August 18, 2008

Mr. Jerry Wickham
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

RE: Lucasey Manufacturing
2744 East 11th Street
Oakland, California 94601
SLIC Case RO0002902
Clearwater Group Project # FB022K

Dear Mr. Wickham,

As the legally authorized representative of the above-referenced project location I have reviewed the *Results of Gore-Sorber® Soil Vapor Survey and Recovery Well Installation* report, dated August 18, 2008, prepared by my consultant of record, Clearwater Group. I declare, under penalty of perjury, that the information and/or recommendations contained in this report are true and correct to the best of my knowledge.

Sincerely,

Mr. Chris Lucasey

Perjury Statement

CLEARWATER
GROUP
Environmental Services

RESULTS OF GORE-SORBER™ SOIL VAPOR SURVEY AND RECOVERY WELL INSTALLATION

Lucasey Manufacturing Corporation
2744 East 11th Street
Oakland, California

Prepared by

CLEARWATER GROUP

for

Mr. Chris Lucasey
Lucasey Manufacturing, Inc.
2744 East 11th Street
Oakland, California

Erik Lervaag
Senior Environmental Engineer

James A. Jacobs, P.G.#4815; C.H.G.#88
Chief Hydrogeologist

PROFESSIONAL GEOLOGIST
JAMES ALAN JACOBS
NO. 88
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

August 18, 2008

229 Tewksbury Avenue ◆ Point Richmond, California 94801 ◆ Telephone: 510-307-9943 ◆ Fax: 510-232-2823

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ATTACHMENTS

1 INTRODUCTION

This report was prepared according to the letter dated October 3, 2007, from the staff of Alameda County Environmental Health (ACEH) (**Attachment A**); that letter served to approve the workplan presented in the Clearwater Group (Clearwater) July 6, 2007, *Phased Soil and Groundwater Investigation and Recovery Well Installation Workplan* as modified by the correspondence dated September 4, 2007, from ACEH staff to Clearwater staff.

One of the recommendations of this workplan was to conduct a Gore-Sorber® Soil Gas Survey (Gore-Sorber® Survey) to delineate the lateral extents of contamination at 2744 East 11th Street, Oakland, California (Subject Property) and the possible migration of contaminants offsite. The results of this Gore-Sorber® Survey are detailed in this report.

2 BACKGROUND

2.1 Site Description

The Subject Property is located in a mixed light industrial, regional transportation corridor (rail and highway) and residential area of Oakland, at the north and southeast corner of the intersection of Lisbon Avenue and East 11th Street (**Figure 1**). The Subject Property occupies about 2.32 acres and is improved with one building, which measures approximately 100,000 square feet (**Figure 2**). The property is occupied by Lucasey Manufacturing Corporation (Lucasey), a fabricator of television mounting systems.

2.2 Site History

The 1903 Sanborn Fire Insurance (Sanborn) map of the Subject Property shows the site to be improved with eight residences and the warehouse and cannery buildings of the Code-Portwood Canning Company. On the 1950 Sanborn map, the entire current property, the adjacent property to the south, and some of the property to the southwest were used by the California Packing Corporation as a cannery as well as a canned goods warehouse.

2.3 Site Investigation History

2.3.1 Phase I Environmental Site Assessment

The results of an initial site environmental study of the Subject Property were reported by

AEI Consultants (AEI) of Walnut Creek, California, in its *Phase I, Environmental Site Assessment, 2744 East 11th Street, Oakland, California*, dated August 24, 2004. This site assessment revealed two related property improvements designated as "oil house" and "oil tank in ground." These improvements were noted due south of the Subject Property building, and within the "L" of the building footprint adjacent to the current loading dock area (1911 and 1950 Sanborn maps). A machine shop was also noted in the vicinity of the "oil house" and "oil tank in ground." No other on-site fuel storage tanks were identified in the AEI's *Phase I Environmental Site Assessment.*

AEI recommended a Phase II Subsurface Investigation to determine whether the historic documented underground storage tank (UST) and the nearby shop areas had experienced petroleum hydrocarbon releases, which could have impacted the subsurface of the Subject Property.

2.3.2 Initial Phase II Environmental Site Assessment

An initial Phase II subsurface investigation was performed by AEI on August 31, 2004. The results were reported in AEI's September 14, 2004, *Phase II Subsurface Investigation Report, 2744 East 11th Street, Oakland, California.* Five soil borings (SB-1 through SB-4 and SB-6) were drilled on-site. Boring SB-5 was attempted but abandoned, owing to drill refusal. The locations of the borings were chosen to identify a release, if any, from the target area identified on the Sanborn maps. The borings were advanced to 16 feet below ground surface (bgs), and soil samples were collected at 4-foot intervals. Significant staining and hydrocarbon odor were observed during the drilling of borings SB-1, SB-2, SB-4, and SB-6. The soil staining was described as black sludge dispersed throughout the clays, beginning at approximately 12 feet bgs and extending to the bottom of the boring at 16 feet bgs.

Groundwater was encountered at approximately 13 feet bgs in the soil borings, and grab groundwater samples were collected from the five borings. AEI staff noted that free product (free phase petroleum hydrocarbons) was observed in borings SB-1, SB-2, SB-4, and SB-6. The groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, diesel, and motor oil by EPA Method 8015 and for volatile organic compounds (VOCs) by EPA Method 8260.

The results of the groundwater sample analyses indicated that the site groundwater is impacted by petroleum hydrocarbons. Concentrations of total petroleum hydrocarbons as gasoline (TPH-g) in water ranged from 130 micrograms per liter (µg/L) in the sample from boring SB-6 to 3,800 µg/L in the sample from boring SB-2, while the sample from boring SB-3 was non-detect for TPH compounds. VOCs were detected at very low levels in the grab groundwater samples. The soil samples were placed on hold and were not analyzed, because the results indicated significant groundwater contamination.

2.3.3 Second Phase II Subsurface Investigation

A second Phase II Subsurface Investigation was performed by Terra Firma, of Mill Valley, California, on July 9, 2005. Six soil borings, BH-1 through BH-6, were driven in the area containing the highest known concentration of petroleum hydrocarbons in groundwater that had been established by the first Phase II investigation. The boring logs indicated that the soil underlying the site is predominantly silty clay to clay with layers of fine sand and gravel. Groundwater was encountered at approximately 12 feet bgs in boring BH-2 and 11 feet bgs in boring BH-4. The soil sample results indicated that high concentrations of petroleum hydrocarbons occurred in the Subject Property soil (8,900 milligrams per kilogram [mg/kg] of total petroleum hydrocarbons as diesel [TPH-d] and 7,500 mg/kg of total petroleum hydrocarbons as motor oil [TPH-mo] in sample number 50603-2-12). These concentrations are indicative of free product.

Grab groundwater samples were collected from 3 of the 6 borings. All the grab groundwater samples contained petroleum hydrocarbons. TPH-d concentrations ranged from 670 µg/L (boring BH-5) to 580,000 µg/L (boring BH-2). TPH-mo concentrations were comparable, ranging from 2,800 µg/L (BH-5) to 510,000 µg/L (BH-2). Methyl tertiary butyl ether (MTBE) and benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations were below the laboratory reporting limits.

3 GORE-SORBER® SOIL GAS SURVEY

The objective of Clearwater's recent site investigation, deployment of Gore modules to document the distribution of Volatile Organic Compounds (VOCs) contamination, was to evaluate the shallow subsurface on the Subject Property and along the east and west sides of East 11th Street and the north and south sides of Lisbon Avenue (**Figure 2**). This investigation was conducted using passive soil vapor samplers (Gore™ modules)

provided by W. L. Gore & Associates, Inc. (Gore), of Elkton, Maryland, to delineate soil vapor concentrations in this area (Standard Operating Procedures Statement of Procedures in Attachment B).

3.1 Placement of Gore™ Modules

On April 16, 2008, twenty-four (24) Gore™ modules were installed on the grounds of the Subject Property and along East 11th Street and Lisbon Avenue. The locations of the modules are shown in **Figure 2**.

3.2 Permitting and Underground Service Alert (USA) Notification

No permit is required from Alameda County Public Works Agency (ACPWA) to place the Gore™ modules, because the installation boring is less than 3 feet bgs. Underground Service Alert (USA) was called and notified of the work to be conducted. The USA notification number is 0130950.

3.3 Gore™ Procedure

The Gore™ modules are constructed with activated carbon positioned within a sheath of Gore-Tex® material. The modules were installed in shallow, hand-driven soil borings at a depth of approximately 30 inches bgs and capped with a cork, per Gore-recommended procedures. Organic vapors released from petroleum hydrocarbons and solvents in the soil and groundwater were adsorbed onto the modules during the 15-day exposure period. To maximize the soil gas survey results, the modules were placed with the maximum spacing between modules equal to or less than 3 times the average depth from surface to groundwater (at 20 feet spacing because depth to water is 8 feet bgs). The modules were placed a minimum of 15 feet from groundwater monitoring wells, to avoid the potential interference caused by a groundwater monitoring well's capability to create a chimney effect and vertically transport soil gases.

Following the removal of each module on April 29, 2008, the emptied borehole was filled with bentonite pellets and then hydrated.

The modules were placed directly inside Gore-provided inert glass sample containers and capped and sealed. The module retrieval time and date were noted on the Chain-of-Custody document, which accompanied the samples. The samples were labeled and

shipped under chain-of-custody procedures, via FedEx, to the Gore Lab for analysis. The modules were analyzed by Gore using a modified version of EPA Method 8260 (volatile organics). Two blanks accompanied the twenty modules from the laboratory to the site and were stored in the box during deployment and returned with these deployed modules to the laboratory for analysis.

The Gore™ results are presented in micrograms (µg), which are the unit of measure for Gore™ surveys. The Gore™ results do not directly correlate with the soil or groundwater sample analytical results; the Gore modules serve as a screening tool to direct and refine the investigation.

3.4 Gore™ Survey Results

Total Petroleum Hydrocarbon (TPH) was detected in all the modules, at concentrations ranging from 0.01 µg (G9) to 8.04 µg (G17). Benzene was detected only in module G17 at a mass of 0.06 µg. BTEX compounds were detected in modules G2, G8, G14, G17, and G24 at levels of 0.06 µg, 0.07 µg, 0.12 µg, 0.06 µg, and 0.30 µg, respectively. Trimethylbenzenes (TMBs) were detected only in module G24 at a level of 0.04 µg. Naphthalenes were detected only in module G24 at a level of 0.28 µg. Hydrocarbons of carbon chain length C11, C13, and C15 were detected in modules G1, G3, G7, G8, G14, G18, G20, G22, and G24. The mass of hydrocarbons ranged from 0.01 µg (G1) to 0.10 µg (G24).

The Gore™ results are presented in **Table 1**. A copy of the GORE™ Surveys, Final Report, dated June 2, 2008, is presented in **Attachment D**.

3.5 Plotting of Gore™ Results

Clearwater provided Gore with an AutoCAD site map showing the module locations. Gore then plotted the concentrations of BTEX, TPH, and the combined C11, C13, and C15 values and prepared a color-contoured overlay of the concentrations of each contaminant on a separate site map. The color-contoured concentration diagrams are presented in the GORE™ Surveys Final Report.

4 DISCUSSION OF GORE™ RESULTS

4.1 Plume Location

The Gore™ results indicate that there is a petroleum hydrocarbon plume extending from the location of the former UST to the west and south towards East 11th Street. Based on the C11, C13, and C15 Gore-Sorber® Map, the plume is no less than 50 feet wide and 80 feet long. This plume is contained within the Subject Property except for some localized contamination hot spots that may not be related to the UST plume. The BTEX map shows a similar pattern, with the plume confined to the site and with hot spots (off-site) that may not be related to the UST plume. The TPH map shows a similar pattern with two hot spots at G14 and G17. The Gore-Sorber® maps show no upgradient sources.

5 RECOVERY WELL INSTALLATIONS

Recovery well locations were established to meet the goals of the project. RW-1 was installed in the location of the oil tank as shown on the Sanborn maps. RW-2 and RW-3 were installed adjacent to SB-14 and SB-13, respectively, two locations with analytical high levels of free product during the soil borings (**Figure 3**).

5.1 Excavation and Well Permits

Clearwater obtained two excavation permits from the City of Oakland, one each to install the Gore™ modules along East 11th Street and also along Lisbon Avenue. The permit numbers are X0800378 and X0800379. Copies of the permits are included as **Attachment C**. Clearwater obtained a well permit from the ACPWA, permit numbers W2008-0099 dated March 5, 2008 (**Attachment C**).

5.2 Health and Safety Plan

A site-specific health and safety plan was produced prior to commencement of fieldwork. This plan included anticipated hazards, personal protective equipment requirements for site workers, and emergency procedures. This plan was on-site during all field activities, and employees and contractors signed the safety plan after each daily tail-gate safety meeting.

5.3 Subsurface Survey

Proposed recovery well locations were marked with white paint as required by Underground Service Alert (USA). USA was notified at least 48 hours prior to the beginning of fieldwork. Clearwater used a private utility locator to mark the detected ferrous subsurface improvements. After the well installation, a site survey for elevations was performed by a registered land surveyor, and GPS data were acquired in accordance with regulations from the State Water Resources Control Board Geotracker upload requirements.

5.4 Recovery Well Installation and Development

Three 4-inch diameter recovery wells were installed at the locations shown in **Figure 3**. The wells were installed to 25 feet below ground surface and screened from 7 feet to 25 feet below ground surface. Recovery well RW-1 was continually logged in the field during the well installation. Because wells RW-2 and RW-3 were located at soil borings SB-14 and SB-13, respectively, and these had been previously logged, they were not logged during well installation. The boring logs are included as **Attachment E**. (The DWRs are also included in **Attachment E**.) Well development is still pending.

5.5 Drill Cuttings

All soil cuttings and drilling derived waste generated during coring was contained within Department of Transportation (DOT) approved 55-gallon drums. The labeled drums are staged on-site pending analytical results.

6 DISCUSSION OF RECOVERY WELL RESULTS

Once the wells have been developed and sampled, Clearwater will submit an addendum to this report. The addendum will contain the results of the groundwater sampling and a discussion of these results.

7 RECOMMENDATIONS

The Gore-Sorber® survey provided valuable data on the lateral extents of the plume. Based on the survey results, Clearwater proposes to develop a soil and groundwater sampling workplan to delineate the plume both horizontally and vertically. Soil vapor sampling of the surrounding residential properties should also be a part of this plan to evaluate the level of risk associated with an aged hydrocarbon release. Once the vertical

and lateral extent has been identified, the mass of hydrocarbons can be quantified. This data along with vapor sampling results will allow an appropriate remediation strategy formulated.

8 CERTIFICATION

This report was prepared under the supervision of a Professional Geologist in the State of California. All statements, conclusions, and recommendations are based solely upon published results from this site and nearby sites from reports by previous consultants, Clearwater Group, and field observations by Clearwater Group and laboratory analysis performed by California State-certified laboratories related to the work performed by Clearwater.

