING LOG AND MONITORING WELL COMP	SOU POPING LOG AND MOUNTS		
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Driller: Vironex Logged By: Damian Hriciga Date Drilled: August 9, 2004 Checked By: Robert E. Kitay, R.G. August 9, 2004 WATER AND WELL DATA Depth of Water First Encountered: 12.5' Well Screen Type and Diameter: NA Well Screen Stot Size: NA Total Depth of Boring: 15.0' Type and Size of Soil Sampler: 2.0' I.D. Macro Sampler DESCRIPTIONOF LITHOLOGY Standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. DESCRIPTION OF LITHOLOGY Asphalt Sity CLAY (CH); yellow brown; stiff, damp; 90% clay; 10% silt; trace gravel; moderate plasticity; very low estimated K; no odor Olive Sandy SILT (ML); olive; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor Sity SAND (SM); olive; medium dense; wet; 70% fine sand; 20% silt; 10% clay; non-plastic; medium estimated K; no odor End of Boring at 15'	Project Name: Kim Property	Project Locat	tion: 925-949 West Grand Ave, Oakland, CA Page 1 of 1
Logged By: Damian Hriciga Date Drilled: August 9, 2004 Total Depth of Well Completed: NA Well Screen Type and Diameter: NA Static Depth of Water in Well: 11.5' Well Screen Slot Size: NA Total Depth of Boring: 15.0' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation DESCRIPTION OF LITHOLOGY Sandy SILT (ML); vellow brown; stiff; damp; 90% clay; 10% clay; 10% clay; non-plastic; medium estimated K; no odor Sity SAND (SM); olive; medium dense; wet; 70% fine sand; 20% silt; 10% clay; trace gravel; non-plastic; high stimated K; sight hydrocarbon odor Sandy SILT (ML); light brown; stiff; damp; 80% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor End of Boring at 15'	Driller: Vironex	Type of Big: (Geoprobe Size of Dritl: 2.0" Diameter
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Depth of Water First Encountered: 12.5' Well Screen Type and Diameter: NA Well Screen Slot Size: NA Total Depth of Water in Well: 11.5' Total Depth of Boring: 15.0' SOILROCK SAMPLE DATA BORING DETAIL BORING DETAIL O O Asphalt Sitty CLAY (CH); yellow brown; stiff; damp; 80% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor Sitty SAND (SM); olive; medium dense; wet; 70% fine sand; 10% clay; non-plastic; medium estimated K; no odor Sandy SILT (ML): light brown; stiff; damp; 80% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor End of Boring at 15'			
Static Depth of Water in Well: 11.5' Total Depth of Boring: 15.0' BORING DETAIL BORING DETAIL Solid Boring: 15.0' SOIL/ROCK SAMPLE DATA For Standard Classification, texture, relative moisture density, stiffness, odor-staining, USCS designation Asphalt Sity CLAY (CH); yellow brown; stiff; damp; 90% clay 10% silt; trace gravel; moderate plasticity; very low estimated K; no odor Asphalt Sity CLAY (CH); yellow brown; stiff; damp; 90% clay 10% silt; trace gravel; moderate plasticity; very low estimated K; no odor Sandy SILT (ML); olive; medium dense; wet; 70% fine sand; 20% silt; 10% clay; trace gravel; moderate plastic; medium estimated K; no odor Sity SAND (SM); olive; medium dense; wet; 70% fine sand; 20% silt; 10% clay; trace gravel; non-plastic; medium estimated K; no odor Sity SAND (SM); olive; medium dense; wet; 70% fine sand; 20% silt; 10% clay; trace gravel; non-plastic; medium estimated K; no odor Sity SAND (SM); olive; medium dense; wet; 70% fine sand; 20% silt; 10% clay; trace gravel; non-plastic; medium estimated K; no odor End of Boring at 15'		:.5'	
Total Depth of Boring: 15.0' Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture density, stiffness, odor-staining, USCS designation Asphalt Silty CLAY (CH); yellow brown; stiff; damp; 90% clay 10% silt; trace gravel; moderate plasticity; very low estimated K; no odor Sandy SILT (ML); olive; medium dense; wet; 70% line sand; 10% clay; trace gravel; mon-plastic; medium estimated K no odor Silty SAND (SM); olive; medium dense; wet; 70% line sand; 20% silt; 10% clay; trace gravel; non-plastic; medium estimated K; no odor Sandy SILT (ML); light brown; stiff; damp; 60% silt; 30% fine sand; 10% clay; trace gravel; non-plastic; medium estimated K; no odor Sandy SILT (ML); light brown; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor Sandy SILT (ML); light brown; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor Sandy SILT (ML); light brown; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor Sandy SILT (ML); light brown; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor Sandy SILT (ML); light brown; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor End of Boring at 15'			
BORING DETAIL BORING			
BORING DETAIL Section	T 1 1200	SAMPLE DATA	
Silty CLAY (CH); yellow brown; stiff; damp; 90% clay 10% silt; trace gravel; moderate plasticity; very low estimated K; no odor O	× 1		T & DESCRIPTION OF LITHOLOGY
30	5 Portland Cement Portland Cement		Silty CLAY (CH); yellow brown; stiff; damp; 90% clay 10% silt; trace gravel; moderate plasticity; very low estimated K; no odor Sandy SILT (ML); olive; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K no odor Silty SAND (SM); olive; medium dense; wet; 70% fine sand; 20% silt; 10% clay; trace gravel; non-plastic; high estimated K; slight hydrocarbon odor Sandy SILT (ML); light brown; stiff; damp; 60% silt; 30% fine sand; 10% clay; non-plastic; medium estimated K; no odor End of Boring at 15'

SOIL BORING LOG AND MONIT	ODING WELL	COMPLETION DETAILS BORING: BH-H								
Driller: Vironex		on: 925-949 West Grand Ave, Oakland, CA Page 1 of 1								
	Type of Rig: G									
Logged By: Damian Hriciga	Date Drilled:	August 9, 2004 Checked By: Robert E. Kitay, R.G.								
WATER AND WELL DATA		Total Depth of Well Completed: NA								
Depth of Water First Encountered: 12	.5'	Well Screen Type and Diameter: NA								
Static Depth of Water in Well: 15.0'		Well Screen Slot Size: NA								
Total Depth of Boring: 20.0'		Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler								
	SAMPLE DATA	DESCRIPTION OF LITHOLOGY								
Depth in Fe Boulage Blow Counts Blow Counts	Water Level Graphic Log	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.								
De De De	Wate	0 0								
-10 -15		Asphalt Silty CLAY (CH); brown; stiff; damp; 80-90% clay; 10-20% silt; trace gravel; high plasticity; very low estimated K; no odor Silty SAND (SM); olive; medium dense; moist; 60% fine sand; 30% silt; 10% clay; non-plastic; medium estimated K; no odor Silty CLAY (CH); olive; stiff; damp; 90% clay; 10% silt; high plasticity; very low estimated K; no odor Silty SAND (SM); olive; medium dense; moist; 60% fine sand; 30% silt; 10% clay; non-plastic; medium estimated K; no odor End of Boring at 20'								
-50		- 30								
		aqua science engineers, inc.								

SOIL BORING LOG AND MONIT	FORING WELL	COMPLETION DETAILS Monitoring Well: MW-1						
Project Name: Kim Property	Project Location	on: 925-949 West Grand Ave, Oakland, CA Page 1 of 1						
Driller: Vironex	Type of Rig: H	Hollow-Stern Auger Size of Drill: 8.0" Diameter						
Logged By: Damian Hriciga	Date Drilled: A	August 9 and 10, 2004 Checked By: Robert E. Kitay, R.G.						
WATER AND WELL DATA		Total Depth of Well Completed: 20.0'						
Depth of Water First Encountered: 17	7.0'	Well Screen Type and Diameter: 2" Diameter PVC Casing						
Static Depth of Water in Well: 11.0'		Well Screen Slot Size: 0.020"						
Total Depth of Boring: 25.0'		Type and Size of Soil Sampler: 2.0" I.D. Macrocore						
	SAMPLE DATA	DESCRIPTION OF LITHOLOGY						
Depth in Fe Description Interval Blow Counts	Ovin (ppmv) Water Level Graphic Log	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.						
e Seal 2" ID Blank Sch 40 PVC Class "H" Portland Cement Ost School Company Com	7777	Silty CLAY (CH); dark gray; medium stiff; moist; 90% clay; 10% silt; high plasticity; very low estimated K; no odor yellow brown; 70% clay; 30% silt; trace gravel; moderate plasticity; low estimated K olive; 70% clay; 20% silt; 10% fine sand 90% clay; 10% silt; high plasticity; very low estimated K soft from 12' to 13' medium stiff; 70% clay; 20% silt; 10% fine sand; moderate plasticity; low estimated K Clayey GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% fine to medium sand; non-plastic; high estimated K; no odor Silty CLAY (CH); yellow brown; stiff; moist; 90% clay; 10% silt; high plasticity; very low estimated K; no odor 80% clay; 10% silt; 10% fine sand below 20.5' End of Boring at 25.0'						
aqua science engineers, inc.								

