

6920 Koll Center Parkway  
Suite 216  
Pleasanton, CA 94566  
925.426.2600  
Fax 925.426.0106



7073

September 29, 2003

Alameda County  
OCT 01 2003  
Environmental Health

Barney Chan  
Hazardous Materials Specialist  
ALAMEDA COUNTY HEALTH CARE SERVICES  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Clayton Project No. 70-03365.03

Subject: Offsite Groundwater Investigation Report  
Former Dunne Paints Facility  
1007 41<sup>st</sup> Street, Oakland, California

Dear Mr. Chan:

In anticipation of your agreement and approval of the Offsite Groundwater Investigation Report, and due to the limited availability of limited access hollow stem auger drill stem, Clayton has pre-booked Gregg's Drilling Rhino-Rig for October 9 and 10, 2003. If you have any questions, comments or modifications to the proposed scope of work, could you please advise me as soon as possible at (925) 426-2665.

Sincerely,

A handwritten signature in cursive script that reads "Warren B. Chamberlain".

Warren B. Chamberlain, R.G., C.H.G., P.E.  
Project Manager  
Environmental Services

Welcome, Guest User [Create My Locations](#) - [Sign In](#)

### Yahoo! Maps [Maps Home](#)

Maps | **Driving Directions**

Starting from: **A** 1131 Harbor Bay Pkwy, Alameda, CA 94502-6540 [Save Address](#)

Arriving at: **B** 1007 41st St, Oakland, CA 94608-3618 [Save Address](#)

[Get Reverse Directions](#)

Distance: 9.9 miles      Approximate Travel Time: 20 mins

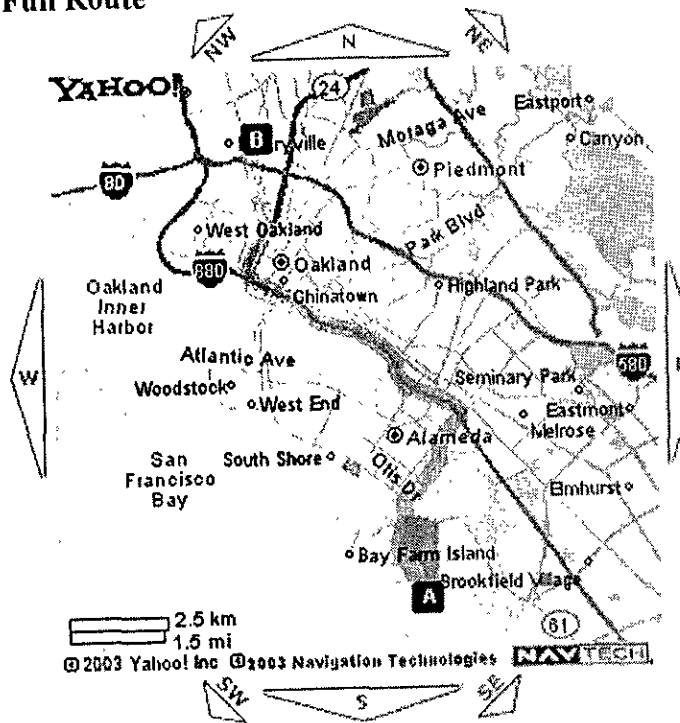
statefarm.com<sup>®</sup>

**One-third of all crashes occur at intersections.**

**Where are the 10 most dangerous intersections in the**

Printable Version |  Email Directions |  Text Only Driving Directions

#### Full Route



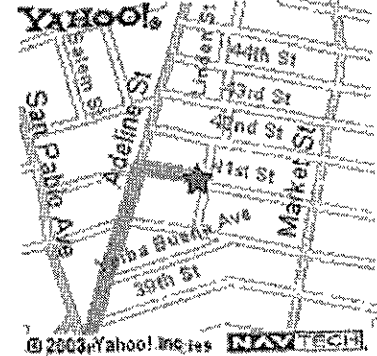
+ Zoom In

- 1
- 2 street
- 3
- 4 city
- 5
- 6
- 7
- 8 state
- 9

10 country

- Zoom Out

#### Destination



1007 41st St  
Oakland, CA 94608-3618

Clicking on Map:  Zoom in & Re-Center  Re-Center Only

#### Directions

[Show Turn by Turn Maps](#)

- |    |  |
|----|--|
| 1. | Start at 1131 HARBOR BAY PKWY, ALAMEDA on HARBOR BAY PKY - go < 0.1 mi |
| 2. | Turn <b>L</b> on MAITLAND DR - go 0.9 mi                               |
| 3. | Turn <b>R</b> on ISLAND DR - go 0.6 mi                                 |

6920 Koll Center Parkway  
Suite 216  
Pleasanton, CA 94566  
925.426.2600  
Fax 925.426.0106

003



September 29, 2003

Alameda County  
OCT 01 2003  
Environmental Health

Barney Chan  
Hazardous Materials Specialist  
ALAMEDA COUNTY HEALTH CARE SERVICES  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Clayton Project No. 70-03365.03

Subject: Offsite Groundwater Investigation Report  
Former Dunne Paints Facility  
1007 41<sup>st</sup> Street, Oakland, California

Dear Mr. Chan:

Clayton Group Services, Inc. (Clayton) is pleased to present this report documenting the results from a recent Offsite Groundwater Investigation conducted in areas surrounding the above-referenced subject property (Figure 1). The subject property was formerly operated as a paint storage and distribution facility; six (now removed) underground storage tanks (UST) that contained mineral spirits were located in the sidewalk along the north side of the property. The subject property is assigned Alameda County Health Care Services (ACHCS) fuel leak case number RO000073.

Several previous site investigations have been performed at the subject property and their results, along with a description of the site history, were recently presented in the Clayton reports "*Predevelopment Investigation Report of the Former Dunne Paint facility at 1007 41<sup>st</sup> Street in Oakland/Emeryville and 4050 Adeline Street in Emeryville, California*" dated December 23, 2002, and "*Supplemental Investigation of the Former Dunne Paints Facility, 1007 41<sup>st</sup> Street in Oakland/Emeryville and 4050 Adeline Street in Emeryville, California,*" dated May 23, 2003.

The subject property is currently undergoing redevelopment, and future site plans include site wide dewatering and soil excavation to install foundations. To allow redevelopment to proceed, the ACHCS, in a letter dated March 21, 2003 listed four technical comments and stated that no further active remediation will be required at this property if the technical comments are adequately addressed. This supplemental investigation was performed in response to the ACHCS's Technical Comment #2:

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 2  
Clayton Project No. 70-03365.03

*“...you may want to consider performing an initial investigation to quickly define the location of the contaminant plume down-gradient from the release prior to installing permanent monitoring network.”*

As such, the aim of this investigation was to define offsite and downgradient areas of Total Petroleum Hydrocarbons as Mineral Spirits (TPH-ms) in groundwater and propose monitoring well locations. This report presents a description of field investigation procedures, a site map showing sample locations, a summary of analytical results, and conclusions and recommendations as necessary.

### **SCOPE OF WORK**

Borehole locations for the investigation were selected to define the offsite extent of TPH-ms in groundwater (as recommended by the ACHCS), to assist in the siting of permanent groundwater monitoring wells.

The scope of work for this investigation involve the following tasks:

- Project management
- Prefield activities
- Field sampling activities
- Traffic control
- Laboratory analysis
- Report preparation

### **PRE-FIELD ACTIVITIES**

The pre-field activities included the following:

- Developing a workplan to conduct the investigation. The workplan dated May 29, 2003 was submitted to the ACHCS for review and approval. The workplan was approved by ACHCS in a letter dated June 5, 2003.
- Preparing a Site Safety and Health Plan (SSHP) to reflect the work proposed at the subject property. The SSHP detailed the work to be performed, safety precautions, emergency response procedures, nearest hospital information, and onsite personnel responsible for managing emergency situations.
- Marking the offsite borehole locations with white paint and requesting Underground Service Alert (USA) at least 48 hours prior to performing field activities, as required by law, to identify onsite subsurface utilities.

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 3  
Clayton Project No. 70-03365.03

- Surveying neighborhood conditions and developing traffic control plan.
- Obtaining City of Emeryville encroachment permits to work in city streets. (Included in Attachment 1).
- Obtaining a drilling permit, as necessary, from the Alameda County Department of Public Works (ACDPW). (Included in Attachment 1).

### **FIELD SAMPLING ACTIVITIES**

A Clayton geologist supervised Gregg Drilling, Inc. of Martinez, California in advancing the borings using Geoprobe® direct-push drilling equipment. Field activities were performed on June 27 and 30, 2003. As all borings were located in city streets, traffic control measures consisting of 'workmen ahead' signs, and lane closure using traffic cones and flagmen, were used to provide a safe working area and warning to motorists and pedestrians.

Due to the presence of utilities, all boreholes were first hand-augered to 4 feet below ground surface (bgs). Planned boreholes OB-4, OB-5, OB-6, and OB-7 were relocated due to the presence of concrete pipes at approximately 3 feet bgs. The locations of the offsite boreholes installed during this phase of work are presented in Figure 2. Note also, that all offsite boreholes installed during this phase of work were prefixed as OB, as the B prefix numbering system had previously been used for onsite borings.

During drilling, soil cores were recovered within a 2-inch diameter macro-core lined with an acetate tube. Downhole equipment was cleaned prior to advancing each boring and prior to collecting samples. Soil cores were examined to determine subsurface soil types and physical evidence of contamination (*e.g.*, odors, discoloration, chemical sheen). An organic vapor analyzer (OVA) was used to screen soil for volatile compounds. The ACHCS requested that a soil sample be collected for laboratory analysis, if field screening of soil exceeded 100 parts per million (ppm) of VOCs. On this basis, two soil samples (OB-2 @10.5 and OB-10@10) were retained and submitted for chemical analysis. Soil descriptions and OVA readings were recorded onto field logs, which are presented in Attachment 1.

Soil samples retained for laboratory analysis were collected by cutting 6-inch long sections from the soil containing-acetate tubes, from the intervals corresponding to the required test depths or as required based on field OVA screening. The soil sample tubes were sealed with Teflon tape, capped, labeled with identifying information, and placed in a pre-chilled ice chest. Collected soil samples were transported to a State of California-certified laboratory under formal chain-of-custody documentation.

Once the fieldwork was completed, boreholes were filled to near ground surface with cement grout, and capped with asphalt cold patch. The City of Emeryville inspected and

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 4  
Clayton Project No. 70-03365.03

approved final borehole backfill patchwork. Waste soil cuttings and decontamination water were containerized in a 55-gallon drum, labeled with identifying information and stored onsite pending appropriate disposal following the completion of field activities.

### **SUBSURFACE CONDITIONS**

Offsite soils were predominantly clay or silty clay soils. Thin angular gravel horizons that vary from gravelly clay to clayey gravel were encountered at various depths; the angular gravel appears to be of a volcanic rock type. The fractured volcanic rock (angular gravels) were generally saturated at depths greater than 20 feet bgs where present, and these deposits appear to be the main conduit for groundwater flow within native soil types.

In the more downgradient boreholes (OB-5, OB-6, and OB-8), boreholes were first drilled to 24 feet bgs, fitted with a temporary well casing, and allowed to recharge. Free water did not enter these boreholes after being allowed 2 hours to recharge. Subsequently, the boreholes were deepened to 32 feet bgs. Below 24 feet bgs clayey gravels were encountered that produced free water.

Based on field observations, there does not appear to be a spatially significant water bearing unit in the vicinity of the subject property. Shallow groundwater (that is, to depth of 32 feet bgs) appears to be present in isolated soil/rock units that punctuate the predominantly clay-rich soil types in the area of the subject property.

### **LABORATORY ANALYSIS AND RESULTS**

A total of 10 groundwater samples and two soil samples were submitted to the State of California-certified Curtis and Tompkins Ltd. of Berkeley, California for analysis. The grab groundwater and soil samples were analyzed using the following United States Environmental Protection Agency (USEPA)-approved methods:

- USEPA Method 8015M/5030 for Total Petroleum Hydrocarbons quantified for mineral spirits (TPH-ms).
- USEPA Method 8260 for Volatile Organic Compounds (VOCs).

The certified laboratory data sheets and chain-of-custody documentation for samples submitted for analysis are presented in Attachment 2. Summaries of the soil and grab groundwater analytical results are presented in Table 1 and Table 2, respectively.

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 5  
Clayton Project No. 70-03365.03

## SOIL

As requested by ACHCS, soil samples were collected when The OVA screenings exceeded 100 ppm. TPH-ms was detected at 160 milligrams per kilogram (mg/kg) in sample OB-2@10.5 feet bgs, and at 430 mg/kg in sample OB-10 at 10 feet bgs. The VOC acetone was detected at 21 mg/kg in sample OB-2@10.5 feet bgs, and sec-butylbenzene was detected at 83 mg/kg in sample OB-10@10 feet bgs.

## GROUNDWATER

TPH-ms was detected in four of the 10 offsite grab groundwater test locations. The TPH-ms concentrations detected ranged from 65 to 12,000 micrograms per liter ( $\mu\text{g/L}$ ). Based on the offsite grab groundwater data collected by Clayton, an areal depiction of the TPH-ms groundwater plume in the vicinity of the site is presented in Figure 3.

Chlorinated VOCs were detected in two of the 10 offsite grab groundwater test locations. Tetrachloroethene (PCE) was found in sample OB-6 at 11  $\mu\text{g/L}$ ; and Trichloroethene (TCE) was found in OB-5 and OB-6 at 9.6  $\mu\text{g/L}$  and 15  $\mu\text{g/L}$ , respectively. The source of chlorinated solvent is unknown, but does not appear to be related to the former Dunne Paints facility.

## CONCLUSIONS AND RECOMMENDATIONS

The performance of the offsite groundwater investigation has allowed for the downgradient extent of the TPH-ms plume in groundwater to be well defined. As can be seen in Figure 3, the extent of TPH-ms in offsite groundwater has been defined.

To monitor the fate of TPH-ms, a network of offsite groundwater monitoring well are proposed. Due to the large number of utilities located in offsite areas, Clayton recommends that monitoring wells be sited over or immediately adjacent to existing boring locations. Four new groundwater monitoring wells at the locations of borings OB-5, OB-6, and OB-7 (to define downgradient peripheral edges of the TPH-ms plume) and boring OB-2 (area of highest TPH-ms offsite groundwater) should be installed. These wells will be monitored quarterly for a period of one to two-years to establish seasonal groundwater gradient and flow direction trends, and the fate of TPH-ms in groundwater. Groundwater should be tested by USEPA Method 8015M/5030 for TPH-ms. A workplan to install, the proposed monitoring wells is included as Attachment 3.

Following a one to two-year period of groundwater observation, if TPH-ms in groundwater is observed to be stable and/or a decreasing trend in groundwater concentrations is documented, then a request for site closure will be requested from the ACHCS.

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 7  
Clayton Project No. 70-03365.03

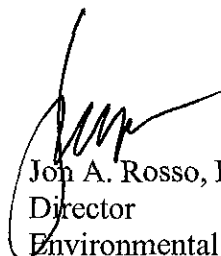
Lastly, no chlorinated solvents were found in the extensive testing by Clayton of site soil by EPA method 8260. As such, the chlorinated solvents detected in grab groundwater samples OB-5 and OB-6 would appear to have been released from adjacent properties and not the subject property.

If you have any questions or need additional information, please contact us at (925) 426-2600.

Sincerely,



Warren B. Chamberlain, R.G., C.H.G., P.E.  
Project Manager  
Environmental Services



Jon A. Rosso, P. E.  
Director  
Environmental Services



**TABLES**

**TABLE 1**

**Summary of Offsite Soil Results**  
**Former Dunne Paints**  
**Oakland/Emeryville, California**

<b>BOREHOLE</b>	<b>Sample Depth (feet bgs)</b>	<b>TPH-ms (mg/kg)</b>	<b>Acetone</b>	<b>sec-Butylbenzene</b>
<b>OB-2</b>	<b>10.5</b>	<b>160</b>	<b>21</b>	<b>&lt;4.5</b>
<b>OB-10</b>	<b>10</b>	<b>430</b>	<b>&lt;91</b>	<b>83</b>

**Notes:**

mg/kg = milligrams per kilogram

Sampling date: June 30, 2003

TPH-ms = Total petroleum hydrocarbons quantified as mineral spirits

**TABLE 2**

**Summary of Offsite Groundwater Results  
Former Dunne Paints  
Oakland/Emeryville, California**

<b>SAMPLE ID</b>	<b>TPH-ms (µg/L)</b>	<b>PCE (µg/L)</b>	<b>TCE (µg/L)</b>
<b>OB-1</b>	<50	<5	<5
<b>OB-2</b>	<b>12,000</b>	<5	<5
<b>OB-3</b>	<50	<5	<5
<b>OB-4</b>	<50	<5	<5
<b>OB-5</b>	<b>65</b>	<5	<b>9.6</b>
<b>OB-6</b>	<50	<b>11</b>	<b>15</b>
<b>OB-7</b>	<b>120</b>	<5	<5
<b>OB-8</b>	<50	<5	<5
<b>OB-9</b>	<50	<5	<5
<b>OB-10</b>	<b>5,800</b>	<5	<5

**Notes:**

µg/L = micrograms per Liter

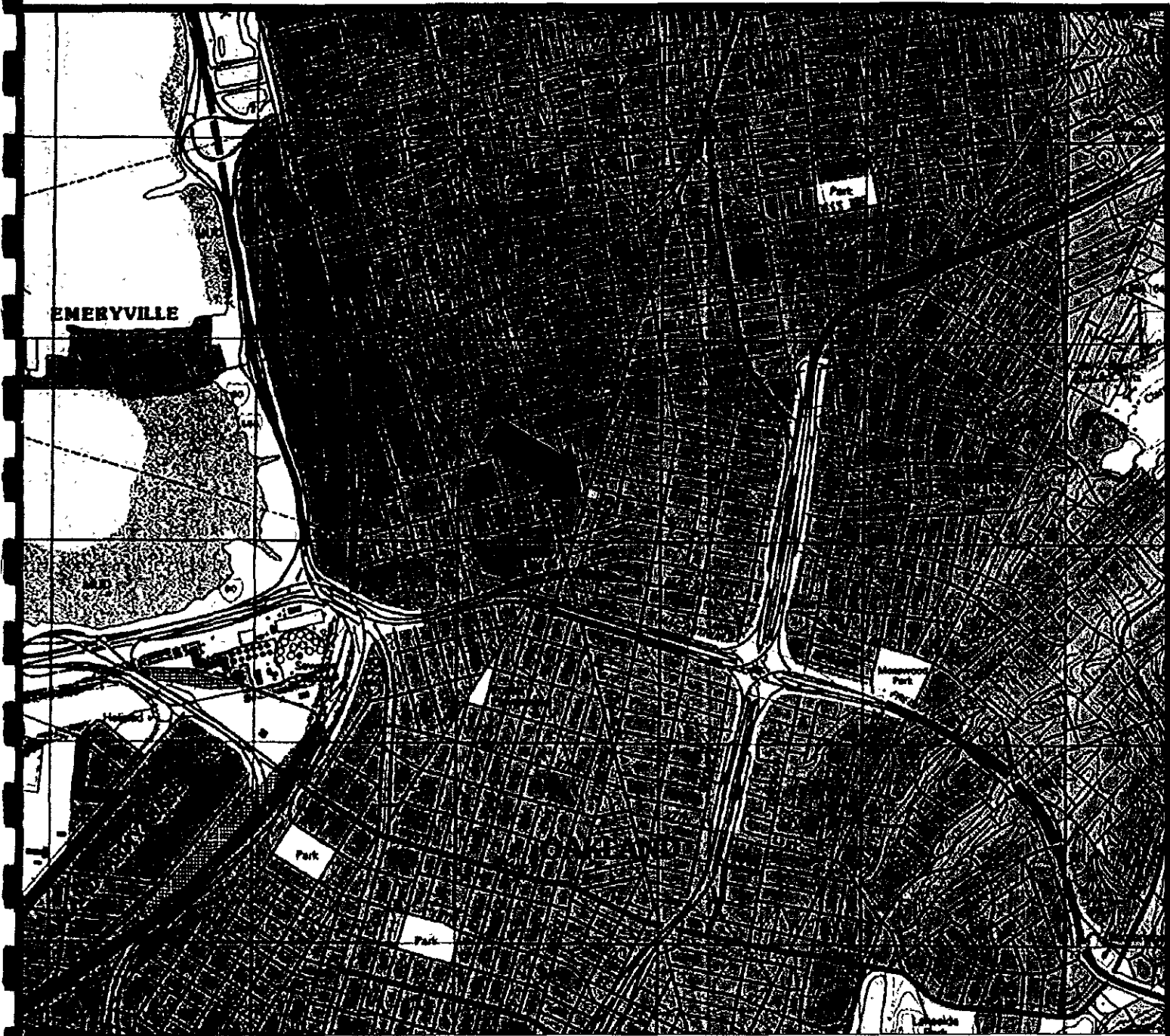
Sampling date: June 27 and 30, 2003

TPH-ms = total petroleum hydrocarbons quantified as mineral spirits

PCE = tetrachloroethene

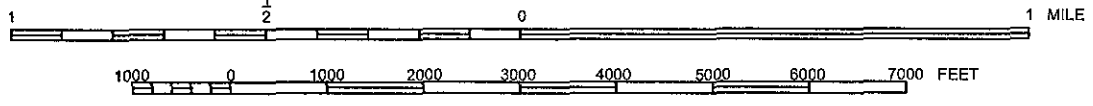
TCE = trichloroethene

**FIGURES**



Map Source: TOPO! © 2000 National Geographic Holdings

Note: Boundaries and Location Information is Approximate



Portion of the 7.5-Minute Series Oakland West, California  
 Quadrangle Topographic Map (Datum: NAD 27)  
 United States Department of the Interior  
 Geological Survey  
 1997



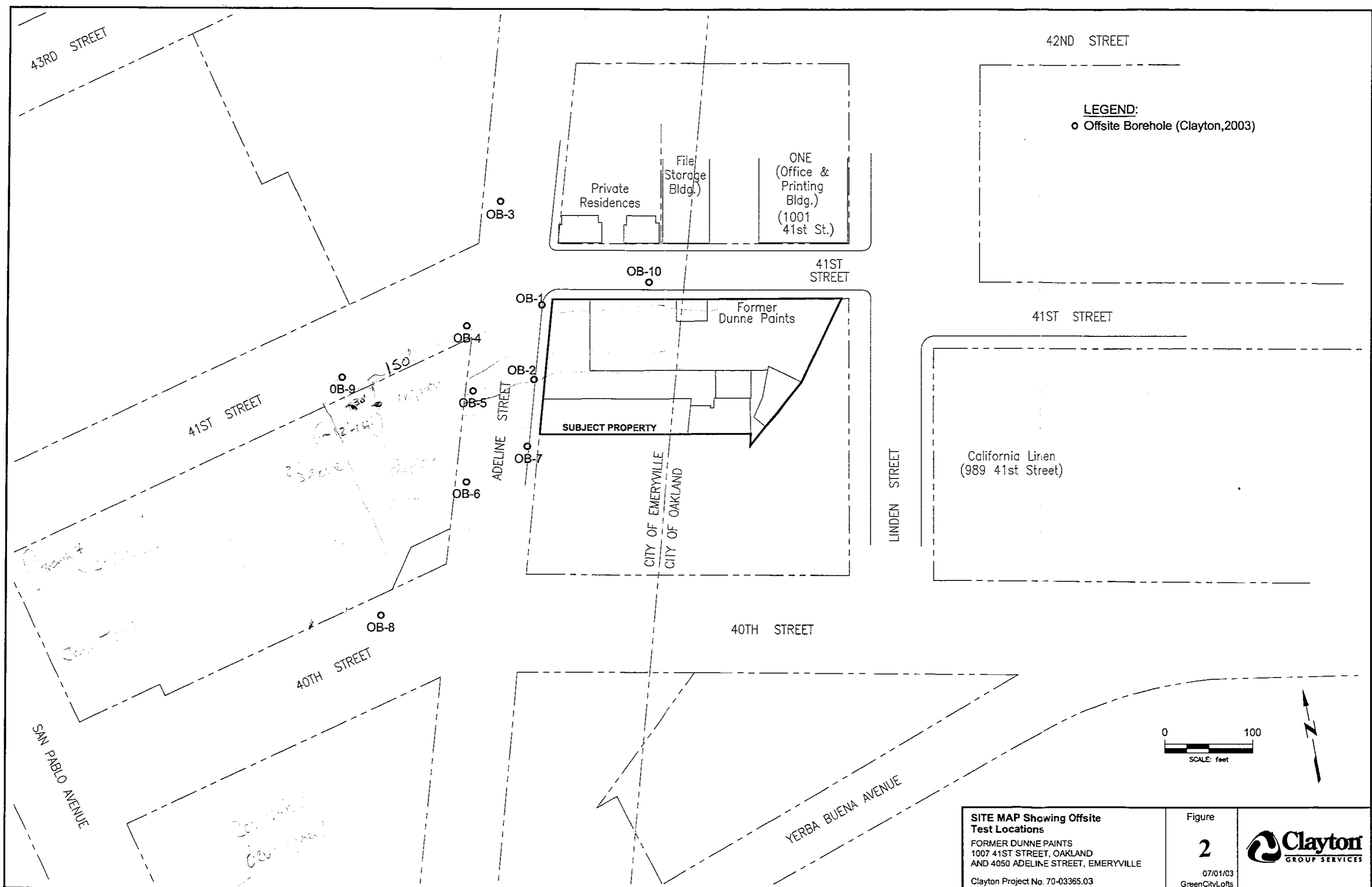
QUADRANGLE LOCATION

PROPERTY LOCATION MAP  
 1007 41st Street  
 Emeryville/Oakland, California and  
 4050 Adeline Street  
 Emeryville, California  
 Clayton Project No. 70-03365.00

Figure

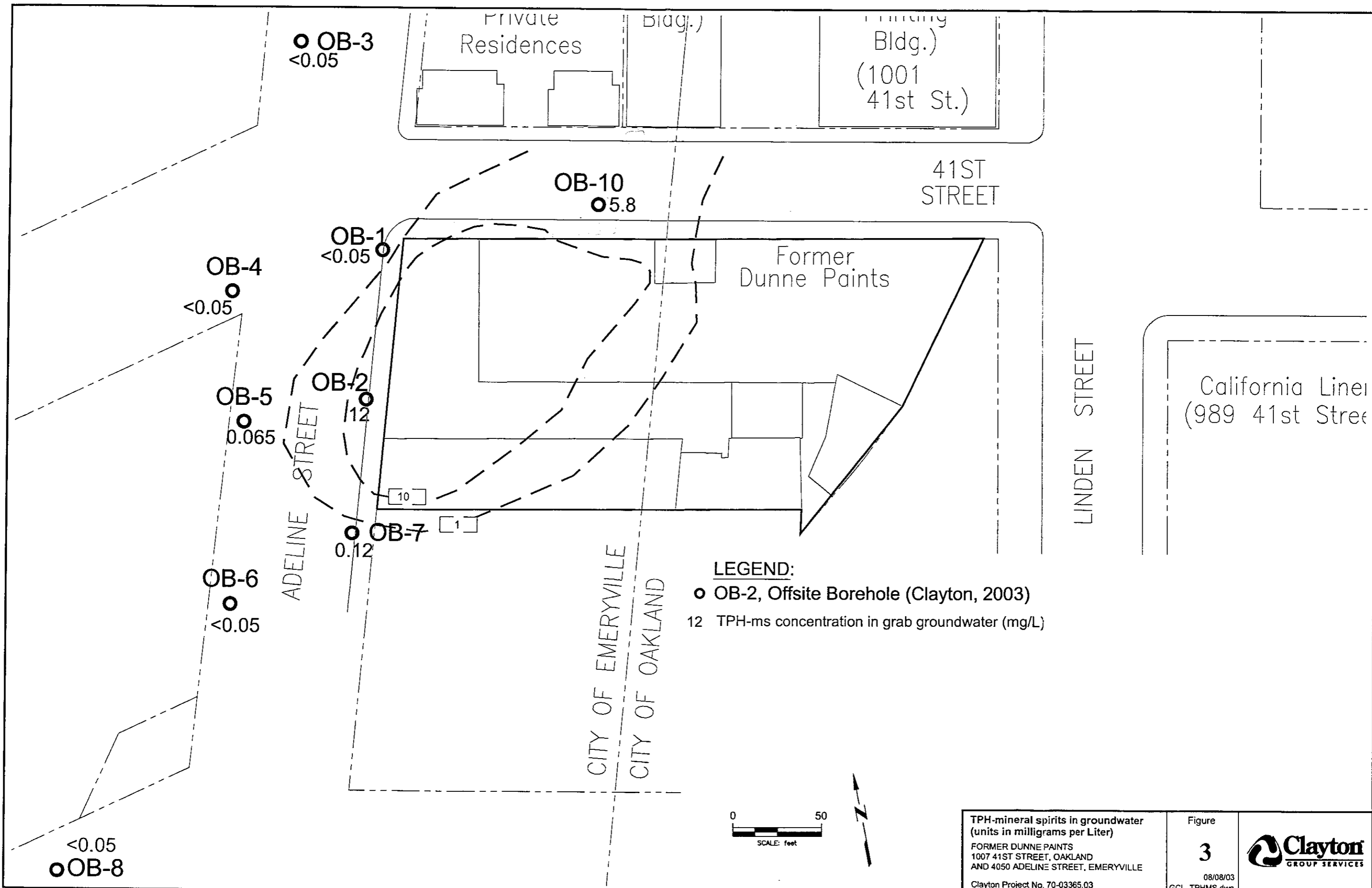
1

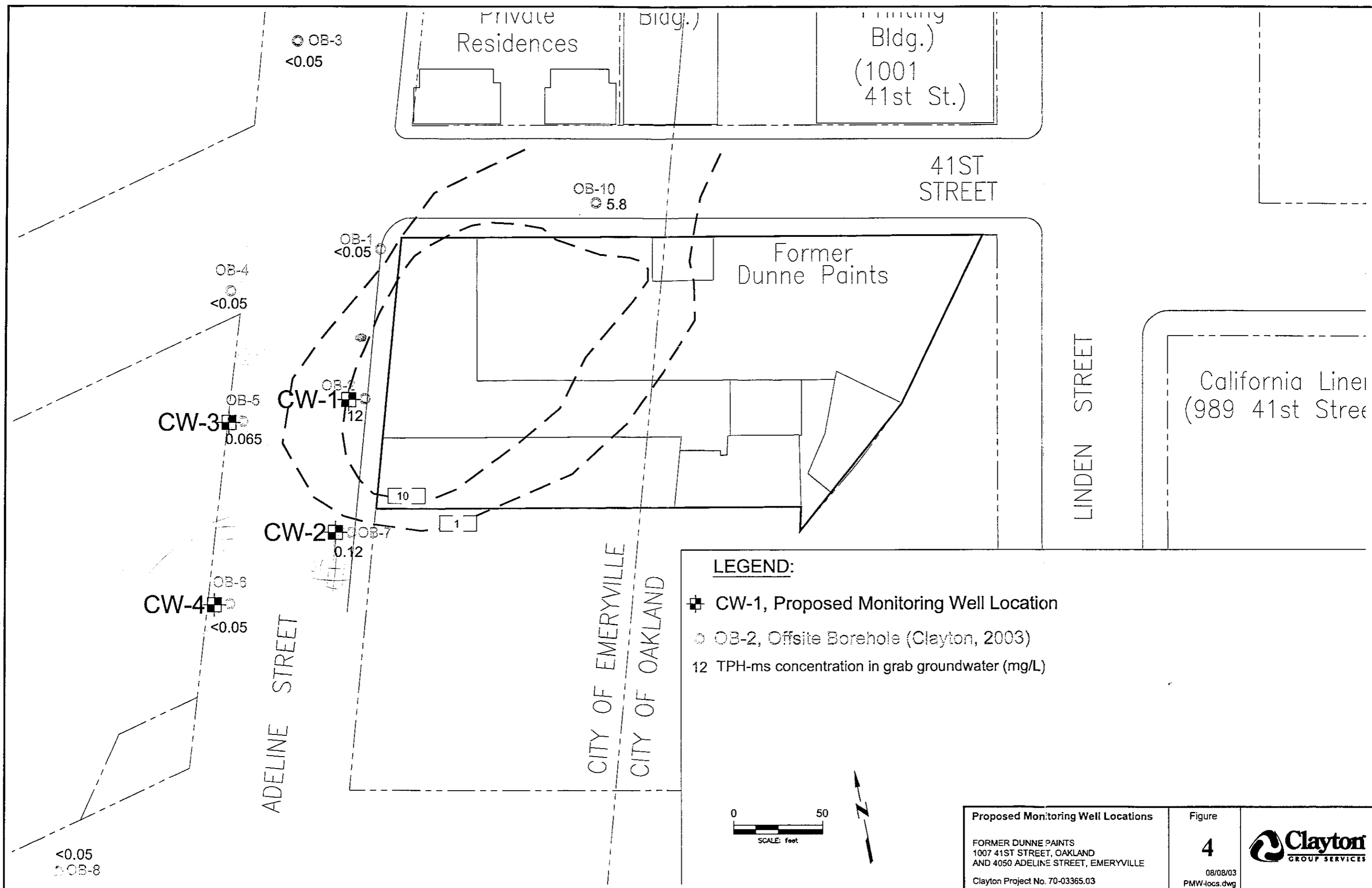




**SITE MAP Showing Offsite Test Locations**  
 FORMER DUNNE PAINTS  
 1007 41ST STREET, OAKLAND  
 AND 4050 ADELINE STREET, EMERYVILLE  
 Clayton Project No. 70-03365.03







**LEGEND:**

- CW-1, Proposed Monitoring Well Location
- OB-2, Offsite Borehole (Clayton, 2003)
- 12 TPH-ms concentration in grab groundwater (mg/L)



<p><b>Proposed Monitoring Well Locations</b></p> <p>FORMER DUNNE PAINTS 1007 41ST STREET, OAKLAND AND 4050 ADELINE STREET, EMERYVILLE</p> <p>Clayton Project No. 70-03365.03</p>	<p>Figure</p> <p><b>4</b></p> <p>08/08/03 PMW-locs.dwg</p>	
--	--	--



**ATTACHMENT 1**  
**PERMITS AND BORING LOGS**

City of Emeryville, Department of Public Works  
**ENCROACHMENT PERMIT**  
 (rev. 9/22/00)

APPLICANT GREEN CITY LOFTS  
 CONTACT PERSON MARTIN SPRIVEL  
 ADDRESS 3675 DELMONT AVE OAKLAND  
 PHONE 510 597-1360 FAX \_\_\_\_\_

OWNER/DEVELOPER OF FACILITIES GREEN CITY LOFTS  
 ADDRESS 3675 DELMONT AVE OAKLAND  
 PHONE 510 597-1360 FAX \_\_\_\_\_  
 yes  no CURRENT CITY BUSINESS LICENSE ON FILE

CONTRACTOR DOING WORK GREEN KILLING  
 CONTACT PERSON CHRIS PRINCE  
 ADDRESS 950 HOWE RD MARTINEZ  
 PHONE 510 313 5800 FAX 510 313-0302  
 LICENSE NO. 37525 CLASS C-5.7  
 yes  no CURRENT CITY BUSINESS LICENSE ON FILE  
 yes  no PROVIDE PROOF OF INSURANCE

EST. START DATE 6/27 EST. COMPLETION DATE 7/30 EST. COST IN CITY R/W 25,100

LOCATION OF WORK INTERSECT ADELINE, 40<sup>TH</sup> & 41<sup>ST</sup>

FULLY DESCRIBE PROPOSED WORK WITHIN CITY RIGHT-OF-WAY (additional space on reverse if needed):  
 Attach 3 complete sets of plans, if applicable.

SEE ATTACHED WORK PLAN.

I hereby agree to protect and indemnify the City of Emeryville and hold it harmless in every way from all claims or suits for injury or damage to persons or property as set forth in the Standard Provisions. I agree not to begin construction until all materials to be used are on hand; to perform all work in accordance with the plans submitted (if any); the Standard Provisions to Encroachment Permit and all applicable Special Conditions of Approval; and to pay all inspection and engineering costs in addition to those paid at the time of issuance of this permit. I further agree to complete the work to the satisfaction of the City Engineer and if for any reason the City of Emeryville is required to complete this work, I will pay all costs for such work.

Applicant Signature Heun B. Chankelun Date 3-24-03

FOR CITY USE ONLY	
Permit No. <u>RW030610-A</u>	Date <u>6/24/03</u>
Permit Admin. Fee	<u>\$150</u>
Est. Inspection Time <u>2</u>	
Permit Insp. Deposit (2 hr. min.)	<u>\$150</u>
Required Security Deposit:	
<input checked="" type="checkbox"/> \$1,000 cash	<u>\$1000</u>
<input type="checkbox"/> \$10,000 Bond	
Bond No.	
<input type="checkbox"/> 100% Perf. Bond	
Bond Value	
Bond No.	
Total Payment Required:	<u>\$1300</u>
Received: <u>[Signature]</u>	Date <u>6/24/03</u>
Receipt No. <u>45552</u>	

FOR CITY USE ONLY

The following documents are attached and incorporated into this permit and have been given to the applicant:

- yes  no Standard Provisions to Encroachment Permit
- yes  no Special Conditions of Approval
- yes  no City Standard Details (List Details): \_\_\_\_\_
- yes  no Handout Urban Runoff BMP's
- yes  no Other \_\_\_\_\_

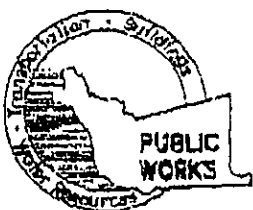
Remarks: \_\_\_\_\_

- yes  no 48 HOUR NOTICE PRIOR TO START OF WORK.
- yes  no PROVIDE CONSTRUCTION SCHEDULE 5 DAYS PRIOR TO START OF WORK.
- yes  no AS-BUILT PLANS REQUIRED.
- yes  no PLEASE CALL FOR INSPECTION AT 510-596-4333.
- yes  no PLEASE NOTIFY POLICE (510-596-4700) AND FIRE (510-596-3730) 24 HOURS IN ADVANCE.

This permit is void unless the work is completed before 30 June 2003.  
 This permit is to be strictly construed and no other work than is specifically mentioned is hereby authorized.

APPROVED: [Signature] TITLE Sr Civil Eng DATE 24 June 03

FINAL INSPECTION APPROVED: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 For final inspection approval, please contact the Public Works Department at 510-596-4330 to determine final cost, and for final payment or reimbursement of deposit.



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

**WATER RESOURCES SECTION**  
399 ELKHURST ST. HAYWARD CA. 94544-1395  
PHONE (510) 870-4633 James Yoo  
FAX (510) 782-1939

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS  
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

## DRILLING PERMIT APPLICATION

### FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Former Dunne Paint Facility  
4050 Adeline Street  
Emeryville, CA

CLIENT  
Name Green City Lofts (Yo Martin Samuels)  
Address 3625 Delmont Ave. Phone 510-572-1360  
City Oakland Zip 94605

APPLICANT  
Name Clayton Group Services (Yo Warren Chamberlain)  
Address 6920 Kell Center Blvd Phone (925) 436-2665  
City Pleasanton Zip 94566

TYPE OF PROJECT  
Well Construction  Geotechnical Investigation   
Cathodic Protection  General   
Water Supply  Contamination   
Monitoring  Well Destruction

PROPOSED WATER SUPPLY WELL USE  
New Domestic  Replacement Domestic   
Municipal  Irrigation   
Industrial  Other

DRILLING METHOD:  
Mud Rotary  Air Rotary  Auger   
Cable  Other  Geoprobe

DRILLER'S NAME Grigg Drilling  
DRILLER'S LICENSE NO. 485165

WELL PROJECTS  
Drill Hole Diameter \_\_\_\_\_ in. Maximum \_\_\_\_\_  
Casing Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.  
Surface Seal Depth \_\_\_\_\_ ft. Owner's Well Number \_\_\_\_\_

GEOTECHNICAL PROJECTS  
Number of Borings 10 Maximum \_\_\_\_\_  
Hole Diameter 2.6 in. Depth 25 ft.

STARTING DATE June 27 2003  
COMPLETION DATE Sept 23 2003

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Warren Chamberlain DATE 6-6-03

PLEASE PRINT NAME Warren Chamberlain Rev. 5-13-00

### FOR OFFICE USE

PERMIT NUMBER W03-0548  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

### PERMIT CONDITIONS

Circled Permit Requirements Apply

#### A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

#### B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum total depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

#### C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

#### D. GEOTECHNICAL/Contamination

Barfield bore holes by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind.

#### E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

#### F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

#### G. SPECIAL CONDITIONS \$A1 Attached

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED \_\_\_\_\_ DATE 6-13-03





# LOG OF BORING OB-1

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/30/03  
 Date Completed : 06/30/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Remer

Clayton Project No.: 70-03365.03

Depth in FEET	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and baserock;
0 - 4					CLAY (CL) black, stiff, moist
4 - 8		0.0			SILTY CLAY (CL) brownish black, medium stiff, dry to moist
8 - 10		28.8			CLAYEY SILT (ML) brownish, stiff, moist, trace volcanic gravels
10 - 12		0.0			
12 - 16		0.0			SILTY CLAY (CL) brown/olive, stiff, moist, trace volcanics
16 - 24		0.0			
24			▽		CLAYEY SILT (ML) brown, medium stiff, moist
24 - 28					
28 - 32					SILTY CLAY (CL) brown, soft, moist
32 - 35					

Total Depth of Boring = 32 feet

Notes:  
 Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 24 feet. Grab groundwater sample taken at 11:35 a.m.  
 Borehole abandoned with neat cement grout.

08-04-2003 s:\as\boring\_logs\p03365\OB-1.BOR



# LOG OF BORING OB-2

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/30/03  
 Date Completed : 06/30/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03

Depth 5 FEET	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and bedrock
					SANDY SILT (ML) brown, fine, loose, dry, trace gravels
5	<input type="checkbox"/>	1.0			
	<input type="checkbox"/>	43.4			CLAY (CL) black, stiff, dry, slightly organic, slight odor
					CLAYEY SILT (ML) olive, stiff, moist to dry,
10	<input checked="" type="checkbox"/>	114			Trace volcanic gravel , fractured/angular
	<input type="checkbox"/>	75			Color change to redish brown, very stiff
15	<input type="checkbox"/>	1.5			
	<input type="checkbox"/>	1.3			
20					Total Depth of Boring = 20 feet
25					

Notes:

Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 16 feet bgs. Grab groundwater sample taken at 10:15 a.m.  
 Borehole abandoned with neat cement grout.

08-04-2003 s:\test\borings\_logs\p03365\OB-2 BOR



# LOG OF BORING OB-3

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/27/03  
 Date Completed : 06/27/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03

Depth in Feet	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and basecoat
0 - 16.7					CLAY (CL) brown, stiff, dry  Color change to yellowish orange, moist, trace gravels, trace organics
16.7			▽		SILTY CLAY (CL) brownish olive, stiff, moist, trace organics
16.7 - 18.5		0.0			CLAY (CL) brown, medium stiff, moist, trace organics
18.5 - 20.0		0.0			SILTY GRAVELLY SAND (SM) brownish orange, loose, saturated
20.0 - 23.5					SILTY CLAY (CL) brown, moist, trace gravel
23.5 - 24		0.0			CLAYEY SILT (ML) brown, large angular gravel, moist
Total Depth of Boring = 24 feet					

Notes:  
 Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 16.7 feet. Grab groundwater sample taken at 8:50 a.m.  
 Borehole abandoned with neat cement grout.

08-04-2003 s:\es\borings\_logs\03365\OB-3.BOR



# LOG OF BORING OB-4

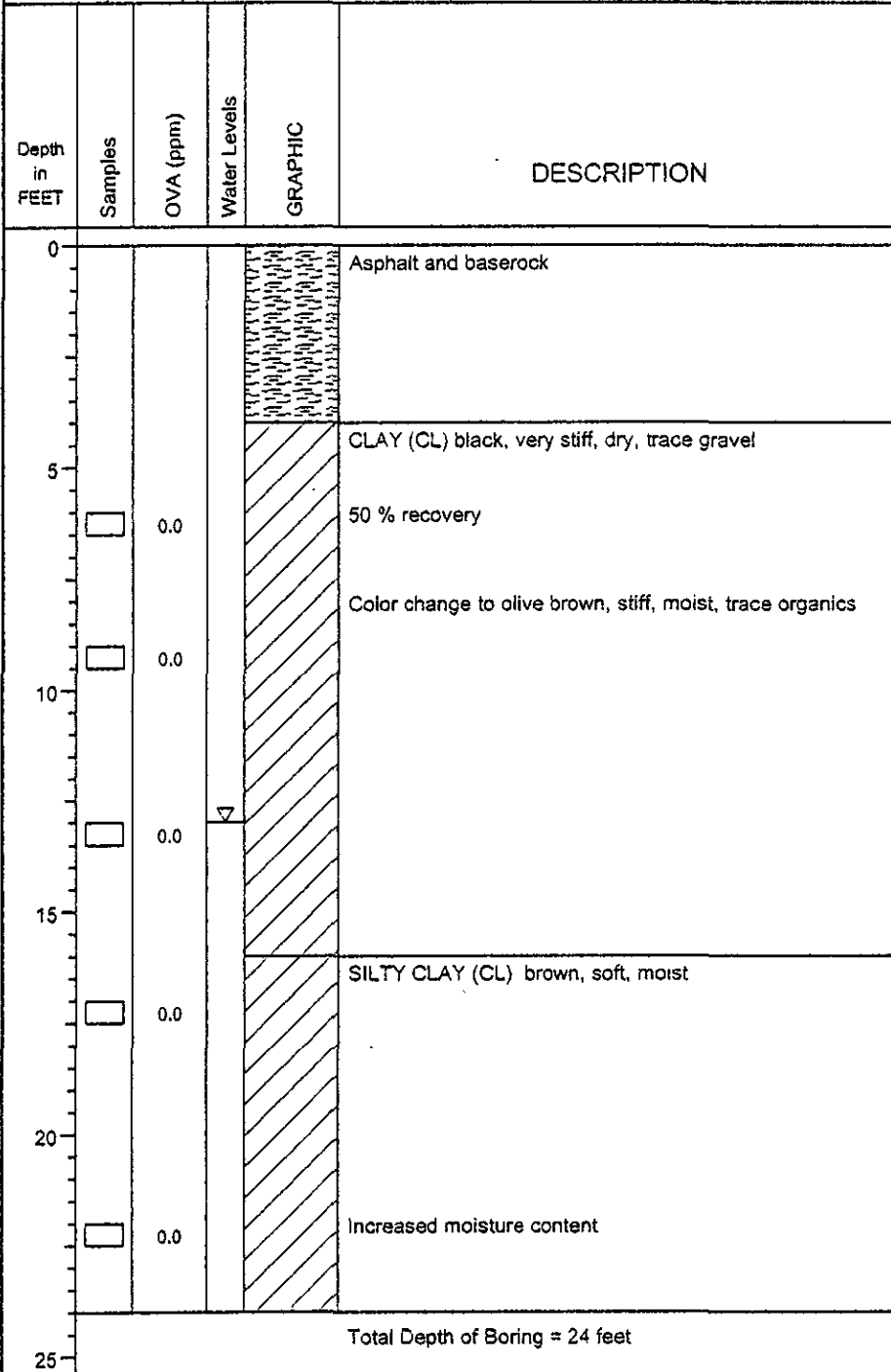
(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/27/03  
 Date Completed : 06/27/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03



08-04-2003 s:\hsh\boring\_logs\p03365\OB-4.BOR

**Notes:**

Borehole was initiated with hand auger to 4 feet bgs.  
 Grab groundwater sample taken at 10:50.  
 Borehole abandoned with neat cement grout.



# LOG OF BORING OB-5

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/27/03  
 Date Completed : 06/27/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03

Depth in FEET	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and baserock
0 - 4					CLAY (CL) brown/olive, soft, moist
4 - 10		0.0			CLAY (CL) olive gray, stiff, moist, trace gravel, organic matter-plant fibers, hydrocarbon odor
10 - 11		74			
11 - 12		5.0			
12 - 15					SILTY CLAY (CL) brown, medium stiff, moist
15 - 23					CLAY (CL) brown/olive, stiff, moist, trace angular gravel
23					Very stiff at 23 feet
23 - 28					SILTY CLAY (CL) brown, soft, moist, trace gravel
28					
28 - 30					CLAYEY GRAVEL (GC) brown, loose, saturated
30 - 32					SILTY CLAY (CL) brown, stiff, moist
Total Depth of Boring = 32 feet					

**Notes:**

Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 28 feet. Grab groundwater sample taken at 15:10 p.m.  
 Borehole abandoned with neat cement grout.

08-04-2003 s:\est\boring\_logs\603365\OB-5.BOR





# LOG OF BORING OB-6

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/27/03  
 Date Completed : 06/27/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03

Depth in FEET	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and baserock
0 - 4					CLAY (CL) black, stiff, dry
4 - 10		0.0			CLAY (CL) olive, stiff, moist Color change to brown, trace gravel
10 - 14		0.0			SILTY CLAY (CL) brown, medium stiff, moist, trace angular gravel
14 - 22		0.0			CLAY (CL) olive gray, very stiff, moist
22 - 24		0.0			SANDY CLAY (CL) brown, soft, very moist
24 - 28					CLAYEY GRAVEL (GC) brown, stiff, saturated
Total Depth of Boring = 28 feet					

Notes:  
 Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 24 feet. Grab groundwater sample taken at 15:40 p.m.  
 Borehole abandoned with neat cement grout.

08-04-2003 s:\test\borings\_logs\p03365\OB-6 BOR



# LOG OF BORING OB-7

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/30/03  
 Date Completed : 06/30/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03

Depth in FEET	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and baserock
0 - 4					SANDY SILT (ML) brown, loose, dry, trace gravels
4 - 8		0.0			CLAY (CL) olive gray, stiff, moist to dry
8 - 12		0.0			SILTY CLAY (CL) olive brown, loose, dry, mixed with volcanics
12 - 14		0.0			SILTY CLAYEY SAND (SC) olive gray, loose, saturated
14 - 18		0.0			CLAYEY SILT (ML) reddish brown, medium stiff, moist
18					Static water level at 18 feet
Total Depth of Boring = 20 feet					
20					
25					

Notes:  
 Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 18 feet.  
 Grab groundwater sample taken at 9:20.  
 Borehole abandoned with neat cement grout.

08-04-2003 8:15am borlog\_logs\p03365\JOB-7 BOR



# LOG OF BORING OB-8

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/27/03  
 Date Completed : 06/27/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03

Depth in FEET	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and baserock
0 - 4					CLAY (CL) black, stiff, dry, trace gravel
4 - 10		0.0	9.0		SILTY CLAY (CL) brownish olive, medium stiff, dry to moist, trace gravel
10 - 15		0.0			CLAY (CL) brown, soft, moist, trace gravel
15 - 25		0.0			CLAY (CL) brown, soft, moist, trace gravel
25 - 32		0.0			Increasing stiffness Trace organics
Total Depth of Boring = 32 feet					

08-04-2003 s:\est\borings\_logs\03365\OB-8.BOR

Notes:  
 Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 9.0 feet.  
 Grab groundwater sample taken at 14:50.  
 Borehole abandoned with neat cement grout.



# LOG OF BORING OB-9

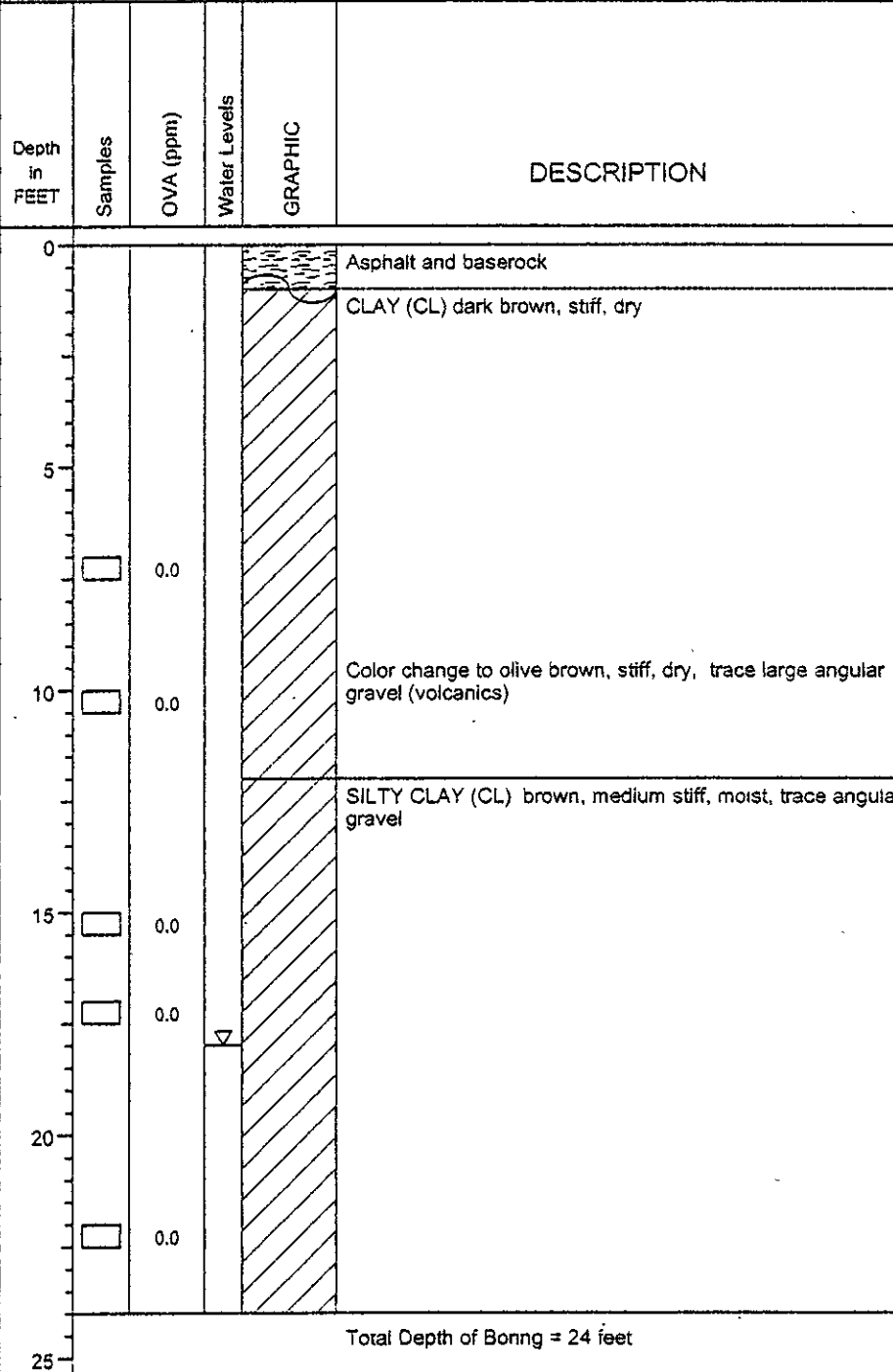
(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/27/03  
 Date Completed : 06/27/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.: 70-03365.03



06-04-2003 s:\es\borings\_logs\03365\OB-9.BOR

Notes:  
 Borehole was initiated with hand auger to 4 feet bgs.  
 Static water level at 18 feet.  
 Grab groundwater sample taken at 11:20.  
 Borehole abandoned with neat cement grout.



# LOG OF BORING OB-10

(Page 1 of 1)

Green City Lofts LLC  
 Subsurface Investigation  
 1007 41st Street  
 Emeryville, California

Date Started : 06/30/03  
 Date Completed : 06/30/03  
 Hole Diameter : 2-inch  
 Drilling Method : Geoprobe  
 Sampling Method : Macrocore

Driller : Gregg  
 Logged by : Matt Reimer

Clayton Project No.. 70-03365.03

Depth in FEET	Samples	OVA (ppm)	Water Levels	GRAPHIC	DESCRIPTION
0					Asphalt and baserock
0 - 10		0.0			CLAY (CL) black, medium stiff, dry, trace gravel
10 - 12					Color change to olive brown, stiff, hydrocarbon odor
10 - 12		103			
12 - 16					SILTY CLAY (CL) brown, loose, trace gravel
Total Depth of Boring = 16 feet					
20					

08-04-2003 s:\estboring\_logs\p03365\OB-10 BOR

Notes:  
 Borehole was initiated with hand auger to 4 feet bgs.  
 Grab groundwater sample taken at 12:20.  
 Borehole abandoned with neat cement grout.

**ATTACHMENT 2**

**ANALYTICAL DATA SHEETS AND  
CHAIN OF CUSTODY DOCUMENTATION**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L   R E P O R T

Prepared for:

Clayton Group Services  
6920 Koll Center Parkway  
Suite 216  
Pleasanton, CA 94566

Date: 14-JUL-03


Lab Job Number: 166083

Project ID: 70-03365.03

Location: Green City Lofts

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

This package may be reproduced only in its entirety.

# CHAIN OF CUSTODY FORM

## Analyses

### Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

C&T  
 LOGIN # 166083

Sampler: Matt Reimer

Report To: Warren Chamberlain / Jon Passo

Company: Clayton

Telephone: 925-426-2600

Fax: 925-426-0106

Project No: 40-03365.03

Project Name: Green City Lofts

Project P.O.:

Turnaround Time: Standard

Laboratory Use	OB-3	6-27/8:50	Soil	Water	Waste	# of Containers	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE	Field Notes	TPH - mineral spirits 8260 (VOCs)
	OB-4	6-27/10:50				6						
	OB-9	6-27/11:20				6						
	OB-8	6-27/14:50				6						
	OB-5	6-27/15:10				6						
	OB-6	6-27/15:40				6						
	OB-5011	6-27/11:27				1						

Laboratory Number	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				Field Notes	
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE		
	OB-3	6-27/8:50		✓		6	✓			✓		
	OB-4	6-27/10:50		✓		6	✓			✓		
	OB-9	6-27/11:20		✓		6	✓			✓		
	OB-8	6-27/14:50		✓		6	✓			✓		
	OB-5	6-27/15:10		✓		6	✓			✓		
	OB-6	6-27/15:40		✓		6	✓			✓		
	OB-5011	6-27/11:27	✓			1						HOLD

Notes:

Received  On Ice  
 Cold  Ambient  Intact

Signature

RELINQUISHED BY:		RECEIVED BY:	
<u>Matt Reimer</u>	6/27/03 4:25 P.M.	<u>Jon Passo</u>	6/27/03 4:25 P.M.
DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME



## Total Volatile Hydrocarbons

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Matrix:	Water	Sampled:	06/27/03
Units:	ug/L	Received:	06/27/03
Diln Fac:	1.000	Analyzed:	06/28/03
Batch#:	82572		

Field ID: OB-3      Lab ID: 166083-001  
 Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	86	57-150
Bromofluorobenzene (FID)	85	65-144

Field ID: OB-4      Lab ID: 166083-002  
 Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	88	57-150
Bromofluorobenzene (FID)	92	65-144

Field ID: OB-9      Lab ID: 166083-003  
 Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	57-150
Bromofluorobenzene (FID)	86	65-144

Field ID: OB-8      Lab ID: 166083-004  
 Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	88	57-150
Bromofluorobenzene (FID)	86	65-144

**Total Volatile Hydrocarbons**

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Matrix:	Water	Sampled:	06/27/03
Units:	ug/L	Received:	06/27/03
Diln Fac:	1.000	Analyzed:	06/28/03
Batch#:	82572		

Field ID:	OB-5	Lab ID:	166083-005
Type:	SAMPLE		

Analyte	Result	RL
Mineral Spirits C7-C12	65	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	57-150
Bromofluorobenzene (FID)	92	65-144

Field ID:	OB-6	Lab ID:	166083-006
Type:	SAMPLE		

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	57-150
Bromofluorobenzene (FID)	93	65-144

Type:	BLANK	Lab ID:	QC218060
-------	-------	---------	----------

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	57-150
Bromofluorobenzene (FID)	78	65-144

# Chromatogram

Sample Name : 166083-005,82572,+minsp  
File Name : G:\GC05\DATA\179G012.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0

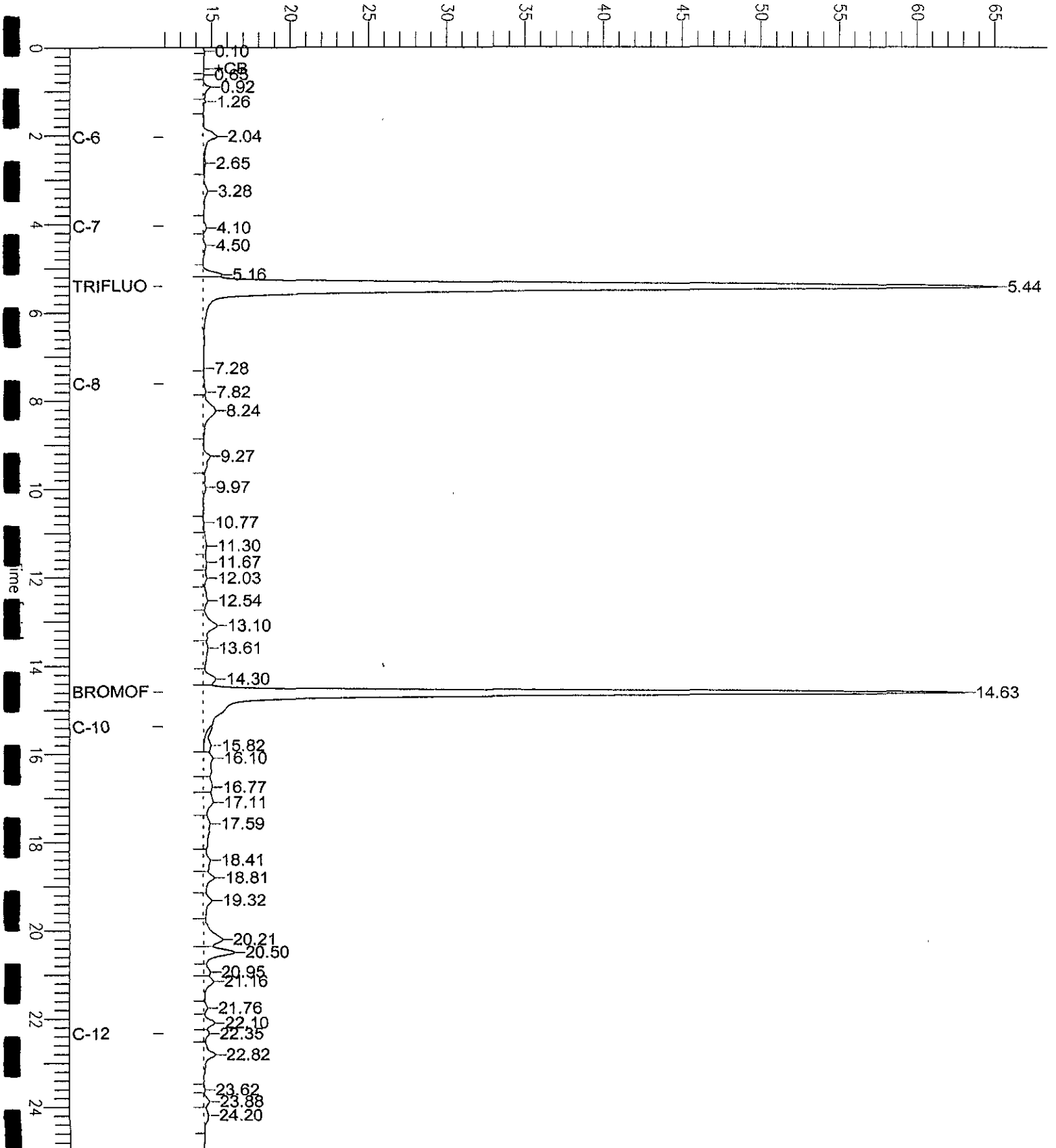
End Time : 25.00 min  
Plot Offset : 12 mV

Sample #: a1  
Date : 6/28/03 11:14 PM  
Time of Injection: 6/28/03 10:49 PM  
Low Point : 11.91 mV  
High Point : 65.15 mV  
Plot Scale: 53.2 mV

Page 1 of 1

OB-5

Response [mV]



# Chromatogram

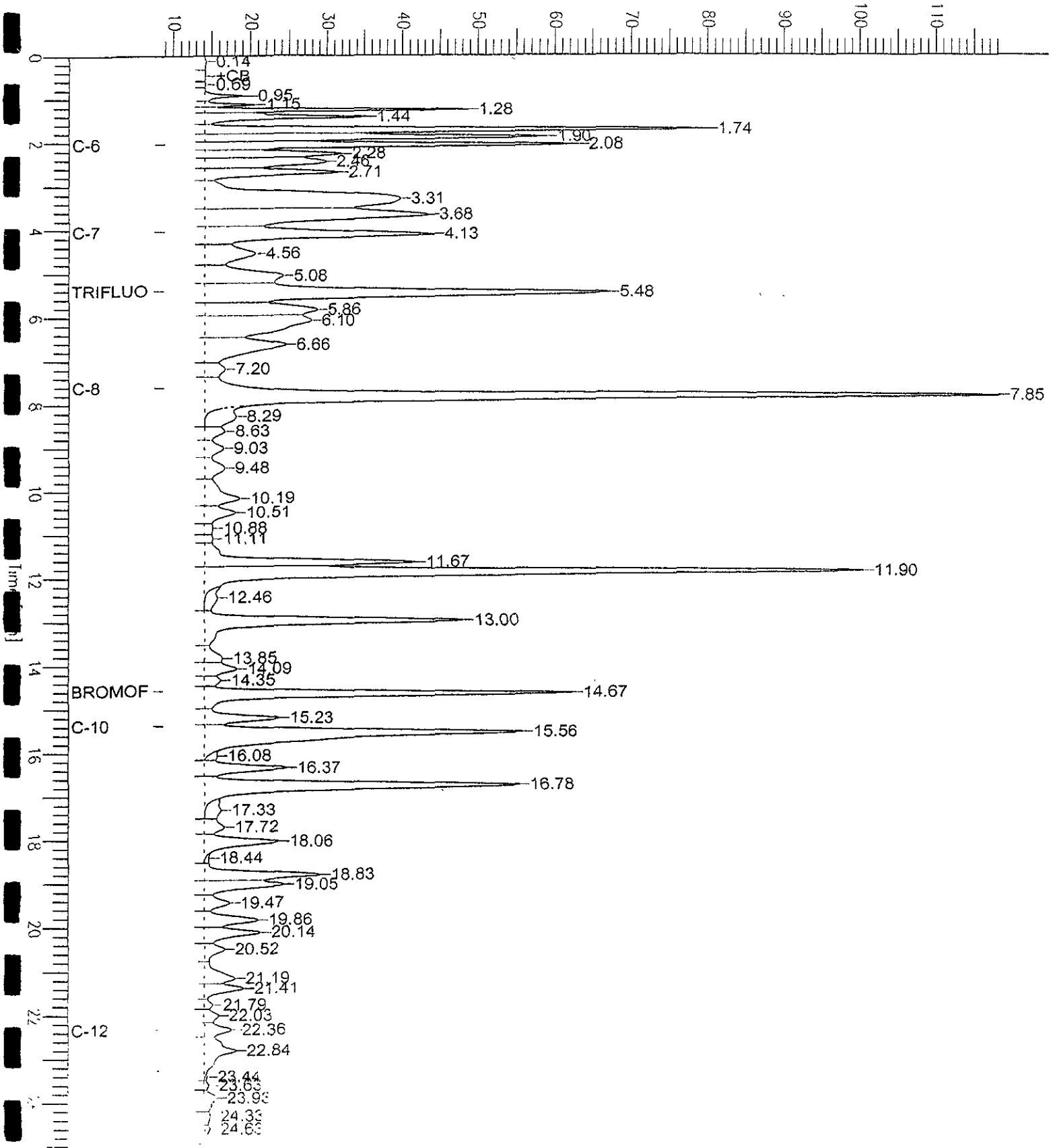
Sample Name : ccv/lcs,qc218061,82572,03ws1038,5/5000  
Sample Name : G:\GC05\DATA\179G002.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0

Sample # :  
Date : 6/28/03 05:35 PM  
Time of Injection: 6/28/03 05:10 PM  
Low Point : 8.88 mV  
Plot Scale: 109.2 mV

Page 1 of 1

*Gasoline*

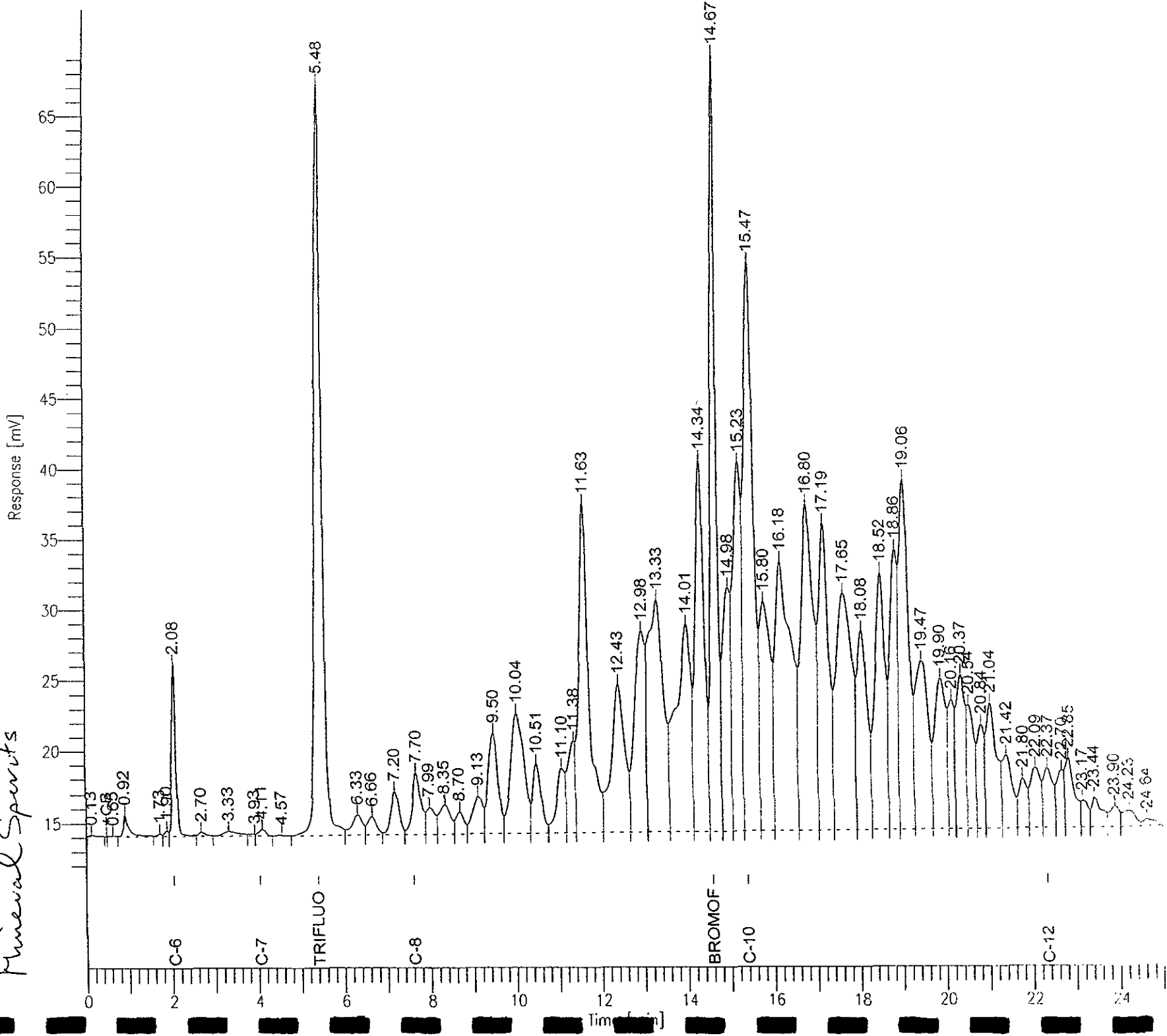
Response [mV]



# Chromatogram

Sample Name : ccv\_minsp\_82572.03ws0652.5/5000  
File Name : G:\CC05\DATA\179G003.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor: 1.0  
Sample #: Page 1 of 1  
Date : 6/28/03 06:09 PM  
Time of Injection: 6/28/03 05:43 PM  
Low Point : 11.36 mV  
High Point : 69.13 mV  
Plot Scale: 57.8 mV  
End Time : 25.00 min  
Plot Offset: 11 mV

*Mineral Spirits*



**Total Volatile Hydrocarbons**

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC218061	Batch#:	82572
Matrix:	Water	Analyzed:	06/28/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,833	92	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	57-150
Bromofluorobenzene (FID)	84	65-144



Total Volatile Hydrocarbons

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Batch#:	82572
MSS Lab ID:	166064-011	Sampled:	06/26/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/29/03
Diln Fac:	1.000		

Type: MS Lab ID: QC218067

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	52.23	2,000	1,855	90	76-120
Surrogate	%REC	Limits			
Trifluorotoluene (FID)	100	57-150			
Bromofluorobenzene (FID)	91	65-144			

Type: MSD Lab ID: QC218068

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,870	91	76-120	1	20
Surrogate	%REC	Limits				
Trifluorotoluene (FID)	98	57-150				
Bromofluorobenzene (FID)	90	65-144				

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-3	Batch#:	82590
Lab ID:	166083-001	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-3	Batch#:	82590
Lab ID:	166083-001	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	REC	Limits
Dibromofluoromethane	105	80-121
1,2-Dichloroethane-d4	93	77-129
Toluene-d8	95	80-120
Bromofluorobenzene	102	80-123

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-4	Batch#:	82590
Lab ID:	166083-002	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-4	Batch#:	82590
Lab ID:	166083-002	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	88	77-129
Toluene-d8	94	80-120
Bromofluorobenzene	98	80-123

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2



## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-9	Batch#:	82590
Lab ID:	166083-003	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-9	Batch#:	82590
Lab ID:	166083-003	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	SRBC	Limits
Dibromofluoromethane	108	80-121
1,2-Dichloroethane-d4	99	77-129
Toluene-d8	94	80-120
Bromofluorobenzene	102	80-123

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-8	Batch#:	82590
Lab ID:	166083-004	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-8	Batch#:	82590
Lab ID:	166083-004	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-121
1,2-Dichloroethane-d4	92	77-129
Toluene-d8	92	80-120
Bromofluorobenzene	101	80-123

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-5	Batch#:	82590
Lab ID:	166083-005	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RI
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	9.6	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-5	Batch#:	82590
Lab ID:	166083-005	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	94	80-120
Bromofluorobenzene	102	80-123

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-6	Batch#:	82590
Lab ID:	166083-006	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	15	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	11	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-6	Batch#:	82590
Lab ID:	166083-006	Sampled:	06/27/03
Matrix:	Water	Received:	06/27/03
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	111	80-121
1,2-Dichloroethane-d4	97	77-129
Toluene-d8	91	80-120
Bromofluorobenzene	100	80-123

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC218189	Batch#:	82590
Matrix:	Water	Analyzed:	06/30/03
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC218189	Batch#:	82590
Matrix:	Water	Analyzed:	06/30/03
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-121
1,2-Dichloroethane-d4	87	77-129
Toluene-d8	90	80-120
Bromofluorobenzene	102	80-123

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	166083	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	82590
Units:	ug/L	Analyzed:	06/30/03
Diln Fac:	1.000		

Type: BS Lab ID: QC218126

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	54.46	109	73-126
Benzene	50.00	50.67	101	80-120
Trichloroethene	50.00	52.52	105	79-125
Toluene	50.00	49.18	98	80-120
Chlorobenzene	50.00	54.19	108	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-121
1,2-Dichloroethane-d4	87	77-129
Toluene-d8	93	80-120
Bromofluorobenzene	98	80-123

Type: BSD Lab ID: QC218127

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	53.13	106	73-126	2	20
Benzene	50.00	47.64	95	80-120	6	20
Trichloroethene	50.00	50.58	101	79-125	4	20
Toluene	50.00	49.13	98	80-120	0	20
Chlorobenzene	50.00	51.39	103	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	89	80-121
1,2-Dichloroethane-d4	81	77-129
Toluene-d8	90	80-120
Bromofluorobenzene	98	80-123



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L   R E P O R T

Prepared for:

Clayton Group Services  
6920 Koll Center Parkway  
Suite 216  
Pleasanton, CA 94566

Date: 14-JUL-03

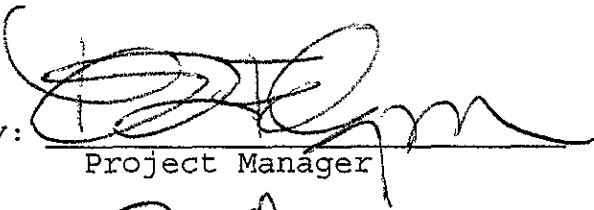
Lab Job Number: 166099

Project ID: 70-03365.03

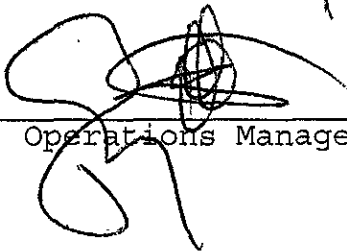
Location: Green City Lofts

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

This package may be reproduced only in its entirety.

**Laboratory Number:** 166099  
**Client:** Clayton Group Services  
**Location:** Green City Lofts  
**Project:** 70-03365.03

**Receipt Date:** 06/30/03

### CASE NARRATIVE

This hardcopy data package contains sample and QC results for two soil samples and two water samples that were received on June 30, 2003. The samples were received cold and intact.

**TVH mineral spirits water by EPA 8015B:** High surrogate recovery was observed for Bromofluorobenzene in sample ID OB-10 (C&T#166099-004) due to coelution with a hydrocarbon peak. No other analytical problems were encountered.

**TVH mineral spirits soil by EPA 8015B:** High surrogate recovery was observed for Bromofluorobenzene in sample ID OB-10@10 (C&T#166099-006) due to coelution with a hydrocarbon peak. No other analytical problems were encountered.

**Purgeable Organics water by EPA 8260B:** No analytical problems were encountered.

**Purgeable Organics soil by EPA 8260B:** High surrogate recovery (by 1%) was observed for Bromofluorobenzene in the matrix spike of sample ID OB-2 @10.5 (C&T#166099-005). The matrix spike was re-analyzed with similar results. No other analytical problems were encountered.



# CHAIN OF CUSTODY FORM

## Analyses

**Curtis & Tompkins, Ltd.**

Analytical Laboratory Since 1878  
2323 Fifth Street  
Berkeley, CA 94710  
(510)486-0900 Phone  
(510)486-0532 Fax

C&T LOGIN # 166099

TUN

TPH - minerals spirits 8260

Sampler: Max Reimer

Report To: Jon Russo

Company: Clayton

Telephone: (925) 426-2600

Fax: \_\_\_\_\_

Project No: MO-03365.03

Project Name: Green City Lofers

Project P.O.: \_\_\_\_\_

Turnaround Time: Standard

-1  
-2  
-3  
-4  
-5  
-6

Laboratory Number	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				Field Notes
			Soil	Water	Waste		HCL	H2SO	HNO3	ICE	
	OB-7	6/30/9:20		✓		6	✓			✓	
	OB-2	6/30/10:15		✓		6	✓			✓	
F	OB-1	6/30/11:35		✓		6	✓			✓	
o	OB-10	6/30/12:20		✓		6	✓			✓	
r											
a											
t											
o	OB-20106	6/30/9:55		✓		1				✓	
r	OB-10R10	6/30/12:00									
y											
e											

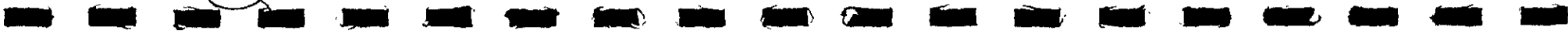
Preservation Correct?  
 Yes  No  N/A

Notes: \_\_\_\_\_

Received  On Ice  
 Cold  Ambient  Intact

Signature \_\_\_\_\_

RELINQUISHED BY:	RECEIVED BY:
<u>Warren B. Chamberlain</u> DATE/TIME <u>6/30/03 13:55</u>	<u>Trag B. ...</u> DATE/TIME <u>6/30/03 1:55</u>
DATE/TIME _____	DATE/TIME _____
DATE/TIME _____	DATE/TIME _____



**Total Volatile Hydrocarbons**

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Matrix:	Water	Sampled:	06/30/03
Units:	ug/L	Received:	06/30/03
Batch#:	82627		

Field ID:	OB-7	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	07/01/03
Lab ID:	166099-001		

Analyte	Result	RL
Mineral Spirits C7-C12	120	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	57-150
Bromofluorobenzene (FID)	86	65-144

Field ID:	OB-2	Diln Fac:	50.00
Type:	SAMPLE	Analyzed:	07/02/03
Lab ID:	166099-002		

Analyte	Result	RL
Mineral Spirits C7-C12	12,000	2,500

Surrogate	%REC	Limits
Trifluorotoluene (FID)	79	57-150
Bromofluorobenzene (FID)	79	65-144

Field ID:	OB-1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	07/01/03
Lab ID:	166099-003		

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	88	57-150
Bromofluorobenzene (FID)	85	65-144

\*= Value outside of QC limits; see narrative

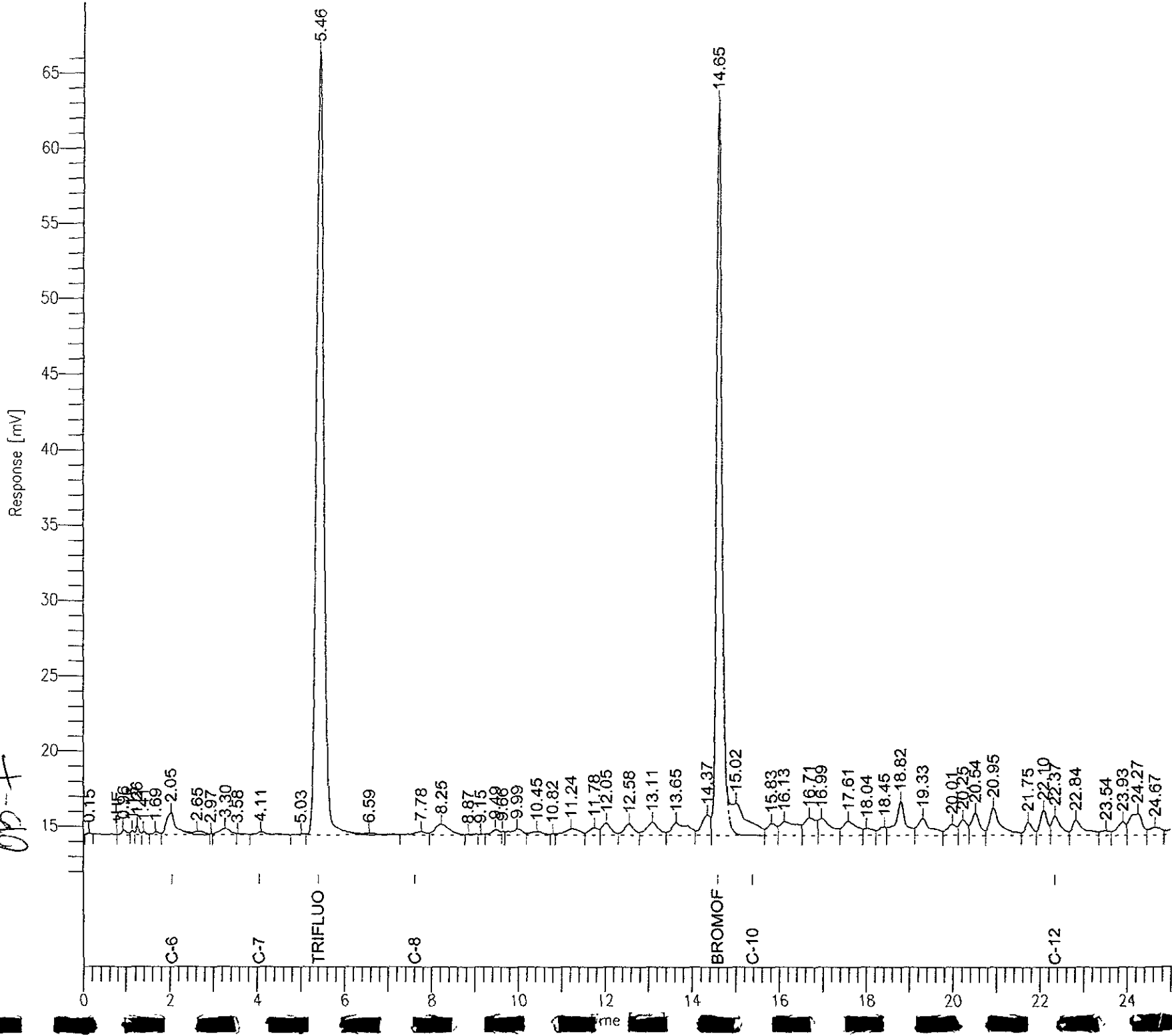
ND= Not Detected

RL= Reporting Limit

# Chromatogram

Sample Name : mss.166099-001.82627  
File Name : G:\GC05\DATA\182G006.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0  
End Time : 25.00 min  
Plot Offset: 12 mV  
Sample #: d1  
Date : 7/2/03 07:50 AM  
Time of Injection: 7/1/03 03:26 PM  
Low Point : 11.83 mV  
High Point : 66.43 mV  
Plot Scale: 54.6 mV

OP-7

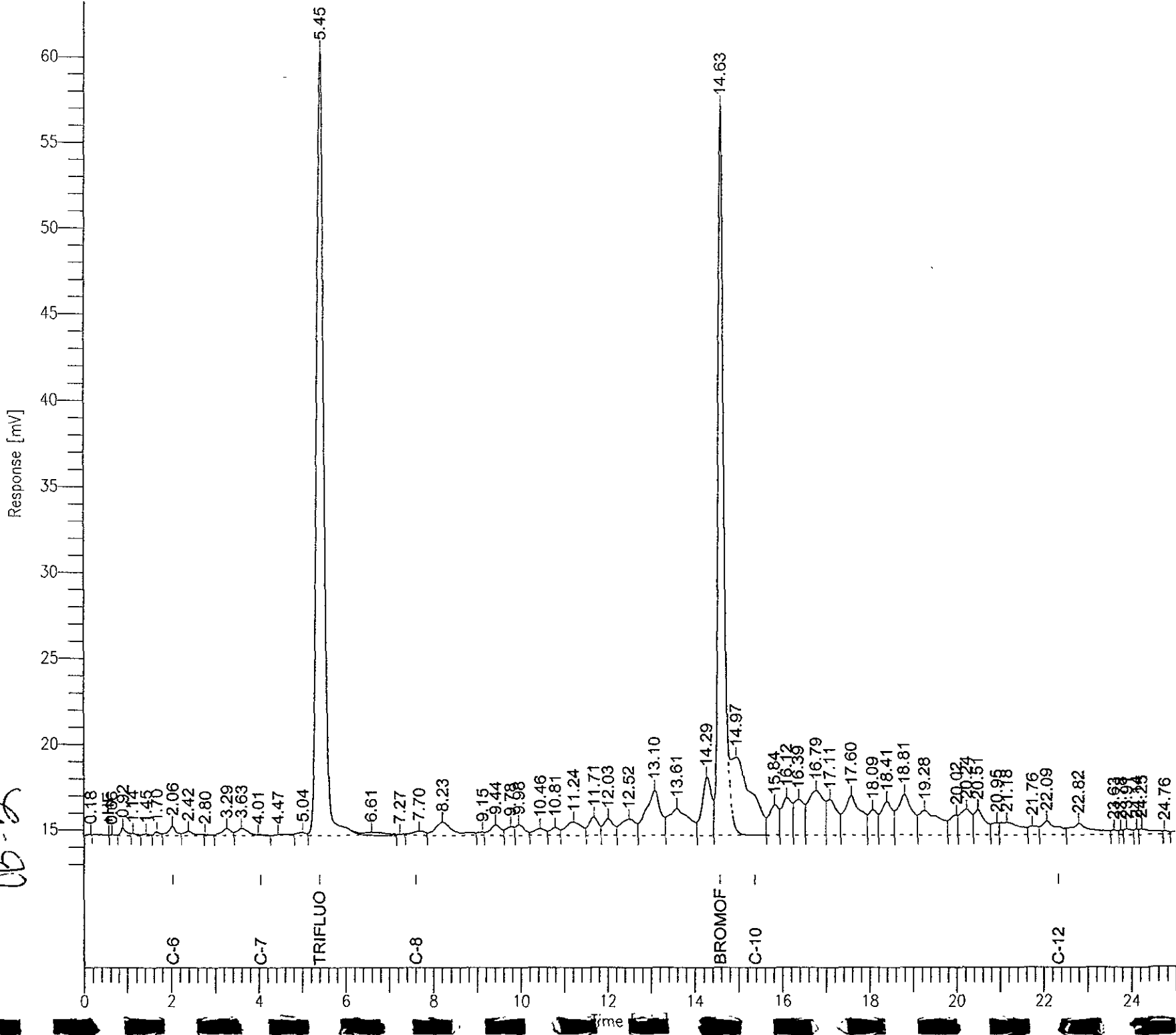


# Chromatogram

Sample Name : 166099-002\_82627  
File Name : G:\GC05\DATA\182G031.raw  
Method : TVHBTXZ  
Start Time : 0.00 min  
Scale Factor : 1.0  
Sample #: dl  
Date : 7/2/03 09:22 AM  
Time of Injection: 7/2/03 08:30 AM  
Low Point : 12.38 mV  
High Point : 60.34 mV  
Plot Scale: 48.0 mV

End Time : 25.00 min  
Plot Offset: 12 mV

*OB-2*





Total Volatile Hydrocarbons

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Matrix:	Water	Sampled:	06/30/03
Units:	ug/L	Received:	06/30/03
Batch#:	82627		

Field ID:	OB-10	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	07/01/03
Lab ID:	166099-004		

Analyte	Result	RL
Mineral Spirits C7-C12	5,800	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	82	57-150
Bromofluorobenzene (FID)	190 *	65-144

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC218273	Analyzed:	07/01/03

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

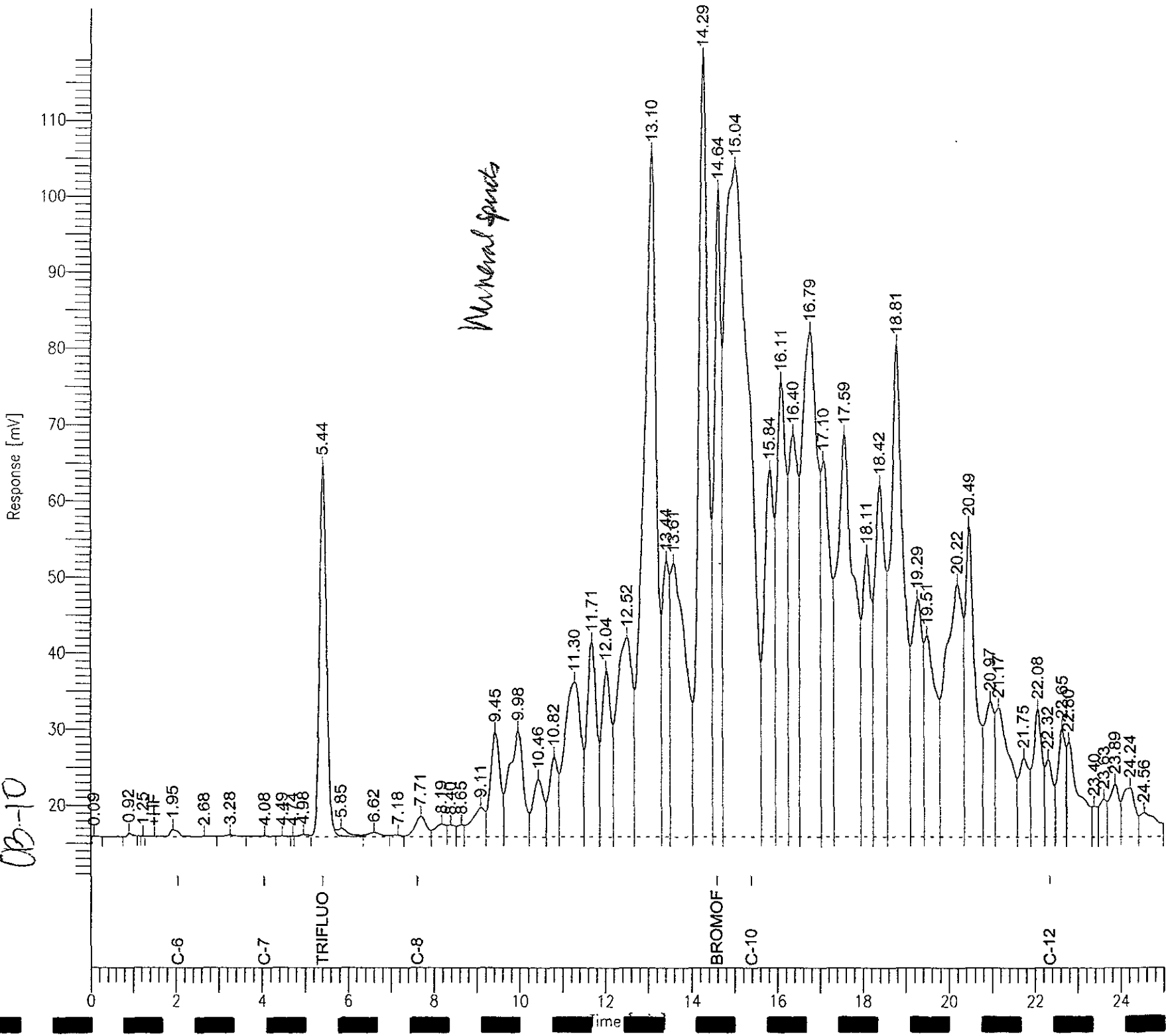
Surrogate	%REC	Limits
Trifluorotoluene (FID)	86	57-150
Bromofluorobenzene (FID)	77	65-144

\*= Value outside of QC limits; see narrative  
 ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

# Chromatogram

Sample Name : 166099-004\_82627  
File Name : G:\GC05\DATA\182G016.raw  
Method : TVRBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0  
End Time : 25.00 min  
Plot Offset: 11 mV  
Sample #: c1  
Date : 7/2/03 07:50 AM  
Time of Injection: 7/1/03 09:11 PM  
Low Point : 10.77 mV  
High Point : 118.32 mV  
Plot Scale: 107.6 mV

OB-10

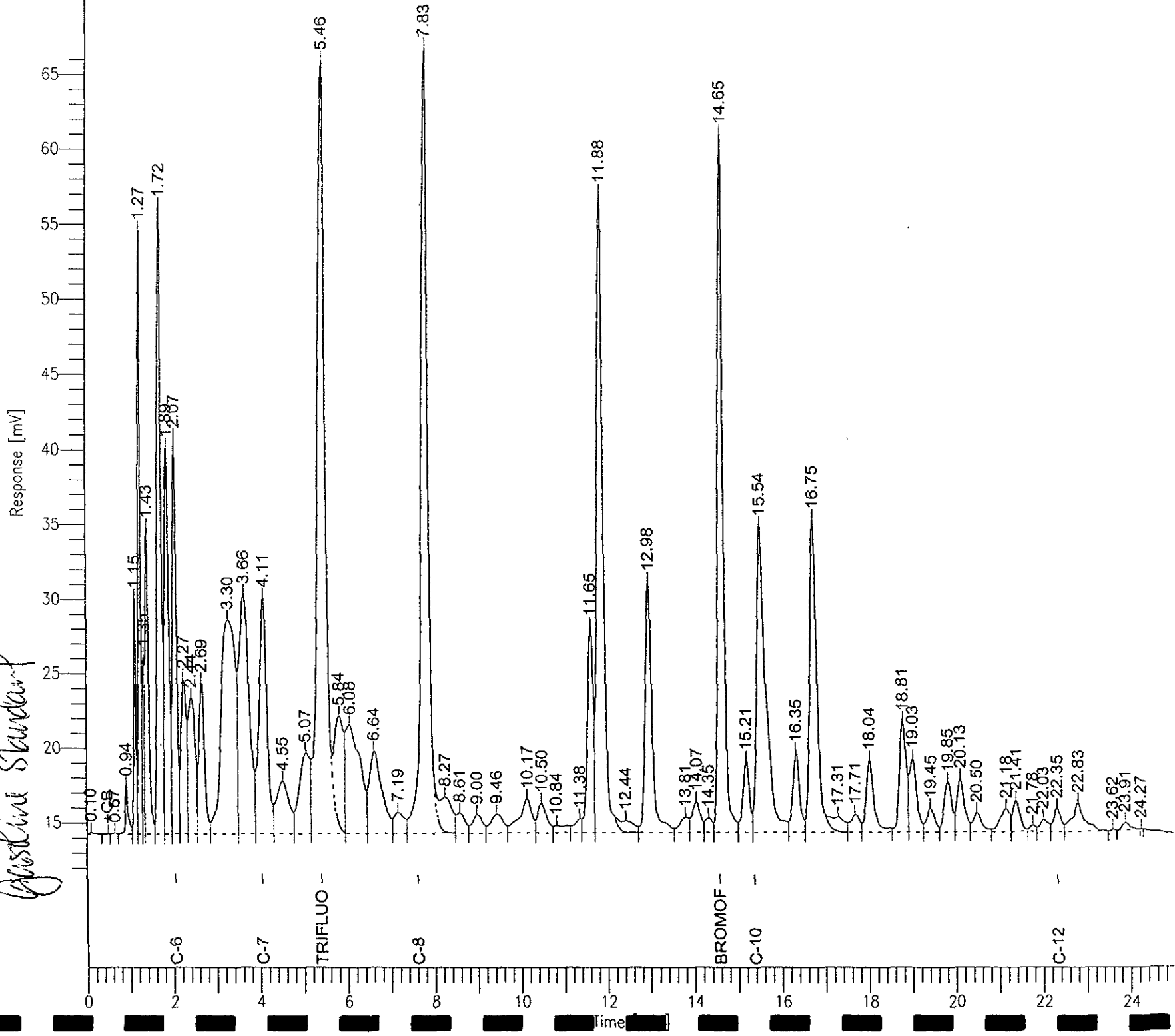


# Chromatogram

Sample Name : ccv\lcs qc218274\_03ws1038.2.5/5000  
File Name : g:\gc05\data\1829002.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0  
Sample #: 7/1/03 06:05 PM  
Date : 7/1/03 06:05 PM  
Time of Injection: 7/1/03 01:13 PM  
Low Point : 11.65 mV  
High Point : 66.66 mV  
Plot Scale: 55.0 mV  
End Time : 25.00 min  
Plot Offset: 12 mV

Page 1 of 1

*Justin Staudt*

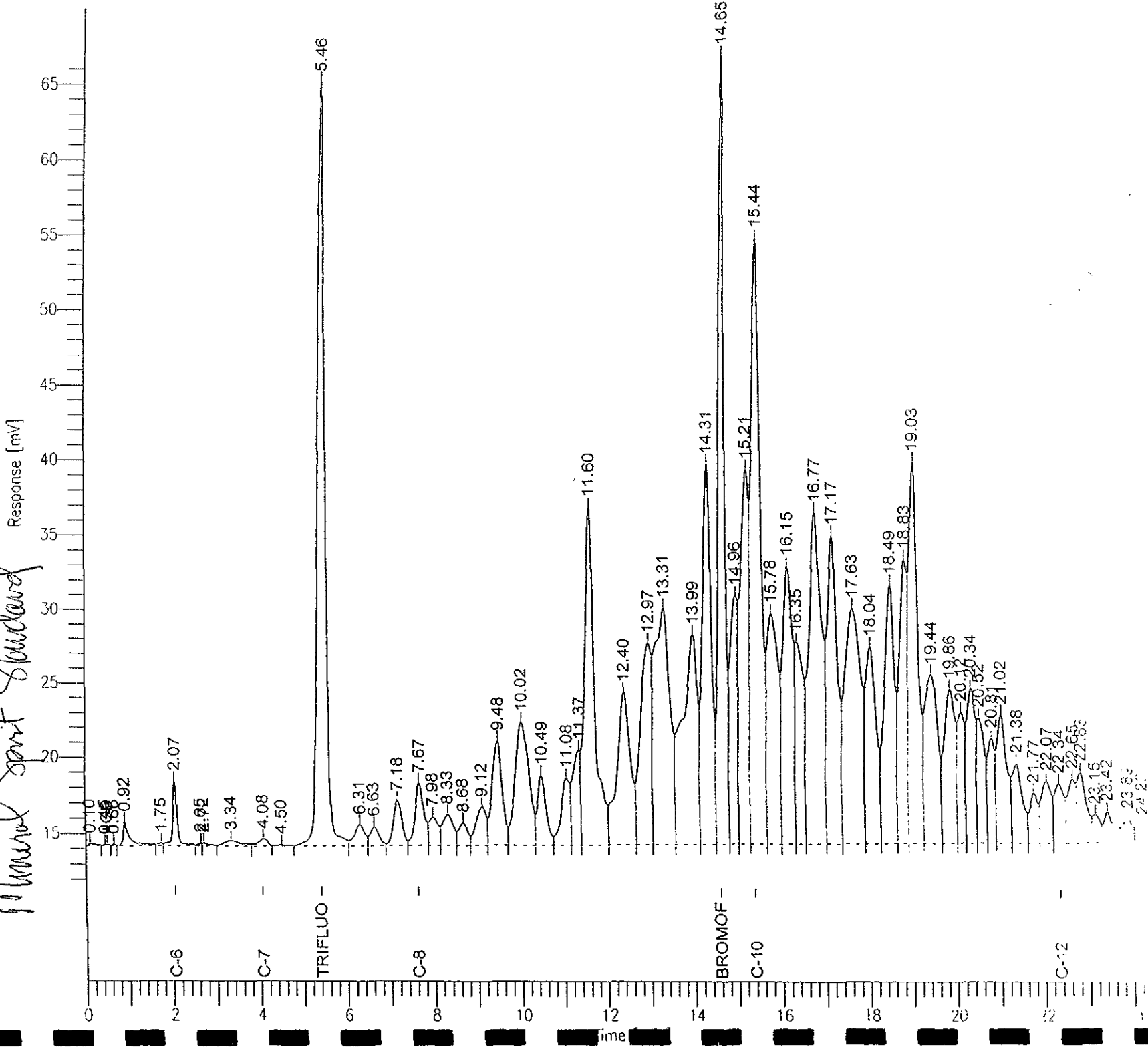


# Chromatogram

Sample Name : ccv\_minisp\_82627\_03ws0652.5/5000  
File Name : g:\gc05\data\1829003.raw  
Method : TVHRTXE  
Start Time : 0.00 min  
Scale Factor : 1.0  
End Time : 25.00 min  
Plot Offset: 12 mV  
Date : 7/1/03 06:05 PM  
Time of Injection: 7/1/03 01:46 PM  
Low Point : 11.58 mV  
High Point : 66.77 mV  
Plot Scale: 55.2 mV

Page 1 of 1

*Mandel Spirit Standard*





## Total Volatile Hydrocarbons

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC218274	Batch#:	82627
Matrix:	Water	Analyzed:	07/01/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	911.4	91	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	57-150
Bromofluorobenzene (FID)	80	65-144

**Total Volatile Hydrocarbons**

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Field ID:	OB-7	Batch#:	82627
MSS Lab ID:	166099-001	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Type: MS Lab ID: QC218317

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	132.2	2,000	1,963	92	76-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	57-150
Bromofluorobenzene (FID)	93	65-144

Type: MSD Lab ID: QC218318

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,902	89	76-120	3	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	57-150
Bromofluorobenzene (FID)	93	65-144

### Total Volatile Hydrocarbons

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Basis:	as received	Sampled:	06/30/03
Batch#:	82627	Received:	06/30/03

Field ID:	OB-2@10.5	Units:	mg/Kg
Type:	SAMPLE	Diln Fac:	20.00
Lab ID:	166099-005	Analyzed:	07/02/03
Matrix:	Soil		

Analyte	Result	RL
Mineral Spirits C7-C12	160	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	80	56-144
Bromofluorobenzene (FID)	116	51-142

Field ID:	OB-10@10	Units:	mg/Kg
Type:	SAMPLE	Diln Fac:	20.00
Lab ID:	166099-006	Analyzed:	07/02/03
Matrix:	Soil		

Analyte	Result	RL
Mineral Spirits C7-C12	430	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	80	56-144
Bromofluorobenzene (FID)	179 *	51-142

Type:	BLANK	Units:	ug/L
Lab ID:	QC218273	Diln Fac:	1.000
Matrix:	Water	Analyzed:	07/01/03

Analyte	Result	RL
Mineral Spirits C7-C12	ND	200

Surrogate	%REC	Limits
Trifluorotoluene (FID)	86	56-144
Bromofluorobenzene (FID)	77	51-142

\*= Value outside of QC limits; see narrative

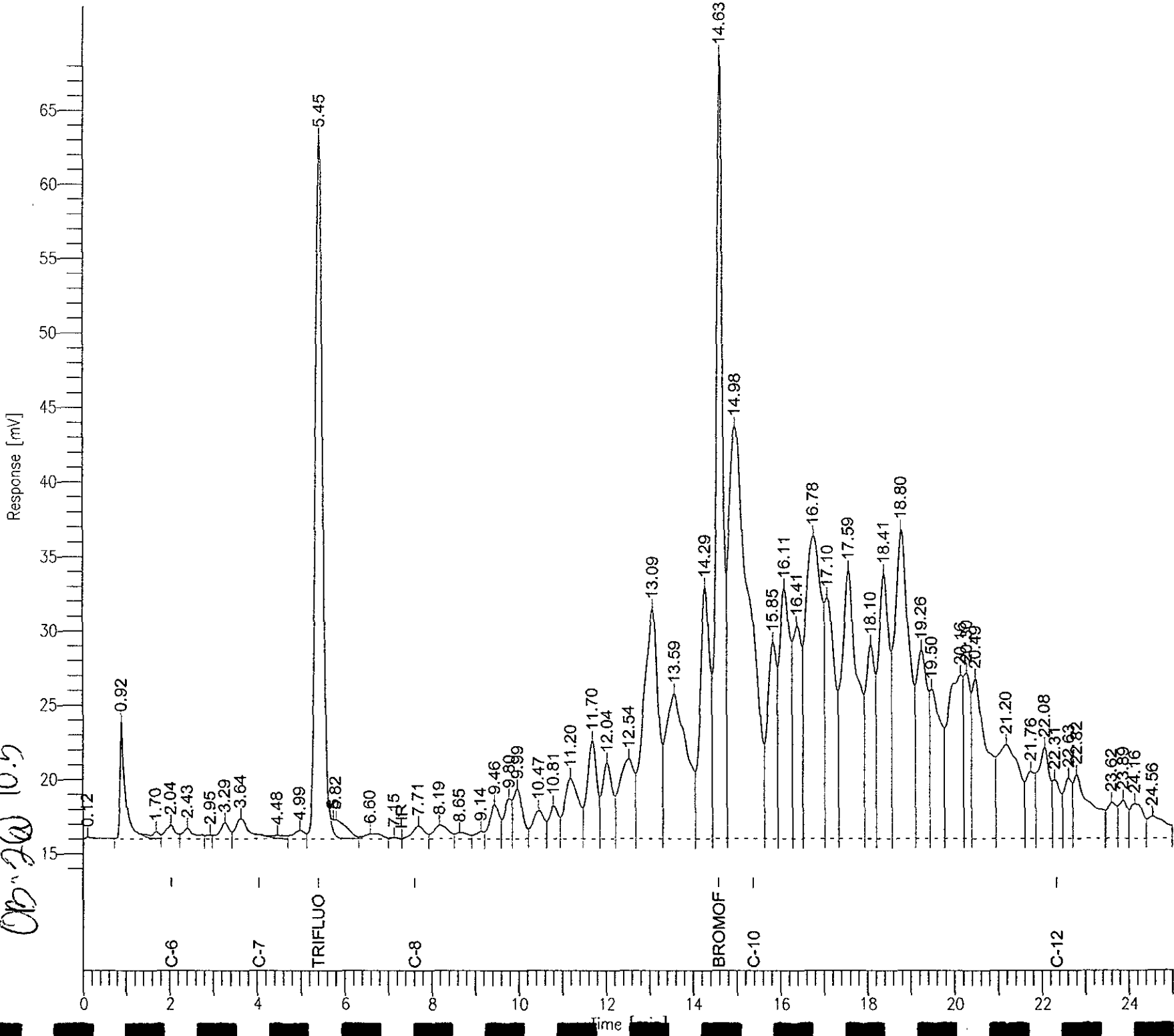
ND= Not Detected

RL= Reporting Limit

# Chromatogram

Sample Name : 166099-005.82627  
File Name : G:\GC05\DATA\162G023.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0  
Sample #: a  
Date : 7/7/03 01:23 PM  
Time of Injection: 7/2/03 01:05 AM  
Low Point : 13.40 mV  
Plot Scale: 55.3 mV  
End Time : 25.00 min  
Plot Offset: 13 mV  
High Point : 68.73 mV

*Op 20 10.5*

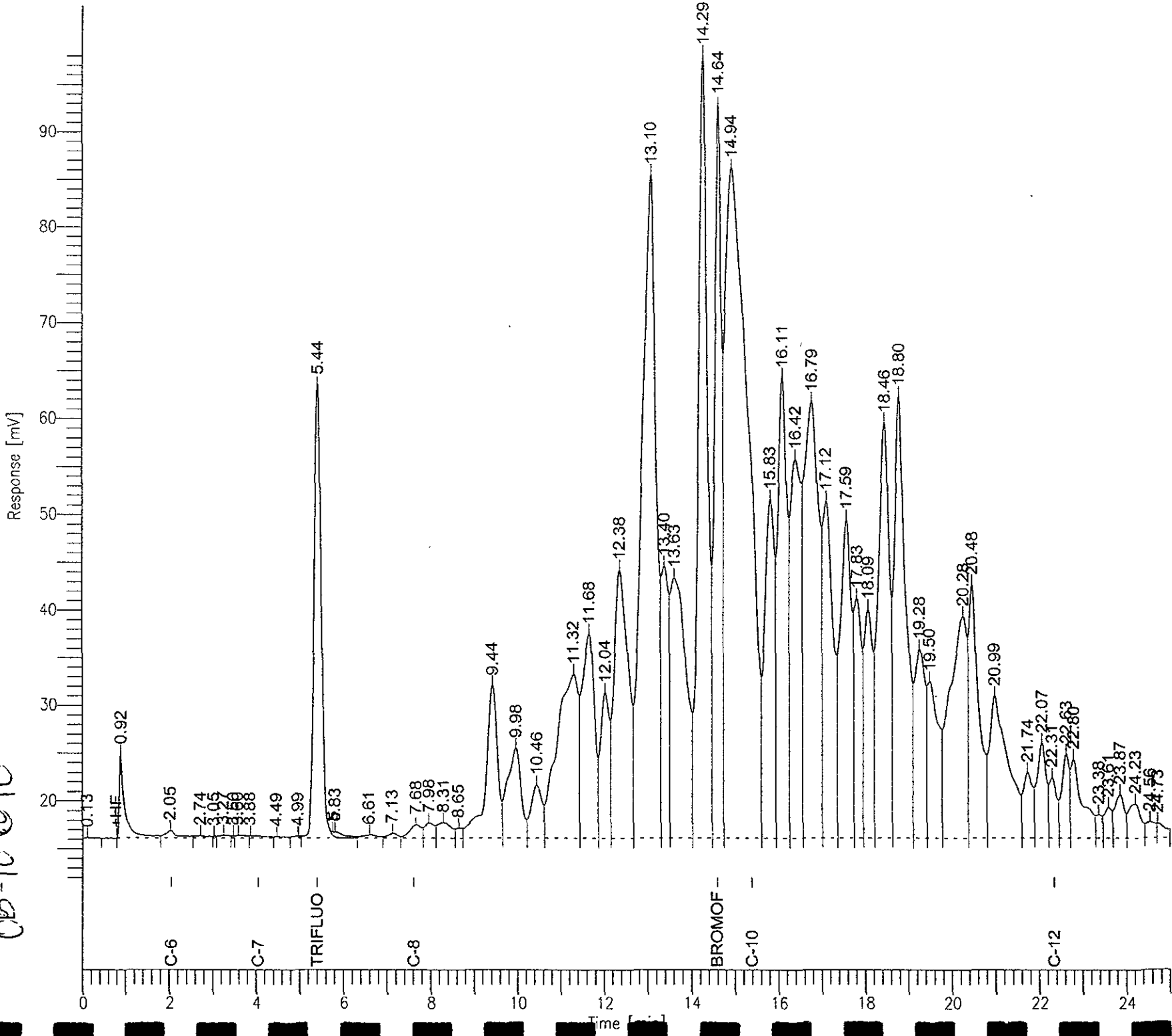


# Chromatogram

Sample Name : 166099-006.82627  
File Name : G:\GC05\DATA\182G024.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0  
End Time : 25.00 min  
Plot Offset: 12 mV  
Sample #: a  
Date : 7/7/03 01:23 PM  
Time of Injection: 7/2/03 01:38 AM  
Low Point : 11.99 mV  
High Point : 98.06 mV  
Plot Scale: 86.1 mV

Page 1 of 1

OB-10 @ 10



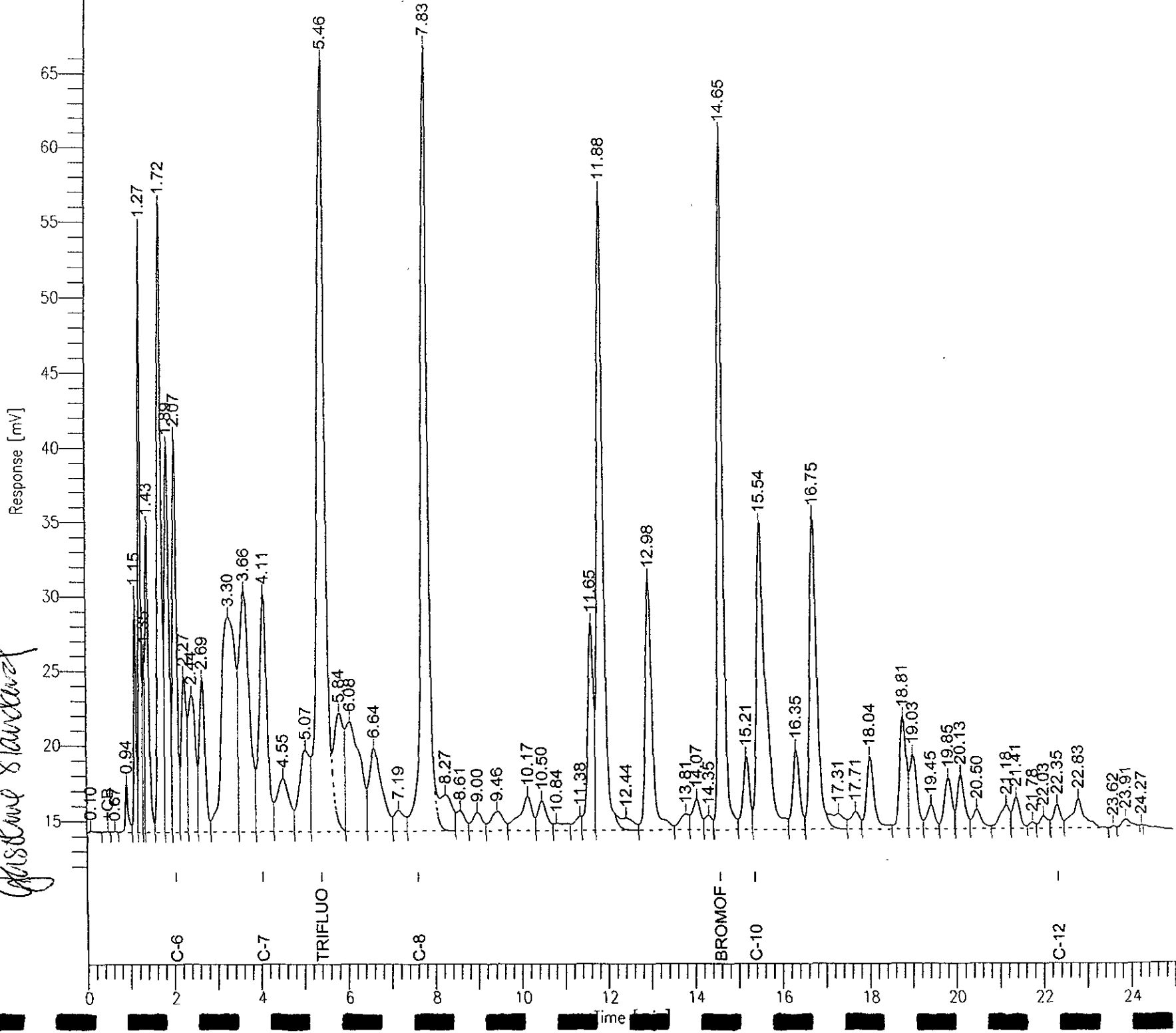
# Chromatogram

Sample Name : ccv/lca,gc218274,03wsi038,2.5/5000  
File Name : g:\gc05\data\182g002.raw  
Method : TVHBTXE  
Start Time : 0.00 min  
Scale Factor : 1.0

End Time : 25.00 min  
Plot Offset: 12 mV

Sample #:   
Date : 7/1/03 06:05 PM  
Time of Injection: 7/1/03 01:13 PM  
Low Point : 11.65 mV  
High Point : 66.66 mV  
Plot Scale: 55.0 mV

*Gasoline Standard*

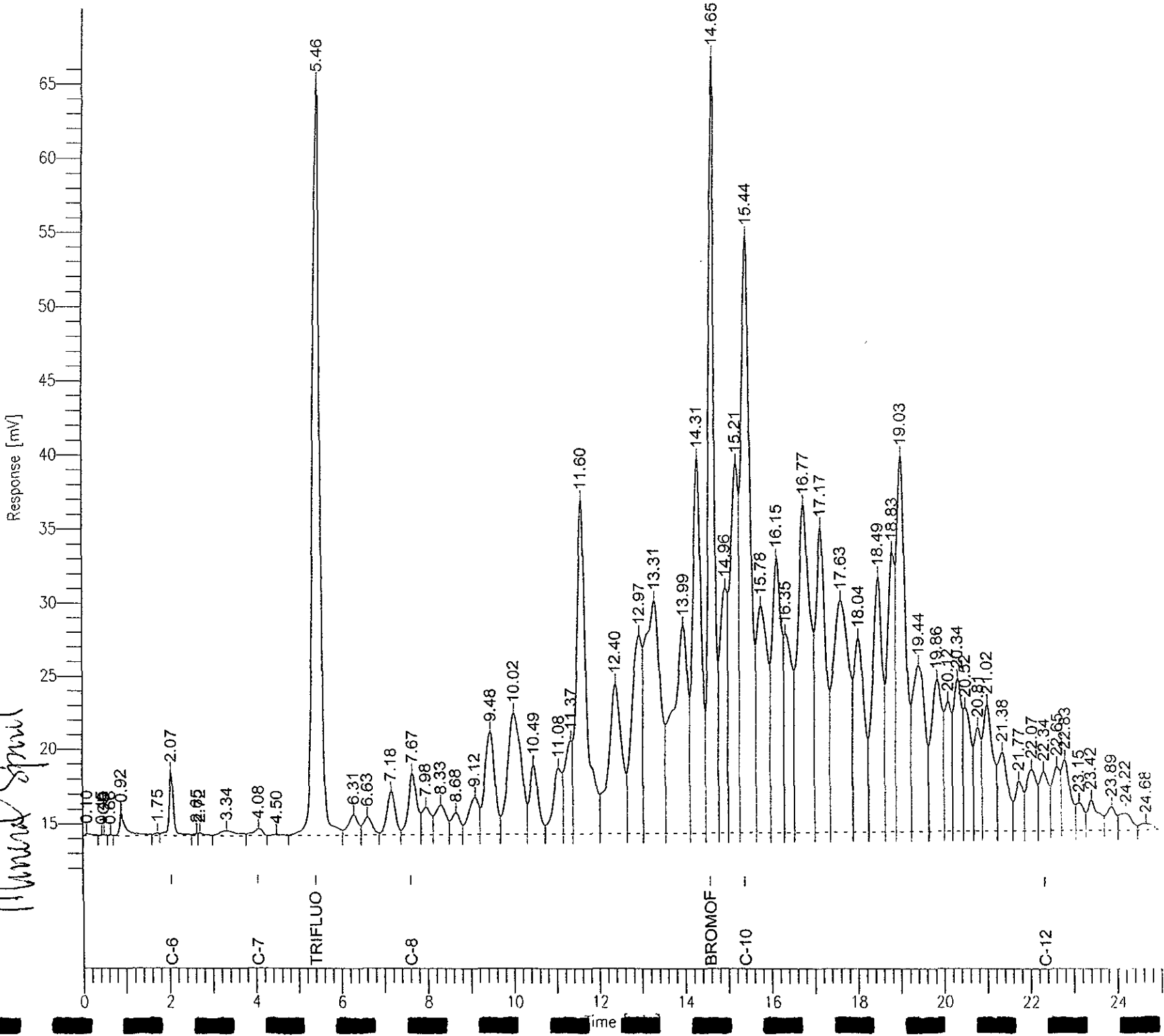


# Chromatogram

Sample Name : ccv.minisp.82627.03ws0652.5/5000  
Date : 7/1/03 06:05 PM  
Time of Injection: 7/1/03 01:46 PM  
Start Time : 0.00 min  
End Time : 25.00 min  
Scale Factor: 1.0  
Method : TVHBTXE  
Plot Scale: 55.2 mV  
Low Point : 11.58 mV  
High Point : 66.77 mV  
Plot Offset: 12 mV

Page 1 of 1

*Mixed Spirit*



**Total Volatile Hydrocarbons**

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC218274	Batch#:	82627
Matrix:	Water	Analyzed:	07/01/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	911.4	91	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	56-144
Bromofluorobenzene (FID)	80	51-142



### Total Volatile Hydrocarbons

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	8015B
Field ID:	OB-7	Batch#:	82627
MSS Lab ID:	166099-001	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Type:                          MS    Lab ID:                          QC218317

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	132.2	2,000	1,963	92	24-134
Surrogate	%REC		Limits		
Trifluorotoluene (FID)	103	56-144			
Bromofluorobenzene (FID)	93	51-142			

Type:                          MSD    Lab ID:                          QC218318

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,902	89	24-134	3	32
Surrogate	%REC		Limits			
Trifluorotoluene (FID)	104	56-144				
Bromofluorobenzene (FID)	93	51-142				

RPD= Relative Percent Difference

Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-7	Batch#:	82615
Lab ID:	166099-001	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-7	Batch#:	82615
Lab ID:	166099-001	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	87	77-129
Toluene-d8	93	80-120
Bromofluorobenzene	100	80-123

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-2	Batch#:	82650
Lab ID:	166099-002	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/02/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

**Purgeable Organics by GC/MS**

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-2	Batch#:	82650
Lab ID:	166099-002	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/02/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	96	80-120
Bromofluorobenzene	96	80-123

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-1	Batch#:	82615
Lab ID:	166099-003	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-1	Batch#:	82615
Lab ID:	166099-003	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-121
1,2-Dichloroethane-d4	81	77-129
Toluene-d8	93	80-120
Bromofluorobenzene	104	80-123

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-10	Batch#:	82615
Lab ID:	166099-004	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



**Purgeable Organics by GC/MS**

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-10	Batch#:	82615
Lab ID:	166099-004	Sampled:	06/30/03
Matrix:	Water	Received:	06/30/03
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	89	80-121
1,2-Dichloroethane-d4	85	77-129
Toluene-d8	93	80-120
Bromofluorobenzene	98	80-123

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC218229	Batch#:	82615
Matrix:	Water	Analyzed:	07/01/03
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC218229	Batch#:	82615
Matrix:	Water	Analyzed:	07/01/03
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	#REC	Limits
Dibromofluoromethane	88	80-121
1,2-Dichloroethane-d4	84	77-129
Toluene-d8	93	80-120
Bromofluorobenzene	104	80-123

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC218358	Batch#:	82650
Matrix:	Water	Analyzed:	07/02/03
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC218358	Batch#:	82650
Matrix:	Water	Analyzed:	07/02/03
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	REC	Limits
Dibromofluoromethane	112	80-121
1,2-Dichloroethane-d4	96	77-129
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-123

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	82615
Units:	ug/L	Analyzed:	07/01/03
Diln Fac:	1.000		

Type: BS Lab ID: QC218227

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	59.66	119	73-126
Benzene	50.00	51.36	103	80-120
Trichloroethene	50.00	52.68	105	79-125
Toluene	50.00	53.16	106	80-120
Chlorobenzene	50.00	53.28	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-121
1,2-Dichloroethane-d4	91	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-123

Type: BSD Lab ID: QC218228

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	58.41	117	73-126	2	20
Benzene	50.00	48.19	96	80-120	6	20
Trichloroethene	50.00	52.51	105	79-125	0	20
Toluene	50.00	50.84	102	80-120	4	20
Chlorobenzene	50.00	51.15	102	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-121
1,2-Dichloroethane-d4	88	77-129
Toluene-d8	92	80-120
Bromofluorobenzene	94	80-123

Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	82650
Units:	ug/L	Analyzed:	07/02/03
Diln Fac:	1.000		

Type: BS Lab ID: QC218355

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	54.28	109	73-126
Benzene	50.00	51.22	102	80-120
Trichloroethene	50.00	53.69	107	79-125
Toluene	50.00	51.55	103	80-120
Chlorobenzene	50.00	53.09	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-121
1,2-Dichloroethane-d4	82	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	94	80-123

Type: BSD Lab ID: QC218356

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	49.33	99	73-126	10	20
Benzene	50.00	49.07	98	80-120	4	20
Trichloroethene	50.00	49.43	99	79-125	8	20
Toluene	50.00	48.93	98	80-120	5	20
Chlorobenzene	50.00	51.29	103	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	85	77-129
Toluene-d8	96	80-120
Bromofluorobenzene	96	80-123

RPD= Relative Percent Difference

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-2@10.5	Diln Fac:	0.9091
Lab ID:	166099-005	Batch#:	82633
Matrix:	Soil	Sampled:	06/30/03
Units:	ug/Kg	Received:	06/30/03
Basis:	as received	Analyzed:	07/01/03

Analyte	Result	RL
Freon 12	ND	9.1
Chloromethane	ND	9.1
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Chloroethane	ND	9.1
Trichlorofluoromethane	ND	4.5
Acetone	21	18
Freon 113	ND	4.5
1,1-Dichloroethene	ND	4.5
Methylene Chloride	ND	18
Carbon Disulfide	ND	4.5
MTBE	ND	4.5
trans-1,2-Dichloroethene	ND	4.5
Vinyl Acetate	ND	45
1,1-Dichloroethane	ND	4.5
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.5
2,2-Dichloropropane	ND	4.5
Chloroform	ND	4.5
Bromochloromethane	ND	4.5
1,1,1-Trichloroethane	ND	4.5
1,1-Dichloropropene	ND	4.5
Carbon Tetrachloride	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Trichloroethene	ND	4.5
1,2-Dichloropropane	ND	4.5
Bromodichloromethane	ND	4.5
Dibromomethane	ND	4.5
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.5
Toluene	ND	4.5
trans-1,3-Dichloropropene	ND	4.5
1,1,2-Trichloroethane	ND	4.5
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.5
Tetrachloroethene	ND	4.5

ND= Not Detected  
 RL= Reporting Limit  
 Page 1 of 2



## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-2@10.5	Diln Fac:	0.9091
Lab ID:	166099-005	Batch#:	82633
Matrix:	Soil	Sampled:	06/30/03
Units:	ug/Kg	Received:	06/30/03
Basis:	as received	Analyzed:	07/01/03

Analyte	Result	RL
Dibromochloromethane	ND	4.5
1,2-Dibromoethane	ND	4.5
Chlorobenzene	ND	4.5
1,1,1,2-Tetrachloroethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Styrene	ND	4.5
Bromoform	ND	4.5
Isopropylbenzene	ND	4.5
1,1,2,2-Tetrachloroethane	ND	4.5
1,2,3-Trichloropropane	ND	4.5
Propylbenzene	ND	4.5
Bromobenzene	ND	4.5
1,3,5-Trimethylbenzene	ND	4.5
2-Chlorotoluene	ND	4.5
4-Chlorotoluene	ND	4.5
tert-Butylbenzene	ND	4.5
1,2,4-Trimethylbenzene	ND	4.5
sec-Butylbenzene	ND	4.5
para-Isopropyl Toluene	ND	4.5
1,3-Dichlorobenzene	ND	4.5
1,4-Dichlorobenzene	ND	4.5
n-Butylbenzene	ND	4.5
1,2-Dichlorobenzene	ND	4.5
1,2-Dibromo-3-Chloropropane	ND	4.5
1,2,4-Trichlorobenzene	ND	4.5
Hexachlorobutadiene	ND	4.5
Naphthalene	ND	4.5
1,2,3-Trichlorobenzene	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	88	74-128
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	109	76-125

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-10@10	Diln Fac:	4.545
Lab ID:	166099-006	Batch#:	82633
Matrix:	Soil	Sampled:	06/30/03
Units:	ug/Kg	Received:	06/30/03
Basis:	as received	Analyzed:	07/01/03

Analyte	Result	RL
Freon 12	ND	45
Chloromethane	ND	45
Vinyl Chloride	ND	45
Bromomethane	ND	45
Chloroethane	ND	45
Trichlorofluoromethane	ND	23
Acetone	ND	91
Freon 113	ND	23
1,1-Dichloroethene	ND	23
Methylene Chloride	ND	91
Carbon Disulfide	ND	23
MTBE	ND	23
trans-1,2-Dichloroethene	ND	23
Vinyl Acetate	ND	230
1,1-Dichloroethane	ND	23
2-Butanone	ND	45
cis-1,2-Dichloroethene	ND	23
2,2-Dichloropropane	ND	23
Chloroform	ND	23
Bromochloromethane	ND	23
1,1,1-Trichloroethane	ND	23
1,1-Dichloropropene	ND	23
Carbon Tetrachloride	ND	23
1,2-Dichloroethane	ND	23
Benzene	ND	23
Trichloroethene	ND	23
1,2-Dichloropropane	ND	23
Bromodichloromethane	ND	23
Dibromomethane	ND	23
4-Methyl-2-Pentanone	ND	45
cis-1,3-Dichloropropene	ND	23
Toluene	ND	23
trans-1,3-Dichloropropene	ND	23
1,1,2-Trichloroethane	ND	23
2-Hexanone	ND	45
1,3-Dichloropropane	ND	23
Tetrachloroethene	ND	23

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Field ID:	OB-10@10	Diln Fac:	4.545
Lab ID:	166099-006	Batch#:	82633
Matrix:	Soil	Sampled:	06/30/03
Units:	ug/Kg	Received:	06/30/03
Basis:	as received	Analyzed:	07/01/03

Analyte	Result	RL
Dibromochloromethane	ND	23
1,2-Dibromoethane	ND	23
Chlorobenzene	ND	23
1,1,1,2-Tetrachloroethane	ND	23
Ethylbenzene	ND	23
m,p-Xylenes	ND	23
o-Xylene	ND	23
Styrene	ND	23
Bromoform	ND	23
Isopropylbenzene	ND	23
1,1,2,2-Tetrachloroethane	ND	23
1,2,3-Trichloropropane	ND	23
Propylbenzene	ND	23
Bromobenzene	ND	23
1,3,5-Trimethylbenzene	ND	23
2-Chlorotoluene	ND	23
4-Chlorotoluene	ND	23
tert-Butylbenzene	ND	23
1,2,4-Trimethylbenzene	ND	23
sec-Butylbenzene	83	23
para-Isopropyl Toluene	ND	23
1,3-Dichlorobenzene	ND	23
1,4-Dichlorobenzene	ND	23
n-Butylbenzene	ND	23
1,2-Dichlorobenzene	ND	23
1,2-Dibromo-3-Chloropropane	ND	23
1,2,4-Trichlorobenzene	ND	23
Hexachlorobutadiene	ND	23
Naphthalene	ND	23
1,2,3-Trichlorobenzene	ND	23

Surrogate	%RRC	Limits
Dibromofluoromethane	85	74-128
1,2-Dichloroethane-d4	101	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	112	76-125

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC218294	Diln Fac:	1.000
Matrix:	Soil	Batch#:	82633
Units:	ug/Kg	Analyzed:	07/01/03

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC218294	Diln Fac:	1.000
Matrix:	Soil	Batch#:	82633
Units:	ug/Kg	Analyzed:	07/01/03

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	#REC	Limits
Dibromofluoromethane	86	74-128
1,2-Dichloroethane-d4	94	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	114	76-125

ND= Not Detected

RL= Reporting Limit

## Purgeable Organics by GC/MS

Lab #:	166099	Location:	Green City Lofts
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03365.03	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC218293	Diln Fac:	1.000
Matrix:	Soil	Batch#:	82633
Units:	ug/Kg	Analyzed:	07/01/03

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	52.62	105	72-125
Benzene	50.00	50.72	101	78-120
Trichloroethene	50.00	55.48	111	76-127
Toluene	50.00	52.09	104	79-120
Chlorobenzene	50.00	52.18	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	90	74-128
1,2-Dichloroethane-d4	96	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	105	76-125



**ATTACHMENT 3**

**GROUNDWATER MONITORING WELLS INSTALLATION WORKPLAN**



6920 Koll Center Parkway  
Suite 216  
Pleasanton, CA 94566  
925.426.2600  
Fax 925.426.0106



September 29, 2003

Mr. Barney Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Clayton Project No.: 70-03365.03

Subject: Workplan to Install Four (4) Offsite Groundwater Monitoring Wells  
Former Dunne Paint facility  
1007 41<sup>st</sup> Street, Oakland, California

Dear Mr. Chan:

Clayton Group Services Inc. (Clayton) has prepared this workplan that outlines the procedures to install four new offsite groundwater monitoring wells and implement groundwater monitoring at 1007 41<sup>st</sup> Street, Oakland, California, Figure 1. The workplan is submitted at the request of the Alameda County Health Care Services (ACHCS) letter dated March 21, 2003.

This workplan outlines a scope of work, and work methods for the installation, surveying, development and initial groundwater sampling of four new groundwater monitoring wells. The installation of monitoring wells will be subject to workplan approval by the ACHCS and the City of Emeryville Public Works Department, and permit issuance by the Alameda County Public Works Agency (ACPWA).

### **SCOPE OF WORK**

Groundwater monitoring wells will be installed to test for TPH-ms in groundwater and monitor groundwater flow conditions in the immediate area cross and down-gradient from the subject property; four groundwater monitoring wells will be installed and sampled. Due to utilities in city streets, the proposed monitoring well locations will be immediately adjacent (or overdrill) previously installed test locations, as shown in Figure 4.

To complete this project, Clayton will conduct the following specific tasks:

- Prefield Activities (permitting, traffic control, arrange subcontractors)
- Install Four New Groundwater Monitoring Wells

- Groundwater Monitoring Well Development
- Monitoring Well Surveying
- Collect Groundwater Samples
- Laboratory Analysis
- Project Management and Report Preparation

### **Task 1: Prefield Activities**

Clayton will prepare a site specific Health and Safety Plan (HASP) for the work proposed at the site in accordance with the requirements of the State of California General Industry Safety Order (GISO) 5192 and Title 29 of the Code of Federal Regulations, Section 1910.120 (29 CFR 1910.120). A copy of the health and safety plan was kept onsite during field activities. The HASP will detail the work to be performed, safety precautions, emergency response procedures, nearest hospital information, and onsite personnel responsible for managing emergency situations.

Clayton will obtain two monitoring well installation permits from the ACPWA, City of Emeryville encroachment permits, and schedule a C-57 licensed drilling contractor to install the monitoring wells. Clayton will mark the proposed monitoring well locations with white paint and notify Underground Service Alert (USA) with at least 48 hours prior to drilling, as required by law. Clayton will not advance a boring within three feet from a known underground utility.

### **Task 2a: Monitoring Well Installation**

A limited access drill rig equipped with eight-inch diameter hollow stem augers will be used to drill boreholes for monitoring well installation. While drilling boreholes, an 18-inch long California modified split spoon sampler lined with three two-inch diameter, six-inch long brass sleeves will be used to collect soil samples from boreholes. One sample drive will be performed every five-foot of borehole penetration. Based on the historical depth to water measurements, Clayton anticipates that groundwater will be encountered at depths of approximately 10 to 25 feet below ground surface.

Soil cores will be logged for lithological content by the Unified Soil Classification System (USCS), color using a Munsell color chart, relative moisture content, competency, blow counts, and other observable distinguishing characteristics (for example, rootlets or odor). A photo-ionization detector (PID) will be used to field screen soil for the presence of VOCs. Lithological details and other field observations will be entered onto exploratory boring log sheets.

All hollow stem auger drill stems and downhole sampling equipment will be steam cleaned after each use. The soil cuttings and decontamination water will be containerized in separate United States Department of Transportation (DOT) approved 55-gallon

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 3  
Clayton Project No. 70-03365.03

drums. The drums will be sealed, labeled with content information and generation date, and stored onsite pending future disposal.

#### **Task 2b: Groundwater Monitoring Well Construction**

Two groundwater monitoring wells will be constructed within the eight-inch diameter boreholes. The well screen section will be constructed with two-inch diameter schedule 40 poly-vinyl chloride (PVC) casing perforated with 0.020-inch slots and fitted with a PVC end cap. The well screen casing will be flush threaded to the necessary length of two-inch diameter schedule 40 PVC blank pipe to complete the well casing to surface. The monitoring well screen casing will be set from approximately ten feet below first encountered water to five feet above first encountered water.

The well screen filter pack will be constructed by pouring Lonestar #3 graded sand from the bottom of the borehole annular space to two feet above the top of the well screen casing. A two-foot interval of 3/8-inch bentonite pellets will be placed in the annular space above the top of the sand filter pack. The bentonite will be hydrated and allowed to swell. The remaining annular space to approximately one-foot below ground surface will be filled with a neat cement grout containing approximately five percent bentonite powder. A traffic rated Christy box will be placed around the top of each well casing and secured in place with concrete. A lockable expanding well cap will be used to secure each wellhead. A V-notch will be placed on the top of the north facing rim of each monitoring well casing for use as a surveying and depth to water measurement reference point. Well construction details will be recorded onto well construction field logs.

#### **Task 2c: Groundwater Monitoring Well Development**

The annular grout seals will be allowed to set for three days prior to well development. Well development will be performed to remove sediment that has accumulated in the well casing and filter pack sand during well construction, and also to help stabilize the filter pack sand and aquifer material surrounding the well screen intake area.

The depths to groundwater and total length of the monitoring well casing will be measured to determine the quantity of water column within each well casing. A monitoring well development rig equipped with a two-inch surge block will be used to agitate water and well construction materials prior to and during well development. A submersible pump or bailer will be used to purge groundwater and sediment from well casings. Well development will be continued until water quality parameters (pH, temperature, specific conductivity, and turbidity) have stabilized. A minimum of 10 well casing volumes of water will be purged from monitoring wells during development. Purge water will be stored onsite in sealed, labeled, DOT approved 55-gallon drums

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 4  
Clayton Project No. 70-03365.03

pending future disposal. Groundwater quality parameters will be recorded onto well development field logs.

#### **Task 2d: Monitoring Well Surveying**

A State of California Licensed Land Surveyor will survey the location and elevation of each monitoring well, to comply with State of California Assembly Bill 2886. The survey will include the top of well casing elevation (north face) and top of Christy box rim elevation; the elevation data will be surveyed to 0.01-foot accuracy. The northing and easting co-ordinates will be surveyed to 0.1-foot (that is equivalent to latitude and longitude co-ordinates to seven decimal degree) accuracy and referenced to a recognized survey monument.

#### **Task 3: Groundwater Monitoring Well Sampling**

Approximately three well casing volumes of water will be purged from each monitoring well prior to sampling. A submersible pump will be used to purge groundwater from each monitoring well. Water quality parameters (pH, specific conductivity, temperature and visual turbidity) will be recorded onto groundwater sampling field logs. Water quality parameters will be measured at; the initial standing water column in the well casing prior to purging, and following the removal of each subsequent well casing volume of water.

Upon purging sufficient water from the monitoring wells, groundwater for laboratory analysis will be retrieved using a disposable bailer and transferred into laboratory supplied sample containers. The sample container size and sample preservative will correspond to requested analytical method. Sample containers will be sealed, labeled with identifying information, logged onto the chain-of-custody, and temporarily stored in a chilled ice-chest while awaiting transportation to the laboratory. Groundwater purged from monitoring wells for sampling purposes will be stored onsite in sealed, labeled, DOT approved 55-gallon drums pending future disposal.

#### **Task 4: Laboratory Analysis**

Groundwater samples will be submitted for one or more of the following analytical methods:

- USEPA Method 8015M/5030 for total petroleum hydrocarbons as mineral spirits (TPH-ms).
- USEPA Method 8020 for aromatic hydrocarbons; benzene, toluene, ethylbenzene and total xylenes (BTEX).

Barney Chan  
Alameda County Health Care Services  
September 29, 2003

Page 5  
Clayton Project No. 70-03365.03

Samples will be submitted to a State of California certified laboratory for analysis on standard ten day turn-round time basis.

#### **Task 5: Project Management and Report Preparation**

Upon completion of the laboratory analysis, Clayton will prepare a report documenting groundwater monitoring well installation, development, and sampling field methods. The report will include a description of the site, geological and well construction logs, copies of well development and sampling field logs, laboratory analytical data sheets, a tabulation of laboratory analytical results and depth to water measurements, figures delineating monitoring well locations and groundwater flow direction, and conclusions and recommendations.

#### **SCHEDULE**

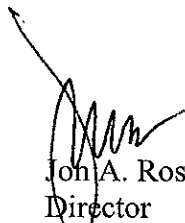
Clayton will begin to initiate the tasks outlined in this workplan upon receiving ACHCS authorization to proceed. Field activities will be scheduled based on subcontractor availability and the ability to obtain all necessary permits and access agreements. Clayton anticipates that field activities will take approximately four days (2-days for monitoring well installation, 1-day for monitoring well development, and 1-day for groundwater sampling) to complete. Regulatory specifications require that for newly constructed monitoring wells the annular seal be allowed 72-hours (3-days) to cure before well development may take place. A further 24-hour (1-day) stabilization period is required following well development prior to groundwater sampling. Groundwater samples will be submitted on a standard ten-day turnaround time. The total time to complete field activities, submit samples and receive laboratory analytical results is estimated at three weeks.

Please contact the undersigned at (925) 426-2600 if you have questions or require additional information.

Sincerely,



Warren B. Chamberlain, R.G., C.H.G., P.E.  
Project Manager  
Environmental Services



Jon A. Rosso, P.E.  
Director  
Environmental Services