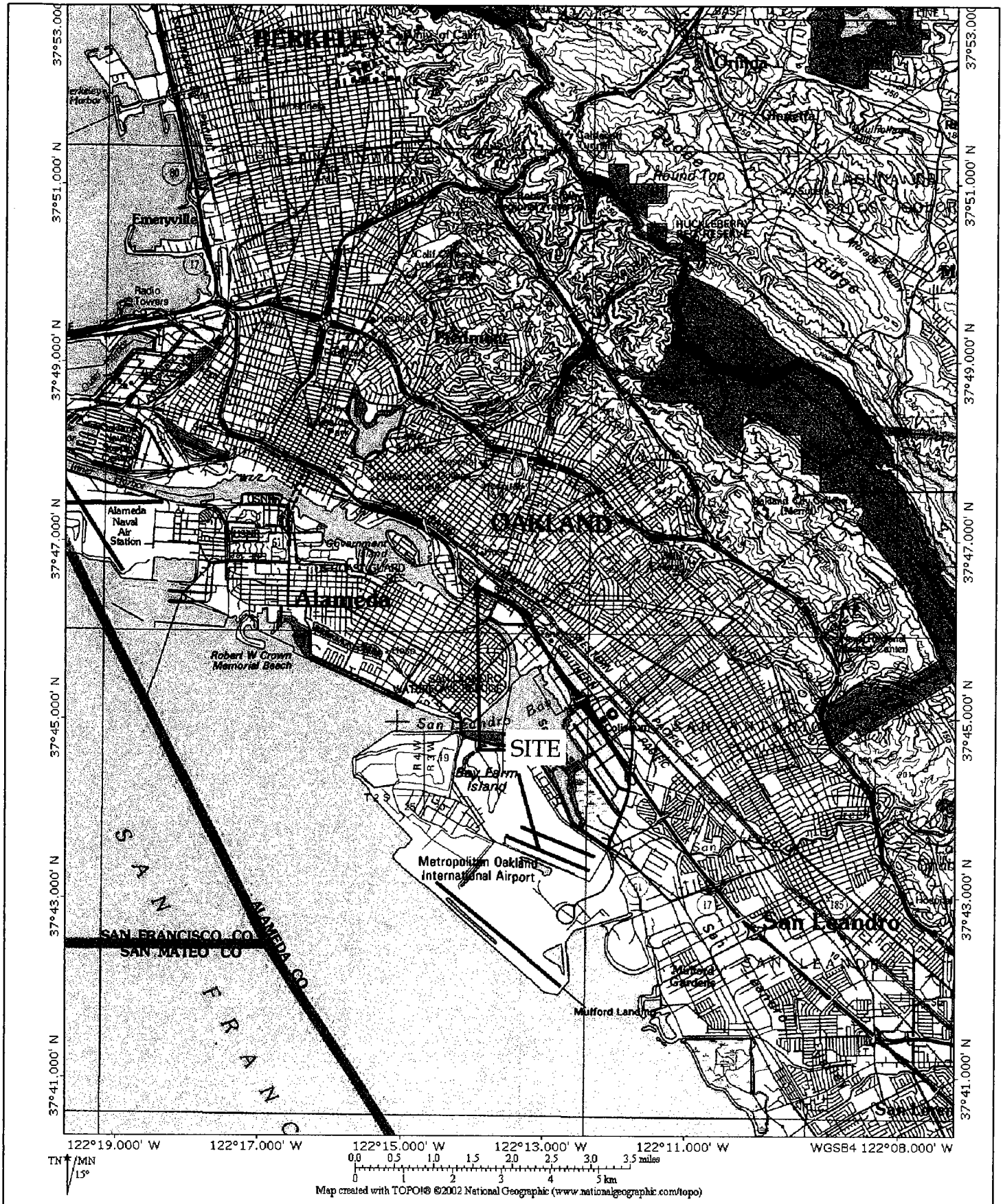
Information and interpretation presented herein are for the sole use of the client and regulatory agency. A third party should not rely upon the information and interpretation contained in this document.

The service performed by Clearwater Group has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

9 LICENSED PROFESSIONALS

In-house licensed professionals direct all projects. These professionals, including geologists or engineers, shall be guided by the highest standards of ethics, honesty, integrity, fairness, personal honor, and professional conduct. To the fullest extent possible, the licensed professional shall protect the public health and welfare and property in carrying out professional duties. In the course of normal business, recommendations by the in-house professional may include the use of equipment, services or products in which the Company has an interest. Therefore, the Company is making full disclosure of potential or perceived conflicts of interest to all parties.

FIGURES

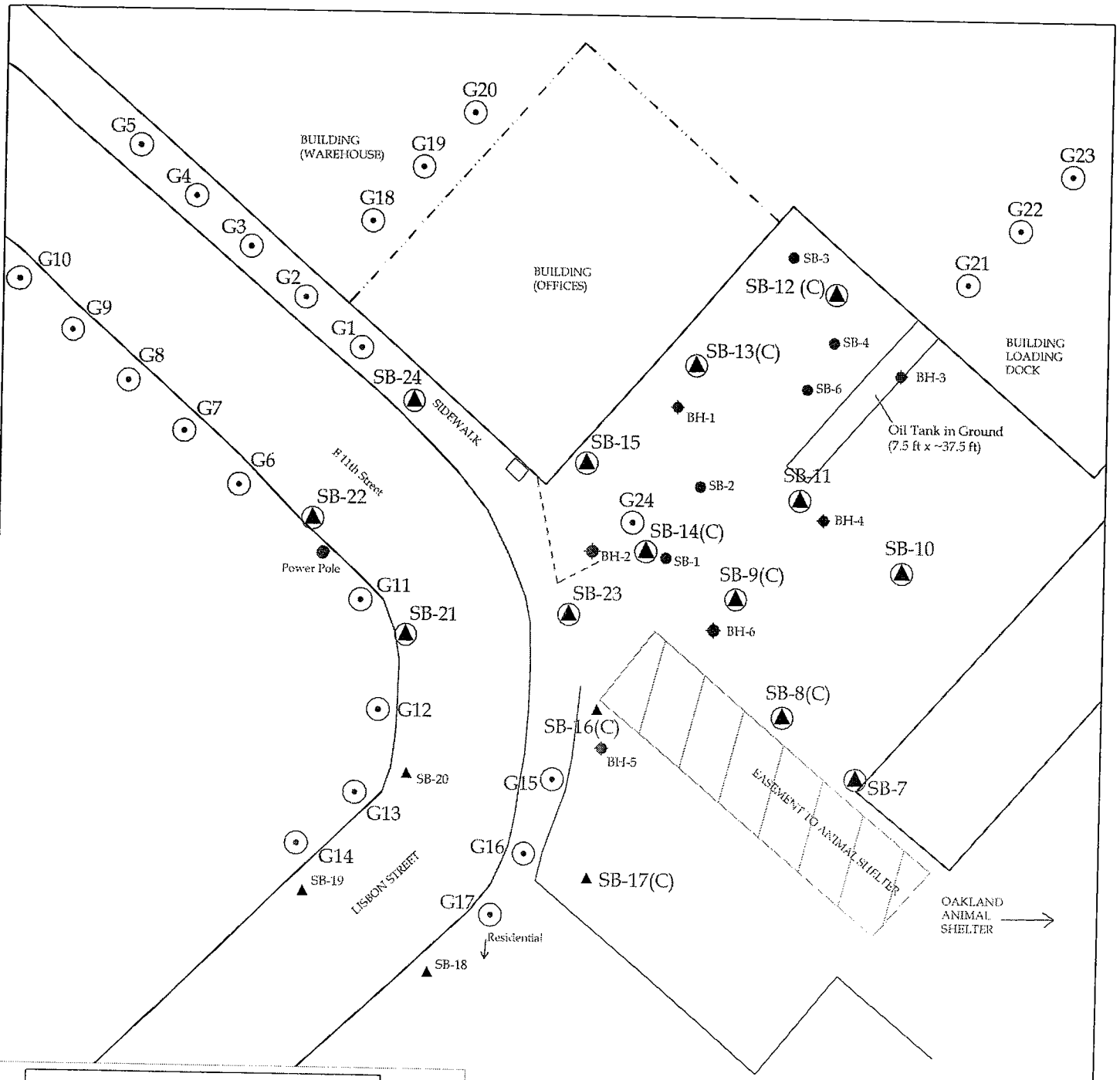


SITE VICINITY MAP

Lucasey Manufacturing
2744 E 11th Street
Oakland, California

CLEARWATER GROUP

Project No.	Figure Date	Figure
FB022G	**4/06**	**1**

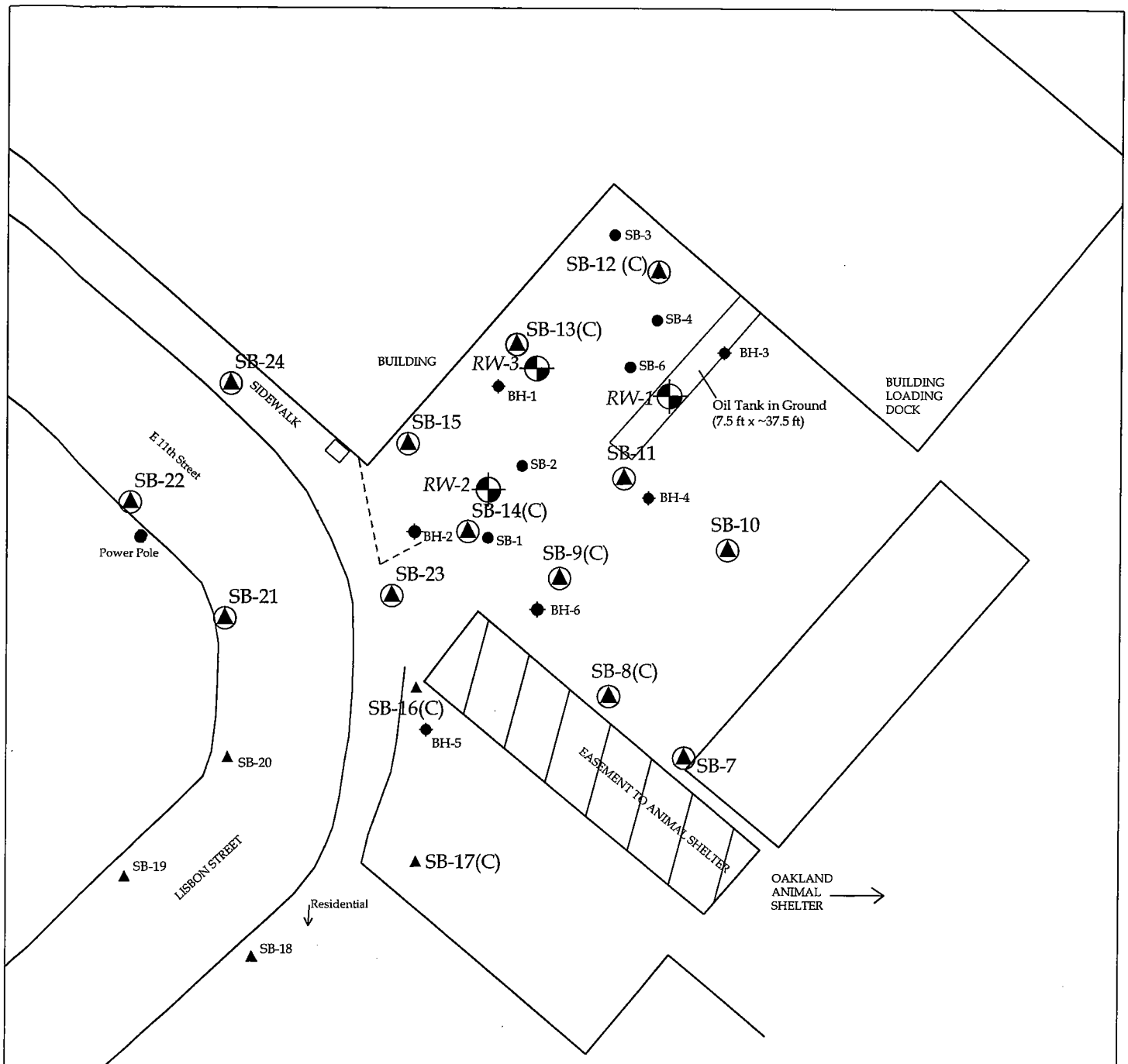


Gore-Sorber Location Map

Lucasey Manufacturing
2744 East 11th Street
Oakland, California

CLEARWATER GROUP

Project No.	Figure Date	Figure
FB022K	**6/08**	**2**



Recovery Test Well locations
Lucasey Manufacturing
2744 East 11th Street
Oakland, California

CLEARWATER GROUP

Project No.	Figure Date	Figure
FB022K	**7/08**	3

TABLE

Table 1
Gore™ Surveys Analytical Results
Lucasey Manufacturing, 2744 East 11th Street, Oakland, CA
Gore Standard Target VOCs/SVOCs (A2)
Site EGQ - Production Order # 13586384
Clearwater Group Project No. FB022K

Date Analyzed	Sample Name	TPH	BTEX	BENZ	TOL	ETBENZ	mpXYL	oXYL	C11, C13, &C15	UNDEC	TRIDEC	PENTADEC	TMBs
	Units	µg	µg	µg	µg	µg	µg	µg	µg	µg	µg	µg	µg
	MDL=			0.01	0.01	0.01	0.01	0.01		0.01	0.01	0.01	
5/6/2008	564161	0.12	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01	nd
5/6/2008	564162	0.06	0.06	nd	nd	nd	0.04	0.02	nd	nd	nd	nd	nd
5/5/2008	564163	0.11	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01	nd
5/5/2008	564164	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564165	0.17	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564166	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564167	0.35	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01	nd
5/6/2008	564168	0.08	0.07	nd	nd	nd	0.05	0.02	0.01	nd	nd	0.01	nd
5/6/2008	564169	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564170	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564171	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564172	0.18	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564173	1.28	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564174	3.84	0.12	nd	nd	nd	0.07	0.05	0.03	0.01	nd	0.02	nd
5/6/2008	564175	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564176	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564177	8.04	0.06	0.06	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564178	0.31	nd	nd	nd	nd	nd	nd	0.03	nd	nd	0.03	nd
5/6/2008	564179	0.06	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564180	0.95	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01	nd
5/6/2008	564181	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564182	0.12	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01	nd
5/6/2008	564183	0.77	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564184	3.35	0.3	nd	0.02	0.05	0.16	0.07	0.10	0.08	0.01	0.01	0.04
5/6/2008	564185	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564186	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/5/2008	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
5/6/2008	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Maximum	8.04	0.30	0.06	0.02	0.05	0.16	0.07	0.10	0.08	0.01	0.03	0.04
	Standard Dev.	1.83	0.07	0.01	0.00	0.01	0.04	0.02	0.02	0.02	0.00	0.01	0.01
	Mean	0.84	0.03	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00

Table 1
Gore™ Surveys Analytical Results
Lucasey Manufacturing, 2744 East 11th Street, Oakland, CA
Gore Standard Target VOCs/SVOCs (A2)
Site EGQ - Production Order # 13586384
Clearwater Group Project No. FB022K

Date Analyzed	Sample Name	124TMB	135TMB	NAPH&2-MN	NAPH	2MeNAPH	MTBE	OCT
	Units	µg	µg	µg	µg	µg	µg	µg
	MDL=	0.01	0.01		0.01	0.01	0.02	0.01
5/6/2008	564161	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564162	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564163	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564164	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564165	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564166	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564167	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564168	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564169	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564170	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564171	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564172	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564173	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564174	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564175	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564176	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564177	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564178	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564179	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564180	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564181	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564182	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564183	nd	nd	nd	nd	nd	nd	nd
5/6/2008	564184	0.01	0.03	0.29	0.18	0.11	nd	nd
5/6/2008	564185	nd	nd	nd	nd	nd	nd	nd
5/5/2008	564186	nd	nd	nd	nd	nd	nd	nd
5/5/2008	method blank	nd	nd	nd	nd	nd	nd	nd
5/6/2008	method blank	nd	nd	nd	nd	nd	nd	nd
	Maximum	0.01	0.03	0.29	0.18	0.11	0.00	0.00
	Standard Dev.	0.00	0.01	0.06	0.04	0.02	0.00	0.00
	Mean	0.00	0.00	0.01	0.01	0.00	0.00	0.00

Table 1
Gore™ Surveys Analytical Results
Lucasey Manufacturing, 2744 East 11th Street, Oakland, CA
Gore Standard Target VOCs/SVOCs (A2)
Site EGQ - Production Order # 13586384
Clearwater Group Project No. FB022K

Notes:
No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

µg	micrograms (per sorber), reported for compounds
mdl	method detection limit
bdl	below detection limit
nd	non-detect
TPH	total petroleum hydrocarbons
BTEX	combined masses of benzene, toluene, ethylbenzene and total xylenes (Gasoline Range Aromatics)
BENZ	benzene
TOL	toluene
EtBENZ	ethylbenzene
mpXYL	m-,p-xylene
oXYL	o-xylene
C11,C13&C15	combined massed of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes)
UNDEC	undecane
TRIDEC	tridecane
PENTADEC	pentadecane
TMBs	combined masses of 1,3,4-trimethylbenzene and 1,2,4-trimethylbenzene
135TMB	1,3,5-trimethylbenzene
124TMB	1,2,4-trimethylbenzene
NAPH&2-MN	combined masses of naphthalene and 2-methyl naphthalene
NAPH	naphthalene
2MeNAPH	2-methyl naphthalene
MTBE	methyl t-butyl ether
OCT	octane
method blank	QA/QC module, documents analytical conditions during analysis

ATTACHMENTS

ATTACHMENT A

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 3, 2007

Mr. Chris Lucasey
Lucasey Manufacturing Corporation
P.O. Box 14023
Oakland, CA 94614-2023

Subject: SLIC Case RO0002902 and Geotracker Global ID T0600133151, Lucasey Manufacturing, 2744 East 11th Street, Oakland, CA 94601

Dear Mr. Lucasey:

Alameda County Environmental Health (ACEH) staff has reviewed the Spills, Leaks, Investigations, and Cleanups (SLIC) case file for the above-referenced site, including the recently submitted correspondence dated September 4, 2007, which was prepared by Clearwater Group. The September 4, 2007 correspondence responds to technical comments contained in ACEH correspondence dated August 23, 2007.

The scope of work proposed in the "Phased Soil and Groundwater Investigation and Recovery Well Installation Workplan," dated July 6, 2007 and amended by the September 4, 2007 Clearwater Group correspondence may be implemented provided that the technical comments below are addressed during the proposed field investigation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Gore-sorber® Survey.** The potential for a passive soil vapor survey using Gore-sorber® modules to, "establish the extent and distribution of potential TPHd and TPHmo contamination in soil and groundwater," remains questionable. However, in the interest of moving the investigation forward, the proposed passive soil vapor survey may be implemented. Please present the results in the Site Investigation Report requested below.

2. **Extent of Free Product South and West of Site.** If the passive soil vapor sampling is not successful in delineating the extent of free product, soil borings will be required to define the extent of free product west, south, and north of the site.

3. **Request for Identification of Adjacent Property Owners.** The names and addresses of three property owners were provided in the September 4, 2007 correspondence. Please expand the list to include all properties within 200 feet southwest, south, and southeast from the site. The list is to identify the properties by street address, parcel number, and property owner name. Please also provide a map showing the street address for each of the listed properties and mailing labels for each property owner. ACEH will notify each of

the property owners on the list of the proposed investigation. Please submit the updated list of property owners, map, and mailing labels **no later than November 19, 2007.**

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **February 26, 2008** – Site Investigation Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,

Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Parwez Faizi, Lucasey Manufacturing, 2744 East 11th Street, Oakland, CA 94601

Matthew Ryder-Smith, Clearwater Group, 229 Tewksbury Avenue, Point Richmond, CA 94801

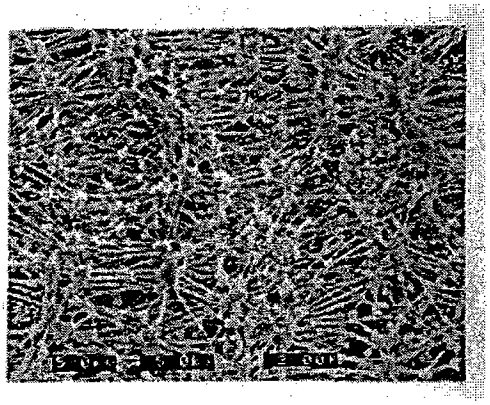
Donna Drogos, ACEH
Jerry Wickham, ACEH
File

ATTACHMENT B

STATEMENT OF PROCEDURES
Clearwater Group

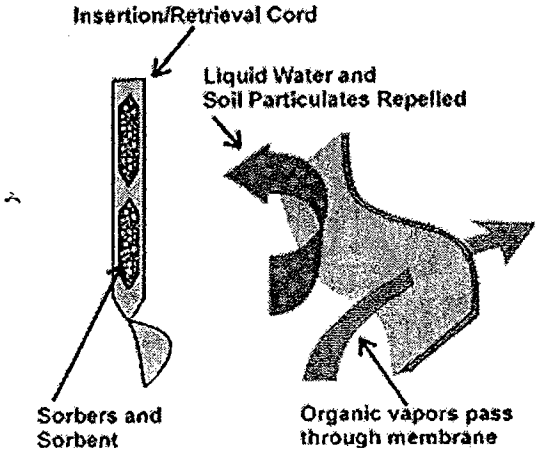
PASSIVE GORE-SORBER® SOIL GAS SURVEY

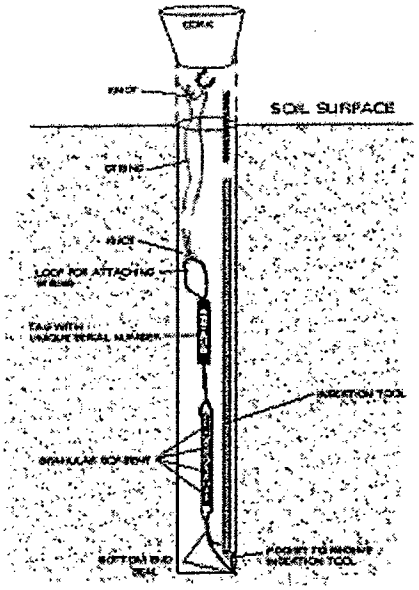
The GORE-SORBER® Module is a patented, passive soil gas sampler, is used to evaluate soil gas for contaminant source identification in environmental projects. The temporary survey process involves planting a dozen or more Gore-sorber modules in a sampling grid designed to meet the project objectives.



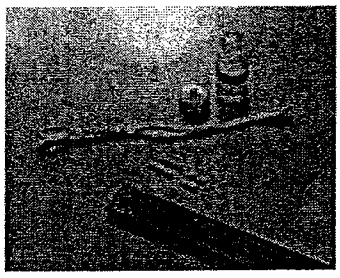
The module is constructed entirely of GORE-TEX® membrane. This membrane is an expanded polytetrafluoroethylene (ePTFE) which is a chemically inert, microporous (vapor permeable), and hydrophobic (waterproof). Much of the node and fibril structure is void space available for vapor transfer. Pore spaces are designed to be orders of magnitude smaller than a liquid drop of water.

The module is constructed of a hollow ePTFE insertion/retrieval cord that contains smaller ePTFE tubes (sorbers). The sorbers contain various polymeric and carbonaceous adsorbents selected for their affinity to a wide variety of volatile and semi-volatile organic compounds, while minimizing the uptake of water vapor.





The membrane facilitates vapor transfer across the entire surface area while providing strength for retrieval from the subsurface. Organic vapors present in the soil gas migrate unimpeded through the membrane to the adsorbent housed in the sorbers. This design prevents soil particles and liquid water from impacting sample integrity.



The module itself is approximately one foot in length and contains enough sorbers for two samples. This allows for duplicate analyses, if required, or a back up analyses in the event of an instrument malfunction. Additional sorbers can be placed in the module if a greater number of samples are required. Each module is stored in individual containers and is uniquely numbered and tracked throughout the project.

Trip Blanks

Additional modules are provided with each project to document impact to the modules during transit, storage and installation/retrieval away from Gore's facility. Trip blanks are identical to the field-installed modules. The client selects which modules are to be trip blanks and leaves them unopened during all phases of the passive soil gas survey.

Module Installation for GORE-SORBER® Screening Surveys

In general, the installation and retrieval of the modules is simple. A narrow diameter hole (three-quarter inch) is drilled into the subsurface to a maximum depth of three feet, the recommended depth for soil gas sampling in environmental sampling applications (1, 2). The hole can be created using hand tools such as a slide hammer and tile probe, a Geoprobe-type or similar direct push probe rig or a rotary hammer drill with a 36-inch carbide-tipped drill bit attached. Once the hole is created, a length of cord is tied to the loop end of the module, and a cork is tied to the surface end of the cord. A stainless steel insertion rod (supplied by Gore) is placed in the pocket at the opposite end of the module, and the unit is inserted down the hole. The insertion rod is removed and the cork tamped flush into the ground at the surface. The site map is marked with the location of the module and its serial number, and the Chain of Custody undated. Global positioning systems (GPS) are now being used to record actual coordinate information in the field.

Following the recommended exposure period, each module is retrieved, the cord and cork discarded properly and the module is returned to its respective container. The serial number and location are verified, and the modules are returned to Gore's laboratory for analysis. The Chain of Custody is updated and returned with the modules.

DETAILS OF THE MODULE INSTALLATION

To facilitate the installation of the modules, it is recommended that the cord and corks be prepared prior to going to the field. For the installation of each module, cut a piece of the supplied polypropylene cord to a length of approximately 7.0 feet or 2.25 meters. Tie the ends of the cord together using a non-slip knot (square knot is suggested - see below). This loop should be long enough to allow for an installation of three feet (one meter) into the subsurface. Pass the looped cord through the eyelet in the cork and pull it back through itself. This will attach the cord to the cork. Wrap the remainder of the cord around the cork and secure the cord/cork combination with a rubber band. The cork and cord are now ready to attach to the module after the pilot hole is created at the installation location.

STATEMENT OF PROCEDURES
Clearwater Group

Square knot instructions (see Figure 1)

1. Take an end of the cord in each hand.
2. Pass the left-hand cord over the right-hand cord and wrap it around the right-hand cord.
3. Take the cord end that is now in your right hand, place it over the cord end in your left hand and wrap it around that cord.
4. Pull the cord carefully to tighten the knot.

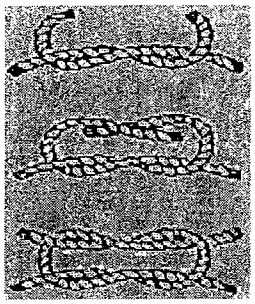


Figure 1.Square Knot

- Always obtain utility clearance before digging or probing.
- We do not recommend installation of modules within 15 feet of monitoring wells, utility trenches or other conduits, which may act as a preferential pathway for soil vapor migration.
- Drive/drill narrow pilot hole at desired pre-marked location. In sandy soils, occasionally the pilot hole will collapse after the drill or tile probe is removed. Adding deionized water to the sandy soil will temporarily compact the soil and keep the hole open for module insertion.
- Wearing clean surgical gloves, remove module from numbered container and re-seal the jar (this numbered container should correspond to the numbered module ID tag - please verify this).
- Attach the cord and cork to the module by passing the looped cord through the loop on the module and pull the cord/cork back through itself.
- Place insertion rod into the pre-cut pocket at the base of the module and lower it into the hole. If you encounter resistance remove the module and ream the hole and re-insert the module.
- Once deployed to the desired depth, press the insertion rod against the side of the hole and twist slightly to release the module. Remove the rod and push any excess cord into the pilot hole and plug it with the cork. (See Figure 2 for schematic of completed module installation.)
- Indicate the module number, date and time of installation and any pertinent comments on the installation/retrieval log. Write the module serial number on the site map adjacent to the appropriate map location.
- To minimize sample location errors, it is preferable to record the GORE-SORBER Module location on the field map. However, if another sample numbering system is used, information relating the sample number system to the GORE-SORBER Module serial numbers must be provided either on the Installation and Retrieval Log, or in a separate table.

- Clean the tile probes or drill bits and the insertion rod prior to use at the next location. Replace the surgical gloves as necessary before handling any modules.
- Following module installation, the modules selected as trip blanks should be kept in the sample box provided and stored as described above in "STORAGE" until sample retrieval.

DETAILS OF THE MODULE RETRIEVAL

- Following the module exposure period (usually 10 - 14 days) identify and check each module location in the field using the site map.
- Remove the cork with a penknife or corkscrew. Grasp the cord and pull the module from the ground; verify the module ID number. Cut off and discard the cork and cord. Place the entire module in its labeled container and tightly secure the lid.
- Use caution when screwing down the lid on the sample jars. Be sure the seal is tight and that no part of module or any dirt/ debris is pinched in the jar threads. Over-tightening may cause breakage.
- Replace the sample container in the box. Where possible, please attempt to keep modules in numbered sequence to expedite sample check-in and processing.
- Complete the module retrieval date/time on the installation/retrieval log.
- Do not use Styrofoam "peanuts" as packing material. Bubble packing is acceptable. Water ice can be added if desired, but cooling in general is not necessary. If shipping with ice, please take precautions to keep boxes dry (perhaps shipping in a cooler).
- Return the samples with insertion rod and paperwork (preferably by overnight courier) to:

Screening Modules Laboratory
W.L. Gore & Associates, Inc.
100 Chesapeake Blvd.
Elkton, MD 21921
Phone: (410) 392-7600

Attn: NOTIFY LAB IMMEDIATELY UPON DELIVERY!!

IMPORTANT: Samples should not be shipped for weekend or holiday delivery at GORE.

Module Installation for the GORE-SORBER® Exploration Surveys

Installation and retrieval of the module in this application is similar to the screening surveys. However, these surveys tend to be carried out in remote locations over large areas necessitating portable hand tools. A narrow diameter hole (1 cm) is created to

depths of 24 inches (60cm) below grade by hammering a narrow steel tool, such as a long screwdriver, into the ground.

After the pilot hole is completed, modules are tied to a section of cord and inserted into the completed hole using the stainless steel insertion rod. The cord is secured at the surface by collapsing the hole. The location is marked on a map and location coordinates are secured where possible with a GPS having file download capabilities.

Module retrieval requires that field personnel locate the retrieval cord and manually pull the module from each location. The cord is separated from the module and discarded properly. The exposed modules are resealed in their respective containers and returned to Gore for analysis. The appropriate paperwork including the Chain of Custody is returned with the modules. Additional installation and retreival information can be found by clicking here.

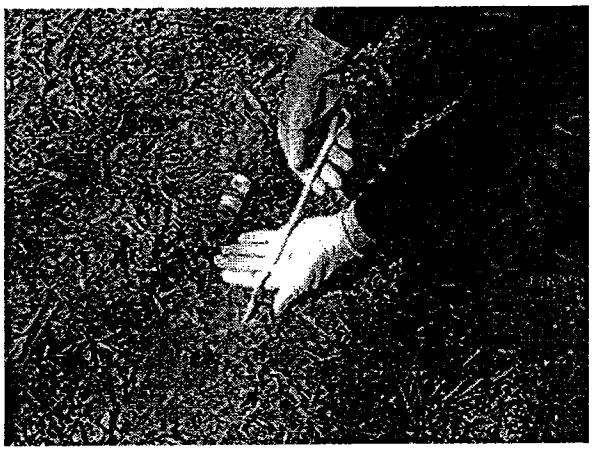
Creating the Installation Hole

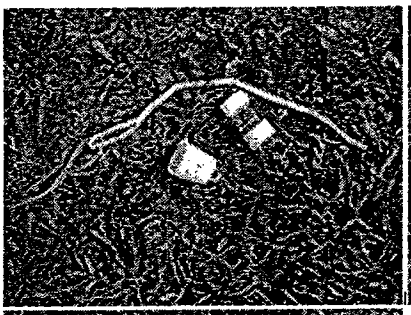
Narrow diameter, uncased installation holes are easily prepared using a slide hammer and long tile probe (left), a rotary hammer drill with a long carbide tipped bit (typically used to create the installation hole through impermeable layers such as asphalt; middle), or with a handheld hammer and steel rod (right).

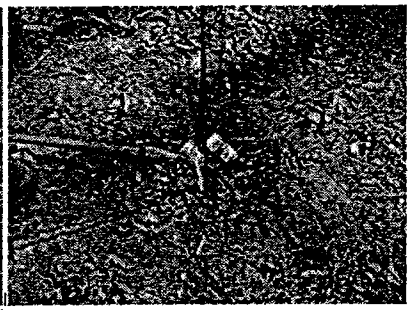
Installing a Module

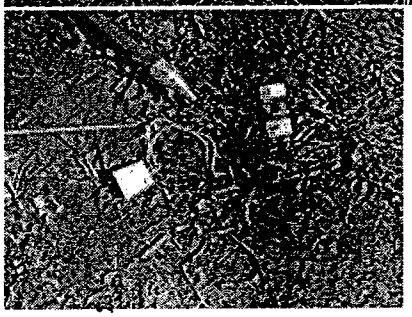
The photo at left illustrates a module, its container, and a length of string tied to the loop of the module. String is cut to the appropriate length in the field and attached to each module loop during the installation process. The insertion rod is placed in the pocket at the opposite end of the module, and a cork it tied to the string. The entire unit is slid down into the installation hole (middle photo). The insertion rod is pulled out of the hole, decontaminated, and is ready for use at the next sample location. A quick twist of the rod while in the hole, or placing the unit against the side of the hole while pulling the rod out of the ground, will cause the module to slip off of the insertion rod and remain at the required installation depth. The installation hole is plugged with a cork at the surface. The field map and installation notes are updated.

FIELD PHOTOS: Using the Gore-Sorber Modules









String, an insertion rod, and corks (as needed) are supplied by Gore.
NOTE: For the exploration surveys, corks are not required to seal the installation hole. The cord is secured at the surface by collapsing the hole.

INTERPRETATION

Soil Gas Data Interpretation

In general, the detection of VOCs and SVOCs in field-exposed modules indicates that potential sources (i.e. soil adsorbed-, dissolved- and separate-phase organics) of the detected compound(s) may exist in proximity to the module location. The module will adsorb migrating gases present in the adjacent media (soil or water). The processes that govern the movement of gases in the subsurface are complex, involving interactions between the soil, soil moisture, pore gasses, ground water, natural and human made barriers, and the volatile contaminant. Chemical and microbiological processes can further influence the presence of soil gases, by reacting with or metabolizing these compounds.

Vapor pressure, water solubility, molecular weight, and the Henry's Law partitioning coefficient, are important chemical parameters to consider when interpreting soil gas data. The Henry's Law coefficient reflects a compound's behavior when partitioned into air and water, which aids in understanding an organic chemical's likely state in the subsurface. An understanding of the site geology (geologic structure, geochemistry), hydrogeolology and operational history are also important when interpreting the distribution of soil gases.

A strong relative correlation is often observed between the soil gas mass levels and the compound concentrations in the subsurface.

Contour Maps

Graphic presentation of the data extracted from GORE-SORBER® Modules is normally presented by overlaying the contamination patterns detected during analysis onto CAD maps supplied by the customer. Either minimum surface curvature or kriging models are employed. Standard "B-sized" (11" x 17") color contour plots are included with each project, however up to "E-size" (24" x 36") plots are available, if requested. The site plan base map(s) provided by the customer must include a scaled drawing with relevant site features, and a layer containing the sample locations and module serial numbers for the survey.

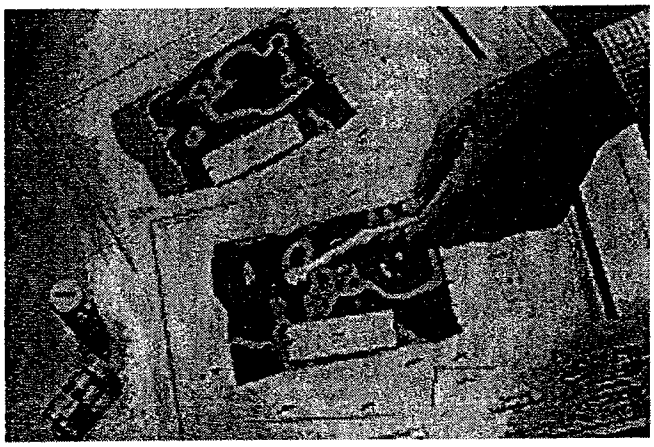
Tentatively Identified Compounds (TICs)

Some of the modules may contain non-target analytes (compounds not on GORE's target list). GORE can provide tentative identification of prominent non-target compound peaks

(TICs). These compounds can include non-target soil gas analytes, and contaminants introduced during sample transport and installation/retrieval activities.

Final Reporting

The results of the GORE-SORBER® Screening Survey will be summarized in a brief report, which will include the chain of custody, analytical data summary table, sample chromatograms, and color contour maps. A laboratory analytical data deliverables package incorporating results of samples, standards and blanks, and mass spectra compared to standards for all detects can be provided as an option.



References:

1 – Field Sampling Procedures Manual, ed. J.R. Schoenleber and P.S. Morton, New Jersey Department of Environmental Protection and Energy, 364pp., 1992

2 – Devitt, D. A., Evans, R.B., Jury, W. A., and Starks, T.H., Soil Gas Sensing for Detection and Mapping of Volatile Organics, National Groundwater Association, Dublin, OH

NOTES: This statement of procedures was compiled from materials provided by Gore. http://www.gore.com/surveys/

ATTACHMENT C

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

on E 11th St side

Permit valid for 90 days from date of issuance.

PERMIT NUMBER	SITE ADDRESS/LOCATION
X 0800378	2744 E. 11th St, OAKLAND, CA 94601
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number) 510-590-1097
CONTRACTOR'S LICENSE # AND CLASS 624461	CITY BUSINESS TAX #

ATTENTION:

1- State law requires that the contractor/owner call Underground Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1-800-642-2444. Underground Service Alert (USA) # _____

2- 48 hours prior to starting work, you MUST CALL (510) 238-3651 to schedule an inspection.

3- 48 hours prior to re-paving, a compaction certificate is required (waived for approved slurry backfill).

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

X _____ 3/6/08

Signature of Permittee ☒ Agent for ☐ Contractor ☐ Owner — Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ISSUED BY		DATE ISSUED	

CITY OF OAKLAND • Community and Economic Development Agency

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

Applications for which no permit is issued within 180 days shall expire by limitation.

Appl# X0800378 Job Site 2744 E 11TH ST Parcel# 019 -0093-013-00

Descr soil boring to install temporary Gorezorber unit. To be removed within 14 days on E 11th St side Permit Issued 03/06/08

Work Type EXCAVATION-PRIVATE P

USA # Util Co. Job # Acctg#:

Util Fund #:

Applcnt Phone# Lic# & License Classes--

Owner LUCASEY MANUFACTURING CORPORAT

Contractor THE AUGER GROUP INC X (510)307-0943 624461 A C57 B

Arch/Engr

Agent

Applic Addr 227 A TEWKSBURY AVENUE, POINT RICHMOND, CA, 94801

JOB SITE

$416.55 TOTAL FEES PAID AT ISSUANCE

$63.00 Applic $300.00 Permit

$.00 Process $34.49 Rec Mgmt

$.00 Gen Plan $.00 Invstg

$.00 Other $19.06 Tech Enh

ADDRESS:

DIST:

CITY OF OAKLAND

PAID 3/6/08 MH

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

On Lisbon St side Permit valid for 90 days from date of issuance.

PERMIT NUMBER	SITE ADDRESS/LOCATION
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☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

X _____ 3/6/08

Signature of Permittee ☒ Agent for ☐ Contractor ☐ Owner — Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ISSUED BY		DATE ISSUED 5	

CITY OF OAKLAND • Community and Economic Development Agency

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

Applications for which no permit is issued within 180 days shall expire by limitation.

Appl# X0800379 Job Site 2744 E 11TH ST Parcel# 019 -0093-013-00

Descr soil boring to install temporary Gorezorber unit. To be removed within 14 days on Lisbon St side

Permit Issued 03/06/08

Work Type EXCAVATION-PRIVATE P

USA # Util Co. Job #: Acctg#:
Util Fund #:

	Applicant	Phone#	Lic#	License Classes
Owner	LUCASEY MANUFACTURING CORPORAT			
Contractor	THE AUGER GROUP INC	(510)307-0943	624161	A C57 B
Arch/Engr				
Agent				

Applic Addr 227 A TEWKSBURY AVENUE, POINT RICHMOND, CA, 94801

$416.55 TOTAL FEES PAID AT ISSUANCE

$63.00	Applic	$800.00	Permit
$.00	Process	$34.49	Rec Mgmt
$.00	Gen Plan	$.00	Invstg
$.00	Other	$19.06	Tech Enh

ADDRESS:

JOB SITE

CITY OF OAKLAND

DIST:

PAID
3/6/08 mb

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/05/2008 By jamesy

Permit Numbers: W2008-0099
Permits Valid from 03/11/2008 to 03/13/2008

Application Id: 1203981351391
Site Location: 2744 East 11th Street
Oakland, CA 94601
City of Project Site: Oakland
Project Start Date: 03/11/2008
Completion Date: 03/13/2008
Requested Inspection:
Scheduled Inspection: 03/11/2008 at 11:00 AM (Contact your inspector, Vicky Hamlin at (510) 670-5443, to confirm.)

Applicant: Clearwater Group - Erik Lervaag
229 Tewksbury Ave, Point Richmond, CA 94801
Phone: 510-307-9943

Property Owner: Chris Lucasey
2744 East 11th St, Oakland, CA 94601
Phone: 510-774-8131

Client: ** same as Property Owner **

Contact: Erik Lervaag
Phone: 510-307-9943
Cell: 510-590-1097

Total Due: $200.00
Receipt Number: WR2008-0064 **Total Amount Paid:** $200.00
Payer Name : Olivia Jacobs Paid By: MC **PAID IN FULL**

Works Requesting Permits:

Remedian Well Construction-Extraction - 3 Wells
Driller: RSI Drilling - Lic #: 802334 - Method: hstem

Work Total: $200.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2008-0099	03/05/2008	06/09/2008	RW-1	10.00 in.	4.00 in.	6.00 ft	25.00 ft
W2008-0099	03/05/2008	06/09/2008	RW-2	10.00 in.	4.00 in.	6.00 ft	25.00 ft
W2008-0099	03/05/2008	06/09/2008	RW-3	10.00 in.	4.00 in.	6.00 ft	25.00 ft

Specific Work Permit Conditions

1. 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.

2. 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 statutes 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.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or 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 permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).

7. Minimum surface seal thickness is two inches of cement grout placed by tremie

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

9. Prior to any drilling activities onto 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.

From: wells@acpwa.org
Sent: Wednesday, March 05, 2008 2:19 PM
To: Erik Lervaag
Cc: Erik Lervaag; chris@lucasey.com; Olivia Jacobs
Subject: Alameda County Well Permit Approval Notification
Attachments: general_cond.pdf; 1203981351391.pdf

Thank you for your Online Request for Wells Permits.
Your Application Id is: 1203981351391
Application submitted on: 02/25/2008
Project Site City/Location: Oakland / 2744 East 11th Street Oakland, CA 94601
Project Start Date: 03/11/2008 Completion Date: 03/13/2008

Your Permit Application has been approved.
Permit Number(s) Issued: W2008-0099 Valid from 03/11/2008 to 03/13/2008

You have a tentative inspection scheduled on 03/11/2008 at 11:00 AM. You must contact your assigned inspector, Vicky Hamlin at (510) 670-5443, to confirm.

Attached are 2 PDF files, one serves as your receipt and permit(s), please print for your record.
The other includes the General Conditions and Instructions you must follow.
Note: You need to have the free Adobe Reader to open the pdf file.

Conditions of Permit:
Please follow and comply with conditions and instructions listed in the general conditions document.
In addition, you must comply with all specific conditions listed in your permit.

If you need further assistance regarding your permit, please visit our website at: http://www.acgov.org/pwa/wells/ or contact us at wells@acpwa.org, and include your application id number.

Thank you,
Public Works Agency-Water Resources

ATTACHMENT D

W. L. GORE & ASSOCIATES, INC.

100 CHESAPEAKE BLVD., P.O. BOX 10 • ELKTON, MARYLAND 21922-0010
PHONE: 410.392.7600 • FAX: 410.506.4780

GORE™ EXPLORATION SURVEY
GORE™ ENVIRONMENTAL SURVEY

GORE™ Surveys
Final Report

Lucasey Mfg
Oakland, CA

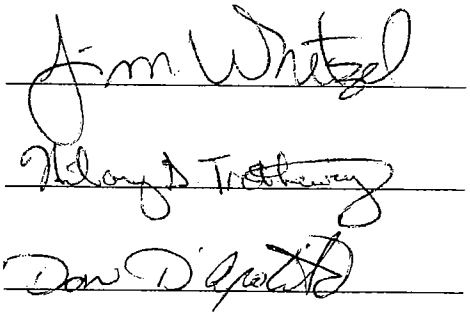
Prepared For:
Clearwater Group, Inc.
229 Tewksbury Ave
Point Richmond, CA, 94801

W.L. Gore & Associates, Inc.

Written/Submitted by:
Jim Whetzel, Project Manager

Reviewed/Approved by:
Hilary Trethewey, Project Manager

Analytical Data Reviewed by:
Don D'Apolito, Chemist



GORE™ Surveys - Final Report

REPORT DATE: 06/02/2008 **AUTHOR:** JW

SITE INFORMATION

Site Reference: Lucasey Mfg, Oakland, CA
Gore Production Order Number: 13586384 **Gore Site Code:** EGQ

FIELD PROCEDURES

 # Modules shipped: 26
Installation Date(s): 4/16/08
 # Modules Installed: 24
Field work performed by: Clearwater Group, Inc.

Retrieval date(s): 4/29/08
 # Modules Retrieved: 24
 # Modules Lost in Field: 0
 # Modules Not Returned: 0

Exposure Time: 13 [days]
 # Trip Blanks Returned: 2
 # Unused Modules Returned: 0

Date/Time Received by Gore: 4/30/2008 11:55 AM By: DY
Chain of Custody Form attached: Yes
Chain of Custody discrepancies: None
Comments:
Modules 564185 and -186 were identified as trip blanks.

GORE™ Surveys - Final Report

ANALYTICAL PROCEDURES

W.L. Gore & Associates´ Screening Module Laboratory operates under the guidelines of its Quality Assurance Manual, Operating Procedures and Methods. The quality assurance program is consistent with Good Laboratory Practices (GLP) and ISO Guide 25, "General Requirements for the Competence of Calibration and Testing Laboratories", third edition, 1990.

Instrumentation consists of state of the art gas chromatographs equipped with mass selective detectors, coupled with automated thermal desorption units. Sample preparation simply involves cutting the tip off the bottom of the sample module and transferring one or more exposed sorbent containers (sorbers, each containing engineered adsorbents) to a thermal desorption tube for analysis. Sorbers remain clean and protected from dirt, soil, and ground water by the insertion/retrieval cord, and require no further sample preparation.

Analytical Method Quality Assurance:
The analytical method employed is a modified EPA method 8260/8270. Before each run sequence, two instrument blanks, a sorber containing 5μg BFB (Bromofluorobenzene), and a method blank are analyzed. The BFB mass spectra must meet the criteria set forth in the method before samples can be analyzed. A method blank and a sorber containing BFB are also analyzed after every 30 samples and/or trip blanks. Standards containing the selected target compounds at five calibration levels are analyzed at the beginning of each run. The criterion for each target compound is less than 25% RSD (relative standard deviation). If this criterion is not met for any target compound, the analyst has the option of generating second- or third-order standard curves, as appropriate. A second-source reference standard, at a level of 10μg per target compound, is analyzed after every ten samples and/or trip blanks, and at the end of the run sequence. Positive identification of target compounds is determined by 1) the presence of the target ion and at least two secondary ions; 2) retention time versus reference standard; and, 3) the analyst's judgment.

NOTE: All data have been archived. Any replicate sorbers not used in the initial analysis will be discarded fifteen (15) days from the date of analysis.

Laboratory analysis: thermal desorption, gas chromatography, mass selective detection
Instrument ID: # 8 **Chemist:** DD
Compounds/mixtures requested: A2
Deviations from Standard Method: None
Comments: Soil vapor analytes and abbreviations are tabulated in the Data Table Key (page 6).

GORE™ Surveys - Final Report

DATA TABULATION

 # CONTOUR MAPS ENCLOSED: Three (3) B-sized color contour maps
LIST OF MAPS ENCLOSED:

- Benzene, Toluene, Ethyl benzene, and total Xylenes (BTEX)
- Undecane, Tridecane, and Pentadecane (C11, C13&C15)
- Total Petroleum Hydrocarbons (TPH)

NOTE: All data values presented in Appendix A represent masses of compound(s) desorbed from the GORE™ Modules received and analyzed by W.L. Gore & Associates, Inc., as identified in the Chain of Custody (Appendix A). The measurement traceability and instrument performance are reproducible and accurate for the measurement process documented. Semi-quantitation of the compound mass is based on a five-level standard calibration.

General Comments:

- This survey reports soil gas mass levels present in the vapor phase. Vapors are subject to a variety of attenuation factors during migration away from the source concentration to the module. Thus, mass levels reported from the module will often be less than concentrations reported in soil and groundwater matrix data. In most instances, the soil gas masses reported on the modules compare favorably with concentrations reported in the soil or groundwater (e.g., where soil gas levels are reported at greater levels relative to other sampled locations on the site, matrix data should reveal the same pattern, and vice versa). However, due to a variety of factors, a perfect comparison between matrix data and soil gas levels can rarely be achieved.
- Soil gas signals reported by this method cannot be identified specifically to soil adsorbed, groundwater, and/or free-product contamination. The soil gas signal reported from each module can evolve from all of these sources. Differentiation between soil and groundwater contamination can only be achieved with prior knowledge of the site history (i.e., the site is known to have groundwater contamination only).
- QA/QC trip blank modules were provided to document potential exposures that were not part of the soil gas signal of interest (i.e., impact during module shipment, installation and retrieval, and storage). The trip blanks are identically manufactured and packaged soil gas modules to those modules placed in the subsurface. However, the trip blanks remain unopened during all phases of the soil gas survey. Levels reported on the trip blanks may indicate potential impact to modules other than the contaminant source of interest.

- Unresolved peak envelopes (UPEs) are represented as a series of compound peaks clustered together around a central gas chromatograph elution time in the total ion chromatogram. Typically, UPEs are indicative of complex fluid mixtures that are present in the subsurface. UPEs observed early in the chromatogram are considered to indicate the presence of more volatile fluids, while UPEs observed later in the chromatogram may indicate the presence of less volatile fluids. Multiple UPEs may indicate the presence of multiple complex fluids.
- Stacked total ion chromatograms (TICs) are included in Appendix A. The six-digit serial number of each module is incorporated into the TIC identification (e.g.: 123456S.D represents module #123456).

Project Specific Comments:

- The minimum (gray) contour level, for each mapped analyte or group of analytes, was set at the maximum blank level observed or the method detection limit, whichever was greater. When target compounds are summed together (i.e., BTEX), the contour minimum is arbitrarily set at 0.02 μg or the maximum blank level, whichever is greater. The maximum contour level was set at the maximum value observed.
- No target compounds were detected on the trip blanks and/or the method blanks above the method detection limit. Thus, target analyte levels reported for the field-installed modules that exceed trip and method blank levels, and the analyte method detection limit, are more likely to have originated from on-site sources.
- The mapped spatial patterns indicated "hot spots" and partial soil gas plume definition. Highest levels of BTEX and C11, C13, and C15 were observed at G24. Highest levels of TPH were observed at G17.
- If the objective of the soil gas survey was to delineate the nature and extent of the contamination, then additional soil gas sampling is recommended in those areas where the color contours appear to extend into unsampled areas. Subsequent sampling events can be combined with the data from this event and mapped together to provide greater coverage.

GORE™ Surveys - Final Report

KEY TO DATA TABLE
Lucasey Mfg, Oakland, CA

UNITS	
µg	micrograms (per sorber), reported for compounds
MDL	method detection limit
bdl	below detection limit
nd	non-detect
ANALYTES	
TPH	total petroleum hydrocarbons
BTEX	combined masses of benzene, toluene, ethylbenzene and total xylenes (Gasoline Range Aromatics)
BENZ	benzene
TOL	toluene
EtBENZ	ethylbenzene
mpXYL	m-, p-xylene
oXYL	o-xylene
C11,C13&C15	combined masses of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes)
UNDEC	undecane
TRIDEC	tridecane
PENTADEC	pentadecane
TMBs	combined masses of 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene
135TMB	1,3,5-trimethylbenzene
124TMB	1,2,4-trimethylbenzene
NAPH&2-MN	combined masses of naphthalene and 2-methyl naphthalene
NAPH	naphthalene
2MeNAPH	2-methyl naphthalene
MTBE	methyl t-butyl ether
OCT	octane
BLANKS	
TBn	unexposed trip blanks, travels with the exposed modules
method blank	QA/QC module, documents analytical conditions during analysis

APPENDIX A:

1. CHAIN OF CUSTODY
2. DATA TABLE
3. STACKED TOTAL ION CHROMATOGRAMS
4. COLOR CONTOUR MAPS

GORE-SORBER® Screening Survey Chain of Custody

For W.L. Gore & Associates use only
Production Order # 13586384

W. L. Gore & Associates, Inc., Survey Products Group
100 Chesapeake Boulevard • Elkton, Maryland 21921 • Tel: (410) 392-7600 • Fax (410) 506-4780

Instructions: Customer must complete ALL shaded cells

Customer Name: CLEARWATER GROUP INC	Site Name: LUCASEY MFG
Address: 229 TEWKSBURY AVE	Site Address: OAKLAND CA
POINT RICHMOND CA 94801	
	Project Manager: ERIK LERVAAG
Phone: (510) 307 9943	Customer Project No.:
FAX:	Customer P.O. #: FB0221 Quote #: 228341

Serial # of Modules Shipped				# of Modules for Installation 24 # of Trip Blanks 2
# 564161	- # 564186	#	- #	Total Modules Shipped: 26 Pieces
#	- #	#	- #	Total Modules Received: 26 Pieces
#	- #	#	- #	Total Modules Installed: 24 Pieces
#	- #	#	- #	Serial # of Trip Blanks (*Client Decides*) # # #
#	- #	#	- #	# # #
#	- #	#	- #	# # #
#	- #	#	- #	# # #
#	- #	#	- #	# # #
#	- #	#	- #	# # #
#	- #	#	- #	# # #
#	- #	#	- #	# # #
#	- #	#	- #	# # #

Prepared By: Darlene Lyllowdy
Verified By: Mary Anne Meighi

Installation Performed By:
Name (*please print*): Eric V. Austin
Company/Affiliation: Clearwatergroup

Installation Method(s) (*circle those that apply*):
Slide Hammer Hammer Drill Auger
Other:

Installation Start Date and Time: 4 / 16 / 08 9 : 30 (AM) PM
Installation Complete Date and Time: 4 / 16 / 08 11 : 00 AM (PM)

Retrieval Performed By:
Name (*please print*): Eric V Austin
Company/Affiliation: Clear Water Group

Total Modules Retrieved: 24 Pieces
Total Modules Lost in Field: 0 Pieces
Total Unused Modules Returned: 2 Pieces

Retrieval Start Date and Time: 4 / 29 / 08 9 : 15 (AM) PM
Retrieval Complete Date and Time: 4 / 29 / 08 11 : 45 AM (PM)

	Date	Time		Date	Time
Relinquished By: Darlene Lyllowdy Affiliation: W.L. Gore & Associates, Inc.	3/19/08	8:30	Received By: Affiliation:		
Relinquished By: Eric V Austin Affiliation: Clearwater Group	4/24/08	12:37	Received By: Affiliation:		
Relinquished By: Affiliation			Received By: Darlene Lyllowdy Affiliation: W.L. Gore & Associates, Inc.	4-30-08	11:53

GORE-SORBER® Screening Survey
Installation and Retrieval Log

Page 1 of 1

SITE NAME & LOCATION
Lucasey – FB022K
2744 East 11th
Oakland, CA

LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
1.	564161	4-16-08 10:32	4/24/08 9:38			✓		✓	
2.	564162	10:48	9:36			✓		✓	
3.	564163	10:44	9:34			✓		✓	
4.	564164	10:38	9:32			✓		✓	
5.	564165	10:41	9:30			✓		✓	
6.	564166	10:19	9:48			✓		✓	
7.	564167	10:22	9:46			✓		✓	
8.	564168	10:25	9:44			✓		✓	
9.	564169	10:28	9:42			✓		✓	
10.	564170	10:35	9:40			✓		✓	
11.	564171	10:15	10:04			✓		✓	
12.	564172	10:12	10:02			✓		✓	
13.	564173	10:09	10:00			✓		✓	
14.	564174	9:56	9:56			✓		✓	
15.	564175	9:52	9:54			✓		✓	
16.	564176	9:48	9:52			✓		✓	
17.	564177	10:03	9:58			✓		✓	
18.	564178	11:42	10:42			✓		✓	
19.	564179	11:46	10:40			✓		✓	
20.	564180	11:53	10:38			✓		✓	
21.	564181	11:15	10:24			✓		✓	
22.	564182	11:16	10:22			✓		✓	
23.	564183	11:22	10:20			✓		✓	
24.	564184	10:57	10:10			✓		✓	
25.	564185	NA						✓	Field Blanks
26.	564186	NA						✓	Field Blanks
27.									
28.									
29.									
30.									
31.									
32.									
33.									
34.									
35.									
36.									
37.									
38.									
39.									
40.									
41.									
42.									

GORE(TM) SURVEYS ANALYTICAL RESULTS
CLEARWATER GROUP INC., POINT RICHMOND, CA
GORE STANDARD TARGET VOCs/SVOCs (A2)
LUCASEY MFG, OAKLAND, CA
SITE EGQ - PRODUCTION ORDER #13586384

DATE ANALYZED	SAMPLE NAME	TPH, ug	BTEX, ug	BENZ, ug	TOL, ug	ETBENZ, ug	mpXYL, ug	oXYL, ug	C11, C13, &C15, ug	UNDEC, ug	TRIDEC, ug	PENTADEC, ug
	MDL=			0.01	0.01	0.01	0.01	0.01		0.01	0.01	0.01
05-06-08	564161	0.12	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01
05-06-08	564162	0.06	0.06	nd	nd	nd	0.04	0.02	nd	nd	nd	nd
05-05-08	564163	0.11	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01
05-05-08	564164	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564165	0.17	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564166	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564167	0.35	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01
05-06-08	564168	0.08	0.07	nd	nd	nd	0.05	0.02	0.01	nd	nd	0.01
05-06-08	564169	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564170	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564171	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564172	0.18	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564173	1.28	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564174	3.84	0.12	nd	nd	nd	0.07	0.05	0.03	0.01	nd	0.02
05-06-08	564175	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-06-08	564176	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564177	8.04	0.06	0.06	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564178	0.31	nd	nd	nd	nd	nd	nd	0.03	nd	nd	0.03
05-06-08	564179	0.06	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-06-08	564180	0.95	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01
05-06-08	564181	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564182	0.12	nd	nd	nd	nd	nd	nd	0.01	nd	nd	0.01
05-06-08	564183	0.77	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-06-08	564184	3.35	0.30	nd	0.02	0.05	0.16	0.07	0.10	0.08	0.01	0.01
05-06-08	564185	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	564186	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-05-08	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
05-06-08	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Maximum	8.04	0.30	0.06	0.02	0.05	0.16	0.07	0.10	0.08	0.01	0.03
	Standard Dev.	1.83	0.07	0.01	0.00	0.01	0.04	0.02	0.02	0.02	0.00	0.01
	Mean	0.84	0.03	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01

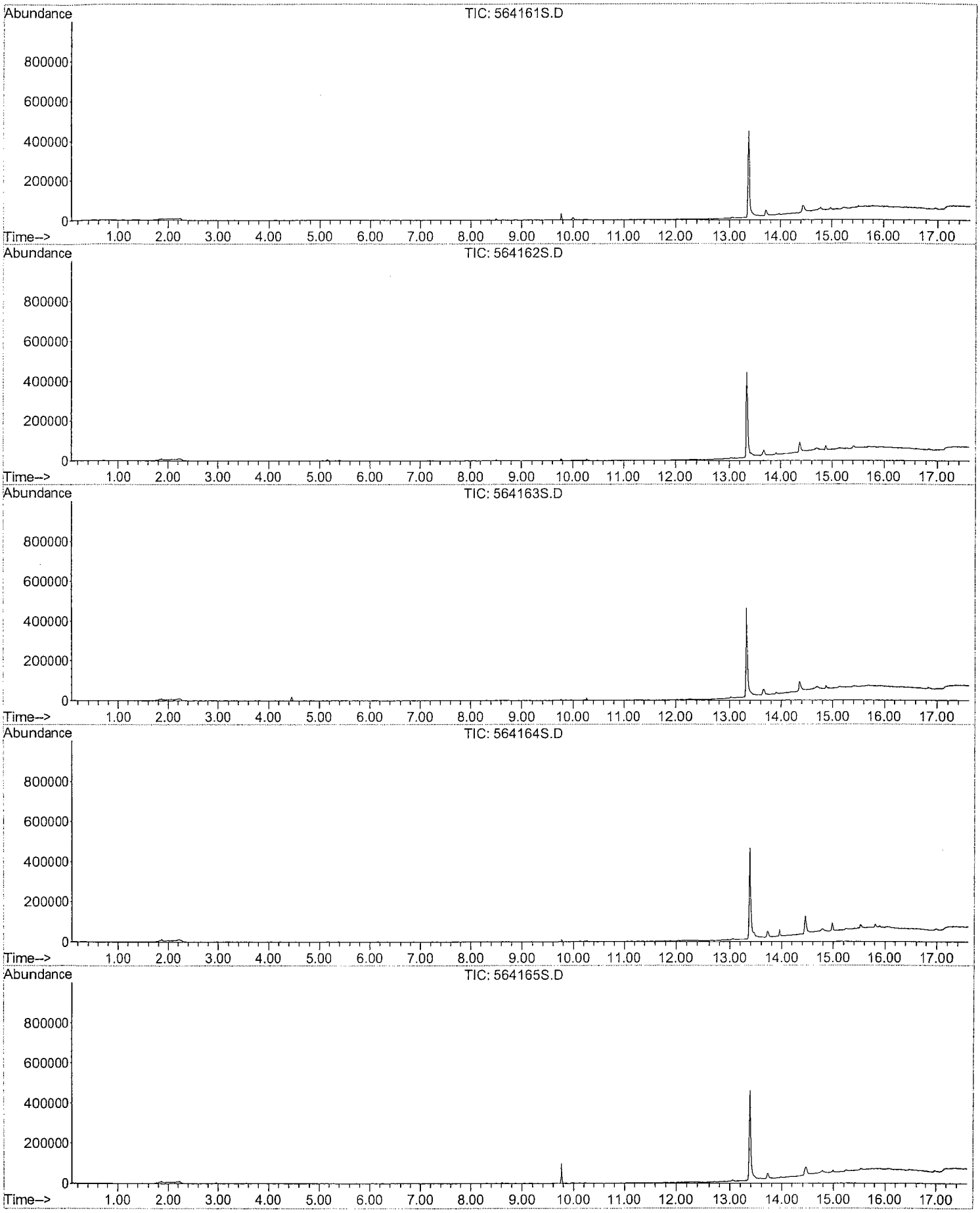
No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

GORE(TM) SURVEYS ANALYTICAL RESULTS
CLEARWATER GROUP INC., POINT RICHMOND, CA
GORE STANDARD TARGET VOCs/SVOCs (A2)
LUCASEY MFG, OAKLAND, CA
SITE EGQ - PRODUCTION ORDER #13586384

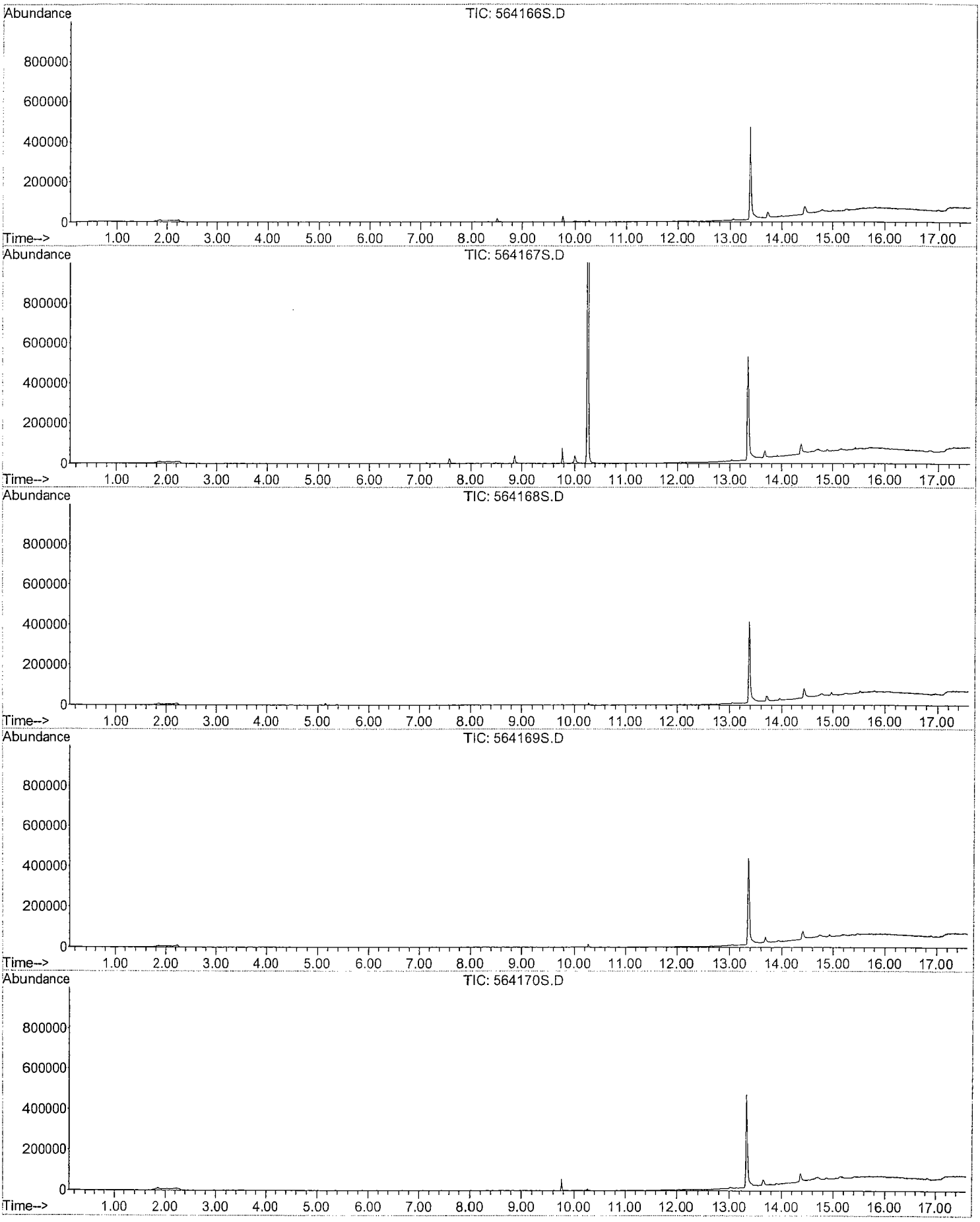
SAMPLE NAME	TMBs, ug	124TMB, ug	135TMB, ug	NAPH&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	OCT, ug
MDL=		0.01	0.01		0.02	0.01	0.02	0.01
564161	nd	nd	nd	nd	nd	nd	nd	nd
564162	nd	nd	nd	nd	nd	nd	nd	nd
564163	nd	nd	nd	nd	nd	nd	nd	nd
564164	nd	nd	nd	nd	nd	nd	nd	nd
564165	nd	nd	nd	nd	nd	nd	nd	nd
564166	nd	nd	nd	nd	nd	nd	nd	nd
564167	nd	nd	nd	nd	nd	nd	nd	nd
564168	nd	nd	nd	nd	nd	nd	nd	nd
564169	nd	nd	nd	nd	nd	nd	nd	nd
564170	nd	nd	nd	nd	nd	nd	nd	nd
564171	nd	nd	nd	nd	nd	nd	nd	nd
564172	nd	nd	nd	nd	nd	nd	nd	nd
564173	nd	nd	nd	nd	nd	nd	nd	nd
564174	nd	nd	nd	nd	nd	nd	nd	nd
564175	nd	nd	nd	nd	nd	nd	nd	nd
564176	nd	nd	nd	nd	nd	nd	nd	nd
564177	nd	nd	nd	nd	nd	nd	nd	nd
564178	nd	nd	nd	nd	nd	nd	nd	nd
564179	nd	nd	nd	nd	nd	nd	nd	nd
564180	nd	nd	nd	nd	nd	nd	nd	nd
564181	nd	nd	nd	nd	nd	nd	nd	nd
564182	nd	nd	nd	nd	nd	nd	nd	nd
564183	nd	nd	nd	nd	nd	nd	nd	nd
564184	0.04	0.01	0.03	0.29	0.18	0.11	nd	nd
564185	nd	nd	nd	nd	nd	nd	nd	nd
564186	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd
Maximum	0.04	0.01	0.03	0.29	0.18	0.11	0.00	0.00
Standard Dev.	0.01	0.00	0.01	0.06	0.04	0.02	0.00	0.00
Mean	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00

No mdl is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

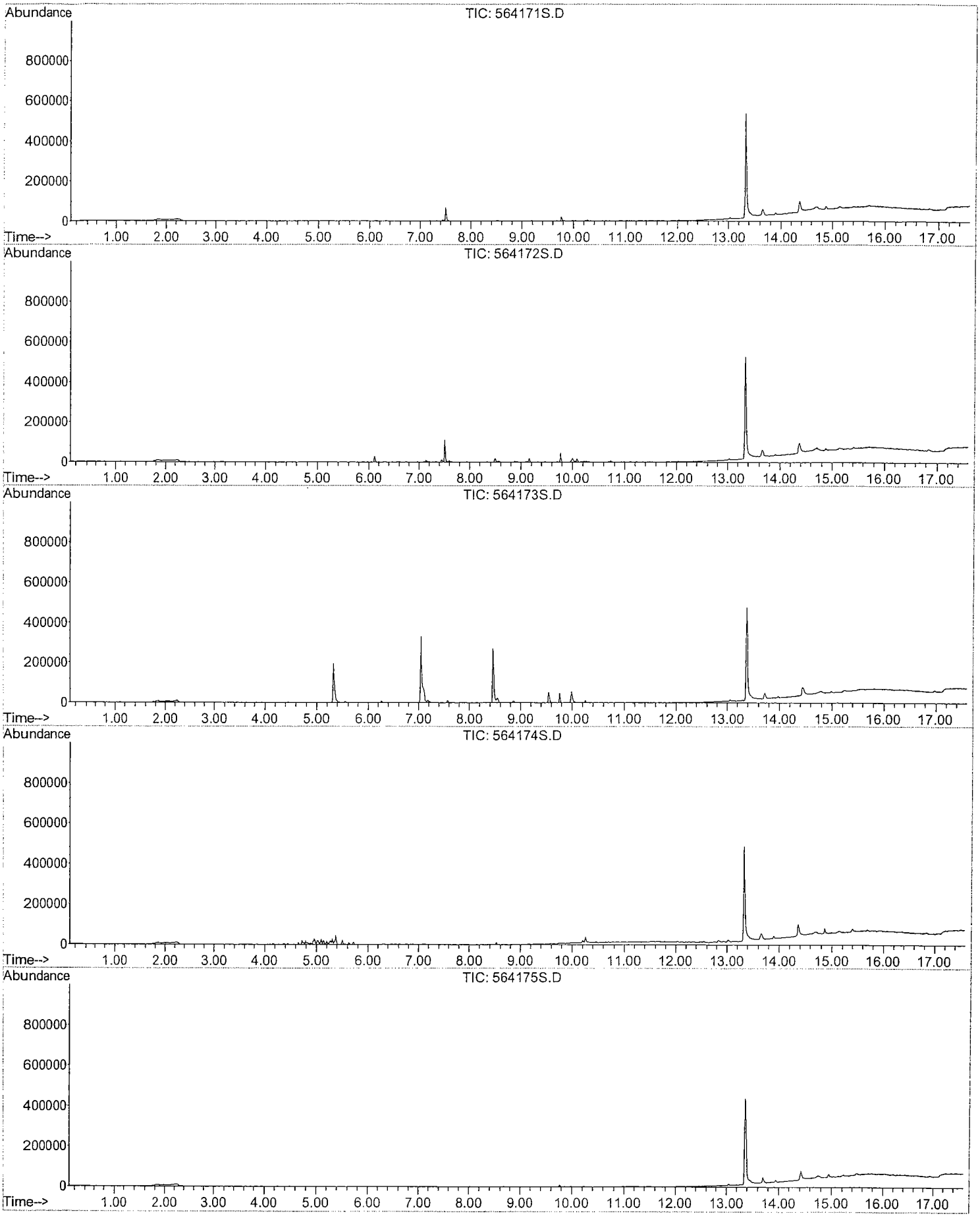
TIC - SITE EGQ - PRODUCTION ORDER#13586384
In Numerical Order



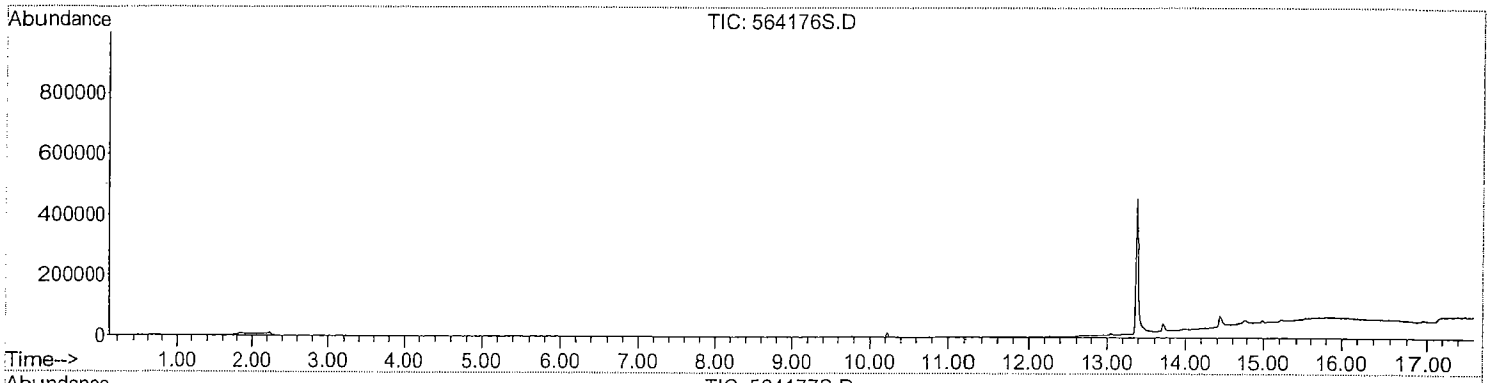
TIC - SITE EGQ - PRODUCTION ORDER#13586384
In Numerical Order

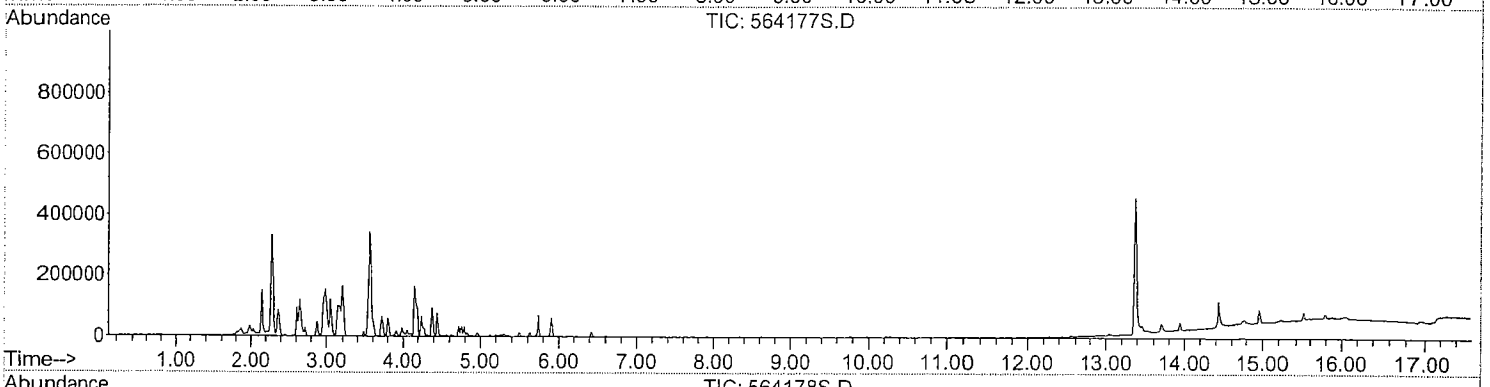


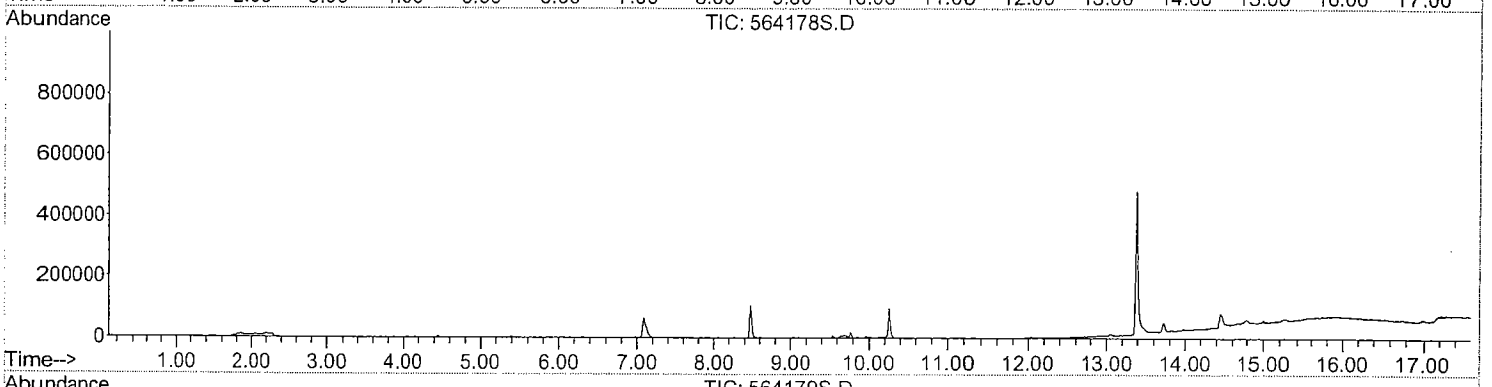
TIC - SITE EGQ - PRODUCTION ORDER#13586384
In Numerical Order

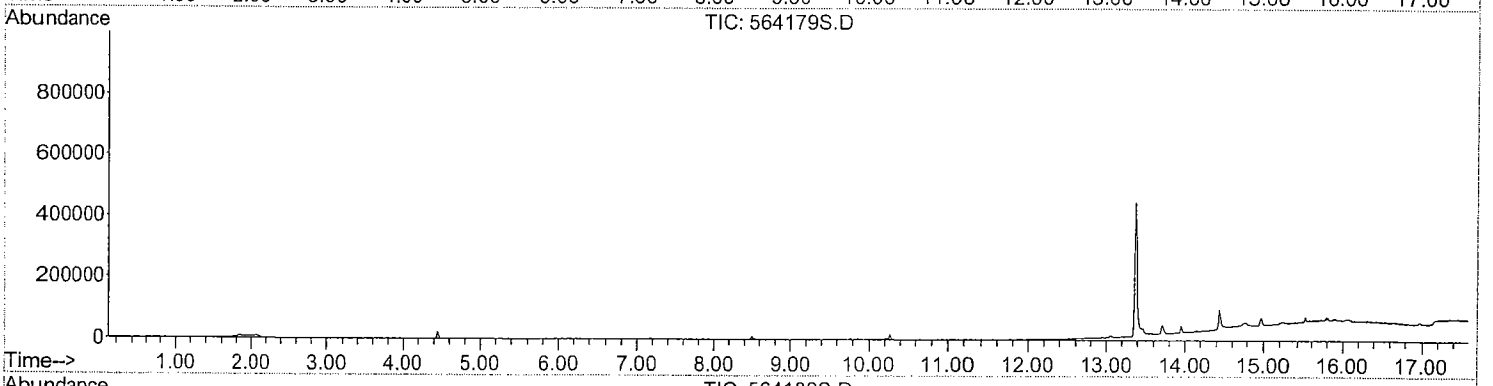


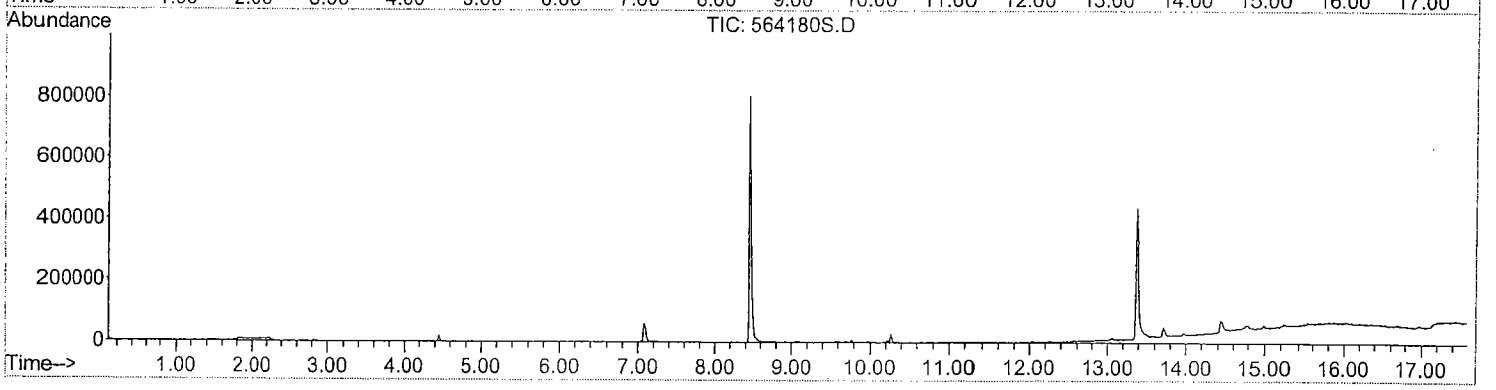
TIC - SITE EGQ - PRODUCTION ORDER#13586384
In Numerical Order



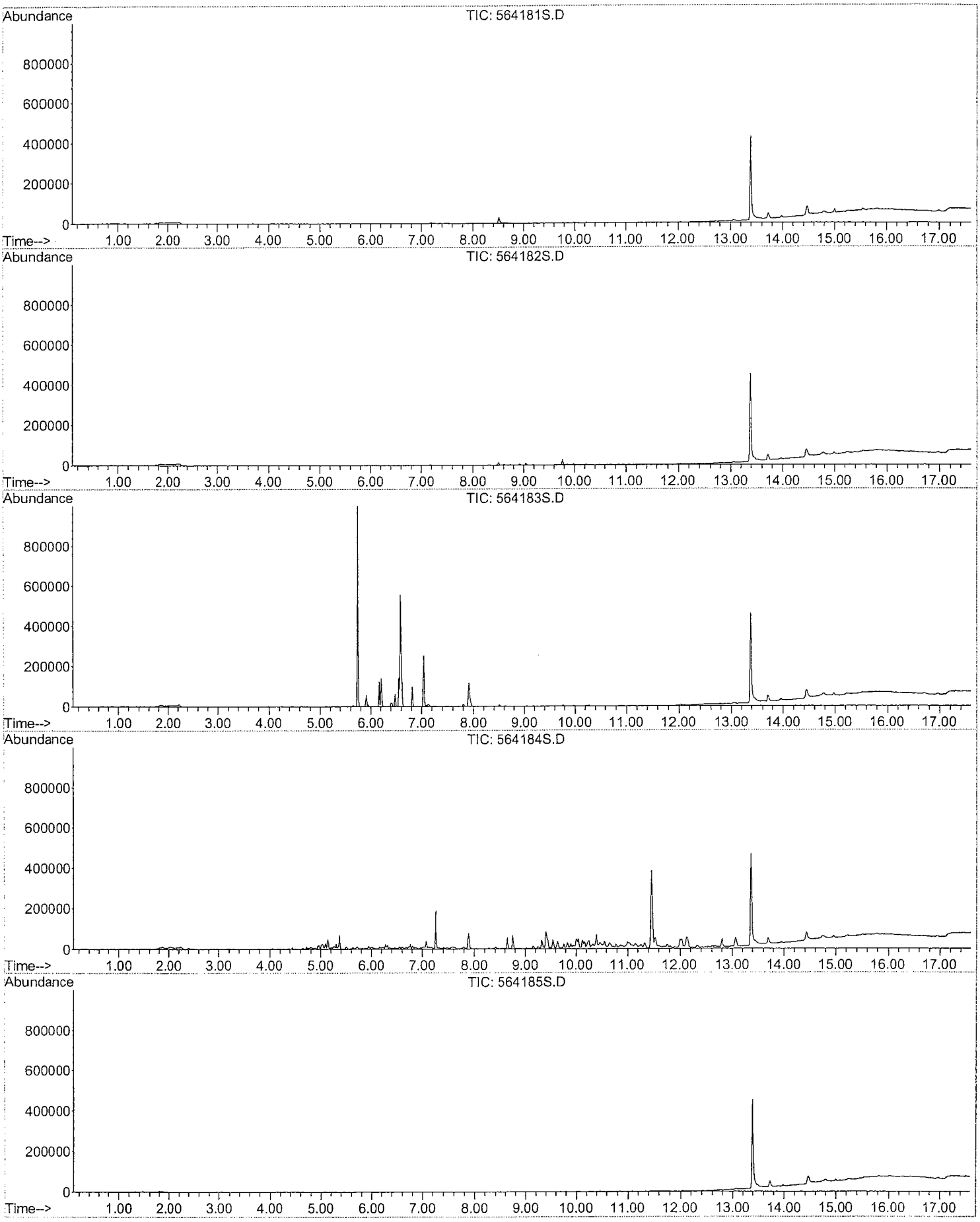




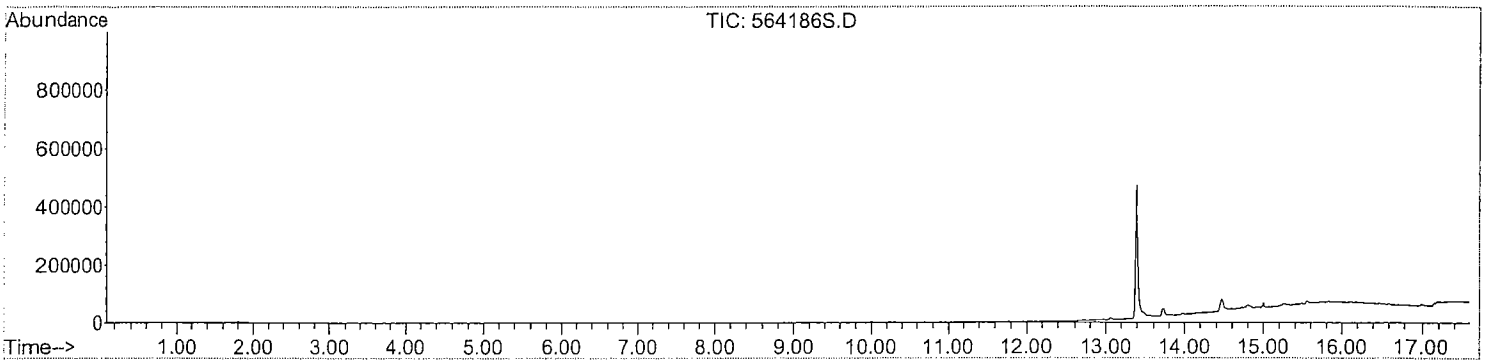


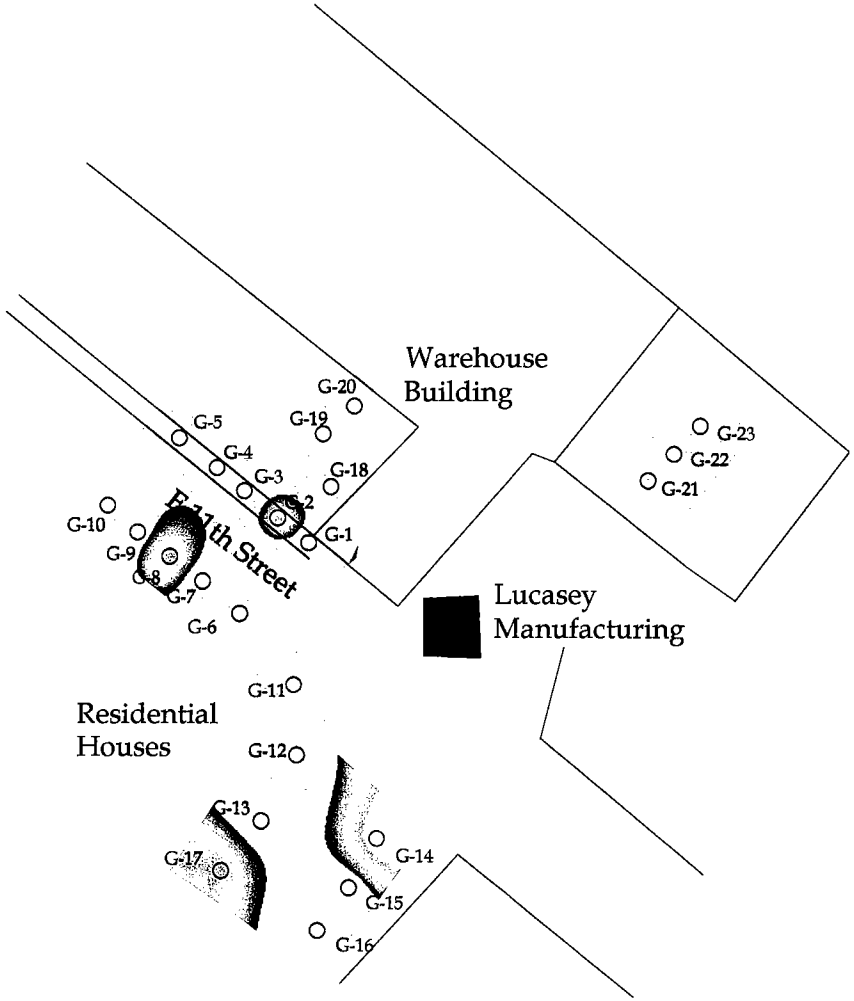


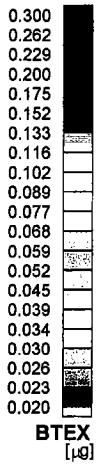
TIC - SITE EGQ - PRODUCTION ORDER#13586384
In Numerical Order



TIC - SITE EGQ - PRODUCTION ORDER#13586384
In Numerical Order







Scale 1:600

25 0 25 50 75 100 125

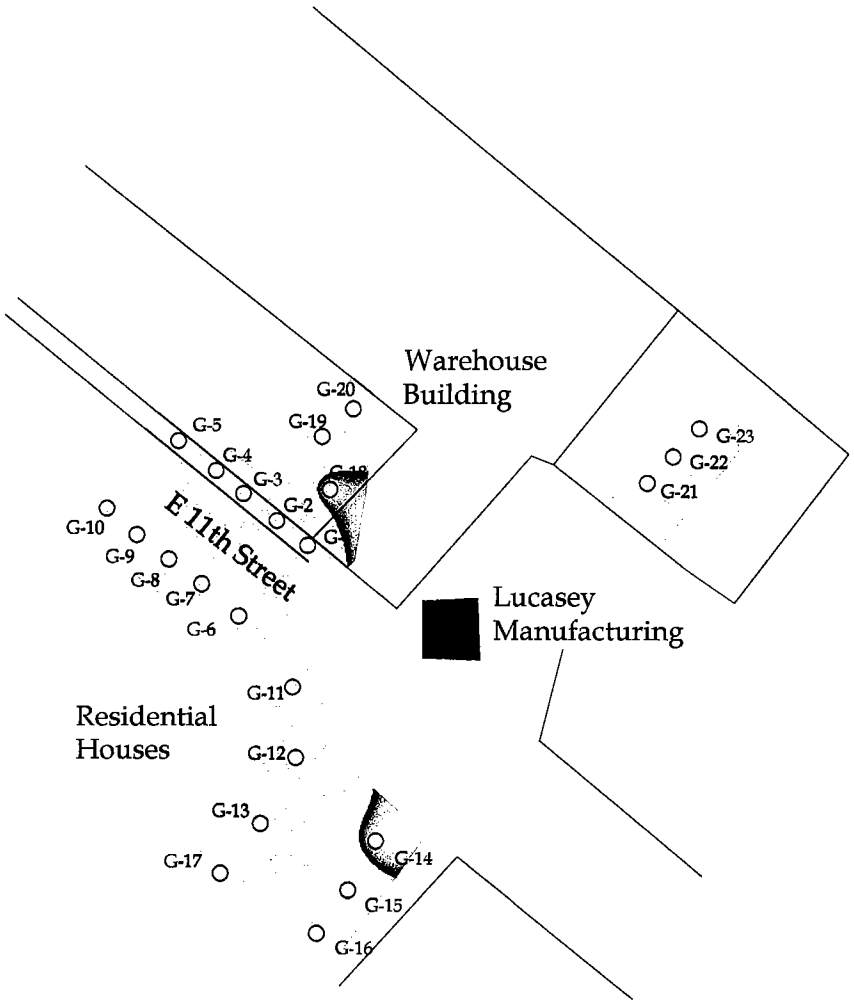
(feet)

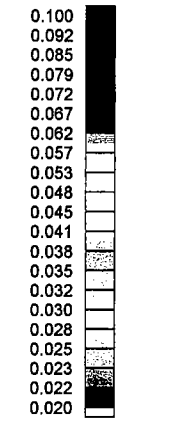
GORE ™ Surveys for Environmental Site Assessment

W.L. GORE & ASSOCIATES, INC.
100 CHESAPEAKE BOULEVARD
ELKTON, MD, USA 21921
USA
(410) 392-7600

Clearwater Group, Inc., Point Richmond, CA
Lucasey - FB022K, Oakland, CA
BTEX

DATE DRAWN: 22 May 2008	DRAWN BY: JW	ORIG. CAD: Fig 1 Gore...DWG	SITE CODE: EGQ
REV. DATE:	REV. #:	PROJECT NUMBER: 13586384	





Scale 1:600

25 0 25 50 75 100 125

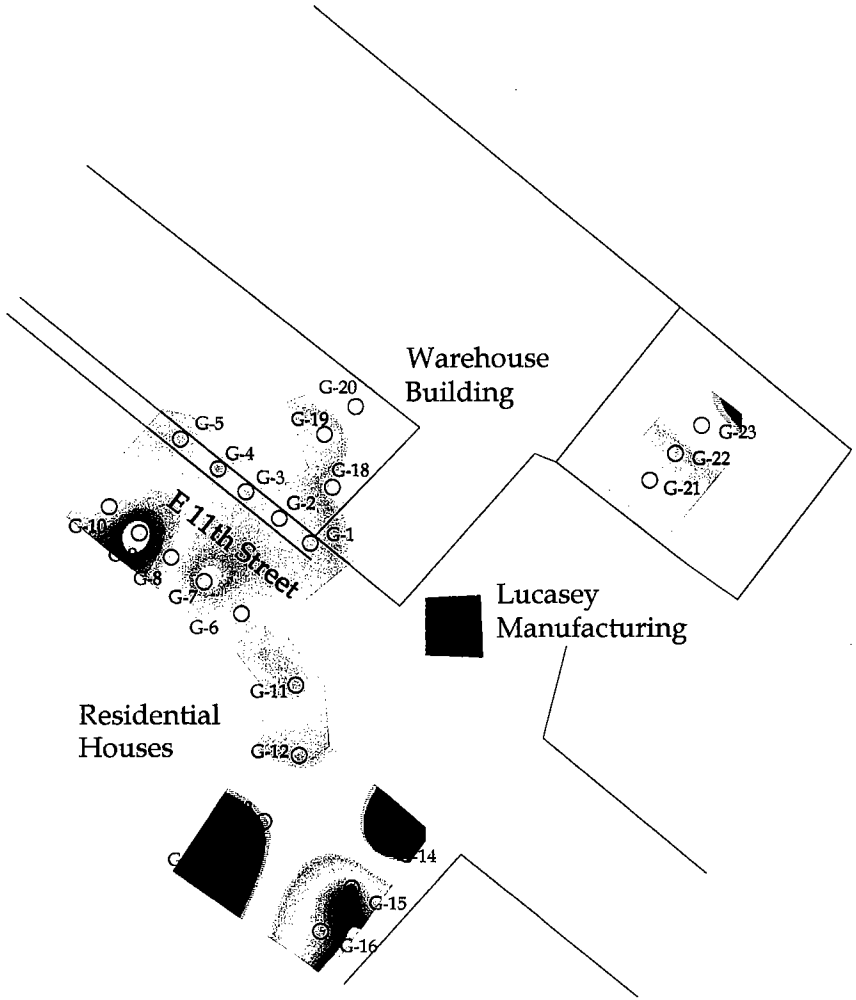
(feet)

GORE ™ Surveys for Environmental Site Assessment

W.L. GORE & ASSOCIATES, INC.
100 CHESAPEAKE BOULEVARD
ELKTON, MD, USA 21921
USA
(410) 392-7600

Clearwater Group, Inc., Point Richmond, CA
Lucasey - FB022K, Oakland, CA
Undecane, Tridecane, & Pentadecane

DATE DRAWN: 22 May 2008	DRAWN BY: JW	ORIG. CAD: Fig 1 Gore...DWG	SITE CODE: EGQ
REV. DATE:	REV. #:	PROJECT NUMBER: 13586364	



8.035
5.954
4.412
3.269
2.422
1.795
1.330
0.985
0.730
0.541
0.401
0.297
0.220
0.163
0.121
0.090
0.066
0.049
0.036
0.027
0.020

TPH [µg]

Scale 1:600

25 0 25 50 75 100 125

(feet)

GORE ™ Surveys for Environmental Site Assessment

W.L. GORE & ASSOCIATES, INC.
100 CHESAPEAKE BOULEVARD
ELKTON, MD, USA 21921
USA
(410) 392-7600

Clearwater Group, Inc., Point Richmond, CA
Lucasey - FB022K, Oakland, CA
Total Petroleum Hydrocarbons

DATE DRAWN: 22 May 2008	DRAWN BY: JW	ORIG. CAD: Fig 1 Gore...DWG	SITE CODE: EGQ
REV. DATE:	REV. #:	PROJECT NUMBER: 13586384	

ATTACHMENT E

CLEARWATER
GROUP
Environmental Services

May 9, 2008

Ms. Vicky Hamlin
Alameda County Public Works Agency
Water Resources Section
399 Elmhurst Street
Hayward, CA 94544

RE: Well Completion Reports

Dear Ms. Hamlin:

Please find enclosed the well completion reports for the site at 2744 East 11th Street, Oakland, CA 94601. If you have any questions or need further information, please email me at elervaag@clearwatergroup.com or call me at 510-307-9943 x227.

Thank you,

Erik Lervaag
Project Manager

Enclosure

229 Tewksbury Avenue ◆ Point Richmond, California 94801 ◆ Telephone: 510-307-9943 ◆ Fax: 510-232-2823

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

SOIL BORING AND WELL CONSTRUCTION LOG:

CLEARWATER GROUP

Project No. FB022

Sheet 1 of 1

FIELD LOCATION OF BORING:	CLIENT/LOCATION:	JOB NO#.	PROJ. MANAGER:	BORING/WELL NO.:
Loading Dock; Building; ⊗ RW-1	Lucasey Manufacturing	FB022G	Erik Lervaag	RW-1
	DRILLING CONTRACTOR: RSI	DRILL RIG TYPE: CME75	WELL DEPTH: NA	WELL BORHOLE DIAMETER: 10"
	DRILL RIG OPERATOR: Jorge Morales	WELL MATERIAL: NA	BORING DEPTH: 25.0'	FILTER PACK: #2/12 SAND
				DRILLING DATE: 3/12/2008

SAMPLING METHOD: 2" Cal Modified

MONITORING INSTRUMENT: Photoionization Detector

FIRST ENCOUNTERED WATER DEPTH: 17.0'

STATIC WATER DEPTH - 10.0'

FINISH:

DRILLING START:

LOGGED BY: Rob Nelson

APPROVED BY: Erik Lervaag

WELL CONSTRUCTION	BLOWS/6-INCHES	INCHES RECOVERED	SAMPLE CONDITION	PRODUCT	ODOR	PID	DEPTH (FEET)	GRAPHIC LOG	
WELL BOX							1		10" Concrete
LEAN GROUT		16	G				2		Clayey gravel with sand (GC), (fill) brown (10YR 4/3) to yellow brown (10YR 5/6), 60 % fine to coarse subangular gravels, 20% fine to medium sand, 20% clay, moist, mottled.
							3		Poorly graded sand (SP) - (fill), light olive brown (2.5Y 5/4), loose, moist, 100% medium fine sand.
BENTONITE PELLETS							4		
4" DIA BLANK WELL CASING	5 6 7	16	G				5		Clayey gravel with sand (GC), brown (10YR 4/3) to yellow brown (10YR 5/6), 60 % fine to coarse subangular gravels, 20% fine to medium sand, 20% clay, moist, mottled.
							6		
							7		
							8		Dry 8'-10'.
#2/12 SAND							9		
					FAINT	0	10		
	8 7	18	G				11		
4" DIA PVC 0.020" SLOTS	6				FAINT	0	12		Clayey gravel with sand (GC), very dark greenish gray (5GY 3/1), 40% fine subangular gravel, 30% fine to medium sand, 30% lean clay, free product visible, moist.
							13		
							14		Sandy lean clay (CL), dark yellowish brown (10YR 3/4), soft to medium stiff, wet, trace of free product, oil along fissures in clay, 70% lean clay, 30% fine sand, iron oxide stain.
	2 2 3	12	F-G		MEDIUM	OVER RANGE	15		
							16		
							17		
							18		Clayey gravel with sand (GC), very dark greenish gray (5GY 3/1), loose to medium dense, wet, free product coating gravel, 60% fine to coarse subangular to subrounded gravel, 25% fine to medium sand, 15% lean clay.
							19		
	9 18 16	14	G		STRONG	OVER RANGE	20		
							21		
							22		
					STRONG	OVER RANGE	23		
							24		
10" DIA BOREHOLE							25		Total depth 25.0'
							26		
							27		Driller stops at 22' when strong free product encountered, use shop vacuum to suck up oil into drum.
							28		
							29		
							30		

REGISTERED GEOLOGIST
ROBERT L. NELSON
No. 2087
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

H:\Department\Jobs\FB022C Lucasey\Boring logs\RW-1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

SOIL BORING AND WELL CONSTRUCTION LOG:

CLEARWATER GROUP

Project No. FB022

Sheet 1 of 1

FIELD LOCATION OF BORING:	CLIENT/LOCATION:	JOB NO#.	PROJ. MANAGER:	BORING/WELL NO.:
Loading Dock / Building / ⊗ RW-2	Lucasey Manufacturing	FB022G	Erik Lervaag	SB-14/RW-2
	DRILLING CONTRACTOR: Fast-Tek, RSI	DRILL RIG TYPE: GeoProbe 5400, CME 75	WELL DEPTH: 25.0 ft	WELL BOREHOLE DIAMETER: 10"
	DRILL RIG OPERATOR: Eric Austin - Fast-Tek, Jorge Morales - RSI	WELL MATERIAL: Sch 40 PVC	BORING DEPTH: 24.0'	FILTER PACK: #2/12 Sand
	Soil boring drilled on 11-12-2007 by Fast-Tek Well installed on 3-13-2008 by RSI Drilling			

SAMPLING METHOD: Continuous Core

MONITORING INSTRUMENT: Photoionization Detector

FIRST ENCOUNTERED WATER DEPTH: 17.0'

STATIC WATER DEPTH - 10.0'

WELL CONSTRUCTION	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	Product	ODOR	PID	SAMPLE DEPTH (FEET)	DEPTH (FEET)	GRAPHIC LOG	
WELL BOX	48	20	P					1		7" Concrete
								1		Sandy silt(ML), dark gray (10YR 4/1), soft, moist, trace of fine sand.
LEAN GROUT								2		
					NO			3		
BENTONITE PELLETS								4		
	48	30	F					5		
4" DIA BLANK WELL CASING					NO	0		5		Sandy lean clay (CL), mottled brown (10YR 4/3), stiff, moist, 30% fine sand, 70% clay, iron oxide stained.
								6		
								7		
								8		
#2/12 SAND	48	20	P					9		Color change to dark brown (10YR 3/3).
								10		
								11		Color change to very dark greenish gray (10Y 3/1) free product in rootlets.
4" DIA PVC 0.020" SLOTS								11		
	48	40	G					12		Sandy lean clay to fat clay (CL-CH), dark yellowish brown (10YR 4/4), 30% very fine to fine sand, very stiff, moist, iron oxide stained,
								13		
								14		
								15		
					NO			16		16.0' color change to very dark greenish gray (10Y 3/1).
								16		Water encountered 17.0', water rose to 10.0' in borehole.
					STRONG	OVER RANGED		17	+ + +	Clayey sand with gravel (SC), very dark greenish gray (10Y 3/1), loose, wet, 65% medium sand, 15% fine gravel, 20% clay, strong odor, visible free product.
								18		
					?			19		17.5' Sandy fat clay (CH), mottled and streaked very dark greenish gray (10Y 3/1) and dark yellowish brown (10YR 4/4), soft , wet, 30% very fine sand, trace of free product along fissues and rootlets.
	48	24				0	?	20		
								21		
						0		22		
						0		23		Clayey gravel with sand (GC), mottled greenish gray (10Y 3/1) and dark yellowish brown (10YR 4 /4), loose, wet, 40% fine gravel, 30% fine to coarse sand, 30% clay, no odor.
					NO	0		24		Total depth 24.0'
10" DIA BOREHOLE								25		
								26		
								27		
								28		
								29		
								30		

FINISH:

DRILLING START:

LOGGED BY: Rob Nelson

APPROVED BY: Erik Lervaag

REGISTERED GEOLOGIST
ROBERT L. NELSON
No. 2087
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

H:\Department\Jobs\FB022C Lucasey\Boring logs\RW-2

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

SOIL BORING AND WELL CONSTRUCTION LOG:

CLEARWATER GROUP

Project No. FB022

Sheet 1 of 2

FIELD LOCATION OF BORING:	CLIENT/LOCATION:	JOB NO#.	PROJ. MANAGER:	BORING/WELL NO.:
Loading Dock; Building; ⊗ RW-3	Lucasey Manufacturing	FB022G	Erik Lervaag	SB13/RW-3
	DRILLING CONTRACTOR: Fast-Tek, RSI	DRILL RIG TYPE: GeoProbe 5400, CME 75	WELL DEPTH: 25.0 '	WELL BOREHOLE DIAMETER: 10"
	DRILL RIG OPERATOR: Eric Austin - Fast-Tek, Jorge Morales - RSI Drilling	WELL MATERIAL: Sch 40 PVC	BORING DEPTH: 32.0'	FILTER PACK: #2/12 Sand
	Soil boring installed on 11-8-2007 by Fast-Tek Well installed on 3-12-2008 by RSI Drilling			

FINISH:

DRILLING START: 11:20 am

LOGGED BY: Rob Nelson

APPROVED BY:

SAMPLING METHOD: Continuous Core

MONITORING INSTRUMENT: Photoionization Detector

FIRST ENCOUNTERED WATER DEPTH: 24.0'

STATIC WATER DEPTH - not determined

WELL CONSTRUCTION	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	PRODUCT	ODOR	PID	SAMPLE DEPTH (FEET)	DEPTH (FEET)	GRAPHIC LOG	
WELL BOX	48	30	F					1		6" Concrete Sandy silt (ML), black (10YR 2/1), soft, moist, 20% very fine sand, 10% clay, 70% silt.
LEAN GROUT					NO	0		2		
								3		
BENTONITE PELLETS								4		
	48	36	F-G					5		Sandy lean clay (CL), very dark grayish brown (10YR 3/2), stiff, moist, 40% fine to medium sand, trace deeply weathered fine gravel, light iron oxide stained.
4" DIA BLANK WELL CASING								6		
					NO	0		7		
								8		
#2/12 SAND								9		
								10		Sandy lean clay (CL), dark yellowish brown (10YR 3/4), soft, moist, 70% lean clay, 30% fine sand, mottled iron oxide and dark staining, trace of fine deeply weathered gravel.
4" DIA PVC 0.020" SLOTS								11		11.0' trace of free product along fissures in clay.
								12		Sandy lean clay (CL), dark olive gray (5Y 3/2), stiff, moist, 20% very fine sand, free product along fissures and rootborrows, strong odor.
								13		
								14		
								15		15.0' Color change to dark brown (10YR 4/2).
	48	30	G		STRONG	OVER RANGE		16		
								17		
								18		
								19		
								20		
	48	0						21	No recovery	20.0' - 24.0' No recovery
								22		
								23		
								24		
	48				STRONG	OVER RANGE		25		Clayey gravel with sand (GC), dark olive gray (5Y 3/2), loose, wet, 50% fine gravel, 35% sand, 15% clay, oily sheen and free product, thin (2") interbeds of dark yellow brown, sandy clay.
LEAN GROUT								26		Water at 24' - collect sample SB13-W2 (temporary screen set 26.0' - 28.0').
								27		
								28		Sandy lean clay (CL), dark yellowish brown (10YR 4/4), soft, wet, 40% fine sand, 60% clay, becoming sandier with depth.
								29		
	48	40	G					30		

SOIL BORING AND WELL CONSTRUCTION LOG:

CLEARWATER GROUP

Project No. FB022

Sheet 2 of 2

FIELD LOCATION OF BORING:	CLIENT/LOCATION: Lucasey Manufacturing	JOB NO#. FB022G	PROJ. MANAGER: Erik Lervaag	BORING/WELL NO.: SB13/RW-3
	DRILLING CONTRACTOR: Fast-Tek RSI	DRILL RIG TYPE: GeoProbe 5400 CME 75	WELL DEPTH: 25.0'	WELL BOREHOLE DIAMETER: 10"
	DRILL RIG OPERATOR: Eric Austin - Fast-Tek Jorge Morales - RSI	WELL MATERIAL: Sch 40 PVC	BORING DEPTH: 32.0'	FILTER PACK: #2/12 Sand
	Soil boring installed on 11-8-2007 by Fast-Tek Well installed on 3-12-2008 by RSI Drilling			

FINISH:

DRILLING START:

LOGGED BY: Rob Nelson

APPROVED BY: Erik Lervaag

WELL CONSTRUCTION	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	PRODUCT	ODOR	PID	DEPTH (FEET)	GRAPHIC LOG
LEAN GROUT							31	
							32	

SAMPLING METHOD: Continuous Core

MONITORING INSTRUMENT: Photoionization Detector

FIRST ENCOUNTERED WATER DEPTH: 24.0'

STATIC WATER DEPTH - not determined

Sandy lean clay (CL), dark yellowish brown (10YR 4/4), soft, wet, 40% fine sand, 60% clay, becoming sandier with depth.

Total depth 32.0'

REGISTERED GEOLOGIST
ROBERT L. NELSON
No. 2087
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA