



# Tetra Tech EM Inc.

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## MEMORANDUM

TO: Roy Crossland, EPA/START Project Officer

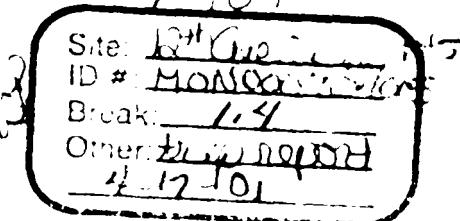
FROM: Ted Faile, PG, CHMM, Project Manager

THRU: Hieu Q. Vu, PE, CHMM, START Program Manager

DATE: April 17, 2001

SUBJECT: Revised Trip Report for Site Screening Assessment with Limited Sampling  
12<sup>th</sup> Avenue Solvent Release, Ava, Missouri  
CERCLIS ID No.: To Be Determined  
Task Order #: 000801

CC: Eric Nold, EPA OSC  
File



## INTRODUCTION

Tetra Tech EM Inc. (Tetra Tech), the EPA START II contractor, conducted a Site Screening Assessment at the 12<sup>th</sup> Avenue Solvent Release (12<sup>th</sup> Avenue) site located in Ava, Missouri. Ava is located approximately 50 miles southeast of Springfield, Missouri (Figure 1). The 12<sup>th</sup> Avenue site was identified by the Missouri Department of Natural Resources (MDNR) during investigation activities associated with the nearby Sentinel Wood Treating (Sentinel) site. In December 2000, the MDNR collected surface water and sediment samples from two drainage features downgradient of the Sentinel site (Figure 2). Two sampling points were located along an unnamed stream (a tributary to Prairie Creek) which drains the Sentinel site, above and below the stream's confluence with a smaller ditch which drains a small wetland area. The wetlands are drained via surface flow, and also by an underground PVC pipe which was installed by the Douglas County Health Department as part of a subsurface drainage system. Based on visual inspection only, the wetland area appears to be recharged by groundwater coming from the northeast, in the direction of multiple industrial facilities, including the Copeland Corporation, and Rawlings Sporting Goods. MDNR established a third sampling point within the ditch draining the wetland.

The results of MDNR's sampling indicated that the wetland area and the associated drainage ditch

1-11-01

PCW contains recycled fiber and is recyclable

SUPERFUND RECORDS

The results of MDNR's sampling indicated that the wetland area and the associated drainage ditch appeared to be a source of volatile organic compounds (VOCs) not necessarily associated with the Sentinel site. High levels of total xylenes (27,600 micrograms per liter [ug/L]), ethylbenzene (10,500 ug/L), cis-1,2-dichloroethane (146 ug/L), toluene (79.3 ug/L), 1,1-dichloroethane (51.5 ug/L), tetrachloroethene (2.4 ug/L), benzene (2.3 ug/L) and other compounds were reported in the surface water sample from this ditch. In addition, visual inspections by Region 7 EPA personnel have indicated that the drainage ditch may be receiving, or had received in the past, untreated sewage.

The purpose of this Site Screening Assessment was to identify specific potential sources of contamination at the Copeland and Rawlings facilities, and other nearby facilities, and to determine whether the drainage ditch is receiving untreated sewage. The scope of this assessment included field reconnaissance and interviews, to determine present day and historical land uses near the site, and limited sampling to characterize site contaminants.

A copy of the field log is included as Attachment 1 with this report. A photographic log is included as Attachment 2, and a copy of the raw analytical data is included as Attachment 3.

#### **COMMUNITY RELATIONS ACTIVITIES**

On January 17, 2001, representatives from EPA, MDNR, the Agency for Toxic Substances and Disease Registry (ATSDR) and the Missouri Department of Health (MDOH), met with property owners to discuss MDNR's December sampling results. The following personnel were present:

<u>Name</u>	<u>Organization/Tilte</u>
Eric Nold	EPA/On-Scene Coordinator
Valerie Wilder	MDNR/Environmental Specialist
Denise Jordan-Izaguirre	ATSDR/Senior Regional Representative
Lorena Anderson	MDOH/Health Educator
Ted Faile	Tetra Tech/START Project Manager

At approximately 1815 hours, the above personnel visited the Voyne Merritt residence located immediately south of the Sentinel site (Figure 2). Both the surface and subsurface drainage associated with the wetland area discharge directly onto the Merritt property before entering the unnamed tributary

to Prairie Creek. The highest concentrations of VOCs identified by MDNR (27,600 ug/L total xylenes; 10,500 ug/L ethylbenzene) were found in the sample collected from the Merritt property.

At approximately 1930 hours, the above personnel visited the Brad Chambers residence located at 1 N.W. 9<sup>th</sup> Avenue. The Chambers property is located along the unnamed tributary to Prairie Creek, approximately 1/4 mile downstream of where the wetland drains into the tributary. A surface water sample collected from the tributary at the Chambers property contained much lower levels of xylenes (67.0 ug/L) and ethylbenzene (11.3 ug/L). Pentachlorophenol (PCP) was also found in this sample at a concentration of 8.5 ug/L.

#### **RECONNAISSANCE ACTIVITIES**

On January 18, 2001, Nold (EPA), Faile (START), and Wilder (MDNR) toured the Sentinel site and the surrounding area, including the wetland area south of Sentinel. A sheen and slight petroleum odor was evident on the surface water within the wetland. A sheen and very strong odor, similar to paint thinner, was identified in water coming from the PVC discharge pipe located on the Merritt property. During this reconnaissance, a seep with a distinct sheen was also identified along the north side of 12<sup>th</sup> Avenue (across the street and up-gradient from the wetland area), in a roadside ditch. The roadside ditch drains into the unnamed tributary to Prairie Creek on the north side of 12<sup>th</sup> Avenue.

At 1000 hours, EPA, START and MDNR attended a meeting with City and Douglas County officials to discuss the results of MD NR's sampling, and determine potential sources of the VOC contamination. During this meeting, it was determined that Del's Auto (located east and upgradient of the wetland area) was formerly a Standard service station with both underground and above ground storage tanks. It was also determined that an automobile dealership (Coggins Chevrolet) with a full-service repair shop was previously located near the south end of the Sentinel site, between the Dollar General Store and 12<sup>th</sup> Avenue.

At 1300 hours, EPA and START met with Richard Sims of the Douglas County Health Department to investigate the construction of the subsurface drainage system associated with the wetland area. The wetland is located on property owned by the health department, but drains onto property owned by the Merritts. According to Mr. Sims, the City excavated a portion of the wetland in response to neighbor

complaints of a "sewer smell" emanating from the marsh. The excavation was an apparent attempt to determine the source of the odor. The hole was temporarily left open, during which time the health department "expanded" the excavation, filled it with gravel, and connected it with a section of PVC pipe (underground) such that the gravel-filled pit would drain onto the Merritt's property to the west.

At approximately 1400 hours, EPA, MDNR, and START arrived at Copeland Industries (a subsidiary of Emerson Electric Company) to meet with Mr. Clarence Myers (Manager of Environmental Affairs for Emerson) and Mr. Mike Warman (Maintenance Engineer for Copeland), present them with the results of MDNR's sampling, and identify any potential contaminant sources at the facility. The facility was occupied by Emerson until approximately 1996, when it was temporarily shut down and subsequently re-occupied by Copeland. The most obvious source of contamination is located near the southern edge of the property, where Emerson formerly had above ground tanks containing xylene and varnish. When these tanks were dismantled in 1995, it was discovered that the underground plumbing had been leaking. Contamination of the soil and groundwater was determined to be extensive enough to require the installation of a dual vapor extraction (DVE) system as an attempted remediation measure. However, the extent of contamination was never fully determined prior to the installation of this system, nor has any off-site monitoring been conducted. According to Mr. Myers, the DVE system has historically exhibited significant down time, and in fact was not operating at the time of the site visit.

Other areas of concern at this facility included an underground storage tank (UST) area on the north side of the property, and a drum storage area on the western portion of the property. Facility expansion has subsequently resulted in the placement of asphalt pavement over both of these areas. However, according to Mr. Myers, remediation of these areas was completed prior to the facility expansion activities.

At approximately 1600 hours, EPA and START arrived at Rawlings to meet with Mr. Donald Walker (Plant Manager) and Mr. Eric Modell (Maintenance Engineer), and conduct site inspection activities. After discussing the results of MDNR's sampling, Mr. Modell accompanied EPA and START on a tour of the entire facility. Existing potential sources of subsurface contamination identified during this inspection included: 1) a 12,000-gallon UST containing No. 4 fuel oil. This UST is 15 to 20 years old and does not appear to be leaking based on periodic stick tests; 2) an underground cistern which collects overflow from indoor spills. According to Mr. Modell, the cistern has never been used for this purpose.

Historical potential sources of contamination included a fuel oil spill of unknown quantity, and a sanitary sewer break which had been discovered and repaired sometime during the last few years. Rawlings also reported that they historically used 1,1,1-trichloroethane (TCA) in the manufacture of plastic helmets, but that they stopped using the solvent two to three years ago.

Two additional potential sources were identified during the reconnaissance activities. The first is the Hill Country Community Cleaners laundromat located on 12<sup>th</sup> Avenue, east of Rawlings and south of Copeland. This laundromat does not currently conduct dry cleaning activities but may have in the past. Dry cleaning equipment is still located inside the building. Herrell's Fina, a leaking UST site (ST7928) located on Jefferson Street, just south of 12<sup>th</sup> Avenue, was also identified as a potential source.

#### **SAMPLING AND SEWER TESTING ACTIVITIES**

On January 19, 2001 EPA and START met with Mr. Jerry Loveland of the Ava Water Department to discuss the possibility of conducting a "smoke test" along segments of the sewer system located near the solvent release site. At approximately 0945 hours, Mr. Loveland began the testing procedures. Figure 2 indicates the approximate locations of manholes used to conduct the test. Ripcord Liquid Smoke, manufactured by Hurco Technologies, was supplied by the Water Department for this test. The smoke test did not visually identify any leaks in the sewers near the site. However, it should be noted that soil moisture conditions were not ideal due to recent snow melt. Generally, a smoke test is more reliable under drier conditions as moisture has a tendency to retard migration of the smoke through the soil column. A dye-trace study may still be required to determine whether leaking sewers are contributing to discharge within the wetland area.

At approximately 1000 hours, START began collecting surface water and sediment samples. Samples were labeled, placed in coolers, and stored on ice pending delivery to Pace Analytical Services, Inc. (Pace) in Lenexa, Kansas. Table 1 provides a sample summary for all samples submitted to Pace. Sample locations are illustrated on Figure 2. All sampling was conducted in accordance with the approved quality assurance project plan (QAPP). A chain-of-custody form was completed prior to transporting the samples to the laboratory. The samples were submitted to the laboratory on January 20, 2001.

## SAMPLE RESULTS

### Sediment and Surface Water Samples

Both the surface water and sediment samples collected at the discharge point of the PVC pipe draining the wetland area (SW-01 and SD-01, respectively) contained very high levels of xylenes, ethylbenzene and other gasoline range organics, and much lower levels of toluene. These values are comparable to those identified by MDNR at approximately the same location during the December 2000 sampling. No other volatile organics were detected, however, detection limits were unusually high to the sample dilution required for quantification of xylenes and other OA1 compounds. Samples collected by MDNR detected several chlorinated compounds at levels below the detection limits attained for this sampling effort.

The levels of xylenes and ethylbenzene identified in Sample SW-01 are unusual for a surface water sample due to the volatile nature of these compounds. However, this sample may actually be more representative of groundwater, because the PVC pipe was designed to drain groundwater which enters the wetland area before it is discharged to the surface.

One semivolatile organic compound (SVOC) was also reported in SW-01. 2,4-Dimethylphenol was reported at a concentration of 23 ug/L. This compound was also identified at a concentration of 0.290 ug/L in one groundwater sample collected by EPA at the nearby Sentinel site.

Samples SW-02 and SD-02 were collected from a drainage ditch along the north side of 12<sup>th</sup> Avenue. A seep with a distinct sheen was identified along the north wall of this ditch, approximately 10 feet above its confluence with the unnamed tributary to Prairie Creek (which drains the Sentinel site). Although no contaminants were reported above detection limits in the surface water sample (SW-02), the sediment sample (SD-02) contained very high levels of gasoline range organics, and substantial concentrations of xylenes and toluene. The lack of VOCs in the surface water sample at this location is probably the result of volatilization associated with ambient environmental conditions. Acetone and 2-butanone, both common laboratory contaminants, were also identified in SD-02. While neither compound was identified in any other samples, including the field blank or trip blank, their presence in SD-02 is likely the result of laboratory contamination.

#### Sewer Sample

Sample SW-03, collected from the combined sewer downgradient of Sentinel, Rawlings and Copeland, contained moderate levels of compounds which might be expected in a sewer sample. The fact that xylene levels are much lower in the sewer than in samples collected near the PVC discharge (SW-01) suggests that leaking sewers are not the primary source of contamination identified in the wetlands area. No sediment was available for sampling at the SW-03 manhole location.

### **DEVIATIONS FROM THE QUALITY ASSURANCE PROJECT PLAN**

Deviations from the QAPP, and the rationale for these deviations, are presented below:

- The QAPP specified that surface water and soil/sediment samples would be collected from up to six locations. Samples were collected from only three locations, a number deemed to be sufficient based on the judgement of EPA and START personnel in the field.
- The QAPP specified that samples would be analyzed for VOCs, SVOCs, total petroleum hydrocarbons (TPH), and metals. However, based on the results of previous sampling conducted by MDNR and EPA, the metals analysis was determined to be unnecessary by EPA and START personnel in the field.
- The QAPP specified that a soil trip blank would be submitted for analysis as part of the QC sampling requirements. However, the subcontract laboratory (Pace) did not provide a soil trip blank for analysis.

### **SUMMARY AND CONCLUSIONS**

The 12<sup>th</sup> Avenue Solvent site was identified when high levels of xylenes and other VOCs were identified in surface water and sediment samples collected by MDNR in December 2000. The samples were collected from the discharge area of a small wetland located immediately south of 12<sup>th</sup> Avenue. Multiple potential sources, including the Sentinel site, a Copeland Corporation plant, and a Rawlings Sporting Goods facility are located upgradient of the wetland. A combined sewer also runs very near the wetland discharge area.

On January 17 - 19<sup>th</sup>, 2001, EPA and START personnel conducted sampling, source reconnaissance and sewer testing activities at the 12<sup>th</sup> Avenue site to verify the MDNR data, and gather more information on

potential contaminant sources associated with the observed release of VOCs. Surface water and sediment samples collected from the wetland discharge area contained high levels of xylenes, ethylbenzene, and other gasoline range organics, at concentrations similar to those reported by MDNR. A sediment sample collected from a drainage ditch north of 12<sup>th</sup> Avenue also contained high levels of gasoline range organics. Surface water from this drainage ditch had a distinct sheen, but no VOCs were detected in the water sample collected from the ditch.

A smoke test conducted by the Ava Water Department indicated that sewers near the wetland area did not appear to have any significant leaks. Further, a sample collected from a nearby manhole did not contain unexpectedly high levels of VOCs. However, at least six other potential sources of VOC contamination were identified during the reconnaissance activities. These potential sources include the Sentinel site, Copeland plant, Rawlings facility, Hill Country Community Cleaners, a former car dealership, and a former leaking UST site, all of which are located upgradient of the wetland area. Based on the sampling results, and specific information gathered during reconnaissance of the potential source areas, the most likely sources of the VOC contamination identified in the wetland discharge area are the Copeland plant and the Rawlings facility. Additional investigation of specific potential source areas at these facilities would be required to make any further determinations.

**TABLE 1**  
**SUMMARY OF SAMPLES SUBMITTED TO**  
**PACE ANALYTICAL SERVICES, INC.**

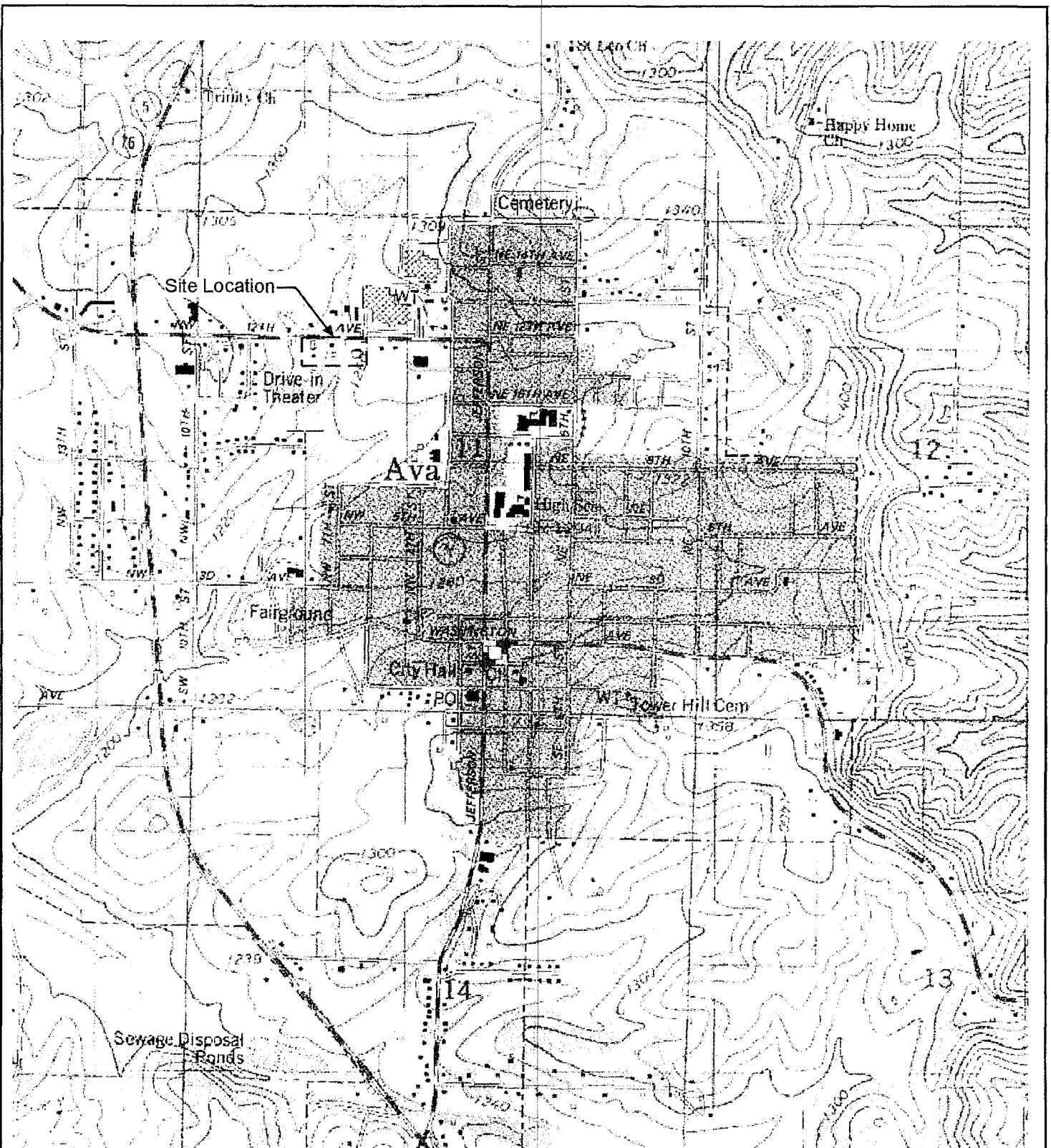
**12<sup>th</sup> Avenue Solvent Release Site**  
**Ava, Missouri**

Field Sample Number	Sample Date	Sample Matrix	Sample Location	Sample Depth
PA-SW-01	01/19/00	Surface Water	At discharge of PVC pipe draining wetland area.	2" - 4"
PA-SD-01	01/19/00	Sediment	At discharge of PVC pipe draining wetland area.	0 - 3"
PA-SW-02	01/19/00	Surface Water	Drainage ditch on north side of 12 <sup>th</sup> Avenue, 10 feet above confluence with unnamed tributary to Prairie Creek.	0 - 1"
PA-SD-02	01/19/00	Sediment	North wall (seep location) of drainage ditch on north side of 12 <sup>th</sup> Avenue, 10 feet above confluence with unnamed tributary to Prairie Creek.	0 - 3"
PA-SW-03	01/19/00	Water	Combined sewer, at manhole located on south side of 12 <sup>th</sup> Avenue.	8' (to bottom of sewer)
PA-FB	01/19/00	Water	Field blank.	NA
PA-TB	01/19/00	Water	Trip blank.	NA

**TABLE 2**  
**ANALYTICAL RESULTS**

**12<sup>th</sup> Avenue Solvent Release Site  
Ava, Missouri**

Analytes	PA-SW-01	PA-SD-01	PA-SW-02	PA-SD-02	PA-SW-03	PA-FB	PA-TB
	µg/L	µg/kg	µg/L	µg/kg	µg/L	µg/L	µg/L
<b>OA1</b>							
Gasoline Range Hydrocarbons	64,700	31,000	ND (500)	34,000	ND (500)	ND (500)	---
Benzene	ND (10)	ND (75)	ND (2)	ND (67)	ND (2)	ND (2)	---
Toluene	83.6	88	ND (2)	110	ND (2)	ND (2)	---
Ethylbenzene	3,660	370	ND (2)	ND (67)	43.8	ND (2)	---
Xylene (Total)	17,900	20,000	ND (5)	200	200	ND (5)	---
<b>OA2</b>							
Motor Oil	ND (0.40mg/l)	ND (13mg/l)	ND (0.40mg/l)	ND (13mg/l)	6.8 mg/l	ND (0.40mg/l)	---
<b>Volatile Organics</b>							
1,4-Dichlorobenzene	ND (500)	ND (2,300)	ND (1)	ND (6.8)	1.1	ND (1)	ND (1)
Chlorobenzene	ND (500)	ND (2,300)	ND (1)	ND (6.8)	ND (1)	ND (1)	2.1
Chloroform	ND (500)	ND (2,300)	ND (1)	ND (6.8)	12	ND (1)	ND (1)
Cis-1,2-DCE	ND (500)	ND (2,300)	ND (1)	ND (6.8)	1.1	ND (1)	ND (1)
Ethylbenzene	5,200	ND (2,300)	ND (1)	ND (6.8)	51	ND (1)	ND (1)
m&p-Xylene	22,000	8,300	ND (1.3)	ND (6.8)	200	ND (1.3)	ND (1.3)
o-Xylene	5,100	ND (2,300)	ND (1.1)	ND (6.8)	33	ND (1.1)	ND (1.1)
Acetone	ND (5,000)	ND (4,500)	ND (10)	180	33	ND (10)	ND (10)
2-Butanone (MEK)	ND (5,000)	ND (4,500)	ND (10)	14	ND (10)	ND (10)	ND (10)
<b>Semi-Volatile Organics</b>							
PCP	ND (67)	ND (2,400)	ND (62)	ND (2,200)	ND (66)	ND (66)	---
Phenol	ND (13)	ND (500)	ND (12)	ND (450)	35	ND (13)	---
4-Methylphenol	ND (13)	ND (500)	ND (12)	ND (450)	21	ND (13)	---
2,4-Dimethylphenol	23	ND (500)	ND (12)	ND (450)	ND (13)	ND (13)	---
Benzoic acid	ND (67)	ND (2,400)	ND (62)	ND (2,200)	130	ND (66)	---



12th Avenue Solvent  
Ava, Missouri

**Figure 1**  
Site Location Map

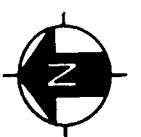


Tetra Tech EM Inc.

### Legend

- ◻ Surface Water and Sediment Sample
- Manhole Sample
- Manhole

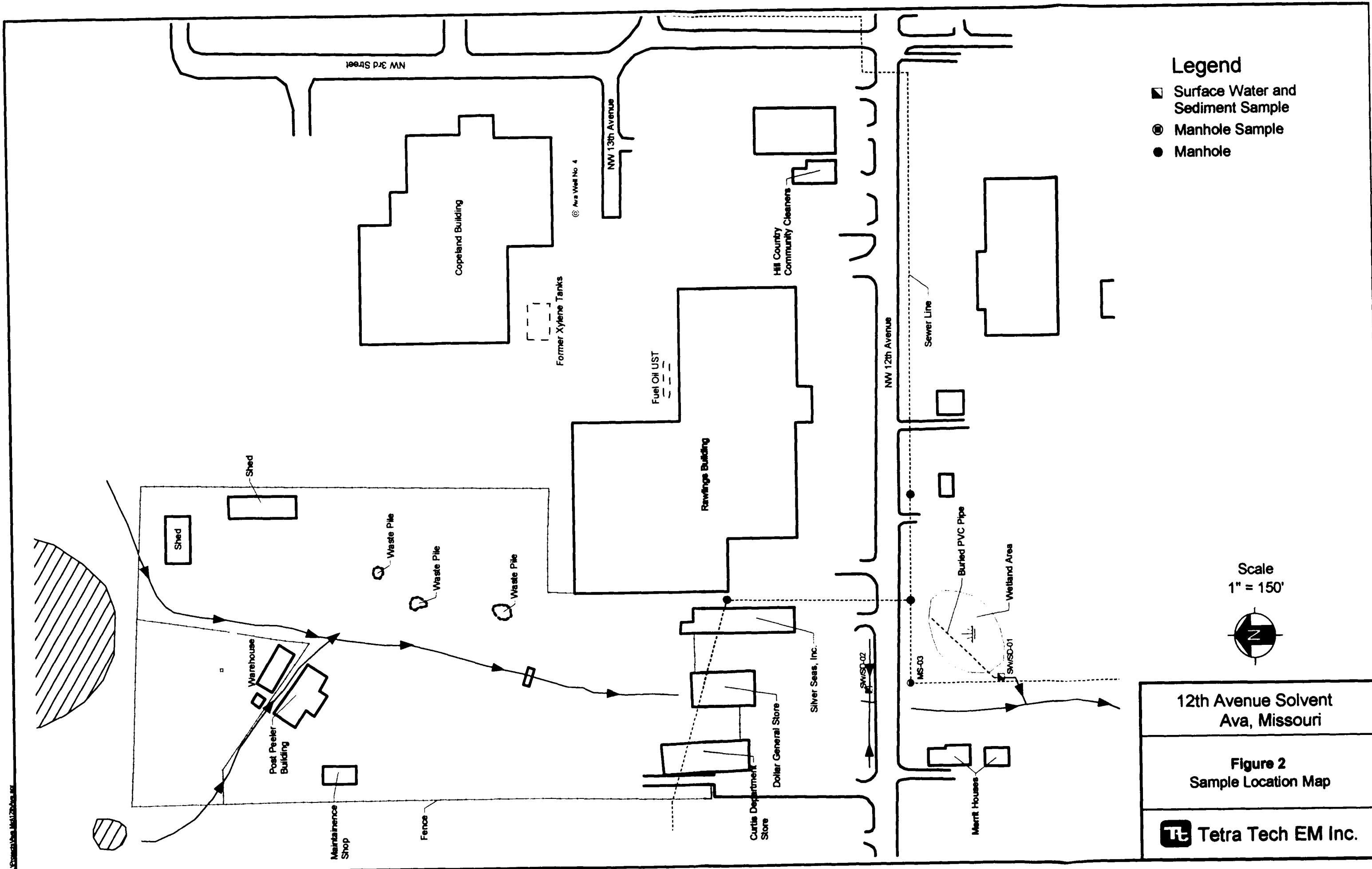
Scale  
1" = 150'



12th Avenue Solvent  
Ava, Missouri

Figure 2  
Sample Location Map

Tetra Tech EM Inc.



**ATTACHMENT 1**

**FIELD LOG**

2

Location \_\_\_\_\_ Date 1/17/01  
 Project / Client TASK 0008.01.01

- 0645 - Arrive E Dodge Street to meet OSC Eric Nold.
- 0705 - E. Nold arrives at Dodge Load Vehicle.
- 0730 - Leave Dodge for Racine, Mo. Will stop to inspect diesel spill resulting from train derailment which occurred on 1/14/01. (About 1130 Sunday night).
- 1030 - Arrive in Racine to meet w/ MNR rep. Wendell Hall  
 5,000-6,000 gal. spill  
 Boom set-up; snow fence w/balls of hay.  
 Underflow dam 2 miles downstream  
 Underflow dam breached/repaired.  
 removing product w/ skimmers and vac truck.  
 Some sheen across State border yesterday, but it has less today.

3

Location \_\_\_\_\_ Date 1/17/01  
 Project / Client \_\_\_\_\_

- sheen disappeared.  
 Fish Kill assessment to be done by MNR tomorrow.  
 1<sup>st</sup> tribe Eastern Shawnee  
 2<sup>nd</sup> tribe Wyandotte  
 Recovered 26,000 gallons of product base on 70/30 ratio of water/fuel.  
 Brk's contractor Environmental Works, Inc. of Springfield, Mo.  
 1200: Look at boom set-up 2 1/2 mile downstream of spill entry point. ~1 mile upstream of underflow dam.  
 1210: Arrive at underflow dam about 1/2-1 mi. downstream of last boom set-up
- Bob Felt*

4

Location \_\_\_\_\_ Date 1/17/01  
 Project / Client \_\_\_\_\_

1300 - Arrive at Eastern Shawnee Reservation (at OK border).  
 Lost Creek crossing.

Reservations personnel show us foam residue. May or may not be from diesel.  
 Tribe collected sample.

1330 - Arrive back at spill site. Look at dead cow about  $\frac{1}{2}$  mile upstream of spill area. Evident that cow has been there at least a couple of weeks. Not related to spill.

1445 - Go back to Eastern Shawnee property w/ Environmental Workers (BN contractor), to clean-up foamy areas. Will use sargent pads to clean up small areas where foam has accumulated.

Ten foot

5

Location \_\_\_\_\_ Date 1/17/01  
 Project / Client \_\_\_\_\_

BJJ has sampled foam and should receive results in a few days? They are not sure when results will be available.

1815 - Arrive at Merritts residence. Met with MDNR, ATSDR at Merritts residence.  
 Lorraine Anderson (MDNR)  
 Valerie (MDNR)  
 Denise (ATSDR)

1930 - Arrive at Chambers residence to talk to resident about sample results

Jan 17/01

6

Location \_\_\_\_\_ Date 1/18/01  
 Project / Client \_\_\_\_\_

0800: Leave motel to tour site and surrounding areas.

1000: Arrive at NVA PD for meeting w/ city council off. rep.

Del's auto - used to be Standard  
0.1 - has/had USTs; ASTs.

~~Reportings used to be historical.~~

Spalding original occupants  
of Copeland/Emerson Bldg.

Former auto dealer w/ body shop near Dollar General Store (where parking lot is).

1145: Adjourn meeting w/ city off. rep.

*Tammy*

7

Location \_\_\_\_\_ Date 1/18/01  
 Project / Client \_\_\_\_\_

1200 Go to Linnick

1300 Kenneth L. Adams, private contractor installed PVC pipe next to Merritt's. Look at areas east and northeast of Central.

1330 Arrive at County Health Dept. to meet w/ Richard Simms - look at PVC pipe area to get details on installation.

Hole dug by city in response to neighbor complaints to sewer smell. City thought it was a spring.

County expanded "hole", filled w/ gravel and placed PVC pipe to drain.

*Tammy*

8

Location \_\_\_\_\_ Date 1/18/00

Project / Client \_\_\_\_\_

Maybe about 10 yd<sup>3</sup> of gravel  
to fill hole.

1400 Arrived at Copeland Ind.

1600 Arrived at Rawlings.  
Used ~~FE~~ mol/l 2-3 yrs. ago  
Also TCA, mineral spirits.

No. 4 fuel oil 14ST = 12,000 gallons  
15-20 years old.

Underground "moot" used to  
contain spill - never used because  
no spills reported.

Thinner odor detected  
in storm sewer passing  
beneath Rawlings facility.

San. Sewer repaired ~ 5 yrs. ago

1730 Leave Rawlings facility  
for hotel.

*Perf. Test*

9

Location \_\_\_\_\_ Date 1/19/01

Project / Client \_\_\_\_\_

0815 - Go to City to meet with Jerry (Water Dept.)  
to discuss doing smoke  
tests on sewer lines.

Coggins Chevrolet

Now has farm in Almantha Mo  
(Ozark Co.) as of 1 yr. ago.  
Not sure when dealership  
closed, but they did have  
full-service body shop.

0845 - Meet with Jerry at  
worksite. They are fixing  
broken water lines and  
will meet us at 0930

1000 - Collect sample PA-5W-01  
in PA-5D-01 at PVC  
discharge point on Marritt  
property.

1035 - Collect sample PA-5W-02  
and PA-5D-02 at seep location  
in ditch on north side of 12<sup>th</sup> Ave

*Perf. Test*

10

Location \_\_\_\_\_ Date 1/19/01  
 Project / Client \_\_\_\_\_

SW/SD-02 located ~ 10' from  
 confluence w/ stream draining  
 from sentinel site.

1115 - Arrive at Community  
 laundromat to determine  
 whether they have dry  
 cleaning facilities.

Joe Banta owner  
 perc. not used

683-3711 683-5944 cleaners  
 306 NW 12th Ave Hill Country  
 Community Cleaners

Hurco Technologies  
 1-800-888-1436

LipCord Liquid Smoke

~~Tent out~~

11

Location \_\_\_\_\_ Date 1/19/01  
 Project / Client \_\_\_\_\_

1200 - Collect PA-SW-03 from  
 sewer manhole located  
 immediately north of  
 PVC pipe, south of highway  
 11½ St., where sewer turns  
 to the south and follows  
 stream.

1245 - Leave Area for Kansas  
 City.

Ava Medical Center  
 on Hwy. 5, 1 block north  
 of 12th Ave.

1715 Arrive at EPA Test warehouse  
 on Dodge.

~~Tent for 7-7~~

12

Location \_\_\_\_\_

Date 1/10/01

Project / Client \_\_\_\_\_

1100 - Deliver samples to Pace  
Labs in Lenexa, KS.

Tentative

13

Location \_\_\_\_\_

Date \_\_\_\_\_

Project / Client \_\_\_\_\_

**ATTACHMENT 2**  
**PHOTOGRAPHIC LOG**



START PROJECT NO.	DESCRIPTION	PVC pipe discharge location (under water, near center of photograph). Location of samples SW-01 and SD-01.	1
0100080101	SITE NAME	12 <sup>th</sup> Avenue Solvent Release, Ava, Missouri	DATE
Direction: NE	PHOTOGRAPHER	Ted Faile	01/19/01



START PROJECT NO.	DESCRIPTION	Location approximately 20 feet downstream of PVC pipe discharge point. Note black and grayish sediment beneath orange film.	2
0100080101	SITE NAME	12 <sup>th</sup> Avenue Solvent Release, Ava, Missouri	DATE
Direction: South	PHOTOGRAPHER	Ted Faile	01/19/01



START PROJECT NO.	DESCRIPTION	Sheen on surface water in wetland area, approximately 50 feet northeast of PVC pipe discharge point.	3
0100080101	SITE NAME	12 <sup>th</sup> Avenue Solvent Release, Ava, Missouri	DATE
Direction: East	PHOTOGRAPHER	Ted Faile	01/19/01



START PROJECT NO.	DESCRIPTION	Seep along north face of drainage ditch on north side of 12 <sup>th</sup> Avenue. Location of Sample SD-02.	4
0100080101	SITE NAME	12 <sup>th</sup> Avenue Solvent Release, Ava, Missouri	DATE
Direction: North	PHOTOGRAPHER	Ted Faile	01/19/01



START PROJECT NO.	DESCRIPTION	Heavy sheen in drainage ditch on north side of 12 <sup>th</sup> Avenue. Location of Sample SW-02. Seep in Photograph No. 4 is located on left side.	5
0100080101	SITE NAME	12 <sup>th</sup> Avenue Solvent Release, Ava, Missouri	DATE
Direction: East	PHOTOGRAPHER	Ted Faile	01/19/01



Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

February 06, 2001

Mr. TED FAILE  
TETRA TECH EMI  
7932 NIEMAN ROAD  
LENEXA, KS 66214

RE: Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Dear Mr. FAILE:

Enclosed are the analytical results for sample(s) received by the laboratory on January 20, 2001. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Handwritten signature of Andrea Feagin-Hyslop, which appears to be 'Andrea Feagin-Hyslop' followed by a stylized signature.  
Andrea Feagin-Hyslop  
Project Manager

Handwritten signature of Adam Taylor, which appears to be 'Adam Taylor' followed by a handwritten number '#227'.  
#227

Enclosures

## REPORT OF LABORATORY ANALYSIS

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9608 Loiret Blvd.

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TETRA TECH EMI  
7932 NIEMAN ROAD  
LENEXA, KS 66214

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Attn: Mr. TED FAILE  
Phone: (913)894-2600

Solid results are reported on a dry weight basis

Lab Sample No: 604113548	Project Sample Number: 6047808-001	Date Collected: 01/19/01 10:00
Client Sample ID: PA-SW-01	Matrix: Water	Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
------------	---------	-------	-----	----------	----------	---------	------	--------	-------

#### GC Volatiles

TPH Gas/BTEX	Method: EPA 8021/0A1			Prep Method: EPA 5030				
Gasoline Range Hydrocarbons	64700	ug/l	25000	50.0	01/26/01 19:44	SHF		1
Benzene	ND	ug/l	10.0	5.0	01/26/01 19:44	SHF	71-43-2	
Toluene	83.6	ug/l	10.0	5.0	01/26/01 19:44	SHF	108-88-3	
Ethylbenzene	3660	ug/l	1000	500	01/26/01 19:44	SHF	100-41-4	2
Xylene (Total)	17900	ug/l	2500	500	01/26/01 19:44	SHF	1330-20-7	2
a,a,a-Trifluorotoluene (S)	112	%		1.0	01/26/01 19:44	SHF	2164-17-2	3
4-Bromofluorobenzene (S)	106	%		1.0	01/26/01 19:44	SHF	460-00-4	
Bromochlorobenzene (S)	109	%		1.0	01/26/01 19:44	SHF		

#### GC Semivolatiles

Total Extractable Hydrocarbons	Method: OA2			Prep Method: OA2			
Mineral Spirits	ND	mg/l	0.40	1.0	01/23/01 17:41	TMD	
Jet Fuel	ND	mg/l	0.40	1.0	01/23/01 17:41	TMD	
Kerosene	ND	mg/l	0.40	1.0	01/23/01 17:41	TMD	
Diesel Fuel	ND	mg/l	0.40	1.0	01/23/01 17:41	TMD	68334-30-5
Fuel Oil	ND	mg/l	0.40	1.0	01/23/01 17:41	TMD	68334-30-5
Motor Oil	ND	mg/l	0.40	1.0	01/23/01 17:41	TMD	
p-Terphenyl (S)	87	%		1.0	01/23/01 17:41	TMD	92-94-4
n-Tetracosane (S)	97	%		1.0	01/23/01 17:41	TMD	646-31-1
Date Extracted					01/23/01		

#### GC/MS Volatiles

GC/MS VOCs by 8260 (Low Level)	Method: EPA 8260	Prep Method: EPA 8260	
1,1,1,2-Tetrachloroethane	ND ug/l	500	02/02/01 09:03 JSR 630-20-6

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113548      Project Sample Number: 6047808-001      Date Collected: 01/19/01 10:00  
 Client Sample ID: PA-SW-01      Matrix: Water      Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,1,1-Trichloroethane	ND	ug/l	500	500	02/02/01 09:03	JSR	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	500	500	02/02/01 09:03	JSR	79-34-5		
1,1,2-Trichloroethane	ND	ug/l	500	500	02/02/01 09:03	JSR	79-00-5		
1,1-Dichloroethane	ND	ug/l	500	500	02/02/01 09:03	JSR	75-34-3		
1,1-Dichloroethene	ND	ug/l	500	500	02/02/01 09:03	JSR	75-35-4		
1,1-Dichloropropene	ND	ug/l	500	500	02/02/01 09:03	JSR	563-58-6		
1,2,3-Trichlorobenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	87-61-6		
1,2,3-Trichloropropane	ND	ug/l	1200	500	02/02/01 09:03	JSR	96-18-4		
1,2,4-Trichlorobenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	120-82-1		
1,2,4-Trimethylbenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	95-63-6		
1,2-Dibromo-3-chloropropane	ND	ug/l	1200	500	02/02/01 09:03	JSR	96-12-8		
1,2-Dibromoethane (EDB)	ND	ug/l	500	500	02/02/01 09:03	JSR	106-93-4		
1,2-Dichlorobenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	95-50-1		
1,2-Dichloroethane	ND	ug/l	500	500	02/02/01 09:03	JSR	107-06-2		
1,2-Dichloropropane	ND	ug/l	500	500	02/02/01 09:03	JSR	78-87-5		
1,3,5-Trimethylbenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	108-67-8		
1,3-Dichlorobenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	541-73-1		
1,3-Dichloropropane	ND	ug/l	500	500	02/02/01 09:03	JSR	142-28-9		
1,4-Dichlorobenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	106-46-7		
2,2-Dichloropropane	ND	ug/l	500	500	02/02/01 09:03	JSR	594-20-7		
2-Chloroethylvinyl ether	ND	ug/l	5000	500	02/02/01 09:03	JSR	110-75-8		
2-Chlorotoluene	ND	ug/l	500	500	02/02/01 09:03	JSR	95-49-8		
4-Chlorotoluene	ND	ug/l	500	500	02/02/01 09:03	JSR	106-43-4		
Benzene	ND	ug/l	500	500	02/02/01 09:03	JSR	71-43-2		
Bromobenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	108-86-1		
Bromochloromethane	ND	ug/l	500	500	02/02/01 09:03	JSR	74-97-5		
Bromodichloromethane	ND	ug/l	500	500	02/02/01 09:03	JSR	75-27-4		
Bromoform	ND	ug/l	500	500	02/02/01 09:03	JSR	75-25-2		
Bromomethane	ND	ug/l	500	500	02/02/01 09:03	JSR	74-83-9		
Carbon tetrachloride	ND	ug/l	500	500	02/02/01 09:03	JSR	56-23-5		
Chlorobenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	108-90-7		
Chloroethane	ND	ug/l	500	500	02/02/01 09:03	JSR	75-00-3		
Chloroform	ND	ug/l	500	500	02/02/01 09:03	JSR	67-66-3		
Chloromethane	ND	ug/l	500	500	02/02/01 09:03	JSR	74-87-3		
cis-1,2-Dichloroethene	ND	ug/l	500	500	02/02/01 09:03	JSR	156-59-2		
cis-1,3-Dichloropropene	ND	ug/l	500	500	02/02/01 09:03	JSR	10061-01-5		
Dibromochloromethane	ND	ug/l	500	500	02/02/01 09:03	JSR	124-48-1		
Dibromomethane	ND	ug/l	500	500	02/02/01 09:03	JSR	74-95-3		

Date: 02/06/01

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113548	Project Sample Number:	6047808-001	Date Collected:	01/19/01 10:00				
Client Sample ID:	PA-SW-01	Matrix:	Water	Date Received:	01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Dichlorodifluoromethane	ND	ug/l	500	500	02/02/01 09:03	JSR	75-71-8		
Ethylbenzene	5200	ug/l	500	500	02/02/01 09:03	JSR	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	500	500	02/02/01 09:03	JSR	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	500	500	02/02/01 09:03	JSR	98-82-8		
m&p-Xylene	22000	ug/l	650	500	02/02/01 09:03	JSR	7816-60-0		
Methylene chloride	ND	ug/l	500	500	02/02/01 09:03	JSR	75-09-2		
Naphthalene	ND	ug/l	500	500	02/02/01 09:03	JSR	91-20-3		
n-Butylbenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	104-51-8		
n-Propylbenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	103-65-1		
o-Xylene	5100	ug/l	550	500	02/02/01 09:03	JSR	95-47-6		
p-Isopropyltoluene	ND	ug/l	500	500	02/02/01 09:03	JSR	99-87-6		
sec-Butylbenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	135-98-8		
Styrene	ND	ug/l	500	500	02/02/01 09:03	JSR	100-42-5		
tert-Butylbenzene	ND	ug/l	500	500	02/02/01 09:03	JSR	98-06-6		
Tetrachloroethene	ND	ug/l	500	500	02/02/01 09:03	JSR	127-18-4		
Toluene	ND	ug/l	500	500	02/02/01 09:03	JSR	108-88-3		
trans-1,2-Dichloroethene	ND	ug/l	500	500	02/02/01 09:03	JSR	156-60-5		
trans-1,3-Dichloropropene	ND	ug/l	500	500	02/02/01 09:03	JSR	10061-02-6		
Trichloroethene	ND	ug/l	500	500	02/02/01 09:03	JSR	79-01-6		
Trichlorofluoromethane	ND	ug/l	500	500	02/02/01 09:03	JSR	75-69-4		
Vinyl chloride	ND	ug/l	500	500	02/02/01 09:03	JSR	75-01-4		
Acetone	ND	ug/l	5000	500	02/02/01 09:03	JSR	67-64-1		
2-Butanone (MEK)	ND	ug/l	5000	500	02/02/01 09:03	JSR	78-93-3		
2-Hexanone	ND	ug/l	5000	500	02/02/01 09:03	JSR	591-78-6		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	5000	500	02/02/01 09:03	JSR	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	500	500	02/02/01 09:03	JSR	1634-04-4		
Toluene-d8 (S)	103	%		1.0	02/02/01 09:03	JSR	2037-26-5		
Dibromofluoromethane (S)	101	%		1.0	02/02/01 09:03	JSR			
4-Bromofluorobenzene (S)	105	%		1.0	02/02/01 09:03	JSR	460-00-4		
1,2-Dichloroethane-d4 (S)	101	%		1.0	02/02/01 09:03	JSR	17060-07-0		

## GC/MS Semivolatiles

Semivolatile Organics by 8270	Method: EPA 8270		Prep Method: EPA 3520
Phenol	ND	ug/l	13.
bis(2-Chloroethyl) ether	ND	ug/l	13.
2-Chlorophenol	ND	ug/l	13.
1,3-Dichlorobenzene	ND	ug/l	13.
			1.3 01/30/01 14:57 WAW 108-95-2
			1.3 01/30/01 14:57 WAW 111-44-4
			1.3 01/30/01 14:57 WAW 95-57-8
			1.3 01/30/01 14:57 WAW 541-73-1

Date: 02/06/01

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113548	Project Sample Number:	6047808-001	Date Collected:	01/19/01 10:00				
Client Sample ID:	PA-SW-01	Matrix:	Water	Date Received:	01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,4-Dichlorobenzene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	106-46-7		
Benzyl alcohol	ND	ug/l	27.	1.3	01/30/01 14:57	WAW	100-51-6		
1,2-Dichlorobenzene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	95-50-1		
2-Methylphenol (o-Cresol)	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	95-48-7		
bis(2-Chloroisopropyl) ether	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	39638-32-9		
4-Methylphenol (p-Cresol)	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	106-44-5		
N-Nitroso-di-n-propylamine	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	621-64-7		
Hexachloroethane	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	67-72-1		
Nitrobenzene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	98-95-3		
Isophorone	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	78-59-1		
2-Nitrophenol	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	88-75-5		
2,4-Dimethylphenol	23.	ug/l	13.	1.3	01/30/01 14:57	WAW	105-67-9		
Benzoic acid	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	65-85-0		
bis(2-Chloroethoxy)methane	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	111-91-1		
2,4-Dichlorophenol	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	120-82-1		
Naphthalene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	91-20-3		
4-Chloroaniline	ND	ug/l	27.	1.3	01/30/01 14:57	WAW	106-47-8		
Hexachloro-1,3-butadiene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	27.	1.3	01/30/01 14:57	WAW	59-50-7		
2-Methylnaphthalene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	91-57-6		
Hexachlorocyclopentadiene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	77-47-4		
2,4,6-Trichlorophenol	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	88-06-2		
2,4,5-Trichlorophenol	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	95-95-4		
2-Chloronaphthalene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	91-58-7		
2-Nitroaniline	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	88-74-4		
Dimethylphthalate	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	131-11-3		
Acenaphthylene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	606-20-2		
3-Nitroaniline	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	99-09-2		
Acenaphthene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	83-32-9		
2,4-Dinitrophenol	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	51-28-5		
4-Nitrophenol	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	100-02-7		
Dibenzofuran	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	132-64-9		
2,4-Dinitrotoluene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	121-14-2		
Diethylphthalate	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	84-66-2		
4-Chlorophenylphenyl ether	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	7005-72-3		
Fluorene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	86-73-7		

Date: 02/06/01

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113548      Project Sample Number: 6047808-001      Date Collected: 01/19/01 10:00  
 Client Sample ID: PA-SW-01      Matrix: Water      Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
4-Nitroaniline	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	100-01-6		
4,6-Dinitro-2-methylphenol	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	534-52-1		
N-Nitrosodiphenylamine	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	86-30-6		
4-Bromophenylphenyl ether	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	101-55-3		
Hexachlorobenzene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	118-74-1		
Pentachlorophenol	ND	ug/l	67.	1.3	01/30/01 14:57	WAW	87-86-5		
Phenanthrene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	85-01-8		
Anthracene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	120-12-7		
Di-n-butylphthalate	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	84-74-2		
Fluoranthene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	206-44-0		
Pyrene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	129-00-0		
Butylbenzylphthalate	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	27.	1.3	01/30/01 14:57	WAW	91-94-1		
Benzo(a)anthracene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	56-55-3		
Chrysene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	117-81-7		
Di-n-octylphthalate	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	207-08-9		
Benzo(a)pyrene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	13.	1.3	01/30/01 14:57	WAW	191-24-2		
Nitrobenzene-d5 (S)	104	%		1.0	01/30/01 14:57	WAW	4165-60-0		
2-Fluorobiphenyl (S)	96	%		1.0	01/30/01 14:57	WAW	321-60-8		
Terphenyl-d14 (S)	91	%		1.0	01/30/01 14:57	WAW	1718-51-0		
Phenol-d6 (S)	108	%		1.0	01/30/01 14:57	WAW	13127-88-3		
2-Fluorophenol (S)	74	%		1.0	01/30/01 14:57	WAW	367-12-4		
2,4,6-Tribromophenol (S)	109	%		1.0	01/30/01 14:57	WAW	118-79-6		
Date Extracted					01/23/01				

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Fax: 913.599.1759

Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113589	Project Sample Number:	6047808-002	Date Collected:	01/19/01 10:15				
Client Sample ID:	PA-SD-01	Matrix:	Soil	Date Received:	01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Organics Prep									
Percent Moisture		Method:							
Percent Moisture	33.6	%		0.7	01/24/01		DCKI		
GC Volatiles									
TPH Gas/BTEX		Method: EPA 8021/0A1				Prep Method: TPH GRO/BTEX			
Gasoline Range Hydrocarbons	31000	ug/kg	7500	1.0	01/25/01 21:37	JLG			
Benzene	ND	ug/kg	75.	1.0	01/25/01 21:37	JLG	71-43-2		
Toluene	88.	ug/kg	75.	1.0	01/25/01 21:37	JLG	108-88-3		
Ethylbenzene	370	ug/kg	75.	1.0	01/25/01 21:37	JLG	100-41-4		
Xylene (Total)	20000	ug/kg	190	1.0	01/25/01 21:37	JLG	1330-20-7		
a,a,a-Trifluorotoluene (S)	96	%		1.0	01/25/01 21:37	JLG	2164-17-2		
4-Bromofluorobenzene (S)	87	%		1.0	01/25/01 21:37	JLG	460-00-4		
Bromochlorobenzene (S)	105	%		1.0	01/25/01 21:37	JLG			
GC Semivolatiles									
Total Extractable Hydrocarbons		Method: OA2				Prep Method: OA2			
Mineral Spirits	ND	mg/kg	13.	0.9	01/24/01 10:53	EMA			
Jet Fuel	ND	mg/kg	13.	0.9	01/24/01 10:53	EMA			
Kerosene	ND	mg/kg	13.	0.9	01/24/01 10:53	EMA			
Diesel Fuel	ND	mg/kg	13.	0.9	01/24/01 10:53	EMA	68334-30-5		
Fuel Oil	ND	mg/kg	13.	0.9	01/24/01 10:53	EMA	68334-30-5		
Motor Oil	ND	mg/kg	13.	0.9	01/24/01 10:53	EMA			
n-Tetracosane (S)	120	%		1.0	01/24/01 10:53	EMA	646-31-1		
p-Terphenyl (S)	88	%		1.0	01/24/01 10:53	EMA	92-94-4		
Date Extracted					01/23/01				
GC/MS Volatiles									
GC/MS 8260 Med Level 5035		Method: EPA 8260				Prep Method: EPA 5035			
Dichlorodifluoromethane	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	75-71-8		
Chloromethane	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	74-87-3		
Vinyl chloride	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	75-01-4		
Bromomethane	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	74-83-9		

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113589	Project Sample Number:	6047808-002	Date Collected:	01/19/01 10:15
Client Sample ID:	PA-SD-01	Matrix:	Soil	Date Received:	01/20/01 11:25
Parameters	Results	Units	PRL	Dilution	Analyzed
Chloroethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Trichlorofluoromethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Methylene chloride	ND	ug/kg	2300	2.5	01/24/01 14:48
1,1-Dichloroethene	ND	ug/kg	2300	2.5	01/24/01 14:48
trans-1,2-Dichloroethene	ND	ug/kg	2300	2.5	01/24/01 14:48
1,1-Dichloroethane	ND	ug/kg	2300	2.5	01/24/01 14:48
2,2-Dichloropropane	ND	ug/kg	2300	2.5	01/24/01 14:48
cis-1,2-Dichloroethene	ND	ug/kg	2300	2.5	01/24/01 14:48
Chloroform	ND	ug/kg	2300	2.5	01/24/01 14:48
Bromochloromethane	ND	ug/kg	2300	2.5	01/24/01 14:48
1,1,1-Trichloroethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Carbon tetrachloride	ND	ug/kg	2300	2.5	01/24/01 14:48
1,1-Dichloropropene	ND	ug/kg	2300	2.5	01/24/01 14:48
Benzene	ND	ug/kg	2300	2.5	01/24/01 14:48
1,2-Dichloroethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Trichloroethene	ND	ug/kg	2300	2.5	01/24/01 14:48
1,2-Dichloropropane	ND	ug/kg	2300	2.5	01/24/01 14:48
Bromodichloromethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Dibromomethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Toluene	ND	ug/kg	2300	2.5	01/24/01 14:48
1,1,2-Trichloroethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Tetrachloroethene	ND	ug/kg	2300	2.5	01/24/01 14:48
1,3-Dichloropropane	ND	ug/kg	2300	2.5	01/24/01 14:48
Dibromochloromethane	ND	ug/kg	2300	2.5	01/24/01 14:48
1,2-Dibromoethane (EDB)	ND	ug/kg	2300	2.5	01/24/01 14:48
Chlorobenzene	ND	ug/kg	2300	2.5	01/24/01 14:48
1,1,1,2-Tetrachloroethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Ethylbenzene	ND	ug/kg	2300	2.5	01/24/01 14:48
m&p-Xylene	8300	ug/kg	2300	2.5	01/24/01 14:48
o-Xylene	ND	ug/kg	2300	2.5	01/24/01 14:48
Styrene	ND	ug/kg	2300	2.5	01/24/01 14:48
Bromoform	ND	ug/kg	2300	2.5	01/24/01 14:48
Isopropylbenzene (Cumene)	ND	ug/kg	2300	2.5	01/24/01 14:48
1,1,2,2-Tetrachloroethane	ND	ug/kg	2300	2.5	01/24/01 14:48
Bromobenzene	ND	ug/kg	2300	2.5	01/24/01 14:48
1,2,3-Trichloropropane	ND	ug/kg	2300	2.5	01/24/01 14:48
n-Propylbenzene	ND	ug/kg	2300	2.5	01/24/01 14:48
2-Chlorotoluene	ND	ug/kg	2300	2.5	01/24/01 14:48

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113589      Project Sample Number: 6047808-002  
 Client Sample ID: PA-SD-01      Matrix: Soil

Date Collected: 01/19/01 10:15  
 Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,3,5-Trimethylbenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	108-67-8		
4-Chlorotoluene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	106-43-4		
1,2,4-Trimethylbenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	95-63-6		
sec-Butylbenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	135-98-8		
tert-Butylbenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	98-06-6		
p-Isopropyltoluene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	99-87-6		
1,3-Dichlorobenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	106-46-7		
n-Butylbenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	104-51-8		
1,2-Dichlorobenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	95-50-1		
1,2-Dibromo-3-chloropropane	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	96-12-8		
1,2,4-Trichlorobenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	120-82-1		
Hexachloro-1,3-butadiene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	87-68-3		
Naphthalene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	91-20-3		
1,2,3-Trichlorobenzene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	87-61-6		
trans-1,3-Dichloropropene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	10061-02-6		
cis-1,3-Dichloropropene	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	10061-01-5		
2-Chloroethylvinyl ether	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	110-75-8		
Acetone	ND	ug/kg	4500	2.5	01/24/01 14:48	NLA	67-64-1		
2-Butanone (MEK)	ND	ug/kg	4500	2.5	01/24/01 14:48	NLA	78-93-3		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	4500	2.5	01/24/01 14:48	NLA	108-10-1		
2-Hexanone	ND	ug/kg	45000	2.5	01/24/01 14:48	NLA	591-78-6		
Methyl-tert-butyl ether	ND	ug/kg	2300	2.5	01/24/01 14:48	NLA	1634-04-4		
Dibromofluoromethane (S)	98	%		1.0	01/24/01 14:48	NLA			
Toluene-d8 (S)	104	%		1.0	01/24/01 14:48	NLA	2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	01/24/01 14:48	NLA	460-00-4		
1,2-Dichloroethane-d4 (S)	98	%		1.0	01/24/01 14:48	NLA	17060-07-0		
Date Prepared					01/24/01				

#### GC/MS Semivolatiles

Semivolatile Organics	Method: EPA 8270			Prep Method: EPA 3550 Sonication			
Phenol	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	108-95-2
bis(2-Chloroethyl) ether	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	111-44-4
2-Chlorophenol	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	95-57-8
1,3-Dichlorobenzene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	541-73-1
1,4-Dichlorobenzene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	106-46-7
Benzyl alcohol	ND	ug/kg	990	1.0	01/30/01 13:13	WAW	100-51-6

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113589	Project Sample Number:	6047808-002	Date Collected: 01/19/01 10:15					
Client Sample ID:	PA-SD-01	Matrix:	Soil	Date Received: 01/20/01 11:25					
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,2-Dichlorobenzene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	95-50-1		
2-Methylphenol (o-Cresol)	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	95-48-7		
bis(2-Chloroisopropyl) ether	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	39638-32-9		
4-Methylphenol (p-Cresol)	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	106-44-5		
N-Nitroso-di-n-propylamine	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	621-64-7		
Hexachloroethane	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	67-72-1		
Nitrobenzene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	98-95-3		
Isophorone	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	78-59-1		
2-Nitrophenol	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	88-75-5		
2,4-Dimethylphenol	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	105-67-9		
Benzoic acid	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	65-85-0		
bis(2-Chloroethoxy)methane	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	111-91-1		
2,4-Dichlorophenol	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	120-82-1		
Naphthalene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	91-20-3		
4-Chloroaniline	ND	ug/kg	990	1.0	01/30/01 13:13	WAW	106-47-8		
Hexachloro-1,3-butadiene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	87-68-3		
4-Chloro-3-methylphenol	ND	ug/kg	990	1.0	01/30/01 13:13	WAW	59-50-7		
2-Methylnaphthalene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	91-57-6		
Hexachlorocyclopentadiene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	77-47-4		
2,4,6-Trichlorophenol	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	88-06-2		
2,4,5-Trichlorophenol	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	95-95-4		
2-Chloronaphthalene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	91-58-7		
2-Nitroaniline	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	88-74-4		
Dimethylphthalate	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	131-11-3		
Acenaphthylene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	208-96-8		
2,6-Dinitrotoluene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	606-20-2		
3-Nitroaniline	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	99-09-2		
Acenaphthene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	83-32-9		
2,4-Dinitrophenol	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	51-28-5		
4-Nitrophenol	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	100-02-7		
Dibenzofuran	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	132-64-9		
2,4-Dinitrotoluene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	121-14-2		
Diethylphthalate	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	84-66-2		
4-Chlorophenylphenyl ether	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	7005-72-3		
Fluorene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	86-73-7		
4-Nitroaniline	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	100-01-6		
4,6-Dinitro-2-methylphenol	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	534-52-1		

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113589	Project Sample Number:	6047808-002	Date Collected:	01/19/01 10:15
Client Sample ID:	PA-SD-01	Matrix:	Soil	Date Received:	01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
N-Nitrosodiphenylamine	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	86-30-6		
4-Bromophenylphenyl ether	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	101-55-3		
Hexachlorobenzene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	118-74-1		
Pentachlorophenol	ND	ug/kg	2400	1.0	01/30/01 13:13	WAW	87-86-5		
Phenanthenrene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	85-01-8		
Anthracene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	120-12-7		
Di-n-butylphthalate	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	84-74-2		
Fluoranthene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	206-44-0		
Pyrene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	129-00-0		
Butylbenzylphthalate	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/kg	990	1.0	01/30/01 13:13	WAW	91-94-1		
Benzo(a)anthracene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	56-55-3		
Chrysene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	117-81-7		
Di-n-octylphthalate	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	117-84-0		
Benzo(b)fluoranthene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	207-08-9		
Benzo(a)pyrene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	193-39-5		
Dibenz(a,h)anthracene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	53-70-3		
Benzo(g,h,i)perylene	ND	ug/kg	500	1.0	01/30/01 13:13	WAW	191-24-2		
Nitrobenzene-d5 (S)	81	%		1.0	01/30/01 13:13	WAW	4165-60-0		
2-Fluorobiphenyl (S)	89	%		1.0	01/30/01 13:13	WAW	321-60-8		
Terphenyl-d14 (S)	76	%		1.0	01/30/01 13:13	WAW	1718-51-0		
Phenol-d6 (S)	82	%		1.0	01/30/01 13:13	WAW	13127-88-3		
2-Fluorophenol (S)	76	%		1.0	01/30/01 13:13	WAW	367-12-4		
2,4,6-Tribromophenol (S)	102	%		1.0	01/30/01 13:13	WAW	118-79-6		
Date Extracted					01/23/01				

## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113621	Project Sample Number:	6047808-003	Date Collected:	01/19/01 10:35
Client Sample ID:	PA-SW-02	Matrix:	Water	Date Received:	01/20/01 11:25
Parameters	Results	Units	PRL	Dilution	Analyzed
					Analyst CAS# Ftnote Limit

#### GC Volatiles

TPH Gas/BTEX	Method: EPA 8021/0A1			Prep Method: EPA 5030		
Gasoline Range Hydrocarbons	ND	ug/l	500.	1.0	01/26/01 20:15	SHF
Benzene	ND	ug/l	2.00	1.0	01/26/01 20:15	SHF 71-43-2
Toluene	ND	ug/l	2.00	1.0	01/26/01 20:15	SHF 108-88-3
Ethylbenzene	ND	ug/l	2.00	1.0	01/26/01 20:15	SHF 100-41-4
Xylene (Total)	ND	ug/l	5.00	1.0	01/26/01 20:15	SHF 1330-20-7
a,a,a-Trifluorotoluene (S)	100	%		1.0	01/26/01 20:15	SHF 2164-17-2
4-Bromofluorobenzene (S)	105	%		1.0	01/26/01 20:15	SHF 460-00-4
Bromochlorobenzene (S)	102	%		1.0	01/26/01 20:15	SHF

#### GC Semivolatiles

Total Extractable Hydrocarbons	Method: OA2			Prep Method: OA2		
Mineral Spirits	ND	mg/l	0.40	1.0	01/23/01 18:11	TMD
Jet Fuel	ND	mg/l	0.40	1.0	01/23/01 18:11	TMD
Kerosene	ND	mg/l	0.40	1.0	01/23/01 18:11	TMD
Diesel Fuel	ND	mg/l	0.40	1.0	01/23/01 18:11	TMD 68334-30-5
Fuel Oil	ND	mg/l	0.40	1.0	01/23/01 18:11	TMD 68334-30-5
Motor Oil	ND	mg/l	0.40	1.0	01/23/01 18:11	TMD
p-Terphenyl (S)	76	%		1.0	01/23/01 18:11	TMD 92-94-4
n-Tetracosane (S)	92	%		1.0	01/23/01 18:11	TMD 646-31-1
Date Extracted				01/23/01		

#### GC/MS Volatiles

GC/MS VOCs by 8260 (Low Level)	Method: EPA 8260			Prep Method: EPA 8260		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 630-20-6
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 71-55-6
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 79-34-5
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 79-00-5
1,1-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 75-34-3
1,1-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 75-35-4
1,1-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 563-58-6
1,2,3-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR 87-61-6
1,2,3-Trichloropropane	ND	ug/l	2.5	1.0	02/02/01 07:56	JSR 96-18-4

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113621 Project Sample Number: 6047808-003 Date Collected: 01/19/01 10:35  
Client Sample ID: PA-SW-02 Matrix: Water Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,2,4-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	120-82-1		
1,2,4-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	95-63-6		
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	1.0	02/02/01 07:56	JSR	96-12-8		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	106-93-4		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	95-50-1		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	107-06-2		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	78-87-5		
1,3,5-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	108-67-8		
1,3-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	541-73-1		
1,3-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	142-28-9		
1,4-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	106-46-7		
2,2-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	594-20-7		
2-Chloroethylvinyl ether	ND	ug/l	10.	1.0	02/02/01 07:56	JSR	110-75-8		
2-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	95-49-8		
4-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	106-43-4		
Benzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	74-83-9		
Carbon tetrachloride	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	74-87-3		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	156-59-2		
cis-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	10061-01-5		
Dibromochloromethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	124-48-1		
Dibromomethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	74-95-3		
Dichlorodifluoromethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	75-71-8		
Ethylbenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	98-82-8		
m&p-Xylene	ND	ug/l	1.3	1.0	02/02/01 07:56	JSR	7816-60-0		
Methylene chloride	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	75-09-2		
Naphthalene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	91-20-3		
n-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	104-51-8		

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113621	Project Sample Number: 6047808-003	Date Collected: 01/19/01 10:35
Client Sample ID: PA-SW-02	Matrix: Water	Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
n-Propylbenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	103-65-1		
o-Xylene	ND	ug/l	1.1	1.0	02/02/01 07:56	JSR	95-47-6		
p-Isopropyltoluene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	99-87-6		
sec-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	135-98-8		
Styrene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	100-42-5		
tert-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	98-06-6		
Tetrachloroethene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	127-18-4		
Toluene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	108-88-3		
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	156-60-5		
trans-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	10061-02-6		
Trichloroethene	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	75-69-4		
Vinyl chloride	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	75-01-4		
Acetone	ND	ug/l	10.	1.0	02/02/01 07:56	JSR	67-64-1		
2-Butanone (MEK)	ND	ug/l	10.	1.0	02/02/01 07:56	JSR	78-93-3		
2-Hexanone	ND	ug/l	10.	1.0	02/02/01 07:56	JSR	591-78-6		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	10.	1.0	02/02/01 07:56	JSR	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	1.0	1.0	02/02/01 07:56	JSR	1634-04-4		
Toluene-d8 (S)	91	x			1.0	02/02/01 07:56	JSR	2037-26-5	
Dibromofluoromethane (S)	98	x			1.0	02/02/01 07:56	JSR		
4-Bromofluorobenzene (S)	101	x			1.0	02/02/01 07:56	JSR	460-00-4	
1,2-Dichloroethane-d4 (S)	97	x			1.0	02/02/01 07:56	JSR	17060-07-0	

#### GC/MS Semivolatiles

Semivolatile Organics by 8270	Method: EPA 8270		Prep Method: EPA 3520
Pheno1	ND	ug/l	12.
bis(2-Chloroethyl) ether	ND	ug/l	12.
2-Chloropheno1	ND	ug/l	12.
1,3-Dichlorobenzene	ND	ug/l	12.
1,4-Dichlorobenzene	ND	ug/l	12.
Benzyl alcohol	ND	ug/l	25.
1,2-Dichlorobenzene	ND	ug/l	12.
2-Methylphenol (o-Cresol)	ND	ug/l	12.
bis(2-Chloroisopropyl) ether	ND	ug/l	12.
4-Methylphenol (p-Cresol)	ND	ug/l	12.
N-Nitroso-di-n-propylamine	ND	ug/l	12.
Hexachloroethane	ND	ug/l	12.

Date: 02/06/01

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113621	Project Sample Number:	6047808-003	Date Collected:	01/19/01 10:35				
Client Sample ID:	PA-SW-02	Matrix:	Water	Date Received:	01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Nitrobenzene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	98-95-3		
Isophorone	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	78-59-1		
2-Nitrophenol	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	88-75-5		
2,4-Dimethylphenol	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	105-67-9		
Benzoic acid	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	65-85-0		
bis(2-Chloroethoxy)methane	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	111-91-1		
2,4-Dichlorophenol	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	120-82-1		
Naphthalene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	91-20-3		
4-Chloroaniline	ND	ug/l	25.	1.2	01/29/01 18:46	WAW	106-47-8		
Hexachloro-1,3-butadiene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	25.	1.2	01/29/01 18:46	WAW	59-50-7		
2-Methylnaphthalene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	91-57-6		
Hexachlorocyclopentadiene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	77-47-4		
2,4,6-Trichlorophenol	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	88-06-2		
2,4,5-Trichlorophenol	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	95-95-4		
2-Chloronaphthalene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	91-58-7		
2-Nitroaniline	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	88-74-4		
Dimethylphthalate	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	131-11-3		
Acenaphthylene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	606-20-2		
3-Nitroaniline	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	99-09-2		
Acenaphthene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	83-32-9		
2,4-Dinitrophenol	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	51-28-5		
4-Nitrophenol	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	100-02-7		
Dibenzofuran	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	132-64-9		
2,4-Dinitrotoluene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	121-14-2		
Diethylphthalate	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	84-66-2		
4-Chlorophenylphenyl ether	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	7005-72-3		
Fluorene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	86-73-7		
4-Nitroaniline	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	100-01-6		
4,6-Dinitro-2-methylphenol	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	534-52-1		
N-Nitrosodiphenylamine	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	86-30-6		
4-Bromophenylphenyl ether	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	101-55-3		
Hexachlorobenzene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	118-74-1		
Pentachlorophenol	ND	ug/l	62.	1.2	01/29/01 18:46	WAW	87-86-5		
Phenanthrene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	85-01-8		
Anthracene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	120-12-7		

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113621	Project Sample Number:	6047808-003	Date Collected:	01/19/01 10:35
Client Sample ID:	PA-SW-02	Matrix:	Water	Date Received:	01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Di-n-butylphthalate	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	84-74-2		
Fluoranthene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	206-44-0		
Pyrene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	129-00-0		
Butylbenzylphthalate	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	25.	1.2	01/29/01 18:46	WAW	91-94-1		
Benzo(a)anthracene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	56-55-3		
Chrysene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	117-81-7		
Di-n-octylphthalate	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	207-08-9		
Benzo(a)pyrene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	12.	1.2	01/29/01 18:46	WAW	191-24-2		
Nitrobenzene-d5 (S)	82	%		1.0	01/29/01 18:46	WAW	4165-60-0		
2-Fluorobiphenyl (S)	86	%		1.0	01/29/01 18:46	WAW	321-60-8		
Terphenyl-d14 (S)	71	%		1.0	01/29/01 18:46	WAW	1718-51-0		
Phenol-d6 (S)	80	%		1.0	01/29/01 18:46	WAW	13127-88-3		
2-Fluorophenol (S)	84	%		1.0	01/29/01 18:46	WAW	367-12-4		
2,4,6-Tribromophenol (S)	90	%		1.0	01/29/01 18:46	WAW	118-79-6		
Date Extracted					01/23/01				

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113662	Project Sample Number:	6047808-004	Date Collected:	01/19/01 10:50
Client Sample ID:	PA-SD-02	Matrix:	Soil	Date Received:	01/20/01 11:25
Parameters	Results	Units	PRL	Dilution	Analyzed
					Analyst CAS# Ftnote Limit

#### Organics Prep

Percent Moisture	Method:			
Percent Moisture	26.1 %	0.7	01/24/01	DCKI

#### GC Volatiles

TPH Gas/BTEX	Method: EPA 8021/0A1	Prep Method: TPH GRO/BTEX
Gasoline Range Hydrocarbons	34000 ug/kg	1.0 01/25/01 22:05 JLG
Benzene	ND ug/kg	1.0 01/25/01 22:05 JLG 71-43-2
Toluene	110 ug/kg	1.0 01/25/01 22:05 JLG 108-88-3
Ethylbenzene	ND ug/kg	1.0 01/25/01 22:05 JLG 100-41-4
Xylene (Total)	200 ug/kg	1.0 01/25/01 22:05 JLG 1330-20-7
a,a,a-Trifluorotoluene (S)	96 %	1.0 01/25/01 22:05 JLG 2164-17-2
4-Bromofluorobenzene (S)	96 %	1.0 01/25/01 22:05 JLG 460-00-4
Bromochlorobenzene (S)	99 %	1.0 01/25/01 22:05 JLG

#### GC Semivolatiles

Total Extractable Hydrocarbons	Method: OA2	Prep Method: OA2
Mineral Spirits	ND mg/kg	1.0 01/25/01 EMA
Jet Fuel	ND mg/kg	1.0 01/25/01 EMA
Kerosene	ND mg/kg	1.0 01/25/01 EMA
Diesel Fuel	ND mg/kg	1.0 01/25/01 EMA 68334-30-5
Fuel Oil	ND mg/kg	1.0 01/25/01 EMA 68334-30-5
Motor Oil	ND mg/kg	1.0 01/25/01 EMA
n-Tetracosane (S)	119 %	1.0 01/25/01 EMA 646-31-1
p-Terphenyl (S)	88 %	1.0 01/25/01 EMA 92-94-4
Date Extracted		01/23/01

#### GC/MS Volatiles

GC/MS 8260 Soils by 5035	Method: EPA 8260	Prep Method: EPA 8260
1,1,1,2-Tetrachloroethane	ND ug/kg	6.8 1.0 01/23/01 18:32 NLA 630-20-6
1,1,1-Trichloroethane	ND ug/kg	6.8 1.0 01/23/01 18:32 NLA 71-55-6
1,1,2,2-Tetrachloroethane	ND ug/kg	6.8 1.0 01/23/01 18:32 NLA 79-34-5
1,1,2-Trichloroethane	ND ug/kg	6.8 1.0 01/23/01 18:32 NLA 79-00-5

Date: 02/06/01

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113662	Project Sample Number: 6047808-004			Date Collected: 01/19/01 10:50				
Client Sample ID:	PA-SD-02	Matrix: Soil			Date Received: 01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,1-Dichloroethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-34-3		
1,1-Dichloroethene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-35-4		
1,1-Dichloropropene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	563-58-6		
1,2,3-Trichlorobenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	87-61-6		
1,2,3-Trichloropropane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	96-18-4		
1,2,4-Trichlorobenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	120-82-1		
1,2,4-Trimethylbenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	95-63-6		
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	96-12-8		
1,2-Dibromoethane (EDB)	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	106-93-4		
1,2-Dichlorobenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	95-50-1		
1,2-Dichloroethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	107-06-2		
1,2-Dichloropropane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	78-87-5		
1,3,5-Trimethylbenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	108-67-8		
1,3-Dichlorobenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	541-73-1		
1,3-Dichloropropane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	142-28-9		
1,4-Dichlorobenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	106-46-7		
2,2-Dichloropropane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	594-20-7		
2-Chloroethylvinyl ether	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	110-75-8		
2-Chlorotoluene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	95-49-8		
4-Chlorotoluene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	106-43-4		
Benzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	71-43-2		
Bromobenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	108-86-1		
Bromochloromethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	74-97-5		
Bromodichloromethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-27-4		
Bromoform	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-25-2		
Bromomethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	74-83-9		
Carbon tetrachloride	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	56-23-5		
Chlorobenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	108-90-7		
Chloroethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-00-3		
Chloroform	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	67-66-3		
Chloromethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	74-87-3		
cis-1,2-Dichloroethene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	156-59-2		
cis-1,3-Dichloropropene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	10061-01-5		
Dibromochloromethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	124-48-1		
Dibromomethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	74-95-3		
Dichlorodifluoromethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-71-8		
Ethylbenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	87-68-3		

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## REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219

Phone: 913.599.5665

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113662	Project Sample Number: 6047808-004			Date Collected: 01/19/01 10:50				
Client Sample ID:	PA-SD-02	Matrix: Soil			Date Received: 01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Isopropylbenzene (Cumene)	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	98-82-8		
m&p-Xylene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	7816-60-0		
Methylene chloride	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-09-2		
Naphthalene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	91-20-3		
n-Butylbenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	104-51-8		
n-Propylbenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	103-65-1		
o-Xylene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	95-47-6		
p-Isopropyltoluene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	99-87-6		
sec-Butylbenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	135-98-8		
Styrene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	100-42-5		
tert-Butylbenzene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	98-06-6		
Tetrachloroethene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	127-18-4		
Toluene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	108-88-3		
trans-1,2-Dichloroethene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	156-60-5		
trans-1,3-Dichloropropene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	10061-02-6		
Trichloroethene	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	79-01-6		
Trichlorofluoromethane	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-69-4		
Vinyl chloride	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	75-01-4		
Acetone	180	ug/kg	27.	1.0	01/23/01 18:32	NLA	67-64-1	4	
2-Butanone (MEK)	14.	ug/kg	14.	1.0	01/23/01 18:32	NLA	78-93-3		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14.	1.0	01/23/01 18:32	NLA	108-10-1		
2-Hexanone	ND	ug/kg	140	1.0	01/23/01 18:32	NLA	591-78-6		
Methyl-tert-butyl ether	ND	ug/kg	6.8	1.0	01/23/01 18:32	NLA	1634-04-4		
Dibromofluoromethane (S)	100	%		1.0	01/23/01 18:32	NLA			
Toluene-d8 (S)	100	%		1.0	01/23/01 18:32	NLA	2037-26-5		
4-Bromofluorobenzene (S)	97	%		1.0	01/23/01 18:32	NLA	460-00-4		
1,2-Dichloroethane-d4 (S)	106	%		1.0	01/23/01 18:32	NLA	17060-07-0		

## GC/MS Semivolatiles

Semivolatile Organics	Method: EPA 8270		Prep Method: EPA 3550 Sonication
Phenol	ND	ug/kg	450
bis(2-Chloroethyl) ether	ND	ug/kg	450
2-Chlorophenol	ND	ug/kg	450
1,3-Dichlorobenzene	ND	ug/kg	450
1,4-Dichlorobenzene	ND	ug/kg	450
Benzyl alcohol	ND	ug/kg	890
1,2-Dichlorobenzene	ND	ug/kg	450

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113662	Project Sample Number:	6047808-004		Date Collected:	01/19/01 10:50		
Client Sample ID:	PA-SD-02	Matrix:	Soil			Date Received: 01/20/01 11:25		
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote
2-Methylphenol (o-Cresol)	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	95-48-7	
bis(2-Chloroisopropyl) ether	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	39638-32-9	
4-Methylphenol (p-Cresol)	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	106-44-5	
N-Nitroso-di-n-propylamine	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	621-64-7	
Hexachloroethane	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	67-72-1	
Nitrobenzene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	98-95-3	
Isophorone	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	78-59-1	
2-Nitrophenol	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	88-75-5	
2,4-Dimethylphenol	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	105-67-9	
Benzoic acid	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	65-85-0	
bis(2-Chloroethoxy)methane	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	111-91-1	
2,4-Dichlorophenol	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	120-83-2	
1,2,4-Trichlorobenzene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	120-82-1	
Naphthalene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	91-20-3	
4-Chloroaniline	ND	ug/kg	890	1.0	01/31/01 19:30	WAW	106-47-8	
Hexachloro-1,3-butadiene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	87-68-3	
4-Chloro-3-methylphenol	ND	ug/kg	890	1.0	01/31/01 19:30	WAW	59-50-7	
2-Methylnaphthalene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	91-57-6	
Hexachlorocyclopentadiene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	77-47-4	
2,4,6-Trichlorophenol	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	88-06-2	
2,4,5-Trichlorophenol	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	95-95-4	
2-Chloronaphthalene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	91-58-7	
2-Nitroaniline	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	88-74-4	
Dimethylphthalate	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	131-11-3	
Acenaphthylene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	208-96-8	
2,6-Dinitrotoluene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	606-20-2	
3-Nitroaniline	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	99-09-2	
Acenaphthene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	83-32-9	
2,4-Dinitrophenol	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	51-28-5	
4-Nitrophenol	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	100-02-7	
Dibenzofuran	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	132-64-9	
2,4-Dinitrotoluene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	121-14-2	
Diethylphthalate	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	84-66-2	
4-Chlorophenylphenyl ether	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	7005-72-3	
Fluorene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	86-73-7	
4-Nitroaniline	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	100-01-6	
4,6-Dinitro-2-methylphenol	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	534-52-1	
N-Nitrosodiphenylamine	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	86-30-6	

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113662 Project Sample Number: 6047808-004 Date Collected: 01/19/01 10:50  
Client Sample ID: PA-SD-02 Matrix: Soil Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
4-Bromophenylphenyl ether	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	101-55-3		
Hexachlorobenzene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	118-74-1		
Pentachlorophenol	ND	ug/kg	2200	1.0	01/31/01 19:30	WAW	87-86-5		
Phenanthrene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	85-01-8		
Anthracene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	120-12-7		
Di-n-butylphthalate	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	84-74-2		
Fluoranthene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	206-44-0		
Pyrene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	129-00-0		
Butylbenzylphthalate	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/kg	890	1.0	01/31/01 19:30	WAW	91-94-1		
Benzo(a)anthracene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	56-55-3		
Chrysene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	117-81-7		
Di-n-octylphthalate	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	117-84-0		
Benzo(b)fluoranthene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	207-08-9		
Benzo(a)pyrene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	193-39-5		
Dibenz(a,h)anthracene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	53-70-3		
Benzo(g,h,i)perylene	ND	ug/kg	450	1.0	01/31/01 19:30	WAW	191-24-2		
Nitrobenzene-d5 (S)	82	%		1.0	01/31/01 19:30	WAW	4165-60-0		
2-Fluorobiphenyl (S)	91	%		1.0	01/31/01 19:30	WAW	321-60-8		
Terphenyl-d14 (S)	108	%		1.0	01/31/01 19:30	WAW	1718-51-0		
Phenol-d6 (S)	71	%		1.0	01/31/01 19:30	WAW	13127-88-3		
2-Fluorophenol (S)	67	%		1.0	01/31/01 19:30	WAW	367-12-4		
2,4,6-Tribromophenol (S)	92	%		1.0	01/31/01 19:30	WAW	118-79-6		
Date Extracted					01/23/01				

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113720 Project Sample Number: 6047808-005 Date Collected: 01/19/01 11:50  
Client Sample ID: PA-SW-03 Matrix: Water Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
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#### GC Volatiles

TPH Gas/BTEX	Method: EPA 8021/0A1			Prep Method: EPA 5030		
Gasoline Range Hydrocarbons	ND	ug/l	500.	1.0	01/26/01 20:45	SHF
Benzene	ND	ug/l	2.00	1.0	01/26/01 20:45	SHF
Toluene	ND	ug/l	2.00	1.0	01/26/01 20:45	SHF
Ethylbenzene	43.8	ug/l	2.00	1.0	01/26/01 20:45	SHF
Xylene (Total)	200.	ug/l	5.00	1.0	01/26/01 20:45	SHF
a,a,a-Trifluorotoluene (S)	101	%		1.0	01/26/01 20:45	SHF
4-Bromofluorobenzene (S)	102	%		1.0	01/26/01 20:45	SHF
Bromochlorobenzene (S)	103	%		1.0	01/26/01 20:45	SHF

#### GC Semivolatiles

Total Extractable Hydrocarbons	Method: OA2			Prep Method: OA2		
Mineral Spirits	ND	mg/l	0.40	1.0	01/23/01 18:41	TMD
Jet Fuel	ND	mg/l	0.40	1.0	01/23/01 18:41	TMD
Kerosene	ND	mg/l	0.40	1.0	01/23/01 18:41	TMD
Diesel Fuel	ND	mg/l	0.40	1.0	01/23/01 18:41	TMD
Fuel Oil	ND	mg/l	0.40	1.0	01/23/01 18:41	TMD
Motor Oil	6.8	mg/l	0.40	1.0	01/23/01 18:41	TMD
p-Terphenyl (S)	95	%		1.0	01/23/01 18:41	TMD
n-Tetracosane (S)	82	%		1.0	01/23/01 18:41	TMD
Date Extracted					01/23/01	

#### GC/MS Volatiles

GC/MS VOCs by 8260 (Low Level)	Method: EPA 8260			Prep Method: EPA 8260		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,1-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,1-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,1-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,2,3-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR
1,2,3-Trichloropropane	ND	ug/l	2.5	1.0	02/02/01 08:30	JSR

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113720	Project Sample Number: 6047808-005			Date Collected: 01/19/01 11:50				
Client Sample ID:	PA-SW-03	Matrix: Water			Date Received: 01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,2,4-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	120-82-1		
1,2,4-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	95-63-6		
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	1.0	02/02/01 08:30	JSR	96-12-8		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	106-93-4		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	95-50-1		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	107-06-2		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	78-87-5		
1,3,5-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	108-67-8		
1,3-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	541-73-1		
1,3-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	142-28-9		
1,4-Dichlorobenzene	1.1	ug/l	1.0	1.0	02/02/01 08:30	JSR	106-46-7		
2,2-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	594-20-7		
2-Chloroethylvinyl ether	ND	ug/l	10.	1.0	02/02/01 08:30	JSR	110-75-8		
2-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	95-49-8		
4-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	106-43-4		
Benzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	74-83-9		
Carbon tetrachloride	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	75-00-3		
Chloroform	12.	ug/l	1.0	1.0	02/02/01 08:30	JSR	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	74-87-3		
cis-1,2-Dichloroethene	1.1	ug/l	1.0	1.0	02/02/01 08:30	JSR	156-59-2		
cis-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	10061-01-5		
Dibromochloromethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	124-48-1		
Dibromomethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	74-95-3		
Dichlorodifluoromethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	75-71-8		
Ethylbenzene	51.	ug/l	5.0	5.0	02/02/01 08:30	JSR	100-41-4	5	
Hexachloro-1,3-butadiene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	98-82-8		
m&p-Xylene	200	ug/l	6.5	5.0	02/02/01 08:30	JSR	7816-60-0	5	
Methylene chloride	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	75-09-2		
Naphthalene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	91-20-3		
n-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	104-51-8		

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
Phone: 913.599.5665  
Fax: 913.599.1759

Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113720 Project Sample Number: 6047808-005 Date Collected: 01/19/01 11:50  
Client Sample ID: PA-SW-03 Matrix: Water Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
n-Propylbenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	103-65-1		
o-Xylene	33.	ug/l	1.1	1.0	02/02/01 08:30	JSR	95-47-6		
p-Isopropyltoluene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	99-87-6		
sec-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	135-98-8		
Styrene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	100-42-5		
tert-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	98-06-6		
Tetrachloroethene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	127-18-4		
Toluene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	108-88-3		
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	156-60-5		
trans-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	10061-02-6		
Trichloroethene	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	75-69-4		
Vinyl chloride	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	75-01-4		
Acetone	33.	ug/l	10.	1.0	02/02/01 08:30	JSR	67-64-1		
2-Butanone (MEK)	ND	ug/l	10.	1.0	02/02/01 08:30	JSR	78-93-3		
2-Hexanone	ND	ug/l	10.	1.0	02/02/01 08:30	JSR	591-78-6		
4-Methyl-2-pantanone (MIBK)	ND	ug/l	10.	1.0	02/02/01 08:30	JSR	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	1.0	1.0	02/02/01 08:30	JSR	1634-04-4		
Toluene-d8 (S)	96	x		1.0	02/02/01 08:30	JSR	2037-26-5		
Dibromofluoromethane (S)	97	x		1.0	02/02/01 08:30	JSR			
4-Bromofluorobenzene (S)	103	x		1.0	02/02/01 08:30	JSR	460-00-4		
1,2-Dichloroethane-d4 (S)	102	x		1.0	02/02/01 08:30	JSR	17060-07-0		

#### GC/MS Semivolatiles

Semivolatile Organics by 8270	Method: EPA 8270		Prep Method: EPA 3520	
Phenol	35.	ug/l	13.	1.3 01/30/01 15:38 WAW 108-95-2
bis(2-Chloroethyl) ether	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 111-44-4
2-Chlorophenol	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 95-57-8
1,3-Dichlorobenzene	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 541-73-1
1,4-Dichlorobenzene	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 106-46-7
Benzyl alcohol	ND	ug/l	26.	1.3 01/30/01 15:38 WAW 100-51-6
1,2-Dichlorobenzene	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 95-50-1
2-Methylphenol (o-Cresol)	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 95-48-7
bis(2-Chloroisopropyl) ether	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 39638-32-9
4-Methylphenol (p-Cresol)	21.	ug/l	13.	1.3 01/30/01 15:38 WAW 106-44-5
N-Nitroso-di-n-propylamine	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 621-64-7
Hexachloroethane	ND	ug/l	13.	1.3 01/30/01 15:38 WAW 67-72-1

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113720 Project Sample Number: 6047808-005 Date Collected: 01/19/01 11:50  
Client Sample ID: PA-SW-03 Matrix: Water Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Nitrobenzene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	98-95-3		
Isophorone	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	78-59-1		
2-Nitrophenol	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	88-75-5		
2,4-Dimethylphenol	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	105-67-9		
Benzoic acid	130	ug/l	660	13.2	01/30/01 15:38	WAW	65-85-0	6.7	
bis(2-Chloroethoxy)methane	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	111-91-1		
2,4-Dichlorophenol	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	120-82-1		
Naphthalene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	91-20-3		
4-Chloroaniline	ND	ug/l	26.	1.3	01/30/01 15:38	WAW	106-47-8		
Hexachloro-1,3-butadiene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	26.	1.3	01/30/01 15:38	WAW	59-50-7		
2-Methylnaphthalene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	91-57-6		
Hexachlorocyclopentadiene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	77-47-4		
2,4,6-Trichlorophenol	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	88-06-2		
2,4,5-Trichlorophenol	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	95-95-4		
2-Chloronaphthalene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	91-58-7		
2-Nitroaniline	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	88-74-4		
Dimethylphthalate	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	131-11-3		
Acenaphthylene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	606-20-2		
3-Nitroaniline	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	99-09-2		
Acenaphthene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	83-32-9		
2,4-Dinitrophenol	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	51-28-5		
4-Nitrophenol	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	100-02-7		
Dibenzofuran	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	132-64-9		
2,4-Dinitrotoluene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	121-14-2		
Diethylphthalate	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	84-66-2		
4-Chlorophenylphenyl ether	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	7005-72-3		
Fluorene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	86-73-7		
4-Nitroaniline	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	100-01-6		
4,6-Dinitro-2-methylphenol	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	534-52-1		
N-Nitrosodiphenylamine	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	86-30-6		
4-Bromophenylphenyl ether	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	101-55-3		
Hexachlorobenzene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	118-74-1		
Pentachlorophenol	ND	ug/l	66.	1.3	01/30/01 15:38	WAW	87-86-5		
Phenanthrene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	85-01-8		
Anthracene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	120-12-7		

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113720	Project Sample Number:	6047808-005	Date Collected:	01/19/01 11:50
Client Sample ID:	PA-SW-03	Matrix:	Water	Date Received:	01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Di-n-butylphthalate	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	84-74-2		
Fluoranthene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	206-44-0		
Pyrene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	129-00-0		
Butylbenzylphthalate	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	26.	1.3	01/30/01 15:38	WAW	91-94-1		
Benzo(a)anthracene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	56-55-3		
Chrysene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	117-81-7		
Di-n-octylphthalate	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	207-08-9		
Benzo(a)pyrene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	13.	1.3	01/30/01 15:38	WAW	191-24-2		
Nitrobenzene-d5 (S)	87	%		1.0	01/30/01 15:38	WAW	4165-60-0		
2-Fluorobiphenyl (S)	85	%		1.0	01/30/01 15:38	WAW	321-60-8		
Terphenyl-d14 (S)	97	%		1.0	01/30/01 15:38	WAW	1718-51-0		
Phenol-d6 (S)	86	%		1.0	01/30/01 15:38	WAW	13127-88-3		
2-Fluorophenol (S)	73	%		1.0	01/30/01 15:38	WAW	367-12-4		
2,4,6-Tribromophenol (S)	98	%		1.0	01/30/01 15:38	WAW	118-79-6		
Date Extracted					01/23/01				

## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113746	Project Sample Number:	6047808-006	Date Collected:	01/19/01 13:00
Client Sample ID:	PA-FB	Matrix:	Water	Date Received:	01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
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#### GC Volatiles

	Method: EPA 8021/0A1			Prep Method: EPA 5030			
TPH Gas/BTEX	ND	ug/l	500.	1.0	01/26/01 22:17	SHF	
Gasoline Range Hydrocarbons	ND	ug/l	2.00	1.0	01/26/01 22:17	SHF	71-43-2
Benzene	ND	ug/l	2.00	1.0	01/26/01 22:17	SHF	108-88-3
Toluene	ND	ug/l	2.00	1.0	01/26/01 22:17	SHF	100-41-4
Ethylbenzene	ND	ug/l	2.00	1.0	01/26/01 22:17	SHF	1330-20-7
Xylene (Total)	ND	ug/l	5.00	1.0	01/26/01 22:17	SHF	2164-17-2
a,a,a-Trifluorotoluene (S)	100	%		1.0	01/26/01 22:17	SHF	460-00-4
4-Bromofluorobenzene (S)	90	%		1.0	01/26/01 22:17	SHF	
Bromochlorobenzene (S)	106	%		1.0	01/26/01 22:17	SHF	

#### GC Semivolatiles

	Method: OA2			Prep Method: OA2			
Total Extractable Hydrocarbons	ND	mg/l	0.40	1.0	01/23/01 19:10	TMD	
Mineral Spirits	ND	mg/l	0.40	1.0	01/23/01 19:10	TMD	
Jet Fuel	ND	mg/l	0.40	1.0	01/23/01 19:10	TMD	
Kerosene	ND	mg/l	0.40	1.0	01/23/01 19:10	TMD	
Diesel Fuel	ND	mg/l	0.40	1.0	01/23/01 19:10	TMD	68334-30-5
Fuel Oil	ND	mg/l	0.40	1.0	01/23/01 19:10	TMD	68334-30-5
Motor Oil	ND	mg/l	0.40	1.0	01/23/01 19:10	TMD	
p-Terphenyl (S)	95	%		1.0	01/23/01 19:10	TMD	92-94-4
n-Tetracosane (S)	103	%		1.0	01/23/01 19:10	TMD	646-31-1
Date Extracted					01/23/01		

#### GC/MS Volatiles

	Method: EPA 8260			Prep Method: EPA 8260			
GC/MS VOCs by 8260 (Low Level)	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	630-20-6
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	71-55-6
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	79-34-5
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	79-00-5
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-34-3
1,1-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-35-4
1,1-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	563-58-6
1,1-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	87-61-6
1,2,3-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	96-18-4
1,2,3-Trichloropropane	ND	ug/l	2.5				

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No: 604113746      Project Sample Number: 6047808-006  
 Client Sample ID: PA-FB      Matrix: Water

Date Collected: 01/19/01 13:00  
 Date Received: 01/20/01 11:25

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
1,2,4-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	120-82-1		
1,2,4-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	95-63-6		
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	1.0	02/02/01 18:36	DJE	96-12-8		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	106-93-4		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	95-50-1		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	107-06-2		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	78-87-5		
1,3,5-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	108-67-8		
1,3-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	541-73-1		
1,3-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	142-28-9		
1,4-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	106-46-7		
2,2-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	594-20-7		
2-Chloroethylvinyl ether	ND	ug/l	10.	1.0	02/02/01 18:36	DJE	110-75-8		
2-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	95-49-8		
4-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	106-43-4		
Benzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	74-83-9		
Carbon tetrachloride	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	74-87-3		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	156-59-2		
cis-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	10061-01-5		
Dibromochloromethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	124-48-1		
Dibromomethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	74-95-3		
Dichlorodifluoromethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-71-8		
Ethylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	98-82-8		
m&p-Xylene	ND	ug/l	1.3	1.0	02/02/01 18:36	DJE	7816-60-0		
Methylene chloride	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-09-2		
Naphthalene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	91-20-3		
n-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	104-51-8		

Date: 02/06/01

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113746	Project Sample Number:	6047808-006	Date Collected:	01/19/01 13:00				
Client Sample ID:	PA-FB	Matrix:	Water	Date Received:	01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
n-Propylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	103-65-1		
o-Xylene	ND	ug/l	1.1	1.0	02/02/01 18:36	DJE	95-47-6		
p-Isopropyltoluene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	99-87-6		
sec-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	135-98-8		
Styrene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	100-42-5		
tert-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	98-06-6		
Tetrachloroethene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	127-18-4		
Toluene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	108-88-3		
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	156-60-5		
trans-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	10061-02-6		
Trichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-69-4		
Vinyl chloride	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	75-01-4		
Acetone	ND	ug/l	10.	1.0	02/02/01 18:36	DJE	67-64-1		
2-Butanone (MEK)	ND	ug/l	10.	1.0	02/02/01 18:36	DJE	78-93-3		
2-Hexanone	ND	ug/l	10.	1.0	02/02/01 18:36	DJE	591-78-6		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	10.	1.0	02/02/01 18:36	DJE	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	1.0	1.0	02/02/01 18:36	DJE	1634-04-4		
Toluene-d8 (S)	99	%		1.0	02/02/01 18:36	DJE	2037-26-5		
Dibromofluoromethane (S)	93	%		1.0	02/02/01 18:36	DJE			
4-Bromofluorobenzene (S)	101	%		1.0	02/02/01 18:36	DJE	460-00-4		
1,2-Dichloroethane-d4 (S)	89	%		1.0	02/02/01 18:36	DJE	17060-07-0		

#### GC/MS Semivolatiles

Semivolatile Organics by 8270	Method: EPA 8270		Prep Method: EPA 3520	
Phenol	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 108-95-2
bis(2-Chloroethyl) ether	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 111-44-4
2-Chloropheno1	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 95-57-8
1,3-Dichlorobenzene	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 541-73-1
1,4-Dichlorobenzene	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 106-46-7
Benzyl alcohol	ND	ug/l	26.	1.3 01/29/01 16:38 WAW 100-51-6
1,2-Dichlorobenzene	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 95-50-1
2-Methylphenol (o-Cresol)	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 95-48-7
bis(2-Chloroisopropyl) ether	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 39638-32-9
4-Methylphenol (p-Cresol)	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 106-44-5
N-Nitroso-di-n-propylamine	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 621-64-7
Hexachloroethane	ND	ug/l	13.	1.3 01/29/01 16:38 WAW 67-72-1

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113746	Project Sample Number:	6047808-006	Matrix:	Water	Date Collected:	01/19/01 13:00	Date Received:	01/20/01 11:25
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Nitrobenzene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	98-95-3		
Isophorone	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	78-59-1		
2-Nitrophenol	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	88-75-5		
2,4-Dimethylphenol	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	105-67-9		
Benzoic acid	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	65-85-0		
bis(2-Chloroethoxy)methane	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	111-91-1		
2,4-Dichlorophenol	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	120-82-1		
Naphthalene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	91-20-3		
4-Chloroaniline	ND	ug/l	26.	1.3	01/29/01 16:38	WAW	106-47-8		
Hexachloro-1,3-butadiene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	26.	1.3	01/29/01 16:38	WAW	59-50-7		
2-Methylnaphthalene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	91-57-6		
Hexachlorocyclopentadiene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	77-47-4		
2,4,6-Trichlorophenol	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	88-06-2		
2,4,5-Trichlorophenol	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	95-95-4		
2-Chloronaphthalene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	91-58-7		
2-Nitroaniline	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	88-74-4		
Dimethylphthalate	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	131-11-3		
Acenaphthylene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	606-20-2		
3-Nitroaniline	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	99-09-2		
Acenaphthene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	83-32-9		
2,4-Dinitrophenol	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	51-28-5		
4-Nitrophenol	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	100-02-7		
Dibenzofuran	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	132-64-9		
2,4-Dinitrotoluene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	121-14-2		
Diethylphthalate	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	84-66-2		
4-Chlorophenylphenyl ether	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	7005-72-3		
Fluorene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	86-73-7		
4-Nitroaniline	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	100-01-6		
4,6-Dinitro-2-methylphenol	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	534-52-1		
N-Nitrosodiphenylamine	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	86-30-6		
4-Bromophenylphenyl ether	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	101-55-3		
Hexachlorobenzene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	118-74-1		
Pentachlorophenol	ND	ug/l	66.	1.3	01/29/01 16:38	WAW	87-86-5		
Phenanthrene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	85-01-8		
Anthracene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	120-12-7		

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113746	Project Sample Number:	6047808-006	Matrix:	Water	Date Collected:	01/19/01 13:00		
Client Sample ID:	PA-FB					Date Received:	01/20/01 11:25		
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Di-n-butylphthalate	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	84-74-2		
Fluoranthene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	206-44-0		
Pyrene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	129-00-0		
Butylbenzylphthalate	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	26.	1.3	01/29/01 16:38	WAW	91-94-1		
Benzo(a)anthracene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	56-55-3		
Chrysene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	117-81-7		
Di-n-octylphthalate	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	207-08-9		
Benzo(a)pyrene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	13.	1.3	01/29/01 16:38	WAW	191-24-2		
Nitrobenzene-d5 (S)	82	%		1.0	01/29/01 16:38	WAW	4165-60-0		
2-Fluorobiphenyl (S)	86	%		1.0	01/29/01 16:38	WAW	321-60-8		
Terphenyl-d14 (S)	81	%		1.0	01/29/01 16:38	WAW	1718-51-0		
Phenol-d6 (S)	77	%		1.0	01/29/01 16:38	WAW	13127-88-3		
2-Fluorophenol (S)	82	%		1.0	01/29/01 16:38	WAW	367-12-4		
2,4,6-Tribromophenol (S)	100	%		1.0	01/29/01 16:38	WAW	118-79-6		
Date Extracted					01/23/01				

## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113787	Project Sample Number:	6047808-007	Date Collected:	01/19/01 14:00				
Client Sample ID:	PA-TB	Matrix:	Water	Date Received:	01/20/01 11:25				
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
<b>GC/MS Volatiles</b>									
GC/MS VOCs by 8260 (Low Level)									
		Method:	EPA 8260			Prep Method:	EPA 8260		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	630-20-6		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	79-34-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	79-00-5		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-34-3		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-35-4		
1,1-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	563-58-6		
1,2,3-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	87-61-6		
1,2,3-Trichloropropane	ND	ug/l	2.5	1.0	02/02/01 18:03	DJE	96-18-4		
1,2,4-Trichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	120-82-1		
1,2,4-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	95-63-6		
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	1.0	02/02/01 18:03	DJE	96-12-8		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	106-93-4		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	95-50-1		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	107-06-2		
1,2-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	78-87-5		
1,3,5-Trimethylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	108-67-8		
1,3-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	541-73-1		
1,3-Dichloropropane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	142-28-9		
1,4-Dichlorobenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	106-46-7		
2,2-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	594-20-7		
2-Chloroethylvinyl ether	ND	ug/l	10.	1.0	02/02/01 18:03	DJE	110-75-8		
2-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	95-49-8		
4-Chlorotoluene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	106-43-4		
Benzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	74-83-9		
Carbon tetrachloride	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	56-23-5		
Chlorobenzene	2.1	ug/l	1.0	1.0	02/02/01 18:03	DJE	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	67-66-3		

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Lab Sample No:	604113787	Project Sample Number:	6047808-007	Matrix:	Water	Date Collected:	01/19/01 14:00		
Client Sample ID:	PA-TB					Date Received:	01/20/01 11:25		
Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
Chloromethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	74-87-3		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	156-59-2		
cis-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	10061-01-5		
Dibromochloromethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	124-48-1		
Dibromomethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	74-95-3		
Dichlorodifluoromethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-71-8		
Ethylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	87-68-3		
Isopropylbenzene (Cumene)	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	98-82-8		
m,p-Xylene	ND	ug/l	1.3	1.0	02/02/01 18:03	DJE	7816-60-0		
Methylene chloride	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-09-2		
Naphthalene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	91-20-3		
n-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	104-51-8		
n-Propylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	103-65-1		
o-Xylene	ND	ug/l	1.1	1.0	02/02/01 18:03	DJE	95-47-6		
p-Isopropyltoluene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	99-87-6		
sec-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	135-98-8		
Styrene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	100-42-5		
tert-Butylbenzene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	98-06-6		
Tetrachloroethene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	127-18-4		
Toluene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	108-88-3		
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	156-60-5		
trans-1,3-Dichloropropene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	10061-02-6		
Trichloroethene	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-69-4		
Vinyl chloride	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	75-01-4		
Acetone	ND	ug/l	10.	1.0	02/02/01 18:03	DJE	67-64-1		
2-Butanone (MEK)	ND	ug/l	10.	1.0	02/02/01 18:03	DJE	78-93-3		
2-Hexanone	ND	ug/l	10.	1.0	02/02/01 18:03	DJE	591-78-6		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	10.	1.0	02/02/01 18:03	DJE	108-10-1		
Methyl-tert-butyl ether	ND	ug/l	1.0	1.0	02/02/01 18:03	DJE	1634-04-4		
Toluene-d8 (S)	97	%		1.0	02/02/01 18:03	DJE	2037-26-5		
Dibromofluoromethane (S)	95	%		1.0	02/02/01 18:03	DJE			
4-Bromofluorobenzene (S)	102	%		1.0	02/02/01 18:03	DJE	460-00-4		
1,2-Dichloroethane-d4 (S)	90	%		1.0	02/02/01 18:03	DJE	17060-07-0		

## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

PARAMETER FOOTNOTES

- ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
(S) Surrogate  
[1] Result from a 1:50 dilution on 1-29-01.  
[2] Result from a 1:500 dilution on 1-29-01.  
[3] Elevated quantitation limits resulting from a dilution.  
[4] Analyte is found in the associated blank as well as in the sample (CLP B-Flag).  
[5] This result is from a 1:5 dilution on 2/2/2001.  
[6] Detected but below the PRL; therefore, result is an estimated concentration (CLP J-Flag).  
[7] Analyzed on 1/29/01 at an additional dilution of 1:10.

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## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

QC Batch: 97754

QC Batch Method: TPH GRO/BTEX

Analysis Method: EPA 8021/0A1

Analysis Description: TPH Gas/BTEX

Associated Lab Samples:

604113589

604113662

METHOD BLANK: 604117762

Associated Lab Samples:

604113589

604113662

Method  
Blank

Result

PRL

Footnotes

Gasoline Range Hydrocarbons

ug/kg

ND

5000

Benzene

ug/kg

ND

50

Toluene

ug/kg

ND

50

Ethylbenzene

ug/kg

ND

50

Xylene (Total)

ug/kg

ND

130

a,a,a-Trifluorotoluene (S)

%

98

4-Bromofluorobenzene (S)

%

86

Bromochlorobenzene (S)

%

98

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 604117887 604117895

Matrix

Matrix

Spike

Spike

Sp. Dup.

Dup

Parameter

Units

604115196

Spike

Conc.

Result

% Rec

Result

% Rec

RPD

Footnotes

Gasoline Range Hydrocarbons

ug/kg

27410

99210

140000

114

143700

117

3

Benzene

ug/kg

0

992.10

970.9

98

1051

106

8

Toluene

ug/kg

35.03

992.10

966.1

94

1036

101

7

Ethylbenzene

ug/kg

55.46

992.10

1053

101

1105

106

5

Xylene (Total)

ug/kg

69.05

2976.00

2899

95

3193

105

10

a,a,a-Trifluorotoluene (S)

92

95

4-Bromofluorobenzene (S)

113

109

Bromochlorobenzene (S)

108

115

LABORATORY CONTROL SAMPLE: 604117770

Spike

LCS

Spike

Parameter

Units

Conc.

Result

% Rec

Footnotes

Gasoline Range Hydrocarbons

ug/kg

100000

119400

119

Benzene

ug/kg

1000

1160

116

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

LABORATORY CONTROL SAMPLE: 604117770

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Toluene	ug/kg	1000	1065	107	
Ethylbenzene	ug/kg	1000	1024	102	
Xylene (Total)	ug/kg	3000	2958	99	
a,a,a-Trifluorotoluene (S)				100	
4-Bromofluorobenzene (S)				106	

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QC Batch: 97771 QC Batch Method: EPA 5030  
Analysis Method: EPA 8021/0A1 Analysis Description: TPH Gas/BTEX  
Associated Lab Samples: 604113548 604113621 604113720 604113746

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604118075

Associated Lab Samples:

604113548 604113621 604113720 604113746  
Method  
Blank

Parameter	Units	Result	PRL	Footnotes
Gasoline Range Hydrocarbons	ug/l	ND	500	
Benzene	ug/l	ND	2	
Toluene	ug/l	ND	2	
Ethylbenzene	ug/l	ND	2	
Xylene (Total)	ug/l	ND	5	
a,a,a-Trifluorotoluene (S)	%	102		
4-Bromofluorobenzene (S)	%	105		
Bromochlorobenzene (S)	%	92		

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 604122267 604122275

Parameter	Units	604111369	Spike Conc.	Matrix Spike Result	Matrix % Rec	Spike Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Gasoline Range Hydrocarbons	ug/l	22.36	2000.00	2059	102	1710	84	19	1
Benzene	ug/l	0	20.00	22.42	112	22.15	111		1
Toluene	ug/l	0.05398	20.00	20.80	104	20.35	102		2
Ethylbenzene	ug/l	0.1331	20.00	20.68	103	20.36	101		2
Xylene (Total)	ug/l	0.3248	60.00	62.69	104	62.15	103		1
a,a,a-Trifluorotoluene (S)					96		96		
4-Bromofluorobenzene (S)					107		97		
Bromochlorobenzene (S)					104		99		

LABORATORY CONTROL SAMPLE: 604118083

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Gasoline Range Hydrocarbons	ug/l	2000	2152	108	
Benzene	ug/l	20	22.00	110	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

LABORATORY CONTROL SAMPLE: 604118083

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Toluene	ug/l	20	20.67	103	
Ethylbenzene	ug/l	20	20.46	102	
Xylene (Total)	ug/l	60	61.95	103	
a,a,a-Trifluorotoluene (S)				99	
4-Bromofluorobenzene (S)				106	
Bromochlorobenzene (S)				97	

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QC Batch: 97732

Analysis Method: EPA 8260

Associated Lab Samples:

604113662

QC Batch Method: EPA 8260

Analysis Description: GC/MS 8260 Soils by 5035

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604116871

Associated Lab Samples:

604113662

Parameter	Units	Method Blank Result	PRL	Footnotes
1,1,1,2-Tetrachloroethane	ug/kg	ND	5	
1,1,1-Trichloroethane	ug/kg	ND	5	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5	
1,1,2-Trichloroethane	ug/kg	ND	5	
1,1-Dichloroethane	ug/kg	ND	5	
1,1-Dichloroethene	ug/kg	ND	5	
1,1-Dichloropropene	ug/kg	ND	5	
1,2,3-Trichlorobenzene	ug/kg	ND	5	
1,2,3-Trichloropropane	ug/kg	ND	5	
1,2,4-Trichlorobenzene	ug/kg	ND	5	
1,2,4-Trimethylbenzene	ug/kg	ND	5	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5	
1,2-Dibromoethane (EDB)	ug/kg	ND	5	
1,2-Dichlorobenzene	ug/kg	ND	5	
1,2-Dichloroethane	ug/kg	ND	5	
1,2-Dichloropropane	ug/kg	ND	5	
1,3,5-Trimethylbenzene	ug/kg	ND	5	
1,3-Dichlorobenzene	ug/kg	ND	5	
1,3-Dichloropropane	ug/kg	ND	5	
1,4-Dichlorobenzene	ug/kg	ND	5	
2,2-Dichloropropane	ug/kg	ND	5	
2-Chloroethylvinyl ether	ug/kg	ND	5	
2-Chlorotoluene	ug/kg	ND	5	
4-Chlorotoluene	ug/kg	ND	5	
Benzene	ug/kg	ND	5	
Bromobenzene	ug/kg	ND	5	
Bromochloromethane	ug/kg	ND	5	
Bromodichloromethane	ug/kg	ND	5	
Bromoform	ug/kg	ND	5	
Bromomethane	ug/kg	ND	5	

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Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604116871

Associated Lab Samples:

604113662

Parameter	Units	Method Blank Result	PRL	Footnotes
Carbon tetrachloride	ug/kg	ND	5	
Chlorobenzene	ug/kg	ND	5	
Chloroethane	ug/kg	ND	5	
Chloroform	ug/kg	ND	5	
Chloromethane	ug/kg	ND	5	
cis-1,2-Dichloroethene	ug/kg	ND	5	
cis-1,3-Dichloropropene	ug/kg	ND	5	
Dibromochloromethane	ug/kg	ND	5	
Dibromomethane	ug/kg	ND	5	
Dichlorodifluoromethane	ug/kg	ND	5	
Ethylbenzene	ug/kg	ND	5	
Hexachloro-1,3-butadiene	ug/kg	ND	5	
Isopropylbenzene (Cumene)	ug/kg	ND	5	
m&p-Xylene	ug/kg	ND	5	
Methylene chloride	ug/kg	ND	5	
Naphthalene	ug/kg	ND	5	
n-Butylbenzene	ug/kg	ND	5	
n-Propylbenzene	ug/kg	ND	5	
o-Xylene	ug/kg	ND	5	
p-Isopropyltoluene	ug/kg	ND	5	
sec-Butylbenzene	ug/kg	ND	5	
Styrene	ug/kg	ND	5	
tert-Butylbenzene	ug/kg	ND	5	
Tetrachloroethene	ug/kg	ND	5	
Toluene	ug/kg	ND	5	
trans-1,2-Dichloroethene	ug/kg	ND	5	
trans-1,3-Dichloropropene	ug/kg	ND	5	
Trichloroethene	ug/kg	ND	5	
Trichlorofluoromethane	ug/kg	ND	5	
Vinyl chloride	ug/kg	ND	5	
Acetone	ug/kg	29.	20	
2-Butanone (MEK)	ug/kg	ND	10	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	10	
2-Hexanone	ug/kg	ND	100	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604116871

Associated Lab Samples:

604113662

Parameter	Units	Method Blank Result	PRL	Footnotes
Methyl-tert-butyl ether	ug/kg	ND	5	
Dibromofluoromethane (S)	%	99		
Toluene-d8 (S)	%	101		
4-Bromofluorobenzene (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	102		

LABORATORY CONTROL SAMPLE: 604116889

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
1,1,1,2-Tetrachloroethane	ug/kg	50	45.05	90	
1,1,1-Trichloroethane	ug/kg	50	45.46	91	
1,1,2,2-Tetrachloroethane	ug/kg	50	47.78	96	
1,1,2-Trichloroethane	ug/kg	50	48.46	97	
1,1-Dichloroethane	ug/kg	50	45.75	92	
1,1-Dichloroethene	ug/kg	50	43.28	87	
1,1-Dichloropropene	ug/kg	50	59.53	119	
1,2,3-Trichlorobenzene	ug/kg	50	43.55	87	
1,2,3-Trichloropropane	ug/kg	50	50.96	102	
1,2,4-Trichlorobenzene	ug/kg	50	41.86	84	
1,2,4-Trimethylbenzene	ug/kg	50	43.38	87	
1,2-Dibromo-3-chloropropane	ug/kg	50	51.06	102	
1,2-Dibromoethane (EDB)	ug/kg	50	48.30	97	
1,2-Dichlorobenzene	ug/kg	50	43.91	88	
1,2-Dichloroethane	ug/kg	50	47.07	94	
1,2-Dichloropropene	ug/kg	50	45.47	91	
1,3,5-Trimethylbenzene	ug/kg	50	42.77	86	
1,3-Dichlorobenzene	ug/kg	50	42.27	84	
1,3-Dichloropropene	ug/kg	50	46.65	93	
1,4-Dichlorobenzene	ug/kg	50	41.90	84	
2,2-Dichloropropane	ug/kg	50	44.69	89	
2-Chlorotoluene	ug/kg	50	42.83	86	
4-Chlorotoluene	ug/kg	50	43.28	87	

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

LABORATORY CONTROL SAMPLE: 604116889

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/kg	50	44.44	89	
Bromobenzene	ug/kg	50	44.07	88	
Bromochloromethane	ug/kg	50	45.53	91	
Bromodichloromethane	ug/kg	50	46.06	92	
Bromoform	ug/kg	50	47.36	95	
Bromomethane	ug/kg	50	41.57	83	
Carbon tetrachloride	ug/kg	50	44.21	88	
Chlorobenzene	ug/kg	50	44.19	88	
Chloroethane	ug/kg	50	37.82	76	
Chloroform	ug/kg	50	45.74	92	
Chloromethane	ug/kg	50	46.64	93	
cis-1,2-Dichloroethene	ug/kg	50	45.53	91	
cis-1,3-Dichloropropene	ug/kg	50	45.55	91	
Dibromochloromethane	ug/kg	50	45.46	91	
Dibromomethane	ug/kg	50	46.66	93	
Dichlorodifluoromethane	ug/kg	50	40.17	80	
Ethylbenzene	ug/kg	50	43.59	87	
Hexachloro-1,3-butadiene	ug/kg	50	37.96	76	
Isopropylbenzene (Cumene)	ug/kg	50	40.98	82	
m&p-Xylene	ug/kg	100	85.19	85	
Methylene chloride	ug/kg	50	45.24	90	
Naphthalene	ug/kg	50	49.47	99	
n-Butylbenzene	ug/kg	50	40.59	81	
n-Propylbenzene	ug/kg	50	42.15	84	
o-Xylene	ug/kg	50	43.64	87	
p-Isopropyltoluene	ug/kg	50	40.33	81	
sec-Butylbenzene	ug/kg	50	40.86	82	
Styrene	ug/kg	50	44.07	88	
tert-Butylbenzene	ug/kg	50	42.98	86	
Tetrachloroethene	ug/kg	50	42.90	86	
Toluene	ug/kg	50	44.17	88	
trans-1,2-Dichloroethene	ug/kg	50	44.30	89	
trans-1,3-Dichloropropene	ug/kg	50	47.35	95	
Trichloroethene	ug/kg	50	45.83	92	
Trichlorofluoromethane	ug/kg	50	46.43	93	
Vinyl chloride	ug/kg	50	43.27	86	
Dibromofluoromethane (S)	ug/kg			99	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

LABORATORY CONTROL SAMPLE: 604116889

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Toluene-d8 (S)				100	
4-Bromofluorobenzene (S)				100	
1,2-Dichloroethane-d4 (S)				102	

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QC Batch: 98020  
Analysis Method: EPA 8260  
Associated Lab Samples:

QC Batch Method: EPA 8260

Analysis Description: GC/MS VOCs by 8260 (Low Level)

604113548

604113621

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604131888  
Associated Lab Samples:

604113548    604113621    604113720

Method  
Blank

Parameter	Units	Result	PRL	Footnotes
1,1,1,2-Tetrachloroethane	ug/l	ND	1	
1,1,1-Trichloroethane	ug/l	ND	1	
1,1,2,2-Tetrachloroethane	ug/l	ND	1	
1,1,2-Trichloroethane	ug/l	ND	1	
1,1-Dichloroethane	ug/l	ND	1	
1,1-Dichloroethene	ug/l	ND	1	
1,1-Dichloropropene	ug/l	ND	1	
1,2,3-Trichlorobenzene	ug/l	ND	1	
1,2,3-Trichloropropane	ug/l	ND	2.5	
1,2,4-Trichlorobenzene	ug/l	ND	1	
1,2,4-Trimethylbenzene	ug/l	ND	1	
1,2-Dibromo-3-chloropropane	ug/l	ND	2.5	
1,2-Dibromoethane (EDB)	ug/l	ND	1	
1,2-Dichlorobenzene	ug/l	ND	1	
1,2-Dichloroethane	ug/l	ND	1	
1,2-Dichloropropene	ug/l	ND	1	
1,3,5-Trimethylbenzene	ug/l	ND	1	
1,3-Dichlorobenzene	ug/l	ND	1	
1,3-Dichloropropane	ug/l	ND	1	
1,4-Dichlorobenzene	ug/l	ND	1	
2,2-Dichloropropane	ug/l	ND	1	
2-Chloroethylvinyl ether	ug/l	ND	10	
2-Chlorotoluene	ug/l	ND	1	
4-Chlorotoluene	ug/l	ND	1	
Benzene	ug/l	ND	1	
Bromobenzene	ug/l	ND	1	
Bromochloromethane	ug/l	ND	1	
Bromodichloromethane	ug/l	ND	1	
Bromoform	ug/l	ND	1	
Bromomethane	ug/l	ND	1	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604131888

Associated Lab Samples:

604113548    604113621    604113720

Parameter	Units	Method Blank Result	PRL	Footnotes
Carbon tetrachloride	ug/l	ND	1	
Chlorobenzene	ug/l	ND	1	
Chloroethane	ug/l	ND	1	
Chloroform	ug/l	ND	1	
Chloromethane	ug/l	ND	1	
cis-1,2-Dichloroethene	ug/l	ND	1	
cis-1,3-Dichloropropene	ug/l	ND	1	
Dibromochloromethane	ug/l	ND	1	
Dibromomethane	ug/l	ND	1	
Dichlorodifluoromethane	ug/l	ND	1	
Ethylbenzene	ug/l	ND	1	
Hexachloro-1,3-butadiene	ug/l	ND	1	
Isopropylbenzene (Cumene)	ug/l	ND	1	
m&p-Xylene	ug/l	ND	1.3	
Methylene chloride	ug/l	ND	1	
Naphthalene	ug/l	ND	1	
n-Butylbenzene	ug/l	ND	1	
n-Propylbenzene	ug/l	ND	1	
o-Xylene	ug/l	ND	1.1	
p-Isopropyltoluene	ug/l	ND	1	
sec-Butylbenzene	ug/l	ND	1	
Styrene	ug/l	ND	1	
tert-Butylbenzene	ug/l	ND	1	
Tetrachloroethene	ug/l	ND	1	
Toluene	ug/l	ND	1	
trans-1,2-Dichloroethene	ug/l	ND	1	
trans-1,3-Dichloropropene	ug/l	ND	1	
Trichloroethene	ug/l	ND	1	
Trichlorofluoromethane	ug/l	ND	1	
Vinyl chloride	ug/l	ND	1	
Acetone	ug/l	ND	10	
2-Butanone (MEK)	ug/l	ND	10	
2-Hexanone	ug/l	ND	10	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	10	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604131888

Associated Lab Samples:

604113548 604113621 604113720

Method

Blank

Result

PRL

Footnotes

Methyl-tert-butyl ether

ug/l

ND

1

Toluene-d8 (S)

%

102

Dibromofluoromethane (S)

%

101

4-Bromofluorobenzene (S)

%

107

1,2-Dichloroethane-d4 (S)

%

97

METHOD BLANK: 604136028

Associated Lab Samples:

604113746 604113787

Method

Blank

Result

PRL

Footnotes

1,1,1,2-Tetrachloroethane

ug/l

ND

1

1,1,1-Trichloroethane

ug/l

ND

1

1,1,2,2-Tetrachloroethane

ug/l

ND

1

1,1,2-Trichloroethane

ug/l

ND

1

1,1-Dichloroethane

ug/l

ND

1

1,1-Dichloroethene

ug/l

ND

1

1,1-Dichloropropene

ug/l

ND

1

1,2,3-Trichlorobenzene

ug/l

ND

1

1,2,3-Trichloropropane

ug/l

ND

2.5

1,2,4-Trichlorobenzene

ug/l

ND

1

1,2,4-Trimethylbenzene

ug/l

ND

1

1,2-Dibromo-3-chloropropane

ug/l

ND

2.5

1,2-Dibromoethane (EDB)

ug/l

ND

1

1,2-Dichlorobenzene

ug/l

ND

1

1,2-Dichloroethane

ug/l

ND

1

1,2-Dichloropropane

ug/l

ND

1

1,3,5-Trimethylbenzene

ug/l

ND

1

1,3-Dichlorobenzene

ug/l

ND

1

1,3-Dichloropropane

ug/l

ND

1

1,4-Dichlorobenzene

ug/l

ND

1

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Phone: 913.599.5665  
Fax: 913.599.1759

Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604136028

Associated Lab Samples:

Parameter	Units	Method Blank Result	PRL	Footnotes
2,2-Dichloropropane	ug/l	ND	1	
2-Chloroethylvinyl ether	ug/l	ND	10	
2-Chlorotoluene	ug/l	ND	1	
4-Chlorotoluene	ug/l	ND	1	
Benzene	ug/l	ND	1	
Bromobenzene	ug/l	ND	1	
Bromochloromethane	ug/l	ND	1	
Bromodichloromethane	ug/l	ND	1	
Bromoform	ug/l	ND	1	
Bromomethane	ug/l	ND	1	
Carbon tetrachloride	ug/l	ND	1	
Chlorobenzene	ug/l	1.0	1	
Chloroethane	ug/l	ND	1	
Chloroform	ug/l	ND	1	
Chloromethane	ug/l	ND	1	
cis-1,2-Dichloroethene	ug/l	ND	1	
cis-1,3-Dichloropropene	ug/l	ND	1	
Dibromochloromethane	ug/l	ND	1	
Dibromomethane	ug/l	ND	1	
Dichlorodifluoromethane	ug/l	ND	1	
Ethylbenzene	ug/l	ND	1	
Hexachloro-1,3-butadiene	ug/l	ND	1	
Isopropylbenzene (Cumene)	ug/l	ND	1	
m&p-Xylene	ug/l	ND	1.3	
Methylene chloride	ug/l	ND	1	
Naphthalene	ug/l	ND	1	
n-Butylbenzene	ug/l	ND	1	
n-Propylbenzene	ug/l	ND	1	
o-Xylene	ug/l	ND	1.1	
p-Isopropyltoluene	ug/l	ND	1	
sec-Butylbenzene	ug/l	ND	1	
Styrene	ug/l	ND	1	
tert-Butylbenzene	ug/l	ND	1	
Tetrachloroethene	ug/l	ND	1	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Pace Analytical Services, Inc.  
9608 Loiret Blvd.  
Lenexa, KS 66219  
Phone: 913.599.5665  
Fax: 913.599.1759

Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604136028

Associated Lab Samples:

604113746    604113787

Method  
Blank

Result

PRL

Footnotes

Parameter	Units	Method Blank	Result	PRL	Footnotes
Toluene	ug/l	ND	1		
trans-1,2-Dichloroethene	ug/l	ND	1		
trans-1,3-Dichloropropene	ug/l	ND	1		
Trichloroethene	ug/l	ND	1		
Trichlorofluoromethane	ug/l	ND	1		
Vinyl chloride	ug/l	ND	1		
Acetone	ug/l	ND	10		
2-Butanone (MEK)	ug/l	ND	10		
2-Hexanone	ug/l	ND	10		
4-Methyl-2-pentanone (MIBK)	ug/l	ND	10		
Methyl-tert-butyl ether	ug/l	ND	1		
Toluene-d8 (S)	%	98			
Dibromofluoromethane (S)	%	93			
4-Bromofluorobenzene (S)	%	101			
1,2-Dichloroethane-d4 (S)	%	88			

LABORATORY CONTROL SAMPLE: 604126649

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
1,1,1,2-Tetrachloroethane	ug/l	40	37.15	93	
1,1,1-Trichloroethane	ug/l	40	39.47	99	
1,1,2,2-Tetrachloroethane	ug/l	40	34.61	86	
1,1,2-Trichloroethane	ug/l	40	37.36	93	
1,1-Dichloroethane	ug/l	40	37.81	94	
1,1-Dichloroethene	ug/l	40	39.29	98	
1,1-Dichloropropene	ug/l	40	40.13	100	
1,2,3-Trichlorobenzene	ug/l	40	36.81	92	
1,2,3-Trichloropropane	ug/l	40	35.68	89	
1,2,4-Trichlorobenzene	ug/l	40	35.96	90	
1,2,4-Trimethylbenzene	ug/l	40	35.47	89	
1,2-Dibromo-3-chloropropane	ug/l	40	38.82	97	
1,2-Dibromoethane (EDB)	ug/l	40	36.98	92	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

LABORATORY CONTROL SAMPLE: 604126649

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
1,2-Dichlorobenzene	ug/l	40	35.33	88	
1,2-Dichloroethane	ug/l	40	37.44	94	
1,2-Dichloropropane	ug/l	40	36.92	92	
1,3,5-Trimethylbenzene	ug/l	40	35.74	89	
1,3-Dichlorobenzene	ug/l	40	35.10	88	
1,3-Dichloropropane	ug/l	40	36.33	91	
1,4-Dichlorobenzene	ug/l	40	34.88	87	
2,2-Dichloropropane	ug/l	40	36.52	91	
2-Chlorotoluene	ug/l	40	35.13	88	
4-Chlorotoluene	ug/l	40	34.85	87	
Benzene	ug/l	40	36.55	91	
Bromobenzene	ug/l	40	36.29	91	
Bromochloromethane	ug/l	40	37.74	94	
Bromodichloromethane	ug/l	40	37.85	95	
Bromoform	ug/l	40	39.24	98	
Bromomethane	ug/l	40	42.76	107	
Carbon tetrachloride	ug/l	40	41.24	103	
Chlorobenzene	ug/l	40	35.00	88	
Chloroethane	ug/l	40	37.05	93	
Chloroform	ug/l	40	39.66	99	
Chloromethane	ug/l	40	37.29	93	
cis-1,2-Dichloroethene	ug/l	40	36.32	91	
cis-1,3-Dichloropropene	ug/l	40	37.96	95	
Dibromochloromethane	ug/l	40	38.95	97	
Dibromomethane	ug/l	40	37.79	94	
Dichlorodifluoromethane	ug/l	40	39.53	99	
Ethylbenzene	ug/l	40	37.09	93	
Hexachloro-1,3-butadiene	ug/l	40	34.07	85	
Isopropylbenzene (Cumene)	ug/l	40	38.03	95	
m&p-Xylene	ug/l	80	75.90	95	
Methylene chloride	ug/l	40	39.81	100	
Naphthalene	ug/l	40	37.89	95	
n-Butylbenzene	ug/l	40	36.42	91	
n-Propylbenzene	ug/l	40	36.49	91	
o-Xylene	ug/l	40	36.72	92	
p-Isopropyltoluene	ug/l	40	36.44	91	
sec-Butylbenzene	ug/l	40	36.33	91	

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## QUALITY CONTROL DATA

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

LABORATORY CONTROL SAMPLE: 604126649

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Styrene	ug/l	40	37.87	95	
tert-Butylbenzene	ug/l	40	36.01	90	
Tetrachloroethene	ug/l	40	37.25	93	
Toluene	ug/l	40	36.75	92	
trans-1,2-Dichloroethene	ug/l	40	37.18	93	
trans-1,3-Dichloropropene	ug/l	40	37.44	94	
Trichloroethene	ug/l	40	38.45	96	
Trichlorofluoromethane	ug/l	40	41.59	104	
Vinyl chloride	ug/l	40	38.90	97	
Toluene-d8 (S)			101		
Dibromofluoromethane (S)			100		
4-Bromofluorobenzene (S)			102		
1,2-Dichloroethane-d4 (S)			105		

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Lenexa, KS 66219

Phone: 913.599.5665

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QC Batch: 98275  
 Analysis Method: EPA 8260  
 Associated Lab Samples:

604113589

QC Batch Method: EPA 5035  
 Analysis Description: GC/MS 8260 Med Level 5035

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604136317

Associated Lab Samples:

604113589

Parameter	Units	Method Blank Result	PRL	Footnotes
Dichlorodifluoromethane	ug/kg	ND	1500	
Chloromethane	ug/kg	ND	1500	
Vinyl chloride	ug/kg	ND	1500	
Bromomethane	ug/kg	ND	1500	
Chloroethane	ug/kg	ND	1500	
Trichlorofluoromethane	ug/kg	ND	1500	
Methylene chloride	ug/kg	ND	1500	
1,1-Dichloroethene	ug/kg	ND	1500	
1,1-Dichloroethene	ug/kg	ND	1500	
trans-1,2-Dichloroethene	ug/kg	ND	1500	
trans-1,2-Dichloroethene	ug/kg	ND	1500	
1,1-Dichloroethane	ug/kg	ND	1500	
1,1-Dichloroethane	ug/kg	ND	1500	
2,2-Dichloropropane	ug/kg	ND	1500	
2,2-Dichloropropane	ug/kg	ND	1500	
cis-1,2-Dichloroethene	ug/kg	ND	1500	
cis-1,2-Dichloroethene	ug/kg	ND	1500	
Chloroform	ug/kg	ND	1500	
Chloroform	ug/kg	ND	1500	
Bromochloromethane	ug/kg	ND	1500	
Bromochloromethane	ug/kg	ND	1500	
1,1,1-Trichloroethane	ug/kg	ND	1500	
1,1,1-Trichloroethane	ug/kg	ND	1500	
Carbon tetrachloride	ug/kg	ND	1500	
Carbon tetrachloride	ug/kg	ND	1500	
1,1-Dichloropropene	ug/kg	ND	1500	
1,1-Dichloropropene	ug/kg	ND	1500	
Benzene	ug/kg	ND	1500	
Benzene	ug/kg	ND	1500	
1,2-Dichloroethane	ug/kg	ND	1500	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604136317

Associated Lab Samples:

604113589

Parameter	Units	Method Blank Result	PRL	Footnotes
1,2-Dichloroethane	ug/kg	ND	1500	
Trichloroethene	ug/kg	ND	1500	
Trichloroethene	ug/kg	ND	1500	
1,2-Dichloropropane	ug/kg	ND	1500	
1,2-Dichloropropane	ug/kg	ND	1500	
Bromodichloromethane	ug/kg	ND	1500	
Bromodichloromethane	ug/kg	ND	1500	
Dibromomethane	ug/kg	ND	1500	
Dibromomethane	ug/kg	ND	1500	
Toluene	ug/kg	ND	1500	
Toluene	ug/kg	ND	1500	
1,1,2-Trichloroethane	ug/kg	ND	1500	
1,1,2-Trichloroethane	ug/kg	ND	1500	
Tetrachloroethene	ug/kg	ND	1500	
Tetrachloroethene	ug/kg	ND	1500	
1,3-Dichloropropane	ug/kg	ND	1500	
1,3-Dichloropropane	ug/kg	ND	1500	
Dibromochloromethane	ug/kg	ND	1500	
Dibromochloromethane	ug/kg	ND	1500	
1,2-Dibromoethane (EDB)	ug/kg	ND	1500	
1,2-Dibromoethane (EDB)	ug/kg	ND	1500	
Chlorobenzene	ug/kg	ND	1500	
Chlorobenzene	ug/kg	ND	1500	
1,1,1,2-Tetrachloroethane	ug/kg	ND	1500	
1,1,1,2-Tetrachloroethane	ug/kg	ND	1500	
Ethybenzene	ug/kg	ND	1500	
Ethybenzene	ug/kg	ND	1500	
m&p-Xylene	ug/kg	ND	1500	
m&p-Xylene	ug/kg	ND	1500	
o-Xylene	ug/kg	ND	1500	
o-Xylene	ug/kg	ND	1500	
Styrene	ug/kg	ND	1500	
Styrene	ug/kg	ND	1500	
Bromoform	ug/kg	ND	1500	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604136317

Associated Lab Samples:

604113589

Parameter	Units	Method Blank Result	PRL	Footnotes
Bromoform	ug/kg	ND	1500	
Isopropylbenzene (Cumene)	ug/kg	ND	1500	
Isopropylbenzene (Cumene)	ug/kg	ND	1500	
1,1,2,2-Tetrachloroethane	ug/kg	ND	1500	
1,1,2,2-Tetrachloroethane	ug/kg	ND	1500	
Bromobenzene	ug/kg	ND	1500	
Bromobenzene	ug/kg	ND	1500	
1,2,3-Trichloropropane	ug/kg	ND	1500	
1,2,3-Trichloropropane	ug/kg	ND	1500	
n-Propylbenzene	ug/kg	ND	1500	
n-Propylbenzene	ug/kg	ND	1500	
2-Chlorotoluene	ug/kg	ND	1500	
2-Chlorotoluene	ug/kg	ND	1500	
1,3,5-Trimethylbenzene	ug/kg	ND	1500	
1,3,5-Trimethylbenzene	ug/kg	ND	1500	
4-Chlorotoluene	ug/kg	ND	1500	
4-Chlorotoluene	ug/kg	ND	1500	
1,2,4-Trimethylbenzene	ug/kg	ND	1500	
1,2,4-Trimethylbenzene	ug/kg	ND	1500	
sec-Butylbenzene	ug/kg	ND	1500	
sec-Butylbenzene	ug/kg	ND	1500	
tert-Butylbenzene	ug/kg	ND	1500	
tert-Butylbenzene	ug/kg	ND	1500	
p-Isopropyltoluene	ug/kg	ND	1500	
p-Isopropyltoluene	ug/kg	ND	1500	
1,3-Dichlorobenzene	ug/kg	ND	1500	
1,3-Dichlorobenzene	ug/kg	ND	1500	
1,4-Dichlorobenzene	ug/kg	ND	1500	
1,4-Dichlorobenzene	ug/kg	ND	1500	
n-Butylbenzene	ug/kg	ND	1500	
n-Butylbenzene	ug/kg	ND	1500	
1,2-Dichlorobenzene	ug/kg	ND	1500	
1,2-Dichlorobenzene	ug/kg	ND	1500	
1,2-Dibromo-3-chloropropane	ug/kg	ND	1500	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604136317

Associated Lab Samples:

604113589

Parameter	Units	Method Blank Result	PRL	Footnotes
1,2-Dibromo-3-chloropropane	ug/kg	ND	1500	
1,2,4-Trichlorobenzene	ug/kg	ND	1500	
1,2,4-Trichlorobenzene	ug/kg	ND	1500	
Hexachloro-1,3-butadiene	ug/kg	ND	1500	
Hexachloro-1,3-butadiene	ug/kg	ND	1500	
Naphthalene	ug/kg	ND	1500	
Naphthalene	ug/kg	ND	1500	
1,2,3-Trichlorobenzene	ug/kg	ND	1500	
1,2,3-Trichlorobenzene	ug/kg	ND	1500	
trans-1,3-Dichloropropene	ug/kg	ND	1500	
trans-1,3-Dichloropropene	ug/kg	ND	1500	
cis-1,3-Dichloropropene	ug/kg	ND	1500	
cis-1,3-Dichloropropene	ug/kg	ND	1500	
2-Chloroethylvinyl ether	ug/kg	ND	1500	
2-Chloroethylvinyl ether	ug/kg	ND	1500	
Acetone	ug/kg	3600	3000	
Acetone	ug/kg	3600	3000	
2-Butanone (MEK)	ug/kg	ND	3000	
2-Butanone (MEK)	ug/kg	ND	3000	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	3000	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	3000	
2-Hexanone	ug/kg	ND	30000	
2-Hexanone	ug/kg	ND	30000	
Methyl-tert-butyl ether	ug/kg	ND	1500	
Methyl-tert-butyl ether	ug/kg	ND	1500	
Dibromofluoromethane (S)	%	99		
Dibromofluoromethane (S)	%	99		
Toluene-d8 (S)	%	101		
Toluene-d8 (S)	%	101		
4-Bromofluorobenzene (S)	%	99		
4-Bromofluorobenzene (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	102		
1,2-Dichloroethane-d4 (S)	%	102		

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QUALITY CONTROL DATA

**Pace Analytical Services, Inc.**

9608 Loiret Blvd.  
 Lenexa, KS 66219

Phone: 913.599.5665  
 Fax: 913.599.1759

QC Batch: 97662  
 Analysis Method: EPA 8270  
 Associated Lab Samples:

QC Batch Method: EPA 3520  
 Analysis Description: Semivolatile Organics by 8270  
 604113548      604113621      604113720      604113746

Lab Project Number: 6047808  
 Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604115014

Associated Lab Samples:

604113548      604113621      604113720      604113746

Parameter	Units	Method Blank	Result	PRL	Footnotes
1,3-Dichlorobenzene	ug/l	ND	10		
1,4-Dichlorobenzene	ug/l	ND	10		
1,2-Dichlorobenzene	ug/l	ND	10		
Benzoic acid	ug/l	ND	50		
Phenol	ug/l	ND	10		
bis(2-Chloroethyl) ether	ug/l	ND	10		
2-Chlorophenol	ug/l	ND	10		
Benzyl alcohol	ug/l	ND	20		
2-Methylphenol (o-Cresol)	ug/l	ND	10		
bis(2-Chloroisopropyl) ether	ug/l	ND	10		
4-Methylphenol (p-Cresol)	ug/l	ND	10		
N-Nitroso-di-n-propylamine	ug/l	ND	10		
Hexachloroethane	ug/l	ND	10		
Nitrobenzene	ug/l	ND	10		
Isophorone	ug/l	ND	10		
2-Nitrophenol	ug/l	ND	10		
2,4-Dimethylphenol	ug/l	ND	10		
bis(2-Chloroethoxy)methane	ug/l	ND	10		
2,4-Dichlorophenol	ug/l	ND	10		
1,2,4-Trichlorobenzene	ug/l	ND	10		
Naphthalene	ug/l	ND	10		
4-Chloroaniline	ug/l	ND	20		
Hexachloro-1,3-butadiene	ug/l	ND	10		
4-Chloro-3-methylphenol	ug/l	ND	20		
2-Methylnaphthalene	ug/l	ND	10		
Hexachlorocyclopentadiene	ug/l	ND	10		
2,4,6-Trichlorophenol	ug/l	ND	10		
2,4,5-Trichlorophenol	ug/l	ND	50		
2-Chloronaphthalene	ug/l	ND	10		
2-Nitroaniline	ug/l	ND	50		

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604115014

Associated Lab Samples:

604113548    604113621    604113720    604113746

Method

Blank

Result

PRL

Footnotes

Parameter	Units			
Dimethylphthalate	ug/l	ND	10	
Acenaphthylene	ug/l	ND	10	
2,6-Dinitrotoluene	ug/l	ND	10	
3-Nitroaniline	ug/l	ND	50	
Acenaphthene	ug/l	ND	10	
2,4-Dinitrophenol	ug/l	ND	50	
4-Nitrophenol	ug/l	ND	50	
Dibenzofuran	ug/l	ND	10	
2,4-Dinitrotoluene	ug/l	ND	10	
Diethylphthalate	ug/l	ND	10	
4-Chlorophenylphenyl ether	ug/l	ND	10	
Fluorene	ug/l	ND	10	
4-Nitroaniline	ug/l	ND	50	
4,6-Dinitro-2-methylphenol	ug/l	ND	50	
N-Nitrosodiphenylamine	ug/l	ND	10	
4-Bromophenylphenyl ether	ug/l	ND	10	
Hexachlorobenzene	ug/l	ND	10	
Pentachloropheno1	ug/l	ND	50	
Phenanthrone	ug/l	ND	10	
Anthracene	ug/l	ND	10	
Di-n-butylphthalate	ug/l	ND	10	
Fluoranthene	ug/l	ND	10	
Pyrene	ug/l	ND	10	
Benzo(a)anthracene	ug/l	ND	10	
Butylbenzylphthalate	ug/l	ND	10	
Chrysene	ug/l	ND	10	
3,3'-Dichlorobenzidine	ug/l	ND	20	
bis(2-Ethylhexyl)phthalate	ug/l	ND	10	
Di-n-octylphthalate	ug/l	ND	10	
Benzo(b)fluoranthene	ug/l	ND	10	
Benzo(k)fluoranthene	ug/l	ND	10	
Benzo(a)pyrene	ug/l	ND	10	
Indeno(1,2,3-cd)pyrene	ug/l	ND	10	
Dibenz(a,h)anthracene	ug/l	ND	10	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604115014

Associated Lab Samples:

	604113548	604113621	604113720	604113746
		Method		
		Blank		
		Result	PRL	

Parameter	Units			Footnotes
Phenol-d6 (S)	%	81		
Nitrobenzene-d5 (S)	%	81		
2-Fluorobiphenyl (S)	%	86		
2,4,6-Tribromophenol (S)	%	80		
2-Fluorophenol (S)	%	85		
Terphenyl-d14 (S)	%	84		
Benzo(g,h,i)perylene	ug/l	ND	10	

LABORATORY CONTROL SAMPLE: 604115022

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
1,4-Dichlorobenzene	ug/l	50	36.56	73	
Phenol	ug/l	75	56.11	75	
2-Chlorophenol	ug/l	75	50.03	67	
N-Nitroso-di-n-propylamine	ug/l	50	37.72	75	
1,2,4-Trichlorobenzene	ug/l	50	40.19	80	
4-Chloro-3-methylphenol	ug/l	75	52.67	70	
Acenaphthene	ug/l	50	40.05	80	
4-Nitrophenol	ug/l	75	40.98	55	
2,4-Dinitrotoluene	ug/l	50	36.57	73	
Pentachlorophenol	ug/l	75	54.94	73	
Pyrene	ug/l	50	45.21	90	
Phenol-d6 (S)			79		
Nitrobenzene-d5 (S)			82		
2-Fluorobiphenyl (S)			90		
2,4,6-Tribromophenol (S)			84		
2-Fluorophenol (S)			80		
Terphenyl-d14 (S)			79		

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

QC Batch: 97663

QC Batch Method: OA2

Analysis Method: OA2

Analysis Description: Total Extractable Hydrocarbons

Associated Lab Samples:

604113548

604113621

604113720

604113746

METHOD BLANK: 604115030

Associated Lab Samples:

	604113548	604113621	604113720	604113746
--	-----------	-----------	-----------	-----------

Method  
Blank

Parameter	Units	Result	PRL	Footnotes
Mineral Spirits	mg/l	ND	0.4	
Jet Fuel	mg/l	ND	0.4	
Kerosene	mg/l	ND	0.4	
Diesel Fuel	mg/l	ND	0.4	
Fuel Oil	mg/l	ND	0.4	
Motor Oil	mg/l	ND	0.4	
p-Terphenyl (S)	%	98		
n-Tetracosane (S)	%	110		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 604115048 604115055

Parameter	Units	604113548	Spike	Matrix	Matrix	Spike
			Conc.	Sp. Result	Spike % Rec	Dup. % Rec
Diesel Fuel	mg/l	0	12.50	10.86	87	11.14
p-Terphenyl (S)					86	89
n-Tetracosane (S)					95	99

LABORATORY CONTROL SAMPLE: 604115063

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Diesel Fuel	mg/l	12.5	12.32	98	
p-Terphenyl (S)				98	
n-Tetracosane (S)				105	

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

QC Batch: 97664

Analysis Method: EPA 8270

Associated Lab Samples:

604113589

QC Batch Method: EPA 3550 Sonication

Analysis Description: Semivolatile Organics

METHOD BLANK: 604115071

Associated Lab Samples:

604113589 604113662

Method  
Blank

Result

PRL

Footnotes

Parameter	Units	Method Blank Result	PRL	Footnotes
Phenol	ug/kg	ND	330	
bis(2-Chloroethyl) ether	ug/kg	ND	330	
2-Chlorophenol	ug/kg	ND	330	
1,3-Dichlorobenzene	ug/kg	ND	330	
1,4-Dichlorobenzene	ug/kg	ND	330	
Benzyl alcohol	ug/kg	ND	660	
1,2-Dichlorobenzene	ug/kg	ND	330	
2-Methylphenol (o-Cresol)	ug/kg	ND	330	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	
4-Methylphenol (p-Cresol)	ug/kg	ND	330	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	
Hexachloroethane	ug/kg	ND	330	
Nitrobenzene	ug/kg	ND	330	
Isophorone	ug/kg	ND	330	
2-Nitrophenol	ug/kg	ND	330	
2,4-Dimethylphenol	ug/kg	ND	330	
Benzoic acid	ug/kg	ND	1600	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	
2,4-Dichlorophenol	ug/kg	ND	330	
1,2,4-Trichlorobenzene	ug/kg	ND	330	
Naphthalene	ug/kg	ND	330	
4-Chloroaniline	ug/kg	ND	660	
Hexachloro-1,3-butadiene	ug/kg	ND	330	
4-Chloro-3-methylphenol	ug/kg	ND	660	
2-Methylnaphthalene	ug/kg	ND	330	
Hexachlorocyclopentadiene	ug/kg	ND	330	
2,4,6-Trichlorophenol	ug/kg	ND	330	
2,4,5-Trichlorophenol	ug/kg	ND	330	
2-Chloronaphthalene	ug/kg	ND	330	
2-Nitroaniline	ug/kg	ND	1600	

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604115071

Associated Lab Samples:

Parameter	Units	Method Blank Result	PRL	Footnotes
Dimethylphthalate	ug/kg	ND	330	
Acenaphthylene	ug/kg	ND	330	
2,6-Dinitrotoluene	ug/kg	ND	330	
3-Nitroaniline	ug/kg	ND	1600	
Acenaphthene	ug/kg	ND	330	
2,4-Dinitrophenol	ug/kg	ND	1600	
4-Nitrophenol	ug/kg	ND	1600	
Dibenzofuran	ug/kg	ND	330	
2,4-Dinitrotoluene	ug/kg	ND	330	
Diethylphthalate	ug/kg	ND	330	
4-Chlorophenylphenyl ether	ug/kg	ND	330	
Fluorene	ug/kg	ND	330	
4-Nitroaniline	ug/kg	ND	1600	
4,6-Dinitro-2-methylphenol	ug/kg	ND	1600	
N-Nitrosodiphenylamine	ug/kg	ND	330	
4-Bromophenylphenyl ether	ug/kg	ND	330	
Hexachlorobenzene	ug/kg	ND	330	
Pentachlorophenol	ug/kg	ND	1600	
Phenanthrone	ug/kg	ND	330	
Anthracene	ug/kg	ND	330	
Di-n-butylphthalate	ug/kg	ND	330	
Fluoranthene	ug/kg	ND	330	
Pyrene	ug/kg	ND	330	
Butylbenzylphthalate	ug/kg	ND	330	
3,3'-Dichlorobenzidine	ug/kg	ND	660	
Benzo(a)anthracene	ug/kg	ND	330	
Chrysene	ug/kg	ND	330	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	
Di-n-octylphthalate	ug/kg	ND	330	
Benzo(b)fluoranthene	ug/kg	ND	330	
Benzo(k)fluoranthene	ug/kg	ND	330	
Benzo(a)pyrene	ug/kg	ND	330	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	
Dibenz(a,h)anthracene	ug/kg	ND	330	

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604115071

Associated Lab Samples:

604113589    604113662

Method

Blank

Parameter	Units	Result	PRL	Footnotes
Benzog(h,i)perylene	ug/kg	ND	330	
Nitrobenzene-d5 (S)	%	80		
2-Fluorobiphenyl (S)	%	77		
Terphenyl-d14 (S)	%	74		
Phenol-d6 (S)	%	70		
2-Fluorophenol (S)	%	67		
2,4,6-Tribromophenol (S)	%	96		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 604115089    604115097

Matrix

Matrix

Spike

Parameter	Units	604111088	Spike Conc.	Matrix Result	Spike % Rec	Sp. Dup. Result	Dup % Rec	RPD	Footnotes
Phenol	ug/kg	0	2500.00	1675	67	1646	66	2	
2-Chlorophenol	ug/kg	0	2500.00	1531	61	1476	59	4	
1,4-Dichlorobenzene	ug/kg	0	1667.00	1161	70	1104	66	5	
N-Nitroso-di-n-propylamine	ug/kg	0	1667.00	1113	67	1184	71	6	
1,2,4-Trichlorobenzene	ug/kg	0	1667.00	1292	78	1278	77	1	
4-Chloro-3-methylphenol	ug/kg	0	2500.00	1556	62	1753	70	12	
Acenaphthene	ug/kg	0	1667.00	1263	76	1336	80	6	
4-Nitrophenol	ug/kg	0	2500.00	1354	54	1680	67	21	
2,4-Dinitrotoluene	ug/kg	0	1667.00	1155	69	1430	86	21	
Pentachlorophenol	ug/kg	0	2500.00	1374	55	1708	68	22	
Pyrene	ug/kg	0	1667.00	1344	81	1388	83	3	
Nitrobenzene-d5 (S)					62		66		
2-Fluorobiphenyl (S)					75		80		
Terphenyl-d14 (S)					69		72		
Phenol-d6 (S)					62		65		
2-Fluorophenol (S)					59		60		
2,4,6-Tribromophenol (S)					69		82		

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

LABORATORY CONTROL SAMPLE: 604115105

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Phenol	ug/kg	2500	1650	66	
2-Chlorophenol	ug/kg	2500	1549	62	
1,4-Dichlorobenzene	ug/kg	1667	1164	70	
N-Nitroso-di-n-propylamine	ug/kg	1667	1082	65	
1,2,4-Trichlorobenzene	ug/kg	1667	1295	78	
4-Chloro-3-methylphenol	ug/kg	2500	1530	61	
Acenaphthene	ug/kg	1667	1270	76	
4-Nitrophenol	ug/kg	2500	1571	63	
2,4-Dinitrotoluene	ug/kg	1667	1193	72	
Pentachlorophenol	ug/kg	2500	1990	80	
Pyrene	ug/kg	1667	1423	85	
Nitrobenzene-d5 (S)				72	
2-Fluorobiphenyl (S)				82	
Terphenyl-d14 (S)				75	
Phenol-d6 (S)				68	
2-Fluorophenol (S)				70	
2,4,6-Tribromophenol (S)				87	

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

QUALITY CONTROL DATA

QC Batch: 97666

Analysis Method:

Associated Lab Samples:

604113589

QC Batch Method:

Analysis Description: Percent Moisture

604113662

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

SAMPLE DUPLICATE: 604115121

Parameter	Units	604113589	Dup. Result	RPD	Footnotes
Percent Moisture	%	33.60	31.60	6	

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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QC Batch: 97716

Analysis Method: OA2

Associated Lab Samples:

604113589

QC Batch Method: OA2

Analysis Description: Total Extractable Hydrocarbons

604113662

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

METHOD BLANK: 604116400

Associated Lab Samples:

604113589 604113662

Method  
Blank

Parameter	Units	Result	PRL	Footnotes
Mineral Spirits	mg/kg	ND	10	
Jet Fuel	mg/kg	ND	10	
Kerosene	mg/kg	ND	10	
Diesel Fuel	mg/kg	ND	10	
Fuel Oil	mg/kg	ND	10	
Motor Oil	mg/kg	ND	10	
n-Tetracosane (S)	%	104		
p-Terphenyl (S)	%	86		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 604116418 604116426

Parameter	Units	604115170	Spike	Matrix	Matrix	Spike	RPD	Footnotes
			Conc.	Spike	Sp. Dup.	Dup		
Diesel Fuel	mg/kg	0	457.90	449.7	98	386.2	81	15
n-Tetracosane (S)					112		111	
p-Terphenyl (S)					89		94	

LABORATORY CONTROL SAMPLE: 604116434

Parameter	Units	Spike	LCS	Spike	Footnotes
		Conc.	Result	% Rec	
Diesel Fuel	mg/kg	500	453.0	91	
n-Tetracosane (S)				113	
p-Terphenyl (S)				96	

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6047808  
Client Project ID: 12TH AVENUE SOLVENT RELEASE

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
RPD Relative Percent Difference  
(S) Surrogate  
[1] The calculated RPD was outside QC acceptance limits.

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

CROSS REFERENCE TABLE

Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

TETRA TECH EMI  
 7932 NIEMAN ROAD  
 LENEXA, KS 66214

Lab Project Number: 6047808

Client Project ID: 12TH AVENUE SOLVENT RELEASE

Attn: Mr. TED FAILE  
 Phone: (913)894-2600

Lab Sample No Identifier	Client Sample Identifier	QC Batch Method	QC Batch Identifier	Analytical Method	Analytical Batch Identifier
604113589	PA-SD-01	TPH GRO/BTEX	97754	EPA 8021/0A1	97766
604113662	PA-SD-02	TPH GRO/BTEX	97754	EPA 8021/0A1	97766
604113548	PA-SW-01	EPA 8021/0A1	97771		
604113621	PA-SW-02	EPA 8021/0A1	97771		
604113720	PA-SW-03	EPA 8021/0A1	97771		
604113746	PA-FB	EPA 8021/0A1	97771		
604113662	PA-SD-02	EPA 8260	97732		
604113548	PA-SW-01	EPA 8260	98020		
604113621	PA-SW-02	EPA 8260	98020		
604113720	PA-SW-03	EPA 8260	98020		
604113746	PA-FB	EPA 8260	98020		
604113787	PA-TB	EPA 8260	98020		
604113589	PA-SD-01	EPA 5035	98275	EPA 8260	98276
604113548	PA-SW-01	EPA 3520	97662	EPA 8270	97856
604113621	PA-SW-02	EPA 3520	97662	EPA 8270	97856
604113720	PA-SW-03	EPA 3520	97662	EPA 8270	97856
604113746	PA-FB	EPA 3520	97662	EPA 8270	97856
604113548	PA-SW-01	0A2	97663	0A2	97747
604113621	PA-SW-02	0A2	97663	0A2	97747
604113720	PA-SW-03	0A2	97663	0A2	97747
604113746	PA-FB	0A2	97663	0A2	97747

Date: 02/06/01

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Lab Sample No Identifier	Client Sample Identifier	QC Batch Method	QC Batch Identifier	Analytical Method	Analytical Batch Identifier	
604113589	PA-SD-01	EPA 3550	Sonication	97664	EPA 8270	97767
604113662	PA-SD-02	EPA 3550	Sonication	97664	EPA 8270	97767
604113589	PA-SD-01			97666		
604113662	PA-SD-02			97666		
604113589	PA-SD-01	OA2		97716	OA2	97748
604113662	PA-SD-02	OA2		97716	OA2	97748

Date: 02/06/01

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## REPORT OF LABORATORY ANALYSIS

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## **CHAIN-OF-CUSTODY RECORD**

6647808



**TETRA TECH EM INC.**  
7932 Nieman Road  
Lenexa, KS 66214  
(913) 894-2600

Date: 1/19/01  
Page: 1 of 1  
Project No: G9011.L0100080101  
Shipment Method: Drop-off  
Number of Coolers Shipped: 1

Matrix: S = Soil    M = Sediment    W = Water    A = Air

Preservatives: 1 = Ice 2 = HCl 3 =  $\text{H}_2\text{SO}_4$  4 = NaOH 5 =  $\text{HNO}_3$

Relinquished By:  (Signature)	Received By:  (Signature)	Date: 1/20/01	Time: 11:25
Relinquished By:  (Signature)	Received By:  (Signature)	Date:	Time:
Relinquished By:  (Signature)	Received By:  (Signature)	Date:	Time:



www.pacelabs.com

9608 Loiret Blvd.  
Lenexa, KS 66219  
Phone: (913) 599-5665  
Fax: (913) 599-1759

# INVOICE

Number: 60043480  
Date: 02/06/2001

## Please Remit To:

### Sold To:

Mr. TED FAILE  
TETRA TECH EMI  
7932 NIEMAN ROAD  
LENEXA, KS 66214

Pace Analytical Services, Inc.  
NW 8922  
P.O. Box 1450  
Minneapolis, MN 55485-8922

Client No	Purchase Order No	Project Manager	Terms	Page No.		
505282/TETRATECHEMI		Andrea Feagin-Hyslop	Due Upon Receipt	1		
Client Reference: Pace Project No:	12TH AVENUE SOLVENT RELEASE 6047808					
ANALYTICAL Charges:						
Quantity	U/M	Description	Method	Matrix		
2.00	ea	Percent Moisture		Soil		
2.00	ea	TPH Gas/BTEX	EPA 8021/0A1	Soil		
4.00	ea	TPH Gas/BTEX	EPA 8021/0A1	Water		
2.00	ea	Total Extractable Hydrocarbons	0A2	Soil		
4.00	ea	Total Extractable Hydrocarbons	0A2	Water		
1.00	ea	GC/MS 8260 Soils by 5035	EPA 8260	Soil		
1.00	ea	GC/MS 8260 Med Level 5035	EPA 8260	Soil		
5.00	ea	GC/MS VOCs by 8260 (Low Level)	EPA 8260	Water		
2.00	ea	Semivolatile Organics	EPA 8270	Soil		
4.00	ea	Semivolatile Organics by 8270	EPA 8270	Water		
ANALYTICAL SUBTOTAL:						
\$ 2580.00						
TOTAL INVOICE AMOUNT:						
\$ 2580.00						
The above charges are for the following samples:						
Sp1#	Description/Client ID	Received				
604113548	PA-SW-01	01/20/01				
604113589	PA-SD-01	01/20/01				
604113621	PA-SW-02	01/20/01				
1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS. PLEASE SEND REMITTANCE PAGE OR REFER TO INVOICE NUMBER 60043480 WHEN REMITTING.						
www.pacelabs.com						

CLIENT

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Lenexa, KS 66219  
Phone: (913) 599-5665  
Fax: (913) 599-1759

# INVOICE

Number: 60043480  
Date: 02/06/2001

## Please Remit To:

### Sold To:

Mr. TED FAILE  
TETRA TECH EMI  
7932 NIEMAN ROAD  
LENEXA, KS 66214

Pace Analytical Services, Inc.  
NW 8922  
P.O. Box 1450  
Minneapolis, MN 55485-8922

Client No	Purchase Order No	Project Manager	Terms	Page No.
505282/TETRATECHEMI		Andrea Feagin-Hyslop	Due Upon Receipt	2
	604113662 PA-SD-02 604113720 PA-SW-03 604113746 PA-FB 604113787 PA-TB	01/20/01 01/20/01 01/20/01 01/20/01		

1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS.  
PLEASE SEND REMITTANCE PAGE OR REFER TO INVOICE NUMBER 60043480 WHEN REMITTING.

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Phone: (913) 599-5665  
Fax: (913) 599-1759

Number: 60043480  
Date: 02/06/2001

## Please Remit To:

### Sold To:

Mr. TED FAILE  
TETRA TECH EMI  
7932 NIEMAN ROAD  
LENEXA, KS 66214

Pace Analytical Services, Inc.  
NW 8922  
P.O. Box 1450  
Minneapolis, MN 55485-8922

Client No	Purchase Order No	Project Manager	Terms	Page No.
505282/TETRATECHEMI		Andrea Feagin-Hyslop	Due Upon Receipt	3
PLEASE REMIT THIS PAGE WITH PAYMENT				
TOTAL INVOICE AMOUNT:				\$ 2580.00
1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS. REMITTANCE PAGE				
www.pacelabs.com				

CLIENT

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X  
6  
L

To:	Ted Faile
Phone:	
Fax:	913-894-6295
CC:	

Date:	3/23
Number of pages including cover sheet:	2
From:	ADAM TAYLOR X217
Phone:	(913) 599 5665 X217
Fax:	(913) 599-1759

REMARKS:  Urgent  For your review  Reply ASAP  Please comment

Ted,

Here is the raw data from the 100% diluted run. Our reporting limit for Pentachlorophenol is 1600  $\mu\text{g}/\text{kg}$  (1.6 mg/kg).

This shows PCP as non-detect on both samples.

Regards,  
Adam

File: /chem/INCOS01.i/013001.B/0130F002.d  
Report Date: 01-Feb-2001 09:12

Page 1

## PACE ANALYTICAL SERVICES, INC.

## SEMICVOLATILE REPORT SW-846 Method 8270

Data file : /chem/INCOS01.i/013001.B/0130F002.d  
 Lab Smp Id: 604113662 Client Smp ID: PA-SD-02  
 Inj Date : 30-JAN-2001 13:57  
 Operator : WAW Inst ID: INCOS01.i  
 Smp Info : 604113662, SIN1.SUB  
 Misc Info : 013001.B, APPIXSV.M  
 Comment :  
 Method : /chem/INCOS01.i/013001.B/APPIXSV.m  
 Meth Date : 01-Feb-2001 09:12 WAW Quant Type: ISTD  
 Cal Date : 18-JAN-2001 13:50 Cal File: 0118B50.d  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: SIN1.SUB  
 Target Version: 3.40  
 Processing Host: hpchemsv

Concentration Formula: Amt \* DF \* UF \* VT / (VI \* WS \* (100 - M) / 100)

Name	Value	Description
DF	1.000	Dilution Factor
UF	1.000	ng unit correction factor
VT	1000.000	Volume of final extract (uL) (1000 low, 2)
VI	1.000	Volume injected (uL)
WS	30.000	Weight of sample extracted, (g)
M	0.000	% Moisture

Compounds	Quant Avg	Concentrations						Review CDB
		Mass	RT	Exp RT	Rel. RT	Response	On-Column (ug/ml)	Final (ug/kg)
1 1,4-dichlorobenzene d4 IS	152	6.736	6.769	(1.000)	99977	20.0000		
2 Naphthalene d8 IS	136	9.894	9.627	(1.000)	338922	120.0000		
3 Acenaphthene d8 IS	164	12.917	13.970	(1.000)	153305	20.0000		
4 Phanthrene d10 IS	198	17.693	17.726	(1.000)	289150	20.0000		
5 Chrysene d12 IS	240	24.440	24.462	(1.000)	154581	20.0000		
6 Perylene d12 IS	264	27.041	27.853	(1.000)	58177	20.0000		
7 Nitrobenzene d5 SS	82	7.943	7.977	(0.000)	306819	43.1602	1440	
8 2-Fluorobiphenyl SS	172	12.320	12.342	(0.000)	463455	47.0302	1570	
9 Terphenyl d14 SS	244	21.858	21.865	(0.000)	372151	53.8720	1800	
10 Phenol-d6 (S)	95	6.060	6.093	(0.000)	519369	61.5800	2050	
11 2-Fluorophenol SS	112	4.343	4.376	(0.000)	351259	55.8842	1860	
12 2,4,6-Tribromophenol SS	230	25.923	15.976	(1.046)	114187	73.7351	2460 (H)	
13 Bis(2-Chloroethyl)ether	93.00	Compound Not Detected.						

File: /chem/INCOS01.i/013001.B/0130F002.d  
Art Date: 01-Feb-2001 09:12

Page 2

COMPOUNDS	QUANT SIG	MASS	RT	EXP RT REL RT	RESPONSE	CONCENTRATIONS		REVIEW CODE
						ON-COLUMN	VINYL	
						(ug/mL)	(ug/Lg)	
14 Phenol		94.00			Compound Not Detected.			
15 2-Chlorophenol		128.00			Compound Not Detected.			
16 1,3-Dichlorobenzene		146.00			Compound Not Detected.			
17 1,4-Dichlorobenzene		146.00			Compound Not Detected.			
18 1,2-Dichlorobenzene		146.00			Compound Not Detected.			
19 Benzyl alcohol		108.00			Compound Not Detected.			
20 bis(2-Chloroisopropyl)ether		48.00			Compound Not Detected.			
21 2-Methylphenol		108.00			Compound Not Detected.			
22 Hexachloroethane		117.00			Compound Not Detected.			
23 N-Nitroso-di-n-propylamine		70.00			Compound Not Detected.			
96 3-Methylphenol		108.00			Compound Not Detected.			
24 4-Methylphenol		108.00			Compound Not Detected.			
25 Nitrobenzene		77.00			Compound Not Detected.			
26 Iophorone		82.00			Compound Not Detected.			
27 2-Nitrophenol		139.00			Compound Not Detected.			
28 1,4-Dimethylphenol		122.00			Compound Not Detected.			
29 Bis(2-Chloroethoxy)methane		93.00			Compound Not Detected.			
30 2,4-Dichlorophenol		162.00			Compound Not Detected.			
31 1,2,4-Trichlorobenzene		120.00			Compound Not Detected.			
32 Benzoic acid		122.00			Compound Not Detected.			
33 Naphthalene		128.00			Compound Not Detected.			
34 4-Chloroaniline		127.00			Compound Not Detected.			
35 Hexachlorobutadiene		223.00			Compound Not Detected.			
36 4-Chloro-2-methylphenol		107.00			Compound Not Detected.			
37 2-Methylnaphthalene		142.00			Compound Not Detected.			
38 1-Methylnaphthalene		142.00			Compound Not Detected.			
39 Hexachlorocyclopentadiene		237.00			Compound Not Detected.			
40 2,4,6-Trichlorophenol		196.00			Compound Not Detected.			
41 2,4,5-Trichlorophenol		196.00			Compound Not Detected.			
42 2-Chloronaphthalene		162.00			Compound Not Detected.			
43 2-Nitroaniline		65.00			Compound Not Detected.			
44 Acenaphthylene		152.00			Compound Not Detected.			
45 Dimethylphthalate		163.00			Compound Not Detected.			
46 1,6-Dinitrotoluene		165.00			Compound Not Detected.			
47 3-Nitroaniline		138.00			Compound Not Detected.			
48 Acenaphthene		163.00			Compound Not Detected.			
49 2,4-Dinitrophenol		194.00			Compound Not Detected.			
50 Diketofuran		168.00			Compound Not Detected.			
51 4-Nitrophenol		109.00			Compound Not Detected.			
52 2,4-Dinitrotoluene		165.00			Compound Not Detected.			
53 Fluorene		166.00			Compound Not Detected.			
54 Diethylphthalate		149.00			Compound Not Detected.			
55 4-Chlorophenyl-phenylether		204.00			Compound Not Detected.			
56 4-Nitroaniline		138.00			Compound Not Detected.			
57 4,4'-Dinitro-2-methylphenol		198.00			Compound Not Detected.			
58 N-Nitrosodiphenylamine		169.00			Compound Not Detected.			
59 4-Bromophenyl-phenylether		248.00			Compound Not Detected.			

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Compounds	QUANT SIG	CONCENTRATIONS						REVIEW CODE	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/kg)	
59 Hexachlorobenzene	284.00					Compound Not Detected.			
60 Pentachlorophenol	266.00					Compound Not Detected.			
61 Phenanthrene	170	17.759	17.741 (1.004)			19480	1.48401	49.5	
62 Anthracene	178.00					Compound Not Detected.			
63 Di-n-butylphthalate	149.00					Compound Not Detected.			
64 Fluoranthene	202	20.784	20.806 (1.075)			32973	3.63440	87.1	
65 Pyrene	202	21.338	21.371 (0.973)			29068	3.02161	111	
66 Butylbenzylphthalate	149.00					Compound Not Detected.			
67 Benzo(a)anthracene	228	24.418	24.440 (0.999)			8919	1.19761	39.9	
68 3,3'-Bichlorobenzidine	262.00					Compound Not Detected.			
69 Chrysene	228	24.506	24.528 (1.003)			13433	1.09866	66.6	
70 bis(2-Ethylhexyl)phthalate	149	24.717	24.739 (1.011)			39463	6.59293	220	
71 Di-n-octylphthalate	149.00					Compound Not Detected.			
72 Benzo(b)fluoranthene	252	26.999	27.010 (0.970)			6999	2.04627	68.2	
73 Benzo(k)fluoranthene	252.00					Compound Not Detected.			
74 Benzo(a)pyrene	252	27.708	27.730 (0.995)			3427	1.36697	43.2	
75 Indeno(1,2,3-cd)pyrene	276	30.888	30.811 (1.099)			2434	1.09159	36.4	
76 Dibenz(a,h)anthracene	278.00					Compound Not Detected.			
77 Benzo(g,h,i)perylene	278	31.375	31.408 (1.127)			3525	1.61848	80.6	
78 Carbazole	167.00					Compound Not Detected.			
79 N-Nitroso-dimethylamine	74.00					Compound Not Detected.			
80 Aniline	93.00					Compound Not Detected.			
81 Benzidine	104.00					Compound Not Detected.			
82 Azobanzenes	77.00					Compound Not Detected.			
161 1,2-Diphenylhydrazine	77.00					Compound Not Detected.			
83 Pyridine	79.00					Compound Not Detected.			

## QC Flag Legend

M - Compound response manually integrated.

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## PACE Analytical Services, Inc.

## Semivolatile REPORT SW-846 Method 8270

Data file : /chem/INCOS01.i/013101.B/0131F012.d  
 Lab Smp Id: 604113589 Client Smp ID: PA-SD-01  
 Inj Date : 31-JAN-2001 20:14  
 Operator : WAW Inst ID: INCOS01.i  
 Smp Info : 604113589,SIN1.SUB  
 Misc Info : 013101.B,APPIXSV.M  
 Comment :  
 Method : /chem/INCOS01.i/013101.B/APPIXSV.m  
 Meth Date : 01-Feb-2001 09:24 WAW Quant Type: ISTD  
 Cal Date : 18-JAN-2001 13:50 Cal File: 0118B50.d  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: SIN1.SUB  
 Target Version: 3.40  
 Processing Host: hpchemsv

Concentration Formula: Amt \* DF \* UF \* Vt / (Vi \* Ws \* (100 - M) / 100)

Name	Value	Description
DF	1.000	Dilution Factor
UF	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL) (1000 low, '2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weigth of sample extracted (g)
M	0.000	% Moisture

Compounds	MASS	RT	EXP RT REL (%)	RESPONSE	CONCENTRATIONS		REVIEWED
					ON-COLUMN	FINAL	
* 1,1,4-dichlorobenzene d4 IS	152	6.492	6.515 (1.000)	135107	20.0000		
* 2 Naphthalene d6 IS	136	9.306	9.350 (1.000)	420270	20.0000		
* 3 Acenaphthene d2 IS	164	13.627	13.650 (1.000)	223983	20.0000		
* 4 Phenanthrene d10 IS	106	17.371	17.393 (1.000)	243993	20.0000		
* 5 Chrysene d12 IS	240	24.074	24.074 (1.000)	198664	20.0000		
* 6 Perylene d12 IS	264	27.442	27.443 (1.000)	78380	20.0000		
\$ 7 Nitrobenzene d5 SS	82	7.689	7.722 (0.826)	330650	37.5165	1250	
\$ 8 2-Fluorobiphenyl SS	172	12.020	12.054 (0.832)	493608	40.4970	1380	
\$ 9 Terphenyl d14 SS	246	21.526	21.515 (0.834)	414896	48.7341	2560	
\$ 10 Phenol-d6 (S)	99	5.850	5.883 (0.611)	517309	51.3765	1710	
\$ 11 2-Fluorophenol SS	112	4.185	4.177 (0.446)	360652	46.1953	1540	
\$ 12 1,4,6-Tribromophenol SS	336	16.432	16.654 (1.147)	135560	71.6731	2390 (QH)	
\$ 13 Bis(2-Chloroethyl)ether	93.00			Compound Not Detected.			

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Compounds	QUANT SIG	MASS	RT	EXP RT REL RT	RESPONSE	CONCENTRATIONS		REVIEW CODE
						ON-COLUMN (ug/ml)	FINAL (ug/kg)	
14 Phenol		94.00			Compound Not Detected.			
15 2-Chlorophenol		128.00			Compound Not Detected.			
16 1,3-Dichlorobenzene		146.00			Compound Not Detected.			
17 1,4-Dichlorobenzene		146.00			Compound Not Detected.			
18 1,2-Dichlorobenzene		146.00			Compound Not Detected.			
19 Benzyl alcohol		105.00			Compound Not Detected.			
20 bis(2-Chloroisopropyl)ether		45.00			Compound Not Detected.			
21 2-Methylphenol		108.00			Compound Not Detected.			
22 Hexachloroethane		117.00			Compound Not Detected.			
23 N-Nitroso-di-n-propylamine		70.00			Compound Not Detected.			
24 3-Methylphenol		108.00			Compound Not Detected.			
25 4-Methylphenol		108.00			Compound Not Detected.			
26 Nitrobenzene		77.00			Compound Not Detected.			
27 Isophorone		82.00			Compound Not Detected.			
28 1-Nitrophenol		139.00			Compound Not Detected.			
29 2,4-Dimethylphenol		122	8.643 (0.929)	13886	1.91813	64.3		
30 Bis(2-Chlorooxy)methane		93.00			Compound Not Detected.			
31 2,4-Dichlorophenol		162.00			Compound Not Detected.			
32 1,2,4-Trichlorobenzene		180.00			Compound Not Detected.			
33 Benzoic acid		121.00			Compound Not Detected.			
34 Naphthalene		128.00			Compound Not Detected.			
35 4-Chloroaniline		127.00			Compound Not Detected.			
36 Hexachlorobutadiene		225.00			Compound Not Detected.			
37 4-Chloro-3-methylphenol		107.00			Compound Not Detected.			
38 2-Methylnaphthalene		142.00			Compound Not Detected.			
39 1-Methylnaphthalene		142.00			Compound Not Detected.			
40 Hexachlorocyclopentadiene		237.00			Compound Not Detected.			
41 2,4,5-Trichlorophenol		196.00			Compound Not Detected.			
42 2,4,5-Trichlorophenol		196.00			Compound Not Detected.			
43 2-Chloronaphthalene		162.00			Compound Not Detected.			
44 2-Nitroaniline		65.00			Compound Not Detected.			
45 Acenaphthylene		152.00			Compound Not Detected.			
46 Dimethylphthalate		163.00			Compound Not Detected.			
47 2,6-Dinitrotoluene		168.00			Compound Not Detected.			
48 3-Nitroaniline		138.00			Compound Not Detected.			
49 Acenaphthene		163.00			Compound Not Detected.			
50 2,4-Dinitrophenol		184.00			Compound Not Detected.			
51 Dibenzofuran		162.00			Compound Not Detected.			
52 4-Nitrophenol		109.00			Compound Not Detected.			
53 2,4-Dinitrotoluene		165.00			Compound Not Detected.			
54 Fluorene		166.00			Compound Not Detected.			
55 Diethylphthalate		149.00			Compound Not Detected.			
56 4-Chlorophenyl-phenylether		204.00			Compound Not Detected.			
57 4-Nitroaniline		136.00			Compound Not Detected.			
58 4,6-Dinitro-2-methylphenol		198.00			Compound Not Detected.			
59 M-Nitrosodiphenylamine		169.00			Compound Not Detected.			
60 4-Bromophenyl-phenylether		248.00			Compound Not Detected.			

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Compound	QUANT SIG	CONCENTRATIONS						REVIEW CODE
		MASS	RT	RKP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/Kg)
59 Hexachlorobenzene	---	264.00				Compound Not Detected.		
60 Pentachlorophenol	---	266.00				Compound Not Detected.		
61 Phenanthrene	---	178.00				Compound Not Detected.		
62 Anthracene	---	178.00				Compound Not Detected.		
63 Di-n-butylphthalate	149	19.078	19.100 (1.098)			20675	3.35020	39.3
64 Fluoranthene	202.00					Compound Not Detected.		
65 Pyrene	202.00					Compound Not Detected.		
66 Butylbenzylphthalate	149.00					Compound Not Detected.		
67 Benzo(a)anthracene	228.00					Compound Not Detected.		
68 3,3'-Bichlorobenzidine	252.00					Compound Not Detected.		
69 Chrysene	220.00					Compound Not Detected.		
70 bis(2-Ethylhexyl)phthalate	149	24.384	24.384 (1.011)			32347	2.87846	95.9
71 Di-n-octylphthalate	149.00					Compound Not Detected.		
72 Benzo(b)fluoranthene	252.00					Compound Not Detected.		
73 Benzo(k)fluoranthene	252.00					Compound Not Detected.		
74 Benzo(a)pyrene	252.00					Compound Not Detected.		
75 Indeno(1,2,3-cd)pyrene	276.00					Compound Not Detected.		
76 Dibenz(a,h)anthracene	278.00					Compound Not Detected.		
77 Benzo(g,h,i)perylene	278.00					Compound Not Detected.		
78 Carbazole	157.00					Compound Not Detected.		
79 N-Nitroso-dimethylamine	74.00					Compound Not Detected.		
80 Aniline	93.00					Compound Not Detected.		
81 Benzidine	194.00					Compound Not Detected.		
82 Azobenzene	77.00					Compound Not Detected.		
161 1,2-Diphenylhydrazine	77.00					Compound Not Detected.		
93 Pyridine	79.00					Compound Not Detected.		

## QC Flag Legend

- Q - Qualifier signal failed the ratio test.  
 M - Compound response manually integrated.