Tel. (510) 703-5420

2006 FEB 27 PM 2: 50

November 10, 2003

Ms. Janice Weston Community Development Corporation of Oakland 5636 Shattuck Avenue Oakland, California 94609

Re:

Supplemental Soil and Groundwater Quality Assessment 3701 Martin Luther King Jr. Way, Oakland, California

Project No.: IMP 2003-3

Dear Ms. Weston:

Impact Environmental Services is pleased to submit this Supplemental soil and groundwater quality assessment report for the above referenced site. The enclosed report contains a description of our investigation, results of soil and groundwater sample analyses, and our conclusions regarding soil and groundwater quality at the site.

We appreciate the opportunity to provide services to you on this project and trust this report meets your needs at this time. Should you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

Impact Environmental Services

Joseph A. Cotton R.G.

Principal Geologist

JC\:vc\encl.

Copies: Addressee (1)

Tel. (510) 703-5420

Supplemental Soil and Groundwater Quality Assessment 3701 Martin Luther King Jr. Way Oakland, California

November 10, 2003

Prepared For:

Community Development Corporation of Oakland 5636 Shattuck Avenue Oakland, California 94607

Prepared By:

Impact Environmental Services 39120 Argonaut Way, #223 Fremont, California 94538

Joseph A. Cotton, R.G. Principal Geologist

JOSEPH A. COTTON

No. 7378

TABLE OF CONTENTS

2.0 OBJECTIVE	1.0	11711	RODUCTION	
3.0 SCOPE OF SERVICES	2.0	ОВЛ	ECTIVE	, ,
4.0 BACKGROUND. 4.1 Site Description. 4.2 Regional Geology and Hydrogeology. 5.0 FIELD INVESTIGATION. 5.1 Prefield Activities-October 2003. 5.2 Supplemental Exploratory Boring Installation. 5.3 Soil Sampling. 5.4 Groundwater Grab Sampling. 5.5 Free-Product Monitoring. 5.6 Decontamination. 5.7 Site Stratigraphy. 6.0 LABORATORY ANALYSIS. 6.1 Laboratory Procedures. 6.2 Soil and Groundwater Analytical Results. 5.6 Soil and Groundwater Analytical Results. 5.7 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria. 8.0 CONCLUSIONS. 9.0 RECOMMENDATIONS. 100 TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs				
4.1 Site Description 4.2 Regional Geology and Hydrogeology	3.0	SCO.	PE OF SERVICES	2
4.1 Site Description	4.0	BAC	KGROUND	,
4.2 Regional Geology and Hydrogeology				
5.0 FIELD INVESTIGATION		4.2	Regional Geology and Hydrogeology	
5.1 Prefield Activities-October 2003				
5.2 Supplemental Exploratory Boring Installation 5.3 Soil Sampling 5.4 Groundwater Grab Sampling 5.5 Free-Product Monitoring 5.6 Decontamination 5.7 Site Stratigraphy 6.0 LABORATORY ANALYSIS 6.1 Laboratory Procedures 6.2 Soil and Groundwater Analytical Results 5.7 Site EVALUATION AND SITE REMEDIATION GOAL 5.7 Oakland Risk-Based Corrective Action and Region 9 PRGs 5.7 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria 8.8 RECOMMENDATIONS 9.0 RECOMMENDATIONS 9.0 RECOMMENDATIONS 1.0 1.0 LIMITATIONS 1.0 1.0 LIMITATIONS 1.0 1.0 LIMITATIONS 1.0 1.0 LIMITATIONS 1.0 1.0 1.0 LIMITATIONS 1.0	5.0		D INVESTIGATION	3
5.3 Soil Sampling				
5.4			Supplemental Exploratory Boring Installation	3
5.5 Free-Product Monitoring 5.6 Decontamination 5.7 Site Stratigraphy 6.0 LABORATORY ANALYSIS 6.1 Laboratory Procedures 6.2 Soil and Groundwater Analytical Results 7.0 RISK EVALUATION AND SITE REMEDIATION GOAL 7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria 8.0 CONCLUSIONS 9.0 RECOMMENDATIONS 10 10.0 LIMITATIONS 10 TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs			Soil Sampling	
5.6 Decontamination 5.7 Site Stratigraphy			Groundwater Grab Sampling	
5.6 Decontamination 5.7 Site Stratigraphy 6.0 LABORATORY ANALYSIS 6.1 Laboratory Procedures 6.2 Soil and Groundwater Analytical Results 7.0 RISK EVALUATION AND SITE REMEDIATION GOAL 7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria 8.0 CONCLUSIONS 9.0 RECOMMENDATIONS 10 10.0 LIMITATIONS 10 TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs			Free-Product Monitoring	4
5.7 Site Stratigraphy			<u>Decontamination</u>	
6.1 Laboratory Procedures 6.2 Soil and Groundwater Analytical Results 5.0 RISK EVALUATION AND SITE REMEDIATION GOAL 7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria 8.0 CONCLUSIONS		5.7	Site Stratigraphy	5
6.1 Laboratory Procedures 6.2 Soil and Groundwater Analytical Results 5.0 RISK EVALUATION AND SITE REMEDIATION GOAL 7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria 8.0 CONCLUSIONS	6.0	IAD	ODATODY ANALYSIS	_
6.2 Soil and Groundwater Analytical Results 5 7.0 RISK EVALUATION AND SITE REMEDIATION GOAL 5 7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 5 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria 8 8.0 CONCLUSIONS 9 9.0 RECOMMENDATIONS 10 10.0 LIMITATIONS 10 TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	0.0	LAD		
7.0 RISK EVALUATION AND SITE REMEDIATION GOAL 7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria 8.0 CONCLUSIONS			Coil and Complement A 1 1 in 1 D 1	5
7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria		0.2	Son and Groundwater Analytical Results	5
7.1 Oakland Risk-Based Corrective Action and Region 9 PRGs 7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria	7.0	RISK	EVALUATION AND SITE REMEDIATION GOAL	5
7.2 Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria				
9.0 RECOMMENDATIONS 10 10.0 LIMITATIONS 10 TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs		7.2	Site Data Comparison with SRWCB Low-Risk Fuel Leak Site Criteria	8
9.0 RECOMMENDATIONS 10 10.0 LIMITATIONS 10 TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	9.0	CON	CLUCIONG	
TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	0.0	CON	CLUSIONS	9
TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	9.0	REC	OMMENDATIONS	10
TABLE 1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	10.0			
1 Soil and Groundwater Analytical Data-3701 Martin Luther King Jr. Way, Oakland, California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	10.0	LIM	ITATIONS	10
California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	TABI	Æ		
California FIGURES 1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs		1	Soil and Groundwater Analytical Data-3701 Martin Luther King Jr W.	Jay Oakland
1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	Califo	rnia	The state of the s	ay, Oakianu,
1 Site Vicinity Map 2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	TOTAL TO	DEC		
2 Site Plan APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	FIGU	_	COLUMN TO THE TAXA	
APPENDIXES A Exploratory Boring Permit B Health and Safety Plan C Boring Logs			· ·	
A Exploratory Boring Permit B Health and Safety Plan C Boring Logs		2	Site Plan	
A Exploratory Boring Permit B Health and Safety Plan C Boring Logs	APPE	NDIXE	ES	•
B Health and Safety Plan C Boring Logs				
C Boring Logs				
			•	1

Tel. (510) 703-5420

Supplemental Soil and Groundwater Quality Assessment 3701 Martin Luther King Jr. Way Oakland, California

1.0 INTRODUCTION

This report presents the results of a supplemental investigation of soil and groundwater quality at the Property located at 3701 Martin Luther King Jr. Way (subject Property) in Oakland, County of Alameda, and State of California. The location of the site is shown on the Site Location Map, Figure 1.

2.0 OBJECTIVE

The primary objective of this investigation was to evaluate the extent of all or part of the constituents of concern (COCs) in soil and groundwater at the site to determine if the Property is suitable for residential development after the sources (i.e. underground storage tank and piping) have been removed from the site.

The subject Property is an abandoned gasoline service station and auto repair garage that is being considered for purchase, environmental cleanup, and redevelopment by the Community Development Corporation of Oakland (CDCO) as a multi-unit, affordable-housing complex. The site is located in the West Oakland Redevelopment Survey Area and near the border of the Broadway/MacArthur/San Pablo Redevelopment Project. The City of Oakland has focused on both areas for revitalization. The subject Property has been abandoned for over ten years. During this time, several local regulatory agencies and the Alameda County District Attorneys Office have been unsuccessful in influencing the current property owner to remove the existing underground storage tanks.

CDCO is seeking a loan from the Oakland Redevelopment Agency's Housing and Community Development Division unit (ORA) to initiate development of the subject Property. ORA currently offers a variety of funding programs to affordable housing developers to increase and preserve affordable housing in the City of Oakland.

Concerns about potential costs associated with cleanup of suspected contamination has inhibited development of this blighted property for over a decade. The purpose of this investigation was to determine the suitability of the Property for residential redevelopment following removal of the USTs at the site. It is understood that the CDCO plans to remove the USTs and any significant soil and groundwater contamination upon approval of the ORA loan.

3.0 SCOPE OF SERVICES

The scope of work performed during this investigation included the following activities:

- Advancing four exploratory soil borings (designated E-2A, E-5, E-6 and E-7) to a depth of 17 feet below ground surface (bgs).
- Collecting soil samples and groundwater grab samples from borings and analyzing samples for all or part of the following constituents: total lead using EPA Method 6010; total petroleum hydrocarbons (TPH) as diesel (TPHd) and motor oil (TPHmo) by EPA Method 8015M, TPH as gasoline (TPHg), benzene, toluene, ethyl benzene, xylenes (BTEX) and MTBE using EPA Methods 8015 and 8020, respectively.
- Preparing this report, which includes: a description of our investigation; the results of soil and groundwater sample analyses; and our conclusions regarding the suitability of the site for residential development.

4.0 BACKGROUND

4.1 <u>Site Description</u>

The Property is located at the northwest corner of Martin Luther King Jr. Way (MLK) and 37th Street in the City of Oakland, County of Alameda, and State of California. The subject Property comprises Alameda County assessor parcel 0012-965-005. A site location map and site plan is presented in Figures 1 and 2, respectively.

The subject Property is in a mixed residential and light commercial area of north Oakland. City of Oakland Zoning Department records indicates that the Property is categorized as a C-40 commercial zone. The subject Property consists of a roughly 6,100 square feet, rectangular parcel with both paved (75%) and unpaved (25%) surfaces. Residential properties border the subject Property to the north and west. 37th Street and MLK Jr. Way border the site to the south and east, respectively.

Based on a review of the United States Geological Survey 7.5 minute map of the West Oakland Quadrangle, the average elevation at the site is approximately 100 feet above mean sea level. Regional topography slopes gently to the west, towards the San Francisco Bay, which is located approximately 3 miles west of the site.

A retail gasoline service station and automobile repair garage operated at the site from the 1940s to circa 1990. Almost all structures related to the service station, including the underground storage tanks, automobile repair garage, and attendant kiosk are still present at the site. The gasoline dispensers have been removed, however

remnants of the concrete dispenser island are still present beneath the canopy and next to the suspected gasoline fuel tank(s).

4.2 Previous Environmental Investigation

In September 2002, Impact Environmental Services (Impact) was retained by CDCO to perform a Phase I Environmental Site Assessment (Phase I ESA) for the subject Property. The objective of the Phase I ESA was to identify recognized environmental conditions (RECs) and evaluate potential environmental liabilities associated with the subject Property. Results of the Phase I ESA indicated that subject Property was currently on the Hazardous Waste Information System (HAZNET) database and the California Facility Inventory for Underground Storage Tanks (CA FID UST) database. The CA FID-UST contains historical listings of active and inactive underground storage tank locations from the State Water Resources Control Board. HAZNET data is extracted from the copies of hazardous waste manifests received each year by the California Department of Toxic Substance Control. Inclusion on HAZNET suggests that hazardous waste was generated on the subject Property at some point in time. However, the most significant RECs are the two to three underground fuel storage and associated piping located in the south and east portions of the Property.

In early March 2003, a preliminary geophysical survey was conducted at the site by Cruz Brothers Underground Utility Locators (Cruz Brothers) of Scotts Valley, California. The geophysical survey confirmed the presence of two to three metallic objects believed to be USTs and approximately 40 feet of piping believed to be associated with the fuel delivery system. During the survey, the footprints of the USTs and piping were outlined in paint to aid in the appropriate placement of borings and to guide future UST removal efforts.

In mid-March 2003, Impact installed four exploratory borings (E-1 through E-4) near the USTs and piping to evaluate the potential presence of COCs in soil and shallow ground water at the site. The borings were advanced in the immediate vicinity of the sources to replicate UST confirmation sampling protocol. Data collected during the preliminary site investigation revealed the presence of only negligible concentrations of TPH and BTEX in soil and groundwater at the site. However, City of Oakland Environmental Services Division required that a supplemental phase of investigation be conducted before ORA would consider approving the CDCO loan application. The location of the suspected tanks and exploratory borings are presented in the Figure 2 Site Plan.

5.0 SUPPLEMENTAL FIELD INVESTIGATION-OCTOBER 2003

5.1 Pre-field Activities-October 2003

Prior to field investigation activities, Impact obtained a drilling permit to install the exploratory borings from the Alameda County Public Works Agency. Proposed boring locations were cleared for underground utilities by Underground Service Alert (USA) and Cruz Brothers. A copy of the drilling permit is presented in Appendix A. A copy of the project Health and Safety Plan is presented in Appendix B.

5.2 Supplemental Exploratory Boring Installation-October 2003

On October 17, 2003, Impact advanced four additional borings (E-2A, E-5, E-6, E-7) at the subject Property

at the locations shown on Figure 2. The borings were installed to further characterize soil and groundwater quality at the site. Boring 2A was advanced along the south wall of the repair garage, next to boring E-2 and the waste oil UST. Borings E-5 was placed north of the gasoline USTs and boring E-2 and E-3. Borings E-6 and E-7 were placed along the perimeter of the gasoline UST(s) to provide a more detailed assessment of soil and groundwater in the immediate vicinity of the gasoline USTs. The borings were all advanced to depth of 17 feet bgs with a truck-mounted drill rig equipped with 8-inch diameter hollow-stem augers.

5.3 Soil Sampling

Soil samples were collected borings E-5, E-6, and E-7 at depths of two, five, ten and fifteen feet bgs. Soil samples were not collected from boring E-2A because the information was already collected during the preliminary assessment of the site. Soil samples were collected by driving a 2-inch diameter, California-Modified, split-spoon sampler through and in advance of the hollow-stem augers. The sampler was driven with a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler 18 inches were recorded as the penetration resistance (blows/foot) on the boring logs. Soil samples for chemical analysis were collected in 2-inch diameter, 6-inch long, liners filled to the fullest extent possible to reduce the potential for loss of volatiles. The soil samples were examined for logging, sealed with Teflon-lined plastic caps, labeled and placed in a cooled container. Select soil samples were transported under chain-of-custody control to a State-certified analytical laboratory.

Soils encountered during drilling were classified in the field by a geologist licensed by the State of California. Soil classification was conducted in accordance with the Unified Soil Classification System (USCS). Samples for soil classification were collected from various depths to obtain a complete profile of the subsurface stratigraphy. Boring logs are presented in Appendix C.

5.4 Groundwater Grab Sampling

Grab groundwater samples were collected from all four borings using a cleaned, Teflon bailer. Groundwater samples were decanted from the bailer into laboratory-supplied glassware, labeled, immediately placed in a cooled container, and transported under chain-of-custody control to a State-certified analytical laboratory. As water samples were collected from open boreholes, and not from developed and sampled groundwater monitoring wells, the chemical test results from borings are generally higher than groundwater samples collected from wells.

5.5 Free-Product Monitoring

Impact checked all four borings for the presence of free-product using an oil/water interface probe. Free-product was not detected in any of the borings. No hydrocarbon sheen was detected in grab groundwater samples. The free-product probe has a resolution of 0.002/ft.

5.6 Decontamination

The drill rig and sampling equipment were steam-cleaned prior to use, and samplers, liners, and bailers were thoroughly cleaned with laboratory-grade detergent and de-ionized water between samples to reduce the potential for cross-contamination. Borings were back-filled with neat cement.

5.7 Site Stratigraphy

Soils encountered in the upper 14 feet consisted primarily of a moist, moderate to high plasticity, silty clay with lesser amounts (5-10%) of sand. Soil encountered below the upper silty clay unit consisted of a fine to medium grain, water-bearing sand. Boring logs presented in Appendix C depict subsurface conditions encountered during the field investigation. Groundwater was first encountered in the sand unit at depths ranging from 14 to 16 feet bgs.

6.0 LABORATORY ANALYSIS

6.1 Laboratory Procedures

Soil and groundwater samples were submitted for chemical analysis to Torrent Analytical Laboratory Services, Incorporated (Torrent) of Milpitas, California. Torrent is certified by the State of California for the analyses performed. Twelve soil samples and four groundwater grab samples were collected and analyzed for all or part of the following COCs: total lead, TPHd, TPHg, TPHmo, BTEX and MTBE.

<u>6.2</u> Soil and Groundwater Analytical Results

Results of the soil and groundwater sample analyses are presented on Table 1 and the laboratory analytical reports are attached in Appendix D.

7.0 RISK EVALUATION AND SITE REMEDIATION GOALS

Impact compared the chemical and physical results of this and previous site investigations to the City of Oakland's Urban Land Redevelopment Guidance Document Site-Specific Target Levels (SSTLs) and the State Water Resources Control Board (SWRCB) Interim Guidance and Supplemental Instruction for Determining Low-Risk Fuel Leak Sites. The comparison was conducted to establish appropriate soil and groundwater cleanup limits and to evaluate the site suitability for residential developmentupon removal of the primary sources. Data collected from the subject Property appears to suggest that corrective action closure will be granted for the subject Property when the USTs and piping are removed and additional site characterization will not be required to obtain closure. It is understood that the USTs and piping will have to be removed before site development will commence. The remediation goals will be used to guide UST/piping removal and achieve regulatory corrective action closure for the site.

7.1 Oakland Risk-Based Corrective Action and EPA Region 9 PRGs

Data from the preliminary and supplemental phase of investigation were compared against the Oakland RBCA Eligibility Checklist and Oakland Tier-2 site-specific target levels (SSTLs) to determine the suitability of the subject Property for residential development. The site fulfilled seven of the eight criteria from the Oakland RBCA Eligibility Checklist. The one criterion that was not meet was the continuing presence of the gasoline and waste oil USTs. It is our understanding that corrective measures will be implemented by CDCO upon approval of the ORA loan. It is anticipated that regulatory corrective action closure will be granted to the subject Property when the USTs and piping are removed. The data also indicates that additional site characterization will not be required after UST removal to achieve regulatory site closure.

The assumptions used by Impact for the risk screening evaluation are summarized in Matrix A For the purpose of this evaluation, Impact assumes that significant soil and groundwater contamination is limited to the immediate proximity of the USTs and piping and will be removed during prior to residential redevelopment. Impact also assumes no restrictions on future siting of residential buildings within the subject Property. Areas not within the footprint of any future building are assumed unpaved. Impact assumes that the site groundwater is not a current or potential future drinking water source. This evaluation uses a 1 meter (3.3 feet) bgs cutoff point between surficial and subsurface soil, consistent with the City of Oakland 'Risk-Based Corrective Action Technical Background Document.

Exposure Scenarios: Based on assumed future site use, potential future residential exposure scenarios would include inhalation of onsite indoor and outdoor air, direct dermal contact with surficial soil, and soil ingestion/particulate inhalation.

Risk Screening Levels: Impact used site-specific target levels (SSTLs) risk screening levels for BTEX as published by the City of Oakland's in its May 17, 2000 Oakland Risk-Based Corrective Action Technical Background Document. The City of Oakland did not publish a screening level for lead, so we used the EPA Region 9 Preliminary Remediation Goal (PRG) as a screening level. San Francisco Bay Regional Water Quality Control Board endorses the City of Oakland risk-based screening levels (RBSLs), SSTLs and EPA-PRGs.

Representative Concentrations: Impact used maximum detected concentrations for BTEX and lead within each onsite medium; surficial soil (0 to 3.3 feet bgs); subsurface soil (>3.3 feet bgs); and groundwater. Maximum BTEX and lead concentrations are presented below in Matrix A and B, respectively.

Comparison to Screening Levels: Matrix A below presents Impact's comparison of maximum BTEX concentrations to SSTLs. Impact's risk screen evaluation for lead in surficial soil is summarized below in Matrix B. To evaluate the risk posed by residual lead concentrations, Impact compared analytic results to the EPA Region 9 Preliminary Remediation Goal (PRG) of 400 mg/kg for residential development.

The Oakland guidance document, like the EPA Region 9 PRG document, does not include risk screen levels for petroleum hydrocarbons (TPH). Ceiling values for TPH in soil (500 mg/kg) and groundwater are recommended to protect against nuisance odors. To protect against nuisance odors, Impact used conservative inhalation exposure screening values. Since screening levels for inhalation of indoor air are more restrictive than levels of inhalation of outdoor air, Impact only evaluated inhalation exposure to indoor air.

BTEX and MTBE were not detected in soil or groundwater samples at or above Oakland RBCA SSTL STPH was not detected in soil or groundwater at levels that would present a nuisance condition. Lead was not detected at or above the lead PRG.

Matrix A - Results of Hydrocarbon Exposure Pathways (Residential)

Based on City of Oakland - Version 2000 - SSTLs for Clayey Silt

Exposure Scenario	Target Risk Level	SSTE	Maximum Site Concentration	Result
		Benzene		
Volatilization from subsurface soil to indoor air	1x10 ⁻⁵	1.9 mg/kg	1.0 mg/kg*	Potential health risk is below target level.
Volatilization from groundwater to indoor air	1x10 ⁻⁵	5.5 mg/l	0.032 mg/l	Potential health risk is below target level.
Ingestion/ Inhalation/ dermal contact with surficial soil	1x10 ⁻⁵	19 mg/kg	<1 mg/kg	Potential health risk is below target level.
		Toluene		
Volatilization from subsurface soil to indoor air	1x10 ⁻⁵	930 mg/kg	3.6 mg/kg	Potential health risk is below target level.
Volatilization from groundwater to indoor air	1x10 ⁻⁵	>SOL	0.047 mg/l	Potential health risk is below target level.
Ingestion/ Inhalation/ dermal contact with surficial soil	1x10 ⁻⁵	7,100 mg/kg	<0.01 mg/kg	Potential health risk is below target level.
		Ethylbenzene		
Volatilization from subsurface soil to indoor air	1x10 ⁻⁵	SAT	3.9 mg/kg	Potential health risk is below target level.
Volatilization from groundwater to indoor air	1x10 ⁻⁵	>SOL	0.043 mg/l	Potential health risk is below target level.
Ingestion/ Inhalation/ dermal contact with surficial soil	1x10 ⁻⁵	3,900 mg/kg	<0.022 mg/kg	Potential health risk is below target level.
And Control of the Co		Xylenes		
Volatilization from subsurface soil to indoor air	1x10 ⁻⁵	SAT	22 mg/kg	Potential health risk is below target level.
Volatilization from groundwater to indoor air	1x10 ⁻⁵	>SOL	<0.210 mg/l	Potential health risk is below target level.
Ingestion/ Inhalation/ dermat contact with surficial soil	1x10 ⁻⁵	53,000 mg/kg	0.061 mg/kg	Potential health risk is below target level.
SSTL = Site Specific Target Level SAT = SSTL exceeds saturated soil NA = Not applicable % indicates im	concentration	of chemical>SO	L = SSTL exceeds solubil	ity of chemical in water

Matrix B - Results of Lead Exposure Pathways (Residential) Based on Lead Concentrations using

EPA Region 9 Preliminary Remediation Goal

The second secon	Level	SSTL.	Maximum Site Concentration	
。		Lead		
Volatilization from subsurface soil to indoor air	1x10 ⁻⁵	NA	NA	NA
Volatilization from groundwater to indoor air	1x10⁻⁵	NA	NA	NA
Ingestion/ Inhalation/ dermal contact with surficial soil	1x10 ⁻⁶	400 mg/kg (EPA PRG)	18 mg/kg	Maximum site concentration is below SSTL.

It is very likely that regulatory corrective action closure will be granted at the subject Property when the USTs and piping are removed. The data indicates that additional site characterization will not be required following UST removal and tank confirmation sampling. It is our understanding that corrective measures will be implemented and regulatory site closure achieved by CDCO upon approval of the ORA loan.

7.2 Site Data Comparison with SWRCB Low-Risk Fuel Release Site Criteria

Impact compared physical and chemical conditions at the subject Property to six criteria established by the State Water Resources Control Board (SWRCB) *Interim Guidance and Supplemental Instruction for Determining Low-Risk Fuel Leak Sites* This comparison was conducted to determine what efforts would be required for the subject Property to achieve status as a "low-risk fuel leak site".

In October 1995, Lawrence Livermore National Laboratory (LLNL) presented to the SWRCB, a final report titled "Recommendations to Improve the Cleanup Process for California's Underground Fuel Tanks". This report was based on LLNL's review of investigation and remediation results of California's historical LUFT cases. In summary, the report found that:

- Most LUFT plumes are predictable and plume lengths rarely exceed about 250 feet;
- Natural (passive) biodegradation is a very important factor controlling the plume size and mass;
- Usually, only shallow groundwater was impacted at LUFT sites, not deep aquifers.

Based on the LLNL's report, SWRCB issued Interim Guidance on December 8, 1995, on required cleanup at "low risk fuel sites". On January 5, 1996, the Regional Water Quality Control Board — San Francisco Bay Region, issued Supplemental Instructions to the SWRCB's Interim Guidance. The Supplemental Instruction provided the six criteria for classifying a site as a "low risk fuel leak site". The following are the results of the comparison to the following six criteria for classification of a site as a "low-risk fuel leak site".

CRITERION #1

Has the leak been stopped and on going sources, including free product, been removed or remediated? No. The result of the preliminary geophysical survey suggests that two to three USTs and approximately 40 feet of piping are present onsite in the subsurface. These features have not been removed from the site but it is understood that the sources must be mitigated before regulatory corrective action closure can be achieved. For over ten years, several local regulatory agencies and the Alameda County District Attorneys Office, has unsuccessfully tried to influence the current property owner to remove the existing underground storage tanks from the subject Property. CDCO anticipates purchasing the property, removing the USTs, and developing affordable multi-unit homes on the subject Property, upon approval of the ORA loan.

CRITERION #2

Has the site been adequately characterized? Yes. Soil and groundwater quality at the subject Property has been adequately characterized. The results of the risk screening indicate that in soil and groundwater near potential sources are below SSTLs. Lead concentrations in soil near suspected sources are below the PRG of 400 mg/kg for residential developments.

CRITERION #3

Does a significant groundwater impact currently exist and are contaminants found in groundwater at levels above established SSTLs or other applicable water quality objectives? No. COCs were not detected at or above SSTLs in groundwater samples collected from the site.

CRITERION #4

Do water wells, deeper drinking water aquifers, surface water, or other sensitive receptors likely to be impacted? No. Water wells, deeper drinking water aquifers, surface water, or other sensitive receptors will not be impacted once the UST system is removed from the site.

CRITERION #5

Does the site present a significant risk to human health? No. The soil and groundwater quality data collected during preliminary and supplemental investigation indicates that once the USTs, piping, and any significant soil and groundwater contamination is removed, the site will not present a risk to human health.

CRITERION #6

Does the site present a significant risk to the environment? No. The soil and groundwater quality data collected during preliminary and supplemental investigation indicates that once the USTs, piping, and any residual soil and groundwater contamination is removed, the site will not present a risk to the environment.

8.0 CONCLUSIONS

Based on a review of site lithology, soil, and groundwater quality data collected during this investigation, the following conclusions can be made:

- Soils encountered near the potential source areas from the surface to approximately 14 feet consists primarily of silty clay with trace amounts of sand. Soils encountered below the upper silty clay unit, consist primarily of moderately sorted, water bearing sand with gravel.
- Groundwater was first encountered at the site between 14 and 16 feet bgs.
- BTEX were not detected at or above Oakland SSTLs in soil and groundwater samples collected from the subject Property.
- Total lead was not detected at or above PRGs insurficialsoil samples collected at the subject Property.
- Results of the risk screening indicate that petroleum hydrocarbon and lead concentrations in soil and groundwater samples collected adjacent to source areas do not exceed Oakland SSTLs or PRGs. This appears to suggest that contamination in soil and groundwater near the suspected source is limited to the immediate proximity of the USTs and piping.

• The subject Property will be suitable for residential development, once the abandoned USTs and associated piping are removed from r the subject Property

9.0 RECOMMENDATIONS

Impact recommends removal of all existing underground storage tanks and associated piping in accordance with applicable laws and regulations. Impact further recommends removal of soil and groundwater with residual concentrations of BTEX and lead above respective SSTLs and PRGs.

Impact recommends that CDCO petition Oakland Fire Department and Alameda County Health Services Agency for regulatory corrective action closure of the subject Property following removal of the USTs from the site.

10.0 LIMITATIONS

The purpose of a geologic/hydrogeologic study is to reasonably characterize existing site conditions based on the geology/ hydrogeology of the area. In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

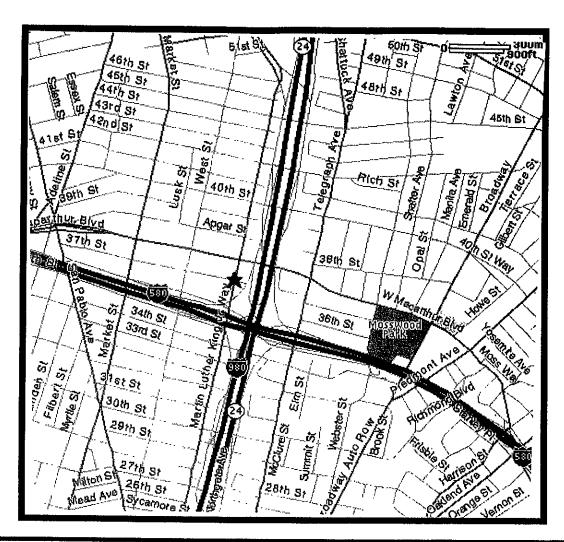
No investigation is thorough enough to describe all geologic/hydrogeologic conditions of interest at a given site. If conditions have not been identified during the study, such a finding should not therefore be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when services were performed.

Geologic/hydrogeologicconditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

TABLE

FIGURE 1: SITE LOCATION MAP



3701 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

APPENDIX AExploratory Boring Permit



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 RIMHURST ST. HAYWARD CA. 94544-1295
PHONE (310) 670-8633 James Yoo
PAX (510)782-1939

Applicants, please attach a site map for all drilling permit applications destruction of wells over 45 feet requires a separate permit application

DRILLING PERMIT AI	PPLICATION
FOR APPLICANT TO COMPLETE	FOR OFFICE USE
·	1, 102-0901
LOCATION OF PROJECT 3701 MARTIN LYTHER	PERMIT NUMBER WOOD OF TOTAL
	WELL NUMBER
KING IR WAY	APN
	PERMIT CONDITIONS
	Circled Permit Requirements Apply
CLIENT	A CRAPHA
Name COMMINITY DEVELOPMENT CORP. OF DAKEA Address 5656 SHATTUCK AND HORD.	1. A permit application should be submitted to as to
CITY CAKLAGID 219 94607	arrive at the ACPWA office five days prior to
,	proposed starting date.
APPLICANT	2. Submit to ACPWA within 40 days after completion of Correct permitted original Department of Water Resources
Name IMPACT ENVIRONMENTAL SCANCE JOSEPH SUPERIST JOSEPH Addres 300 ARGENTAL VARIOUS SIQ TO3E420	Well Completion Report.
Address 39120 ARAMAN WAS hone 510 7035420	3. Permit is vaid if project not begun within 90 days of
Cly FREMONT ZIP 94538	approval date
	R. WATER SUPPLY WELLS 1. Minimum surface seal thickness is two inches of
TYPE OF PROJECT	centent grout placed by tratein.
Well Construction Guarantical Investigation	2. Minimum seal depth is 30 spet for municipal ahiji
Cuthodic Protection D General D	Industrial wells or 20 feet for domestic and irrigation'
Water Supply () Contamination	wells unless a leaser dopth is specially approved.
Mostilating D Well Destruction O	C. Groundwater monitoring wells including Piezometers
PROPOSED WATER SUPPLY WELL USE	1. Minimum surface seal thickness is two inches of
New Domestic D Replacement Domestic D	coment grout placed by tremie.
Minicipal D irrigation [2. Minimum soul depth for monitoring wells is the
Industrial D Other D	maximum depth practicable or 20 feet.
DRILLING METHOD:	D GEOTECHNICAL CON the Mith cornent grout or cornent
Mud Robery O Air Rotary O Auger	grouve and miniute. Upper two-three feet replaced in kind
Cable O Other O	de with secons and cultings.
BENEDICKARE LIEUI TOULLAND CO.	E. CATHODIC
DRULLER'S NAME HEW DRULLING CO	Pill hole anotic zone with concrete placed by transe. F. WELL DESTRUCTION
DRULLIUR'S LICENSE NO A 60447	Send a map of work sile. A superate permit is required
ENIGOD	for wells deeper than 45 feet.
WELL PROJECTS	G. KNECHOCONDITIONS BAT Attacked.
Drill Hole Diameterin Maximum	NOTE: One application must be submitted for each well or well
Casing Dianeter in Dopth 1.	destruction, Multiple borings on one application are acceptable
Surface Scal Depth	for geotechnical and contamination investigations.
Number of Borings LL (E-1A Maximum	
Number of Borings (E ZA Maximum	
Hole Diameter In. Depth 20 ft.	
STARTING DATE 10/17/3	
· · · · · · · · · · · · · · · · · · ·	10-15-03
COMPLETION DATE 10/11/3	APPROVED DATE
bilishy agree to comply with all regular nexts of this permit and somethe County Ordinance ?	No. 73-68.
APPLICANT'S SIGNATURE DATE 10/11	9 / [[]
	- /
LEASE PRINT NAME JOSEPH (COTTON) ROV.9-18-02	
Please Fax &	SELL ARROWS TO APPLICANT



ALAMEDA COUNTY PUBLIC WORKS AGENCY

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

TERMIT NO. W03-0904

WATER RESOURCES SECTION GROUNDWATER PROTECTION ORDINANCE B#4-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES

- 1. 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. Borcholes shall not be left open for a period of more than 24 hours. All borcholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All borcholes 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 borchole(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 of 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 wok is being completed.
- 4. Permit is valid only for the purpose specified herein October 17 to October 17, 2003. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit 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 councetion with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.



COUNTY OF ALAMEDA PUBLIC WORKS AGENCY WATER RESOURCES SECTION 399 Elmhurst Street, Hayward, CA 94544-1395 James Yoo PH: (510) 670-6633 FAX: (510) 782-1939

FOR GENERAL DRILLING PERMIT INFO: WWW.ACFCWCD.ORG

FAX TRANSMITTAL

TO: Juput Ent

DATE: 10-15-03

Min: Joseph Cotton

FAX NO.: (510) 99/-029 |
TRANSMITTING THE FOLLOWING:

SHEETS DATED TITLE/DESCRIPTION

2 - DPA- W3-0504 & Conditions

TOTAL PAGES INCLUDING THIS SHEET.

FROM WATER RESOURCES SECTION

NAME: JAMES YOU

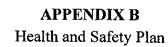
TEL: (510) 670-6633

FAX: (510) 782-1939

E-MAIL: jamesy@acpwa.org

IF YOU EXPERIENCE PROBLEMS WITH THIS TRANSMISSION, PLEASE CALL ME.

REMARKS:



HEALTH AND SAFETY PLAN

PROJECT NO: IMP 2003-1

FIELD ACTIVITIES DATE: October 17, 2003

CLIENT: Community Development Corporation of Oakland

CONTACT PERSON: Janice Weston

TELEPHONE NO: (510) 428-9345

JOB LOCATION:

3701 Martin Luther King Jr. Way (APN#: 0012-965-005)

Southwest Corner of 37th Street and Martin Luther King Jr. Way

Oakland, CA. 94607

PROJECT DESCRIPTION: Collect soil and groundwater samples using hollow-stem augers

PROJECT MANAGER: Joseph Cotton

SITE HEALTH & SAFETY OFFICER: Joseph Cotton

CHEMICAL HAZARDS: Significant contamination is not anticipated. Potential chemical hazards may include low level volatile organic compounds (VOCs), low level metals, and petroleum hydrocarbons (gasoline, oil, grease).

		CHEMICAL HAZARDS	
Chemical Name	Description	Persons Exposed; Potential Routes of Exposure	Symptoms of Acute Exposure
Heavy metals	Potentially dispersed in soil or ground water	Drilling and sampling personnel; Inhalation, ingestion, skin/eye contact	Weakness, pallor, abdominal pain, tremors, eye irritation
Petroleum Hydrocarbons	Potentially dis- persed in soil or ground water	Drilling and sampling personnel; Inhalation, absorption, ingestion, skin/eye contact	Nausea, headache, dizziness
Volatile organic compounds	Potentially dispersed in soil or ground water	Drilling and sampling personnel; Inhalation, absorption, ingestion, skin/eye contact	Eye and nose irritation, nausea, headache, dizziness

PHYSICAL HAZARDS: Normal soil sampling and drilling hazards exist at the site and consist of: trip/fall, heavy equipment operation, overhead hazards from equipment.

SAFE WORK PRACTICES: All site safety procedures discussed here for normal working operations (drilling, sampling, monitoring, clean-up) must be followed. Avoid contact with soil and ground water. Wash any exposed skin thoroughly. No smoking, eating or drinking is allowed in the work area.

PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIRED: This site is designated PPE Level D. While drilling and sampling a minimum of steel toed boots and gloves must be worn. Hardhats are required when any overhead equipment is used. If liquids are encountered, chemically resistant gloves must be worn.

TRAFFIC CONTROL (Pedestrian and Motor Vehicle): Pedestrian and vehicular traffic will be restricted from the areas of operation.

DECONTAMINATION PROCEDURES (PERSONNEL AND EQUIPMENT): Sampling equipment: Trisodium phosphate detergent and water or other acceptable method such as steam cleaning. If there is dermal exposure, wash with soap and water.

EMERGENCY PHONE NUMBERS

AMBULANCE: 911 FIRE DEPT: 911 POLICE DEPT: 911

IMPACT: (510) 703-5420

Contact: Joseph Cotton

EMERGENCY PROCEDURES: Evacuate to open air in an emergency. Call paramedics if medical attention is required. Mobile phone is available on site.

HOSPITAL: Children's Hospital 747 52nd Street Oakland, CA 94609 (510) 428-3000

Directions: Proceed north on Martin Luther King Jr. Way approximately 2 miles

to Children's Hospital.

Prepared by:

Joseph Cotton-Geologist

L462-G 2-16-96

Read	py	Date
Read	by	Date

APPENDIX C
Boring Logs

APPENDIX D Laboratory Analytical Reports

Certified Analytical Report of Nonhalogenated Volatiles

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:2'

Lab Sample ID: 0310086-001A

Date Prepared: 10/23/2003

Sample Location:
Sample Matrix:

3701 Martin Luther King Jr. Way SOIL

Date/Time Sampled

10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Ethylbenzene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg μg/Kg
Methyl tert-butyl ether	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Toluene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Xylenes, Total	SW8021B	10/24/2003	10	1	10	ND	μg/Kg μg/Kg
Surr: Trifluorotoluene	SW8021B	10/24/2003	0	1	65-135	62.5	%REC

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:2'

Lab Sample ID: 0310086-001A

Sample Location:

Sample Matrix: SOIL

3701 Martin Luther King Jr. Way

Date Prepared: 10/23/2003

Date/Time Sampled

10/17/2003

Parameters		Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	,	SW8015B	10/24/2003	0.1	1	0.100	ND	mg/Kg
Surr: Trifluorotoluene		SW8015B	10/24/2003	0	1	65-135	65.4	%REC

Certified Analytical Report of Total Metals

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:21

Lab Sample ID: 0310086-001A

Sample Location:

3701 Martin Luther King Jr. Way

Date Prepared: 10/21/2003

Sample Matrix:

SOIL

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Lead	SW6010B	10/22/2003	0.369	1	0.36	6.8	mg/Kg

Certified Analytical Report of Nonhalogenated Volatiles

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Date Prepared: 10/23/2003

Client Sample ID:

E-5:51

Lab Sample ID: 0310086-002A

Sample Location:

3701 Martin Luther King Jr. Wa

Sample Matrix: SC

SOIL

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/24/2003	10	1	10	72	µg/Kg
Ethylbenzene	SW8021B	10/24/2003	10	1	10	21	μg/Kg
Methyl tert-butyl ether	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Toluene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Xylenes, Total	SW8021B	10/24/2003	10	1	10	21	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/24/2003	0	1	65-135	101	%REC

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:5'

Lab Sample ID: 0310086-002A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/23/2003

Sample Matrix:

SOIL

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/24/2003	0.1	1	0.100	0.619	mg/Kg
Surr: Trifluorotoluene	SW8015B	10/24/2003	0	1	65-135	118	%F

Certified Analytical Report of Nonhalogenated Volatiles

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:10'

Lab Sample ID: 0310086-003A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/28/2003

Sample Matrix:

SOIL

Date/Time Sampled

10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/28/2003	10	100	1000	ND	μg/Kg
Ethylbenzene	SW8021B	10/28/2003	10	100	1000	3100	µg/Kg
Methyl tert-butyl ether	SW8021B	10/28/2003	10	100	1000	ND	μg/Kg
Toluene	SW8021B	10/28/2003	10	100	1000	1300	µg/Kg
Xylenes, Total	SW8021B	10/28/2003	10	100	1000	16000	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/28/2003	0	100	65-135	108	%REC

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:10'

Lab Sample ID: 0310086-003A

Sample Location:

3701 Martin Luther King Jr. Wa SOIL

Date Prepared: 10/23/2003-10/28/2003

Sample Matrix:
Date/Time Sampled

10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Diesel)	' SW8015B	10/27/2003	2	1	2.00	ND	mg/Kg
TPH (Gasoline)	SW8015B	10/28/2003	0.1	100	10.0	57.1	mg/Kg
TPH (Motor Oil)	SW8015B -	10/27/2003	4	1	4.00	ND	mg/Kg
Surr: Pentacosane	SW8015B	10/27/2003	0	1	50-150	66.4	%REC
Surr: Trifluorotoluene	SW8015B	10/28/2003	0	100	65-135	114	%REC

Note: Silica gel cleanup employed.

Certified Analytical Report of Nonhalogenated Volatiles

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:15'

Lab Sample ID: 0310086-004A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/23/2003

Sample Matrix:

SOIL

Date/Time Sampled 10/1

10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Ethylbenzene	SW8021B	10/24/2003	10	1	10	42	µg/Kg
Methyl tert-butyl ether	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Toluene	SW8021B	10/24/2003	10	1	10	17	μg/Kg
Xylenes, Total	SW8021B	10/24/2003	10	1	10	220	μg/Kg
Surr: Triftuorotoluene	SW8021B	10/24/2003	0	1	65-135	104	%REC

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:151

Lab Sample ID: 0310086-004A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/23/2003

Sample Matrix:

SOIL

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/24/2003	0.1	1	0.100	0.496	mg/Kg
Surr: Trifluorotoluene	SW8015B	10/24/2003	0	1	65-135	99.8	%REC

Certified Analytical Report of Nonhalogenated Volatiles

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:GW

Lab Sample ID: 0310086-005A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/20/2003

Sample Matrix:

WATER

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene .	SW8021B	10/20/2003	1	1	1.0	ND	μg/ L
Ethylbenzene	SW8021B	10/20/2003	1	1	1.0	ND	μg/L
Methyl tert-butyl ether	SW8021B	10/20/2003	1	1	1.0	4.0	μg/L
Toluene	SW8021B	10/20/2003	1	1	1.0	ND	μg/L
Xylenes, Total	SW8021B	10/20/2003	1	1	1.0	ND	μg/L
Surr: Trifluorotoluene	SW8021B	10/20/2003	0	1	65-135	105	%REC

Certified Analytical Report of **Petroleum Hydrocarbons**

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-5:GW

Lab Sample ID: 0310086-005A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/20/2003-10/21/2003

Sample Matrix:

WATER

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Diesel)	SW8015B	10/27/2003	0 23	1	0.230	ND	mg/L
TPH (Gasoline)	SW8015B	10/20/2003	0.1	1	0.100	ND	mg/L
TPH (Motor Oil)	SW8015B	10/27/2003	0.4	1	0.400	ND	mg/L
Surr: Pentacosane	SW8015B	10/27/2003	0	1	50-150	84.0	%REC
Surr: Trifluorotoluene	SW8015B	10/20/2003	0	1	65-135	118	%REC

Note: Sllica gel cleanup employed. Deisel reporting limit incresed due to matrix interference.

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Date Prepared: 10/23/2003

Client Sample ID:

Date/Time Sampled

E-6:2'

3701 Martin Luther King Jr. Way

Lab Sample ID: 0310086-006A

Sample Location: Sample Matrix:

SOIL

10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Ethylbenzene	SW8021B	10/24/2003	10	1	10	22	μg/Kg
Methyl tert-butyl ether	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Toluene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Xylenes, Total	SW8021B	10/24/2003	10	1	10	61	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/24/2003	0	1	65-135	59.0	%REC

Note: Surrogate outside the control limit due to possible matrix interference.

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:2'

Lab Sample ID: 0310086-006A

Sample Location:

3701 Martin Luther King Jr. Way

Date Prepared: 10/28/2003

Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/28/2003	0.1	100	10.0	ND	mg/Kg
Surr: Trifluorotoluene	SW8015B	10/28/2003		100	65-135	97.8	%REC

Certified Analytical Report of Total Metals

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:2'

3701 Martin Luther King Jr. Way

Lab Sample ID: 0310086-006A

Date Prepared: 10/21/2003

Sample Location: Sample Matrix:

SOIL

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Lead	SW6010B	10/22/2003	0.369	1	0.35	6.8	mg/Kg

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:5'

Lab Sample ID: 0310086-007A

Sample Location:

3701 Martin Luther King Jr. Way

Date Prepared: 10/23/2003

Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Ethylbenzene	SW8021B	10/24/2003	10	1	10	15	μg/Kg
Methyl tert-butyl ether	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Toluene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Xylenes, Total	SW8021B	10/24/2003	10	1	10	46	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/24/2003	0	1	65-135	98.6	%REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:5'

Sample Location:

3701 Martin Luther King Jr. Way

Lab Sample ID: 0310086-007A **Date Prepared:** 10/23/2003

Sample Matrix:

SOIL

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/24/2003	0.1	1	0.100	0.447	mg/Kg
Surr: Trifluorotoluene	SW8015B	10/24/2003	0	1	65-135	108	%REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:10'

Lab Sample ID: 0310086-008A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/28/2003

Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Ethylbenzene	SW8021B	10/29/2003	10	100	1000	3900	μg/Kg
Methyl tert-butyl ether	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Toluene	SW8021B	10/29/2003	10	100	1000	1400	μg/Kg
Xylenes, Total	SW8021B	10/29/2003	10	100	1000	22000	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/29/2003	0	100	65-135	117	%REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:10'

3701 Martin Luther King Jr. Wa

Lab Sample ID: 0310086-008A

Date Prepared: 10/23/2003-10/28/2003

Sample Location:
Sample Matrix:

SOIL

Date/Time Sampled

10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Diesel)	SW8015B	10/27/2003	2	1	2.00	ND	mg/Kg
TPH (Gasoline)	SW8015B	10/29/2003	0.1	100	10.0	57.3	mg/Kg
TPH (Motor Oil)	SW8015B	10/27/2003	4	1	4.00	ND	mg/Kg
Surr: Pentacosane	SW8015B	10/27/2003	0	1	50-150	85.1	%REC
Surr: Trifluorotoluene	SW8015B	10/29/2003	0	100	65-135	131	%REC

Note: Silica gel cleanup employed.

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:15'

Lab Sample ID: 0310086-009A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/28/2003

Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/29/2003	10	100	1000	ND	µg/Kg
Ethylbenzene	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Methyl tert-butyl ether	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Toluene	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Xylenes, Total	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/29/2003	0	100	65-135	108	%REC

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:15'

Lab Sample ID: 0310086-009A **Date Prepared:** 10/28/2003

Sample Location:

3701 Martin Luther King Jr. Wa

Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline) Surr: Trifluorotoluene	SW8015B SW8015B	10/29/2003 10/29/2003	0.1	100 100	10.0 65-135	ND 107	mg/Kg %REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:GW

Lab Sample ID: 0310086-010A

Sample Location:

3701 Martin Luther King Jr. Way

Date Prepared: 10/20/2003

Sample Matrix:

WATER

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/21/2003	1	1	1.0	32	μg/L
Ethylbenzene	SW8021B	10/21/2003	1	1	1,0	43	μg/L
Methyl tert-butyl ether	SW8021B	10/21/2003	1	1	1.0	4.5	μg/L
Toluene	SW8021B	10/21/2003	1	1	1.0	36	μg/L
Xylenes, Total	SW8021B	10/21/2003	1	1	1.0	210	μg/L
Surr: Triffuorotoluene	SW8021B	10/21/2003	0	1	65-135	119	%REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-6:GW

Lab Sample ID: 0310086-010A

Sample Location:

3701 Martin Luther King Jr. Way

Date Prepared: 10/20/2003-10/21/2003

Sample Matrix:

WATER

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Diesel)	SW8015B	10/27/2003	0.1	1	0.100	ND	mg/L
TPH (Gasoline)	SW8015B	10/21/2003	0.1	1	0.100	2.66	mg/L
TPH (Motor Oil)	SW8015B	10/27/2003	0.4	1	0.400	ND	mg/L
Surr: Pentacosane	. SW8015B	10/27/2003	0	1	50-150	101	%REC
Surr: Trifluorotoluene	SW8015B	10/21/2003	0	1	65-135	87.7	: %REC

Note: Silica gel cleanup employed.

Report prepared for: Mr. Joseph Cotton

Date Received: 10/18/2003

Impact Environmental Services

Date Reported: 10/29/2003

Client Sample ID:

E-7:2'

Lab Sample ID: 0310086-011A **Date Prepared:** 10/28/2003

Sample Location:

3701 Martin Luther King Jr. Way

Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/28/2003	10	1	1Ó	ND	μg/Kg
Ethylbenzene	SW8021B	10/28/2003	10	1	10	ND	μg/Kg
Methyl tert-butyl ether	SW8021B	10/28/2003	10	1	10	ND	μg/Kg
Toluene	SW8021B	10/28/2003	10	1	10	ND	μg/Kg
Xylenes, Total	SW8021B	10/28/2003	10	1	10	ND	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/28/2003	0	1	65-135	66.2	%REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Date Prepared: 10/28/2003

Client Sample ID:

E-7:2'

3701 Martin Luther King Jr. Way

Lab Sample ID: 0310086-011A

Sample Location: Sample Matrix:

SOIL

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/28/2003	0.1	1	0.100	ND	mg/Kg
Surr: Trifluorotoluene	SW8015B	10/28/2003	0	1	65-135	65.6	%REC

Certified Analytical Report of Total Metals

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-7:2'

3701 Martin Luther King Jr. Way

Lab Sample ID: 0310086-011A

Date Prepared: 10/21/2003

Sample Location: Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

10112

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Lead	SW6010B	10/22/2003	0.369	1	0.35	8.2	mg/Kg

<u>Certified Analytical Report of</u> <u>Nonhalogenated Volatiles</u>

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-7:5'

Lab Sample ID: 0310086-012A Date Prepared: 10/23/2003

Sample Location:

3701 Martin Luther King Jr. Way

Sample Matrix:

SOIL

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Ethylbenzene	SW8021B	10/24/2003	10	1	10	ND	µg/Kg
Methyl tert-butyl ether	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Toluene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Xylenes, Total	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Surr: Trifluorotoluene	SW8021B	10/24/2003	0	1	65-135	102	%REC

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Date Received: 10/18/2003

Impact Environmental Services

Date Reported: 10/29/2003

Client Sample ID:

E-7:5'

Lab Sample ID: 0310086-012A **Date Prepared:** 10/23/2003

Sample Location: Sample Matrix: 3701 Martin Luther King Jr. Way

SOIL

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/24/2003	0.1	1	0.100	ND	mg/Kg
Surr: Trifluorotoluene	SW8015B	10/24/2003	0	1	65-135	92.2	%REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-7:10'

Lab Sample ID: 0310086-013A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/28/2003

Sample Matrix:

SOIL

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Ethylbenzene	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Methyl tert-butyl ether	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Toluene	SW8021B	10/29/2003	10	100	1000	ND	μg/Kg
Xylenes, Total	SW8021B	10/29/2003	10	100	1000	2400	µg/Kg
Surr: Trifluorotoluene	SW8021B	10/29/2003	0	100	65-135	122	%REC

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-7:10'

Lab Sample ID: 0310086-013A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/23/2003-10/28/2003

Sample Matrix:

SOIL

Date/Time Sampled 10/17/2003

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Uı	nits
TPH (Diesel)	SW8015B	10/27/2003	2	1	2.00	ND	mo	ı/Kg
TPH (Gasoline)	SW8015B	10/29/2003	0.1	100	10.0	14.5	•	y/Kg
TPH (Motor Oil)	SW8015B	10/27/2003	4	1	4.00	ND		/Kg
Surr: Pentacosane	SW8015B	10/27/2003	0	1	50-150	82.8	_	REC
Surr: Trifluorotoluene	SW8015B	10/29/2003	0	100	65-135	117	%F	REC

Note: Silica gel cleanup employed.

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-7:15'

Lab Sample ID: 0310086-014A

Date Prepared: 10/23/2003

Sample Location: Sample Matrix:

3701 Martin Luther King Jr. Way SOIL

Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/24/2003	10	1	10	ND	µg/Kg
Ethylbenzene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Methyl tert-butyl ether	SW8021B	10/24/2003	10	1	10	ND	µg/Kg
Toluene	SW8021B	10/24/2003	10	1	10	ND	μg/Kg
Xylenes, Total	SW8021B	10/24/2003	10	1	10	50	ug/Kg
Surr: Trifluorotoluene	SW8021B	10/24/2003	0	1	65-135	101	%REC

Certified Analytical Report of Petroleum Hydrocarbons

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-7:15'

Lab Sample ID: 0310086-014A **Date Prepared:** 10/23/2003

Sample Location:

3701 Martin Luther King Jr. Way

Sample Matrix: SOIL Date/Time Sampled

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/24/2003	0.1	1	0.100	0.113	mg/Kg
Surr: Trifluorotoluene	SW8015B	10/24/2003	0	1	65-135	90.6	%REC

Report prepared for: Mr. Joseph Cotton

Date Received: 10/18/2003

Impact Environmental Services

Date Reported: 10/29/2003

Client Sample ID:

E-7:GW

. Lab Sample ID: 0310086-015A

Sample Location:

3701 Martin Luther King Jr. Way WATER

Date Prepared: 10/20/2003

Sample Matrix: Date/Time Sampled

10/17/2003 4:00:00 PM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/21/2003	1	1	1.0	ND	μg/L
Ethylbenzene	SW8021B	10/21/2003	1	1	1.0	3.4	µg/L
Methyl tert-butyl ether	SW8021B	10/21/2003	1	1	1.0	ND	µg/L
Toluene	SW8021B	10/21/2003	1	1	1.0	ND	µg/L
Xylenes, Total	SW8021B	10/21/2003	1	1	1.0	2.6	μg/L
Surr: Trifluorotoluene	SW8021B	10/21/2003	0	1	65-135	114	%REC

Report prepared for: Mr. Joseph Cotton

Date Received: 10/18/2003

Impact Environmental Services

Date Reported: 10/29/2003

Client Sample ID:

E-7:GW

Lab Sample ID: 0310086-015A

Sample Location:

3701 Martin Luther King Jr. Way

Date Prepared: 10/20/2003-10/21/2003

Sample Matrix:

WATER

Date/Time Sampled 10/17/2003 4:00:00 PM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Diesel)	SW8015B	10/27/2003	0.2	1	0.200	ND	mg/L
TPH (Gasoline)	SW8015B	10/21/2003	0.1	1	0.100	0.161	mg/L
TPH (Motor Oil)	SW8015B	10/27/2003	0.4	1	0,400	ND	mg/L
Surr: Pentacosane	SW8015B	10/27/2003	0	1	50-150	59.0	%REC
Surr: Trifluorotoluene	SW8015B	10/21/2003	0	1	65-135	130	%REC

Note: Silica gel cleanup employed. Deisel reporting limit incresed due to matrix interference.

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

E-2A:GW

Lab Sample ID: 0310086-016A

Sample Location:

3701 Martin Luther King Jr. Way

Date Prepared: 10/21/2003

Sample Matrix:

WATER

Date/Time Sampled

10/17/2003 9:30:00 AM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/21/2003	1	10.5	10	ND	μg/L
Ethylbenzene	SW8021B	10/21/2003	1	10.5	10	ND	μg/L
Methyl tert-butyl ether	SW8021B	10/21/2003	1	10.5	10	ND	µg/L
Toluene	SW8021B	10/21/2003	1	10.5	10	ND	µg/L
Xylenes, Total	SW8021B	10/21/2003	1	10.5	10	ND	μg/L
Surr: Trifluorotoluene	SW8021B	10/21/2003	0	10.5	65-135	73.6	%REC

Note: Sample was diluted due to possible matrix interference.

Report prepared for: Mr. Joseph Cotton

Date Received: 10/18/2003

Impact Environmental Services

Date Reported: 10/29/2003

Client Sample ID:

E-2A:GW

Lab Sample ID: 0310086-016A

Sample Location:

3701 Martin Luther King Jr. Way WATER

Date Prepared: 10/21/2003

Sample Matrix:
Date/Time Sampled

10/17/2003 9:30:00 AM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Diesel)	SW8015B	10/27/2003	0.1	1	0.100	ND	mg/L
TPH (Gasoline)	SW8015B	10/21/2003	0.1	10.5	1.05	ND	mg/L
TPH (Motor Oil)	SW8015B	10/27/2003	0.4	1	0.400	ND	mg/L
Surr: Pentacosane	SW8015B	10/27/2003	0	1	50-150	83.0	%REC
Surr: Trifluorotoluene	SW8015B	10/21/2003	0	10.5	65-135	81.8	%REC

Note: Sílica gel cleanup employed.

Note: Sample was diluted due to possible matrix interference.

Report prepared for: Mr. Joseph Cotton

Impact Environmental Services

Date Received: 10/18/2003

Date Reported: 10/29/2003

Client Sample ID:

TRIP-BLANK

Lab Sample ID: 0310086-017A

Sample Location:

3701 Martin Luther King Jr. Wa

Date Prepared: 10/20/2003

Sample Matrix:

WATER

Date/Time Sampled

10/17/2003 8:30:00 AM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
Benzene	SW8021B	10/20/2003	1	1	1.0	ND	µg/L
Ethylbenzene	SW8021B	10/20/2003	1	1	1.0	ND	μg/L
Methyl tert-butyl ether	SW8021B	10/20/2003	1	1	1.0	ND	μg/L
Toluene	SW8021B	10/20/2003	1	1	1.0	ND	μg/L
Xylenes, Total	SW8021B	10/20/2003	1	1	1.0	ND	μg/L
Surr: Trifluorotoluene	SW8021B	10/20/2003	0	1	65-135	85.0	%REC

Report prepared for: Mr. Joseph Cotton

Date Received: 10/18/2003

Impact Environmental Services

Date Reported: 10/29/2003

Client Sample ID:

TRIP-BLANK

Lab Sample ID: 0310086-017A **Date Prepared:** 10/20/2003

Sample Location:

3701 Martin Luther King Jr. Wa

Sample Matrix:
Date/Time Sampled

WATER 10/17/2003 8:30:00 AM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units
TPH (Gasoline)	SW8015B	10/20/2003	0.1	1	0.100	ND	mg/L
Surr: Trifluorotoluene	SW8015B	10/20/2003	0	1	65-135	102	%REC

Definitions, legends and Notes

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
а	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

October 29, 2003

Mr. Joseph Cotton Impact Environmental Services 39120 Arogonat Way, Suite 223 Fremont, CA 94538

TEL: 510-703-5420 FAX 510-713-7790

RE:

Dear Mr. Joseph Cotton:

Order No.: 0310086

Torrent Laboratory, Inc. received 17 samples on 10/18/2003 for the analyses presented in the following report.

All data for associated QC met EPA or Laboratory specification except where noted in the case narative.

Torrent laboratory Inc. is certified by the State of California, ELAP #1991. If you have any question regarding these tests results, please feel free to contact Environmental Coordinator, Ms. Anu Patel at (408)263-5258;ext: 204.

Sincerely,

Laboratory Director

Date



TORRENT LABORATORY, INC. CHAIN OF CUSTODY

483 Sinclair Frontage Rd. Milpitas, CA 95035 Lab's W.O. # 0310085

Phone: 408.263.5258 FAX: 408.263.8293

Visit us at www.torrentlab.com email: analysis@torrentlab.com Location of Sampling: 3701 NOTHER KING JR, WAY Company Name: IMPACT ENVIRONMENTAL SERVICES Address: 39120 ARGONAUT WAY, #223 PUIPOSE: SUPPLEMENTAL SOIL & GROUNDWATER INVEST. State: (🕰 Zip Code: 94538 | Special Instructions / Comments: 51500 BRD T. A.T. City: FREMONT NK · Client FAX #(510) 791-0271 Telephone: 610) 703-5420 Report To: JOSEPH COTTON Sampler: JOSEPH COTTON PO. #: 1E5-03-03 E-mail: JAC2146Z@aulicom Storm Water Analyses Requested 2-8 Hours ☐ 3 Working Days Turnaround 10 Working Days ☐ Waste Water Time: ☐ 2 Working Days 3. Ground Water 7 Working Days ZK Soil 5 Working Days ☐ 24 Hours Otner Client's Date/Time Sample #of Cont. ' - Torrent's Accounting Torrent's Sample I.D. Type Cont. Type Sampled Sample I.D. LINERS 10310086-001A 10/17/3 SOIL - 00ZA E-5.5 ELLOW. E-5:10' -003A LINGS E-5:15 - 004A 5014 340450A E-5:GW -005A $\Box \omega$ IL AMBOS Lab -006A SOIL - Torrent E-6:51 -007A 7. E-6-10 - 008A LINGES E-6:15 -009A 501L 9. 40 CC USA E6:GW -otoa 10/17/3 GW 10. Date: 1 VR 3 Time: 11'. OD Received By: Carel Date 18/02 Time: 11: 00 Am Relinquished Bk: Time: Date: Received By: Time: Relinquished By: Date: Were Samples Received in Good Condition ? TYES INO Samples on Ice? TYES INO Method of Shipment Doby Sample seals intact? IYES NO Note: San are discarded by the laboratory 30 days from date of receipt unless oth angements are made.

TORRENT LABORATORY, INC. CHAIN OF CUSTODY

483 Sinclair Frontage Rd. Milpitas, CA 95035 Lab's W.O. # 0310085

Phone: 408.263.5258 FAX: 408.263.8293

Visit us at www.torrentiab.com email: analysis@torrentiab.com

					AISILE	12 at M	WW.IOI	ennab	.com	eman.	analys	SISWIC	orreniiad	.com					
Company Name: IMPACT	OMPANY NAME: IMPACT BUVIRONMENTAL SERVICES							Location of Sampling: 3701 MARTIN LUTHER KING JR. WAS											
Address: 39120 ARGONAUT WAY, #223						Purpose: SUPPLEMENTAL SOIL & GROUNDWOTER INVE													
\$	State: $\subset A$.											1							
City: FREMONT State: CA. Zip Code: 94538 Special Instructions / Comments: STENDERD T.A.T. Telephone: (510) 703-5420 FAX #(50) 791-0271											Client								
Report To: JOSEPH COTTON Sampler: JOSEPH COTTON P.O. #: 1ES-03-03 E-mail: JAC 21462@ CLO1.C									olicom	1 .									
Turnaround 10 Working Days 2 3 Working Days 2-8 Hours 2 v				Storm Water Waste Water Fround Water															
Torrent's Sample I.D.	Date/Time Sampled	Sample Type	#of Cont.	Cont. Type		§ 6	45) /	//	3. C	all con	/4		,	lient's nple I.D.	s ting				
10310086 - 011A	10/17/3	5014	(LINER							X	·	=-7:	21	. Torrent's Accounting				
2 11 -012A		SOIL	١									1	-7:		7 - To				
3. 11 -013A		SOIL	١)					$ \prec $			E	Z-7:	101	YELLOW				
4. 11 -014A		SOIL	1 ' 1	LINE	اسما							Z	<u> </u>	15	ΥE				
s. 4 -015A	् भूरक	GW	14	340ccv LL AM	3	\leq			\times			E	E-7 (ĢW	-				
6. 4 -016A	10/17/3 9:30	GW	4	3 40KC .L. Ko mb	1 7	\leq			\times			E	<u> - 2 p</u>	z:GW	ab				
7. 11 -017A	10/17/3 8:30	Sw	3	3 VODS		\leq							RIP-	BLAWI	rent L				
8.															- Ton				
9.															MHITE				
10.															\$				
Relinquished By: Date: Wish Time: 11'00 Received By: Capul Date/0/18/03 Time: //: 00 A									1:00A	7 -7									
Relinquished By:	Relinquished By: Date: Tim		Time	:	Received By:						Date: Time:								
Were Samples Received in Good Condition 2 XYES INO Samples on Ice? XYES INO Method of Shipment Doby To Seph Sample seals intact? I YES INO																			
Note: Sample re discarded by the laboratory 30 days from date of receipt unless other (gements are made.																			