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Silty CLAY (CH); olive; stiff; damp; 80% clay; 20% silt; moderate plasticity; very low estimated K; strong hydrocarbon odor 70% clay; 20% silt; 10% gravel; low estimated K Clayey GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% fine to medium sand; non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 80% clay; 20% silt; moderate plasticity; very low estimated K Clayey GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% fine to medium sand; non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20%			
Driller: Vironex Logged By: Damian Hricigs Date Drilled: August 9 and 10, 2004 Checked By: Robert E. Kitay, R.G. X. WATER AND WELL DATA Depth of Water First Encountered: 11.0' Well Screen Type and Diameter: 2' Diameter PVC Casing Static Depth of Water in Well: 10.0' Total Depth of Boring: 15.0' Well Screen Slot Size: 0.020' Total Depth of Boring: 15.0' Type and Size of Soil Sampler: 2.0' I.D. Macrocore BORING DETAIL Soil Boring 15.0' Sing Boring Boring 15.0' Sing Boring Boring 15.0' Sing Boring Boring 15.0' Asphalt/Base CLAY (CH): olive; stiff; damp; 100% clay; 20% sit moderate plasticity; very low estimated K; strong hydrocarbon odor 70% clay; 20% silt; 10% gravel; low estimated K; strong hydrocarbon odor 70% clay; 20% silt; 10% gravel; low estimated K End of Boring at 15.0' End of Boring at 15.0'	SOIL BORING LOG AND MONITO	ORING WELL	COMPLETION DETAILS Monitoring Well: MW-2
Date Drilled: August 9 and 10, 2004 Checked By: Robert E: Kitay, R.C. Marter AND WELL DATA Depth of Water First Encountered: 11.0' Well Screen Type and Diameter: 2" Diameter PVC Casing Static Depth of Water in Well: 10.0' Well Screen Slot Size: 0.020" Total Depth of Boring: 15.0' Type and Size of Sol Sampler: 2.0' I.D. Macrocore BORING DETAIL SOLL/ROCK SAMPLE DATA Type and Size of Sol Sampler: 2.0' I.D. Macrocore BORING DETAIL SOLL/ROCK SAMPLE DATA Type and Size of Sol Sampler: 2.0' I.D. Macrocore DESCRIPTIONOF LITHOLOGY Standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; 20% sit moderate plasticity; very low estimated K Slight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity; very low estimated K Sight hydrocarbon odor Toward and plasticity Sight hydrocarbon odor Toward and plasticity Sight hydrocarbon odor Toward an	Project Name: Kim Property	Project Location	on: 925-949 West Grand Ave, Oakland, CA Page 1 of 1
Total Depth of Well Completed: 15.0' Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Slot Size: 0.020' Total Depth of Water in Well: 10.0' Total Depth of Boring: 15.0' Type and Size of Soil Sampler: 2.0' I.D. Macrocore DESCRIPTIONOF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Description of Well Completed: 15.0' Well Screen Slot Size: 0.020' Type and Size of Soil Sampler: 2.0' I.D. Macrocore DESCRIPTIONOF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Asphalt/Base CLAY (CH); olive; stiff, damp; 100% clay; 20% silt moderate plasticity; very low estimated K, stingni hydrocarbon odor Total Depth of Well Completed: 15.0' Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Type and Diameter. 2' Diameter PVC Casing Well Screen Type and Diameter. 2' Diameter PVC Casing DESCRIPTIONOF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Asphalt/Base CLAY (CH); olive; stiff, damp; 100% clay; 20% silt; moderate plasticity; very low estimated K strong hydrocarbon odor Total Depth of Well Completed: 15.0' Asphalt/Base CLAY (CH); olive; stiff, damp; 100% clay; 20% silt; 10% gravel; low estimated K strong hydrocarbon odor Total Depth of Well Completed: 15.0' Asphalt/Base CLAY (CH); olive; stiff, damp; 100% clay; 20% silt; 100% gravel; low estimated K strong hydrocarbon odor Total Depth of Well Completed: 10.0 Asphalt Size of Soil Sampler: 2.0' LAY (CH); olive; stiff, damp; 100% clay; 20% silt; 100% gravel; low estimated K strong hydrocarbon odor Total Depth of Well Completed: 10.0 Asphalt Size o	Driller: Vironex	Type of Rig: H	Hollow-Stem Auger Size of Drill: 8.0" Diameter
Depth of Water First Encountered: 11.0' Well Screen Type and Diameter: 2" Diameter PVC Casing Well Screen Stot Size: 0.020" Total Depth of Boring: 15.0' Type and Size of Soil Sampler: 2.0" 1.D. Macrocore Soil/PROCK SAMPLE DATA BORING DETAIL. DESCRIPTION OF LITHOLOGY standard classification, texture, relative molsture, density, stiffness, odor-staining, USCS designation. Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Sity CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high hydrocarbon odor Total Depth of Boring: 15.0' Total Depth of Boring: 1	Logged By: Damian Hriciga	Date Drilled: A	August 9 and 10, 2004 Checked By: Robert E. Kitay, R.G.
Static Depth of Water in Well: 10.0° Total Depth of Boring: 15.0° Total Depth of Boring: 15.0° BORING DETAIL BORING DETAIL STREET BOX DETAIL DESCRIPTION OF LITHOLOGY Street BOX Mulgar Boring Box	WATER AND WELL DATA		Total Depth of Well Completed: 15.0'
Total Depth of Boring: 15.0' Type and Size of Soil Sampler: 2.0" 1.D. Macrocore DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation. Asphalt/Base CLAY (CH); olive; stiff; damp; 100% clay; high plasticity; very low estimated K; strong hydrocarbon odor 70% clay; 20% silt; 10% gravel; low estimated K Clayer GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% silt; 10% gravel; low estimated K Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt moderate plasticity; very low estimated K Clayer GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% silt; 10% gravel; low estimated K Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10m gravel; low estimated K Clayer GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% silt; 10% gravel; low estimated K Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; moderate plasticity; tow estimated K End of Boring at 15.0'	Depth of Water First Encountered: 11.0	D'	Well Screen Type and Diameter: 2" Diameter PVC Casing
BORING DETAIL BORING	Static Depth of Water in Well: 10.0'		Well Screen Slot Size: 0.020"
BORNS DETAIL BO	Total Depth of Boring: 15.0'		Type and Size of Soil Sampler: 2.0" I.D. Macrocore
Stringt Borning DETAIL. Stringt Borning DETAIL. Stringt Borning D		T T	DESCRIPTION OF LITHOLOGY
CLAY (CH); olive; stiff; damp; 100% clay; high plasticity; very low estimated K; slight hydrocarbon odd Silty CLAY (CH); olive; stiff; damp; 80% clay; 20% silt; moderate plasticity; very low estimated K; strong hydrocarbon odor 70% clay; 20% silt; 10% gravel; low estimated K Clayey GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% fine to medium sand; non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K non-plastic; high estimated K; strong hydrocarbon odor silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; low estimated K; strong hydrocarbon odor silty CLAY (CH); olive; stiff; damp; 80% clay; 20% silt; 10% gravel; low estimated K; strong hydrocarbon odor silty CLAY (CH); olive; stiff; damp; 80% clay; 20% silt; 10% clay; 20% silt; 10% clay; 20% silt; 10% clay; 20% clay; 20% clay; 20% clay; 20%	Depth in F Descriptio Descriptio OVM (ppm)	Water Level Graphic Log	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
aqua science engineers, inc.	O.020" Slotted PVC Well Screen Bentonite Seal Class "H" Portland Cement Order State of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Portland Cement Order of the Screen Bentonite Seal Class "H" Botton Order of the Screen Bentonite Seal Class "H" Botton Order of the Screen Benton Order of the Screen Order o		CLAY (CH); olive; stiff; damp; 100% clay; high plasticity; very low estimated K; slight hydrocarbon odd Silty CLAY (CH); olive; stiff; damp; 80% clay; 20% silt; moderate plasticity; very low estimated K; strong hydrocarbon odor 70% clay; 20% silt; 10% gravel; low estimated K Clayey GRAVEL (GC); yellow brown; dense; wet; 60% gravel; 20% clay; 20% fine to medium sand; non-plastic; high estimated K; strong hydrocarbon odor Silty CLAY (CH); olive; stiff; damp; 70% clay; 20% silt; 10% gravel; moderate plasticity; low estimated K; no odor End of Boring at 15.0'
			aqua science engineers, inc.

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SOIL BORING LOG AND MONIT	ORING WELL	COMPLETION DETAILS Monitoring Well: MW-3				
Project Name: Kim Property	Project Locati	on: 925-949 West Grand Ave, Oakland, CA Page 1 of 1				
Driller: Vironex	Type of Rig: I	Hollow-Stem Auger Size of Drill: 8.0" Diameter				
Logged By: Damian Hriciga	Date Drilled: A	August 9 and 10, 2004 Checked By: Robert E. Kitay, R.G.				
WATER AND WELL DATA		Total Depth of Well Completed: 20.0'				
Depth of Water First Encountered: 18	l.5'	Well Screen Type and Diameter: 2" Diameter PVC Casing				
Static Depth of Water in Well: 10.0'		Well Screen Slot Size: 0.020*				
Total Depth of Boring: 20.0'		Type and Size of Soil Sampler: 2.0" I.D. Macrocore				
	SAMPLE DATA	DESCRIPTION OF LITHOLOGY				
Depth in Fe TIVE Description Interval Blow Counts	Water Level Graphic Log	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.				
I.D. 0.020" Slotted PVC Well Screen Bentonite Seal Class "H Portland Cement Only State of the control of the co		Silty CLAY (CH); olive; stiff; damp; 80% clay; 20% silt; moderate plasticity; very low estimated K; no odor yellow brown trace gravel below 5' olive Clayey GRAVEL (GC); yellow brown; dense; damp; 60% gravel; 20% clay; 20% fine to medium sand; non-plastic; high estimated K; no odor Silty CLAY (CH); yellow brown; stiff; damp; 80% clay; 20% silt; moderate plasticity; low estimated K; no odor Silty SAND (SP); brown; loose; wet; 70% fine sand; 30% silt; trace gravel; non-plastic; high estimated K; no odor End of Boring at 20.0'				
-30 2		- 30				
		aqua science engineers, inc.				

of 050

APPENDIX C

Well Sampling Field Log

Project Name and Address:	1/ 20
100 #: S1.2K	VC (VV)
Well Name: My	Date of sampling: 9/1/61/
Total depth of well (fact)	Sampled by:
Depth to water before sampling (fee Thickness of floating product if any	Well diameter (inches):
thickness of floating and the	
Depth of well and	
Depth of well casing in water (feet) Number of gallons per well casing Number of well casing volumes to	921
Number of well costs	volume (gallons): \5
Number of well casing volumes to Req'd volume of groundwater to be	purged before sampling (gallons): 4.5
Equipment need to	purged before sampling (!
TATIO L'VACUATION PAGGE, 17 %	
Approximate volume 6	Time Evacuation Finish to 18
and well but they.	
lime samples	THE NOW Many well
Percent recovery at time of sampling: Samples collected with	1425
	CER
partible colot.	
Description of sediment in sample:	Odor:
	SICI
CHEMICAL DATA	
Vylume Purged Temp pH	0
779 6	S (Conductivity
739 7	1085
30 725	747
$\frac{105}{72.0}$	1/45
SAMPLES COLLECTED	
- 0 2 2 2	
Sample # of containers Value a	
Sample # of containers Volume & type cont	ainer Pres Iced? Analysis
Muil 5 - Your W	t the Y

AGUA SCIENCE SEE ENGINEETS INC. WELL SAMPLING FIELD LOG

Project Name and Address:	$1/\sqrt{n}$
Job #:	V(1/1)
Well Name: Mw-7	Date of sampling: 904/64
Total depth of well (fact)	Sampled by:
Water before and 1:	Well diameter (inch.)
Depth of well casing in	any:
Number of callons are	eet):4.7.4
Number of well casing volumes	ng volume (gallons):
Number of well casing volumes Req'd volume of groundwater to	to be removed:
Equipment used to pure	be purged before sampling (-1)
Time Evacuation Began: 14.76	to be removed: 3 be purged before sampling (gallons): 2.(
approximate volume of and	Time Evacuation Finished:
Did the well go dry?:	P = 600.
unic Sambles with	* * * * * * * * * * * * * * * * * * *
Percent reacher at time of sampli	
Percent recovery at time of samples samples collected with	ling:
Samples collected with: SAMP	168
Description of sediment in sample	
r sediment in sample	The and 11
CHEMICAL DATA	
Vulume Purged Temp	- TV
774	Conductivity
75.5	9 116
71.6	704
74.1	7,49 - 478
73.9	771 -1090
73.6	1150
SAMPLES COLLECTED	4-02 1158
Sample # of containers Volume & type	Cootsis
4w-2 5 Volume & Type	container Pres Iced? Analysis
	voit Mil Y.

EEEE aqua science WELL SAMPLING FIELD LOG

Project Name and Address:	MM
Data	VCV
Well Name: Mu-3	of sampling: 9 (1/09
10tal depth of well (f.)	led by: DA
Depth 10 Water before	Well diameter (inches)?
Depth of well casing in water (feet): Number of gallons per well.	Asa
Number of gallons per well casing volumes to be re-	7,69
Number of well casing volumes to be re-	moved:
Equipment used groundwater to be purge	d before and
Req'd volume of groundwater to be re- Equipment used to purge the well: Approximate and	RATION (gallons): 48
"PF. VALUE VOIDES - F	Time Evacuation Finished: 1708
Approximate volume of groundwater pure	ged:i Finished: Nos
time samples were collected:	After how many gallong.
Depth to water at time of sampling: /	garions:
Percent recovery at time of sampling: 1 Samples collected with: Sample color: Red (a)	0.2(
Samples collected with:	():12
Sample color: BROWN	dor:
Description of sediment in sample:	Sign
CHEMICAL DATA	
5113	
Volume Purged	
Temp PH	Conductivity
778	1460
72.5	1155
<u></u> ,	1156
SAMPLES COLLECTED .	
Sample # of containers Volume & type container I	
160 mc 10 A	We leed? Analysis
	HCC

APPENDIX D

Survey Report



Mid Coast Engineers

Civil Engineers and Land Surveyors

70 Penny Lane, Suite A - Watsonville, CA 95076 phone: (831) 724-2580 fax: (831) 724-8025 e-mail: lee@midcoastengineers.com

Richard A. Wadsworth Civil Engineer Stanley O. Nielsen Land Surveyor

Lee D. Vaage

Land Surveyor

Jeff S. Nielsen
Land Surveyor

September 24, 2004

Robert Kitay AquaScience Engineers, Inc. 208 W. Pintado Road Danville, CA 94526

Re: Kim Property, 925-949 West Grand Avenue, Oakland, California; AquaScience Project, MCE Job No. 04181

Dear Mr. Kitay,

As you requested, on September 23 we surveyed three monitoring wells and three soil borings located at the referenced site. Our findings are shown on the attached sheets, expressed in State Plane Coordinates and Latitude/Longitude.

A notch was cut in the north rim of the PVC casing (TOC) and a cross chiseled in the north rim of the standard box (TOB).

Measurements were obtained from conventional survey techniques in combination with GPS techniques (Code CGPS), using control points #1034 and #1036 (H045), as shown on the map entitled "Record of Survey, Monumentation System for the Port of Oakland", R/S No. 990, filed in Book 18 of Survey, Pages 50-60, Alameda County Records. Latitude and Longitude as shown were determined from the California Coordinate System, Zone 3, NAD 83 Datum. The accuracy range of the reported information is +/- 1cm. GPS equipment is the Trimble 5700 system (Code T57).

The benchmark used for this survey is Control Point #1036 (H045), as listed in the above described map, a nail in concrete in monument box at Poplar Street and West Grand Avenue. Elevation = 10.039 feet, NAVD88.

Please let me know if you have questions or need additional information.

Yours truly,

Lee D. Vaage

No. 5029

No. 5029

Partition of California

KIM PROPERTY 925 - 949 WEST GRAND AVENUE OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS

Project: 04181

User name MCE Date & Time 9:34:00 AM 9/24/2004

Coordinate System US State Plane 1983 Zone California Zone 3 0403

Project Datum NAD 1983 (Conus)

Vertical Datum NAVD88

Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Name	Northing	Easting	Elevation	Description
16	2123770.89	6047540.89	15.12	MW-1toc
17	2123771.18	6047540.85	15.30	MW-1tob
14	2123891.29	6047577.63	14.42	MW-2toc
15	2123891.54	6047577.62	15.02	MW-2tob
8	2123859.36	6047690.42	15.20	MW-3toc
9	2123859.60	6047690.41	15.51	MW-3tob
13	2123922.18	6047555.38	14.78	SB-F
10	2123923.64	6047707.66	16.54	SB-G
7	2123794.38	6047684.76	15.99	SB-H
1003	2124629.21	6045465.49	10.039	GPS 1036

KIM PROPERTY 925 - 949 WEST GRAND AVENUE OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS

Project : 04181

User name MCE Date & Time 9:34:00 AM 9/24/2004

Coordinate System US State Plane 1983 Zone California Zone 3 0403

Project Datum NAD 1983 (Conus)

Vertical Datum NAVD88

Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Name	Latitude	Longitude	Elevation	Description
16	37.814065792°N	122.279893383°W	15.12	MW-1toc
17	37.814066566°N	122.279893525°W	15.30	MW-1tob
14	37.814398297°N	122.279774143°W	14.42	MW-2toc
15	37.814398978°N	122.279774183°W	15.02	MW-2tob
8	37.814316505°N	122.279381675°W	15.20	MW-3toc
9	37.814317169°N	122.2 7 938 1 714°W	15.51	MW-3tob
13	37.814481958°N	122.279853185°W	14.78	SB-F
10	37.814493924°N	122.279326216°W	16.54	SB-G
7	37.814137789°N	122.279396969°W	15.99	SB-H
1003	37.816313957°N	122.287133373°W	10.039	GPS 1036

	Α	В	С	D	Е	F	G	Н	$\overline{1}$	J	Īκ	1 1
1	KIM PROPER	ΤΥ				 	 		Ť		+	
2	925 - 949 WES	ST GRAN	D AVE	NUE			 		+			
3	OAKLAND, CA	ALIFORN	ΙA	T			 	-	+			
4							† -		+-			
5	AQUA SCIEN	CE ENGIN	VEERS	5			†	·	+		+	·
6							† 	 	-		+	
7	Project: 04181								\dagger		+	
8	User пате	MCE	Da	ate & Time	9:34:00 AM 9/2	4/2004	 		1		ļ <u></u>	
9	Coordinate	System	US SI	tate Plane 19	83 Zone	California Zone 3	0403				 	
10	Project Dat	um NA[1983	(Conus)	}		Ĭ.				1	T
11	Vertical Da	tum NA	VD88			-			\Box		<u> </u>	
12	Coordinate	Units U	S surv	ey feet							†	
13	Distance U		survey									
14	Elevation U	nits US	survey	feet							†	
15											<u>†</u>	
16	N	/IW-1	MW	09/23/2004	37.8140658	-122.2798934	CGPS	NAD83	1	Mid Coast Engineers	T57	top of casing
17	N	/IW-2	MVV	09/23/2004	37.8143983	-122.2797741	CGPS	NAD83		Mid Coast Engineers		top of casing
18		/IW-3	MW	09/23/2004	37.8143165	-122.2793817	CGPS	NAD83	-	Mid Coast Engineers		top of casing
19												
20	S	B-F	SB	09/23/2004	37.8144820	-122.2798532	CGPS	NAD83	1	Mid Coast Engineers	T57	ground
21	S	B-G	SB	09/23/2004	37.8144939	-122.2793262				Mid Coast Engineers		ground
22	S	B-H	SB	09/23/2004	37.8141378					Mid Coast Engineers		ground

	Α	В	С	D	ΤE] F	G	Н		 	T 1/2
1	KIM PROPER	TY				- `	<u> ~</u>	<u> </u>	<u> </u>	 _	K
2	925 - 949 WE	ST GRAND	AVENUE		<u>- -</u>		 -			ļ	
3	OAKLAND, C	ALIFORNIA	N .		 	+		†	 	 	
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7	Project: 04181	1			<u> </u>	1	ļ			 	
8	User name		Date & Tim		4:00 AN	v 9/2	4/20	04	<u> </u>		
9			JS State Plan	e 1983					ne 3 0403		
10			1983 (Conus)							 -	
11	Vertical Da	tum NAVE	288								
12			survey feet								
13	Distance U	nits US su	rvey feet				-				
14	Elevation U	nits US su	rvey feet								
15											
16		MW-1	09/23/2004	15.12	CGPS	88	0.5		Mid Coast Engineers		top of casing
17		MW-2	09/23/2004	14.42	CGPS	88	0.5		Mid Coast Engineers		top of casing
18		MW-3	09/23/2004	15.20	CGPS	88	0.5		Mid Coast Engineers		top of casing
19									11 = 1.3.1.3.10		top or obsing
20		SB-F	09/23/2004	14.78	CGPS	88	0.5		Mid Coast Engineers		ground
21		SB-G	09/23/2004	16.54	CGPS	88	0.5		Mid Coast Engineers		ground
22		SB-H	09/23/2004	15.99	CGPS	88	0.5		Mid Coast Engineers		ground

APPENDIX E

Analytical Results And Chain of Custody Documentation



Date: 8/20/2004

David Allen Aqua Science Engineers, Inc. 208 West El Pintado Rd. Danville, CA 94526

Subject: 6 Soil Samples and 3 Water Samples

Project Name: KIM Project Number:

Dear Mr. Allen,

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.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



KIM

Report Number: 39598

Date: 8/20/2004

Subject:

3 Water Samples and 21 Soil Samples

Project Name:

Project Number:

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for sample SB-F.

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples SB-G 9.5', SB-H 14.5', SB-G and SB-H. These hydrocarbons are higher-boiling than typical Diesel Fuel. Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for sample MW-2-9.5. These hydrocarbons are lower-boiling than typical Diesel Fuel.

The Method Reporting Limit for 1,1,2-Trichloroethane has been increased due to the presence of an interfering compound for sample MW-2 9.5'. The Method Reporting Limit for 1,1,2,2-Tetrachloroethane has been increased due to the presence of an interfering compound for sample MW-2 9.5'. The Method Reporting Limit for Chloromethane has been increased due to the presence of an interfering compound for sample SB-G. The Method Reporting Limit for Bromodichloromethane has been increased due to the presence of an interfering compound for samples MW-2 9.5', SB-F and SB-G. The Method Reporting Limit for Trichloroethene has been increased due to the presence of an interfering compound for samples MW-2 9.5' and SB-F.

Approved By

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

de Kiff



Date: 8/20/2004

Project Name: KIM

Project Number:

Sample: SB-F 9.5'

Matrix : Soil

Lab Number: 39598-02

Sample Date :8/9/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	8/19/2004
1-Chlorooctadecane (Silica Gel Surr)	99.6		% Recovery	M EPA 8015	8/19/2004

Sample: **SB-G 9.5**'

Matrix : Soil

Lab Number: 39598-04

Sample Date :8/9/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	3.9	1.0	mg/Kg	M EPA 8015	8/19/2004
1-Chlorooctadecane (Silica Gel Surr)	94.7		% Recovery	M EPA 8015	8/19/2004

Sample: SB-H 14.5'

Matrix: Soil

Lab Number: 39598-08

Sample Date :8/9/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	1.5	1.0	mg/Kg	M EPA 8015	8/19/2004
1-Chlorooctadecane (Silica Gel Surr)	102		% Recovery	M EPA 8015	8/19/2004

Approved By:



Date: 8/20/2004

Project Name :

KIM Project Number:

Sample: MW-1 14.0'

Matrix : Soil

Lab Number : 39598-12

Sample Date :8/9/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	8/19/2004
1-Chlorooctadecane (Silica Gel Surr)	95.7		% Recovery	M EPA 8015	8/19/2004

Sample: MW-2 9.5'

Matrix : Soil

Lab Number : 39598-16

Sample Date :8/9/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	430	10	mg/Kg	M EPA 8015	8/19/2004
1-Chlorooctadecane (Silica Gel Surr)	72.5		% Recovery	M EPA 8015	8/19/2004

Sample: MW-3 14 5'

Matrix : Soil

Lab Number: 39598-20

Sample Date :8/9/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	8/19/2004
1-Chlorooctadecane (Silica Gel Surr)	97.4		% Recovery	M EPA 8015	8/19/2004

Approved By:



Date: 8/20/2004

Project Name:

KIM

Project Number:

Sample: SB-F

Matrix: Water

Lab Number: 39598-22

Sample Date :8/9/2004

Measured Value Parameter 1000

Method Reporting Units Limit

Analysis Method

Date Analyzed

TPH as Diesel (Silica Gel)

< 1000

ug/L

M EPA 8015

8/18/2004

Sample: SB-G

Parameter

Matrix: Water

Lab Number: 39598-23

Sample Date :8/9/2004

Measured Value

Method Reporting Units Limit 500

Analysis Method

Date Analyzed

TPH as Diesel (Silica Gel)

4900

ug/L

M EPA 8015

8/19/2004

Sample: SB-H

Matrix: Water

Lab Number: 39598-24

Sample Date :8/9/2004

Parameter TPH as Diesel (Silica Gel)

Method Reporting Measured Value Limit

Units

Analysis Method

Date Analyzed

M EPA 8015 8/18/2004 390 50 ug/L

Approved By:



Date: 8/20/2004

Sample: SB-F 9.5'

Project Name: KIM

Project Number:

Lab Number : 39598-02

Date Analyzed: 8/13/2004

Matrix : Soil

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measure Value	d 1 MRL	Units
Benzene	< 0.0050	0.0050	mg/Kg
Toluene	< 0.0050	0.0050	mg/Kg
Ethylbenzene	< 0.0050	0.0050	mg/Kg
Total Xylenes	< 0.0050	0.0050	mg/Kg
Methyl-t-butyl ether (MTBE)	- 0.0050	0.0050	
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg
Tert-amyl methyl ether (TAME)	< 0.0050	0,0050	mg/Kg
Tert-Butanol	< 0.0050	0.0050	mg/Kg
reit-Butanoi	< 0.0050	0.0050	mg/Kg
TPH as Gasoline	< 1.0	1.0	mg/Kg
Chloromethane	< 0.0050	0.0050	mg/Kg
Vinyl Chloride	< 0.0050	0.0050	mg/Kg
Bromomethane	< 0.020	0.020	mg/Kg
Chloroethane	< 0.0050	0.0050	mg/Kg
Trichiorofluoromethane	< 0.0050	0.0050	mg/Kg
1,1-Dichloroethene	< 0.0050	0.0050	mg/Kg
Methylene Chloride	< 0.0050	0.0050	mg/Kg
trans-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg
1,1-Dichloroethane	< 0.0050	0.0050	mg/Kg
cis-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg
Chloroform	< 0.0050	0.0050	mg/Kg
1,1,1-Trichloroethane	< 0.0050	0.0050	mg/Kg
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg
Carbon Tetrachloride	< 0.0050	0.0050	mg/Kg
Trichloroethene	< 0.0050	0.0050	mg/Kg
1,2-Dichloropropane	< 0.0050	0.0050	mg/Kg
Bromodichloromethane	< 0.0050	0.0050	mg/Kg
cis-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg
trans-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg
1,1,2-Trichloroethane	< 0.0050	0,0050	mg/Kg
Tetrachloroethene	< 0.0050	0.0050	mg/Kg
Dibromochloromethane	< 0.0050	0.0050	mg/Kg
Chlorobenzene	< 0.0050	0.0050	mg/Kg
Bromoform	< 0.0050	0.0050	mg/Kg
1,1,2,2-Tetrachloroethane	< 0.0050	0.0050	mg/Kg
1,3-Dichlorobenzene	< 0.0050	0.0050	mg/Kg

Parameter	Measured Value	l 1 MRL	Units
1,4-Dichlorobenzene			
1,4-Dichlotopenzene	< 0.0050	0.0050	mg/Kg
1,2-Dichlorobenzene	< 0.0050	0.0050	mg/Kg
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg
Toluene - d8 (Surr)	95.8		% Recovery
4-Bromofluorobenzene (Surr)	97.5		% Recovery
Dibromofluoromethane (Surr)	100		% Recovery
1,2-Dichloroethane-d4 (Surr)	104		% Recovery

1) MRL = Method reporting limit

Approved By:



Date: 8/20/2004

Sample: **SB-G 9.5**'
Project Name: **KIM**

Project Number :

Lab Number : 39598-04

Date Analyzed: 8/13/2004

Matrix : Soil

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measure Value	d 1 MRL	Units	Parameter	Measure Value	ed 1 MRL	Units
Benzene	< 0.0050	0.0050	mg/Kg	1,4-Dichlorobenzene	< 0.0050	0.0050	mg/Kg
Toluene	< 0.0050	0.0050	mg/Kg	1,2-Dichiorobenzene	< 0.0050	0.0050	mg/Kg
Ethylbenzene	< 0.0050	0.0050	mg/Kg	1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg
Total Xylenes	< 0,0050	0.0050	mg/Kg				
				Toluene - d8 (Surr)	105		% Recovery
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	4-Bromofluorobenzene (Surr)	9 9.1		% Recovery
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	Dibromofluoromethane (Surr)	99.0		% Recovery
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	1,2-Dichloroethane-d4 (Surr)	100		% Recover
Tert-amyl methyl ether (TAME)	< 0.0050	0,0050	mg/Kg				
Tert-Butanol	< 0.0050	0.0050	mg/Kg				
TPH as Gasoline	< 1.0	1.0	mg/Kg				
Chloromethane	< 0.0050	0.0050	mg/Kg				
Vinyl Chloride	< 0.0050	0.0050	mg/Kg				
Bromomethane	< 0.020	0.020	mg/Kg				
Chloroethane	< 0.0050	0.0050	mg/Kg				
Trichlorofluoromethane	< 0.0050	0.0050	mg/Kg				
1,1-Dichloroethene	< 0.0050	0.0050	mg/Kg				
Methylene Chloride	< 0.0050	0.0050	mg/Kg				
trans-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg				
1,1-Dichloroethane	< 0.0050	0.0050	mg/Kg				
cis-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg				
Chloroform	< 0.0050	0.0050	mg/Kg				
1,1,1-Trichloroethane	< 0.0050	0.0050	mg/Kg				
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg				
Carbon Tetrachloride	< 0.0050	0.0050	mg/Kg				
Trichloroethene	< 0.0050	0.0050	mg/Kg				
1,2-Dichloropropane	< 0.0050	0.0050	mg/Kg				
Bromodichloromethane	< 0.0050	0.0050	mg/Kg				
cis-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg				
trans-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg				
1,1,2-Trichloroethane	< 0.0050	0.0050	mg/Kg				
Tetrachloroethene	< 0.0050	0.0050	mg/Kg				
Dibromochloromethane	< 0.0050	0.0050	mg/Kg				
Chlorobenzene	< 0.0050	0.0050	mg/Kg				
Bromoform	< 0.0050	0.0050	mg/Kg	•			
1,1,2,2-Tetrachloroethane	< 0.0050	0.0050	mg/Kg				
1,3-Dichlorobenzene	< 0.0050	0.0050	mg/Kg				

1) MRL = Method reporting limit

Approved By:

Joel Kiff



Units

mg/Kg

mg/Kg

mg/Kg

% Recovery % Recovery % Recovery % Recovery

Date: 8/20/2004

Sample: **SB-H 14.5'**Project Name: **KIM**

Project Number:

Lab Number: 39598-08

Date Analyzed: 8/13/2004

Matrix : Soil

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measure Value	d 1 MRL	Units	Parameter	Measure Value	ed 1 MRL
Benzene	< 0.0050	0.0050	mg/Kg	1,4-Dichlorobenzene	< 0.0050	0.0050
Toluene	< 0.0050	0.0050	mg/Kg	1,2-Dichlorobenzene	< 0.0050	0.0050
Ethylbenzene	< 0.0050	0.0050	mg/Kg	1,2-Dibromoethane	< 0.0050	0.0050
Total Xylenes	< 0.0050	0.0050	mg/Kg			
				Toluene - d8 (Surr)	105	
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	4-Bromofluorobenzene (Surr)	100	
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	Dibromofluoromethane (Surr)	99.9	
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	1,2-Dichloroethane-d4 (Surr)	96.6	
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg			
Tert-Butanol	< 0.0050	0.0050	mg/Kg			
TPH as Gasoline	< 1.0	1.0	mg/Kg			
Chloromethane	< 0.0050	0,0050	mg/Kg			
Vinyl Chloride	< 0.0050	0,0050	mg/Kg			
Bromomethane	< 0.020	0.020	mg/Kg			
Chloroethane	< 0.0050	0.0050	mg/Kg			
Trichlorofluoromethane	< 0.0050	0.0050	mg/Kg			
1,1-Dichloroethene	< 0.0050	0.0050	mg/Kg			
Methylene Chloride	< 0.0050	0.0050	mg/Kg			
trans-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg			
1,1-Dichloroethane	< 0.0050	0.0050	mg/Kg			
cis-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg			
Chloroform	< 0.0050	0.0050	mg/Kg			
1,1,1-Trichloroethane	< 0.0050	0.0050	mg/Kg			
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg			
Carbon Tetrachloride	< 0.0050	0.0050	mg/Kg			
Trichloroethene	< 0.0050	0.0050	mg/Kg			
1,2-Dichloropropane	< 0.0050	0.0050	mg/Kg			
Bromodichloromethane	< 0.0050	0.0050	mg/Kg			
cis-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg			
trans-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg			
1,1,2-Trichloroethane	< 0.0050	0.0050	mg/Kg			
Tetrachloroethene	< 0.0050	0.0050	mg/Kg			
Dibromochloromethane	< 0.0050	0.0050	mg/Kg			
Chlorobenzene	< 0.0050	0.0050	mg/Kg			
Bromoform	< 0.0050	0.0050	mg/Kg			
1,1,2,2-Tetrachloroethane	< 0.0050	0.0050	mg/Kg			
1,3-Dichlorobenzene	< 0.0050	0,0050	mg/Kg			

1) MRL = Method reporting limit

Approved By:

Joel Kiff



Date: 8/20/2004

Project Name: KIM

Project Number :

Lab Number : 39598-12

Date Analyzed: 8/13/2004

Matrix : Soil

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measure Value	ed 1 MRL	Linita	Darameter
Benzene			Units	Parameter 1.4 Dichlershorzens
Toluene	< 0.0050	0.0050	mg/Kg	1,4-Dichlorobenzene
Ethylbenzene	< 0.0050	0.0050	mg/Kg	1,2-Dichlorobenzene
•	< 0.0050	0.0050	mg/Kg	1,2-Dibromoethane
Total Xylenes	< 0.0050	0.0050	mg/Kg	Toluene - d8 (Surr)
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	4-Bromofluorobenzer
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	Dibromofluoromethar
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	1,2-Dichloroethane-d
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	. 12 2.0.000000.0000
Tert-Butanol	< 0.0050	0.0050	mg/Kg	
TPH as Gasoline	< 1.0	1.0	mg/Kg	
Chloromethane	< 0.0050	0.0050	malVa	
Vinyl Chloride	< 0.0050	0.0050	mg/Kg mg/Kg	
Bromomethane	< 0.020	0.020	mg/Kg mg/Kg	
Chloroethane	< 0.0050	0.0050	mg/Kg	
Trichlorofluoromethane	< 0.0050	0,0050	mg/Kg	
1,1-Dichloroethene	< 0.0050	0.0050	mg/Kg	
Methylene Chloride	< 0.0050	0.0050	mg/Kg	
trans-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg	
1 1-Dichloroethane	< 0,0050	0.0050	mg/Kg	
cis-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg	
Chloroform	< 0.0050	0.0050	mg/Kg	
1,1,1-Trichloroethane	< 0.0050	0.0050	mg/Kg	
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	
Carbon Tetrachloride	< 0.0050	0.0050	mg/Kg	
Trichloroethene	< 0.0050	0.0050	mg/Kg	
1,2-Dichloropropane	< 0.0050	0.0050	mg/Kg	
Bromodichloromethane	< 0.0050	0.0050	mg/Kg	
cis-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg	
trans-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg	
1,1,2-Trichloroethane	< 0.0050	0.0050	mg/Kg	
Tetrachloroethene	< 0.0050	0.0050	mg/Kg	
Dibromochloromethane	< 0.0050	0.0050	mg/Kg	
Chlorobenzene	< 0.0050	0.0050	mg/Kg	
Bromoform	< 0.0050	0.0050	mg/Kg	
1,1,2,2-Tetrachloroethane	< 0.0050	0.0050	mg/Kg	
1,3-Dichlorobenzene	< 0.0050	0.0050	mg/Kg	

Parameter	Measure Value	d 1 MRL	Units
1,4-Dichlorobenzene	< 0.0050	0.0050	mg/Kg
1,2-Dichlorobenzene	< 0.0050	0.0050	mg/Kg
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg
Toluene - d8 (Surr)	106		% Recovery
4-Bromofluorobenzene (Surr)	99.2		% Recovery
Dibromofluoromethane (Surr)	101		% Recovery
1,2-Dichloroethane-d4 (Surr)	103		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



Date: 8/20/2004

Sample: MW-2 9.5'
Project Name: KIM

Project Number:

Lab Number : 39598-16

Date Analyzed: 8/13/2004, 8/14/2004

Matrix : Soil

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measur Value	ed 1 MRL	Units	Parame
Benzene	0.73	0.025	mg/Kg	1,4-Dichl
Toluene	0.091	0.025	mg/Kg	1,2-Dichi
Ethylbenzene	16	0.025	mg/Kg	1,2-Dibro
Total Xylenes	45	1.0	mg/Kg	
				Toluene -
Methyl-t-butyl ether (MTBE)	< 0.025	0.025	mg/Kg	4-Bromot
Diisopropyl ether (DIPE)	< 0.025	0.025	mg/Kg	Dibromof
Ethyl-t-butyl ether (ETBE)	< 0.025	0.025	mg/Kg	1,2-Dicht
Tert-amyl methyl ether (TAME)	< 0.025	0.025	mg/Kg	
Tert-Butanol	< 0.25	0.25	mg/Kg	
TPH as Gasoline	1000	50	mg/Kg	
Chloromethane	< 0.025	0.025	mg/Kg	
Vinyl Chloride	< 0.025	0.025	mg/Kg	
Bromomethane	< 0.040	0.040	mg/Kg	
Chloroethane	< 0.025	0.025	mg/Kg	
Trichlorofluoromethane	< 0.025	0.025	mg/Kg	
1,1-Dichloroethene	< 0.025	0.025	mg/Kg	
Methylene Chloride	< 0.050	0.050	mg/Kg	
trans-1,2-Dichloroethene	< 0.025	0.025	mg/Kg	
1,1-Dichloroethane	< 0.025	0.025	mg/Kg	
cis-1,2-Dichloroethene	0.027	0.025	mg/Kg	
Chloroform	< 0.025	0.025	mg/Kg	
1,1,1-Trichloroethane	< 0.025	0.025	mg/Kg	
1,2-Dichloroethane	< 0.025	0.025	mg/Kg	
Carbon Tetrachloride	< 0.025	0.025	mg/Kg	
Trichloroethene	< 0.080	080.0	mg/Kg	
1,2-Dichloropropane	< 0.025	0.025	mg/Kg	
Bromodichloromethane	< 0.20	0.20	mg/Kg	
cis-1,3-Dichtoropropene	< 0.025	0.025	mg/Kg	
trans-1,3-Dichloropropene	< 0.025	0.025	mg/Kg	
1,1,2-Trichloroethane	< 0.20	0.20	mg/Kg	
Tetrachloroethene	< 0.025	0.025	mg/Kg	
Dibromochloromethane	< 0.025	0.025	mg/Kg	
Chlorobenzene	< 0.025	0.025	mg/Kg	
Bromoform	< 0.025	0.025	mg/Kg	
1,1,2,2-Tetrachloroethane	< 0.080	0,080	mg/Kg	
1,3-Dichlorobenzene	< 0.025	0.025	mg/Kg	

Parameter	Measure Value	ed 1 MRL	Units
1,4-Dichlorobenzene	< 0,025	0.025	mg/Kg
1,2-Dichlorobenzene	< 0.025	0.025	mg/Kg
1,2-Dibromoethane	< 0.025	0.025	mg/ Kg
Toluene - d8 (Surr)	95.2		% Recovery
4-Bromofluorobenzene (Surr)	101		% Recovery
Dibromofluoromethane (Surr)	88.5		% Recovery
1,2-Dichloroethane-d4 (Surr)	85.1		% Recovery

1) MRL = Method reporting limit

Approved By:

Voel Hiff



Date: 8/20/2004

Sample: MW-3 14 5'
Project Name: KIM

Project Number :

Lab Number : 39598-20

Date Analyzed: 8/18/2004

Matrix: Soil

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measure Value	d 1 MRL	Units
Benzene	< 0.0050	0.0050	mg/Kg
Toluene	< 0.0050	0.0050	mg/Kg
Ethylbenzene	< 0.0050	0.0050	mg/Kg
Total Xylenes	< 0.0050	0.0050	mg/Kg
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	na or lbf or
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg
Tert-Butanol	< 0.0050	0.0050	mg/Kg
reit Batarior	~ 0.0030	0.0030	mg/Kg
TPH as Gasoline	< 1,0	1.0	mg/Kg
Chloromethane	< 0.0050	0.0050	mg/Kg
Vinyl Chloride	< 0.0050	0,0050	mg/Kg
Bromomethane	< 0.020	0.020	mg/Kg
Chloroethane	< 0.0050	0.0050	mg/Kg
Trichlorofluoromethane	< 0.0050	0.0050	mg/Kg
1,1-Dichloroethene	< 0.0050	0.0050	mg/Kg
Methylene Chloride	< 0.0050	0.0050	mg/Kg
trans-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg
1,1-Dichloroethane	< 0.0050	0,0050	mg/Kg
cis-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg
Chloroform	< 0.0050	0.0050	mg/Kg
1,1,1-Trichloroethane	< 0.0050	0.0050	mg/Kg
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg
Carbon Tetrachloride	< 0.0050	0.0050	mg/Kg
Trichloroethene	< 0.0050	0.0050	mg/Kg
1,2-Dichloropropane	< 0.0050	0.0050	mg/Kg
Bromodichloromethane	< 0.0050	0.0050	mg/Kg
cis-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg
trans-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg
1,1,2-Trichloroethane	< 0.0050	0.0050	mg/Kg
Tetrachloroethene	< 0.0050	0.0050	mg/Kg
Dibromochloromethane	< 0.0050	0.0050	mg/Kg
Chlorobenzene	< 0.0050	0,0050	mg/Kg
Bromoform	< 0.0050	0.0050	mg/Kg
1,1,2,2-Tetrachloroethane	< 0.0050	0.0050	mg/Kg
1,3-Dichlorobenzene	< 0.0050	0.0050	mg/Kg

Parameter	Measured Value	l 1 MRL	Units
1,4-Dichlorobenzene	< 0.0050	0.0050	mg/Kg
1,2-Dichlorobenzene	< 0.0050	0.0050	mg/Kg
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg
Toluene - d8 (Surr)	109		% Recovery
4-Bromofluorobenzene (Surr)	96.7		% Recovery
Dibromofluoromethane (Surr)	99.3		% Recovery
1,2-Dichloroethane-d4 (Surr)	101		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



Units ug/L ug/L ug/L

% Recovery % Recovery % Recovery % Recovery

Date: 8/20/2004

Sample: SB-F

Project Name:

KIM

Project Number:

Lab Number : 39598-22

Date Analyzed: 8/15/2004

Matrix: Water

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measur Value	Measured 1 Value MRL Units		Parameter	Measured Value M		
Benzene	2.1	1.0	ug/L	1,4-Dichlorobenzene	< 1.0	1.0	
Toluene	2.0	1.0	ug/L	1,2-Dichlorobenzene	< 1.0	1.0	
Ethylbenzene	1.4	1.0	ug/L	1,2-Dibromoethane	< 1.0	1.0	
Total Xylenes	3.6	1.0	ug/L				
				Toluene - d8 (Surr)	93,0		
Methyl-t-butyl ether (MTBE)	16	1.0	ug/L	4-Bromofluorobenzene (Surr)	102		
Diisopropyl ether (DIPE)	< 1.0	1.0	ug/L	Dibromofluoromethane (Surr)	88.3		
Ethyl-t-butyl ether (ETBE)	< 1.0	1.0	ug/L	1,2-Dichloroethane-d4 (Surr)	90.1		
Tert-amyl methyl ether (TAME)	< 1.0	1.0	ug/L				
Tert-Butanol	< 10	10	ug/L				
TPH as Gasoline	5000	100	ug/L				
Chioromethane	< 1.0	1.0	ug/L				
Vinyl Chloride	< 1.0	1.0	ug/L				
Bromomethane	< 50	50	ug/L				
Chloroethane	< 1.0	1.0	ug/L		•		
Trichlorofluoromethane	< 1.0	1.0	ug/L				
1,1-Dichloroethene	< 1.0	1.0	ug/L				
Methylene Chloride	< 10	10	ug/L				
trans-1,2-Dichtoroethene	< 1.0	1.0	ug/L				
1,1-Dichloroethane	< 1.0	1.0	ug/L				
cis-1,2-Dichloroethene	< 1.0	1.0	ug/L				
Chloroform	< 1.0	1.0	ug/L				
1,1,1-Trichloroethane	< 1.0	1.0	ug/L				
1,2-Dichloroethane	< 1.0	1.0	ug/L				
Carbon Tetrachloride	< 1.0	1.0	ug/L				
Trichloroethene	< 5.0	5.0	ug/L				
1,2-Dichloropropane	< 1.0	1.0	ug/L				
Bromodichloromethane	< 5.0	5.0	ug/L				
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L				
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L				
1,1,2-Trichloroethane	< 1.0	1.0	ug/L				
Tetrachloroethene	< 1.0	1.0	ug/L				
Dibromochloromethane	< 1.0	1.0	ug/L				
Chlorobenzene	< 1.0	1.0	ug/L	•			
Bromoform	< 1.0	1.0	ug/L ug/L				
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/L ug/L				
1,3-Dichlorobenzene	< 1.0	1.0	-				
1,0-010HOLODONECHE	~ I.U	1.0	ug/L				

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



Date: 8/20/2004

Sample: SB-G

Project Name :

KIM

Project Number:

Lab Number : 39598-23

Date Analyzed: 8/16/2004

Matrix: Water

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measur Value	ed 1 MRL	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	0.72	0,50	ug/L
Methyl-t-butyl ether (MTBE)	32	0.50	ua/l
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L ug/L
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L ug/L
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L ug/L
Tert-Butanol	< 5.0	5.0	ug/L ug/L
	- 0.0	5.0	ugru
TPH as Gasoline	1200	50	ug/L
Chloromethane	< 0.80	0.80	ug/L
Vinyl Chloride	4.6	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	5.8	0.50	ug/L
1,1-Dichloroethaпе	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	60	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	0.95	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	6.2	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.80	0.80	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
			-

Parameter	Measur Value	ed 1 MRL	Units
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L
Toluene - d8 (Surr)	100		% Recovery
4-Bromofluorobenzene (Surr)	91.5		% Recovery
Dibromofluoromethane (Surr)	99.2		% Recovery
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery

1) MRL = Method reporting limit

Approved By:



Sample: SB-H

Project Name: KIM

Project Number :

Lab Niverber

Date: 8/20/2004

Report Number: 39598

.........

Lab Number : 39598-24

Date Analyzed : 8/15/2004

Matrix: Water

Sample Date :8/9/2004

Analysis Method: EPA 8260B

Parameter	Measur Value	ed 1 MRL	Units	Parameter
Benzene	< 0.50	0.50	ug/L	1,4-Dichlorobenzene
Toluene	< 0.50	0.50	ug/L	1,2-Dichlorobenzene
Ethylbenzene	< 0.50	0.50	ug/L	1,2-Dibromoethane
Total Xylenes	< 0.50	0.50	ug/L	
				Toluene - d8 (Surr)
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	4-Bromofluorobenzene (Surr)
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	Dibromofluoromethane (Surr)
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	1,2-Dichloroethane-d4 (Surr)
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	
Tert-Butanol	< 5.0	5.0	ug/L	
TPH as Gasoline	< 50	50	ug/L	
Chloromethane	< 0.50	0.50	ug/L	
Vinyl Chloride	< 0.50	0.50	ug/L	
Bromomethane	< 20	20	ug/L	
Chloroethane	< 0.50	0.50	ug/L	
Trichlorofluoromethane	< 0.50	0.50	ug/L	
1,1-Dichtoroethene	< 0.50	0.50	ug/L	
Methylene Chloride	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L	•
1,1-Dichloroethane	< 0.50	0.50	ug/L	
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L	
Chloroform	< 0.50	0.50	ug/L	
1,1,1-Trichloroethane	< 0.50	0.50	ug/L	
1,2-Dichloroethane	< 0.50	0.50	ug/L	
Carbon Tetrachloride	< 0.50	0.50	ug/L	
Trichtoroethene	< 0.50	0.50	ug/L	
1,2-Dichloropropane	< 0.50	0.50	ug/L	
Bromodichloromethane	< 0.50	0.50	ug/L	
cis-1,3-Dichloropropene	< 0.50	0,50	ug/L	
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L	
1,1,2-Trichloroethane	< 0.50	0.50	ug/L	
Tetrachloroethene	< 0.50	0.50	ug/L	
Dibromoch/oromethane	< 0.50	0.50	ug/L	
Chlorobeлzene	< 0.50	0.50	ug/L	
Bromoform	< 0.50	0.50	ug/L	
I,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L	
1,3-Dichlorobenzene	< 0.50	0.50	ug/L ug/L	
. 1	~ U.UU	V .50	ug/L	

Parameter	Measur Value	ed 1 MRL	Units
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L
Toluene - d8 (Surr)	105		% Recovery
4-Bromofluorobenzene (Surr)	100		% Recovery
Dibromofluoromethane (Surr)	102		% Recovery
1,2-Dichloroethane-d4 (Surr)	98.7		% Recovery

1) MRL = Method reporting limit

Approved By:

Joel Kiff

Date: 8/20/2004

QC Report : Method Blank Data

Project Name: KIM

Project Number:

	Measured	Method Reportir	~~	Amaluaia	Date			Method			.
Parameter	Value	Limit	Units	Analysis Method	Analyzed	Parameter	Measured Value	Reporti Limit	пд Units	Analysis Method	Date Analvzed
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	8/19/2004	1,1,2-Trichlorgethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
1-Chlorocctadecane (Silica Gel Surr)	101		%	M EPA 8015	8/19/2004	Tetrachloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
(,.		0.10.200.	Dibromochloromethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	8/17/2004	Chlorabenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
, ,			-5-			Bromoform	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,1,2,2-Tetrachloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,3-Dichlorobenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,4-Dichlorobenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,2-Dichlorobenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Toluene - d8 (Surr)	102		%	EPA 8260B	8/13/2004
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	4-Bromofluorobenzene (Surr)	97.5		%	EPA 8260B	8/13/2004
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Dibromofluoromethane (Surr)	111		%	EPA 8260B	8/13/2004
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,2-Dichloroethane-d4 (Surr)	98.9		%	EPA 8260B	8/13/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	8/13/2004						
						Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	B/17/2004
Chloromethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Toluen e	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
Vinyl Chloride	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
Bromomethane	< 0.020	0.020	mg/Kg	EPA 8260B	8/13/2004	Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
Chloroethane Trichtorofluoromethane	< 0.0050 < 0.0050	0.0050 0.0050	mg/Kg	EPA 8260B	8/13/2004 B/43/2004	Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
1,1-Dichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B EPA 8260B	8/13/2004 8/13/2004	Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
Methylene Chloride	< 0.0050	0.0050	mg/Kg mg/Kg	EPA 8260B	8/13/2004	Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
trans-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
1,1-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Tert-Bulanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
cis-1.2-Dichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	8/17/2004
Chloroform	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Chloromethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
1.1.1-Trichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Vinyl Chloride	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
1.2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Bromomethane	< 0.020	0.020	mg/Kg	EPA 8260B	8/17/2004
Carbon Tetrachloride	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Chloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
Trichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Trichlorofluoromethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
1,2-Dichloropropane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,1-Dichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
Bromodichloromethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	Methylene Chloride	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
cis-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg	EPA 82608	8/13/2004	trans-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004
trans-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/13/2004	1,1-Dichloroethane	< 0.0050	0.0050	_mg/Kg	EPA 8260B	8/17/2004

KIFF ANALYTICAL, LLC

Date: 8/20/2004

QC Report : Method Blank Data

Project Name: KIM

Project Number:

	Measured	Method Reportin	ng.	Analysis	Date		Measured	Method		0	Data
Parameter	Value	Limit	Units	Method	Anaiyzed	Parameter	Weasured Value	Reporti Limit	ng Units	Analysis Method	Date Analyzed
cis-1,2-Dichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Chloroform	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,1,1-Trichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Carbon Tetrachloride	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Trichloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Diisapropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,2-Dichloropropane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Bromodichloromethane	< 0.0050	0.0050	mg/Kg	EPA 82608	8/17/2004	Tert-arryl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
cis-1,3-Dichloropropene	< 0.0060	0.0050	mg/Kg	EPA 8260B	8/17/2004	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	8/14/2004
trans-1,3-Dichloropropene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/14/2004
1,1,2-Trichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004				-		
Tetrachloroethene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Chloromethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Dibromochloromethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Vinyl Chloride	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Chlorobenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Bromomethane	< 20	20	ug/L	EPA 8260B	8/14/2004
Bromoform	< 0.0050	0.0050	mg/Kg	EPA 8260B	B/17/2004	Chloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,1,2,2-Tetrachloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Trichlorofluoromethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,3-Dichlorobenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	1,1-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,4-Dichlorobenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	Methylene Chloride	< 5.0	5.0	ug/L	EPA 8260B	8/14/2004
1,2-Dichlorobenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	trans-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	B/14/2004
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	8/17/2004	1,1-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Toluene - d8 (Surr)	93.6		%	EPA 8260B	8/17/2004	cis-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	8/17/2004	Chloroform	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Dibromofluoromethane (Surr)	97.0		%	EPA 8260B	8/17/2004	1,1,1-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	8/17/2004	1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
,,a a.sa a., (a,	,,,,		, ,	2, 1102000	0/11/2007	Carbon Tetrachloride	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
						Trichloroethene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
						1,2-Dichloropropane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
						Bromodichloromethane	< 0.50	0.50	цg/L	EPA 8260B	8/14/2004
						cis-1,3-Dichloropropene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
						trans-1,3-Dichloropropene	< 0.50	0.50	ug/L	EPA 82608	8/14/2004
						1,1,2-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
						Tetrachloroethene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004

Approved By:

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EPA 8260B 8/14/2004

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Dibromochloromethane

1,1,2,2-Tetrachloroethane

Chlorobenzene

Bromoform

Date: 8/20/2004

QC Report : Method Blank Data

Project Name: KIM

Project Number:

	Measured	Method Report	-	Analysis	Date
Parameter	Value	Limit	Units	Method	Analyzed
1,3-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,4-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,2-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	8/14/2004
Toluene - d8 (Surr)	106		%	EPA 8260B	8/14/2004
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	8/14/2004
Dibromofluoromethane (Surr)	100		%	EPA 8260B	8/14/2004
1,2-Dichloroethane-d4 (Surr)	97.7		%	EPA 8260B	8/14/2004
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	8/16/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/16/2004
Chloromethane	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Vinyl Chloride	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Bromomethane	< 20	20	ug/L	EPA 8260B	8/16/2004
Chloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Trichlorofluoromethane	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,1-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Methylene Chloride	< 5.0	5.0	ug/L	EPA 8260B	8/16/2004
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,1-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Chloroform	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,1,1-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Carbon Tetrachloride	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Trichlaraethene	< 0.50	0.50	ug/L	EPA 8260B	8/16/2004

Parameter		Measured Value	Method Reportin Limit	g Units	Analysis Method	Date Analyzed
1,2-Dichloropropane		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Bromodichloromethane		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
cis-1,3-Dichloropropene		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
trans-1,3-Dichtoropropene		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,1,2-Trichloroethane		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Tetrachloroethene		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Dibromochloromethane		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Chlorobenzene		< 0.50	0.50	ug/L	EPA 82608	8/16/2004
Bromoform		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,1,2,2-Tetrachloroethane		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,3-Dichlorobenzene		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,4-Dichlorabenzene		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,2-Dichlorobenzene		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
1,2-Dibromoethane		< 0.50	0.50	ug/L	EPA 8260B	8/16/2004
Toluene - d8 (Surr)		99.8		%	EPA 8260B	8/16/2004
4-Bromofluorobenzene (Surr)		92.2		%	EPA 8260B	8/16/2004
Dibromofluoromethane (Surr)		97.3		%	EPA 8260B	8/16/2004
1,2-Dichloroethane-d4 (Surr)		99.8		%	EPA 8260B	8/16/2004

KIFF ANALYTICAL, LLC

Date: 8/20/2004

Project Name: KIM

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Number:

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.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	39598-08	<1.0	20.0	20.0	16.5	16.5	mg/Kg	M EPA 8015	8/19/04	82.6	82.7	0.172	60-140	25
TPH as Diesel	Blank	<50	1000	1000	945	994	ug/L	M EPA 8015	8/17/04	94.5	99.4	5.00	70-130	25
Benzene	39598-02	<0.0050	0.0399	0.0399	0.0371	0.0375		EPA 8260B	8/13/04	93.0	93.9	0.967	70-130	25
Toluene	39598-02	<0.0050	0.0399	0.0399	0.0362	0.0361	mg/Kg	EPA 8260B	8/13/04	90.6	90.4	0.214	70-130	25
Tert-Butanol	39598-02	<0.0050	0.200	0.200	0.171	0.163	mg/Kg	EPA 8260B	8/13/04	85.8	81.7	4.88	70-130	25
Methyl-t-Butyl Ethe	er 39598-02	<0.0050	0.0399	0.0399	0.0347	0.0349	mg/Kg	EPA 8260B	8/13/04	87.0	87.4	0.484	70-130	25
Benzene	39620-05	<0.0050	0.0371	0.0372	0.0374	0.0372	mg/Kg	EPA 8260B	8/17/04	101	99.9	0.995	70-130	25
Toluene	39620-05	<0.0050	0.0371	0.0372	0.0349	0.0353	mg/Kg	EPA 8260B	8/17/04	94.0	94.9	0.896	70-130	25
Tert-Butanol	39620-05	<0.0050	0.186	0.186	0.166	0.171	mg/Kg	EPA 8260B	8/17/04	89.3	91.9	2.91	70-130	25
Methyl-t-Butyl Ethe	er 39620-05	<0.0050	0.0371	0.0372	0.0322	0.0331	mg/Kg	EPA 8260B	8/17/04	86.8	89.0	2.48	70-130	25
Benzene	39598-23	<0.50	40.0	38.9	44.9	43.2	ug/L	EPA 8260B	8/15/04	112	111	1.07	70-130	25
Toluene	39598-23	<0.50	40.0	38.9	45.5	43.4	ug/L	EPA 8260B	8/15/04	114	111	2.09	70-130	25
Tert-Butanol	39598-23	<5.0	200	194	212	206	ug/L	EPA 8260B	8/15/04	106	106	0.0619	70-130	25
Methyl-t-Butyl Ethe	er 39598-23	22	40.0	38.9	61.0	59.9	ug/L	EPA 8260B	8/15/04	96.3	96.0	0.342	70-130	25
Benzene	39632-01	<0.50	40.0	40.0	40.7	40.0	ug/L	EPA 8260B	8/16/04	102	100	1.63	70-130	25
Toluene	39632-01	<0.50	40.0	40.0	40.9	39.6	ug/L	EPA 8260B	8/16/04	102	98.9	3.30	70-130	25
Tert-Butanol	39632-01	<5.0	200	200	205	212	ug/L	EPA 8260B	8/16/04	102	106	3.44	70-130	25

Approved By:

KIFF ANALYTICAL, LLC

Date: 8/20/2004

Project Name: KIM

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Number:

Spiked Parameter Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Percent	Duplicat Spiked Sample Percent Recov.	Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Methyl-t-Butyl Ether 39632-01	1.6	40.0	40.0	42.3	41.3	ug/L	EPA 8260B	8/16/04	102	99.2	2.50	70-130	25

KIFF ANALYTICAL, LLC

Date: 8/20/2004

QC Report : Laboratory Control Sample (LCS)

Project Name: KIM

Project Number:

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	8/19/04	86.8	70-130
Donzono	V U3U4		EDA 00000	0/40/04	00.7	70.400
Benzene	0.0399	mg/Kg	EPA 8260B	8/13/04	99.7	70-130
Toluene	0.0399	mg/Kg	EPA 8260B	8/13/04	95.3	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	8/13/04	90.9	70-130
Methyl-t-Butyl Ether	0.0399	mg/Kg	EPA 8260B	8/13/04	91.5	70-130
Benzene	0.0400	mg/Kg	EPA 8260B	8/17/04	97.2	70-130
Toluene	0.0400	mg/Kg	EPA 8260B	8/17/04	90.8	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	8/17/04	87.8	70-130
Methyl-t-Butyl Ether	0.0400	mg/Kg	EPA 8260B	8/17/04	87.1	70-130
		0 0				
Benzene	40.0	ug/L	EPA 8260B	8/14/04	112	70-130
Toluene	40.0	ug/L	EPA 8260B	8/14/04	115	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/14/04	107	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/14/04	80.1	70-130
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Benzene	40.0	ug/L	EPA 8260B	8/16/04	102	70-130
Toluene	40.0	ug/L	EPA 8260B	8/16/04	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/16/04	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/16/04	106	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joe Kiff

KIFF

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SPECIAL INSTR						TPH-DESEL MSURA LEC (EPA 3510/8015) CESTUR	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	PURGEABLE HALOCARBONS (BPA 601/8010)	(EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE 2 2 (EPA 5520) 2	LUFT METALS (5) (EPA 6010+7000)	(EPA 6010+7000)		ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	TPH-G/BTEX/5 OXY'S/TE FPA 8260)	D	HOD	
SAMPLE ID.	8/4/04	1430	MATRIX W	SAMPLES 5	TPH-(EPA	X	TPH-1 (EPA	PURG (EPA	VOLA (EPA	SEMI (EPA	OIL & (EPA	LUFT (EPA	CAM	PCB, (EPA	ORG PES EPA	FUEL (EPA	Pb ((EP?	X TPH-	LEAD	·	23 24
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Date: 9/21/2004

Damian Hriciga Aqua Science Engineers, Inc. 208 West El Pintado Rd. Danville, CA 94526

Subject: 3 Water Samples Project Name: KIM Project Number:

Dear Mr. Hriciga,

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.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Date: 9/21/2004

Subject:

3 Water Samples

KIM

Project Name:

Project Number:

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for sample MW-2.

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples MW-1 and MW-3. These hydrocarbons are higher boiling than typical diesel fuel.

The Method Reporting Limit for Chloromethane has been increased due to the presence of an interfering compound for sample MW-3.

The Method Reporting Limit for Bromodichloromethane has been increased due to the presence of an interfering compound for sample MW-2.

Approved By:

00 ,



Date: 9/21/2004

Project Name: KIM

Project Number:

Sample : MW-1

Matrix: Water

Lab Number: 40135-01

Sample Date :9/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	150	50	ug/L	M EPA 8015	9/17/2004
Octacosane (Diesel Surrogate)	111		% Recovery	M EPA 8015	9/17/2004

Sample: MW-2

Matrix: Water

Lab Number: 40135-02

Sample Date :9/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1000	1000	ug/L	M EPA 8015	9/16/2004
Octacosane (Diesel Surrogate)	117		% Recovery	M EPA 8015	9/16/2004

Sample: MW-3

Matrix: Water

Lab Number: 40135-03

Sample Date :9/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	100	50	ug/L	M EPA 8015	9/17/2004
Octacosane (Diesel Surrogate)	105		% Recovery	M EPA 8015	9/17/2004

Approved By:



Date: 9/21/2004

Sample: MW-1

Project Name :

KIM

Project Number:

Lab Number : 40135-01

Date Analyzed: 9/20/2004

Matrix: Water

Sample Date :9/14/2004

Analysis Method: EPA 8260B

Parameter	Measured 1 Value MRL Units		
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L
Methyl-t-butyl ether (MTBE)	0.89	0.50	ug/L
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L
Tert-Butanol	< 5.0	5.0	ug/L
TPH as Gasoline	< 50	50	ug/L
Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	< 0.50	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichlaropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
	- 0.00	0.30	ug/L

Parameter	Measur Value	ed 1 MRL	Units
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L
Toluene - d8 (Surr)	99.4		% Recovery
4-Bromofluorobenzene (Surr)	94.0		% Recovery
Dibromofluoromethane (Surr)	105		% Recovery
1,2-Dichloroethane-d4 (Surr)	106		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



Sample: MW-2

Project Name: KIM

Project Number:

Lab Number : 40135-02

Date Analyzed: 9/20/2004

Matrix: Water

Sample Date :9/14/2004

Analysis Method: EPA 8260B

	Measured 1		
Parameter	Measui Value	red 1 MRL	Units
Benzene	56	1.5	ug/L
Toluene	2.6	1.5	ug/L
Ethylbenzene	87	1.5	ug/L
Total Xylenes	190	1.5	ug/L
			~g, L
Methyl-t-butyl ether (MTBE)	15	1.5	ug/L
Diisopropyl ether (DIPE)	< 1.5	1.5	ug/L
Ethyl-t-butyl ether (ETBE)	< 1.5	1.5	ug/L
Tert-amyl methyl ether (TAME)	< 1.5	1.5	ug/L
Tert-Butanol	< 7.0	7.0	ug/L
TD11			
TPH as Gasoline	6100	150	ug/L
Chloromethane	< 1.5	1.5	
Vinyl Chloride	< 1.5	1.5	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 1.5	1.5	ug/L
Trichlorofluoromethane	< 1.5	1.5	ug/L
1,1-Dichloroethene	< 1.5	1.5	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 1.5	1.5	ug/L
1,1-Dichloroethane	< 1.5	1.5	ug/L
cis-1,2-Dichloroethene	1.5	1.5	ug/L
Chloroform	< 1.5	1.5	ug/L ug/L
1,1,1-Trichloroethane	< 1.5	1.5	ug/L
1,2-Dichloroethane	< 1.5	1.5	ug/L
Carbon Tetrachloride	< 1.5	1.5	ug/L
Trichloroethene	< 1.5	1.5	ug/L ug/L
1,2-Dichloropropane	< 1,5	1.5	ug/L
Bromodichloromethane	< 5.0	5.0	ug/L
cis-1,3-Dichtoropropene	< 1.5	1,5	ug/L
trans-1,3-Dichloropropene	< 1.5	1.5	ug/L
1,1,2-Trichloroethane	< 1.5	1.5	ug/L
Tetrachloroethene	< 1.5	1.5	ug/L
Dibromochloromethane	< 1.5	1.5	ug/L ug/L
Chlorobenzene	< 1.5	1.5	ug/L
Bromoform	< 1.5	1.5	ug/L
1,1,2,2-Tetrachloroethane	< 1.5	1.5	ug/L ug/L
1,3-Dichlorobenzene	< 1.5	1.5	_
	- 1.0	1.0	ug/L

Parameter	Measured Value	d 1 MRL	Units
1,4-Dichlorobenzene	< 1.5	1.5	ug/L
1,2-Dichlorobenzene	< 1.5	1.5	ug/L
1,2-Dibromoethane	< 1.5	1.5	ug/L
Toluene - d8 (Surr)	88.4		% Recovery
4-Bromofluorobenzene (Surr)	100		% Recovery
Dibromofluoromethane (Surr)	101		% Recovery
1,2-Dichloroethane-d4 (Surr)	101		% Recovery

Report Number: 40135

Date: 9/21/2004

1) MRL = Method reporting limit

Approved By:



Date: 9/21/2004

Sample: MW-3

Project Name:

KIM

Project Number:

Lab Number : 40135-03

Date Analyzed: 9/20/2004

Matrix: Water

Sample Date :9/14/2004

Analysis Method: EPA 8260B

Benzene < C Toluene < C Ethylbenzene < C Total Xylenes < C Methyl-t-butyl ether (MTBE)	0.50 0. 0.50 0. 0.50 0.	.50 ug. 50 ug. 50 ug. 50 ug.	/L 1,2-C /L 1,2-C
Ethylbenzene Total Xylenes Methyl-t-butyl ether (MTBE) Diisopropyl ether (DIPE) Ethyl-t-butyl ether (ETBE) Tert-amyl methyl ether (TAME) Tert-Butanol TPH as Gasoline Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene	0.50 0. 0.50 0.	50 ug. 50 ug. 50 ug.	/L 1,2-C /L 1,2-C
Total Xylenes < C Methyl-t-butyl ether (MTBE)	0.50 0. 0.	50 ug.	/L 1,2-D
Methyl-t-butyl ether (MTBE) 5.8 Diisopropyl ether (DIPE) < 0 Ethyl-t-butyl ether (ETBE) < 0 Tert-arryl methyl ether (TAME) < 0 Tert-Butanol < 5 TPH as Gasoline < 5 Chloromethane < 0 Vinyl Chloride	0.	50 ug.	
Diisopropyl ether (DIPE) < 0 Ethyl-t-butyl ether (ETBE) < 0 Tert-amyl methyl ether (TAME) < 0 Tert-Butanol < 5 TPH as Gasoline < 5 Chloromethane < 0 Vinyl Chloride			/L
Diisopropyl ether (DIPE) < 0 Ethyl-t-butyl ether (ETBE) < 0 Tert-arryl methyl ether (TAME) < 0 Tert-Butanol < 5 TPH as Gasoline < 5 Chloromethane < 0 Vinyl Chloride		E0	Tolue
Ethyl-t-butyl ether (ETBE) < 0 Tert-arryl methyl ether (TAME) < 0 Tert-Butanol < 5 TPH as Gasoline < 5 Chloromethane < 0 Vinyl Chloride	.30 0.		
Tert-arriyi methyl ether (TAME) < 0 Tert-Butanol < 5 TPH as Gasoline < 5 Chloromethane < 0 Vinyl Chloride < 0 Bromomethane < 2 Chloroethane < 0 Trichlorofluoromethane < 0 1,1-Dichloroethene < 0	E0 0		
Tert-Butanol < 5 TPH as Gasoline < 5 Chloromethane < 0 Vinyl Chloride < 0 Bromomethane < 2 Chloroethane < 0 Trichlorofluoromethane < 0 1,1-Dichloroethene < 0		50 ug/	
TPH as Gasoline <5 Chloromethane <0 Vinyl Chloride <0 Bromomethane <2 Chloroethane <0 Trichlorofluoromethane <0 1,1-Dichloroethene <0		50 ug/	
Chloromethane < 0 Vinyl Chloride < 0 Bromomethane < 2 Chloroethane < 0 Trichlorofluoromethane < 0 1,1-Dichloroethene < 0	i.0 5,0	0 ug/	<u>'</u> L
Vinyl Chloride < 0 Bromomethane < 2 Chloroethane < 0 Trichlorofluoromethane < 0 1,1-Dichloroethene < 0	0 50) ug/	'L
Bromomethane < 2 Chloroethane < 0 Trichloroethane < 0 1,1-Dichloroethene < 0	.80 08.	80 ug/	'L
Chloroethane < 0 Trichlorofluoromethane < 0 1,1-Dichloroethene < 0	.50 0.5	-	
Trichlorofluoromethane < 0 1,1-Dichloroethene < 0	0 20	ug/	'L
1,1-Dichloroethene < 0	.50 0.6	50 ug/	L
	.50 0.5	-	
Methylene Chloride < 5	.50 0.5	_	
	.0 5.0	ug/1	L
trans-1,2-Dichloroethene < 0	.50 0.5		
1,1-Dichloroethane < 0.	.50 0,5	_	
cis-1,2-Dichloroethene < 0.	.50 0.5	50 ug/l	L
Chloroform < 0.	.50 0.5	50 ug/l	L
1,1,1-Trichloroethane < 0.	50 0.5	=	
1,2-Dichloroethane 0.77	7 0.5	50 ug/L	L
Carbon Tetrachloride < 0.	50 0.5	50 ug/L	<u>L</u>
Trichloroethene < 0.	50 0.5	60 ug/L	L
1,2-Dichloropropane < 0.	50 0.5	50 ug/L	L
Bromodichloromethane < 0.	50 0.5	i0 ug/L	L
cis-1,3-Dichloropropene < 0.	50 0.5	i0 ug/L	L
trans-1,3-Dichloropropene < 0.	50 0.5	i0 ug/L	_
1,1,2-Trichloroethane < 0.	50 0.5	i0 ug/L	-
Tetrachloroethene < 0.	50 0.5	i0 ug/L	_
Dibromochloromethane < 0.	50 0.5	_	
Chlorobenzene < 0.	50 0.5	-	
Bromoform < 0.	JU U.S		•
1,1,2,2-Tetrachloroethane < 0.		5	
1,3-Dichlorobenzene < 0.	50 0.5	0 ug/L	-

Parameter	Measur Value	Units	
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L
Toluene - d8 (Surr)	97.3		% Recovery
4-Bromofluorobenzene (Surr)	97.2		% Recovery
Dibromofluoromethane (Surr)	105		% Recovery
1,2-Dichloroethane-d4 (Surr)	97.8		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff