FINAL ENGINEERING REPORT

FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

VOLUME 3
Appendix Q
Off-site Groundwater Investigation

PREPARED FOR:

APOGENT TECHNOLOGIES
PORTSMOUTH, NEW HAMPSHIRE

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SEPTEMBER 2003

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REPORT ON
OFFSITE GROUNDWATER INVESTIGATION
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

by

Haley & Aldrich of New York
Rochester, New York

for

New York State Department
of Environmental Conservation

File No. 70600-001
September 2001

HALEY & ALDRICH

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6 September 2001
File No. 70600-001

New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation – Region 8
6274 East Avon-Lima Road
Avon, New York 14485

Attention: David Pratt, P.E.

Subject: Report on Offsite Groundwater Investigation
Former Taylor Instruments Site
95 Ames Street
Rochester, New York
VCA Index No. B8-0508-97-02

Dear Mr. Pratt:

On behalf of Apogent Technologies Corporation (formerly Sybron Laboratory Products) Haley & Aldrich is pleased to submit this report documenting the offsite groundwater investigation for the above-referenced site. The work was performed in accordance with our Work Plan dated 22 December 1999. This report documents our field activities and provides a summary of our findings.

Please contact us at any time with any questions you may have. Thank you for the opportunity to continue assisting with this project.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Robert J. Mahoney, P.G.
Senior Environmental Geologist

Edward L. Hynes
Vice President

(see distribution list next page)

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I. INTRODUCTION

Haley & Aldrich of New York (Haley & Aldrich), on behalf of Apogent Technologies Corp. (Apogent) has performed an investigation of offsite soil, bedrock and groundwater conditions for the former Taylor Instrument Site, located at 95 Ames Street in Rochester, New York. The work described herein was performed in accordance with the December 1999 "Work Plan for Assessment of Offsite Groundwater Conditions," as approved by the New York State Department of Environmental Conservation (NYSDEC).

1.1 Project Background

The Site has been investigated under the NYSDEC's Voluntary Cleanup Program (VCP). The respondent for the Voluntary Cleanup Agreement (VCA # B8-0508-97-02) is Combustion Engineering (C-E), the current owner of the Site. Apogent Technologies Corp. (formerly Sybron Laboratory Products, Inc.) is involved in the project by virtue of an agreement with Combustion Engineering. An agreement was reached between C-E and Apogent whereby retained overall responsibility as the VCA-respondent, C-E would be responsible for onsite investigation and remediation, and Apogent would be responsible for investigation of the potential presence of contaminants offsite, and remediation if required.

Previous investigations by C-E revealed volatile organic compounds (VOCs) and other contamination was present on the Taylor Instruments site, including two source areas of VOC contamination. In addition, VOC presence was identified in overburden and bedrock monitoring wells located on the north and east property lines. NYSDEC has required that a limited offsite investigation of groundwater conditions in overburden and bedrock be conducted focusing on contaminants related to the Site. Accordingly, this offsite investigation has been undertaken by Haley & Aldrich for Apogent pursuant to the settlement agreement with C-E. This report documents the results of these offsite investigations.

1.2 Project Objectives

The specific objectives of the Work Plan for the offsite groundwater investigation are as follows:

1 Quantify the levels of any site-related VOCs that are present in overburden and bedrock groundwater downgradient from the Taylor Instruments Site.

2 Evaluate the potential for complete residential exposure pathways based upon VOC analytical results, depth to groundwater and proximity of residential areas to areas of offsite VOC groundwater contamination from the Taylor Instruments Site.

The offsite groundwater investigation required the installation of clusters of monitoring wells to assess conditions in the overburden and bedrock groundwater. The wells were sampled and analyzed for the VOCs that have been identified as the compounds of concern in groundwater on the Taylor Instruments Site.

II. FIELD INVESTIGATION AND LABORATORY ANALYTICAL PROGRAM

2.1 Drilling Locations and Access Agreements

A total of four well cluster locations (OS-1, OS-2, OS-3 and OS-4) were completed as part of the investigation, at locations shown on Figure 1. The well locations were reviewed in the field and approved by David Pratt of NYSDEC. The monitoring well clusters at locations OS-1, OS-2 and OS-3 were drilled within the street rights-of-way on Zena, Ames and Syke Streets, respectively. Permits to drill were obtained for each of these locations from the City of Rochester.

Well cluster location OS-4 was drilled on property currently owned by the City of Rochester (address 160 Hague Street). A license agreement, dated 28 December 2000, was obtained through The City's Bureau of Housing Development for permission to access the property to install the wells and perform subsequent groundwater sampling. The license agreement is valid for three years to allow for additional quarterly sampling events. A copy of the agreement is included in Appendix A.

The City parcel is "landlocked" (no access by road), being bounded immediately on the north by a building occupied by Davenport Machine, immediately on the south and west by railroad tracks owned by CSX Transportation, Inc. (CSX), and on the east by the Ames Street underpass. Accordingly, Apogent also obtained a Right-of-Entry Agreement with CSX to allow use of the access road along the railroad tracks to gain access to the City parcel. The Right-of-Entry Agreement (No. CSXT-PI-1019) is valid through 31 March 2002, and is renewable. A copy of the agreement is included in Appendix A.

2.2 Test Borings and Monitoring Well Installation

A total of eight test borings (four pairs) were completed at the locations shown on Figure 1 by Nothnagle Drilling Incorporated of Scottsville, New York, during the period 23 through 30 May 2001 under the direction of Haley & Aldrich. Groundwater monitoring wells were installed in the completed test borings as four well clusters. Each well cluster location consists of one overburden and one bedrock monitoring well. Copies of test boring logs and monitoring well installation reports are included in Appendix B.

Test borings were advanced at the well locations to total depths ranging from approximately 6.5 to 16.4 feet below ground surface for the overburden wells and approximately 18.5 to 36.9 feet below ground surface for bedrock wells. The variation in depths is a result of variation in ground surface elevation and top of bedrock elevation.

Soil samples from the test borings were visually classified and screened in the field using headspace methodology for VOCs with a hand-held photoionization detector (PID). Information regarding soil stratigraphy and VOC screening data for each well cluster is included on the test boring logs. The overburden well test borings were subsequently advanced to terminal depth without soil sampling. At each well cluster location bedrock was cored using an NX-core bit to collect rock samples for visual classification. The upper two feet of bedrock was overdrilled with a 5-7/8 inch tri-cone roller bit to allow installation of a permanent steel monitoring well casing.

Monitoring wells were installed in the completed test borings as an overburden and bedrock pair at each cluster location. Overburden monitoring wells (OS-1 OB, OS-2 OB, OS-3 OB and OS-4 OB) are constructed of two-inch diameter PVC slotted (0.010 inch slot) well screen and riser. Bedrock monitoring well construction (OS-1 BR, OS-2 BR, OS-3 BR and OS-4 BR) includes four-inch steel casing, installed with cement grout a minimum two feet into the top of rock. The open NX-core hole below the casing serves as the monitoring interval. The well clusters include three locations completed with flush-mount steel road boxes (OS-1 OB, OS-1 BR, OS-2 OB, OS-2 BR OS-3 OB and OS-3 BR) and one with stick-up protective steel casings (OS-4 OB and OS-4 BR).

Following installation, each of the wells was developed to recover water lost during drilling and coring (bedrock wells), and to establish hydraulic communication with the geologic formation (all wells). For bedrock wells, the following summarizes the amount of water lost during drilling and the amount recovered during development:

Well No.	Water Lost (gal.)	Water Recovered(gal.)
OS-1BR	15	25
OS2-BR	250	255
OS3-BR	30	30
OS4-BR	30	40

All investigation-derived waste (drill cuttings and development/purge water) was contained in drums and removed from the drill locations on a daily basis. The waste was disposed offsite at a licensed waste management facility in accordance with applicable regulations.

2.3 Surveying of Well Casings

Following installation and development of the monitoring wells, DJ Parrone & Associates of Penfield, New York surveyed reference elevations of the well casings. Elevations for each well are summarized on Table 2. The well clusters were located in the field by Haley & Aldrich by tape measurements from fixed features as shown on Figure 1.

2.4 Groundwater Sampling

After a period of approximately two weeks following installation and development, groundwater samples from the monitoring wells were obtained. Prior to groundwater sampling, static water level measurements were measured concurrently with onsite water level measurements being obtained by Harding ESE (consultant for C-E). Harding ESE is performing sitewide groundwater flow interpretation as part of their ongoing investigation and remediation activity.

Groundwater sampling was performed on 18 June 2001 by Haley & Aldrich personnel in accordance with the sampling procedures included in the Work Plan. Sampling was accomplished using dedicated disposable bailers. Three well volumes were purged before obtaining each sample, and field parameters were measured during well purging. Copies of groundwater sampling records are in Appendix C.

Quality assurance/quality control (QA/QC) samples obtained included a matrix spike, matrix spike duplicate and trip blank. Samples were collected in laboratory-provided containers and handled under standard chain-of-custody procedures.

2.5 Laboratory Analyses

Groundwater samples were analyzed for VOCs by Columbia Analytical Services (CAS) laboratory in Rochester, New York. Groundwater samples were analyzed by NYSDEC CLP-ASP Method 95-1 (certified laboratory program Analytical Services Protocol) with category B deliverables. The groundwater samples were submitted to CAS on 18 June 2001.

III. RESULTS AND DISCUSSION

3.1 Geologic and Hydrogeologic Conditions

3.1.1 Onsite Conditions Described Previously by Others

Hydrogeologic conditions at the former Taylor Instruments Site have been previously described based on the results of the subsurface investigation programs as documented in the Final Investigation Report (FIR) for the Taylor Instruments Site (Harding Lawson Associates, March 1999). Similar geologic and hydrogeologic conditions were identified at the offsite locations areas near the Taylor Instruments Site.

The geologic conditions encountered at the Site during previous investigations include unconsolidated overburden deposits overlying bedrock ranging from approximately 14 to 30 feet in thickness. The bedrock underlying the Site was mapped as the Lockport dolomite. Regionally, this formation consists of flat to gently-dipping medium to thick bedded fine-grained dolomite with interbedded shales.

Groundwater is present within the overburden and in the underlying fractured bedrock beneath the Site. Based on measurements collected during previous Taylor Instruments Site investigations, groundwater flow beneath the Site is generally towards the north and northeast, generally consistent with regional groundwater flow.

3.1.2 Offsite Geologic and Hydrogeologic Conditions Encountered

Overburden

The geological conditions encountered during the offsite drilling investigation are generally similar to conditions identified during previous onsite investigations at the Site. The overburden identified at the offsite drilling locations included soil fill overlying glacially-deposited lacustrine and/or till deposits. The overburden thickness at the offsite locations (OS-1, OS-2, OS-3 and OS-4) ranged from approximately 6.5 to 24.5 feet. The fill, lacustrine and till deposits are generally comprised of silty sand or sandy silt. Copies of the test boring logs with details regarding the overburden soils and bedrock are included in Appendix B.

Bedrock

Bedrock encountered at the offsite well locations is identified as hard, light gray fine grained, thin to very thin-bedded Dolostone. This rock unit is currently mapped as the Eramosa Dolostone, a formation within the Lockport Group. This is a variation from the formation name useage in previous investigations, due to recent revisions in the regional stratigraphic nomenclature for the Niagaran Series in Central and Western New York.

A thin severely weathered zone approximately 0.5 feet and 2 feet thick was observed at the top of rock at locations OS-1 BR and OS-2 BR, respectively. Bedrock core samples were observed to contain occasional pits, vugs and low to high angle partings

at various locations. The depth to the top of rock ranged from approximately 6.5 (or El. 518 at OS-3) to 24.5 (or El. 505 at OS-4) feet below ground surface. A summary of the overburden thickness, top of bedrock elevations, and well completion details is presented on Table 1.

Hydrogeologic Conditions

Subsequent to well development and prior to groundwater sampling, groundwater levels at the offsite well cluster locations were measured on 14 June 2001, concurrent with the collection of onsite groundwater level measurements by Harding ESE. Groundwater elevations for offsite wells are shown on Table 1. Groundwater elevations in the offsite overburden wells ranged from approximate El. 517 (at OS-1 OB and OS-2 OB) to El. 523 (at OS-4 OB). The overburden well at cluster OS-3 was dry (< El. 518); it appears the static groundwater piezometric surface is below the top of rock (El. 518) at this location. Groundwater elevations in the offsite bedrock wells ranged from approximate El. 511.5 (at OS-1 BR and OS-2 BR) to El. 519 (at OS-4BR).

The groundwater level data from the offsite wells was provided to Harding ESE (consultant for Combustion Engineering), who will integrate the data into the overall sitewide groundwater flow evaluation, including representation of groundwater potentiometric surface for both onsite and offsite wells.

The groundwater conditions encountered indicate the overburden is relatively fine-grained and of low permeability. Flow zones were encountered in the bedrock, which is typical of the Eramosa Formation near the top of rock.

3.2 Analytical Results and Discussion

The analytical results from the offsite investigation are summarized on Table 2 and discussed in the following section.

Soil:

As part of the investigation soil samples were visually classified and screened for VOCs in the field. There were no VOCs detected in the soil samples during the field screening, as indicated on the test boring reports in Appendix B. Laboratory analysis of soil samples was not required by the work plan.

Overburden Groundwater:

Groundwater samples were collected and submitted for analysis from the overburden monitoring wells OS-1 OB, OS-2 OB, OS-3 OB and OS-4 OB. As shown on Table 2, no VOCs were detected in any of the overburden groundwater samples, with the exception of acetone at 6 and 7 parts per billion (ppb) in OS-1 OB and OS-3 OB, respectively. Given the presence of acetone in a laboratory blank sample, the detection of this substance in these samples is attributed to laboratory contamination and is not considered to reflect groundwater conditions.

Bedrock Groundwater:

Groundwater samples were collected and submitted for analysis from the bedrock monitoring wells OS-1 BR, OS-2 BR, OS-3 BR and OS-4 BR. As shown on Table 2, no VOCs were detected in any of the bedrock groundwater samples, with the exception of acetone at concentrations ranging from 2 to 5 ppb in three of the wells. As with the overburden results, this is also attributed to laboratory contamination and is not considered to reflect groundwater conditions based on the presence of this substance in a laboratory blank sample analysis.

3.3 Data Usability Summary Report

Analytical results for CAS Submission #R2107196 were reviewed to evaluate the data usability. The review was completed by Denis M. Conley of Haley & Aldrich, a Certified Data Validator.

The data package included seven groundwater samples, one trip blank sample and one cooler blank with site specific matrix spike and matrix spike duplicate samples (MS/MSD). Data were assessed in accordance with the NYSDEC's "Guidance for the Development of Quality Assurance Plans and Data Usability Summary Reports (DUSR)"(September 1997) and the "NYSDEC ASP 2000 Review Guidelines," where applicable. This DUSR pertains to the groundwater samples collected by Haley & Aldrich personnel on 18 June 2001.

The following items/criteria applicable to the QA/QC data and samples listed above were reviewed:

- Blanks
- Instrument Tunings
- Calibration Standards
- Calibration Verification
- Surrogate Recoveries
- Spike Recoveries
- Replicate Analyses
- Laboratory Controls
- Sample Data
- Holding Times
- Data Qualifiers

The above items were in compliance with NYSDEC DUSR guidance criteria with the exception of the items discussed in the following text. The data have been reviewed according to the above procedures.

Blanks

Method blank VBLK #1 indicated the presence of acetone at an estimated (J) concentration of 1.7 ug/L. Since acetone is commonly used in laboratory procedures and a suspected laboratory contaminant, EPA guidance recommends that all sample data at a concentration of less than 10 times the detected value in the blank be flagged "B". Thus, detections of acetone in the field samples at a concentration of less than 17 ppb were flagged "B" and not

considered representative of site conditions. No other target compounds were detected in the method blank sample. No further action is required.

Instrument Tunings

GC/MS instruments were tuned using bromofluorobenzene (BFB) within twelve hours of the analysis of the project samples without exception in accordance with the prescribed analytical protocol. All tuning criteria were met prior to the initiation of each analytical batch which included the project samples or selected re-analyses of project samples performed.

Calibration Verification

The percent difference (%D) between the relative response factor (RRF) from the initial calibration and the RRF from the continuing calibration standard analyzed concurrent with the project samples met the USEPA technical criteria of 25.0% D without exception. No corrective action is required.

The percent difference (%D) between the RRF from the initial calibration and the RRF from the continuing calibration standard analyzed concurrent with the project samples met the USEPA technical criteria of 25.0% D without exception. No corrective action is required.

Replicate Analysis

Field duplicate samples were not collected and/or analyzed as part of these submissions. Analytical precision was evaluate based on the Matrix Spike and Matrix Spike duplicate analyses performed on the project samples within each submission.

The reported results for OS-4S MS/MSD analyses fell within acceptance criteria without exception. No further corrective action is recommended.

Summary

The results presented in Submission #R2107196 are compliant and usable, without further qualification. Based on our review, the usability of these submissions is 100% with the qualification of Acetone results as noted above.

IV. FINDINGS AND CONCLUSIONS

Haley & Aldrich has performed an investigation of offsite groundwater conditions associated with the former Taylor Instruments Site at 95 Ames Street in Rochester, New York. The work was performed in accordance with a work plan submitted to, and approved by, the New York State Department of Environmental Conservation (NYSDEC). This investigation was conducted in response to requests made by the NYSDEC and the New York State Department of Health (NYSDOH) for additional assessment of offsite groundwater conditions at the Taylor Instruments Site to confirm that there continues to be no threat to human health. This investigation involved the installation and sampling of groundwater from wells installed beyond the property limits and downgradient from the Taylor Instruments Site, generally between the Site and the nearest offsite residential/industrial areas (excluding the railroad right of way) as well as at other locations requested by NYSDEC. The specific intent of this investigation was to determine whether groundwater is impacted by Site-related contaminants at these locations and, if so, whether contaminants in groundwater could create a risk of residential exposure pathways.

Findings

A total of eight groundwater monitoring wells were installed as pairs at four offsite locations. Each pair consisted of one overburden and one bedrock monitoring well. Field screening of soil samples from test borings at the well locations did not indicate the presence of VOC contaminants.

Groundwater samples were obtained from each completed offsite well (except for one overburden well that did not produce water) and submitted for laboratory analysis for VOC presence. None of the samples contained VOCs at detectable levels, with the exception of low level detections of acetone in five of the samples as well as in a laboratory quality control sample. The presence of acetone in the laboratory blank suggests its presence is attributable to laboratory contamination and that it is not present in groundwater.

Conclusions

Results of this investigation indicate that VOCs related to the Taylor Instruments Site are not present above analytical detection limits either in the overburden or bedrock groundwater at any of the offsite well locations. It is our opinion that the results of these investigations fulfill the work plan objectives in that these data further confirm that there are no complete residential exposure pathways. Based on this, and the lack of detection of site-related VOCs in the groundwater, there continues to be no threat to human health or the environment posed by VOCs from the Taylor Instruments Site.

In accordance with requirements of the work plan, groundwater levels will continue to be monitored quarterly in offsite wells for two years. The water level measurements will be obtained concurrently with readings for the onsite wells by Harding ESE, and the data provided to Harding ESE for integration into ongoing sitewide evaluation of conditions.

Former Taylor Instruments Site
Offsite Groundwater Investigation

Table 1
Well Construction Summary

Test Boring/ Well ID	Ground Surface Elevation	Riser Reference Elevation*	Overburden Thickness	Top of Bedrock Elevation	Installed Well Monitoring Interval
Bedrock					
OS-1BR	519.9	519.55	8.7	511.2	498.4 - 508.4
OS-2BR	525.8	525.22	12	513.8	500.5 - 510.3
OS-3BR	524.5	524.30	6.5	518	506.0 - 516.0
OS-4BR	530.1	531.09	24.5	505.6	493.0 - 503.4
Overburden					
OS-1OB	520.0	519.76	8.7	--	511.2 - 515.2
OS-2OB	525.8	525.44	12	--	513.8 - 520.8
OS-3OB	524.6	524.31	6.5	--	518.4 - 521.4
OS-4OB	530.1	530.99	24.5	--	513.9 - 523.9

Notes:

1. * Riser elevations surveyed using onsite reference monument, identified to be Rochester City Survey(RCS) datum by surveyor (DJ Parrone & Associates)
2. Groundwater Elevations determined from groundwater level measurements collected by H&A on 14 June 2001
3. Installed well interval for bedrock wells is open NX core hole and for overburden wells is screened interval.

Former Taylor Instruments Site
Offsite Groundwater Investigation

Table 2
Summary of Water Levels

Well ID	Riser Reference Elevation (ft)*	Depth to Water from top of riser (ft)	Groundwater Elevation
Bedrock			
OS-1BR	519.55	8.08	511.47
OS-2BR	525.22	13.5	511.72
OS-3BR	524.30	9.15	515.15
OS-4BR	531.09	12.14	518.95
Overburden			
OS-1OB	519.76	3.08	516.68
OS-2OB	525.44	7.62	517.82
OS-3OB	524.31	dry	<518.1
OS-4OB	530.99	7.41	523.58

Notes:

1. * Riser elevations surveyed using onsite ref. monument, identified as Rochester City Survey(RCS) datum by surveyor
2. Groundwater level measurements collected by H&A on 14 June 2001

G:\Projects\70600\001\Offsite Drilling\[Report Tables.xls]Tab 1 - Wells & Geol

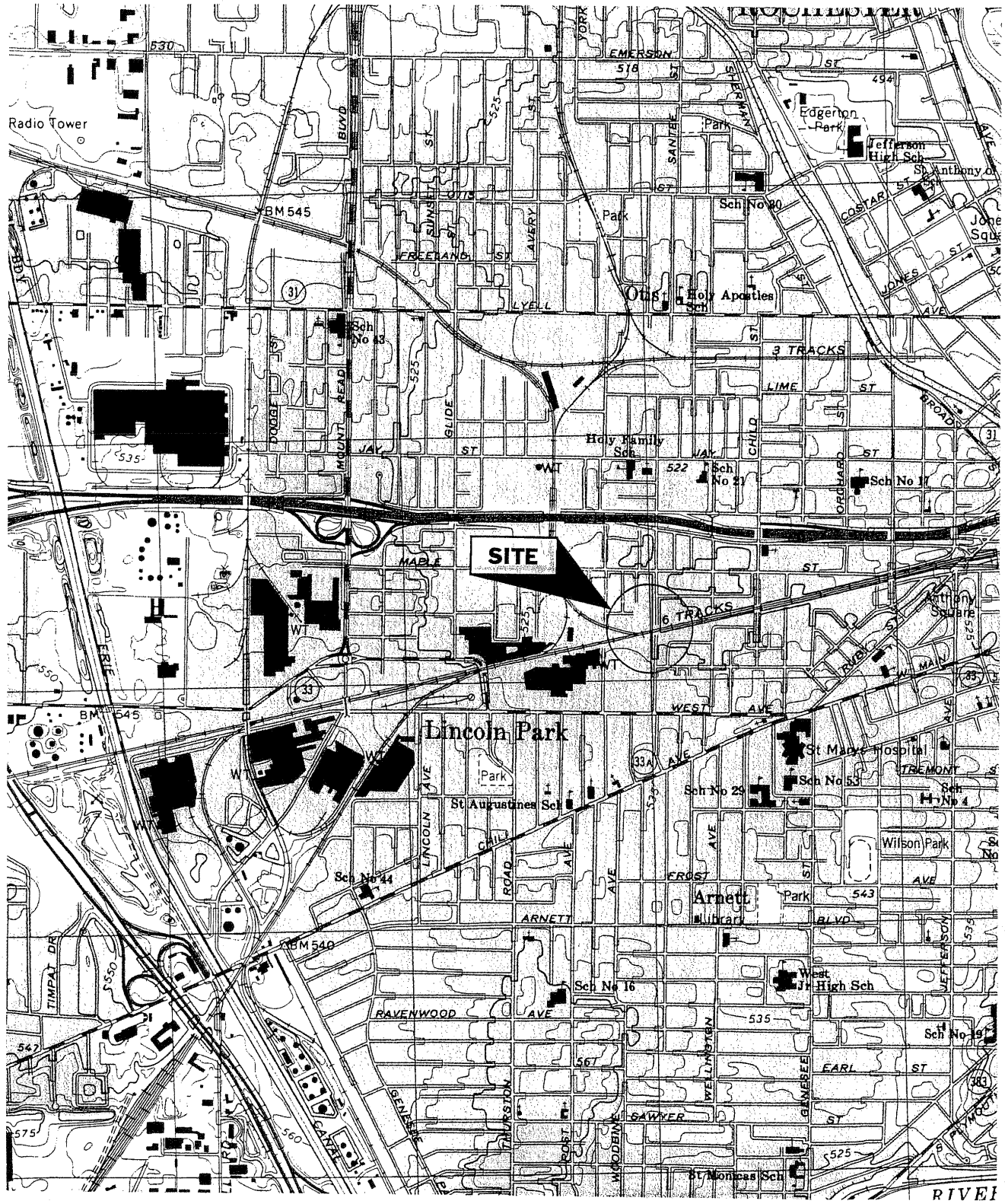
Former Taylor Site
Offsite Groundwater Investigation

Table 3
Groundwater Analytical Results

				OVERBURDEN						BEDROCK							
				OS-1S		OS-2S		OS-4S		OS-1D		OS-2D		OS-3D		OS-4D	
COMPOUND	MDL	PQL	UNIT	RESULT	FLAG	RESULT	FLAG	RESULT	FLAG	RESULT	FLAG	RESULT	FLAG	RESULT	FLAG	RESULT	FLAG
(M+P)XYLENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
ACETONE	10	10	UG/L	6.00	J	10.00	U	7.00	J	5.00	J	2.00	J	10.00	U	4.00	J
BENZENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
BROMODICHLOROMETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
BROMOFORM	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
BROMOMETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
2-BUTANONE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CARBON DISULFIDE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CARBON TETRACHLORIDE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CHLOROBENZENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CHLOROETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CHLOROFORM	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CHLOROMETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
DIBROMOCHLOROMETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
1,1-DICHLOROETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
1,2-DICHLOROETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
1-DICHLOROETHENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
TRANS-1,2-DICHLOROETHENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CIS-1,2-DICHLOROETHENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
1,2-DICHLOROPROPANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
TRANS-1,3-DICHLOROPROPENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
CIS-1,3-DICHLOROPROPENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
ETHYLBENZENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
2-HEXANONE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
METHYLENE CHLORIDE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
4-METHYL-2-PENTANONE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
STYRENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
1,1,2,2-TETRACHLOROETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
TETRACHLOROETHENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
TOLUENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
1,1,1-TRICHLOROETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
1,1,2-TRICHLOROETHANE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
TRICHLOROETHENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
VINYL CHLORIDE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U
O-XYLENE	10	10	UG/L	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U	10.00	U

Notes:

1. Results expressed in ug/l (ppb).
2. Well OS-3S not sampled due to lack of water.
3. Samples obtained 18 June 2001.
4. Qualifiers: "J" - Estimated value below PQL; "U" - analyted not detected.



U.S.G.S. QUADRANGLE: ROCHESTER WEST, NY

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK
OFFSITE GROUNDWATER INVESTIGATION

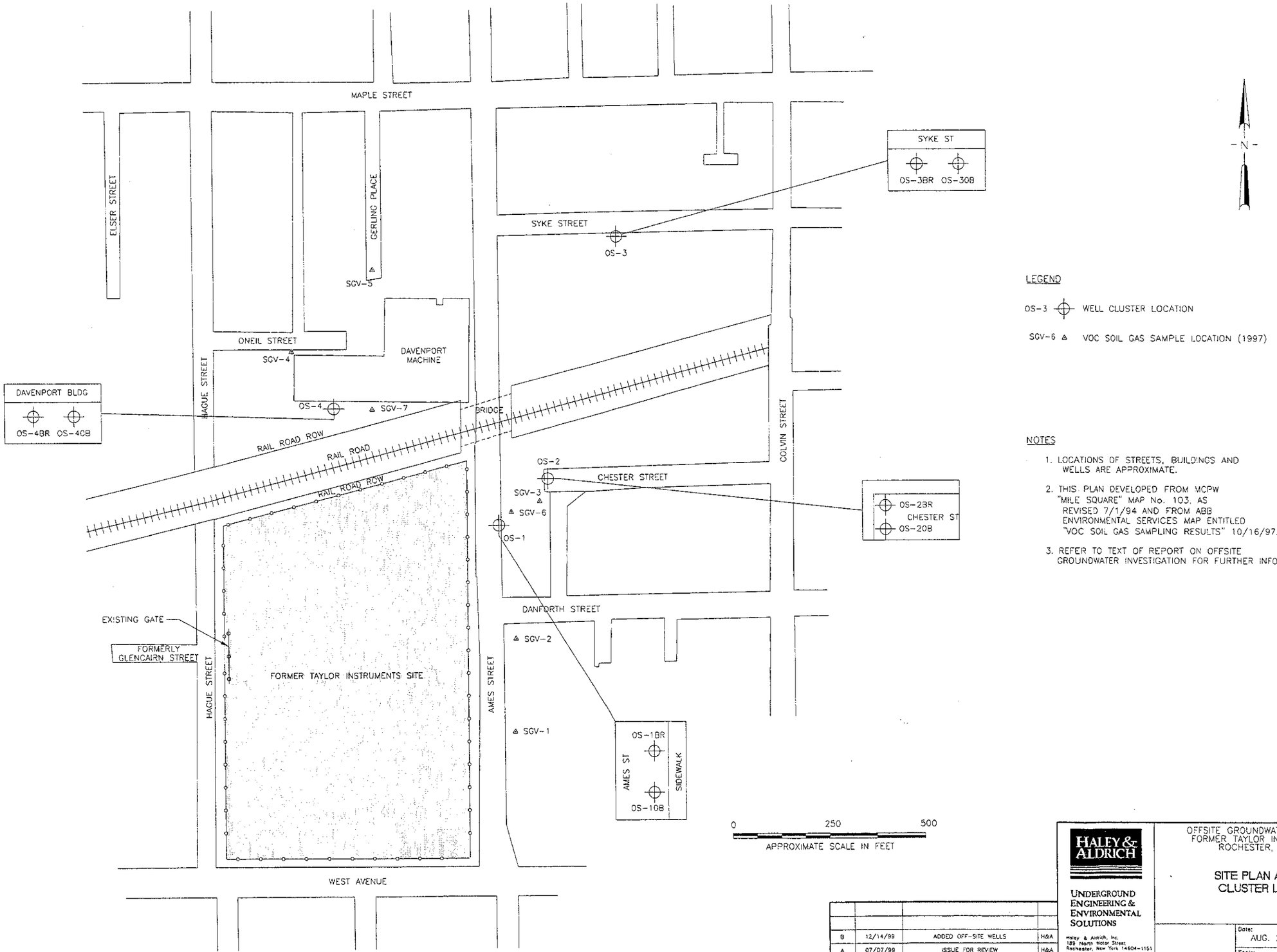
PROJECT LOCUS

APPROXIMATE SCALE: 1:24,000

AUGUST 2001

70600-001 LOCUS.DWG

FIGURE 1



LEGEND

OS-3 ⊕ WELL CLUSTER LOCATION

SGV-6 △ VOC SOIL GAS SAMPLE LOCATION (1997)

NOTES

1. LOCATIONS OF STREETS, BUILDINGS AND WELLS ARE APPROXIMATE.
2. THIS PLAN DEVELOPED FROM MCPW "MILE SQUARE" MAP No. 103, AS REVISED 7/1/94 AND FROM ABB ENVIRONMENTAL SERVICES MAP ENTITLED "VOC SOIL GAS SAMPLING RESULTS" 10/16/97.
3. REFER TO TEXT OF REPORT ON OFFSITE GROUNDWATER INVESTIGATION FOR FURTHER INFORMATION.

ISSUE	DATE	REVISIONS	BY
B	12/14/99	ADDED OFF-SITE WELLS	H&A
A	07/07/99	ISSUE FOR REVIEW	H&A

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

Haley & Aldrich, Inc.
189 North Water Street
Rochester, New York 14604-1151
Tel: 716.232.7386
Fax: 716.232.6708

OFFSITE GROUNDWATER INVESTIGATION
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

SITE PLAN AND WELL CLUSTER LOCATION

Project Engineer:	WCH/ELH
Designed By:	H&A
Drawn By:	RLWi
Checked By:	WCH/ELH
Sheet No.:	1 of 1
Date:	AUG. 2001
File No.	70600-001
Scale:	AS SHOWN
Filename:	FIGURE2.DWG
Drawing No.	
Issue	

70600-001 FIGURE2.DWG

FIGURE 2

APPENDIX A

Access Agreements

April 25, 2001

Mr. Robert Mahoney
Haley & Aldrich of New York
200 Town Centre Drive, Suite 2
Rochester, NY 14623

RE: Right-of-Entry/ Apogent Technologies Corp
Agreement No.: CSXT-PI-1019

Dear Mr. Mahoney:

Attached is a fully executed original Agreement dated February 26, 2001.

CSX Transportation, Inc.'s Risk Management Department has reviewed and approved your insurance coverage.

It is your responsibility to schedule any work on CSXT property with CSXT's Representative, Mr. Tom W. Bodkin at (518) 767-6358, at least 10 days in advance of the date you desire to commence the project. No work is to be performed on Railroad property without Mr. Bodkin's authorization.

The attached Agreement covers only the Work specified within it. Any requests for changes or additions to the Work must be submitted to AMEC Earth and Environmental, Inc. Approval of such changes or additions, as well as an Amendment of the Agreement, must be finalized before proceeding.

The Agreement, and your right to enter CSXT property, will expire on March 31, 2002. Please make a note of this date. If you require entry onto CSXT property beyond that date, it is your responsibility to request an extension, at least 45 days prior to expiration of the Agreement by writing AMEC, Attn: R/E, at the address below.

Sincerely,

AMEC Earth and Environmental, Inc.

Sue Wilcox

Sue M. Wilcox
Environmental Scientist

Attachment

AMEC Earth & Environmental, Inc.
496 Osceola Ave.
Jacksonville Beach, FL 32250
Tel. 904-247-4455
Fax. 904-247-4493
www.amec.com

CSX Transportation, Inc.

Temporary Right of Entry Agreement

Agreement No.: CSXT-PI-1019

This Agreement is entered into on February 26, 2001, by and between CSX Transportation, Inc., hereinafter called "Railroad", a Virginia corporation with its principal place of business in Jacksonville, Florida, and **Apogent Technologies Corp.**, hereinafter called "Licensee".

WHEREAS, Licensee has submitted a written application to Railroad on **November 2000 and January 4, 2001**, requesting permission to enter Railroad's property located within **Albany Division and Chicago Line at DOT 520 886 H/Milepost QCR O-2.10, Maple Street, Rochester, Monroe County, New York**, hereinafter called "Property", for the purpose of **transporting, excluding any storage of, vehicles and equipment along CSXT right-of-way to gain access to City of Rochester property to the north of track spur for installation and periodic sampling of monitoring wells** hereinafter called "Work"; and

WHEREAS, Railroad is willing to grant to Licensee the limited right and permission to enter upon the Property for the limited purpose of performing said Work.

NOW THEREFORE, Railroad hereby grants to Licensee the right and permission to enter upon the Property for the purpose of performing said Work, subject to the terms and conditions set forth below:

1. WORK: The Work shall be performed at the entire cost and expense of Licensee, in accordance with good and sound engineering practices, to the satisfaction of Railroad's Chief Regional Engineer, or his duly authorized representative, and in a manner to avoid accidents and damages or unnecessary delays to or interference with train traffic of Railroad.

2. INDEMNITY: Licensee hereby assumes risk of and agrees to indemnify, defend, protect and save Railroad harmless from and against:

   a) injury to or death of any person or persons whomsoever, including but not limited to the agents, servants or employees of the parties hereto;
   b) the loss or damage to any property whatsoever, including property owned or in the care, custody or control of the parties hereto;
   c) any environmental damage; and
   d) all claims, demands, suits, judgments, settlements, fines, penalties, attorneys fees or expenses incurred in connection therewith;

   resulting from or arising out of the sole or concurring acts or omissions of Licensee, or its contractors, agents, servants or employees, committed in the performance or execution of the Work performed under this Agreement or incidental thereto or related to Licensee's presence on the Property.

3. GENERAL LIABILITY INSURANCE: Licensee shall carry Public Liability or Commercial General Liability Insurance, covering Licensee's direct and assumed liability, under this Agreement. Coverage of not less than Two Million dollars ($2,000,000.00) Combined Single Limit per occurrence for personal injury and property damage is required by Railroad. Licensee shall furnish an appropriate Certificate of Insurance, naming Railroad as Additional Insured, with the return of this executed Agreement.

4. RAILROAD PROTECTIVE LIABILITY INSURANCE: Licensee hereby agrees to also pay to Railroad a construction risk fee in the amount of **ONE THOUSAND, FIVE HUNDRED DOLLARS ($1,500.00)** or, alternatively, purchase Railroad Protective Liability Insurance in accordance with Railroad's requirements (attached) for the benefit of Railroad for Licensee's operations as covered by this Agreement. Licensee shall furnish a check or an appropriate Certificate of Insurance with the return of this executed Agreement.

5. PRIOR NOTIFICATION: Licensee or Licensee's contractor shall notify the Railroad's Project Engineer, **Tom Bodkin** at **(518) 767-6358** at least 10 days prior to proceeding with the Work on the Property and shall abide by the instructions of the Chief Regional Engineer, or his authorized representative, insofar as the Property and the safety of the Railroad is concerned.

6. CLEARANCES: No equipment of Licensee, or of its contractor, shall be placed and operated, nor Work permitted to be performed at a distance closer than twenty-five (25) feet from the center of any track, unless prior arrangements have been made with the Chief Regional Engineer's office for flagging protection. Equipment shall be moved across the Railroad's track(s) only at a public crossing unless prior arrangements have been made with said Chief Regional Engineer's office. All precautions must be taken by Licensee and its contractor to avoid interference with or damage to Railroad's signal and communication facilities during the course of said Work.

7. PROTECTIVE SERVICES: Railroad shall furnish such personnel, flagman or watchman, which in Railroad's opinion may be necessary to protect the facilities and traffic of Railroad during the performance of said Work. Licensee, or its contractor, shall pay for the actual cost of said services, including all applicable surcharges.

8. PAYMENT: Payment to be made by Licensee in accordance with either of the following options indicated below.

( ) **Option 1**: Licensee shall, beyond any fees rendered to Railroad under #2 and #5, provide an advance deposit of funds based on an estimate of the cost of protective or other services as determined solely by the Railroad. The actual cost for Railroad's services shall then be assessed by Railroad against this advance deposit. Upon completion of the Work, any unused funding will be returned to Licensee. If Railroad's actual costs exceed the advance deposit(s), a request will be made to Licensee for additional funding or an invoice will be issued to Licensee for final payment. Licensee shall remit payment to Railroad within thirty days of receipt of either a request for additional funds or an invoice.

(**X**) **Option 2**: Licensee shall reimburse Railroad promptly for the actual cost of protective or other services on an as-incurred basis, including all applicable surcharges, upon receipt of bill or bills therefor.

9. ENVIRONMENTAL: **This Agreement does not include and expressly excludes the performance of any site investigation activities designed to determine environmental conditions on or beneath the Property.** Precluded activities include performing soil borings for purposes other than geotechnical investigation, obtaining soil, sediment, groundwater and surface water samples, and conducting field or laboratory analyses of any soil, sediment, groundwater or surface water samples obtained from Railroad properties to identify chemical composition or environmental condition. *If any type of environmental investigation is desired, a separate right of entry agreement issued through Railroad's Environmental Department must be secured.*

10. CLAIMS: Licensee shall, or shall require its contractor to, promptly notify said Chief Regional Engineer or his representative of any loss, damage, injury or death arising out of or in connection with said Work to be performed.

11. REMEDIATION: It is understood and agreed that, upon completion of said Work, the Property shall be left in a condition satisfactory to Railroad's Chief Regional Engineer or his duly authorized representative.

12. SAFETY: All personnel entering the Property must comply with the Railroad safety rules and requirements to include, without exception, the wearing of hard hats and approved safety shoes and glasses. Anyone not in compliance with these rules and regulations will be asked to leave the Property.

13. TERM: This right-of-entry and the permission conferred and the license granted by it does not constitute a grant of permanent easement and shall terminate upon completion of the Work or at midnight, **March 31, 2002**, whichever occurs first, unless extended in writing by Railroad. In the event Licensee fails to comply with terms and provisions of this Agreement, Licensee agrees to pay and agrees that Railroad shall be entitled to recover costs and expenses incurred by Railroad, including legal fees and expenses, to enforce the terms of the Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

ACCEPTED: Apogent Technologies Corp.

By: _____

Print Name: Michael K. Bresson

Title: Exec VP - Gen Counsel & Secty

Date: March 22, 2001

CSX Transportation, Inc.

By: Carl A. Roe Jr.

Print Name: Carl A. Roe, Jr., P.E.

Principal Engineer – Public Improvements

Date: 4/19/01, 20____

H&A OF NY

DEC 29 2000

RECEIVED

City of Rochester

Rochester, NY
All-America City
1998

FAX (716) 428-6229
TDD/Voice 232-3260

Bureau of
Housing & Project Development

Department of
Community Development

City Hall, Room 028-B
30 Church Street
Rochester, New York 14614-1290

December 28, 2000

Mr. Robert T. Mahoney, P.G.
Haley & Aldrich of New York
200 Town Centre Drive, Suite 2
Rochester, New York 14623-4264

428 6913

Re: License Agreement - 160 Hague Street

Dear Mr. Mahoney:

Attached are two copies of a License Agreement between the City of Rochester and Sybron International Corporation for property located at 160 Hague Street. The Agreement will provide access to the City owned vacant land for the installation, maintenance and sampling of two groundwater monitoring wells. The term of the License will be for three years. Sybron will have the option of extending the Agreement for two periods of one year each.

Please have both copies signed and notarized by the appropriate individual at Sybron and return them to me. Once City Council has authorized the Agreement, I will have it fully executed by the City and send you a copy for your records.

If you have any questions regarding this matter you can contact me at 428-6913.

Sincerely,

Robert J. Zimmer
Sr. Real Estate Specialist

RJZ:JS
Attachments

xc: A. Fitzpatrick, Director of Real Estate
D. Harradine, Municipal Attorney

EEO Employer/Handicapped

LICENSE AGREEMENT

THIS LICENSE AGREEMENT is made and entered into this _____ day of _____, 200__, by and between the **CITY OF ROCHESTER**, a municipal corporation with offices at City Hall, 30 Church Street, Rochester, New York 14614 (hereinafter called "City"), and **SYBRON INTERNATIONAL CORPORATION**, a corporation with offices c/o Sybron Laboratory Products Corp., 10 Pleasant Street, Portsmouth, New Hampshire 03801 (hereinafter the "Company").

RECITALS:

WHEREAS, the City is the owner of land at 160 Hague Street in the City of Rochester, New York (hereinafter, the "Property"); and

WHEREAS, the Company is undertaking environmental investigation and remediation at the former Taylor Instruments Site on Ames Street, in close proximity to the Property, pursuant to New York State Department of Environmental Conservation's Voluntary Cleanup Program ("VCP"); and

WHEREAS, the Company has requested permission to install a groundwater monitoring well on the Property in the location set forth on Schedule A attached hereto, to evaluate potential migration of contaminants; and

WHEREAS, the City is willing to allow the Company to install a groundwater monitoring well on the Property, on the terms and conditions of this License Agreement.

NOW, THEREFORE, the parties do hereby agree and covenant as follows:

A. COMPANY ACTIVITIES. The City hereby grants the Company the license and permission for the Company, its employees, agents and contractors to perform the following:

1. Drill, install and sample two groundwater monitoring wells (the "Wells") on the Property [one an overburden well screened across the water table, and the other a bedrock well with an open monitoring interval of 2.0 to 12.0 ft. below the top of bedrock (or potentially at a greater interval based on bedrock groundwater conditions observed during the drilling program] in the locations set forth on Schedule A attached hereto and made a part hereof. Installation of the Wells in different location(s) requires the prior written approval of the City. The Company shall maintain the Wells in safe condition.

2. Such other activities related to the Wells as approved in writing by the City.

3. The CSXT railroad right-of-way along the railroad spur which crosses Maple

Street near Orren Street shall be used for drilling equipment to access the Property, unless other access is approved in writing by the City.

B. TERM. The term of this license shall commence on February 1, 2001, and continue thereafter for a term of three years, terminating on January 31, 2004. However, upon approval by the Mayor of the City of a City Council ordinance approving this license and execution of this License by the Company, the Company may enter upon the Property in accordance with the terms of this License from the date of such approval to January 31, 2001.

C. RENEWAL. Provided that the Company is not in default of the terms and conditions of this Agreement, the Company may extend this License for two successive one-year renewal terms, upon the Company giving the City written notice of its election to renew this Agreement at least ninety (90) days prior to the expiration of the then current term, pursuant to Section J herein. The first renewal term, if applicable, shall be from February 1, 2004 to January 31, 2005. If the Company does not elect to renew this Agreement during the original three-year term, there shall be no further right of renewal.

D. LICENSE FEE. The Company shall pay the City **ONE HUNDRED DOLLARS ($100.)** for each twelve-month period of the original term and each renewal term herein, payable to the City on or before the 5th day of each February during the original term and each applicable renewal term.

E. LICENSE CONDITIONS. This license is granted by the City conditioned upon the following terms and conditions:

1. The Company shall submit to the City a detailed outline of its planned activities and work schedule of the work on the Property for the written consent of the City;

2. The Company shall minimize to the extent possible any disruption of the portions of the Property not used by the Company;

3. The Company must obtain all governmental permits and approvals required for any activities it undertakes on the Property. The City shall assist the Company in obtaining such permits and approvals. However, such assistance is not a guarantee of obtaining any permits and approvals from the City acting in its governmental capacity.

4. The Company shall comply with all laws, rules, regulations, and orders of Federal, State, County and City authorities (hereinafter, "Legal Requirements") insofar as they are applicable to the Company's activities for the Project and on the Property, including but not limited to "Environmental Laws", as hereinafter defined.

5. The Company shall refrain from making any deposits of objectionable materials and debris, and Hazardous Substances, in, on or at the Property, except if in accordance with applicable Environmental Laws and Legal Requirements and if such materials, debris, and Hazardous Substances are removed by the Company from the Property in accordance with Environmental Laws and Legal Requirements.

6. The Company shall give the City written notice of the name of any contractor entering upon the Property pursuant to this License Agreement, at least twenty-four (24) hours prior to such entry.

7. The Company shall notify the City by personal delivery of a written notice as soon as reasonably possible, but not later than on the first business day following the discovery of any Hazardous Substance and/or any violation of Environmental Law on the Property caused by the Company's activities.

8. The Company upon expiration or termination of this License Agreement shall restore the Property to the condition existing at the commencement of this License, including repairing or replacing any monitoring wells on the Property and/or decommissioning any monitoring wells upon request of the City in a manner acceptable to the City's Division of Environmental Quality.

9. This license is non-exclusive. The City may enter upon the License Area used by the Company, provided that such entry and access does not unreasonably impede the Company's activities at the Property.

F. ENVIRONMENTAL CONDITIONS. The Company shall comply with the following:

1. The Company shall be responsible at its expense for the remediation of any soil contamination or groundwater contamination resulting from its activities, including but not limited to any leakage or spillage onto the Property. The Company shall share with the City any analytical and/or laboratory results regarding the sampling from the Wells. The Company shall undertake such measures required by the City to safeguard from such leakage or spillage. If evidence of leakage and/or spillage is apparent, the Company shall perform confirmatory analytical sampling and/or remediation in accordance with applicable laws.

2. The City shall have the right to inspect and document the Company's activities to ensure that the Company's activities are performed in accordance with this Agreement and Environmental Laws and Legal Requirements.

G. INDEMNIFICATION. The Company from and after the date of the commencement of the term of this license shall defend, indemnify, and hold the City harmless against **(1)** any and all claims, suits, damages or causes of action for damages arising during the

term of this lease, and against any order or decrees or judgments which may be entered therein, brought for damages or alleged damages resulting from any injury to person and/or property or loss of life sustained on the Property by any person or persons whatever, and/or **(2)** any expense the City may incur, which may result from **(a)** the environmental remediation by the City of any spills or leakage on the Property, and/or **(b)** the violation of any Environmental Law(s) on the Property, **if** any or all of the foregoing is a result of the activities of the Company, its employees, agents and contractors on the Property, except if caused by the fraud, wilful misconduct, intentional or negligent act or omission of the City.

H. DEFINITIONS. For purposes of this License Agreement, the following terms shall have the indicated meanings:

"Environmental Laws" mean all federal, state and local environmental, health, chemical use, safety and sanitation laws, statutes, ordinances and codes relating to the protection of the environment and/or governing the use, storage, treatment, generation, transportation, processing, handling, production or disposal of Hazardous Substances and the legally enforceable rules, regulations, policies, guidelines, interpretations, decisions, orders and directives of federal, state and local governmental agencies and authorities with respect thereto.

"Hazardous Substance" means, without limitation, any flammable explosives, radioactive materials, asbestos, urea formaldehyde foam insulation, polychlorinated biphenyls, polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans, petroleum and petroleum products, methane, hazardous materials, hazardous wastes, hazardous or toxic substances or related materials, as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601, et seq.), the Hazardous Materials Transportation Act, as amended (49 U.S.C. Sections 1801, et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. Sections 6901, et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. Section 2601, et seq.), Articles 15 and 27 of the New York State Environmental Conservation Law or any other currently applicable Environmental Law and the regulations promulgated thereunder.

I. INSURANCE. The Company at all times during the term of this License shall maintain, at its expense, (1) single limit general liability policy for the Property which shall afford protection to the limit of $4,000,000. in the event of injury or death in one occurrence, and (2) to the limit of $1,000,000. for property damage.

Each insurance policy shall be issued in the name of the Company and the City, as their interests may appear. Each such insurance policy shall be placed with a financially sound and reputable insurer licensed to do business in New York State, and

shall not contain any exclusions on the insurance coverage regarding property owned or leased by municipalities or corporate governmental agencies, or the personnel, employees, invitees, licensees or agents of municipalities or corporate governmental agencies. The coverage may be part of blanket policies insuring other interests of Company. Each said policy shall contain a ten day cancellation or expiration, to notify the City of such cancellation or expiration. A copy of all such policies or a bona fide certificate of insurance, evidencing the coverage provided in the polices, shall be delivered to the City upon execution of this License Agreement by the Company.

J. NOTICES. Any notice, demand or request required or agreed to be given under this License by either party shall be sufficiently given or served if in writing and signed by the party giving it and mailed by certified mail, return receipt requested, addressed to the party to be notified as follows:

TO LANDLORD: Director of Real Estate
City Hall
30 Church Street
Rochester, New York 14614

With copy to:
Corporation Counsel
(same address as
Landlord)

TO COMPANY: (Title:) _____
SYBRON INTERNATIONAL CORPORATION
c/o Sybron Laboratory Products Corp.,
10 Pleasant Street
Portsmouth, New Hampshire 03801

or to such other address as the City and the Company may from time to time designate by giving notice thereof in writing. Service shall be complete upon such mailing except in case of a notice to change an address in which case service shall be complete when the notice is received by the addressee.

K. GENERAL PROVISIONS.

1. The captions of this License are for convenience of reference only and in no way define, limit or describe the scope or intent of this License or in any way affect this lease.

2. This License cannot be changed or terminated orally, but only by an instrument in writing executed by the party against whom enforcement of any waiver, change, modification or discharge is sought

3. This agreement shall be governed by and construed in accordance with the laws of the State of New York.

4. The agreements, terms, covenants and conditions herein shall bind and inure to the benefit of the City and the Company and their respective successors and (except as otherwise provided herein) assigns.

5. If any provision of this Agreement is held invalid by a court of law, the remainder of this Agreement shall not be affected thereby, if such remainder would then continue to confirm to the laws of the State of New York.

6. This License contains the entire agreement between the parties and it may not be changed orally or by any agreement between the parties unless in writing, signed and acknowledged by the parties or their successors.

7. The Company shall not assign or transfer its rights under this License without the prior written consent of the City, in the City's sole discretion.

8. Any lawsuit, legal action or proceeding regarding this License shall be brought in the Supreme Court of the State of New York, located in Monroe County, New York.

9. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which be deemed to constitute but one and the same agreement.

IN WITNESS WHEREOF, the Company and the City have executed this License Agreement as of the date first above written.

CITY OF ROCHESTER

By:_____
Linda S. Kingsley, Corporation Counsel

SYBRON INTERNATIONAL CORPORATION

By:_____
Name:
Title:

STATE OF _____)
COUNTY OF _____) ss:

On the _____ day of _____ in the year _____ before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public

STATE OF NEW YORK)
COUNTY OF MONROE) ss:
CITY OF ROCHESTER)

On the _____ day of _____ in the year _____ before me, the undersigned, a Notary Public in and for said State, personally appeared **LINDA S. KINGSLEY**, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public

:

a:\dah\licenses\160hague

APPENDIX B

Test Boring and Monitoring Well Installation Reports

HALEY & ALDRICH

TEST BORING REPORT

Boring No. OS-10B

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of
Start May 24, 2001
Finish May 24, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation 520.0
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	--	--	--	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	--	--	--	Bit Type: Roller Bit & Cutting Head
Hammer Weight (lb.)	--	--	-	Drill Mud: None
Hammer Fall (in.)	--	--	-	Casing: --
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				SEE OBSERVATION WELL INSTALLATION REPORT			Advanced augers without sampling to 9.0 ft. Installed monitoring well in completed borehole. See Observation Well Installation Report.										
5					511.0 9.0												

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (lin. ft.) 9.0
Rock Cored (lin. ft.) --
Samples 0S

Boring No. OS-10B

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

USCS_TB3 LibFile USCSTBC3.GDT G:\PROJECTS\70600\001\TESTBORE.GPJ Jul 11, 01

HALEY & ALDRICH

TEST BORING REPORT

Boring No. OS-2OB

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of 1
Start May 23, 2001
Finish May 23, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation 525.8
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	--	--	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	--	--	--	Bit Type: Roller Bit & Cutting Head
Hammer Weight (lb.)	--	--	-	Drill Mud: None
Hammer Fall (in.)	--	--	-	Casing: --
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				SEE OBSERVATION WELL INSTALLATION REPORT			Advanced augers without sampling to refusal at 12.0 ft. Installed monitoring well in completed borehole. See Observation Well Installation Report.										
5																	
10					513.8 12.0		Bottom of Boring at 12.0 ft.										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (lin. ft.)	12.0
Rock Cored (lin. ft.)	--
Samples	0S
Boring No.	**OS-2OB**

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Toughness: L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. OS-3OB

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of 1
Start May 24, 2001
Finish May 24, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation 520.6
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	--	---	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	--	--	--	Bit Type: Roller Bit & Cutting Head
Hammer Weight (lb.)	--	--	-	Drill Mud: None
Hammer Fall (in.)	--	--	-	Casing: --
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				SEE OBSERVATION WELL INSTALLATION REPORT			Advanced augers without sampling to refusal at 6.5 ft. Installed monitoring well in completed borehole. See Observation Well Installation Report.										
5					514.1 6.5		Bottom of Boring at 6.5 ft.										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (lin. ft.)	6.5
Rock Cored (lin. ft.)	--
Samples	0S

Boring No. OS-3OB

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. OS-4OB

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of 2
Start May 30, 2001
Finish May 30, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation 530.1
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	--	---	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	--	--	--	Bit Type: Roller Bit & Cutting Head
Hammer Weight (lb.)	--	--	-	Drill Mud: None
Hammer Fall (in.)	--	--	-	Casing: --
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				SEE OBSERVATION WELL INSTALLATION REPORT			Advanced augers without sampling to refusal at 16.4 ft. Installed monitoring well in completed borehole. See Observation Well Installation Report.										
5																	
10																	
15					513.7 16.4		Bottom of Boring at 16.4 ft.										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (lin. ft.)	16.4
Rock Cored (lin. ft.)	--
Samples	0S

Boring No. OS-4OB

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. OS-1BR

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of 2
Start May 24, 2001
Finish May 24, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation 519.9
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	S	NX	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	4.0	1 3/8	1-7/8	Bit Type: Roller Bit & Cutting Head
Hammer Weight (lb.)	--	140	-	Drill Mud: None
Hammer Fall (in.)	--	30	-	Casing: --
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				SEE OBSERVATION WELL INSTALLATION REPORT			Advanced augers through Asphalt and concrete base to 2.0 ft.										
					517.9												
	8	S1	2.0		2.0		Begin sampling at 2.0 ft.	--	--	--	10	10	80				
	16	22/24	4.0		517.4		Dense brown SILT with sand, damp, mps-3 mm., no odor.										
	16				2.5		-FILL-	10	10	5	5	20	50				
	31						Dense brown-green mottled sandy SILT with gravel, damp, mps-20 mm., no odor.										
							-GLACIAL TILL-										
	15	S2	4.0				Same. PID = ND ppm										
5	20	18/24	6.0				PID = ND ppm										
	28																
	30						PID = ND ppm										
	13	S3	6.0														
	24	18/24	8.0		512.9												
	33				7.0		Very dense olive gray, poorly sorted SAND with silt and gravel, damp. PID = ND ppm	5	10	10	10	50	15				
	100/.5						-GLACIAL TILL-										
							PID = ND ppm										
	21	S4	8.0		511.2												
	100/.1	9/13	9.1		8.7		Very dense light gray weathered ROCK FRAGMENTS, dry.										
					510.7		-WEATHERED BEDROCK-										
10					9.2		Observed auger refusal at 9.2 ft.										
							Begin coring at 9.2 ft. See Core Boring Report.										
15																	
20																	

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon
G	Geoprobe

Well Diagram	
	Riser Pipe
	Screen
	Filter Sand
	Cuttings
	Grout
	Concrete
	Bentonite Seal

Summary

Overburden (lin. ft.) 9.2
Rock Cored (lin. ft.) 12.3
Samples 4S, 2R

Boring No. OS-1BR

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High, V-Very High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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CORE BORING REPORT

Boring No. OS-1BR
File No. 70600-001
Sheet No. 2 of 2

Depth (ft)	Drilling Rate Min./ft	Run No.	Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Well Diagram	Elev./ Depth (ft)	Visual Description and Remarks
									SEE TEST BORING REPORT FOR OVERBURDEN DETAILS
5									
		R1	9.2 11.5	14 13	50 46	Slight		9.2	Began coring at 9.2 ft. Hard, slightly weathered light gray fine grained thin to very thin bedded DOLOSTONE with moderate to very close horizontal to low angle argillaceous partings.
10									-ERAMOSA DOLOSTONE-
		R2	11.5 21.5	120 117	100 98	Slight	SEE OBSERVATION WELL INSTALLATION REPORT		Same.
15									
20								21.5	Bottom of Boring at 21.5 ft.

Notes:

1. Driller noted slow coring rate through fractured zone from 10.4 to 11.5 ft.

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. OS-2BR

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of 2
Start May 22, 2001
Finish May 23, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation 525.8
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	S	NX	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	4.0	1 3/8	1-7/8	Bit Type: Roller Bit & Cutting Head
Hammer Weight (lb.)	--	140	-	Drill Mud: None
Hammer Fall (in.)	--	30	-	Casing: --
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0				SEE OBSERVATION WELL INSTALLATION REPORT			Advanced augers through ASPHALT and concrete, gravel layer to 2.0 ft.										
					523.8												
	2 5 6 6	S1 14/24	2.0 4.0		2.0		Begin sampling at 2.0 ft. Medium dense light brown-red mottled, poorly graded SAND with silt and clay, damp, mps < 1 mm., no odor. PID = ND ppm -FILL-	--	--	--	10	55	35	N	L	L	
	2 3 4 4	S2 13/24	4.0 6.0				Same. PID = ND ppm -FILL- PID = ND ppm	--	--	5	10	50	35	N	L	L	
5	2 2 3 4	S3 12/24	6.0 8.0				Same, except wet. PID = ND ppm PID = ND ppm										
					518.2												
	1 2 5 7	S4 17/24	8.0 10.0		7.6		Loose brown silty SAND, moist to wet, mps 25 mm., no odor. PID = ND ppm -LACUSTRINE- Same. PID = ND ppm	10	5	5	10	45	25	R	L	L	L
10	2 5 7 7	S5 13/24	10.0 12.0				Same, except wet. PID = ND ppm -LACUSTRINE-	10	5	10	10	40	25	R	L	L	L
					513.8												
	50 100/.1	S6 ~~7/7~~	12.0 12.6		12.0		Suspected weathered cobble from 11.8 to 12.0 ft. Very dense weathered ROCK FRAGMENTS, wet, mps 50 mm., no odor. -WEATHERED BEDROCK- Observed auger refusal at 12.0 ft. Set up to core 2.5 ft. to confirm strata. Advanced NX core barrel from 12.0 to 14.0 ft. Observed core block in fractured bedrock zone. Advanced 5-7/8 in. tricone roller bit through fractured zone to 15.5 ft. Installed 4.0 in. permanent casing at 15.5 ft.	40	20	20	10	5	5				
15					510.3 15.5		Begin coring at 15.5 ft. See Core Boring Report.										
20																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (lin. ft.) 25.3
Rock Cored (lin. ft.) 10.0
Samples 6S, 1R

Boring No. OS-2BR

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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HALEY & ALDRICH

CORE BORING REPORT

Boring No. OS-2BR
File No. 70600-001
Sheet No. 2 of 2

Depth (ft)	Drilling Rate Min./ft	Run No.	Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Well Diagram	Elev./ Depth (ft)	Visual Description and Remarks
									SEE TEST BORING REPORT FOR OVERBURDEN DETAILS
15		R1	15.5 25.3	118 114	100 97	Slight	SEE OBSERVATION WELL INSTALLATION REPORT		Begin coring at 15.5 ft. Hard slightly weathered, light-gray fine grained thin to very thin bedded, DOLOSTONE, with frequent secondary filled pits, occasional vugs and close to very close spaced horizontal to low angle agrillaceous partings. -ERAMOSA DOLOSTONE-
20									
25								25.3	Bottom of Boring at 25.3 ft.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. OS-3BR

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of 2
Start May 23, 2001
Finish May 24, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation 524.5
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	S	--	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	4.0	1 3/8	--	Bit Type: Roller Bit & Cutting Head
Hammer Weight (lb.)	--	140	-	Drill Mud: None
Hammer Fall (in.)	--	30	-	Casing:
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0	2 3 5 5	S1 21/24	0.0 2.0	SEE OBSERVATION WELL INSTALLATION REPORT	523.0		Loose, brown-black mottled sandy SILT, damp, mps - 8 mm., no odor. -FILL-		5	10	10	20	45				
	2 2 3 4	S2 20/24	2.0 4.0		1.5 521.1		Loose, brown silty SAND, moist, mps - 1 mm., no odor. -FILL- PID = ND ppm										
	9 8 11 20	S3 17/24	4.0 6.0		3.4 519.3		Loose, light gray-brown, clayey SILT, damp to moist, mps - <1 mm., no odor. PID = ND ppm -LACUSTRINE-	--	--	--	--	15	85	L	M	M	M
5	100/.5	S4 4/16	6.0 6.5		5.2		Medium dense, olive-gray, poorly sorted SAND, with gravel, damp to moist, mps-30 mm., no odor. -GLACIAL TILL- Observed auger refusal at 6.5 ft. PID = ND ppm	10	10	15	10	55	10	N	N	N	N
10																	
15																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (lin. ft.) 6.5
Rock Cored (lin. ft.) 11.9
Samples 4S, 2R

Boring No. OS-3BR

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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CORE BORING REPORT

Boring No. OS-3BR
File No. 70600-001
Sheet No. 2 of 2

Depth (ft)	Drilling Rate Min./ft	Run No.	Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Well Diagram	Elev./ Depth (ft)	Visual Description and Remarks
									SEE TEST BORING REPORT FOR OVERBURDEN DETAILS
		R1	6.5 8.5	19 18	79 75	Slight	SEE OBSERVATION WELL INSTALLATION REPORT	518.0 6.5	Begin Coring at 6.5 ft. R1: Hard, slightly weathered light gray fine grained thing to very thin bedded DOLOSTONE with close to very close, open to tight horizontal to low angle partings, trace stylolites. High angle fracture from 8.5 ft. to 8.9 ft.
		R2	8.5 18.4	107 102	90 86	Slight			Same.
10									
15								506.1 18.4	Bottom of Exploration at 18.5 ft.

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TEST BORING REPORT

Boring No. 0S-4BR

Project Assessment of Offsite Groundwater Conditions Former Taylor Instrument Site
Client Apogent Technologies Corporation
Contractor Nothnagle Drilling Co.

File No. 70600-001
Sheet No. 1 of 3
Start May 29, 2001
Finish May 30, 2001
Driller S. Loranty
H&A Rep. D. Nostrant
Elevation
Datum R.C.S
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	S	--	Rig Make & Model: CME-75 Truck Mount
Inside Diameter (in.)	4.0	1 3/8	--	Bit Type: Roller Bit
Hammer Weight (lb.)	--	140	-	Drill Mud: None
Hammer Fall (in.)	--	30	-	Casing: --
				Hoist/Hammer: Automatic Hammer

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0	3 6 8 9	S1 17/24	0.0 2.0	SEE OBSERVATION WELL INSTALLATION REPORT	1.0		Medium dense dark brown-black SILT and CINDERS, damp. -FILL-										
	7 11 15 16	S2 18/14	2.0 4.0		2.7		Medium dense tan SILT, damp, mps. <1 mm., no odor. PID = ND ppm -FILL-	--	--	--	--	10	90				
	9 13 14 16	S3 23/24	4.0 6.0				Medium dense tan sandy SILT, damp, mps. 15mm., no odor. PID = ND ppm -LACUSTRINE-	--	10	5	5	20	60	N	L	N	N
5	10 13 14 20	S4 17/24	6.0 8.0				Same, except light brown, moist from 4.0 to 5.0 ft. -LACUSTRINE- PID = ND ppm PID = ND ppm Same, moist. PID = ND ppm -LACUSTRINE- PID = ND ppm		10	5	5	30	50				
	13 18 20 34	S5 20/24	8.0 10.0		9.2		PID = ND ppm										
10	9 30 38 46	S6 17/24	10.0 12.0		11.0		Dense light brown silty SAND with gravel, damp to moist, mps. 20 mm., no odor. Very dense, brown SILT with sand, moist, mps <1 mm., no odor. -LACUSTRINE- PID = ND ppm PID = ND ppm	5	10	10	5	50	20				
	15 25 37 47	S7 24/24	12.0 14.0		13.4		Moist to wet from very dense red-gray silty SAND with gravel, damp, mps. 20 mm. no odor. -GLACIAL TILL- PID = ND ppm PID = ND ppm	5	10	10	10	50	20	--	L	N	N
15	13 40 66 100/.2	S8 21/21	14.0 15.7														
	15 27 38 52	S9 22/24	16.0 18.0				Same. PID = ND ppm -GLACIAL TILL- PID = ND ppm										
	6 25 100/.5	S10 18/18	18.0 19.5				Same, except moist from 18.0 to 19.0 ft. PID = ND ppm -GLACIAL TILL- PID = ND ppm										
20																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (lin. ft.) 24.5
Rock Cored (lin. ft.) 12.0
Samples 13S, 2R

Boring No. 0S-4BR

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

Boring No. 0S-4BR
File No. 70600-001
Sheet No. 2 of 3

Depth (ft.)	SPT*	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20	25 67 ~~100/.2~~	S11 14/14	20.0 21.2		20.6		PID = ND ppm Very dense gray-brown sandy SILT with gravel. -GLACIAL TILL-	5	10	10	10	25	40	R	L	N	N
	18 31 30 100/.3	S12 22/22	22.0 23.8				Same, except wet from 23.0 to 23.8 ft. PID = ND ppm -GLACIAL TILL- PID = ND ppm										
	~~100/.3~~	~~S13~~ 4/4	~~24.0~~ 24.3				Same. PID = ND ppm Observed auger refusal at 24.5 ft. Begin Coring at 24.5 ft.										
25																	
30																	
35																	
40																	

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

CORE BORING REPORT

Boring No. 0S-4BR
File No. 70600-001
Sheet No. 1 of 3

Depth (ft)	Drilling Rate Min./ft	Run No.	Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Well Diagram	Elev./ Depth (ft)	Visual Description and Remarks
									SEE TEST BORING REPORT FOR OVERBURDEN DETAILS
25		R1	24.9 26.9	22 18		Slight	SEE OBSERVATION WELL INSTALLATION REPORTS	24.5	Begin Coring at 24.5 ft. Hard, slightly weathered, medium gray fine grained thin to very thin bedded DOLOSTONE with close to very close weathered horizontal partings. -ERAMOSA DOLOSTONE-
		R2	26.9 36.9	120 107		Slight			Same, except light gray with numerous pits and occasional secondary filled vugs. -ERAMOSA DOLOSTONE-
30									
35									
								36.9	Bottom of Boring at 36.9 ft.
40									

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Project	Assessment of Offsite Groundwater Conditions	Observation Well	OS-1OB
City/State	Rochester, New York	Test Boring	--
Client	Apogent Technologies	Installation Date	24-May-01
Contractor	Nothnagle Drilling	Location	See Site Plan
Driller	S. Loranty	H&A File No.	70600-001
		H&A Rep.	D. Nostrant

Ground El. 520.0 Top of Riser El. 519.76

El. Datum R.C.S.

SOIL/ROCK CONDITIONS | BOREHOLE BACKFILL

(Numbers refer to elevation/depth from ground surface in feet)

(not to scale)

0.0 FT.

NO SAMPLING PERFORMED

CONCRETE

1.0 FT.

1.0 FT.

HYDRATED BENTONITE CHIPS

OVERBURDEN

3.0 FT.

3.0 FT.

MORIE NO. 00N QUARTZ SAND

9.0 FT. 9.0 FT.

Bottom of Exploration

Type of protective cover/lock: Bolted Steel

Depth of top of roadway box below ground surface 0.0 ft

Depth of top of riser pipe below ground surface 0.3 ft

Type of protective casing: Flushmount Roadbox

Length 1.0 ft

Inside diameter 8.0 in

Depth of bottom of roadway box 1.0 ft

Seals:

Type	Depth to top (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite Seal	1.0	2.0

Type of riser pipe: PVC

Inside diameter of riser pipe 2.0 in

Type of backfill around riser: See Diagram

Diameter of borehole 8.0 in

Depth of top of well screen 4.8 ft

Type of screen or manufacturer: Slotted PVC

Screen gauge or size of openings 0.010 in

Diameter of well screen 2.0 in

Type of backfill around screen Morie 00N Quartz Sand

Depth of bottom of well screen 8.8 ft

Depth of bottom of silt trap 9.0 ft

Depth of bottom of borehole 9.0 ft

(Depths refer to ground surface)

Remarks:

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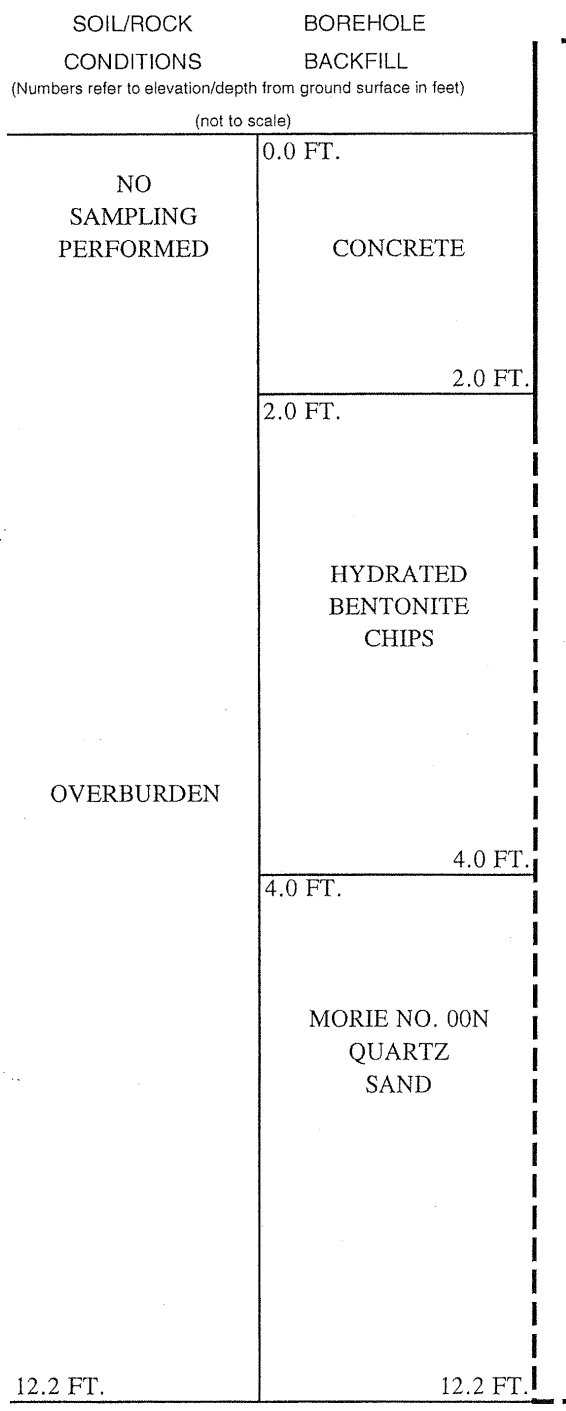
OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Project	Assessment of Offsite Groundwater Conditions	Observation Well	OS-2OB
City/State	Rochester, New York	Test Boring	--
Client	Apogent Technologies	Installation Date	23-May-01
Contractor	Nothnagle Drilling	Location	See Site Plan
Driller	S. Loranty	H&A File No.	70600-001
		H&A Rep.	D. Nostrant

Ground El. 525.8 Top of Riser El. 525.44

El. Datum R.C.S



Type of protective cover/lock: Bolted Steel

Depth of top of roadway box below ground surface: 0.0 ft

Depth of top of riser pipe below ground surface: 0.3 ft

Type of protective casing: Flushmount Roadbox

Length: 1.0 ft

Inside diameter: 8.0 in

Depth of bottom of roadway box: 1.0 ft

Seals:

Type	Depth to top (ft)	Thickness (ft)
Concrete	0.0	2.0
Bentonite Seal	2.0	2.0

Type of riser pipe: PVC

Inside diameter of riser pipe: 2.0 in

Type of backfill around riser: See Diagram

Diameter of borehole: 8.0 in

Depth of top of well screen: 5.0 ft

Type of screen or manufacturer: Slotted PVC

Screen gauge or size of openings: 0.010 in

Diameter of well screen: 2.0 in

Type of backfill around screen: Morie 00N Quartz Sand

Depth of bottom of well screen: 12.0 ft

Depth of bottom of silt trap: 12.2 ft

Depth of bottom of borehole: 12.2 ft

(Depths refer to ground surface)

Remarks:

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HALEY & ALDRICH

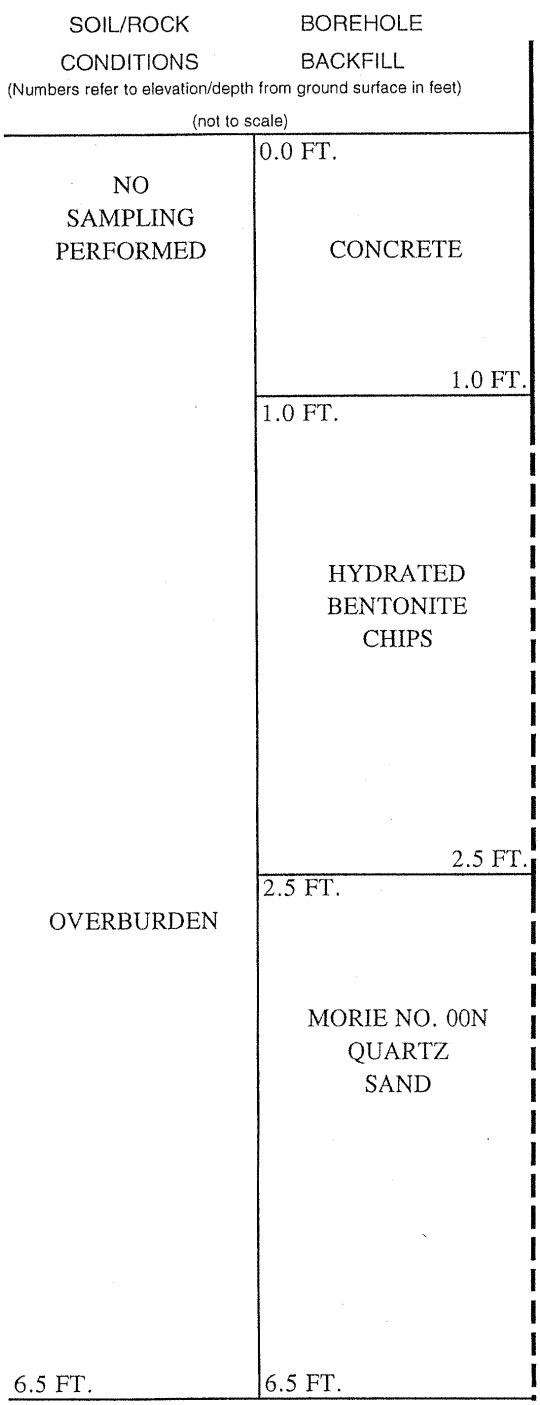
OBSERVATION WELL INSTALLATION REPORT

Observation Well	OS-30B
Test Boring	--
Installation Date	24-May-01
Location	See Site Plan
H&A File No.	70600-001
H&A Rep.	D. Nostrant

Project	Assessment of Offsite Groundwater Conditions
City/State	Rochester, New York
Client	Apogent Technologies
Contractor	Nothnagle Drilling
Driller	S. Loranty

Ground El. 524.6 Top of Riser El. 524.31

El. Datum R.C.S.



Type of protective cover/lock: Bolted Steel

Depth of top of roadway box below ground surface: 0.0 ft

Depth of top of riser pipe below ground surface: 0.3 ft

Type of protective casing: Flushmount Roadbox

Length: 1.0 ft

Inside diameter: 8.0 in

Depth of bottom of roadway box: 1.0 ft

Seals:

Type	Depth to top (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite Seal	1.0	1.5

Type of riser pipe: PVC

Inside diameter of riser pipe: 2.0 in

Type of backfill around riser: See Diagram

Diameter of borehole: 8.0 +/- in

Depth of top of well screen: 3.2 ft

Type of screen or manufacturer: Slotted PVC

Screen gauge or size of openings: 0.010 in

Diameter of well screen: 2.0 in

Type of backfill around screen: Morie 00N Quartz Sand

Depth of bottom of well screen: 6.2 ft

Depth of bottom of silt trap: 6.5 ft

Depth of bottom of borehole: 6.5 ft

(Depths refer to ground surface)

Remarks:

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HALEY & ALDRICH

BEDROCK OBSERVATION WELL INSTALLATION REPORT

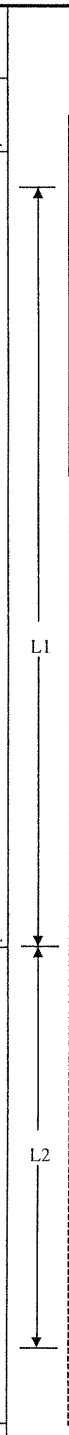
Well No. OS-1BR

Boring No.

PROJECT	Assessment of Offsite Groundwater Conditions	H&A FILE NO.	70600-001
LOCATION	Former Taylor Instruments, Rochester, New York	PROJECT MGR.	E. Hynes
CLIENT	Apogent Technologies	FIELD REP.	D. Nostrant
CONTRACTOR	Nothnagle Drilling	DATE INSTALLED	5/25/2001
DRILLER	S. Loranty	WATER LEVEL	--

Ground El.	519.9 ft	Riser El.	519.55	☐	Guard Pipe
El. Datum	R.C.S.	Location	See Plan	☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
ASPHALT 0.5 FT.	CONCRETE 1.0 FT.
CONCRETE 2.0 FT.	
FILL 2.5 FT.	
GLACIAL TILL 9.2 FT.	CEMENT GROUT
ERAMOSA DOLOSTONE 21.5 FT.	OPEN MONITORING INTERVAL 11.5 FT.



Type of protective cover/lock	Bolted Steel
Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0 ft
Height/Depth of top of riser pipe above/below ground surface	0.3 ft
Type of protective casing:	Flushmout Road Box
Length	1.0 ft
Inside Diameter	8.0 in
Depth of bottom of guard pipe/roadway box	1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Cement Grout	1.0	20.5

Depth to the top of bedrock	9.2 ft
Type of casing pipe:	Steel
Inside diameter of casing pipe	4.0 in
Type of backfill around riser	Cement Grout
Diameter of borehole	10.0 +/- in
Depth to top of open core interval	11.5 ft
Type of open core interval	NX Core
Diameter of open core interval	3.0 in
Depth of bottom of open core interval	21.5 ft
Depth of bottom of test borehole	21.5 ft

21.5 FT. 21.5 FT.

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)

(Not to Scale)

ft	+	ft	=	ft
Casing Length (L1)		Cored Interval (L2)		Pay length

COMMENTS:

Form # 3010

HALEY & ALDRICH

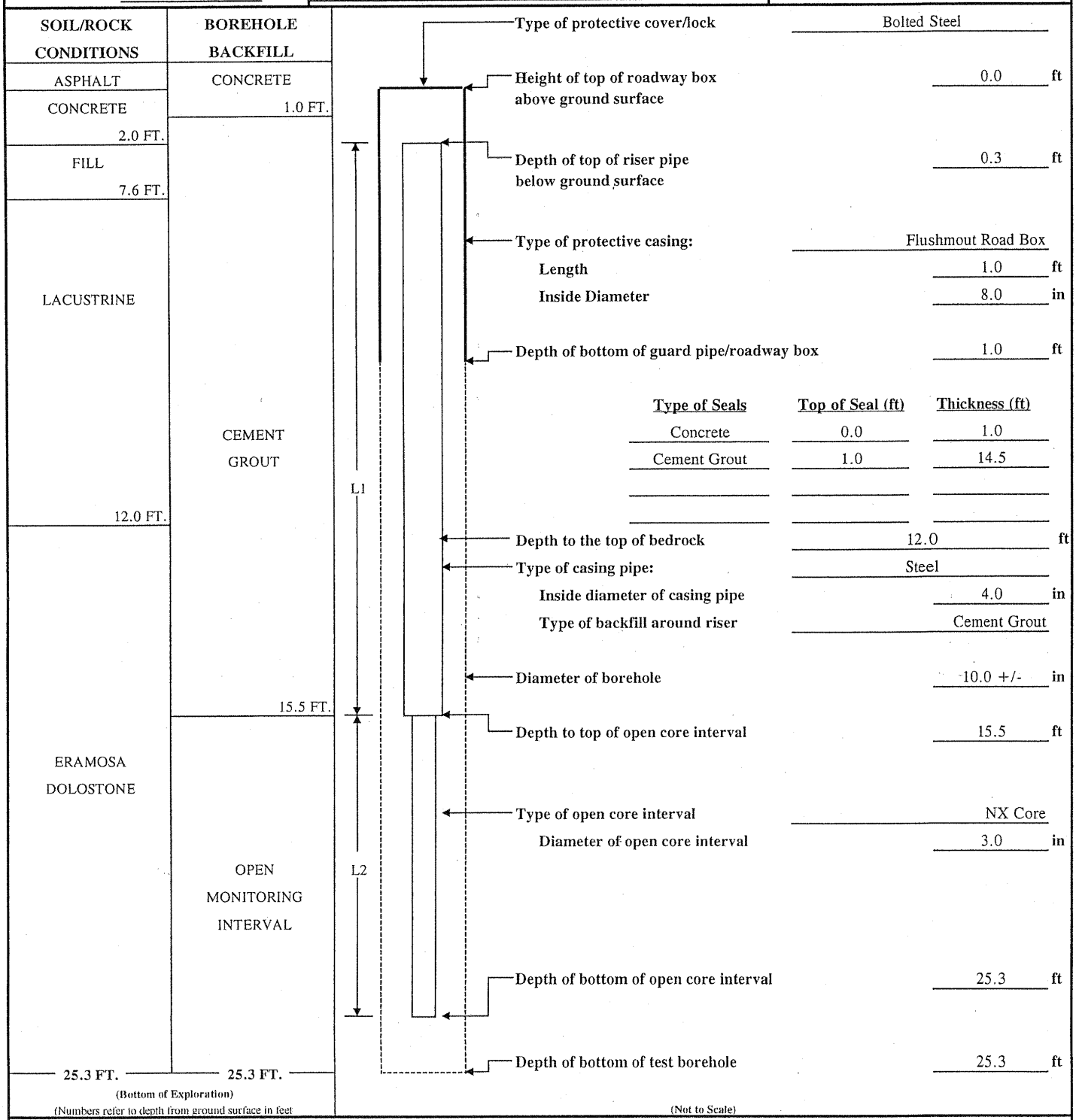
BEDROCK OBSERVATION WELL INSTALLATION REPORT

Well No. OS-2BR

Boring No.

PROJECT	Assessment of Offsite Groundwater Conditions	H&A FILE NO.	70600-001
LOCATION	Former Taylor Instruments, Rochester, New York	PROJECT MGR.	E. Hynes
CLIENT	Apogent Technologies	FIELD REP.	D. Nostrant
CONTRACTOR	Nothnagle Drilling	DATE INSTALLED	5/23/2001
DRILLER	S. Loranty	WATER LEVEL	--

Ground El.	525.8 ft	Riser El.	525.45 ft	☐	Guard Pipe
El. Datum	R.C.S.	Location	See Plan	☑	Roadway Box



Type of protective cover/lock: Bolted Steel

Height of top of roadway box above ground surface: 0.0 ft

Depth of top of riser pipe below ground surface: 0.3 ft

Type of protective casing: Flushmout Road Box

Length: 1.0 ft

Inside Diameter: 8.0 in

Depth of bottom of guard pipe/roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Cement Grout	1.0	14.5

Depth to the top of bedrock: 12.0 ft

Type of casing pipe: Steel

Inside diameter of casing pipe: 4.0 in

Type of backfill around riser: Cement Grout

Diameter of borehole: 10.0 +/- in

Depth to top of open core interval: 15.5 ft

Type of open core interval: NX Core

Diameter of open core interval: 3.0 in

Depth of bottom of open core interval: 25.3 ft

Depth of bottom of test borehole: 25.3 ft

	ft	+	ft	=	ft
	Casing Length (L1)		Cored Interval (L2)		Pay length

COMMENTS:

Form # 3010

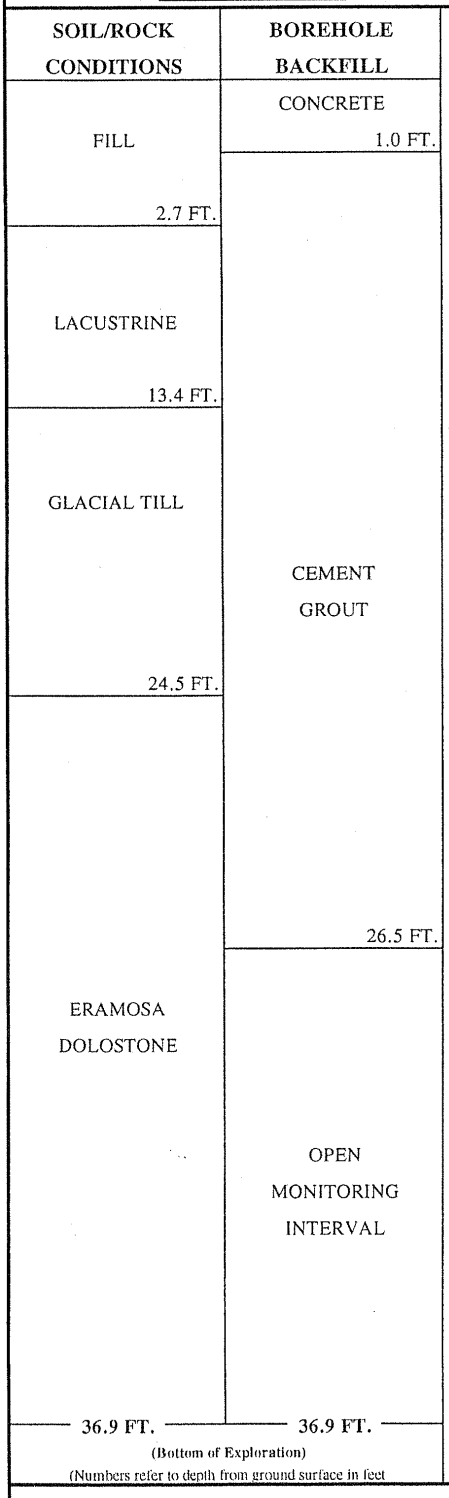
HALEY & ALDRICH

BEDROCK OBSERVATION WELL INSTALLATION REPORT

Well No. OS-4BR

PROJECT	Assessment of Offsite Groundwater Conditions	H&A FILE NO.	70600-001
LOCATION	Former Taylor Instruments, Rochester, New York	PROJECT MGR.	E. Hynes
CLIENT	Apogent Technologies	FIELD REP.	D. Nostrant
CONTRACTOR	Nothnagle Drilling	DATE INSTALLED	5/30/2001
DRILLER	S. Loranty	WATER LEVEL	--

Ground El.	529.9 ft	Riser El.	531.05 ft	☑	Guard Pipe
El. Datum	R.C.S.	Location	See Plan	☐	Roadway Box



Type of protective cover/lock	Hinged Steel
Height of top of guard pipe above ground surface	1.2 ft
Height of top of riser pipe above ground surface	1.2 ft
Type of protective casing:	Stickup-Zinc Coated Steel
Length	5.0 ft
Inside Diameter	6"x6" in
Depth of bottom of guard pipe	3.8 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Cement Grout	1.0	1.7

Depth to the top of bedrock	24.5 ft
Type of casing pipe:	Steel
Inside diameter of casing pipe	4.0 in
Type of backfill around riser	Cement Grout
Diameter of borehole	10.0 +/- in
Depth to top of open core interval	26.5 ft
Type of open core interval	NX Core
Diameter of open core interval	3.0 in
Depth of bottom of open core interval	36.9 ft
Depth of bottom of test borehole	36.9 ft

ft	+	ft	=	ft	
Casing Length (L1)		Cored Interval (L2)		Pay length	

COMMENTS:

Form # 3010

APPENDIX C

Groundwater Sampling Records

70600-001
Ames St. Sampling

HALEY & ALDRICH, INC.
MONITORING WELL SAMPLING FIELD FORM

05-10B

Monitoring Well I.D.: 05-10B	Date: June ,2001	Time Started: 1300	Field Personnel: SRA
Weather Conditions: Overcast, upper 70s			
Comments:			

5.1
17
3.57
5.1
8.67

Initial Readings

Measured Well Bottom (TOR - ft) 8.6	Riser Pipe Diameter (in)		
Measured Water Level (TOR - ft) 3.48	Conversion Factor (gal/lineal ft)	1.25" = 0.08	2" = 0.17 (circled) 3" = 0.38
Calculated Water Column Height (ft) 5.1	(Circle One)	4" = 0.66	6" = 1.50 8" = 2.60
One Well Volume (gals.) 0.9	Three Well Volumes (gals.) 2.7		

Notes:

Well Conditions

Well Riser Type (Circle one): Stainless Steel Carbon Steel (PVC)

Casing Condition:	(OK)	Repair Required:
Cap Condition:	(OK)	Repair Required:
Paint Condition:	(OK)	Repair Required:
Lock Condition:	(OK)	Repair Required:
Inner Casing Condition:	(OK)	Repair Required:
Surface Seal Condition:	(OK)	Repair Required:

Other:

Micro-Purge Information

Purging Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer (Polyethylene Bailer) Other:

Well Volume	Gallons Purged (gal)	Temperature (deg C)	pH (S.U.)	Specific Conductivity µS (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
0.9	3.5	16.8	7.64	1310				

Water Level After Purging (TOR ft): Calculated 95% Recovery Water Level:

Comments:

Sampling Information

Date:	Time Sampled:	Field Personnel:

Measured Water Level (TOR ft.):

Sampling Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer (Polyethylene Bailer) Other:

Sample I.D.	Temperature (deg C)	pH (S.U.)	Specific Conductivity µS (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
05-10B	16.8	7.64	1310				

QA/QC Samples Taken:

Comments:

Signature

Sampler (Print): Scott Amrozowicz	Sampler (signature):	Date: 6/18/01

70600-001
Ames St. Sampling

HALEY & ALDRICH, INC.
MONITORING WELL SAMPLING FIELD FORM

Monitoring Well I.D.: OS-1BR	Date: June ,2001	Time Started: 1300	Field Personnel: SRA
Weather Conditions: Overcast, upper 70s			
Comments:			

Initial Readings

Measured Well Bottom (TOR - ft) 21.5		Riser Pipe Diameter (in) 4"	
Measured Water Level (TOR - ft) 8.20		Conversion Factor (gal/lineal ft) (6.5)	1.25" = 0.08 2" = 0.17 3" = 0.38
Calculated Water Column Height (ft) 13.3		(Circle One)	4" = 0.66 6" = 1.50 8" = 2.60
One Well Volume (gals.) 6.5 gal		Three Well Volumes (gals.) 19.5	
Notes: 6.5 gal evacuated			

Well Conditions

Well Riser Type (Circle one): Stainless Steel Carbon Steel PVC

Casing Condition:	OK	Repair Required:
Cap Condition:	OK	Repair Required:
Paint Condition:	OK	Repair Required:
Lock Condition:	OK	Repair Required: cannot re-lock on well key won't come out
Inner Casing Condition:	OK	Repair Required:
Surface Seal Condition:	OK	Repair Required:

Other:

Micro-Purge Information

Purging Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer Polyethylene Bailer Other:

Well Volume	Gallons Purged (gal)	Temperature (deg C)	pH (S.U.)	Specific Conductivity (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
6.5		14.7	11.8	1626				

Water Level After Purging (TOR ft): Calculated 95% Recovery Water Level:

Comments:

Sampling Information

Date:	Time Sampled:	Field Personnel:

Measured Water Level (TOR ft.):

Sampling Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer Polyethylene Bailer Other:

Sample I.D.	Temperature (deg C)	pH (S.U.)	Specific Conductivity (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
	17.0	7.60	1365				

QA/QC Samples Taken:

Comments:

Signature

Sampler (Print): Scott Amrozowicz	Sampler (signature): Scott Amrozowicz	Date: 6/18/01

70600-001
Ames St. Sampling

HALEY & ALDRICH, INC.
MONITORING WELL SAMPLING FIELD FORM

Monitoring Well I.D.: OS-20B	Date: June ,2001	Time Started:	Field Personnel: SRA
Weather Conditions:			
Comments:			

Initial Readings

Measured Well Bottom (TOR - ft) 12.2	Riser Pipe Diameter (in) 2"		
Measured Water Level (TOR - ft) 7.78	Conversion Factor (gal/lineal ft)	1.25" = 0.08	2" = 0.17 (circled) 3" = 0.38
Calculated Water Column Height (ft) 4.42	(Circle One)	4" = 0.66	6" = 1.50 8" = 2.60
One Well Volume (gals.) .75	Three Well Volumes (gals.) 2.5		
Notes: Evacuated ~5 gal			

Well Conditions

Well Riser Type (Circle one): Stainless Steel Carbon Steel (PVC)

Casing Condition:	(OK)	Repair Required:
Cap Condition:	(OK)	Repair Required:
Paint Condition:	(OK)	Repair Required:
Lock Condition:	(OK)	Repair Required:
Inner Casing Condition:	(OK)	Repair Required:
Surface Seal Condition:	(OK)	Repair Required:

Other:

Micro-Purge Information

Purging Method (Circle one): Stainless Steel Bailer, Peristaltic Pump, Grundfos Pump, Teflon Bailer, (Polyethylene Bailer), Other:

Well Volume	Gallons Purged (gal)	Temperature (deg C)	pH (S.U.)	Specific Conductivity µS (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
—	5	18.0	7.36	1647				

Water Level After Purging (TOR ft): Calculated 95% Recovery Water Level:

Comments:

Sampling Information

Date: 6/18/01 Time Sampled: 1205 Field Personnel: MGB/SRA

Measured Water Level (TOR ft.):

Sampling Method (Circle one): Stainless Steel Bailer, Peristaltic Pump, Grundfos Pump, Teflon Bailer, (Polyethylene Bailer), Other:

Sample I.D.	Temperature (deg C)	pH (S.U.)	Specific Conductivity µS (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
	18.0	7.36	1647				

QA/QC Samples Taken:

Comments:

Signature

Sampler (Print): Scott Amrozowicz Sampler (signature): [signature] Date: 6/18/01

10600-001
Ames St. Sampling

HALEY & ALDRICH, INC.
MONITORING WELL SAMPLING FIELD FORM

Monitoring Well I.D.: OS-2 BR	Date: June ,2001	Time Started:	Field Personnel: SRA
Weather Conditions: Sunny hi 70's (°F)			
Comments:			

Initial Readings

Measured Well Bottom (TOR - ft)	25.3	Riser Pipe Diameter (in)	4"
Measured Water Level (TOR - ft)	12.13	Conversion Factor (gal/lineal ft)	1.25" = 0.08 2" = 0.17 (3" = 0.38)
Calculated Water Column Height (ft)	13.2	(Circle One)	4" = 0.66 6" = 1.50 8" = 2.60
One Well Volume (gals.)	4.0	Three Well Volumes (gals.)	12.0

Notes:

Well Conditions

Well Riser Type (Circle one): Stainless Steel Carbon Steel PVC

Casing Condition:	(OK)	Repair Required:
Cap Condition:	(OK)	Repair Required:
Paint Condition:	(OK)	Repair Required:
Lock Condition:	(OK)	Repair Required:
Inner Casing Condition:	(OK)	Repair Required:
Surface Seal Condition:	(OK)	Repair Required:

Other:

Micro-Purge Information

Purging Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer (Polyethylene Bailer) Other:

Well Volume	Gallons Purged (gal)	Temperature (deg C)	pH (S.U.)	Specific Conductivity (µS mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
4.0	12.0	16.8	7.95	1401				

Water Level After Purging (TOR ft): Calculated 95% Recovery Water Level:

Comments:

Sampling Information

Date: 6/18/01 Time Sampled: 1235 Field Personnel: MGB/SRA

Measured Water Level (TOR ft.):

Sampling Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer (Polyethylene Bailer) Other:

Sample I.D.	Temperature (deg C)	pH (S.U.)	Specific Conductivity (µS mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
OS-2BR	16.8	7.95	1401				

QA/QC Samples Taken:

Comments:

Signature

Sampler (Print): Scott Amerowicz Sampler (signature): Date: 6/18/01

70600-001
Ames St. Sampling

HALEY & ALDRICH, INC.
MONITORING WELL SAMPLING FIELD FORM

Monitoring Well I.D.: OS-35R	Date: June ,2001	Time Started:	Field Personnel: SRA
Weather Conditions:			
Comments:			

Initial Readings

Measured Well Bottom (TOR - ft) 18.5		Riser Pipe Diameter (in) 4"	
Measured Water Level (TOR - ft) 9.84		Conversion Factor (gal/lineal ft)	1.25" = 0.08 2" = 0.17 (3" = 0.38)
Calculated Water Column Height (ft) 8.66		(Circle One)	4" = 0.66 6" = 1.50 8" = 2.60
One Well Volume (gals.) 3.3		Three Well Volumes (gals.) 9.9	
Notes:			

3.0
10.0
3.8
13
38
104
39
3.14

Well Conditions

Well Riser Type (Circle one): (Stainless Steel) Carbon Steel PVC

Casing Condition:	(OK)	Repair Required:
Cap Condition:	(OK)	Repair Required:
Paint Condition:	(OK)	Repair Required:
Lock Condition:	(OK)	Repair Required:
Inner Casing Condition:	(OK)	Repair Required:
Surface Seal Condition:	(OK)	Repair Required:

Other:

Micro-Purge Information

Purging Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer (Polyethylene Bailer) Other:

Well Volume	Gallons Purged (gal)	Temperature (deg C)	pH (S.U.)	Specific Conductivity (µS (mhos))	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
3.8	3.0	15.2	8.08	1555				

Water Level After Purging (TOR ft): Calculated 95% Recovery Water Level:

Comments:

Sampling Information

Date: 6/18/01 Time Sampled: 1245 Field Personnel: MGB / SRA

Measured Water Level (TOR ft.):

Sampling Method (Circle one): Stainless Steel Bailer Peristaltic Pump Grundfos Pump
Teflon Bailer (Polyethylene Bailer) Other:

Sample I.D.	Temperature (deg C)	pH (S.U.)	Specific Conductivity (µS (mhos))	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
	15.2	8.08	1555				

QA/QC Samples Taken:

Comments:

Signature

Sampler (Print): Scott Amorowicz	Sampler (signature):	Date: 6/18/01

10600-001
Ames St. Sampling

HALEY & ALDRICH, INC.
MONITORING WELL SAMPLING FIELD FORM

Monitoring Well I.D.: OS-4B	Date: June ,2001	Time Started:	Field Personnel: SRA
Weather Conditions: partly cloudy low 70's (°F)			
Comments:			

Initial Readings

Measured Well Bottom (TOR - ft) 17.40	Riser Pipe Diameter (in) 2"			
Measured Water Level (TOR - ft) 8.08	Conversion Factor (gal/lineal ft)	1.25" = 0.08	2" = 0.17	3" = 0.38
Calculated Water Column Height (ft) 9.32	(Circle One)	4" = 0.66	6" = 1.50	8" = 2.60
One Well Volume (gals.) 1.53	Three Well Volumes (gals.) 4.7 (5)			

Notes: 6 gal. evacuated total

Well Conditions

Well Riser Type (Circle one):	Stainless Steel / Carbon Steel / PVC	
Casing Condition:	OK	Repair Required:
Cap Condition:	OK	Repair Required:
Paint Condition:	OK	Repair Required:
Lock Condition:	OK	Repair Required:
Inner Casing Condition:	OK	Repair Required:
Surface Seal Condition:	OK	Repair Required:

Other:

Micro-Purge Information

Purging Method (Circle one): Stainless Steel Bailer / Teflon Bailer / Peristaltic Pump / Polyethylene Bailer / Grundfos Pump / Other:

Well Volume	Gallons Purged (gal)	Temperature (deg C)	pH (S.U.)	Specific Conductivity (mS) (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
*								

Water Level After Purging (TOR ft): 10.75

Calculated 95% Recovery Water Level:

Comments: 15 min. after purging

Sampling Information

Date: 6/18/01	Time Sampled: 10:45	Field Personnel:

Measured Water Level (TOR ft.):

Sampling Method (Circle one): Stainless Steel Bailer / Teflon Bailer / Peristaltic Pump / Polyethylene Bailer / Grundfos Pump / Other:

Sample I.D.	Temperature (deg C)	pH (S.U.)	Specific Conductivity (mS) (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
	12.3	8.26	1440				

QA/QC Samples Taken: MS / MSD

Comments: multiparameter not functioning. Replace battery. OK.

Signature

Sampler (Print): Scott Amrol	Sampler (signature): Scott Amrol	Date: 6/18/01

10600-001
Ames St. Sampling

HALEY & ALDRICH, INC.
MONITORING WELL SAMPLING FIELD FORM

Monitoring Well I.D.: OS-4 BR	Date: June 18, 2001	Time Started:	Field Personnel: SRA

Weather Conditions: partly cloudy low 70's (°F)

Comments:

Initial Readings

Measured Well Bottom (TOR - ft)	37.99	Riser Pipe Diameter (in)	4" (3" in rock)
Measured Water Level (TOR - ft)	21.25	Conversion Factor (gal/lineal ft)	1.25" = 0.08 2" = 0.17 3" = 0.38
Calculated Water Column Height (ft)	16.74	(Circle One)	4" = 0.66 6" = 1.50 8" = 2.60
One Well Volume (gals.)	~7.0	Three Well Volumes (gals.)	~21.0

Notes: Day after evacuating ~13 gal

Well Conditions

Well Riser Type (Circle one): Stainless Steel / Carbon Steel / PVC

Casing Condition:	OK	Repair Required:
Cap Condition:	OK	Repair Required:
Paint Condition:	OK	Repair Required:
Lock Condition:	OK	Repair Required:
Inner Casing Condition:	OK	Repair Required:
Surface Seal Condition:	OK	Repair Required:

Other:

Micro-Purge Information

Purging Method (Circle one): Stainless Steel Bailer / Peristaltic Pump / Grundfos Pump / Teflon Bailer / Polyethylene Bailer / Other:

Well Volume	Gallons Purged (gal)	Temperature (deg C)	pH (S.U.)	Specific Conductivity µS (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments

Water Level After Purging (TOR ft): 36.45

Calculated 95% Recovery Water Level:

Comments:

Sampling Information

Date: 6/18/01 Time Sampled: 10:40 Field Personnel:

Measured Water Level (TOR ft.): 35.95

Sampling Method (Circle one): Stainless Steel Bailer / Peristaltic Pump / Grundfos Pump / Teflon Bailer / Polyethylene Bailer / Other:

Sample I.D.	Temperature (deg C)	pH (S.U.)	Specific Conductivity µS (mhos)	Turbidity (NTU's)	Dissolved Oxygen (mg/L)	ORP (mV)	Comments
OS-4d	15.8	11.92	1685				

QA/QC Samples Taken:

Comments: Multiparameter not functioning; Replace Battery, OK.

Signature

Sampler (Print): Scott Amrol	Sampler (signature):	Date: 6/18/01

APPENDIX D

Groundwater Analytical Results

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

July 16, 2001

Mr. Robert Mahoney
Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

PROJECT:#70600-001
Submission #:R2107196

Dear Mr. Mahoney:

Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 07/16/01 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Karen Bunker

Karen Bunker
Project Manager

Enc.

Columbia Analytical Services inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Haley & Aldrich of New York
Project Reference: #70600-001
Lab Submission # : R2107196
Reported : 07/16/01

Report Contains a total of 35 pages

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael K. Pe

CASE NARRATIVE
COMPANY: Haley & Aldrich
Project: #70600-001
CAS SUBMISSION#: R2107196

Samples were collected by the client on 6/18/01 and received at CAS on the same day as sampled within hours of collection at a cooler temperature of 14°C. All samples were received unbroken and with no bubbles in the vials.

VOLATILE ORGANICS

Seven (7) water samples and one (1) Trip Blank were analyzed for ASP Method 95-1 Volatiles and Library Searches. One Cooler Blank was also analyzed as required by the protocol.

All Tuning criteria for BFB were within QC limits.

All the Initial and Continuing Calibration Criteria were met for all analytes.

All Internal Standard Areas were within QC limits.

All Surrogate standard recoveries were within acceptance limits.

The holding time of 10 days from VTSR was met for all samples.

Site Specific QC was performed on locations OS-4s. The Matrix Spike/Matrix Spike Duplicate recoveries and % RPD were acceptable. All Reference Check sample recoveries were within QC limits.

The Laboratory Method Blanks, Trip Blank, and Cooler Blank were free from contamination of target compounds.

Hits between the CRDL and MDL of the compound are reported and flagged as "J". All Library Search hits are flagged as estimated, "J".

All sample aliquots were tested for proper preservation after analysis. All were found to be properly preserved to a pH of <2.

No other analytical or QC problems were encountered during the analysis of these samples.

AS P B HINC RM GIN ET

SDG #: OS4S CASE No.: BATCH COMPLETE: __yes_____ DATE REVISED:
SUBMISSION R2107196 DISKETTE REQUESTED: Y_X__ N____ DATE DUE: 7/9/01
CLIENT: Haley & Aldrich of New York DATE: 06/19/01 PROTOCOL: ASP-B
CLIENT REP: Karen Bunker CUSTODY SEAL: PRESENT/ABSENT: SHIPPING No.:
PROJECT: #70600-001 CHAIN OF CUSTODY: PRESENT/ABSENT:

CAS JOB #	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE RECEIVED	pH (SOLIDS	% SOLIDS	REMARKS SAMPLE CONDITION
468456	OS-4S	WATER	95-1 QC	6/18/01	6/18/01			
468457	OS-4d	WATER	95-1	6/18/01	6/18/01			
468458	OS-3d	WATER	95-1	6/18/01	6/18/01			
468459	OS-2d	WATER	95-1	6/18/01	6/18/01			
468460	OS-2S	WATER	95-1	6/18/01	6/18/01			
468461	OS-1d	WATER	95-1	6/18/01	6/18/01			
468462	OS-1S	WATER	95-1	6/18/01	6/18/01			
468464	TRIP BLANK	WATER	95-1	6/18/01	6/18/01			
471983	COOLER BLANK	WATER	95-1	6/19/01				

03

Columbia Analytical Services Inc.

Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)

- Also used to qualify Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester:	10145	NJ ID # in Rochester:	73004
CT ID # in Rochester:	PH0556	RI ID # in Rochester:	158
MA ID # in Rochester:	M-NY032	NH ID # in Rochester:	294198-A
AIHA # in Rochester:	7889		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements* 95ASP PROTOCOL					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER
OS-4S	468456	X					
OS-4d	468457	X					
OS-3d	468458	X					
OS-2d	468459	X					
OS-2S	468460	X					
OS-1d	468461	X					
OS-1S	468462	X					
TRIP BLANK	468464	X					

*Check Appropriate Boxes
*CLP, Non-CLP
*HSL, Priority Pollutant
NCF1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

LABORATORY SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	LOW LEVEL MED LEVEL	DATE ANALYZED
468456	WATER	06/18/01	06/18/01	LOW	06/27/01
468457	WATER	06/18/01	06/18/01	LOW	06/27/01
468458	WATER	06/18/01	06/18/01	LOW	06/27/01
468459	WATER	06/18/01	06/18/01	LOW	06/27/01
468460	WATER	06/18/01	06/18/01	LOW	06/27/01
468461	WATER	06/18/01	06/18/01	LOW	06/28/01
468462	WATER	06/18/01	06/18/01	LOW	06/28/01
468464	WATER	06/18/01	06/18/01	LOW	06/28/01

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
468456	WATER	95-1			1.0
468457	WATER	95-1			1.0
468458	WATER	95-1			1.0
468459	WATER	95-1			1.0
468460	WATER	95-1			1.0
468461	WATER	95-1			1.0
468462	WATER	95-1			1.0
468464	WATER	95-1			1.0

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-2d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468459 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8337.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	2	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-2d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468459 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8337.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-4S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8332.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	6	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-4S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8332.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-4d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468457 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8335.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	4	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-4d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468457 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8335.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-3d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468458 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8336.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-3d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468458 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8336.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-2S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468460 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8338.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-2S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468460 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8338.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-1d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468461 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8340.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	5	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-1d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468461 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8340.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-1S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468462 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8339.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	7	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-1S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468462 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8339.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	9.29	260	JN

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TRIP BLANK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468464 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8341.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468464 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8341.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

COOLER BLANK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 471983 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8342.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK01	102	100	98	0
02	VBLK01MS	104	101	98	0
03	OS-4S	104	102	98	0
04	OS-4SMS	103	102	98	0
05	OS-4SMSD	104	102	98	0
06	OS-4D	104	102	98	0
07	OS-3D	102	101	97	0
08	OS-2D	101	102	96	0
09	OS-2S	101	102	97	0
10	OS-1S	101	103	97	0
11	OS-1D	101	105	95	0
12	TRIP BLANK	101	101	96	0
13	COOLER BLA	104	102	98	0

			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix Spike - EPA Sample No.: OS-4S

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	54	108	61 - 145
Benzene	50	0.0	52	104	76 - 127
Trichloroethene	50	0.0	50	100	71 - 120
Toluene	50	0.0	50	100	76 - 125
Chlorobenzene	50	0.0	52	104	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	52	104	4	14	61 - 145
Benzene	50	52	104	0	11	76 - 127
Trichloroethene	50	50	100	0	14	71 - 120
Toluene	50	51	102	2	13	76 - 125
Chlorobenzene	50	52	104	0	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

_____

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-4SMS

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8333.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	6	J
75-35-4	1,1-Dichloroethene	54	
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	52	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	50	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-4SMSD

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8334.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	6	J
75-35-4	1,1-Dichloroethene	52	
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	52	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	51	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK01MS

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8331.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	53	
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	51	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	50	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix Spike - EPA Sample No.: VBLK01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	53	106	61 - 145
Benzene	50	0.0	51	102	76 - 127
Trichloroethene	50	0.0	50	100	71 - 120
Toluene	50	0.0	50	100	76 - 125
Chlorobenzene	50	0.0	51	102	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: ~~5~~ 0 out of 5 outside limits (RD) 7-10-01

Spike Recovery: ~~5~~ 0 out of ~~10~~ 5 outside limits (RD) 7/10/01

COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Lab File ID: H8330.D Lab Sample ID: MET BLK

Date Analyzed: 06/27/01 Time Analyzed: 18:06

GC Column: RTX502. ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01MS	VBLKMS	H8331.D	18:45
02	OS-4S	468456 1.0	H8332.D	19:28
03	OS-4SMS	468456 1.0	H8333.D	20:11
04	OS-4SMSD	468456 1.0	H8334.D	20:54
05	OS-4D	468457 1.0	H8335.D	21:37
06	OS-3D	468458 1.0	H8336.D	22:20
07	OS-2D	468459 1.0	H8337.D	23:03
08	OS-2S	468460 1.0	H8338.D	23:45
09	OS-1S	468462 1.0	H8339.D	00:28
10	OS-1D	468461 1.0	H8340.D	01:11
11	TRIP BLANK	468464 1.0	H8341.D	01:53
12	COOLER BLANK	471983 1.0	H8342.D	02:36

COMMENTS

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK01

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: MET BLK

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8330.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: MET BLK

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8330.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Lab File ID (Standard): H8329.D Date Analyzed: 06/27/01

Instrument ID: GCMS#1 Time Analyzed: 17:02

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR ST	277224	12.75	1320417	14.86	1050155	22.03
	LOWER LIMIT	138612	12.25	660209	14.36	525078	21.53
	UPPER LIMIT	554448	13.25	2640834	15.36	2100310	22.53
	EPA SAMPLE NO.						
01	VBLK01	277532	12.74	1315365	14.84	1042139	22.01
02	VBLK01MS	266402	12.73	1288452	14.85	1016657	22.02
03	OS-4S	264671	12.72	1279624	14.84	999201	22.01
04	OS-4SMS	259944	12.74	1264820	14.84	990513	21.99
05	OS-4SMSD	262727	12.72	1277557	14.84	996295	22.00
06	OS-4D	260445	12.74	1247765	14.84	978671	21.99
07	OS-3D	259918	12.72	1229931	14.83	975580	22.00
08	OS-2D	261302	12.72	1216145	14.84	967625	21.99
09	OS-2S	261066	12.73	1226796	14.84	956182	22.01
10	OS-1S	259441	12.72	1210412	14.84	945355	22.00
11	OS-1D	189159	12.72	977021	14.82	743160	21.99
12	TRIP BLANK	256691	12.72	1188300	14.82	944603	21.99
13	COOLER BLA	247060	12.72	1177612	14.84	928446	21.98

IS1 = Bromochloromethane
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

July 16, 2001

Mr. Robert Mahoney
Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

PROJECT:#70600-001
Submission #:R2107196

Dear Mr. Mahoney:

Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 07/16/01 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Karen Bunker

Karen Bunker
Project Manager

Enc.

Columbia Analytical Services inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Haley & Aldrich of New York
Project Reference: #70600-001
Lab Submission # : R2107196
Reported : 07/16/01

Report Contains a total of 133 pages

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael K. Pe

SDG NARRATIVE

CASE NARRATIVE
COMPANY: Haley & Aldrich
Project: #70600-001
CAS SUBMISSION#: R2107196

Samples were collected by the client on 6/18/01 and received at CAS on the same day as sampled within hours of collection at a cooler temperature of 14°C. All samples were received unbroken and with no bubbles in the vials.

VOLATILE ORGANICS

Seven (7) water samples and one (1) Trip Blank were analyzed for ASP Method 95-1 Volatiles and Library Searches. One Cooler Blank was also analyzed as required by the protocol.

All Tuning criteria for BFB were within QC limits.

All the Initial and Continuing Calibration Criteria were met for all analytes.

All Internal Standard Areas were within QC limits.

All Surrogate standard recoveries were within acceptance limits.

The holding time of 10 days from VTSR was met for all samples.

Site Specific QC was performed on locations OS-4s. The Matrix Spike/Matrix Spike Duplicate recoveries and % RPD were acceptable. All Reference Check sample recoveries were within QC limits.

The Laboratory Method Blanks, Trip Blank, and Cooler Blank were free from contamination of target compounds.

Hits between the CRDL and MDL of the compound are reported and flagged as "J". All Library Search hits are flagged as estimated, "J".

All sample aliquots were tested for proper preservation after analysis. All were found to be properly preserved to a pH of <2.

No other analytical or QC problems were encountered during the analysis of these samples.

AS CLE TCH FOR LOG SHEE

SDG #: OS4S CASE No.: BATCH COMPLETE: __yes_____ DATE REVISED:
SUBMISSION R2107196 DISKETTE REQUESTED: Y_X__ N____ DATE DUE: 7/9/01
CLIENT: Haley & Aldrich of New York DATE: 06/19/01 PROTOCOL: ASP-B
CLIENT REP: Karen Bunker CUSTODY SEAL: PRESENT/ABSENT: SHIPPING No.:
PROJECT: #70600-001 CHAIN OF CUSTODY: PRESENT/ABSENT:

CAS JOB #	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE RECEIVED	pH (SOLIDS	% SOLIDS	REMARKS SAMPLE CONDITION
468456	OS-4S	WATER	95-1 QC	6/18/01	6/18/01			
468457	OS-4d	WATER	95-1	6/18/01	6/18/01			
468458	OS-3d	WATER	95-1	6/18/01	6/18/01			
468459	OS-2d	WATER	95-1	6/18/01	6/18/01			
468460	OS-2S	WATER	95-1	6/18/01	6/18/01			
468461	OS-1d	WATER	95-1	6/18/01	6/18/01			
468462	OS-1S	WATER	95-1	6/18/01	6/18/01			
468464	TRIP BLANK	WATER	95-1	6/18/01	6/18/01			
471983	COOLER BLANK	WATER	95-1	6/19/01				
0								

Columbia Analytical Services Inc.

Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)

- Also used to qualify Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester:	10145	NJ ID # in Rochester:	73004
CT ID # in Rochester:	PH0556	RI ID # in Rochester:	158
MA ID # in Rochester:	M-NY032	NH ID # in Rochester:	294198-A
AIHA # in Rochester:	7889		

CHAINS OF CUSTODY

INTERNAL CHAINS

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

Air Technical Services, Inc. — An Employee-Owned Company — www.caslab.com

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475

PAGE 1 OF 1

SR #

CAS Contact

Project Name	Project Number: 70600-001
Project Manager: Bob Mahoney	Report CC
Company/Address: H&A 200 Town Centre Dr. Suite 2 Rochester, NY 14623-4264	
Phone #: (716) 359-9000	FAX#: 359-4650
Sampler's Signature: Scott Amorowicz	Sampler's Printed Name: Scott Amorowicz

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

NUMBER OF CONTAINERS

GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP
GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP
GC VOA's ☐ 8021 ☐ 601/602
PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082
STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP
STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP
TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P
WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.
METALS, TOTAL (List in comments below)
METALS, DISSOLVED (List in comments below)
CLP-ASP 95-1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	CLP-ASP 95-1
MS (OS-4S)	} QC	6/18	10:45	WATER	3	X
MSD (OS-4S)			10:45		3	X
OS-4D	4684457		10:40		3	X
OS-4S	4684456		10:45		3	X
OS-3D	4684458		12:46		3	X
OS-2D	4684459		1235		3	X
OS-2S	4684460		12:05		3	X
OS-1D	4684461		14:10		3	X
OS-1S	4684462		14:10		3	X
Trip Blank	4684464		—		3	X

SPECIAL INSTRUCTIONS/COMMENTS

Metals (in sample ID D=BR & S=OB) in cases of alt. labeling

Fax preliminary results to Bob M.

See QAPP ☐

TURNAROUND REQUIREMENTS

_____ **RUSH** (SURCHARGES APPLY)

_____ 24 hr _____ 48 hr _____ 5 day

X **STANDARD**

REQUESTED FAX DATE

REQUESTED REPORT DATE

REPORT REQUIREMENTS

X I. Results Only

_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

_____ III. Results + QC and Calibration Summaries

_____ IV. Data Validation Report with Raw Data

_____ V. Speicalized Forms / Custom Report

Edata _____ Yes _____ No

INVOICE INFORMATION

PO#

BILL TO: SAME

R2107196

SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Scott Amorowicz	Signature: Cindy Toomey	Signature	Signature	Signature	Signature
Printed Name: H&A	Printed Name: CAS	Printed Name: CAS	Printed Name	Printed Name	Printed Name
Firm: 6/18/01 15:15	Firm: 6/18/01 1515	Firm: 6/18/01 1515	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-0101-08

#2996

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client H&A Submission Number R2107196

Cooler received on 6/18/01 by: MK COURIER: CAS UPS FEDEX CD&L (CLIENT)

1. Were custody seals on outside of cooler? YES (NO)
2. Were custody papers properly filled out (ink, signed, etc.)? (YES) NO
3. Did all bottles arrive in good condition (unbroken)? (YES) NO
4. Did any VOA vials have significant air bubbles? YES (NO) N/A
5. Were Ice or Ice packs present? (YES) NO
6. Where did the bottles originate? (CAS/ROC,) CLIENT
7. Temperature of cooler(s) upon receipt: 19 ____ ____ ____ ____

Is the temperature within 0° - 6° C?:	Yes ☒	Yes ☐	Yes ☐	Yes ☐	Yes ☐
If No, Explain Below	No ☐	No ☐	No ☐	No ☐	No ☐

Date/Time Temperatures Taken: 6/18/01 15 15

Thermometer ID: ____ Temp Blank Sample Bottle Cooler Temp. (IR Gun)

If out of Temperature, Client Approval to Run Samples ____

Cooler Breakdown: Date: 6/19/01 by: MK

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies: ____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO_3					
2	H_2SO_4					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH ____

*If pH adjustment is required, use NaOH and/or H_2SO_4

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				
				--

Other Comments:

INTERNAL CHAINS

CLIENT NAME: Haley & Aldrich of New York

SDG#: SUBMISSION: R2107196 DATE REC'D: 06/18/01 15:15

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
95-1	468456 QC	9	MAB	[illegible]	6/19/01	1215	<2	C1	07/18/01
95-1	468457	3							07/18/01
95-1	468458	3							07/18/01
95-1	468459	3							07/18/01
95-1	468460	3							07/18/01
95-1	468461	3							07/18/01
95-1	468462	3							07/18/01
95-1	468464	3							07/18/01
95-1 (Cooler Blank)	471983	2							

60

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements* 95ASP PROTOCOL					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER
OS-4S	468456	X					
OS-4d	468457	X					
OS-3d	468458	X					
OS-2d	468459	X					
OS-2S	468460	X					
OS-1d	468461	X					
OS-1S	468462	X					
TRIP BLANK	468464	X					

*Check Appropriate Boxes
*CLP, Non-CLP
*HSL, Priority Pollutant
NCF1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

LABORATORY SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	LOW LEVEL MED LEVEL	DATE ANALYZED
468456	WATER	06/18/01	06/18/01	LOW	06/27/01
468457	WATER	06/18/01	06/18/01	LOW	06/27/01
468458	WATER	06/18/01	06/18/01	LOW	06/27/01
468459	WATER	06/18/01	06/18/01	LOW	06/27/01
468460	WATER	06/18/01	06/18/01	LOW	06/27/01
468461	WATER	06/18/01	06/18/01	LOW	06/28/01
468462	WATER	06/18/01	06/18/01	LOW	06/28/01
468464	WATER	06/18/01	06/18/01	LOW	06/28/01

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
468456	WATER	95-1			1.0
468457	WATER	95-1			1.0
468458	WATER	95-1			1.0
468459	WATER	95-1			1.0
468460	WATER	95-1			1.0
468461	WATER	95-1			1.0
468462	WATER	95-1			1.0
468464	WATER	95-1			1.0

NCF2 9/89

VOLATILE ORGANICS

QC SUMMARY

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK01	102	100	98	0
02	VBLK01MS	104	101	98	0
03	OS-4S	104	102	98	0
04	OS-4SMS	103	102	98	0
05	OS-4SMSD	104	102	98	0
06	OS-4D	104	102	98	0
07	OS-3D	102	101	97	0
08	OS-2D	101	102	96	0
09	OS-2S	101	102	97	0
10	OS-1S	101	103	97	0
11	OS-1D	101	105	95	0
12	TRIP BLANK	101	101	96	0
13	COOLER BLA	104	102	98	0

			QC LIMITS
SMC1	=	1,2-Dichloroethane-d4	(76-114)
SMC2	=	Toluene-d8	(88-110)
SMC3	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix Spike - EPA Sample No.: OS-4S

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	54	108	61 - 145
Benzene	50	0.0	52	104	76 - 127
Trichloroethene	50	0.0	50	100	71 - 120
Toluene	50	0.0	50	100	76 - 125
Chlorobenzene	50	0.0	52	104	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	52	104	4	14	61 - 145
Benzene	50	52	104	0	11	76 - 127
Trichloroethene	50	50	100	0	14	71 - 120
Toluene	50	51	102	2	13	76 - 125
Chlorobenzene	50	52	104	0	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

_____

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Lab File ID: H8330.D Lab Sample ID: MET BLK

Date Analyzed: 06/27/01 Time Analyzed: 18:06

GC Column: RTX502. ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01MS	VBLKMS	H8331.D	18:45
02	OS-4S	468456 1.0	H8332.D	19:28
03	OS-4SMS	468456 1.0	H8333.D	20:11
04	OS-4SMSD	468456 1.0	H8334.D	20:54
05	OS-4D	468457 1.0	H8335.D	21:37
06	OS-3D	468458 1.0	H8336.D	22:20
07	OS-2D	468459 1.0	H8337.D	23:03
08	OS-2S	468460 1.0	H8338.D	23:45
09	OS-1S	468462 1.0	H8339.D	00:28
10	OS-1D	468461 1.0	H8340.D	01:11
11	TRIP BLANK	468464 1.0	H8341.D	01:53
12	COOLER BLANK	471983 1.0	H8342.D	02:36

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Lab File ID: H8319.D BFB Injection Date: 06/27/01

Instrument ID: GCMS#1 BFB Injection Time: 09:55

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	73.2
175	5.0 - 9.0% of mass 174	5.4 (7.4)1
176	95.0 - 101.0% of mass 174	73.5 (100.4)1
177	5.0 - 9.0% of mass 176	5.0 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

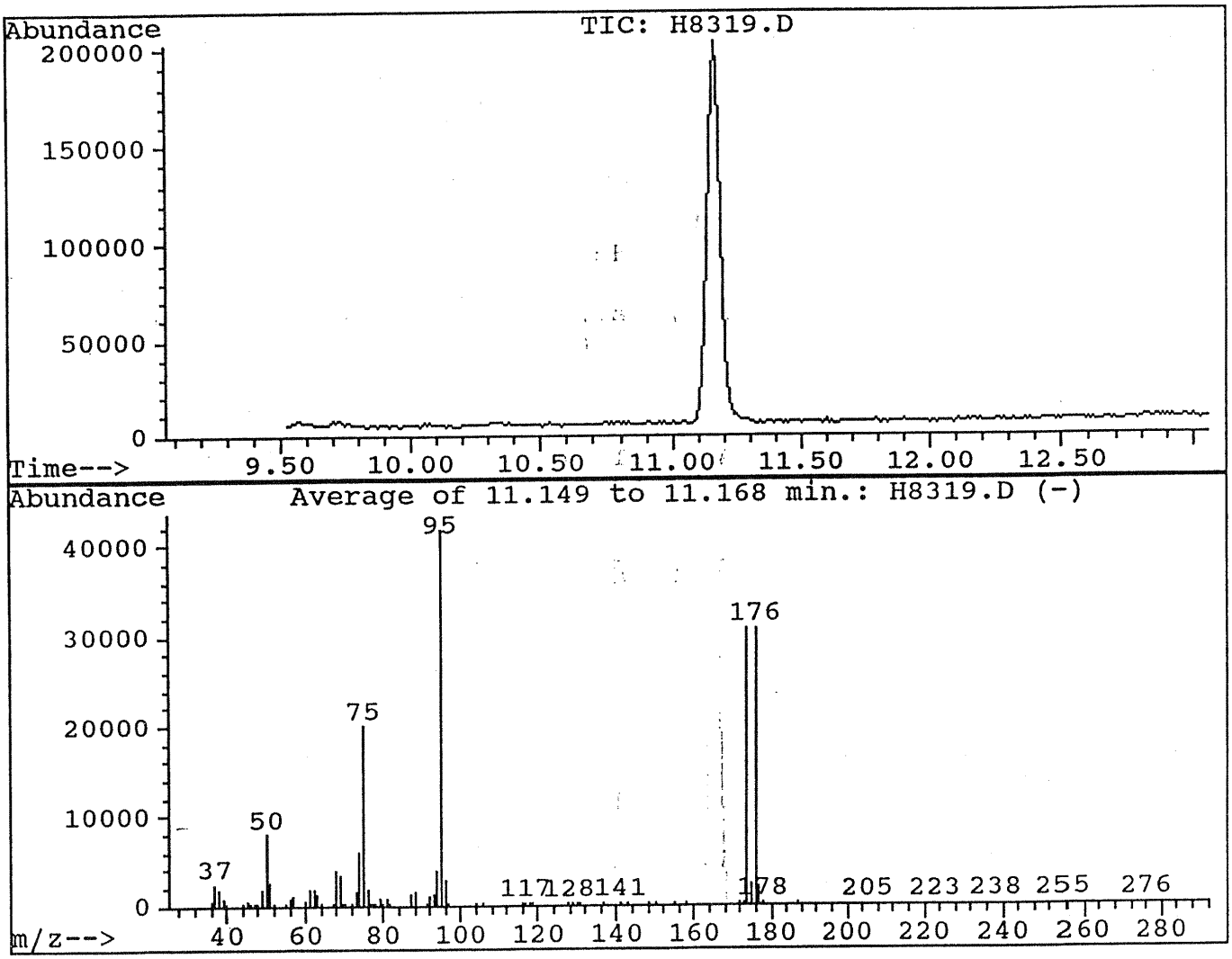
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	H8321.D	06/27/01	11:12
02	VSTD020	VSTD020	H8322.D	06/27/01	11:54
03	VSTD050	VSTD050	H8323.D	06/27/01	12:37
04	VSTD100	VSTD100	H8324.D	06/27/01	13:20
05	VSTD200	VSTD200	H8325.D	06/27/01	14:02

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8319.D
Acq On : 27 Jun 101 9:55 am
Sample : TUNE CHECK
Misc : '95-1

Vial: 8
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1



Peak Apex is scan: 164

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	7895	PASS
75	95	30	60	47.7	19909	PASS
95	95	100	100	100.0	41723	PASS
96	95	5	9	6.7	2780	PASS
173	174	0	2	0.3	83	PASS
174	95	50	120	73.2	30544	PASS
175	174	5	9	7.4	2246	PASS
176	174	95	101	100.4	30651	PASS
177	176	5	9	6.9	2101	PASS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Lab File ID: H8328.D BFB Injection Date: 06/27/01

Instrument ID: GCMS#1 BFB Injection Time: 16:28

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	47.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.1 (0.1)1
174	50.0 - 120.0% of mass 95	75.4
175	5.0 - 9.0% of mass 174	5.0 (6.7)1
176	95.0 - 101.0% of mass 174	73.3 (97.3)1
177	5.0 - 9.0% of mass 176	5.2 (7.1)2

1-Value is % mass 174 2-Value is % mass 176

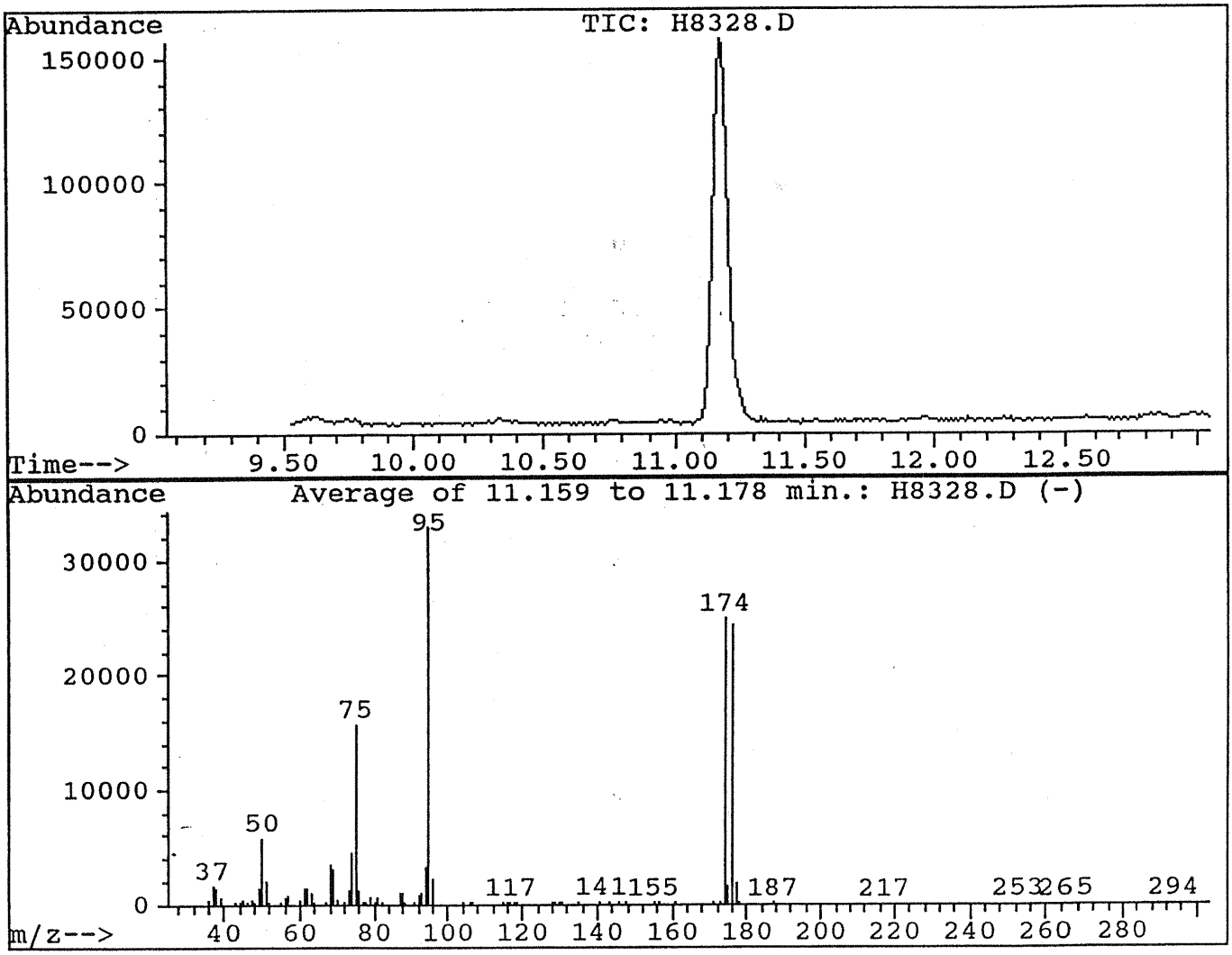
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	H8329.D	06/27/01	17:02
02	VBLK01	MET BLK	H8330.D	06/27/01	18:06
03	VBLK01MS	VBLKMS	H8331.D	06/27/01	18:45
04	OS-4S	468456 1.0	H8332.D	06/27/01	19:28
05	OS-4SMS	468456 1.0	H8333.D	06/27/01	20:11
06	OS-4SMSD	468456 1.0	H8334.D	06/27/01	20:54
07	OS-4D	468457 1.0	H8335.D	06/27/01	21:37
08	OS-3D	468458 1.0	H8336.D	06/27/01	22:20
09	OS-2D	468459 1.0	H8337.D	06/27/01	23:03
10	OS-2S	468460 1.0	H8338.D	06/27/01	23:45
11	OS-1S	468462 1.0	H8339.D	06/28/01	00:28
12	OS-1D	468461 1.0	H8340.D	06/28/01	01:11
13	TRIP BLANK	468464 1.0	H8341.D	06/28/01	01:53
14	COOLER BLANK	471983 1.0	H8342.D	06/28/01	02:36

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8328.D
Acq On : 27 Jun 101 4:28 pm
Sample : TUNE CHECK
Misc : '95-1

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1



Peak Apex is scan: 163

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	5789	PASS
75	95	30	60	47.4	15609	PASS
95	95	100	100	100.0	32940	PASS
96	95	5	9	6.8	2240	PASS
173	174	0	2	0.1	33	PASS
174	95	50	120	75.4	24840	PASS
175	174	5	9	6.7	1659	PASS
176	174	95	101	97.3	24160	PASS
177	176	5	9	7.1	1725	PASS

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: SDG No.: OS4S

Instrument ID: GCMS#1 Calibration Date(s): 06/27/01 06/27/01

Heated Purge (Y/N): N Calibration Times: 11:12 14:02

GC Column: RTX502.2 ID: 0.53 (mm)

LAB FILE ID RRF10 = H8321.D RRF20 = H8322.D

RRF50 = H8323.D RRF100 = H8324.D RRF200 = H8325.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane	*	1.624	1.434	1.269	1.380	1.308	1.403	9.9	*
Vinyl chloride	*	1.168	1.143	1.075	1.270	1.166	1.164	6.0	*
Bromomethane	*	1.066	1.234	1.225	1.454	1.366	1.269	11.7	*
Chloroethane	*	1.071	1.067	0.984	1.077	0.996	1.039	4.3	*
Acetone	*	0.748	0.736	0.667	0.517	0.424	0.618	23.1	*
1,1-Dichloroethene	*	1.315	1.332	1.254	1.392	1.320	1.323	3.7	*
Methylene chloride	*	1.667	1.585	1.471	1.524	1.404	1.530	6.6	*
Carbon disulfide	*	2.402	2.771	3.166	3.989	3.943	3.254	21.6	*
trans-1,2-Dichloroethene	*	1.554	1.524	1.443	1.551	1.455	1.505	3.5	*
1,1-Dichloroethane	*	2.649	2.595	2.491	2.669	2.511	2.583	3.1	*
2-Butanone	*	0.747	0.731	0.716	0.686	0.599	0.696	8.4	*
cis-1,2-Dichloroethene	*	1.639	1.626	1.540	1.626	1.508	1.588	3.7	*
Chloroform	*	3.054	2.984	2.836	3.010	2.824	2.942	3.6	*
1,2-Dichloroethane	*	2.564	2.453	2.325	2.451	2.263	2.411	4.9	*
1,1,1-Trichloroethane	*	0.474	0.488	0.482	0.526	0.509	0.496	4.3	*
Carbon tetrachloride	*	0.384	0.411	0.419	0.473	0.464	0.430	8.8	*
Benzene	*	1.082	1.037	0.979	1.039	1.002	1.028	3.8	*
Trichloroethene	*	0.405	0.402	0.378	0.399	0.378	0.392	3.4	*
1,2-Dichloropropane	*	0.325	0.314	0.299	0.325	0.318	0.316	3.3	*
Bromodichloromethane	*	0.381	0.420	0.444	0.508	0.504	0.451	12.1	*
cis-1,3-Dichloropropene	*	0.356	0.394	0.422	0.480	0.477	0.426	12.6	*
trans-1,3-Dichloropropene	*	0.280	0.321	0.363	0.435	0.437	0.367	18.9	*
1,1,2-Trichloroethane	*	0.306	0.298	0.284	0.306	0.288	0.296	3.4	*
Dibromochloromethane	*	0.297	0.330	0.376	0.439	0.431	0.375	16.5	*
Bromoform	*	0.165	0.198	0.249	0.311	0.304	0.245	26.1	* - EXCEPTION (%RSD)
4-Methyl-2-pentanone	*	0.355	0.364	0.364	0.389	0.372	0.369	3.5	*
Toluene	*	0.892	0.849	0.795	0.834	0.804	0.835	4.7	*
2-Hexanone	*	0.314	0.294	0.324	0.282	0.256	0.294	9.2	*
Tetrachloroethene	*	0.460	0.453	0.420	0.434	0.413	0.436	4.7	*
Chlorobenzene	*	1.061	1.033	0.969	1.011	0.959	1.007	4.3	*
Ethylbenzene	*	1.737	1.712	1.628	1.721	1.630	1.686	3.1	*
(m+p)Xylene	*	1.475	1.451	1.342	1.389	1.298	1.391	5.3	*
o-Xylene	*	1.492	1.451	1.372	1.424	1.349	1.418	4.1	*
Styrene	*	1.033	1.020	0.970	1.025	0.972	1.004	3.0	*
1,1,2,2-Tetrachloroethane	*	0.474	0.472	0.468	0.512	0.498	0.485	3.9	*
1,2-Dichloroethane-d4	*	2.126	2.023	1.941	2.034	1.915	2.008	4.1	*
Toluene-d8	*	1.358	1.311	1.276	1.322	1.284	1.310	2.5	*
Bromofluorobenzene	*	0.792	0.764	0.755	0.791	0.766	0.774	2.2	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Instrument ID: GCMS#1 Calibration Date: 06/27/01 Time: 17:02

Lab File ID: H8329.D Init. Calib. Date(s): 06/27/01 06/27/01

Heated Purge: (Y/N) N Init. Calib. Times: 11:12 14:02

GC Column: RTX502.2 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	1.403	1.305		7.0	
Vinyl chloride	1.164	1.130	0.100	2.9	25.0
Bromomethane	1.269	1.255	0.100	1.1	25.0
Chloroethane	1.039	1.088		-4.7	
Acetone	0.618	0.861		-39.3	
1,1-Dichloroethene	1.323	1.339	0.100	-1.3	25.0
Methylene chloride	1.530	1.524		0.4	
Carbon disulfide	3.254	3.491		-7.3	
trans-1,2-Dichloroethene	1.505	1.515		-0.6	
1,1-Dichloroethane	2.583	2.608	0.200	-1.0	25.0
2-Butanone	0.696	0.858		-23.3	
cis-1,2-Dichloroethene	1.588	1.591		-0.2	
Chloroform	2.942	2.926	0.200	0.5	25.0
1,2-Dichloroethane	2.411	2.376	0.100	1.4	25.0
1,1,1-Trichloroethane	0.496	0.491	0.100	0.9	25.0
Carbon tetrachloride	0.430	0.416	0.100	3.2	25.0
Benzene	1.028	0.995	0.500	3.2	25.0
Trichloroethene	0.392	0.376	0.300	4.1	25.0
1,2-Dichloropropane	0.316	0.306		3.3	
Bromodichloromethane	0.451	0.451	0.200	0.0	25.0
cis-1,3-Dichloropropene	0.426	0.440	0.200	-3.3	25.0
trans-1,3-Dichloropropene	0.367	0.387	0.100	-5.3	25.0
1,1,2-Trichloroethane	0.296	0.293	0.100	1.1	25.0
Dibromochloromethane	0.375	0.386	0.100	-3.0	25.0
Bromoform	0.245	0.267	0.100	-8.9	25.0
4-Methyl-2-pentanone	0.369	0.390		-5.7	
Toluene	0.835	0.798	0.400	4.4	25.0
2-Hexanone	0.294	0.346		-17.6	
Tetrachloroethene	0.436	0.418	0.200	4.1	25.0
Chlorobenzene	1.007	0.952	0.500	5.4	25.0
Ethylbenzene	1.686	1.644	0.100	2.4	25.0
(m+p)Xylene	1.391	1.337	0.300	3.9	25.0
o-Xylene	1.418	1.358	0.300	4.2	25.0
Styrene	1.004	0.979	0.300	2.5	25.0
1,1,2,2-Tetrachloroethane	0.485	0.493	0.300	-1.6	25.0
1,2-Dichloroethane-d4	2.008	1.960		2.4	
Toluene-d8	1.310	1.250		4.6	
Bromofluorobenzene	0.774	0.761	0.200	1.6	25.0

All other compounds must meet a minimum RRF of 0.010.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Lab File ID (Standard): H8329.D Date Analyzed: 06/27/01

Instrument ID: GCMS#1 Time Analyzed: 17:02

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR ST	277224	12.75	1320417	14.86	1050155	22.03
	LOWER LIMIT	138612	12.25	660209	14.36	525078	21.53
	UPPER LIMIT	554448	13.25	2640834	15.36	2100310	22.53
	EPA SAMPLE NO.						
01	VBLK01	277532	12.74	1315365	14.84	1042139	22.01
02	VBLK01MS	266402	12.73	1288452	14.85	1016657	22.02
03	OS-4S	264671	12.72	1279624	14.84	999201	22.01
04	OS-4SMS	259944	12.74	1264820	14.84	990513	21.99
05	OS-4SMSD	262727	12.72	1277557	14.84	996295	22.00
06	OS-4D	260445	12.74	1247765	14.84	978671	21.99
07	OS-3D	259918	12.72	1229931	14.83	975580	22.00
08	OS-2D	261302	12.72	1216145	14.84	967625	21.99
09	OS-2S	261066	12.73	1226796	14.84	956182	22.01
10	OS-1S	259441	12.72	1210412	14.84	945355	22.00
11	OS-1D	189159	12.72	977021	14.82	743160	21.99
12	TRIP BLANK	256691	12.72	1188300	14.82	944603	21.99
13	COOLER BLA	247060	12.72	1177612	14.84	928446	21.98

IS1 = Bromochloromethane
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

GCMS#1 - Water IDL Study 95-1

Analyst: Dave Lipani

DL 4-11-2001	Conc. ppb	IDL Std.#1	IDL Std.#2	IDL Std.#3	IDL Std.#4	IDL Std.#	IDL Std.#	IDL Std.#	stdv	IDL	MEDIAN
surr1 1,2-Dichloroethane	10.0	11.32	10.69	9.95	10.60	10.17	10.94	10.2	0.48	1.51	10.6
surr3 Toluene-d8	10.0	10.83	11.04	11.09	11.21	10.62	10.89	10.79	0.20	0.63	10.9
surr2-Bromofluorobenzene	10.0	10.63	10.65	10.71	10.34	10.17	10.38	10.22	0.22	0.69	10.4
Dichlorofluoromethane	10.0	10.91	11.03	10.00	9.83	8.94	9.16	8.96	0.88	2.76	9.8
Chloromethane	10.0	11.33	10.95	10.35	10.30	9.93	9.06	10.06	0.73	2.30	10.3
Vinyl Chloride	10.0	11.59	11.33	10.22	10.47	9.68	9.29	9.51	0.89	2.81	10.2
Bromomethane	10.0	9.38	10.85	9.75	9.51	9.00	9.08	8.96	0.66	2.08	9.4
Chloroethane	10.0	9.65	10.59	9.51	9.44	9.01	8.85	8.40	0.70	2.20	9.4
Trichlorofluoromethane	10.0	8.85	9.47	8.94	9.32	8.53	8.27	8.02	0.53	1.67	8.9
Freon 113	10.0	9.06	9.24	9.26	9.58	8.88	8.63	8.50	0.38	1.19	9.1
Acetone	10.0	4.78	5.87	6.75	5.28	5.95	5.92	5.06	0.67	2.09	5.9
1,1-Dichloroethene	10.0	9.33	9.37	9.65	9.71	9.13	8.71	8.83	0.38	1.20	9.3
Methyl Acetate	10.0	10.12	9.96	9.85	9.70	9.66	10.38	9.83	0.25	0.79	9.9
Methylene Chloride	10.0	10.08	9.81	10.12	10.26	9.64	9.49	9.59	0.30	0.94	9.8
Carbon Disulfide	10.0	8.62	8.54	8.40	8.78	7.8	7.67	7.62	0.49	1.54	8.4
Methyl tert-Butyl Ether	10.0	9.96	9.82	10.15	10.16	9.81	9.95	9.54	0.22	0.68	10.0
trans-1,2-Dichloroethene	10.0	9.69	9.79	10.00	10.13	9.64	9.34	9.51	0.27	0.86	9.7
1,1-Dichloroethane	10.0	10.22	10.18	10.43	10.62	9.98	9.8	9.55	0.37	1.15	10.2
2-Butanone	10.0	8.24	8.25	8.64	7.82	9.1	8.31	7.93	0.43	1.36	8.3
cis-1,2-Dichloroethene	10.0	10.93	10.92	10.97	11.11	10.39	10.16	10.1	0.42	1.33	10.9
Chloroform	10.0	10.68	10.75	10.53	10.61	9.77	10.16	9.95	0.39	1.22	10.5
Cyclohexane	10.0	11.14	10.83	10.36	10.71	10.59	10.42	9.97	0.37	1.18	10.6
1,2-Dichloroethane	10.0	10.81	10.78	9.90	10.64	10.34	10.25	9.99	0.37	1.16	10.3
1,1,1-Trichloroethane	10.0	10.11	9.89	9.96	10.73	9.8	9.81	10.1	0.32	1.01	10.0
Carbontetrachloride	10.0	9.02	9.37	9.09	9.65	9.03	8.89	9.01	0.26	0.83	9.0
Benzene	10.0	10.86	10.98	10.51	11.45	11.08	10.66	10.93	0.30	0.95	10.9
Trichloroethene	10.0	10.23	10.45	10.50	10.97	10.49	10.73	10.53	0.23	0.73	10.5
Methylcyclohexane	10.0	10.49	10.79	10.18	10.88	10.53	10.92	10.68	0.26	0.82	10.7
1,2-Dichloropropane	10.0	10.21	10.88	9.89	10.93	10.48	10.41	11.12	0.44	1.38	10.5
Bromodichloromethane	10.0	9.33	9.21	9.02	9.11	9.16	9.02	9.5	0.17	0.55	9.2
cis-1,3-Dichloropropene	10.0	10.40	10.28	9.69	10.06	9.48	9.6	9.7	0.36	1.13	9.7
trans-1,3-Dichloropropene	10.0	9.74	9.51	9.29	9.63	9.44	9.31	9.61	0.17	0.53	9.5
1,1,2-Trichloroethane	10.0	10.48	10.71	10.24	10.32	10.82	10.66	10.93	0.26	0.81	10.7
Dibromochloromethane	10.0	8.47	8.99	8.63	8.50	8.71	8.77	8.84	0.19	0.58	8.7
Bromoform	10.0	7.82	8.13	7.38	7.26	7.43	7.58	7.69	0.30	0.93	7.6
4-Methyl-2-Pentanone	10.0	10.17	10.13	10.38	10.46	10.58	10.92	10.6	0.27	0.86	10.5
Toluene	10.0	10.76	10.76	10.80	11.46	10.68	10.62	10.92	0.28	0.89	10.8
2-Hexanone	10.0	8.04	8.42	8.81	8.26	9.59	9.01	8.9	0.52	1.65	8.8
Tetrachloroethene	10.0	10.16	9.94	10.64	10.92	10.17	10.35	10.31	0.33	1.03	10.3
1,2-Dibromoethane	10.0	10.01	9.98	10.40	10.58	10.19	10.51	10.43	0.24	0.76	10.4
Chlorobenzene	10.0	10.56	10.57	10.98	11.07	10.75	10.65	10.63	0.20	0.64	10.7
Ethylbenzene	10.0	10.85	10.99	10.54	11.19	10.88	10.8	10.48	0.25	0.77	10.9
(m+p) Xylene	20.0	21.22	20.80	21.21	21.40	20.99	20.65	20.68	0.29	0.92	21.0
o-Xylene	10.0	10.46	10.61	10.38	10.38	10.43	10.22	10.29	0.13	0.39	10.4
Styrene	10.0	10.53	10.62	10.55	10.69	10.43	9.88	10.24	0.28	0.88	10.5
Isopropylbenzene	10.0	10.56	10.66	10.39	10.69	10.54	10.33	10.31	0.15	0.49	10.5
1,1,2,2-Tetrachloroethane	10.0	9.96	9.98	10.10	10.12	10.45	10.79	10.64	0.33	1.05	10.1
1,3-Dichlorobenzene	10.00	10.44	10.67	10.34	10.60	10.39	10.14	9.92	0.26	0.81	10.4
1,4-Dichlorobenzene	10.0	10.75	10.63	10.41	10.55	9.95	10.08	9.93	0.34	1.06	10.4
1,2-Dichlorobenzene	10.0	10.25	10.68	10.35	10.61	10.36	10.28	9.88	0.26	0.82	10.4
1,2-Dibromo-3-Chloropropane	10.0	9.02	8.92	9.08	8.61	9.10	9.71	9.42	0.35	1.11	9.1
1,2,4-Trichlorobenzene	10.0	10.36	10.47	10.27	9.83	10.21	9.84	9.62	0.32	1.01	10.2

VOLATILE ORGANICS

SAMPLE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-4S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8332.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	6	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-4S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8332.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8332.D
Acq On : 27 Jun 101 7:28 pm
Sample : 468456 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4S
Quant Time: Jun 27 20:03 19101

Vial: 14
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	12.72	128	264671	50.00 ug/l	-0.03
23) 1,4-Difluorobenzene	14.84	114	1279624	50.00 ug/l	-0.02
36) Chlorobenzene-d5	22.01	117	999201	50.00 ug/l	-0.02
System Monitoring Compounds					%Recovery
21) 1,2-Dichloroethane-d4	13.97	65	537370	51.81 ug/l	103.61%
38) Toluene-d8	18.38	98	1278684	51.19 ug/l	102.38%
50) Bromofluorobenzene	24.99	95	746609	49.09 ug/l	98.19%
Target Compounds					Qvalue
9) Acetone	7.47	43	25956	5.69 ug/l	96 J
40) 2-Hexanone	19.20	43	9840	~~1.43 ug/l #~~	~~35~~

DL
06/28/01

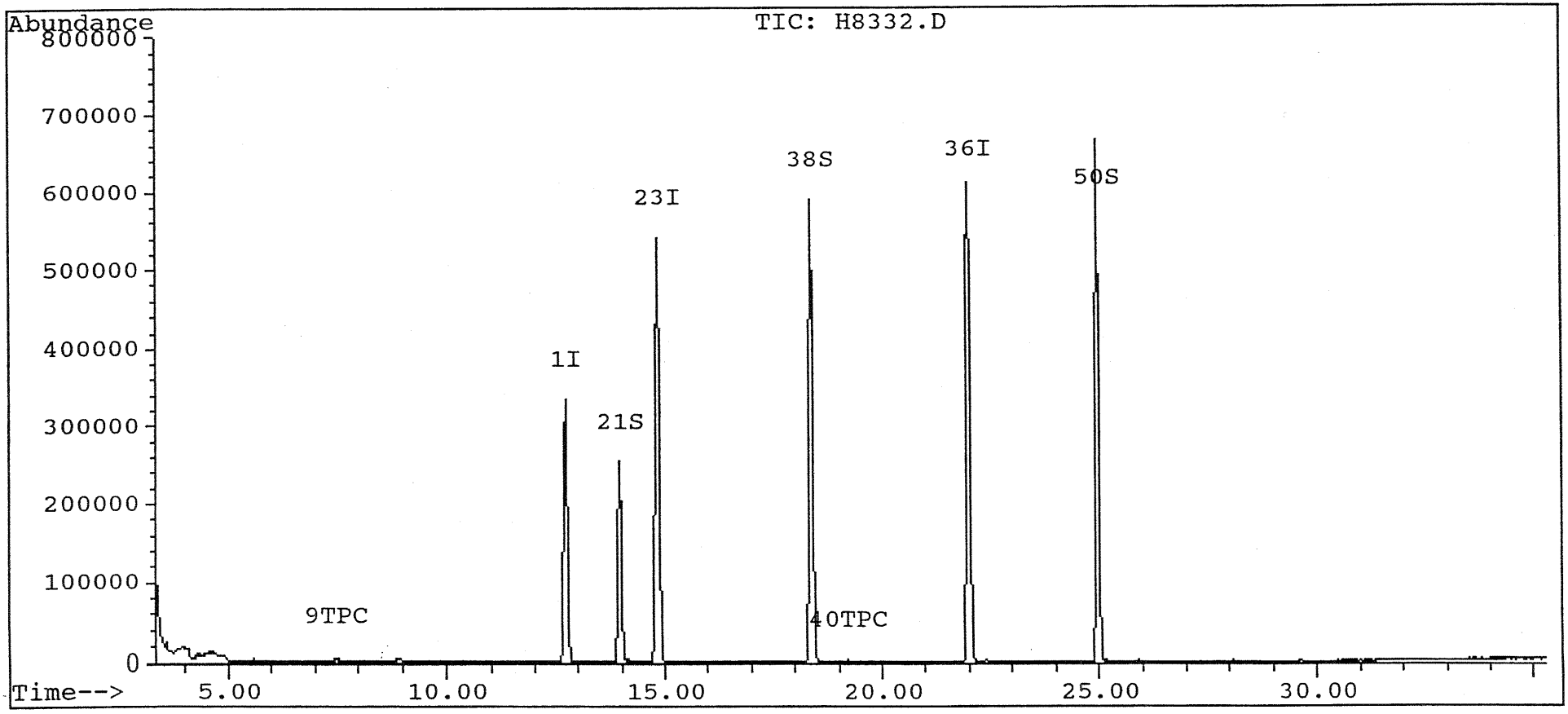
(#) = qualifier out of range (m) = manual integration

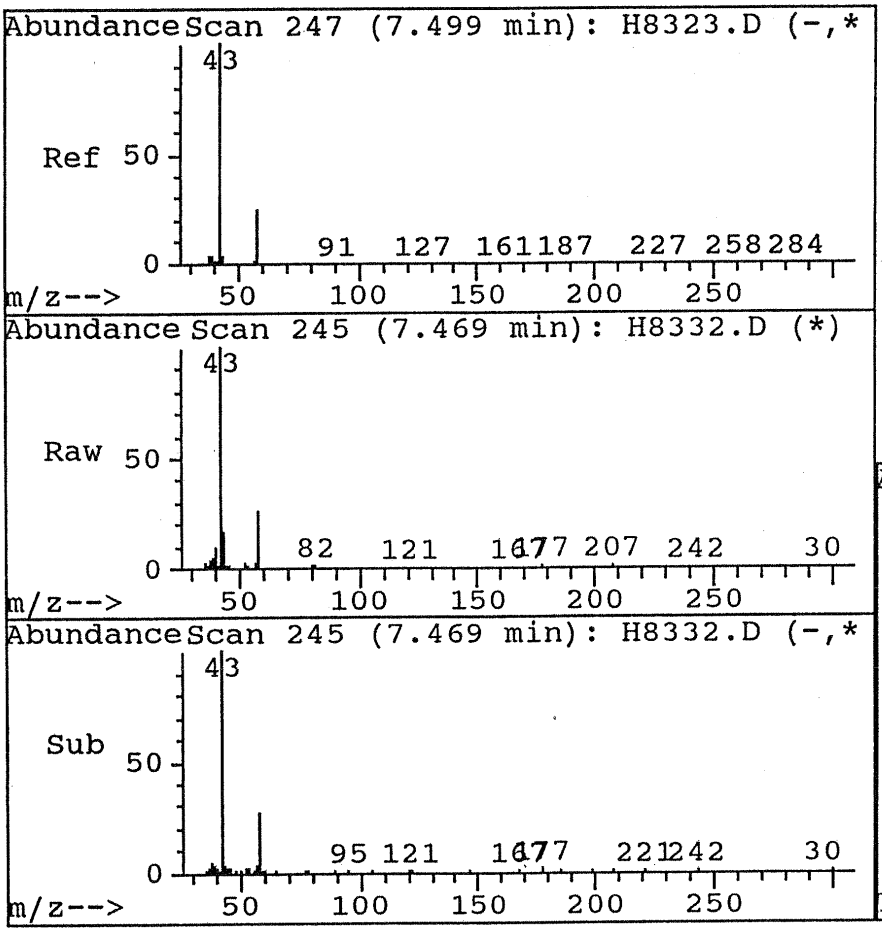
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8332.D
Acq On : 27 Jun 101 7:28 pm
Sample : 468456 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4S
Quant Time: Jun 27 20:03 19101

Vial: 14
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

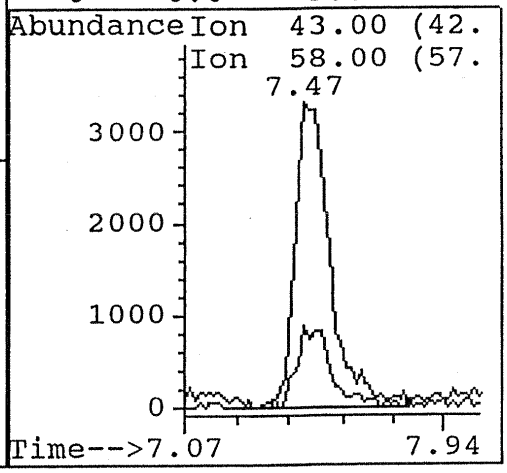




#9
Acetone
Concen: 5.69 ug/l
RT: 7.47 min Scan# 245
Delta R.T. -0.03 min
Lab File: H8332.D
Acq: 27 Jun 101 7:28 pm

Tgt Ion:43 Resp: 25956

Ion	Ratio	Lower	Upper
43	100		
58	23.2	12.7	38.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8332.D Vial: 14
Acq On : 27 Jun 101 7:28 pm Operator: DLIPANI
Sample : 468456 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:OS-4S Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.72	50.00 ug/l	1824635	Bromochloromethane
14.84	50.00 ug/l	3206906	1,4-Difluorobenzene
22.01	50.00 ug/l	3211144	Chlorobenzene-d5

DL
07/09/01
10

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8332.D
Acq On : 27 Jun 101 7:28 pm
Sample : 468456 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4S

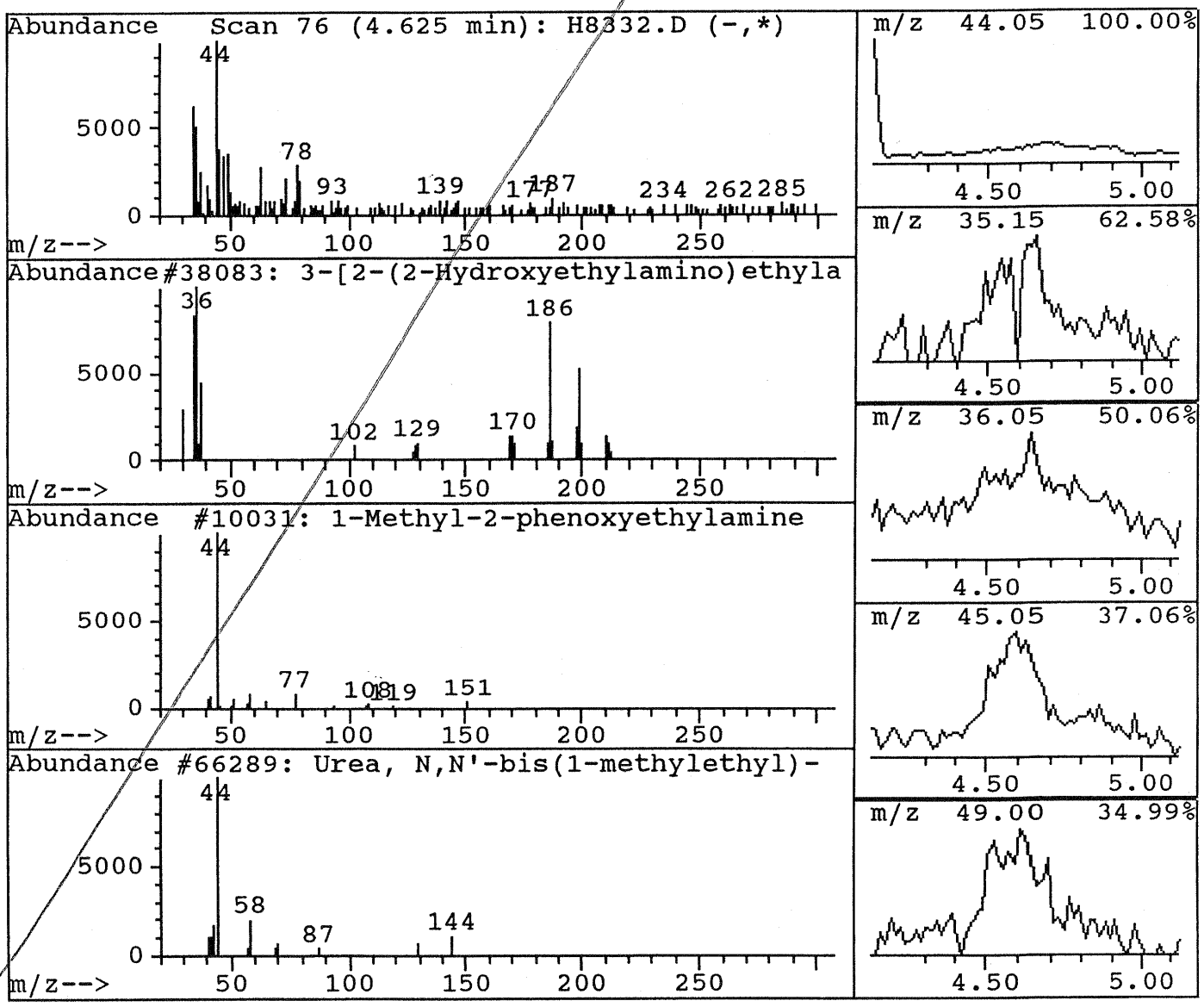
Vial: 14
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del. not a peak PL 7-9-01 10

R.T.	Conc	Area	Relative to ISTD	R.T.
4.62	7.28 ug/l	265663	Bromochloromethane	12.72

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3-[2-(2-Hydroxyethylamino)ethylamin	38083	000000-00-0	27
2	1-Methyl-2-phenoxyethylamine	10031	035205-54-0	25
3	Urea, N,N'-bis(1-methylethyl)-	66289	004128-37-4	12
4	Nortriptyline	36443	000072-69-5	11
5	Benzenemethanol, .alpha.-(1-aminoet	10032	048115-38-4	10



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1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-4d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468457 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8335.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	4	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-4d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468457 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8335.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8335.D
Acq On : 27 Jun 101 9:37 pm
Sample : 468457 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4d
Quant Time: Jun 27 22:12 19101

Vial: 17
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.74	128	260445	50.00	ug/l	-0.02
23) 1,4-Difluorobenzene	14.84	114	1247765	50.00	ug/l	-0.02
36) Chlorobenzene-d5	21.99	117	978671	50.00	ug/l	-0.03
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.97	65	529534	51.88	ug/l	103.76%
38) Toluene-d8	18.37	98	1250053	51.10	ug/l	102.19%
50) Bromofluorobenzene	24.99	95	729911	49.00	ug/l	98.01%
Target Compounds						Qvalue
9) Acetone	7.49	43	19160	4.27	ug/l	91 J
40) 2-Hexanone	19.20	43	7613	~~1.13~~	~~ug/l~~ #	~~48~~

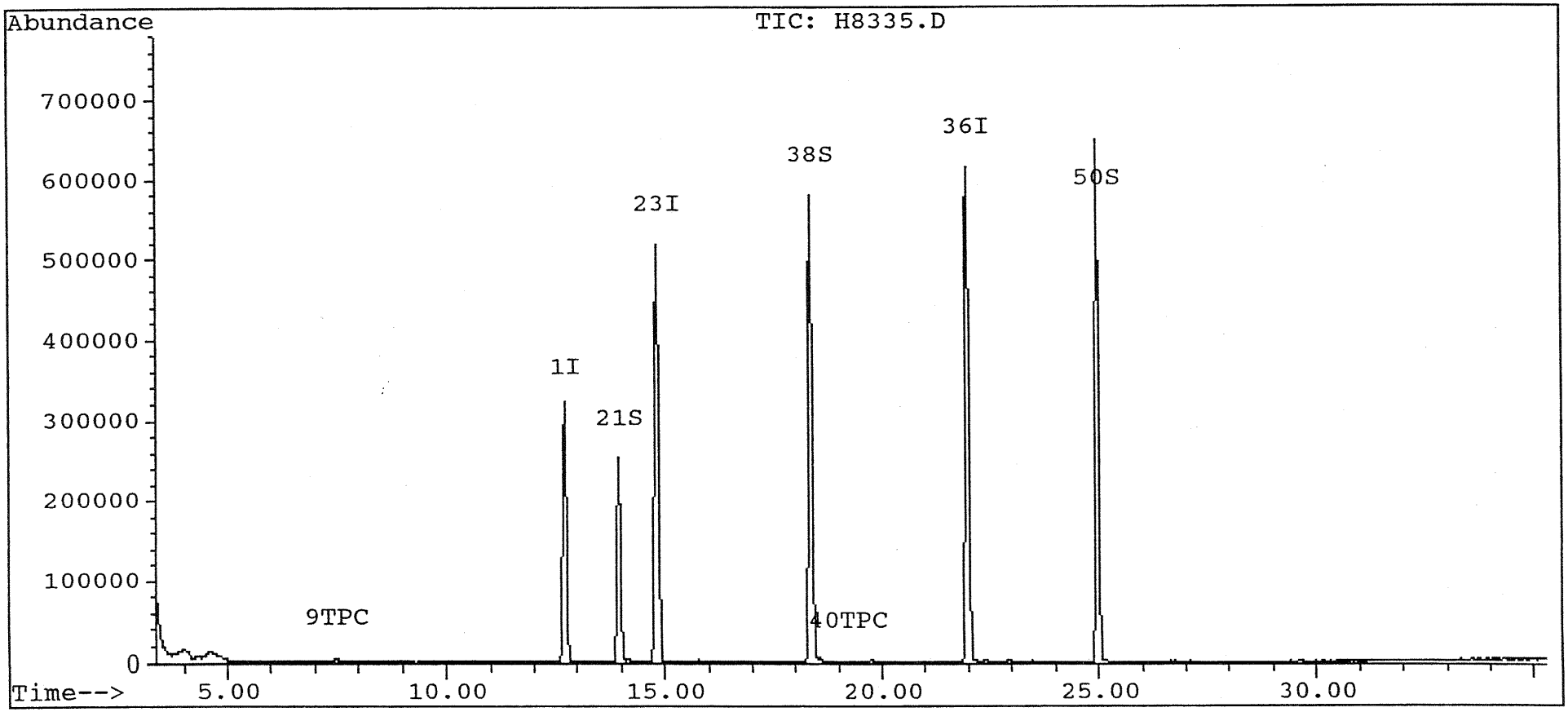
DL 06/28/01

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8335.D
Acq On : 27 Jun 101 9:37 pm
Sample : 468457 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4d
Quant Time: Jun 27 22:12 19101

Vial: 17
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



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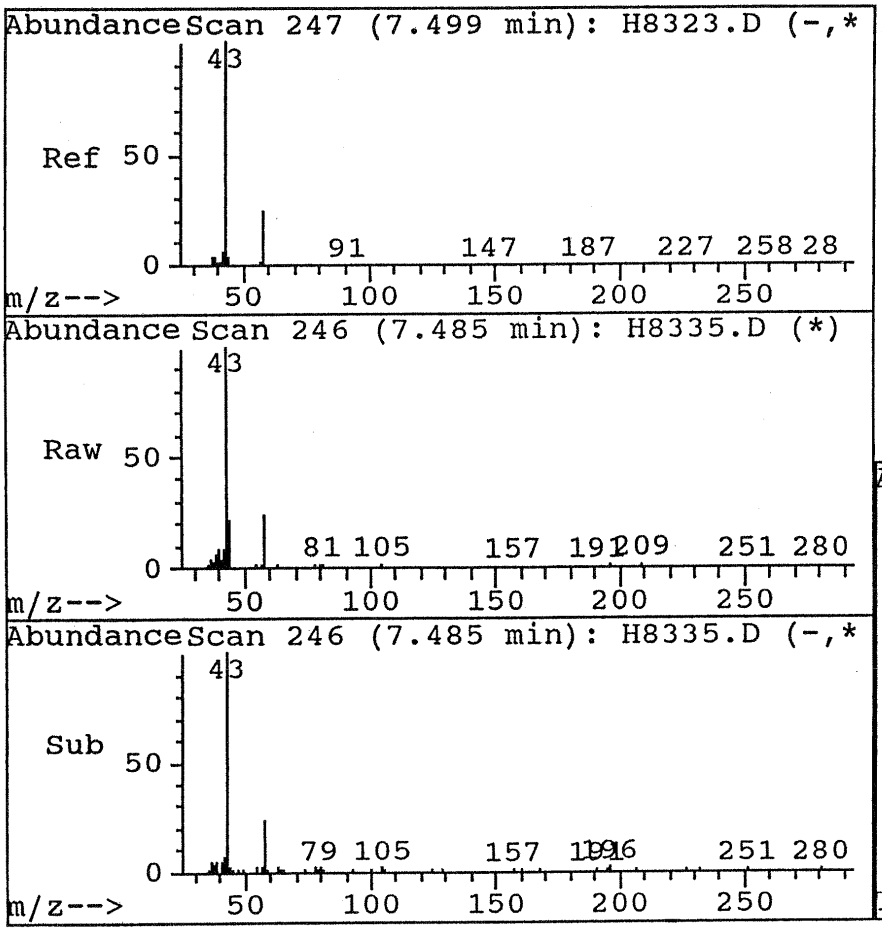
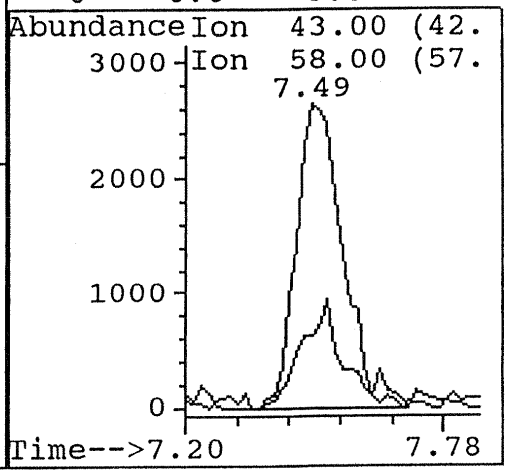


#9
Acetone
Concen: 4.27 ug/l
RT: 7.49 min Scan# 246
Delta R.T. -0.02 min
Lab File: H8335.D
Acq: 27 Jun 101 9:37 pm

Tgt Ion:43 Resp: 19160

Ion	Ratio	Lower	Upper
43	100		
58	30.0	12.7	38.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8335.D
Acq On : 27 Jun 101 9:37 pm
Sample : 468457 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4d

Vial: 17
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.74	50.00 ug/l	1783853	Bromochloromethane
14.84	50.00 ug/l	3129006	1,4-Difluorobenzene
21.99	50.00 ug/l	3164928	Chlorobenzene-d5

DL
07/10/01

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8335.D
Acq On : 27 Jun 101 9:37 pm
Sample : 468457 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4d

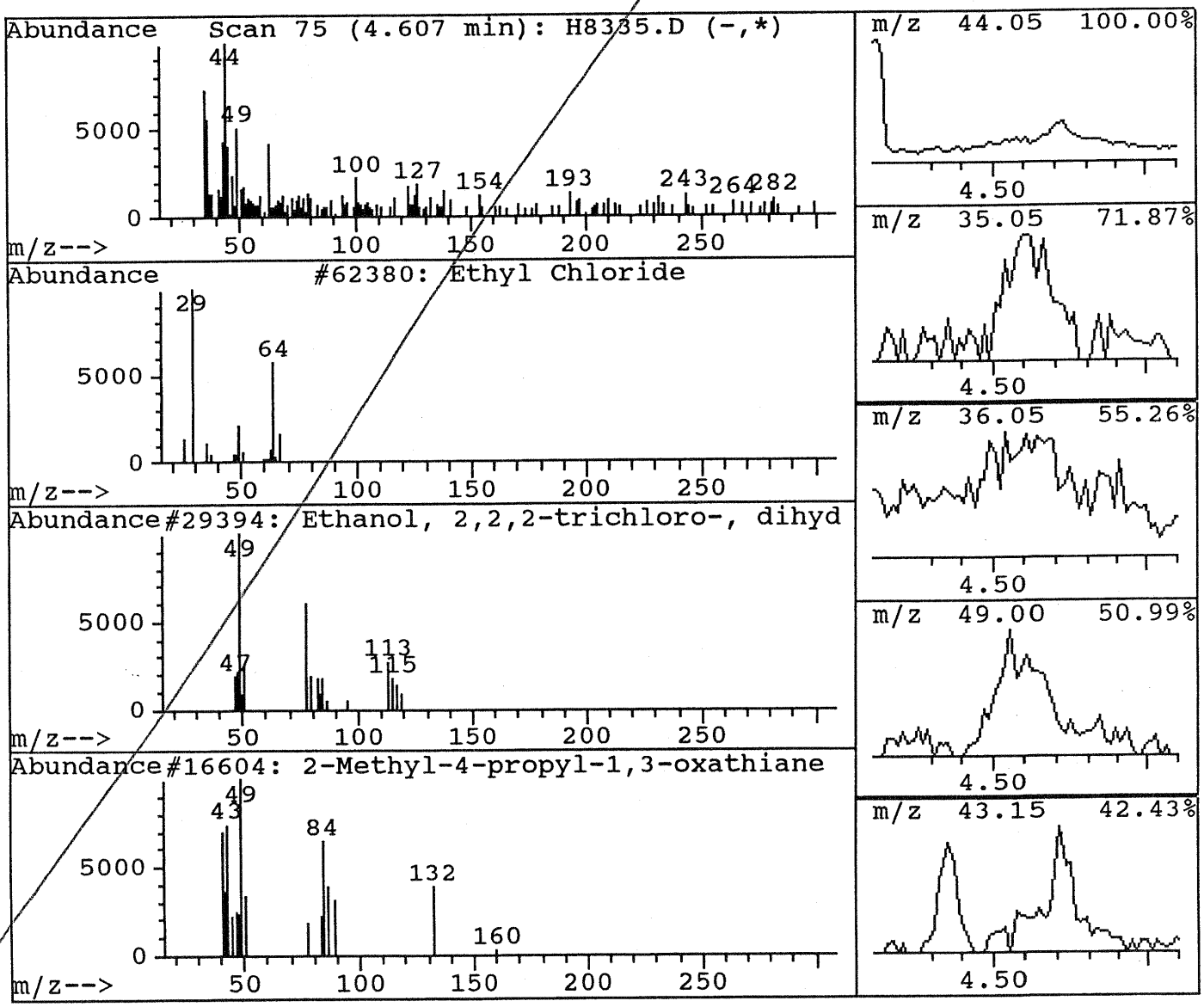
Vial: 17
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del- not a peak DL 7-10-01

R.T.	Conc	Area	Relative to ISTD	R.T.
4.61	6.64 ug/l	237001	Bromochloromethane	12.74

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ethyl Chloride	62380	000075-00-3	9
2	Ethanol, 2,2,2-trichloro-, dihydrog	29394	000306-52-5	9
3	2-Methyl-4-propyl-1,3-oxathiane 3-o	16604	000000-00-0	9
4	Ethanol, 2,2,2-trichloro-	66531	000115-20-8	9
5	1H,1H,9H-Hexadecafluoro-1-nonanol	56033	000376-18-1	9



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-3d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468458 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8336.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-3d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468458 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8336.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8336.D
Acq On : 27 Jun 101 10:20 pm
Sample : 468458 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-3d
Quant Time: Jun 27 22:55 19101

Vial: 18
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	259918	50.00	ug/l	-0.03
23) 1,4-Difluorobenzene	14.83	114	1229931	50.00	ug/l	-0.03
36) Chlorobenzene-d5	22.00	117	975580	50.00	ug/l	-0.03
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.95	65	520492	51.10	ug/l	102.19%
38) Toluene-d8	18.36	98	1234505	50.62	ug/l	101.24%
50) Bromofluorobenzene	24.99	95	720037	48.49	ug/l	96.99%
Target Compounds						Qvalue
9) Acetone	7.50	43	9247	2.07	ug/l	99 <

DL
06/27/01

(#) = qualifier out of range (m) = manual integration
H8336.D ASP0627.M Wed Jun 27 22:55:46 2001 TEST2

Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8336.D
Acq On : 27 Jun 101 10:20 pm
Sample : 468458 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-3d

Vial: 18
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

No Library Search Compounds Detected

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-2d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468459 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8337.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	2	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-2d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468459 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8337.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8337.D
Acq On : 27 Jun 101 11:03 pm
Sample : 468459 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-2d
Quant Time: Jun 27 23:38 19101

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	261302	50.00	ug/l	-0.04
23) 1,4-Difluorobenzene	14.84	114	1216145	50.00	ug/l	-0.02
36) Chlorobenzene-d5	21.99	117	967625	50.00	ug/l	-0.04
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	518255	50.61	ug/l	101.21%
38) Toluene-d8	18.37	98	1232639	50.96	ug/l	101.92%
50) Bromofluorobenzene	24.99	95	709585	48.18	ug/l	96.37%
Target Compounds						Qvalue
9) Acetone	7.52	43	10137	2.25	ug/l	92 J

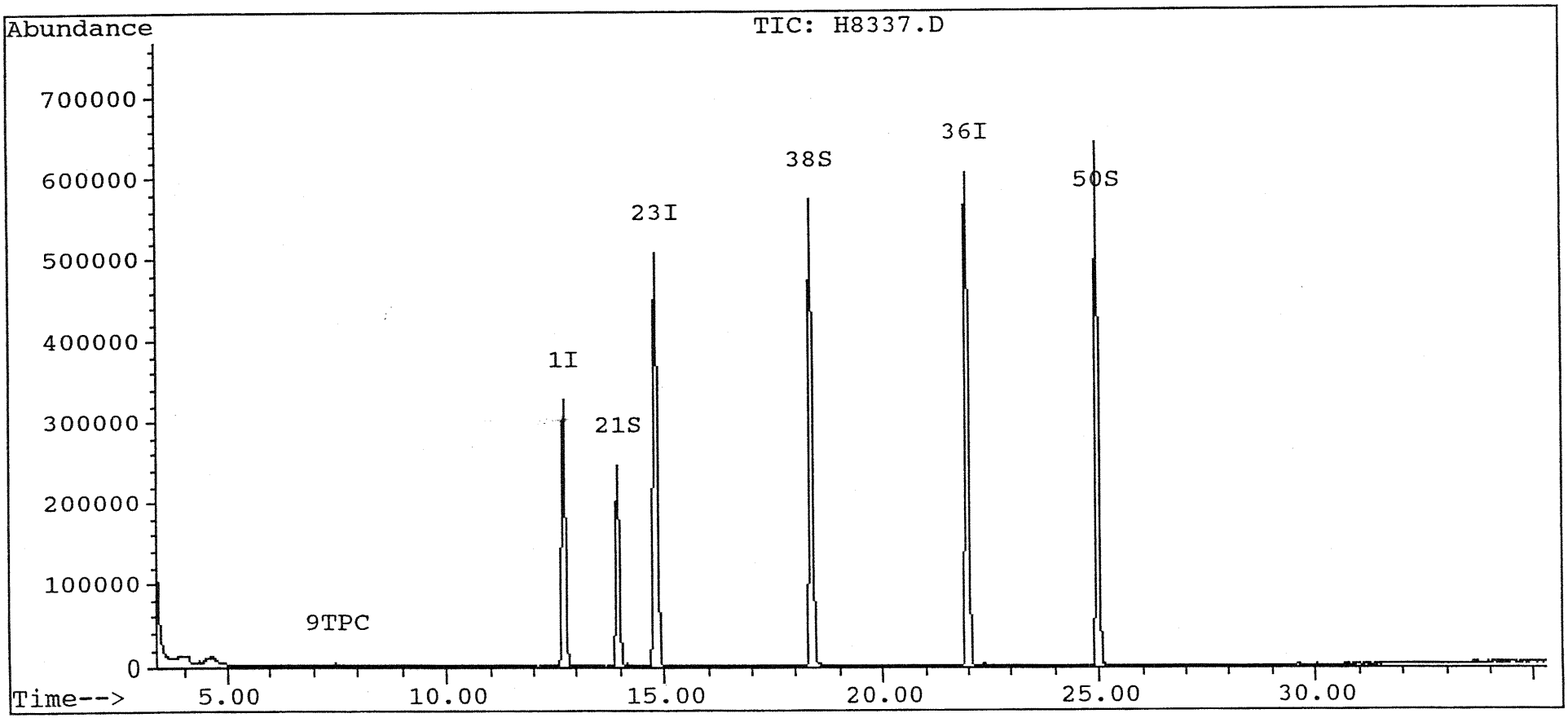
DL
06/28/01

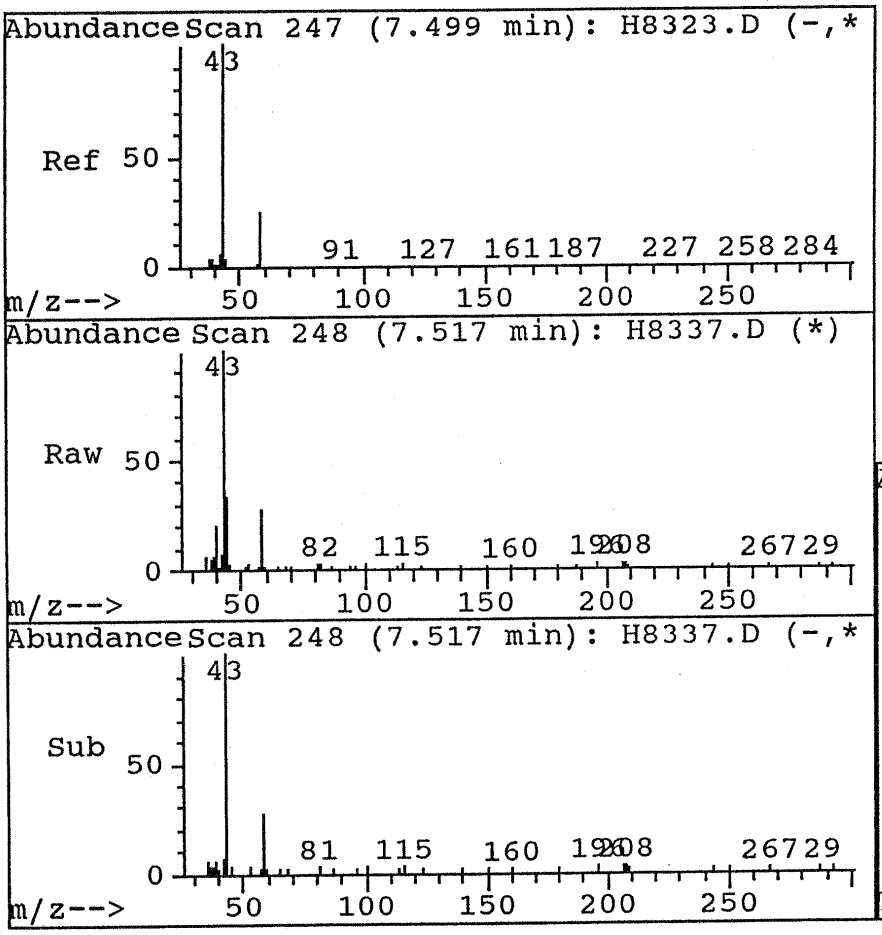
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8337.D
Acq On : 27 Jun 101 11:03 pm
Sample : 468459 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-2d
Quant Time: Jun 27 23:38 19101

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

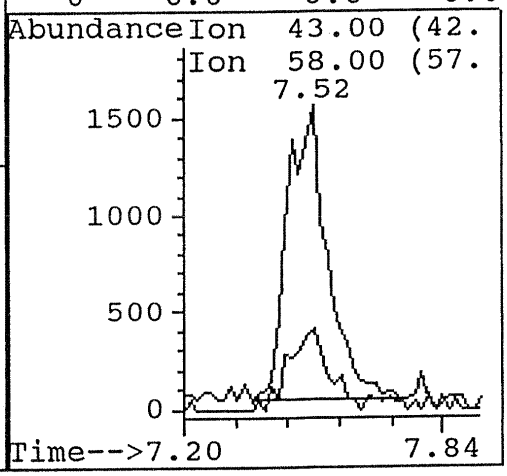




#9
Acetone
Concen: 2.25 ug/l
RT: 7.52 min Scan# 248
Delta R.T. 0.01 min
Lab File: H8337.D
Acq: 27 Jun 101 11:03 pm

Tgt Ion:43 Resp: 10137

Ion	Ratio	Lower	Upper
43	100		
58	29.3	12.7	38.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8337.D
Acq On : 27 Jun 101 11:03 pm
Sample : 468459 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-2d

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.72	50.00 ug/l	1739762	Bromochloromethane
14.84	50.00 ug/l	3076952	1,4-Difluorobenzene
21.99	50.00 ug/l	3116289	Chlorobenzene-d5

DL
07/10/01

Library Search Compound Report

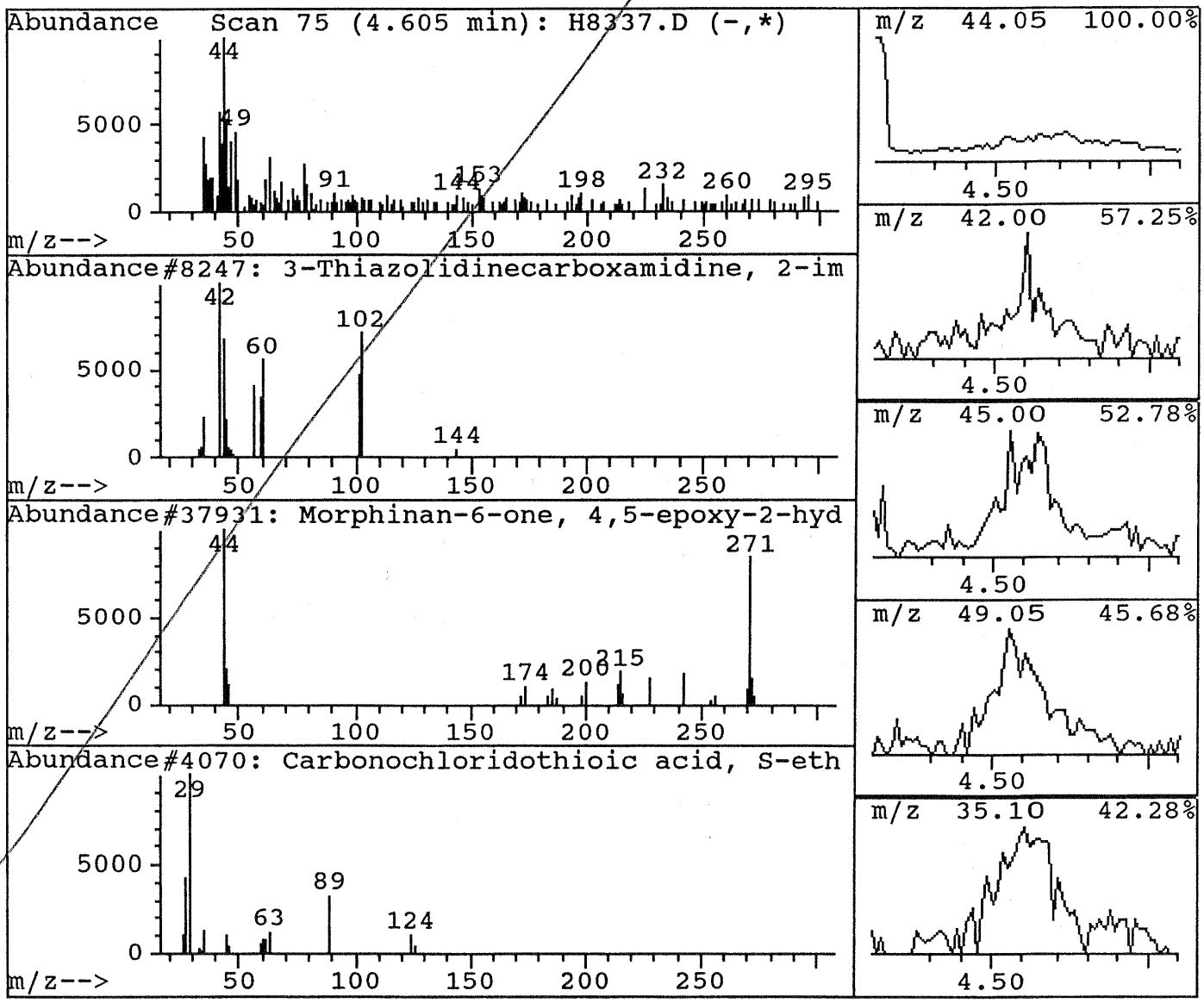
Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8337.D Vial: 19
Acq On : 27 Jun 101 11:03 pm Operator: DLIPANI
Sample : 468459 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:OS-2d Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del. not a peak (RL) 07/10/01

R.T.	Conc	Area	Relative to ISTD	R.T.
4.61	6.70 ug/l	233117	Bromochloromethane	12.72

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3-Thiazolidinecarboxamidine, 2-imin	8247	010455-64-8	12
2	Morphinan-6-one, 4,5-epoxy-2-hydrox	37931	000000-00-0	10
3	Carbonochloridothioic acid, S-ethyl	4070	002941-64-2	9
4	1,3-Bis(2-chloroethyl)urea	18657	002214-72-4	9
5	1,4,2,3-Dithiadiborinane, 2,3-bis(d	23181	019172-56-6	9



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-2S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468460 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8338.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-2S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468460 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8338.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8338.D
Acq On : 27 Jun 101 11:45 pm
Sample : 468460 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-2S
Quant Time: Jun 28 0:21 19101

Vial: 20
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.73	128	261066	50.00	ug/l	-0.02
23) 1,4-Difluorobenzene	14.84	114	1226796	50.00	ug/l	-0.02
36) Chlorobenzene-d5	22.01	117	956182	50.00	ug/l	-0.02
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	514342	50.27	ug/l	100.54%
38) Toluene-d8	18.37	98	1218539	50.98	ug/l	101.96%
50) Bromofluorobenzene	24.99	95	703984	48.37	ug/l	96.75%
Target Compounds						Qvalue
9) Acetone	7.48	43	6161	~~1.37~~	~~ug/l~~	~~81~~ <

DL
06/28/01

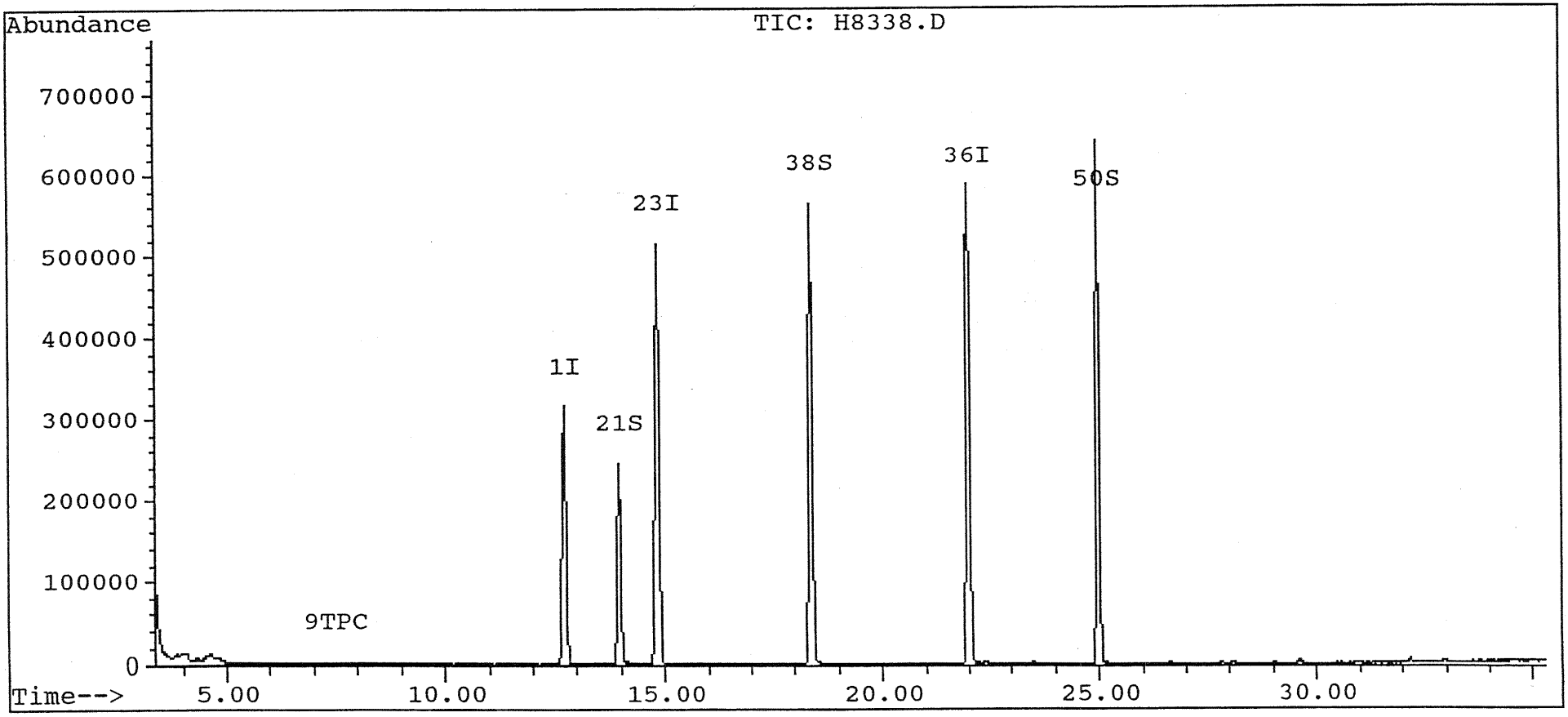
(#) = qualifier out of range (m) = manual integration
H8338.D ASP0627.M Thu Jun 28 00:21:18 2001 TEST2

Quantita on Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8338.D
Acq On : 27 Jun 101 11:45 pm
Sample : 468460 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-2S
Quant Time: Jun 28 0:21 19101

Vial: 20
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



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Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8338.D
Acq On : 27 Jun 101 11:45 pm
Sample : 468460 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-2S

Vial: 20
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.73	50.00 ug/l	1736228	Bromochloromethane
14.84	50.00 ug/l	3079644	1,4-Difluorobenzene
22.01	50.00 ug/l	3070615	Chlorobenzene-d5

DL
07/10/01

Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8338.D
Acq On : 27 Jun 101 11:45 pm
Sample : 468460 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-2S

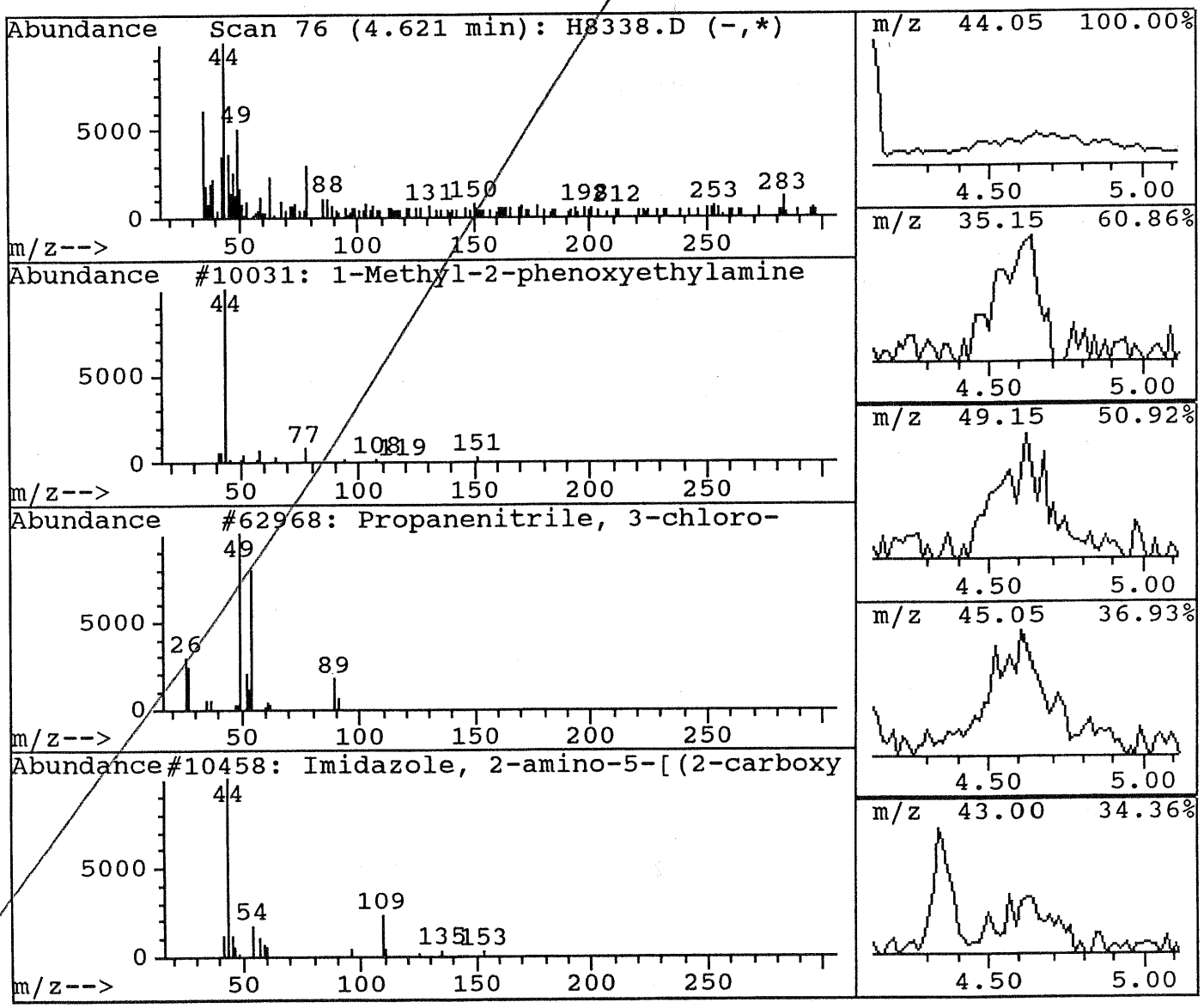
Vial: 20
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del. not a peak DL 07/10/01

R.T.	Conc	Area	Relative to ISTD	R.T.
4.62	5.82 ug/l	202204	Bromochloromethane	12.73

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Methyl-2-phenoxyethylamine	10031	035205-54-0	9
2	Propanenitrile, 3-chloro-	62968	000542-76-7	9
3	Imidazole, 2-amino-5-[(2-carboxy)vi	10458	000000-00-0	9
4	Fluoxetine	44093	054910-89-3	9
5	2-Amino-1-(O-methoxyphenyl)propane	13749	074702-94-6	9



1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-1d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468461 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8340.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	5	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-1d

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468461 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8340.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8340.D
Acq On : 28 Jun 101 1:11 am
Sample : 468461 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-1d
Quant Time: Jun 28 1:46 19101

Vial: 22
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

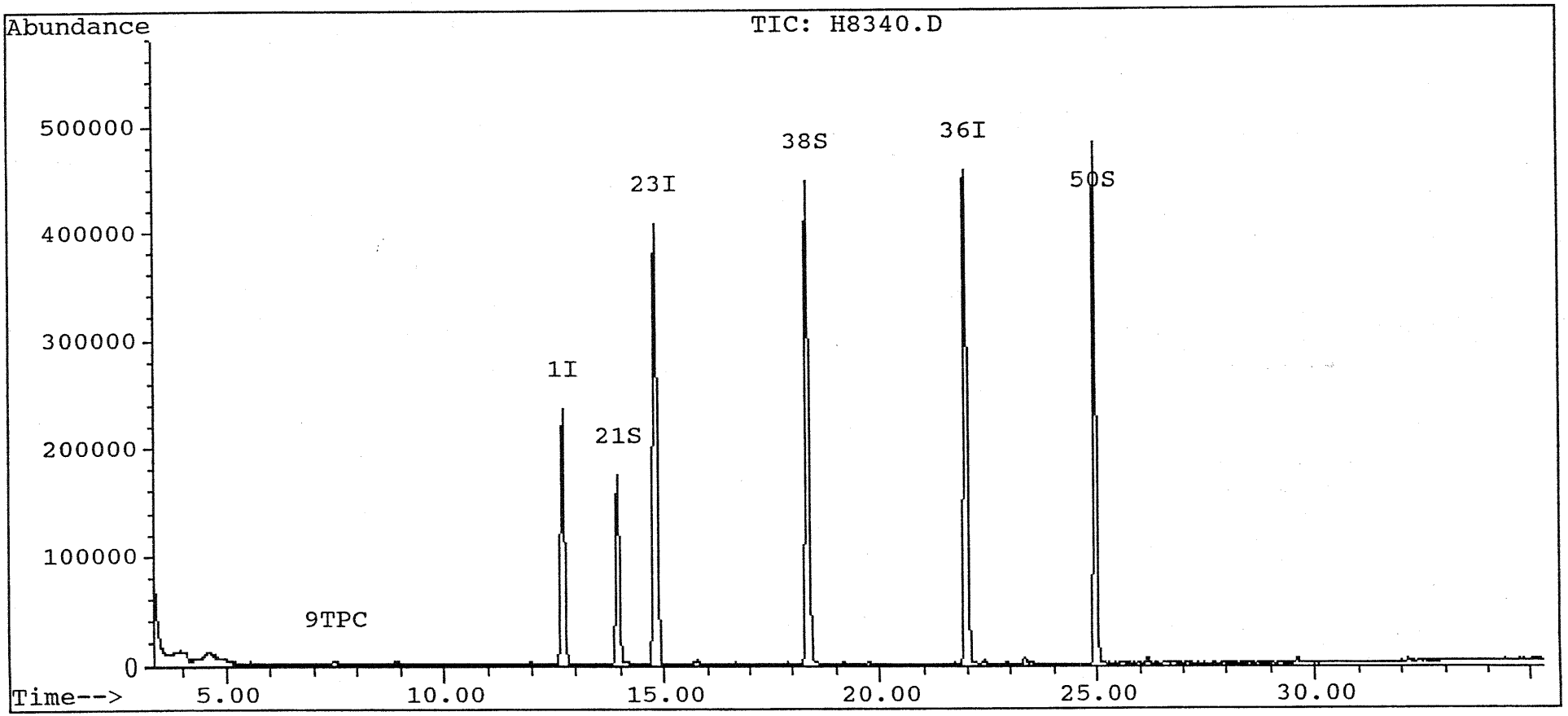
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	189159	50.00	ug/l	-0.04
23) 1,4-Difluorobenzene	14.82	114	977021	50.00	ug/l	-0.04
36) Chlorobenzene-d5	21.99	117	743160	50.00	ug/l	-0.04
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	372792	50.29	ug/l	100.57%
38) Toluene-d8	18.36	98	971829	52.31	ug/l	104.62%
50) Bromofluorobenzene	24.97	95	536851	47.46	ug/l	94.93%
Target Compounds						Qvalue
9) Acetone	7.48	43	14990	4.60	ug/l	92 J

(#) = qualifier out of range (m) = manual integration

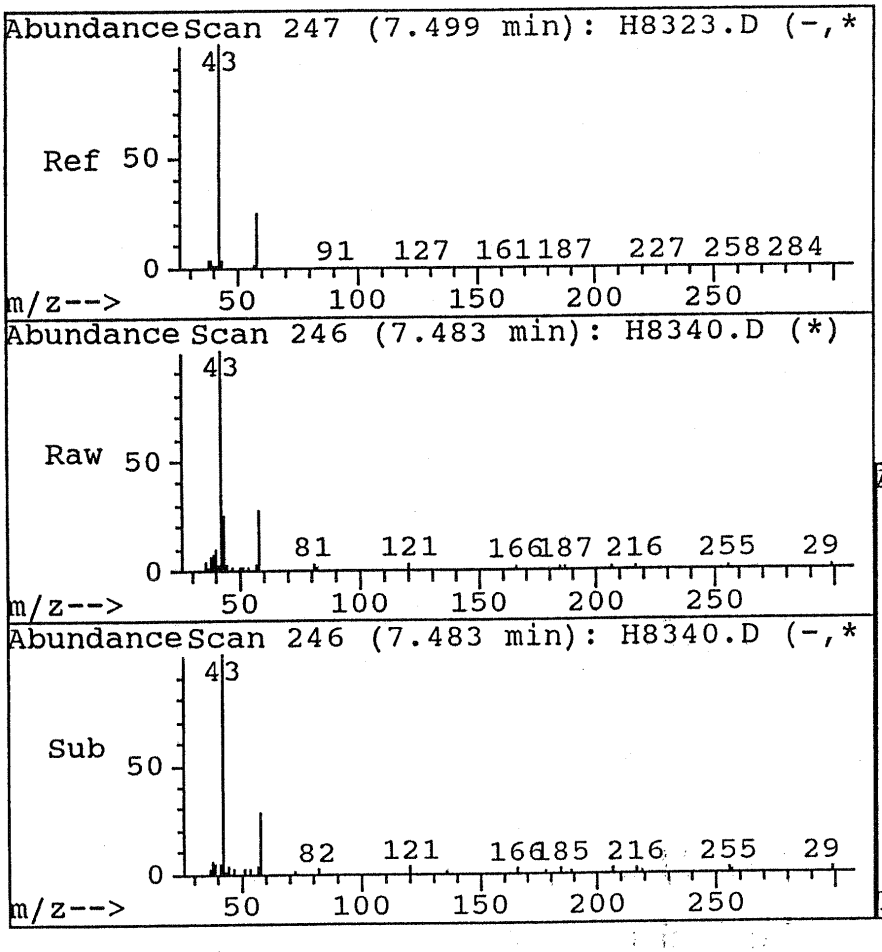
Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8340.D
Acq On : 28 Jun 101 1:11 am
Sample : 468461 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-1d
Quant Time: Jun 28 1:46 19101

Vial: 22
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



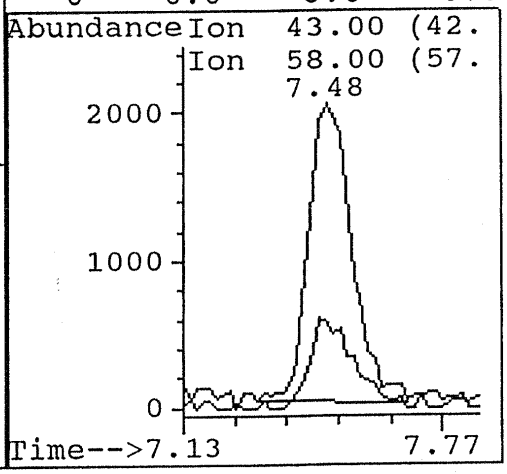
63



#9
Acetone
Concen: 4.60 ug/l
RT: 7.48 min Scan# 246
Delta R.T. -0.02 min
Lab File: H8340.D
Acq: 28 Jun 101 1:11 am

Tgt Ion:43 Resp: 14990

Ion	Ratio	Lower	Upper
43	100		
58	29.2	12.7	38.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8340.D
Acq On : 28 Jun 101 1:11 am
Sample : 468461 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-1d

Vial: 22
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.72	50.00 ug/l	1243022	Bromochloromethane
14.82	50.00 ug/l	2458265	1,4-Difluorobenzene
21.99	50.00 ug/l	2383592	Chlorobenzene-d5

DL
07/10/01

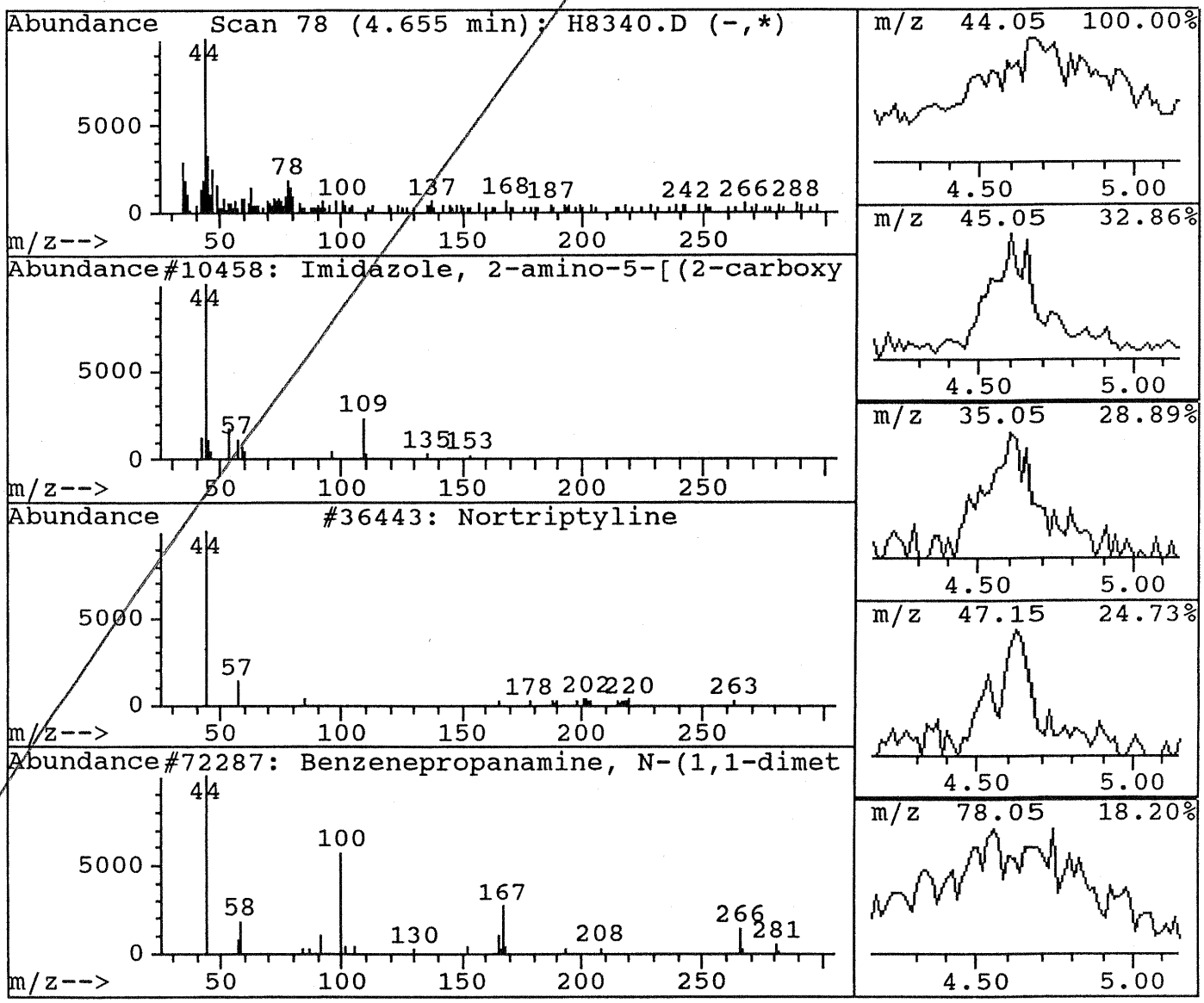
Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8340.D Vial: 22
Acq On : 28 Jun 101 1:11 am Operator: DLIPANI
Sample : 468461 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:OS-1d Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del. not a peak DL 07/10/01

R.T.	Conc	Area	Relative to ISTD	R.T.
4.66	8.98 ug/l	223325	Bromochloromethane	12.72

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Imidazole, 2-amino-5-[(2-carboxy)vi	10458	000000-00-0	50
2	Nortriptyline	36443	000072-69-5	43
3	Benzenepropanamine, N-(1,1-dimethyl	72287	015793-40-5	38
4	Amidephrine	32613	003354-67-4	37
5	1,2-Ethanediamine, N,N'-dimethyl-	833	000110-70-3	25



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-1S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468462 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8339.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	7	J
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OS-1S

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468462 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8339.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	9.29	260	JN

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8339.D
Acq On : 28 Jun 101 12:28 am
Sample : 468462 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-1S
Quant Time: Jun 28 1:04 19101

Vial: 21
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	259441	50.00	ug/l	-0.03
23) 1,4-Difluorobenzene	14.84	114	1210412	50.00	ug/l	-0.01
36) Chlorobenzene-d5	22.00	117	945355	50.00	ug/l	-0.03
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.97	65	514726	50.62	ug/l	101.25%
38) Toluene-d8	18.38	98	1214762	51.40	ug/l	102.81%
50) Bromofluorobenzene	24.99	95	698673	48.56	ug/l	97.12%
Target Compounds						Qvalue
9) Acetone	7.49	43	31186	6.98	ug/l	96 J
14) Methyl tert Butyl Ether	9.31	73	3843808	182.93	ug/l	99 NT
17) 2-Butanone	11.58	43	5709	1.28	ug/l	89 <

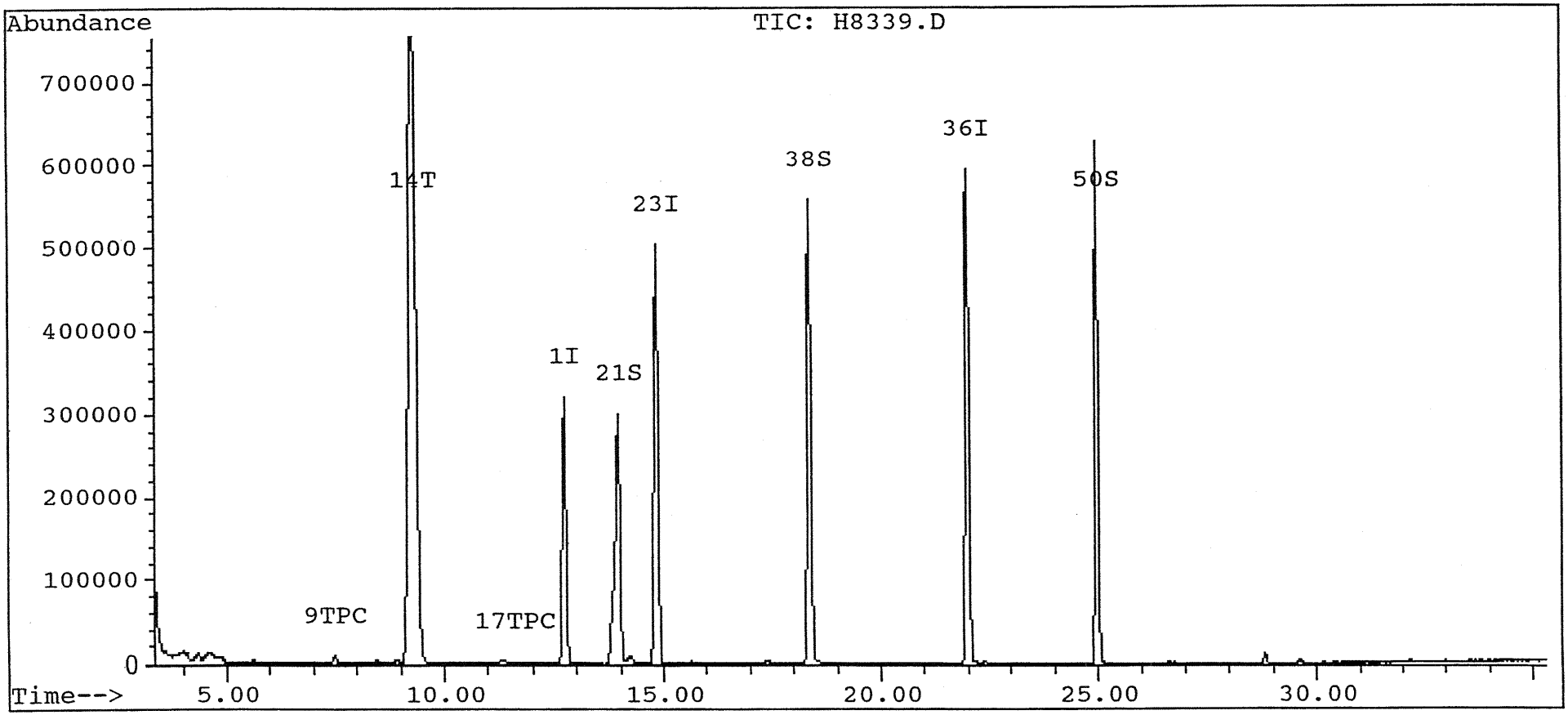
DL 06/28/01

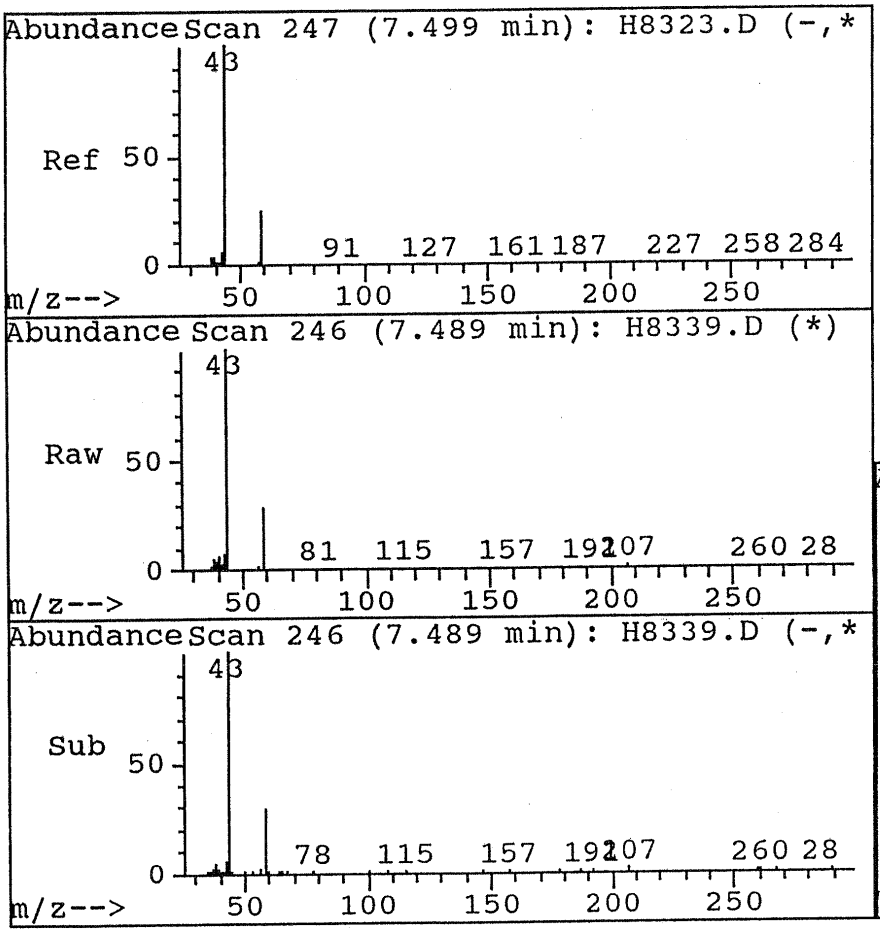
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8339.D
Acq On : 28 Jun 101 12:28 am
Sample : 468462 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-1S
Quant Time: Jun 28 1:04 19101

Vial: 21
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

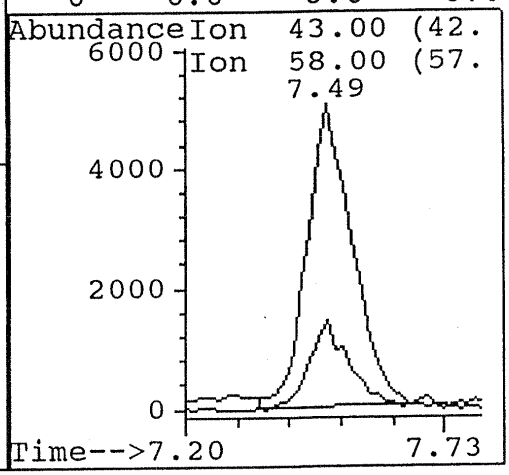




#9
Acetone
Concen: 6.98 ug/l
RT: 7.49 min Scan# 246
Delta R.T. -0.01 min
Lab File: H8339.D
Acq: 28 Jun 101 12:28 am

Tgt Ion:43 Resp: 31186

Ion	Ratio	Lower	Upper
43	100		
58	27.4	12.7	38.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8339.D
Acq On : 28 Jun 101 12:28 am
Sample : 468462 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-1S

Vial: 21
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.72	50.00 ug/l	1746319	Bromochloromethane
14.84	50.00 ug/l	3048491	1,4-Difluorobenzene
22.00	50.00 ug/l	3062962	Chlorobenzene-d5

DL
07/10/01

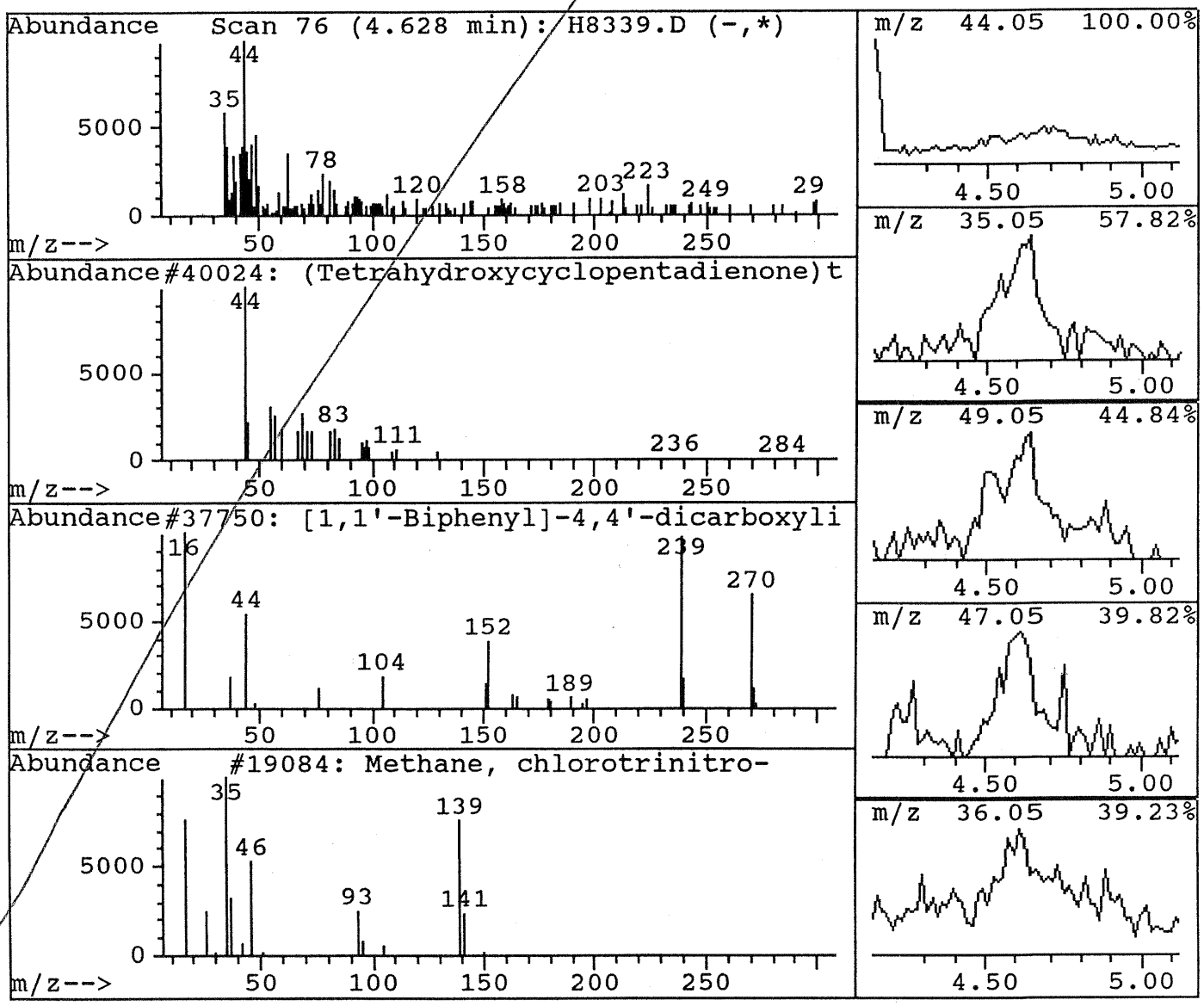
Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8339.D Vial: 21
Acq On : 28 Jun 101 12:28 am Operator: DLIPANI
Sample : 468462 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:OS-1S Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del. not a peak (DL) 07/10/01

R.T.	Conc	Area	Relative to ISTD	R.T.
4.63	6.12 ug/l	213700	Bromochloromethane	12.72

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	(Tetrahydroxycyclopentadienone)tric	40024	000000-00-0	10
2	[1,1'-Biphenyl]-4,4'-dicarboxylic a	37750	000792-74-5	9
3	Methane, chlorotrinitro-	19084	001943-16-4	9
4	Pregn-5-en-3-ol, 20-amino-, (3.beta	45271	005035-10-9	9
5	8-Azabicyclo[4.3.1]decan-10-one, 8-	14306	004146-36-5	9



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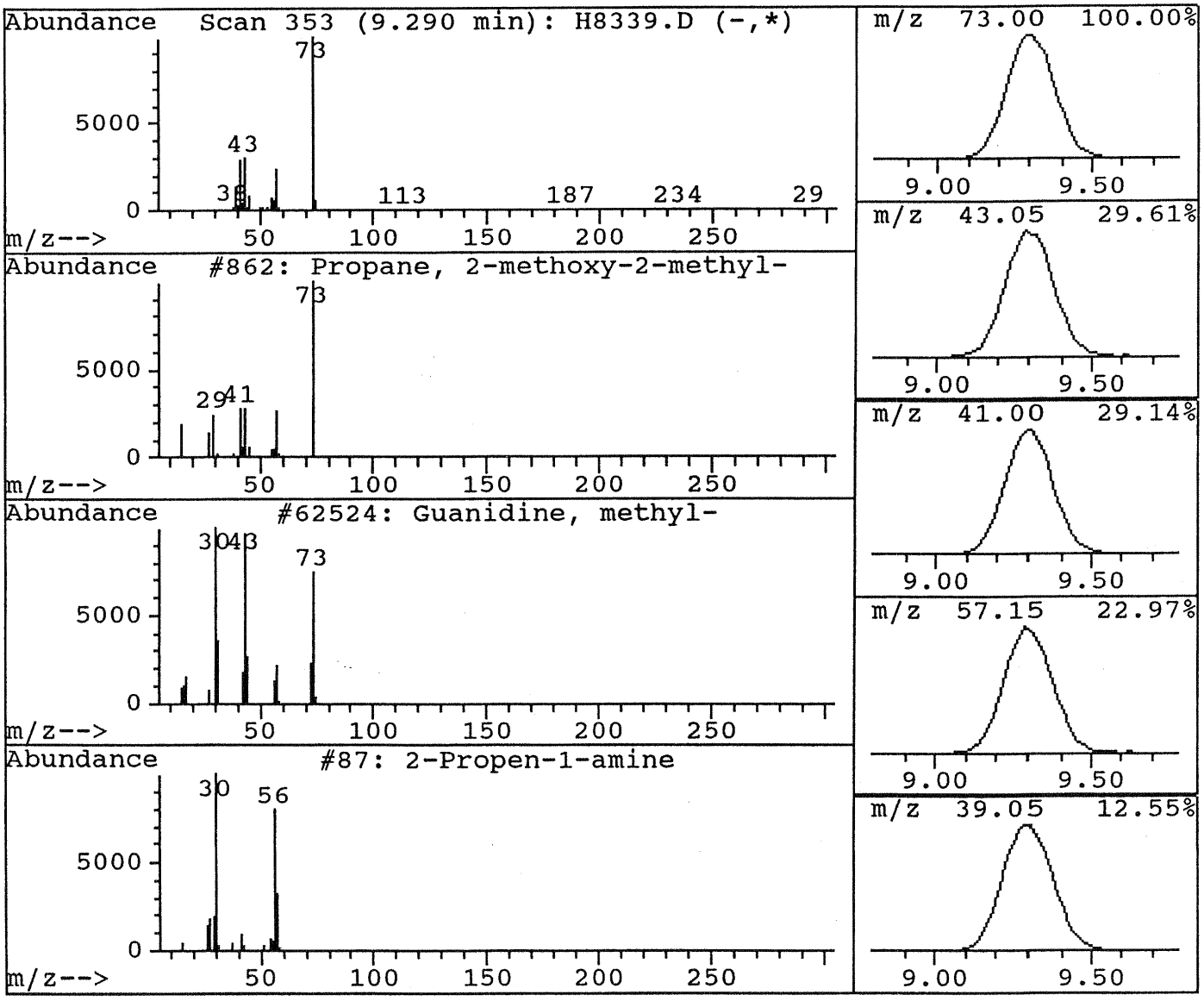
Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8339.D Vial: 21
Acq On : 28 Jun 101 12:28 am Operator: DLIPANI
Sample : 468462 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:OS-1S Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
9.29	257.58 ug/l	8996207	Bromochloromethane	12.72

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Propane, 2-methoxy-2-methyl-	862	001634-04-4	50
2	Guanidine, methyl-	62524	000471-29-4	7
3	2-Propen-1-amine	87	000107-11-9	4
4	Acetamide, N-methyl-	287	000079-16-3	4
5	N-Ethylformamide	292	000627-45-2	4



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468464 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8341.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468464 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8341.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8341.D
Acq On : 28 Jun 101 1:53 am
Sample : 468464 1.0
Misc : HA '95-1 SDG:OS4S EPA:TRIP BLANK
Quant Time: Jun 28 2:29 19101

Vial: 23
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	256691	50.00	ug/l	-0.04
23) 1,4-Difluorobenzene	14.82	114	1188300	50.00	ug/l	-0.04
36) Chlorobenzene-d5	21.99	117	944603	50.00	ug/l	-0.04
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	508936	50.59	ug/l	101.18%
38) Toluene-d8	18.36	98	1196568	50.67	ug/l	101.35%
50) Bromofluorobenzene	24.99	95	688712	47.91	ug/l	95.81%
Target Compounds						Qvalue
9) Acetone	7.52	43	5997	1.36	ug/l	89

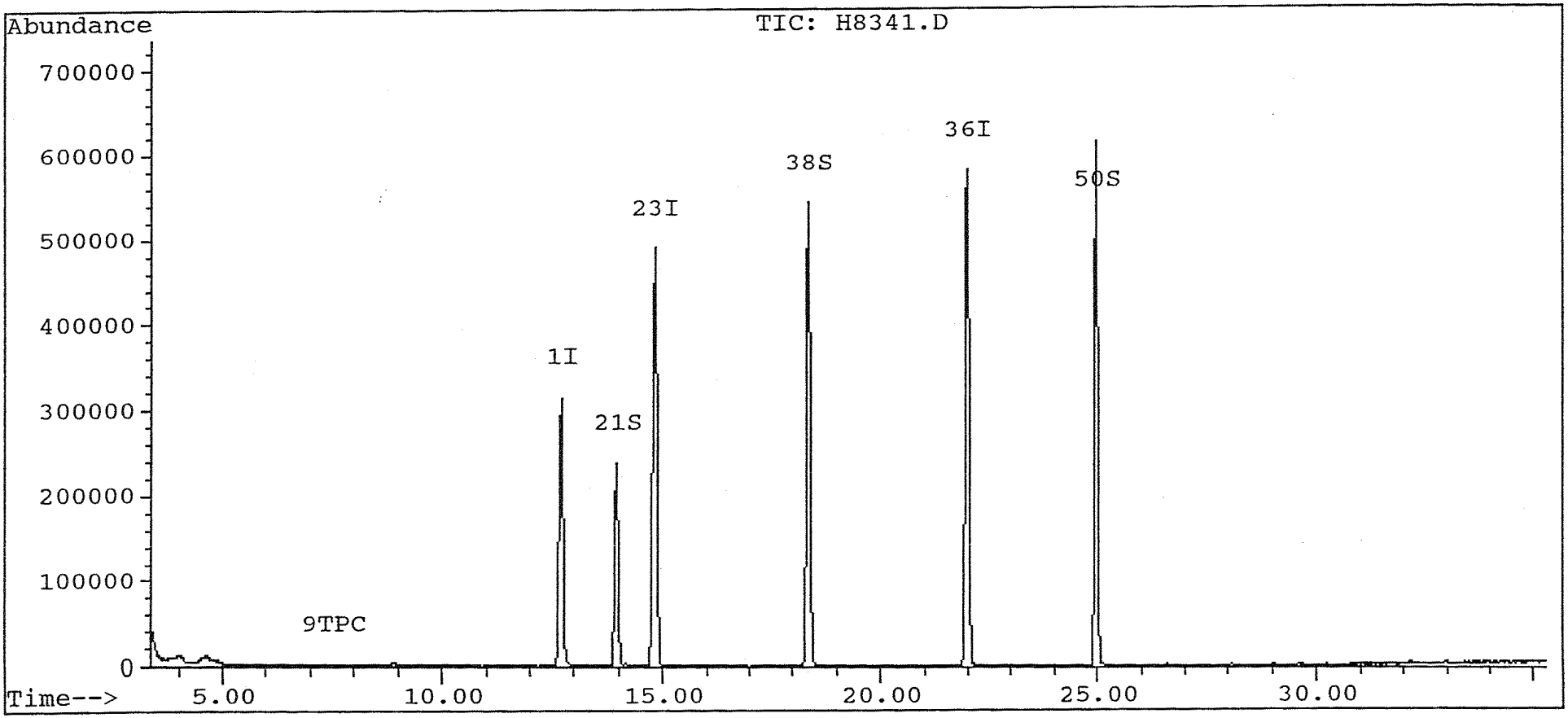
DL 06/28/01

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8341.D
Acq On : 28 Jun 101 1:53 am
Sample : 468464 1.0
Misc : HA '95-1 SDG:OS4S EPA:TRIP BLANK
Quant Time: Jun 28 2:29 19101

Vial: 23
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



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Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8341.D
Acq On : 28 Jun 101 1:53 am
Sample : 468464 1.0
Misc : HA '95-1 SDG:OS4S EPA:TRIP BLANK

Vial: 23
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.72	50.00 ug/l	1743093	Bromochloromethane
14.82	50.00 ug/l	2984214	1,4-Difluorobenzene
21.99	50.00 ug/l	3017466	Chlorobenzene-d5

DL 07/10/01

Library Search Compound Report

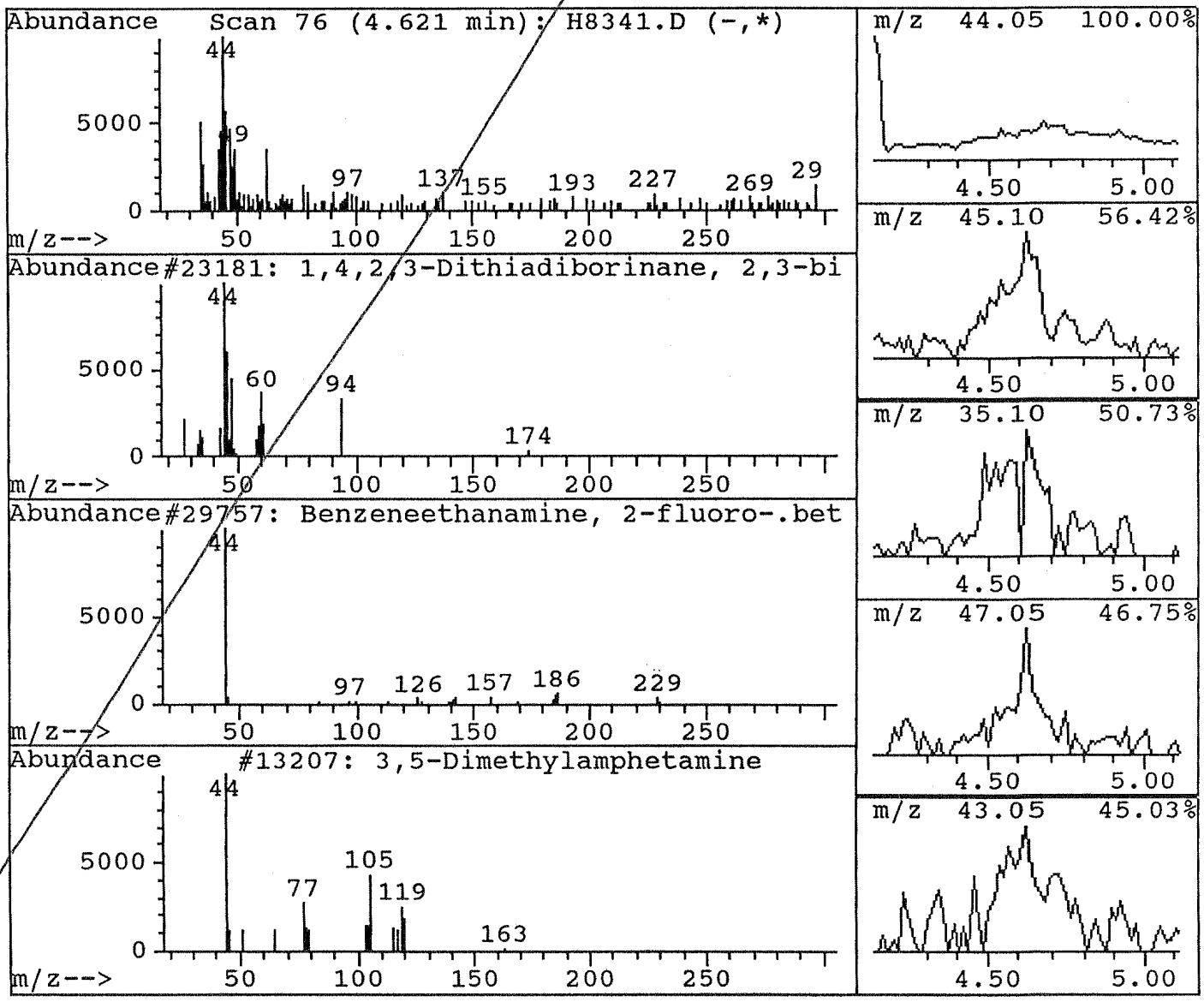
Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8341.D Vial: 23
Acq On : 28 Jun 101 1:53 am Operator: DLIPANI
Sample : 468464 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:TRIP BLANK Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del. not a peak DL 07/10/01

R.T.	Conc	Area	Relative to ISTD	R.T.
4.62	5.75 ug/l	200590	Bromochloromethane	12.72

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,4,2,3-Dithiadiborinane, 2,3-bis(d	23181	019172-56-6	10
2	Benzeneethanamine, 2-fluoro-.beta.-	29757	000000-00-0	9
3	3,5-Dimethylamphetamine	13207	075659-63-1	9
4	Urea, N,N'-bis(1-methylethyl)-	66289	004128-37-4	9
5	Methane, bromochloro-	64996	000074-97-5	9



80

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

COOLER BLANK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 471983 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8342.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

COOLER BLANK

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 471983 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8342.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/28/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8342.D Vial: 24
Acq On : 28 Jun 101 2:36 am Operator: DLIPANI
Sample : 471983 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:COOLER BLANK Multiplr: 1.00
Quant Time: Jun 28 3:11 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

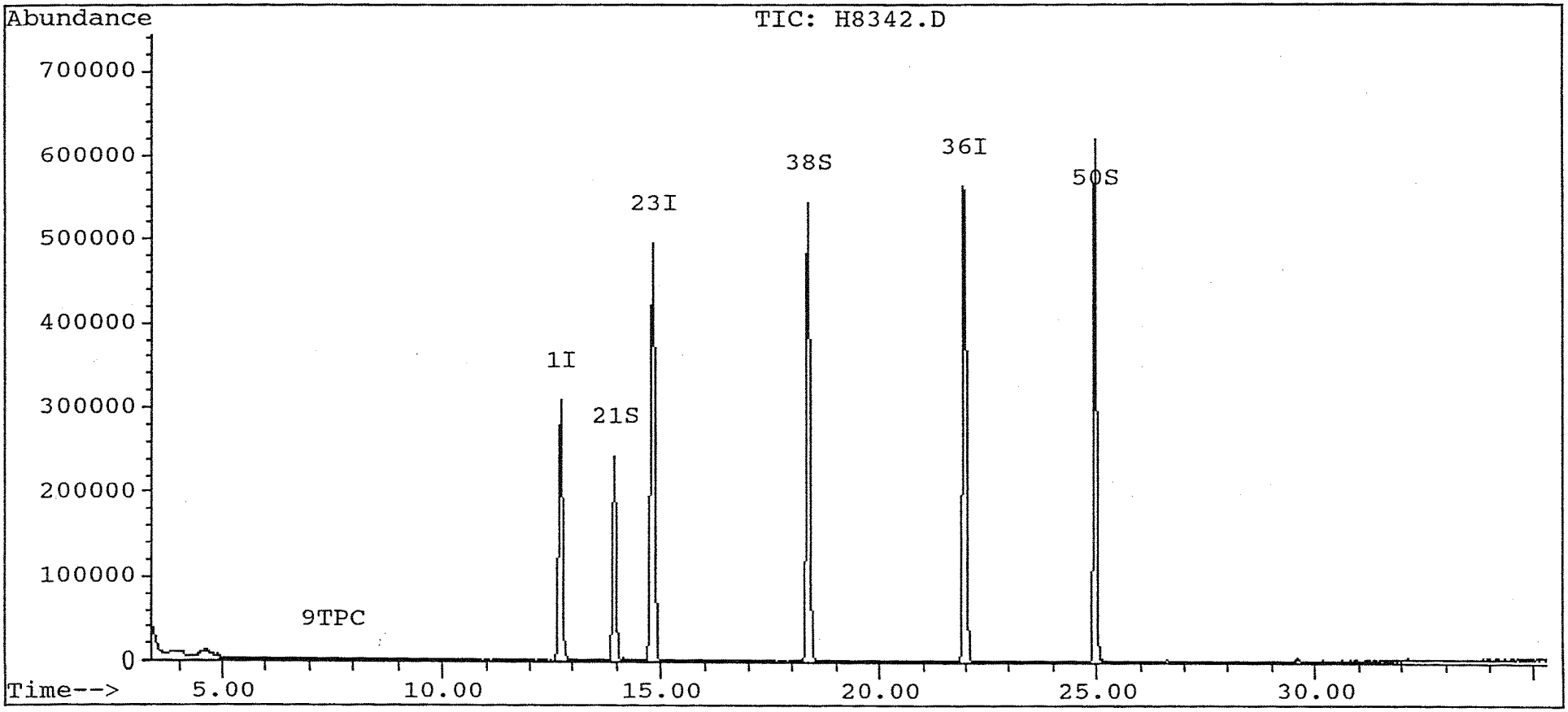
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	247060	50.00	ug/l	-0.03
23) 1,4-Difluorobenzene	14.84	114	1177612	50.00	ug/l	-0.02
36) Chlorobenzene-d5	21.98	117	928446	50.00	ug/l	-0.05
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	505700	52.23	ug/l	104.46%
38) Toluene-d8	18.37	98	1185525	51.08	ug/l	102.16%
50) Bromofluorobenzene	24.97	95	692171	48.98	ug/l	97.97%
Target Compounds						Qvalue
9) Acetone	7.52	43	4644	1.09	ug/l	98 <

DL
06/28/01

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8342.D Vial: 24
Acq On : 28 Jun 101 2:36 am Operator: DLIPANI
Sample : 471983 1.0 Inst : 5970 - In
Misc : HA '95-1 SDG:OS4S EPA:COOLER BLANK Multiplr: 1.00
Quant Time: Jun 28 3:11 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8342.D
Acq On : 28 Jun 101 2:36 am
Sample : 471983 1.0
Misc : HA '95-1 SDG:OS4S EPA:COOLER BLANK

Vial: 24
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.72	50.00 ug/l	1717122	Bromochloromethane
14.84	50.00 ug/l	2961207	1,4-Difluorobenzene
21.98	50.00 ug/l	3022277	Chlorobenzene-d5

DL
07/10/01

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8342.D
Acq On : 28 Jun 101 2:36 am
Sample : 471983 1.0
Misc : HA '95-1 SDG:OS4S EPA:COOLER BLANK

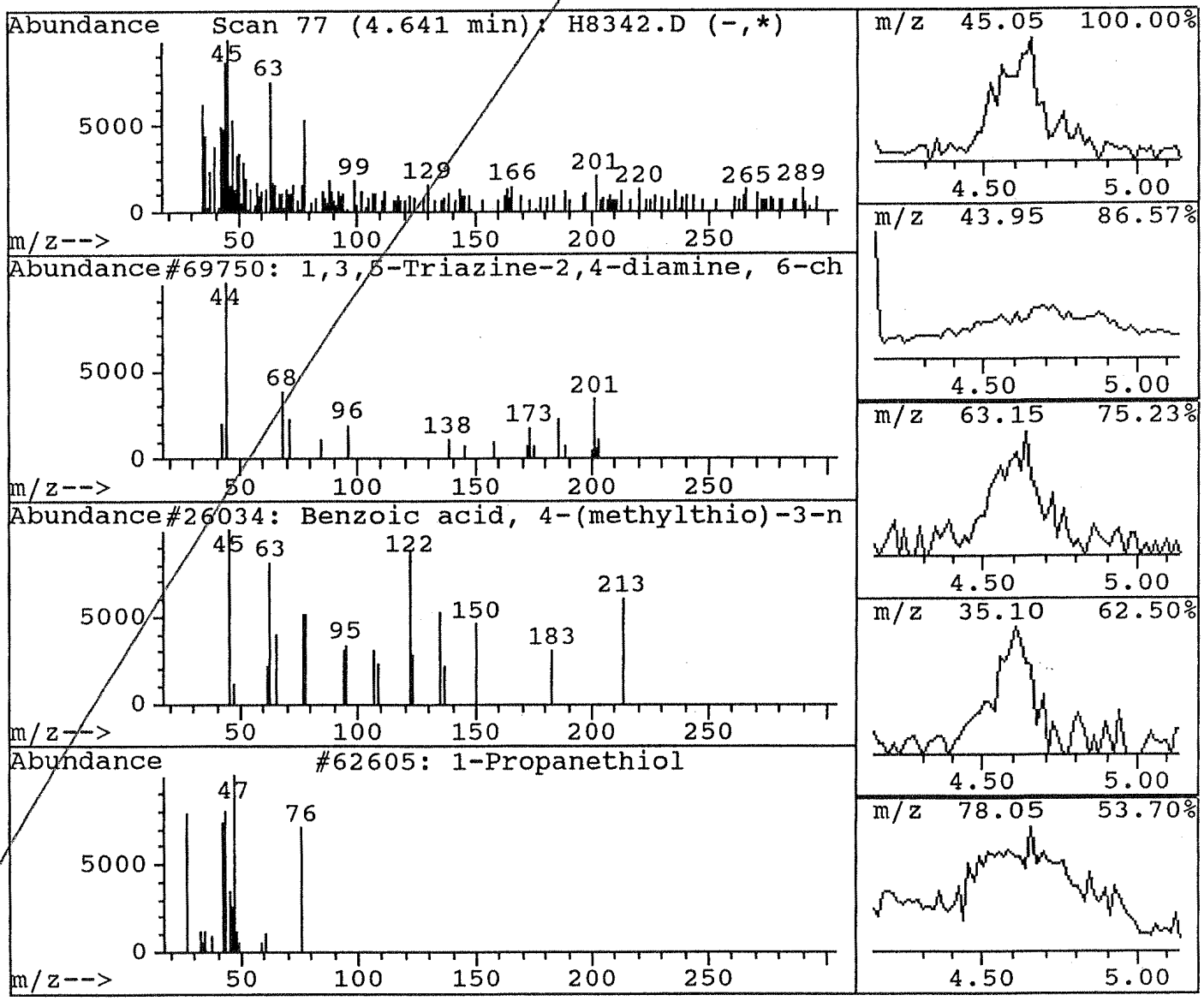
Vial: 24
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

DL 07/10/01
Del. not a peak

R.T.	Conc	Area	Relative to ISTD	R.T.
4.64	5.97 ug/l	205078	Bromochloromethane	12.72

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,3,5-Triazine-2,4-diamine, 6-chlor	69750	000122-34-9	83
2	Benzoic acid, 4-(methylthio)-3-nitr	26034	064399-24-2	83
3	1-Propanethiol	62605	000107-03-9	74
4	Benzene, 1-[(2-chloroethyl)sulfonyl	33624	006461-63-8	74
5	2-Propenenitrile	62286	000107-13-1	74



VOLATILE ORGANICS

STANDARDS DATA

Concentration Report

Method:	**ASP0627**
Title	CLPVOAS ON MS#1
Last Update	Wed Jun 27 14:59:56 2001
Analyst	DLIPANI

Compound:	STD 10	STD 20	STD 50	STD 100	STD 150	STD 200
Bromochloromethane	50.0	50.0	50.0	50.0	50.0	50.0
Dichlorodifluoromethane	10.0	20.0	50.0	100.0	150.0	200.0
Chloromethane	10.0	20.0	50.0	100.0	150.0	200.0
Vinyl chloride	10.0	20.0	50.0	100.0	150.0	200.0
Bromomethane	10.0	20.0	50.0	100.0	150.0	200.0
Chloroethane	10.0	20.0	50.0	100.0	150.0	200.0
Trichlorofluoromethane	10.0	20.0	50.0	100.0	150.0	200.0
FREON 113	10.0	20.0	50.0	100.0	150.0	200.0
Acetone	10.0	20.0	50.0	100.0	150.0	200.0
1,1-Dichloroethene	10.0	20.0	50.0	100.0	150.0	200.0
Methyl Acetate	10.0	20.0	50.0	100.0	150.0	200.0
Methylene chloride	10.0	20.0	50.0	100.0	150.0	200.0
Carbon disulfide	10.0	20.0	50.0	100.0	150.0	200.0
Methyl tert Butyl Ether	10.0	20.0	50.0	100.0	150.0	200.0
trans-1,2-Dichloroethene	10.0	20.0	50.0	100.0	150.0	200.0
1,1-Dichloroethane	10.0	20.0	50.0	100.0	150.0	200.0
2-Butanone	10.0	20.0	50.0	100.0	150.0	200.0
cis-1,2-Dichloroethene	10.0	20.0	50.0	100.0	150.0	200.0
Chloroform	10.0	20.0	50.0	100.0	150.0	200.0
Cyclohexane	10.0	20.0	50.0	100.0	150.0	200.0
1,2-Dichloroethane-d4	10.0	20.0	50.0	100.0	150.0	200.0
1,2-Dichloroethane	10.0	20.0	50.0	100.0	150.0	200.0
1,4-Difluorobenzene	50.0	50.0	50.0	50.0	50.0	50.0
1,1,1-Trichloroethane	10.0	20.0	50.0	100.0	150.0	200.0
Carbon tetrachloride	10.0	20.0	50.0	100.0	150.0	200.0
Benzene	10.0	20.0	50.0	100.0	150.0	200.0
Trichloroethene	10.0	20.0	50.0	100.0	150.0	200.0
Methylcyclohexane	10.0	20.0	50.0	100.0	150.0	200.0
1,2-Dichloropropane	10.0	20.0	50.0	100.0	150.0	200.0
Bromodichloromethane	10.0	20.0	50.0	100.0	150.0	200.0
cis-1,3-Dichloropropene	10.0	20.0	50.0	100.0	150.0	200.0
trans-1,3-Dichloropropene	10.0	20.0	50.0	100.0	150.0	200.0
1,1,2-Trichloroethane	10.0	20.0	50.0	100.0	150.0	200.0

Concentration Report

Method:	**ASP0627**
Title	CLPVOAS ON MS#1
Last Update	Wed Jun 27 14:59:56 2001
Analyst	DLIPANI

	STD 10	STD 20	STD 50	STD 100	STD 150	STD 200
Compound:						
Dibromochloromethane	10.0	20.0	50.0	100.0	150.0	200.0
Bromoform	10.0	20.0	50.0	100.0	150.0	200.0
Chlorobenzene-d5	50.0	50.0	50.0	50.0	50.0	50.0
4-Methyl-2-pentanone	10.0	20.0	50.0	100.0	150.0	200.0
Toluene-d8	10.0	20.0	50.0	100.0	150.0	200.0
Toluene	10.0	20.0	50.0	100.0	150.0	200.0
2-Hexanone	10.0	20.0	50.0	100.0	150.0	200.0
Tetrachloroethene	10.0	20.0	50.0	100.0	150.0	200.0
1,2-Dibromoethane	10.0	20.0	50.0	100.0	150.0	200.0
Chlorobenzene	10.0	20.0	50.0	100.0	150.0	200.0
Ethylbenzene	10.0	20.0	50.0	100.0	150.0	200.0
(m+p)Xylene	20.0	40.0	100.0	200.0	300.0	400.0
o-Xylene	10.0	20.0	50.0	100.0	150.0	200.0
Styrene	10.0	20.0	50.0	100.0	150.0	200.0
Isopropylbenzene	10.0	20.0	50.0	100.0	150.0	200.0
1,1,2,2-Tetrachloroethane	10.0	20.0	50.0	100.0	150.0	200.0
Bromofluorobenzene	10.0	20.0	50.0	100.0	150.0	200.0
1,3-Dclbenzene	10.0	20.0	50.0	100.0	150.0	200.0
1,4-Dclbenzene	10.0	20.0	50.0	100.0	150.0	200.0
1,2-Dclbenzene	10.0	20.0	50.0	100.0	150.0	200.0
1,2-Dibromo-3-chloropropa	10.0	20.0	50.0	100.0	150.0	200.0
1,2,4-Tcbenzene	10.0	20.0	50.0	100.0	150.0	200.0

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8321.D Vial: 10
Acq On : 27 Jun 101 11:12 am Operator: DLIPANI
Sample : VSTD010 Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Jun 27 14:53 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.73	128	266476	50.00	ug/l	0.00
23) 1,4-Difluorobenzene	14.84	114	1254014	50.00	ug/l	0.00
36) Chlorobenzene-d5	21.99	117	971821	50.00	ug/l	0.00
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	113277	10.95	ug/l	21.90%
38) Toluene-d8	18.37	98	264019	10.65	ug/l	21.29%
50) Bromofluorobenzene	24.99	95	154016	10.50	ug/l	21.00%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.68	85	136939	11.37	ug/l	100
3) Chloromethane	4.24	50	86570	12.80	ug/l	99
4) Vinyl chloride	4.45	62	62233	10.86	ug/l	95
5) Bromomethane	5.48	94	56816	8.70	ug/l	100
6) Chloroethane	5.68	64	57102	10.89	ug/l	99
7) Trichlorofluoromethane	6.29	101	168051	10.71	ug/l	100
8) FREON 113	7.37	101	126873	11.11	ug/l	98
9) Acetone	7.50	43	39867	11.21	ug/l	96
10) 1,1-Dichloroethene	7.79	96	70060	10.48	ug/l	100
11) Methyl Acetate	8.58	43	61955	10.41	ug/l	98
12) Methylene chloride	8.91	84	88842	11.33	ug/l	98
13) Carbon disulfide	8.96	76	127995	7.59	ug/l	100
14) Methyl tert Butyl Ether	9.32	73	210594	10.54	ug/l	99
15) trans-1,2-Dichloroethene	9.64	96	82842	10.77	ug/l	98
16) 1,1-Dichloroethane	10.60	63	141191	10.64	ug/l	100
17) 2-Butanone	11.56	43	39826	10.44	ug/l	98
18) cis-1,2-Dichloroethene	11.99	96	87322	10.64	ug/l	99
19) Chloroform	12.35	83	162767	10.77	ug/l	100
20) Cyclohexane	13.32	56	144286	10.94	ug/l	99
22) 1,2-Dichloroethane	14.17	62	136659	11.03	ug/l	98
24) 1,1,1-Trichloroethane	13.27	97	118829	9.83	ug/l	98
25) Carbon tetrachloride	13.86	117	96194	9.17	ug/l	98
26) Benzene	14.23	78	271271	11.05	ug/l	100
27) Trichloroethene	15.63	130	101479	10.71	ug/l	98
28) Methylcyclohexane	15.80	83	145139	10.95	ug/l	100
29) 1,2-Dichloropropane	16.02	63	81444	10.85	ug/l	99
30) Bromodichloromethane	16.56	83	95597	8.58	ug/l	100
31) cis-1,3-Dichloropropene	17.78	75	89271	8.43	ug/l	100
32) trans-1,3-Dichloropropene	18.95	75	70153	7.71	ug/l	99
33) 1,1,2-Trichloroethane	19.32	97	76709	10.77	ug/l	98
34) Dibromochloromethane	20.59	129	74532	7.90	ug/l	99
35) Bromoform	24.42	173	41419	6.63	ug/l	99
37) 4-Methyl-2-pentanone	17.28	43	68980	9.74	ug/l	98
39) Toluene	18.56	92	173400	11.22	ug/l	99

(#) = qualifier out of range (m) = manual integration (SL)

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8321.D
Acq On : 27 Jun 101 11:12 am
Sample : VSTD010
Misc :
Quant Time: Jun 27 14:53 19101

Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

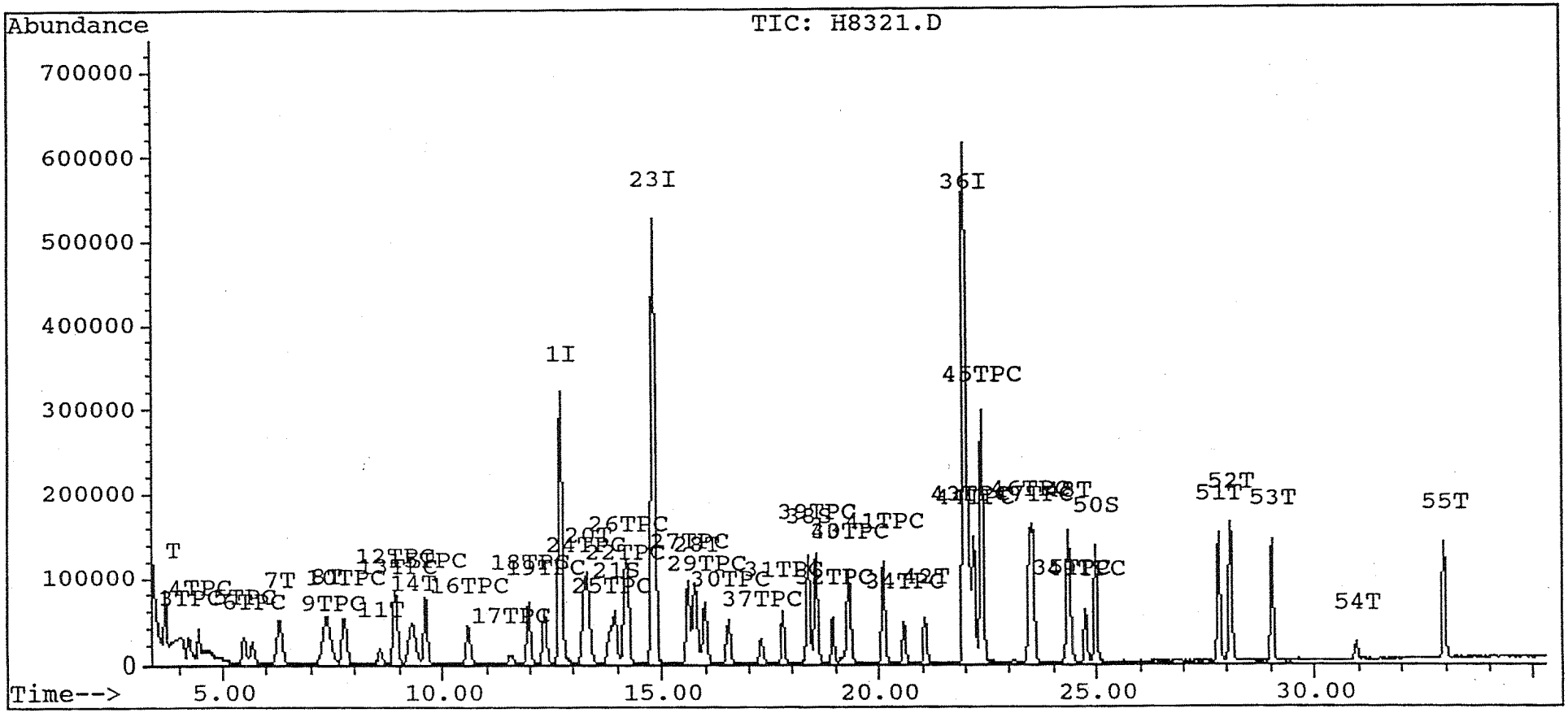
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40) 2-Hexanone	19.32	43	60929	9.67	ug/l		95
41) Tetrachloroethene	20.12	164	89370	10.96	ug/l		99
42) 1,2-Dibromoethane	21.08	107	103537	10.44	ug/l		97
43) Chlorobenzene	22.09	112	206304	10.96	ug/l		94
44) Ethylbenzene	22.21	91	337664	10.66	ug/l		99
45) (m+p)Xylene	22.38	91	573260	21.99	ug/l		99
46) o-Xylene	23.47	91	289961	10.87	ug/l		99
47) Styrene	23.56	104	200734	10.65	ug/l		99
48) Isopropylbenzene	24.35	105	340105	10.95	ug/l		99
49) 1,1,2,2-Tetrachloroethane	24.75	83	92091	10.12	ug/l		99
51) 1,3-Dclbenzene	27.82	146	182978	10.96	ug/l		99
52) 1,4-Dclbenzene	28.08	146	182093	10.81	ug/l	#	51
53) 1,2-Dclbenzene	29.04	146	171355	10.83	ug/l		100
54) 1,2-Dibromo-3-chloropropan	30.96	75	12864	6.89	ug/l		100
55) 1,2,4-Tcbenzene	32.98	180	110411	12.63	ug/l		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8321.D
Acq On : 27 Jun 101 11:12 am
Sample : VSTD010
Misc :
Quant Time: Jun 27 14:53 19101

Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration



Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8322.D Vial: 11
Acq On : 27 Jun 101 11:54 am Operator: DLIPANI
Sample : VSTD020 Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Jun 27 14:55 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	263962	50.00	ug/l	-0.01
23) 1,4-Difluorobenzene	14.82	114	1242061	50.00	ug/l	-0.01
36) Chlorobenzene-d5	21.98	117	966319	50.00	ug/l	-0.01
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.95	65	213572	20.84	ug/l	41.68%
38) Toluene-d8	18.36	98	506800	20.55	ug/l	41.10%
50) Bromofluorobenzene	24.97	95	295096	20.23	ug/l	40.47%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.68	85	259022	21.71	ug/l	99
3) Chloromethane	4.22	50	151429	22.60	ug/l	97
4) Vinyl chloride	4.46	62	120639	21.25	ug/l	97
5) Bromomethane	5.48	94	130263	20.14	ug/l	100
6) Chloroethane	5.67	64	112601	21.67	ug/l	100
7) Trichlorofluoromethane	6.29	101	331998	21.37	ug/l	99
8) FREON 113	7.35	101	245756	21.72	ug/l	99
9) Acetone	7.50	43	77685	22.05	ug/l	98
10) 1,1-Dichloroethene	7.77	96	140680	21.25	ug/l	99
11) Methyl Acetate	8.56	43	122467	20.78	ug/l	98
12) Methylene chloride	8.92	84	167386	21.55	ug/l	99
13) Carbon disulfide	8.97	76	292563	17.50	ug/l	99
14) Methyl tert Butyl Ether	9.32	73	410906	20.76	ug/l	99
15) trans-1,2-Dichloroethene	9.62	96	160894	21.12	ug/l	99
16) 1,1-Dichloroethane	10.60	63	273995	20.84	ug/l	100
17) 2-Butanone	11.56	43	77142	20.42	ug/l	100
18) cis-1,2-Dichloroethene	12.00	96	171670	21.11	ug/l	98
19) Chloroform	12.35	83	315089	21.05	ug/l	99
20) Cyclohexane	13.33	56	277428	21.23	ug/l	99
22) 1,2-Dichloroethane	14.17	62	258997	21.10	ug/l	98
24) 1,1,1-Trichloroethane	13.28	97	242611	20.26	ug/l	100
25) Carbon tetrachloride	13.86	117	204090	19.63	ug/l	99
26) Benzene	14.23	78	515405	21.20	ug/l	99
27) Trichloroethene	15.61	130	199724	21.28	ug/l	99
28) Methylcyclohexane	15.78	83	278169	21.19	ug/l	100
29) 1,2-Dichloropropane	16.00	63	156225	21.01	ug/l	99
30) Bromodichloromethane	16.54	83	208415	18.88	ug/l	95
31) cis-1,3-Dichloropropene	17.77	75	195768	18.66	ug/l	99
32) trans-1,3-Dichloropropene	18.93	75	159480	17.70	ug/l	99
33) 1,1,2-Trichloroethane	19.32	97	148215	21.00	ug/l	98
34) Dibromochloromethane	20.58	129	163880	17.54	ug/l	100
35) Bromoform	24.40	173	98476	15.91	ug/l	98
37) 4-Methyl-2-pentanone	17.26	43	140761	19.99	ug/l	98
39) Toluene	18.54	92	328308	21.37	ug/l	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8322.D Vial: 11
Acq On : 27 Jun 101 11:54 am Operator: DLIPANI
Sample : VSTD020 Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Jun 27 14:55 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

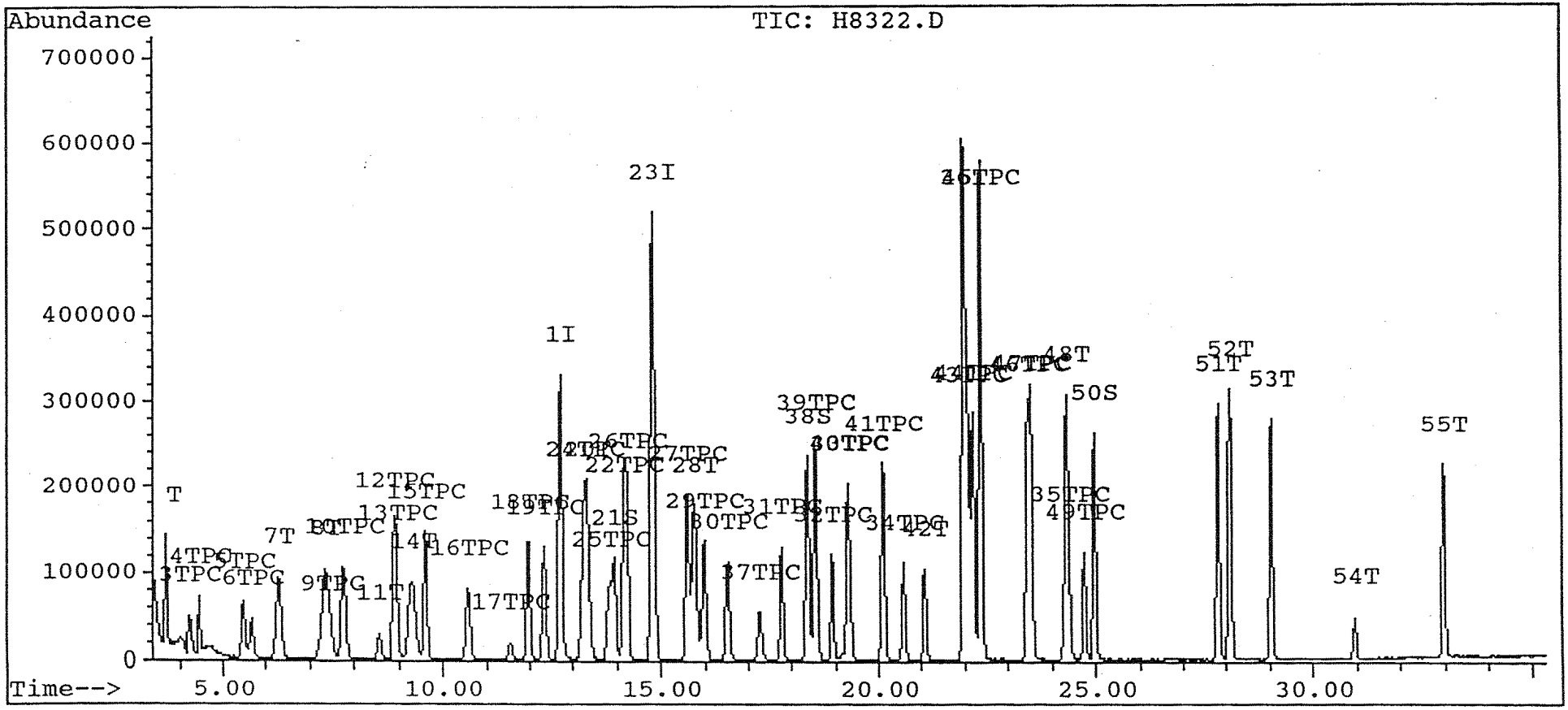
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	2-Hexanone	19.30	43	113445	18.11	ug/l	96
41)	Tetrachloroethene	20.11	164	175124	21.60	ug/l	99
42)	1,2-Dibromoethane	21.07	107	199633	20.24	ug/l	100
43)	Chlorobenzene	22.08	112	399386	21.33	ug/l	99
44)	Ethylbenzene	22.18	91	661694	21.01	ug/l	99
45)	(m+p)Xylene	22.38	91	1121495	43.26	ug/l	100
46)	o-Xylene	23.46	91	560866	21.15	ug/l	100
47)	Styrene	23.54	104	394130	21.03	ug/l	100
48)	Isopropylbenzene	24.33	105	655341	21.23	ug/l	99
49)	1,1,2,2-Tetrachloroethane	24.75	83	182444	20.17	ug/l	99
51)	1,3-Dclbenzene	27.82	146	354069	21.33	ug/l	100
52)	1,4-Dclbenzene	28.09	146	358793	21.43	ug/l	99
53)	1,2-Dclbenzene	29.05	146	329902	20.97	ug/l	99
54)	1,2-Dibromo-3-chloropropan	30.96	75	30646	16.52	ug/l	98
55)	1,2,4-Tcbenzene	32.98	180	178979	20.60	ug/l	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8322.D
Acq On : 27 Jun 101 11:54 am
Sample : VSTD020
Misc :
Quant Time: Jun 27 14:55 19101

Vial: 11
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration



Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8323.D Vial: 12
Acq On : 27 Jun 101 12:37 pm Operator: DLIPANI
Sample : VSTD050 Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Jun 27 14:52 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.73	128	274568	50.00	ug/l	0.00
23) 1,4-Difluorobenzene	14.84	114	1281036	50.00	ug/l	0.00
36) Chlorobenzene-d5	21.99	117	1007062	50.00	ug/l	0.00
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.98	65	532980	50.00	ug/l	100.00%
38) Toluene-d8	18.37	98	1285053	50.00	ug/l	100.00%
50) Bromofluorobenzene	24.99	95	759918	50.00	ug/l	100.00%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.70	85	620441	50.00	ug/l	99
3) Chloromethane	4.23	50	348456	50.00	ug/l	98
4) Vinyl chloride	4.45	62	295221	50.00	ug/l	97
5) Bromomethane	5.48	94	336315	50.00	ug/l	100
6) Chloroethane	5.66	64	270192	50.00	ug/l	100
7) Trichlorofluoromethane	6.30	101	808083	50.00	ug/l	99
8) FREON 113	7.36	101	588534	50.00	ug/l	99
9) Acetone	7.50	43	183195	50.00	ug/l	98
10) 1,1-Dichloroethene	7.79	96	344264	50.00	ug/l	99
11) Methyl Acetate	8.58	43	306558	50.00	ug/l	98
12) Methylene chloride	8.93	84	403967	50.00	ug/l	99
13) Carbon disulfide	8.96	76	869286	50.00	ug/l	100
14) Methyl tert Butyl Ether	9.32	73	1029257	50.00	ug/l	99
15) trans-1,2-Dichloroethene	9.64	96	396295	50.00	ug/l	99
16) 1,1-Dichloroethane	10.61	63	683881	50.00	ug/l	100
17) 2-Butanone	11.57	43	196461	50.00	ug/l	99
18) cis-1,2-Dichloroethene	11.99	96	422910	50.00	ug/l	98
19) Chloroform	12.36	83	778644	50.00	ug/l	99
20) Cyclohexane	13.34	56	679584	50.00	ug/l	99
22) 1,2-Dichloroethane	14.18	62	638262	50.00	ug/l	98
24) 1,1,1-Trichloroethane	13.27	97	617402	50.00	ug/l	100
25) Carbon tetrachloride	13.86	117	536088	50.00	ug/l	99
26) Benzene	14.23	78	1253717	50.00	ug/l	99
27) Trichloroethene	15.63	130	484028	50.00	ug/l	99
28) Methylcyclohexane	15.78	83	677071	50.00	ug/l	100
29) 1,2-Dichloropropane	16.02	63	383503	50.00	ug/l	100
30) Bromodichloromethane	16.55	83	569185	50.00	ug/l	95
31) cis-1,3-Dichloropropene	17.78	75	541006	50.00	ug/l	99
32) trans-1,3-Dichloropropene	18.94	75	464689	50.00	ug/l	99
33) 1,1,2-Trichloroethane	19.33	97	363957	50.00	ug/l	98
34) Dibromochloromethane	20.58	129	481840	50.00	ug/l	100
35) Bromoform	24.41	173	319185	50.00	ug/l	98
37) 4-Methyl-2-pentanone	17.28	43	366843	50.00	ug/l	97
39) Toluene	18.56	92	800429	50.00	ug/l	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8323.D
Acq On : 27 Jun 101 12:37 pm
Sample : VSTD050
Misc :
Quant Time: Jun 27 14:52 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

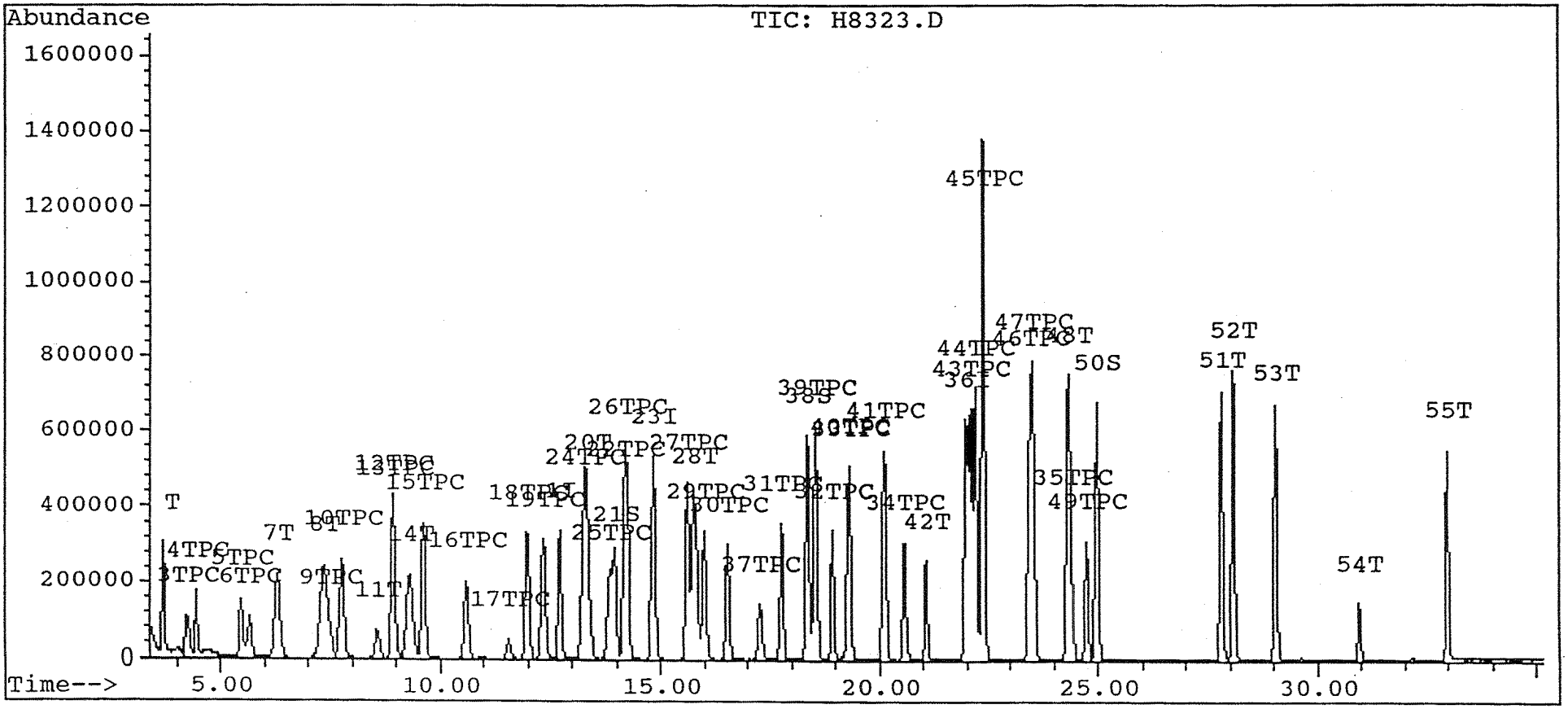
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40) 2-Hexanone	19.31	43	326489	50.00	ug/l		92
41) Tetrachloroethene	20.12	164	422545	50.00	ug/l	#	100
42) 1,2-Dibromoethane	21.08	107	513866	50.00	ug/l		99
43) Chlorobenzene	22.09	112	975508	50.00	ug/l		99
44) Ethylbenzene	22.19	91	1639307	49.95	ug/l		99
45) (m+p)Xylene	22.39	91	2701974	100.00	ug/l		100
46) o-Xylene	23.47	91	1382022	50.00	ug/l		100
47) Styrene	23.54	104	976692	50.00	ug/l		100
48) Isopropylbenzene	24.35	105	1608772	50.00	ug/l		99
49) 1,1,2,2-Tetrachloroethane	24.75	83	471396	50.00	ug/l		99
51) 1,3-Dclbenzene	27.83	146	864892	50.00	ug/l		100
52) 1,4-Dclbenzene	28.08	146	872567	50.00	ug/l		99
53) 1,2-Dclbenzene	29.06	146	819935	50.00	ug/l		99
54) 1,2-Dibromo-3-chloropropan	30.96	75	96671	50.00	ug/l		98
55) 1,2,4-Tcbenzene	33.00	180	452829	50.00	ug/l		98

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8323.D
Acq On : 27 Jun 101 12:37 pm
Sample : VSTD050
Misc :
Quant Time: Jun 27 14:52 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8324.D Vial: 12
Acq On : 27 Jun 101 1:20 pm Operator: DLIPANI
Sample : VSTD100 Inst : 5970 - In
Misc : '95-1 INIT CAL GCMS#1 Multiplr: 1.00
Quant Time: Jun 27 14:57 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	281769	50.00	ug/l	-0.02
23) 1,4-Difluorobenzene	14.84	114	1311698	50.00	ug/l	0.00
36) Chlorobenzene-d5	22.01	117	1043957	50.00	ug/l	0.02
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	1145976	104.76	ug/l	209.52%
38) Toluene-d8	18.37	98	2759074	103.56	ug/l	207.12%
50) Bromofluorobenzene	25.00	95	1652154	104.86	ug/l	209.73%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.68	85	1412610	110.93	ug/l	99
3) Chloromethane	4.22	50	777492	108.71	ug/l	99
4) Vinyl chloride	4.44	62	715442	118.07	ug/l	98
5) Bromomethane	5.48	94	819588	118.73	ug/l	100
6) Chloroethane	5.67	64	606783	109.42	ug/l	100
7) Trichlorofluoromethane	6.29	101	1769486	106.69	ug/l	99
8) FREON 113	7.37	101	1277920	105.79	ug/l	99
9) Acetone	7.48	43	291071	77.41	ug/l	97
10) 1,1-Dichloroethene	7.77	96	784644	111.05	ug/l	99
11) Methyl Acetate	8.56	43	671845	106.78	ug/l	98
12) Methylene chloride	8.91	84	858635	103.56	ug/l	99
13) Carbon disulfide	8.95	76	2247798	125.99	ug/l	100
14) Methyl tert Butyl Ether	9.28	73	2252079	106.61	ug/l	99
15) trans-1,2-Dichloroethene	9.62	96	874119	107.47	ug/l	99
16) 1,1-Dichloroethane	10.60	63	1504306	107.17	ug/l	100
17) 2-Butanone	11.56	43	386318	95.81	ug/l	100
18) cis-1,2-Dichloroethene	11.99	96	916050	105.54	ug/l	99
19) Chloroform	12.35	83	1696278	106.14	ug/l	99
20) Cyclohexane	13.32	56	1463680	104.94	ug/l	99
22) 1,2-Dichloroethane	14.18	62	1381438	105.45	ug/l	99
24) 1,1,1-Trichloroethane	13.27	97	1380206	109.16	ug/l	100
25) Carbon tetrachloride	13.86	117	1239978	112.95	ug/l	100
26) Benzene	14.23	78	2725979	106.17	ug/l	100
27) Trichloroethene	15.63	130	1046256	105.55	ug/l	100
28) Methylcyclohexane	15.78	83	1453218	104.81	ug/l m (PL)	0
29) 1,2-Dichloropropane	16.00	63	851687	108.44	ug/l 06/27/01	100
30) Bromodichloromethane	16.54	83	1332998	114.36	ug/l	97
31) cis-1,3-Dichloropropene	17.78	75	1257938	113.54	ug/l	99
32) trans-1,3-Dichloropropene	18.95	75	1141051	119.91	ug/l	98
33) 1,1,2-Trichloroethane	19.33	97	802007	107.60	ug/l	99
34) Dibromochloromethane	20.59	129	1151291	116.68	ug/l	100
35) Bromoform	24.42	173	815505	124.76	ug/l	100
37) 4-Methyl-2-pentanone	17.28	43	812456	106.82	ug/l	100
39) Toluene	18.56	92	1740854	104.90	ug/l	99

(#) = qualifier out of range (m) = manual integration (PL) 06/27/01

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8324.D
Acq On : 27 Jun 101 1:20 pm
Sample : VSTD100
Misc : '95-1 INIT CAL GCMS#1
Quant Time: Jun 27 14:57 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

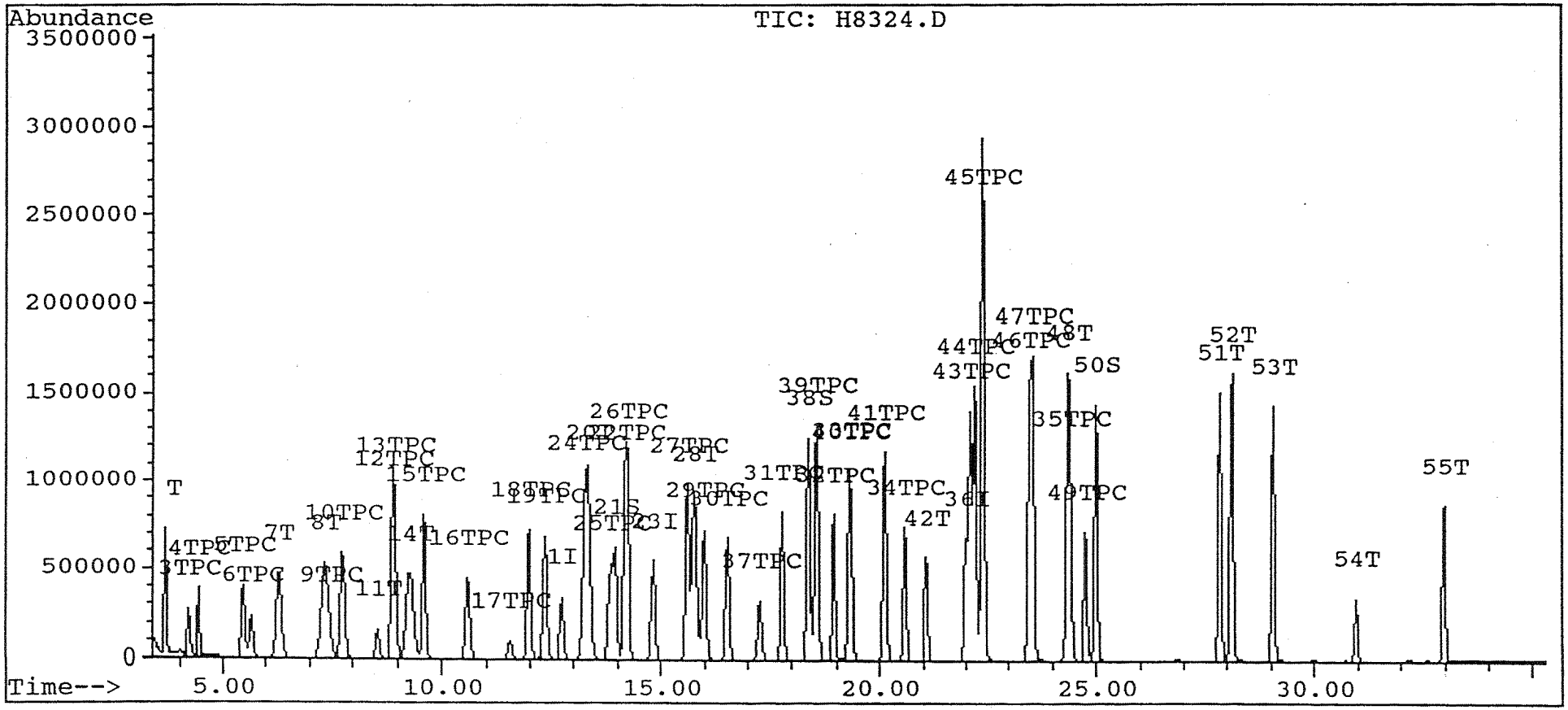
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	2-Hexanone	19.32	43	587722	86.83	ug/l	96
41)	Tetrachloroethene	20.12	164	905980	103.42	ug/l	99
42)	1,2-Dibromoethane	21.08	107	1121558	105.27	ug/l	100
43)	Chlorobenzene	22.09	112	2110191	104.34	ug/l	100
44)	Ethylbenzene	22.21	91	3592262	105.59	ug/l	100
45)	(m+p)Xylene	22.40	91	5799604	207.06	ug/l	99
46)	o-Xylene	23.49	91	2974018	103.79	ug/l	100
47)	Styrene	23.56	104	2140465	105.70	ug/l	100
48)	Isopropylbenzene	24.36	105	3429231	102.81	ug/l	100
49)	1,1,2,2-Tetrachloroethane	24.77	83	1068548	109.33	ug/l	100
51)	1,3-Dclbenzene	27.83	146	1834062	102.28	ug/l	99
52)	1,4-Dclbenzene	28.10	146	1851213	102.33	ug/l	100
53)	1,2-Dclbenzene	29.06	146	1734686	102.04	ug/l	99
54)	1,2-Dibromo-3-chloropropan	30.96	75	239613	119.55	ug/l	98
55)	1,2,4-Tcbenzene	33.00	180	720146	76.71	ug/l	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8324.D
Acq On : 27 Jun 101 1:20 pm
Sample : VSTD100
Misc : '95-1 INIT CAL GCMS#1
Quant Time: Jun 27 14:57 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration



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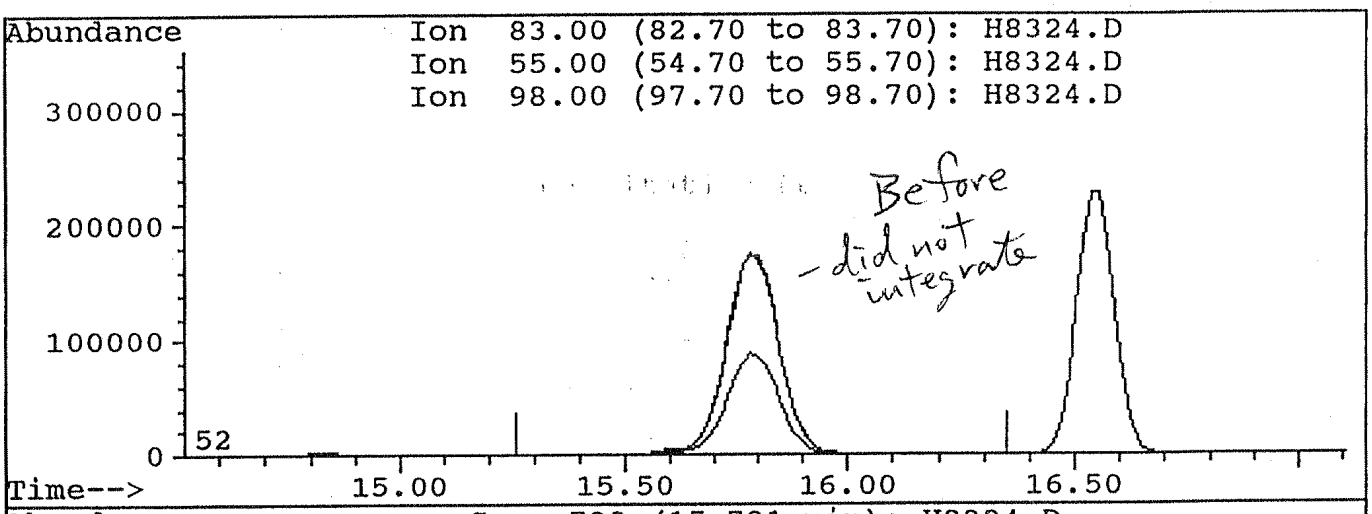
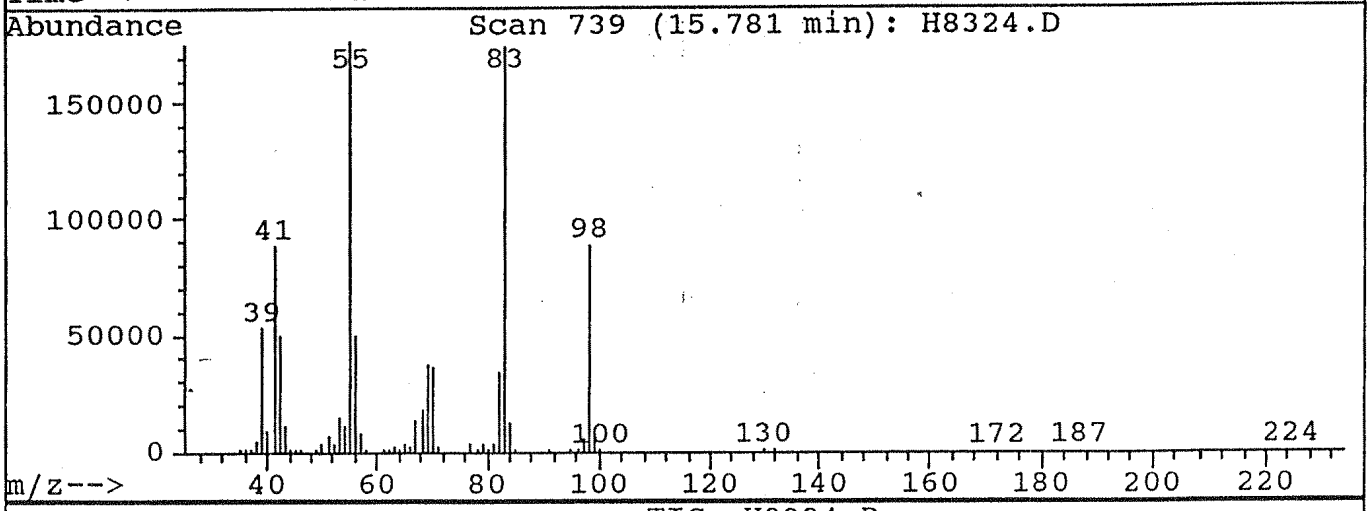
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8324.D
Acq On : 27 Jun 101 1:20 pm
Sample : VSTD100
Misc : '95-1 INIT CAL GCMS#1
Quant Time: Jun 27 14:56 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:56:31 2001
Response via : Single Level Calibration





TIC: H8324.D

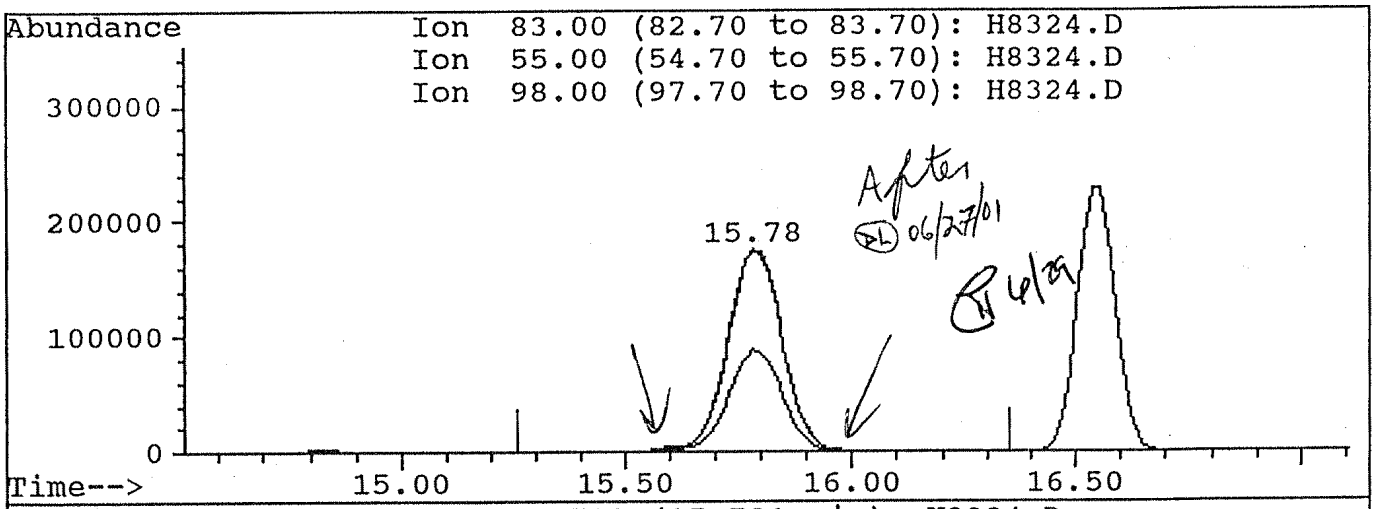
(28) Methylcyclohexane (T)
15.78min 0.00ug/l d
response 0

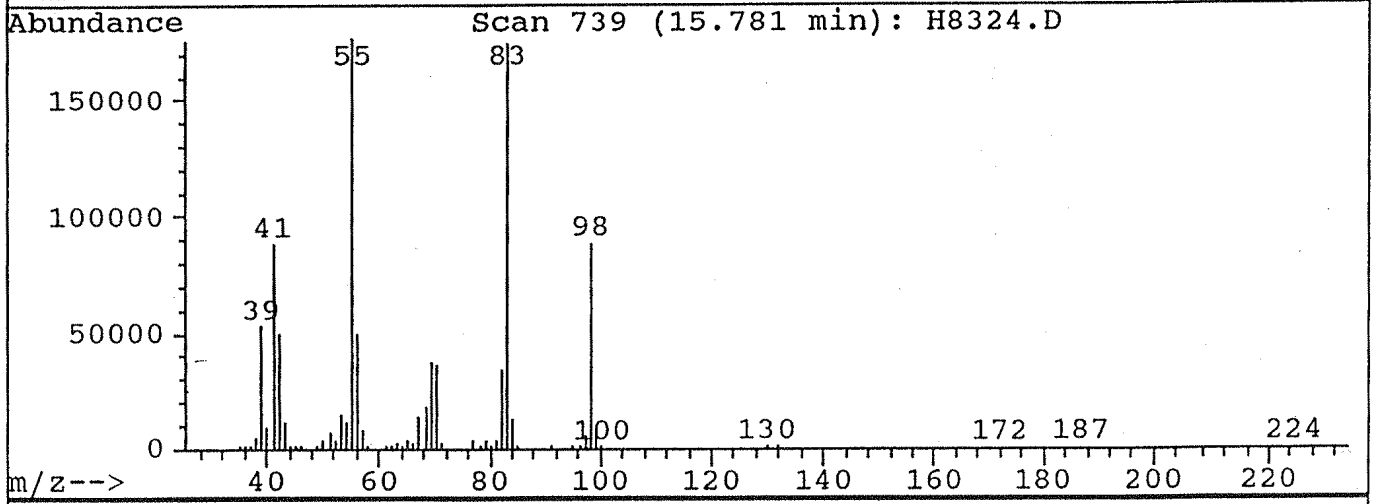
Ion	Exp%	Act%
83.00	100	0.00
55.00	99.50	0.00#
98.00	50.80	0.00#
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8324.D
Acq On : 27 Jun 101 1:20 pm
Sample : VSTD100
Misc : '95-1 INIT CAL GCMS#1
Quant Time: Jun 27 14:57 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:56:31 2001
Response via : Single Level Calibration





TIC: H8324.D

(28) Methylcyclohexane (T)
15.78min 104.81ug/l m
response 1453218

Ion	Exp%	Act%
83.00	100	100
55.00	99.50	101.06
98.00	50.80	50.61
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8325.D Vial: 12
Acq On : 27 Jun 101 2:02 pm Operator: DLIPANI
Sample : VSTD200 Inst : 5970 - In
Misc : '95-1 INIT CAL GCMS#1 Multiplr: 1.00
Quant Time: Jun 27 14:58 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.74	128	299770	50.00	ug/l	0.00
23) 1,4-Difluorobenzene	14.84	114	1354656	50.00	ug/l	0.00
36) Chlorobenzene-d5	22.01	117	1074206	50.00	ug/l	0.02
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	2296648	197.34	ug/l	394.68%
38) Toluene-d8	18.39	98	5517910	201.28	ug/l	402.55%
50) Bromofluorobenzene	25.01	95	3290812	202.99	ug/l	405.98%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.68	85	2772086	204.62	ug/l	99
3) Chloromethane	4.20	50	1568182	206.10	ug/l	100
4) Vinyl chloride	4.44	62	1397889	216.85	ug/l	98
5) Bromomethane	5.47	94	1638334	223.09	ug/l	100
6) Chloroethane	5.67	64	1193714	202.33	ug/l	100
7) Trichlorofluoromethane	6.29	101	3535248	200.35	ug/l	99
8) FREON 113	7.37	101	2512364	195.50	ug/l	99
9) Acetone	7.49	43	507920	126.97	ug/l	98
10) 1,1-Dichloroethene	7.77	96	1583101	210.60	ug/l	99
11) Methyl Acetate	8.56	43	1290494	192.79	ug/l	98
12) Methylene chloride	8.92	84	1682925	190.79	ug/l	98
13) Carbon disulfide	8.97	76	4728411	249.11	ug/l	100
14) Methyl tert Butyl Ether	9.30	73	4457446	198.33	ug/l	100
15) trans-1,2-Dichloroethene	9.62	96	1744053	201.55	ug/l	98
16) 1,1-Dichloroethane	10.60	63	3011101	201.64	ug/l	100
17) 2-Butanone	11.56	43	718463	167.48	ug/l	99
18) cis-1,2-Dichloroethene	12.00	96	1807966	195.78	ug/l	99
19) Chloroform	12.37	83	3386067	199.15	ug/l	100
20) Cyclohexane	13.34	56	2934202	197.73	ug/l	98
22) 1,2-Dichloroethane	14.18	62	2713772	194.72	ug/l	100
24) 1,1,1-Trichloroethane	13.27	97	2758590	211.26	ug/l	100
25) Carbon tetrachloride	13.86	117	2515910	221.90	ug/l	100
26) Benzene	14.25	78	5428676	204.74	ug/l	100
27) Trichloroethene	15.63	130	2050529	200.31	ug/l	100
28) Methylcyclohexane	15.80	83	2914956	203.56	ug/l	99
29) 1,2-Dichloropropane	16.02	63	1723418	212.48	ug/l	100
30) Bromodichloromethane	16.56	83	2731176	226.88	ug/l	95
31) cis-1,3-Dichloropropene	17.79	75	2586630	226.07	ug/l	100
32) trans-1,3-Dichloropropene	18.96	75	2368477	241.00	ug/l	99
33) 1,1,2-Trichloroethane	19.35	97	1562051	202.93	ug/l	99
34) Dibromochloromethane	20.60	129	2335360	229.17	ug/l	99
35) Bromoform	24.43	173	1644626	243.63	ug/l	100
37) 4-Methyl-2-pentanone	17.28	43	1596062	203.94	ug/l	100
39) Toluene	18.58	92	3453879	202.27	ug/l	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8325.D Vial: 12
Acq On : 27 Jun 101 2:02 pm Operator: DLIPANI
Sample : VSTD200 Inst : 5970 - In
Misc : '95-1 INIT CAL GCMS#1 Multiplr: 1.00
Quant Time: Jun 27 14:58 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

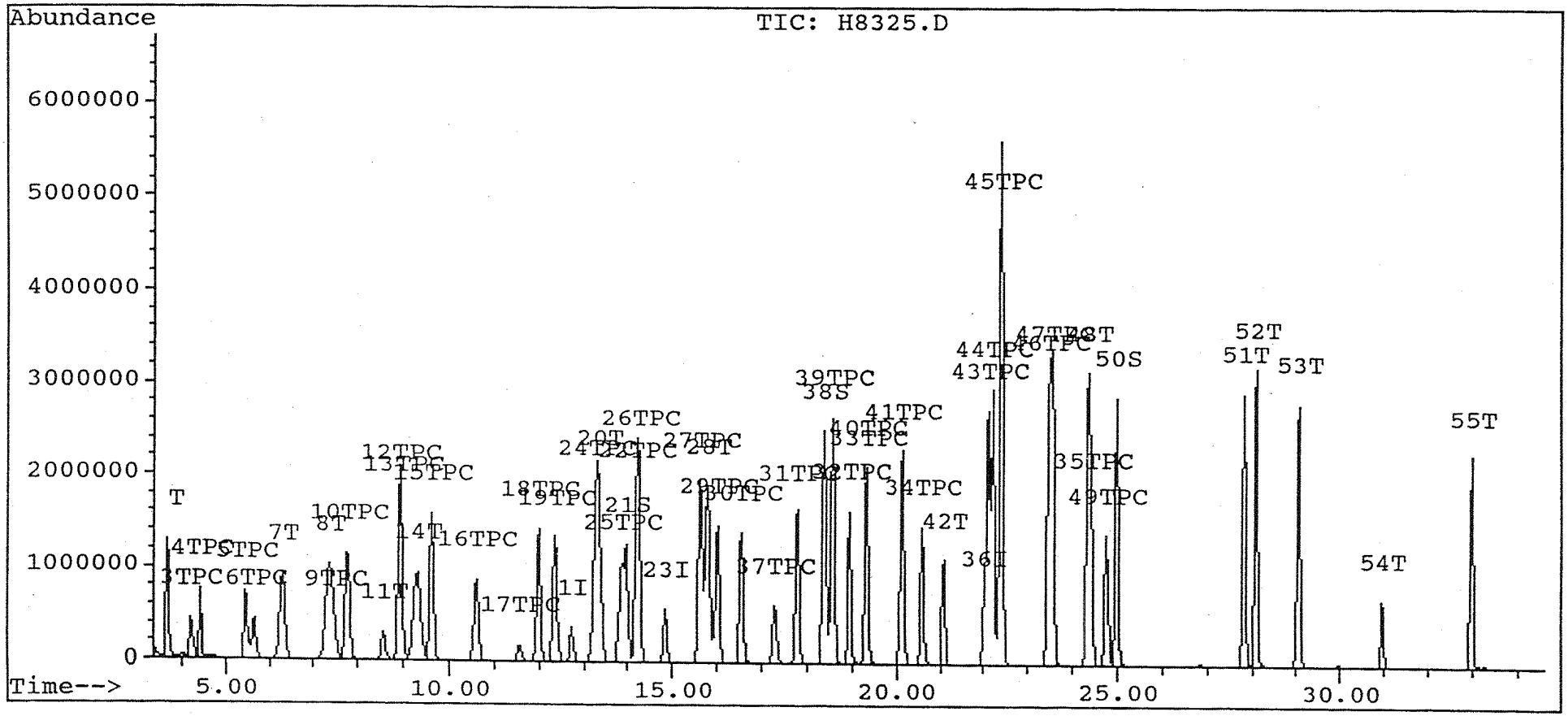
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	2-Hexanone	19.33	43	1099459	157.85	ug/l	95
41)	Tetrachloroethene	20.14	164	1774424	196.84	ug/l	99
42)	1,2-Dibromoethane	21.10	107	2214265	201.98	ug/l	100
43)	Chlorobenzene	22.11	112	4119656	197.96	ug/l	100
44)	Ethylbenzene	22.21	91	7005350	200.11	ug/l	99
45)	(m+p)Xylene	22.41	91	11155338	387.05	ug/l	99
46)	o-Xylene	23.49	91	5794882	196.55	ug/l	99
47)	Styrene	23.58	104	4175210	200.38	ug/l	100
48)	Isopropylbenzene	24.37	105	6611317	192.63	ug/l	100
49)	1,1,2,2-Tetrachloroethane	24.77	83	2138586	212.66	ug/l	100
51)	1,3-Dclbenzene	27.83	146	3564770	193.20	ug/l	99
52)	1,4-Dclbenzene	28.10	146	3632067	195.12	ug/l	100
53)	1,2-Dclbenzene	29.06	146	3374086	192.89	ug/l	99
54)	1,2-Dibromo-3-chloropropan	30.96	75	489301	237.26	ug/l	98
55)	1,2,4-Tcbenzene	33.00	180	1886571	195.29	ug/l	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8325.D
Acq On : 27 Jun 101 2:02 pm
Sample : VSTD200
Misc : '95-1 INIT CAL GCMS#1
Quant Time: Jun 27 14:58 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

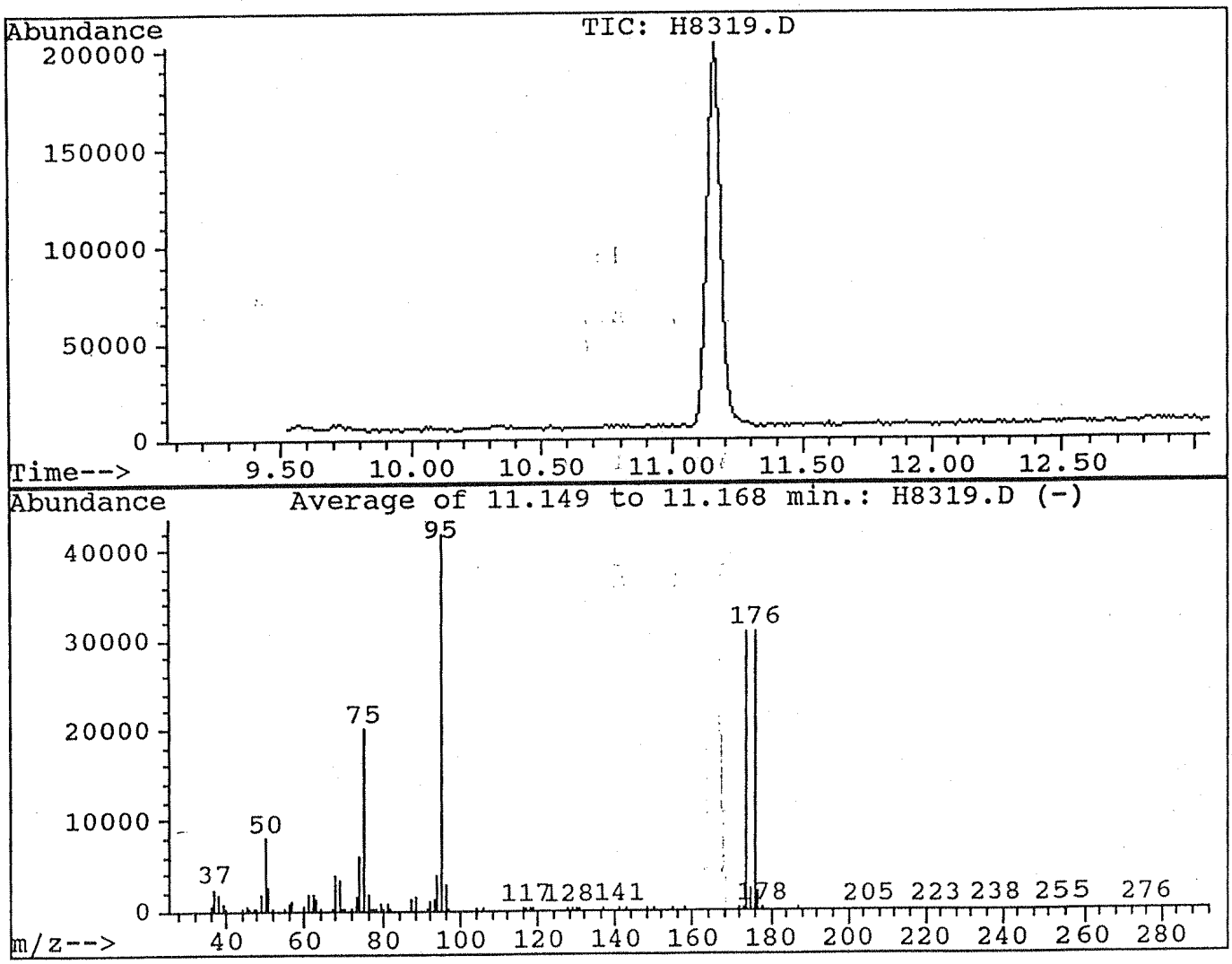


106

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8319.D
Acq On : 27 Jun 101 9:55 am
Sample : TUNE CHECK
Misc : '95-1

Vial: 8
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1



Peak Apex is scan: 164

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	7895	PASS
75	95	30	60	47.7	19909	PASS
95	95	100	100	100.0	41723	PASS
96	95	5	9	6.7	2780	PASS
173	174	0	2	0.3	83	PASS
174	95	50	120	73.2	30544	PASS
175	174	5	9	7.4	2246	PASS
176	174	95	101	100.4	30651	PASS
177	176	5	9	6.9	2101	PASS

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8329.D Vial: 3
Acq On : 27 Jun 101 5:02 pm Operator: DLIPANI
Sample : VSTD050 Inst : 5970 - In
Misc : '95-1 Multiplr: 1.00
Quant Time: Jun 27 17:38 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.75	128	277224	50.00	ug/l	0.02
23) 1,4-Difluorobenzene	14.86	114	1320417	50.00	ug/l	0.02
36) Chlorobenzene-d5	22.03	117	1050155	50.00	ug/l	0.04
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.98	65	543236	50.47	ug/l	100.95%
38) Toluene-d8	18.41	98	1312588	48.98	ug/l	97.95%
50) Bromofluorobenzene	25.01	95	799153	50.42	ug/l	100.85%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.70	85	653989	52.20	ug/l	99
3) Chloromethane	4.24	50	361868	51.43	ug/l	99
4) Vinyl chloride	4.46	62	313306	52.55	ug/l	97
5) Bromomethane	5.48	94	347805	51.21	ug/l	100
6) Chloroethane	5.68	64	301602	55.28	ug/l	98
7) Trichlorofluoromethane	6.31	101	847471	51.93	ug/l	99
8) FREON 113	7.38	101	618932	52.08	ug/l	100
9) Acetone	7.50	43	238742	64.54	ug/l	99
10) 1,1-Dichloroethene	7.79	96	371306	53.41	ug/l	99
11) Methyl Acetate	8.60	43	337977	54.60	ug/l	98
12) Methylene chloride	8.93	84	422509	51.79	ug/l	99
13) Carbon disulfide	8.97	76	967799	55.13	ug/l	100
14) Methyl tert Butyl Ether	9.32	73	1122629	54.01	ug/l	99
15) trans-1,2-Dichloroethene	9.64	96	419857	52.47	ug/l	100
16) 1,1-Dichloroethane	10.62	63	722933	52.35	ug/l	100
17) 2-Butanone	11.58	43	237804	59.94	ug/l	98
18) cis-1,2-Dichloroethene	12.01	96	441154	51.66	ug/l	99
19) Chloroform	12.37	83	811234	51.59	ug/l	100
20) Cyclohexane	13.36	56	716837	52.24	ug/l	100
22) 1,2-Dichloroethane	14.20	62	658789	51.11	ug/l	99
24) 1,1,1-Trichloroethane	13.29	97	648918	50.98	ug/l m (DL)	0
25) Carbon tetrachloride	13.88	117	549607	49.73	ug/l 06/27/01	99
26) Benzene	14.25	78	1313857	50.84	ug/l	100
27) Trichloroethene	15.65	130	496700	49.78	ug/l	99
28) Methylcyclohexane	15.80	83	697976	50.01	ug/l	98
29) 1,2-Dichloropropane	16.04	63	403974	51.10	ug/l	99
30) Bromodichloromethane	16.57	83	595821	50.78	ug/l	97
31) cis-1,3-Dichloropropene	17.80	75	580572	52.06	ug/l	99
32) trans-1,3-Dichloropropene	18.96	75	510298	53.27	ug/l	99
33) 1,1,2-Trichloroethane	19.35	97	386992	51.58	ug/l	98
34) Dibromochloromethane	20.61	129	509591	51.30	ug/l	99
35) Bromoform	24.43	173	352815	53.62	ug/l	100
37) 4-Methyl-2-pentanone	17.31	43	409453	53.52	ug/l	99
39) Toluene	18.58	92	838193	50.21	ug/l	99

(#) = qualifier out of range (m) = manual integration (DL) 06/27/01

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8329.D Vial: 3
Acq On : 27 Jun 101 5:02 pm Operator: DLIPANI
Sample : VSTD050 Inst : 5970 - In
Misc : '95-1 Multiplr: 1.00
Quant Time: Jun 27 17:38 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration

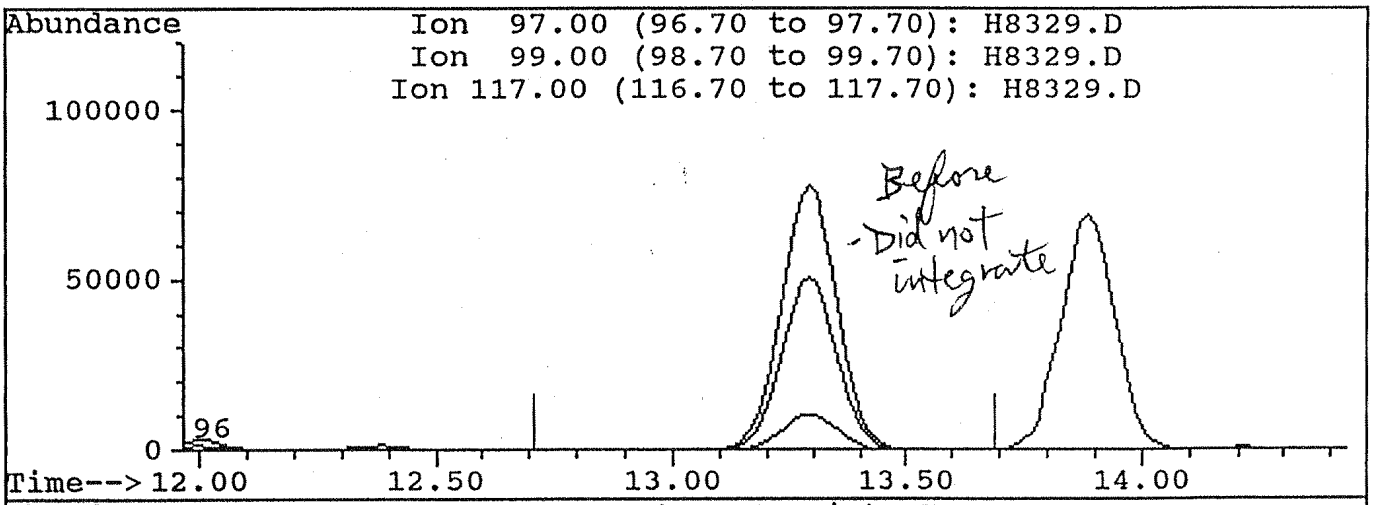
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	2-Hexanone	19.33	43	362844	53.29	ug/l		97
41)	Tetrachloroethene	20.16	164	438765	49.79	ug/l		99
42)	1,2-Dibromoethane	21.10	107	536846	50.09	ug/l		99
43)	Chlorobenzene	22.11	112	999863	49.15	ug/l		98
44)	Ethylbenzene	22.23	91	1726880	50.46	ug/l		100
45)	(m+p)Xylene	22.41	91	2808504	99.68	ug/l		100
46)	o-Xylene	23.51	91	1425584	49.46	ug/l		99
47)	Styrene	23.58	104	1028327	50.48	ug/l		100
48)	Isopropylbenzene	24.37	105	1690521	50.38	ug/l		100
49)	1,1,2,2-Tetrachloroethane	24.79	83	517276	52.61	ug/l		99
51)	1,3-Dclbenzene	27.83	146	902551	50.04	ug/l	m DL	0
52)	1,4-Dclbenzene	28.10	146	915192	50.29	ug/l	06/27/01	99
53)	1,2-Dclbenzene	29.06	146	854735	49.98	ug/l		99
54)	1,2-Dibromo-3-chloropropan	30.96	75	104100	51.63	ug/l		98
55)	1,2,4-Tcbenzene	32.98	180	475423	50.34	ug/l		100

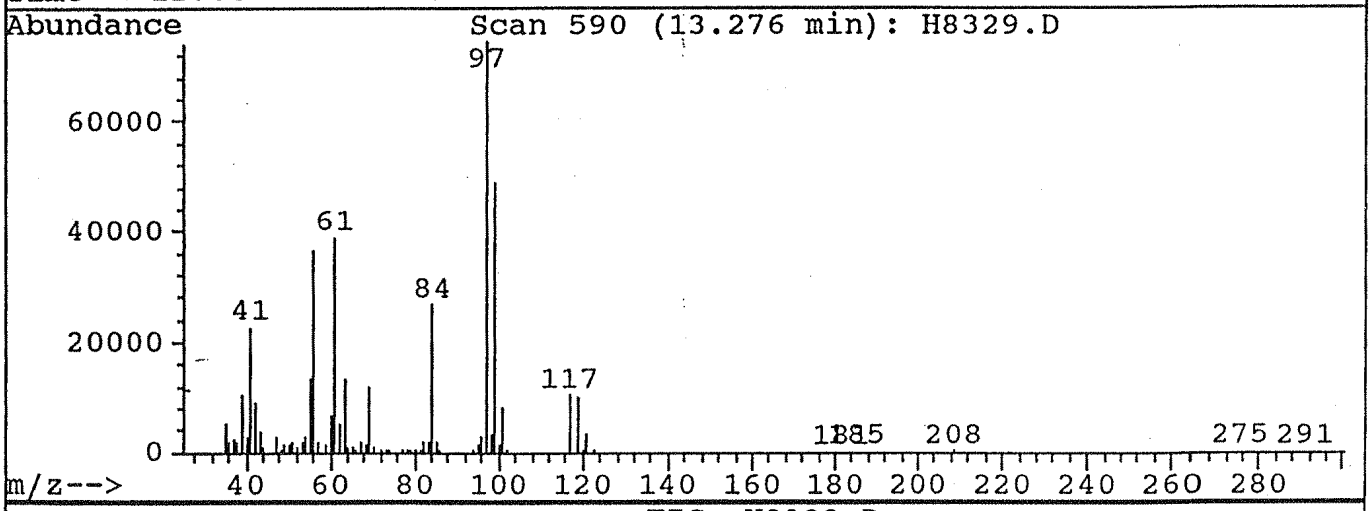
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8329.D Vial: 3
Acq On : 27 Jun 101 5:02 pm Operator: DLIPANI
Sample : VSTD050 Inst : 5970 - In
Misc : '95-1 Multiplr: 1.00
Quant Time: Jun 27 17:36 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration





TIC: H8329.D

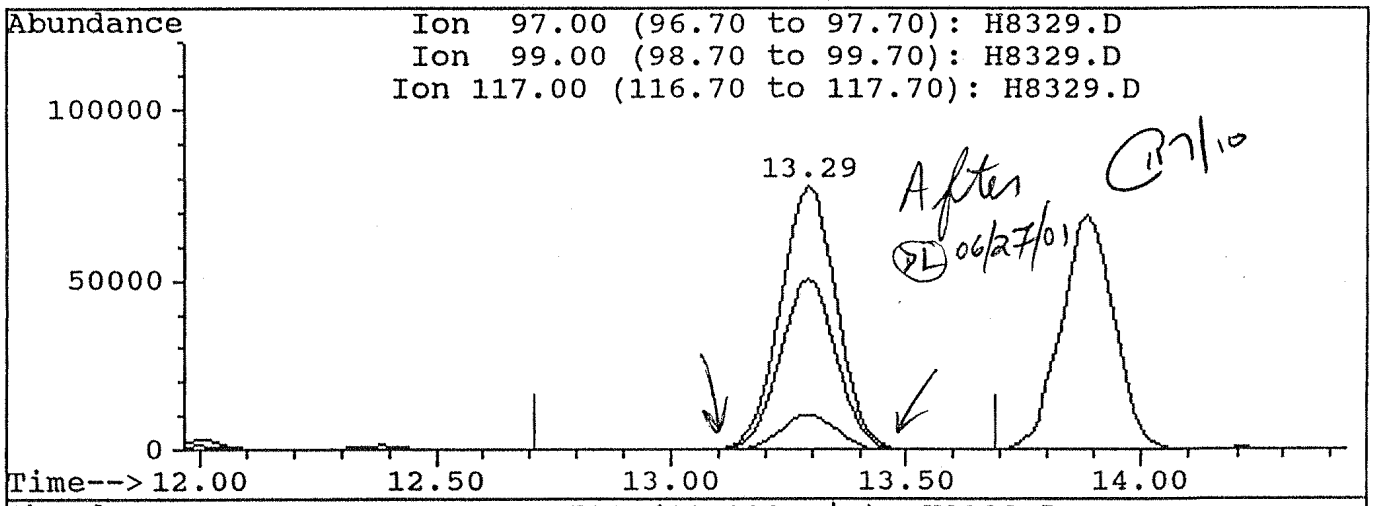
(24) 1,1,1-Trichloroethane (TPC)
13.27min 0.00ug/l d
response 0

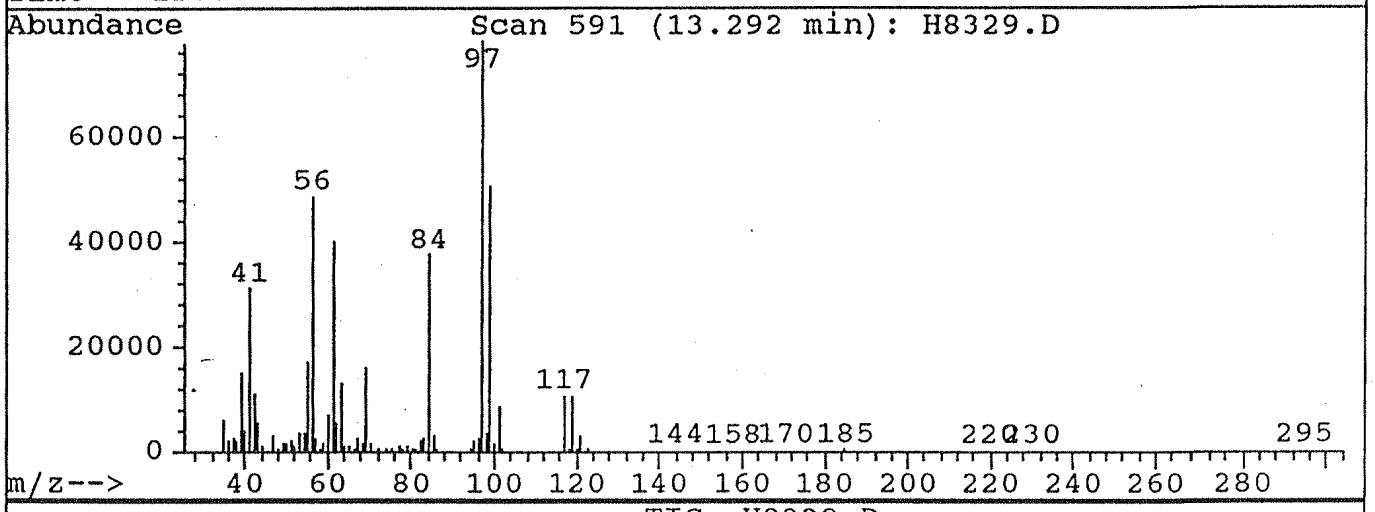
Ion	Exp%	Act%
97.00	100	0.00
99.00	65.00	0.00#
117.00	13.80	0.00#
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8329.D
Acq On : 27 Jun 101 5:02 pm
Sample : VSTD050
Misc : '95-1
Quant Time: Jun 27 17:37 19101

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration





TIC: H8329.D

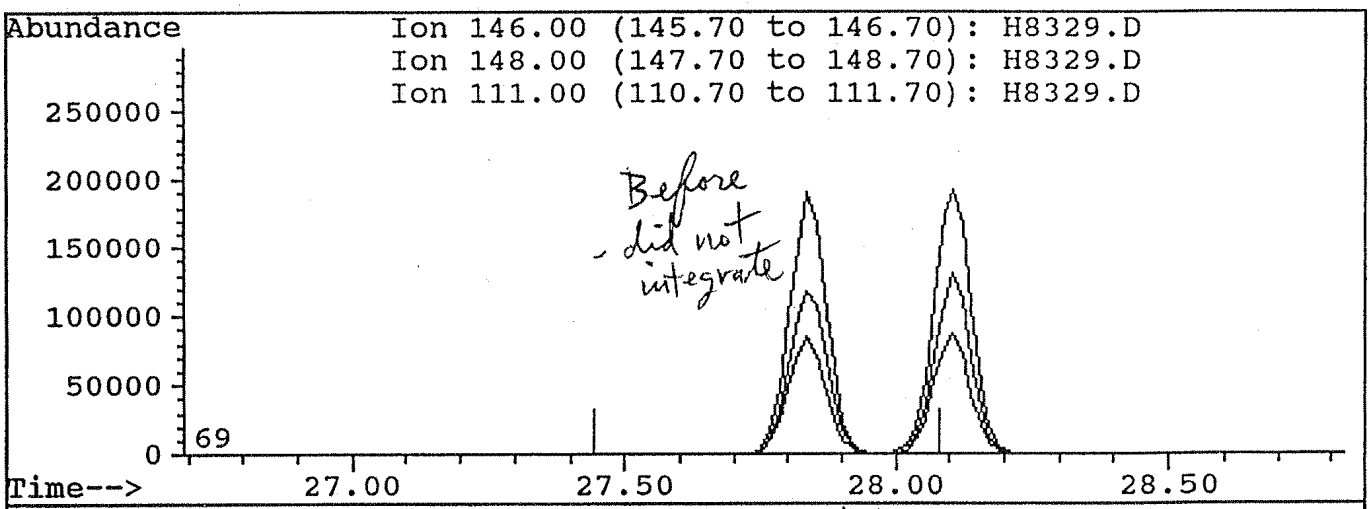
(24) 1,1,1-Trichloroethane (TPC)
13.29min 50.98ug/l m
response 648918

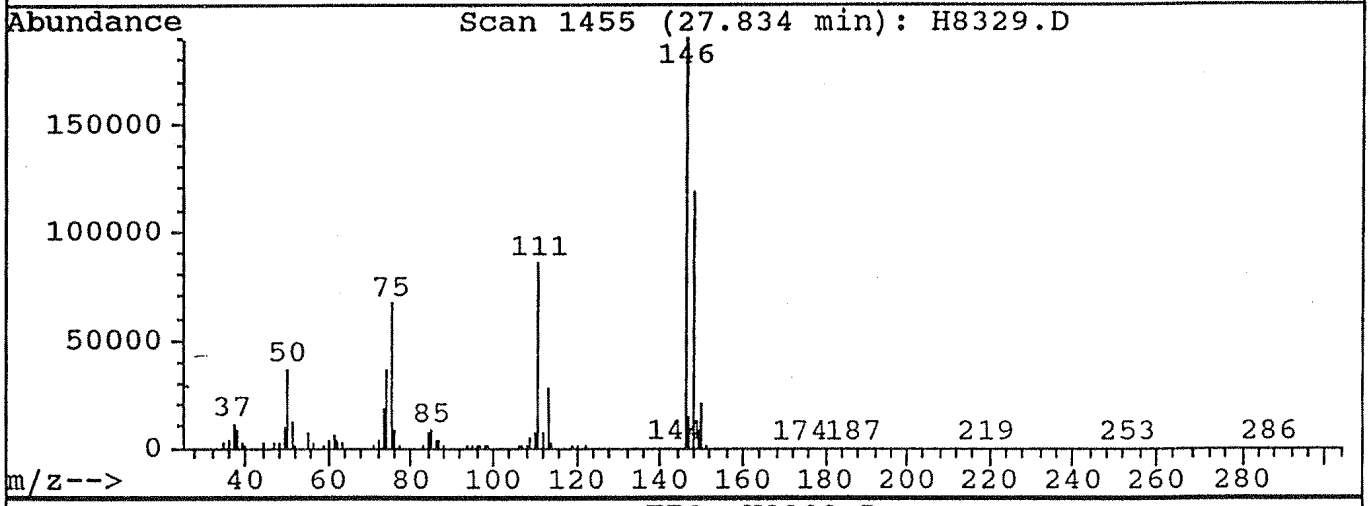
Ion	Exp%	Act%
97.00	100	100
99.00	65.00	64.86
117.00	13.80	13.44
0.00	0.00	0.00

111

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8329.D Vial: 3
Acq On : 27 Jun 101 5:02 pm Operator: DLIPANI
Sample : VSTD050 Inst : 5970 - In
Misc : '95-1 Multiplr: 1.00
Quant Time: Jun 27 17:37 19101

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration





TIC: H8329.D

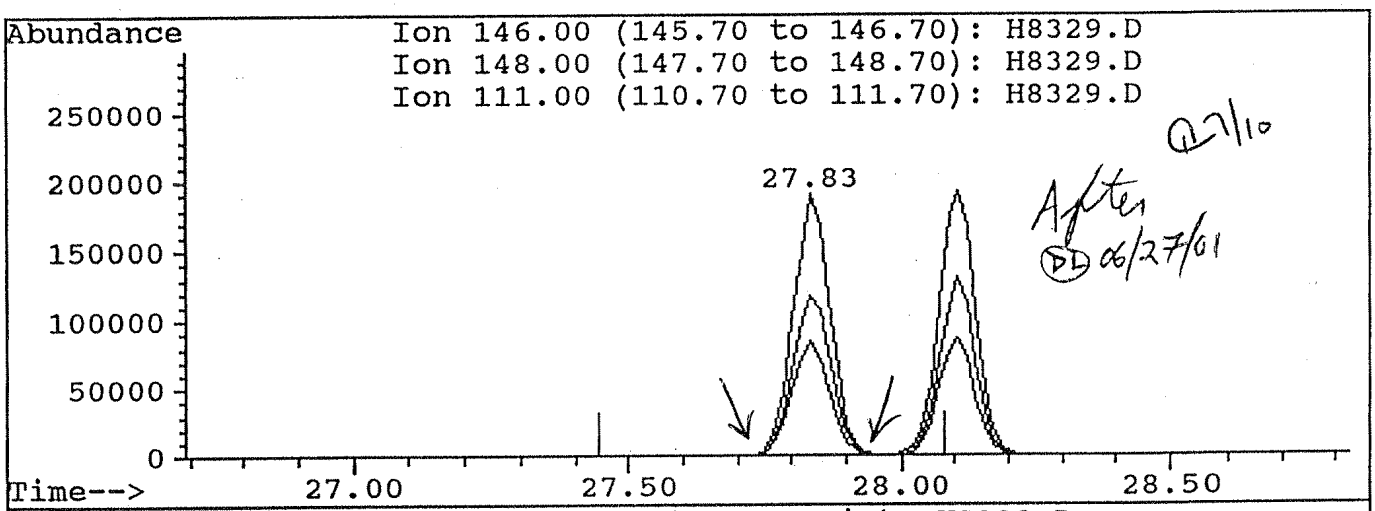
(51) 1,3-Dclbenzene (T)
27.83min 0.00ug/l d
response 0

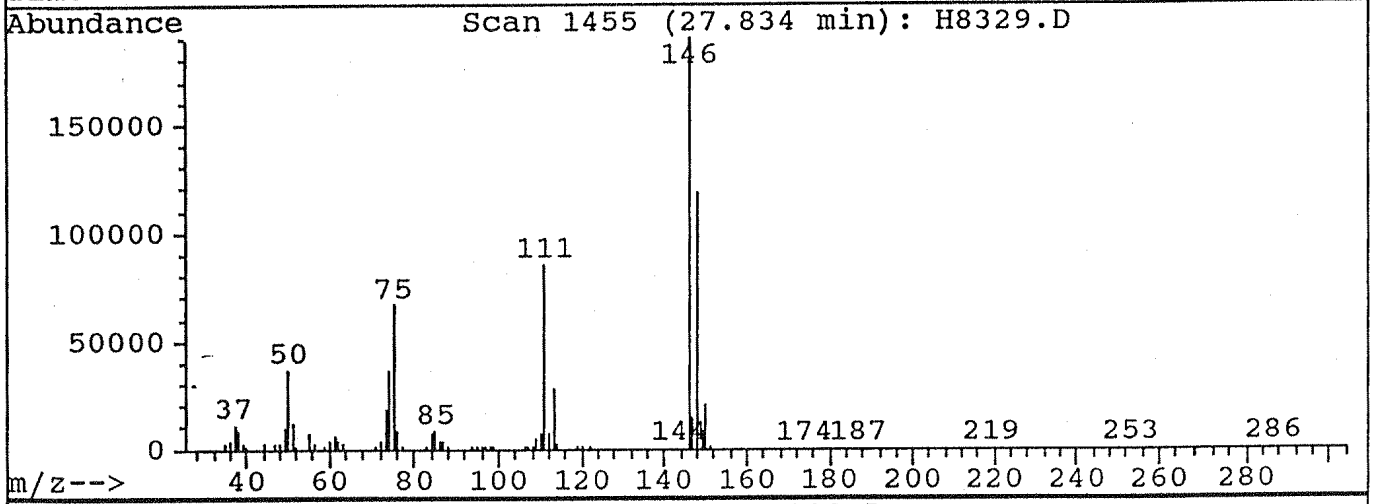
Ion	Exp%	Act%
146.00	100	0.00
148.00	65.00	0.00#
111.00	45.70	0.00#
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8329.D
Acq On : 27 Jun 101 5:02 pm
Sample : VSTD050
Misc : '95-1
Quant Time: Jun 27 17:38 19101

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration





TIC: H8329.D

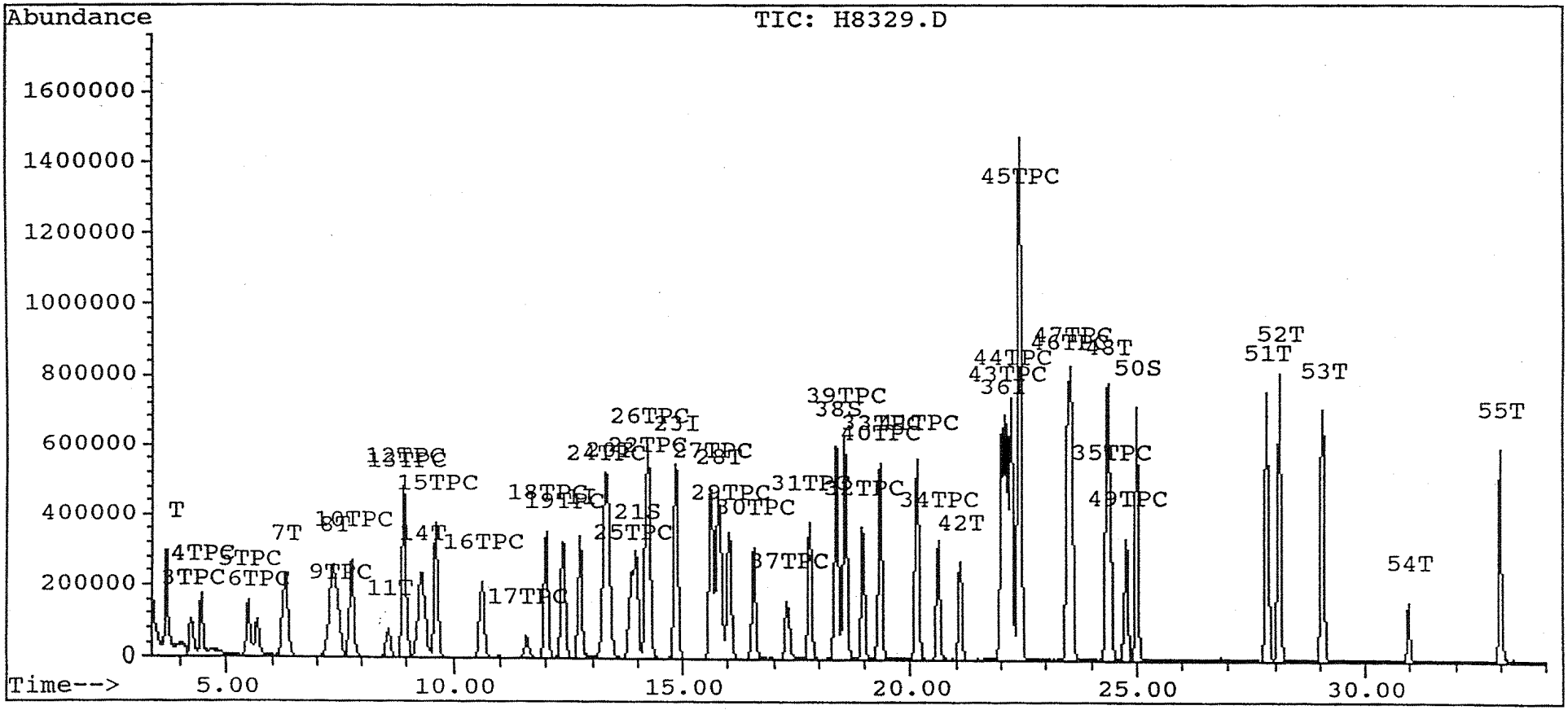
(51) 1,3-Dclbenzene (T)
27.83min 50.04ug/l m
response 902551

Ion	Exp%	Act%
146.00	100	100
148.00	65.00	62.10
111.00	45.70	44.77
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8329.D
Acq On : 27 Jun 101 5:02 pm
Sample : VSTD050
Misc : '95-1
Quant Time: Jun 27 17:38 19101

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 14:59:56 2001
Response via : Single Level Calibration



VOLATILE ORGANICS

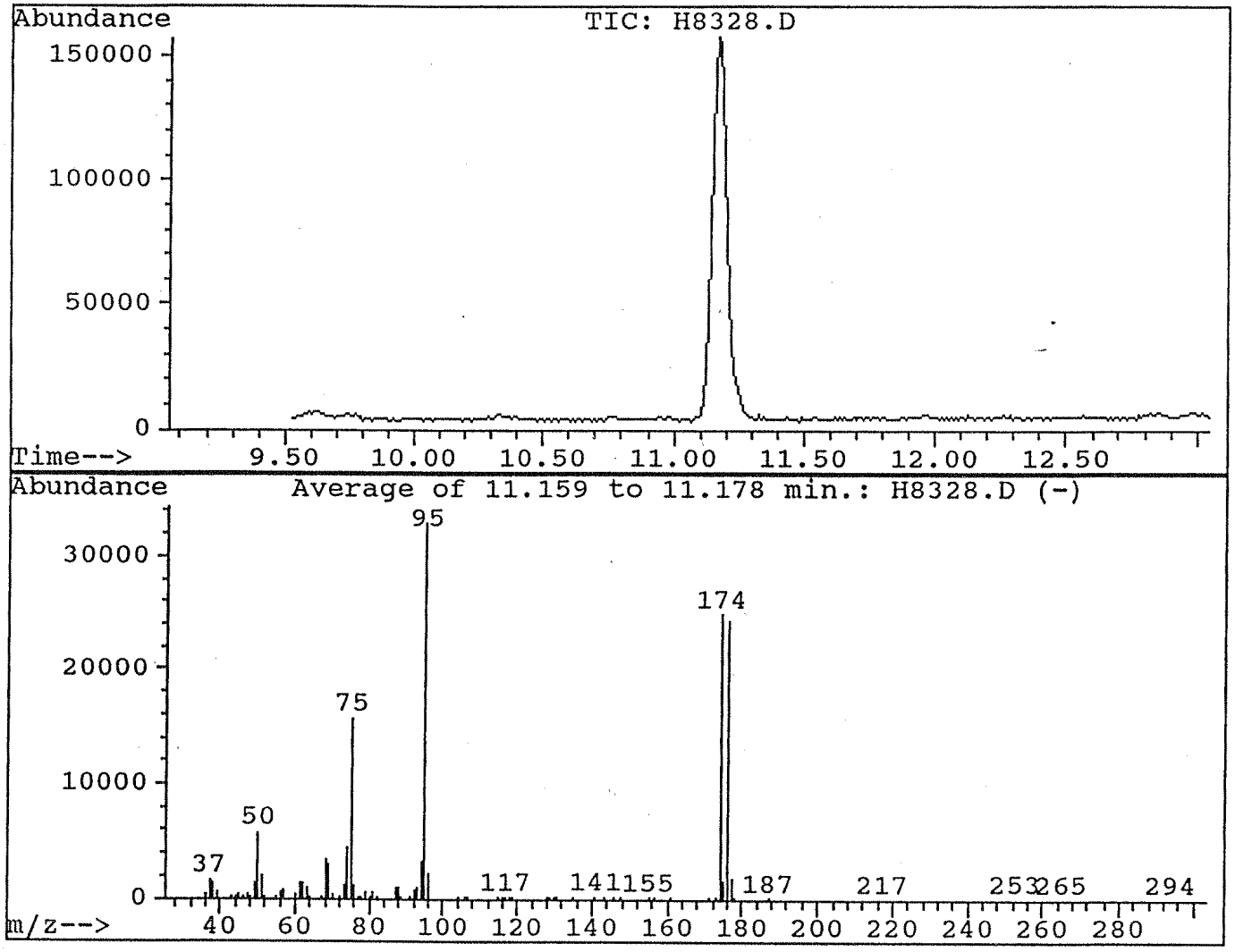
RAW QC DATA

BFB

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8328.D
Acq On : 27 Jun 101 4:28 pm
Sample : TUNE CHECK
Misc : '95-1

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1



Peak Apex is scan: 163

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	5789	PASS
75	95	30	60	47.4	15609	PASS
95	95	100	100	100.0	32940	PASS
96	95	5	9	6.8	2240	PASS
173	174	0	2	0.1	33	PASS
174	95	50	120	75.4	24840	PASS
175	174	5	9	6.7	1659	PASS
176	174	95	101	97.3	24160	PASS
177	176	5	9	7.1	1725	PASS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: MET BLK (478159)

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8330.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: MET BLK (478159)

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8330.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8330.D
Acq On : 27 Jun 101 6:06 pm
Sample : VBLK 47859
Misc :
Quant Time: Jun 27 18:36 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.74	128	277532	50.00	ug/l	-0.01
23) 1,4-Difluorobenzene	14.84	114	1315365	50.00	ug/l	-0.01
36) Chlorobenzene-d5	22.01	117	1042139	50.00	ug/l	-0.01
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.97	65	552803	50.82	ug/l	101.65%
38) Toluene-d8	18.38	98	1307120	50.17	ug/l	100.35%
50) Bromofluorobenzene	25.01	95	773219	48.75	ug/l	97.50%
Target Compounds						Qvalue
9) Acetone	7.52	43	8103	1.70	ug/l	90
40) 2-Hexanone	19.20	43	10103	~~1.40~~	~~ug/l~~ #	~~33~~

DL
06/28/01

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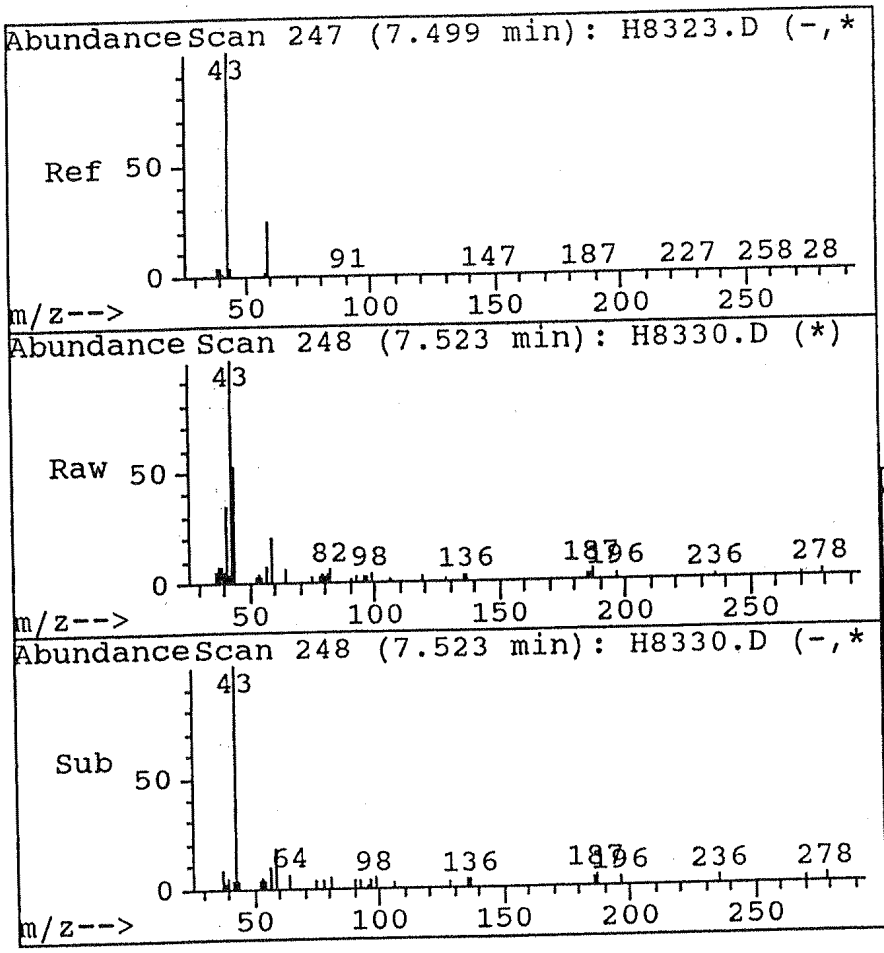
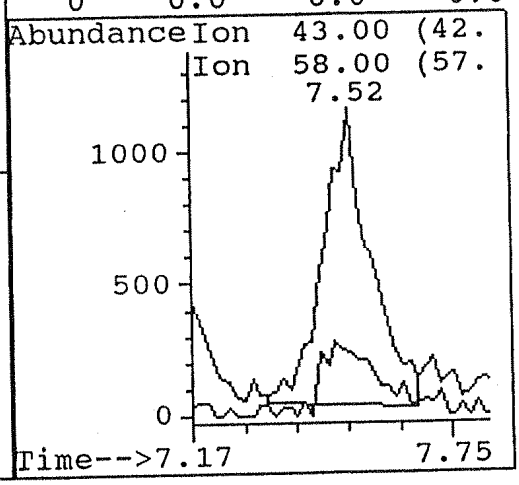
(#) = qualifier out of range (m) = manual integration
H8330.D ASP0627.M Wed Jun 27 18:36:56 2001 TEST2



#9
Acetone
Concen: 1.70 ug/l
RT: 7.52 min Scan# 248
Delta R.T. 0.02 min
Lab File: H8330.D
Acq: 27 Jun 101 6:06 pm

Tgt Ion:43 Resp: 8103

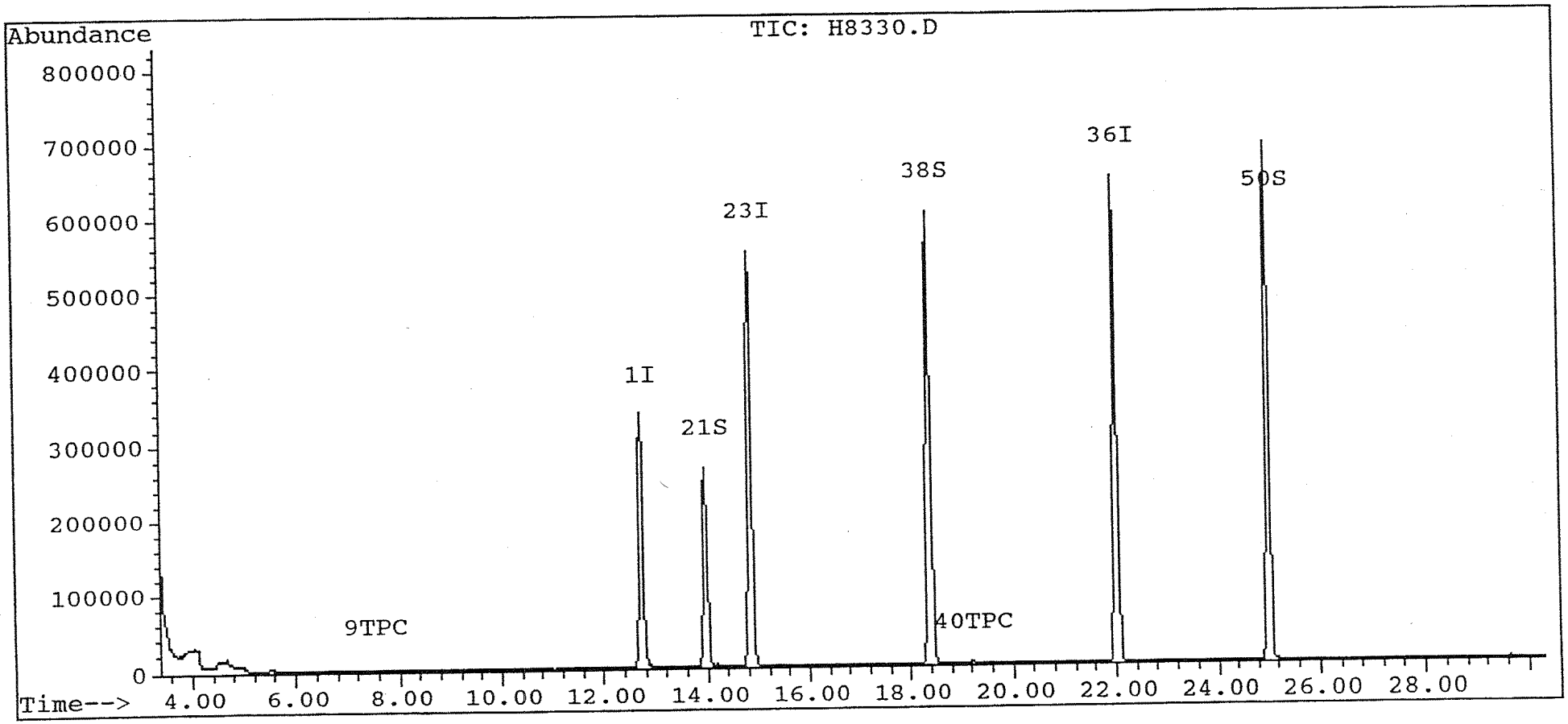
Ion	Ratio	Lower	Upper
43	100		
58	30.2	12.7	38.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8330.D
Acq On : 27 Jun 101 6:06 pm
Sample : VBLK
Misc :
Quant Time: Jun 27 18:36 19101

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



121

Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8330.D
Acq On : 27 Jun 101 6:06 pm
Sample : VBLK
Misc :

Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : NBS75K.L

Internal Standard Area Summary

R.T.	Conc	Area	ISTD
12.74	50.00 ug/l	1901764	Bromochloromethane
14.84	50.00 ug/l	3326199	1,4-Difluorobenzene
22.01	50.00 ug/l	3344457	Chlorobenzene-d5

DL
07/09/01
10

Library Search Compound Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8330.D
Acq On : 27 Jun 101 6:06 pm
Sample : VBLK
Misc :

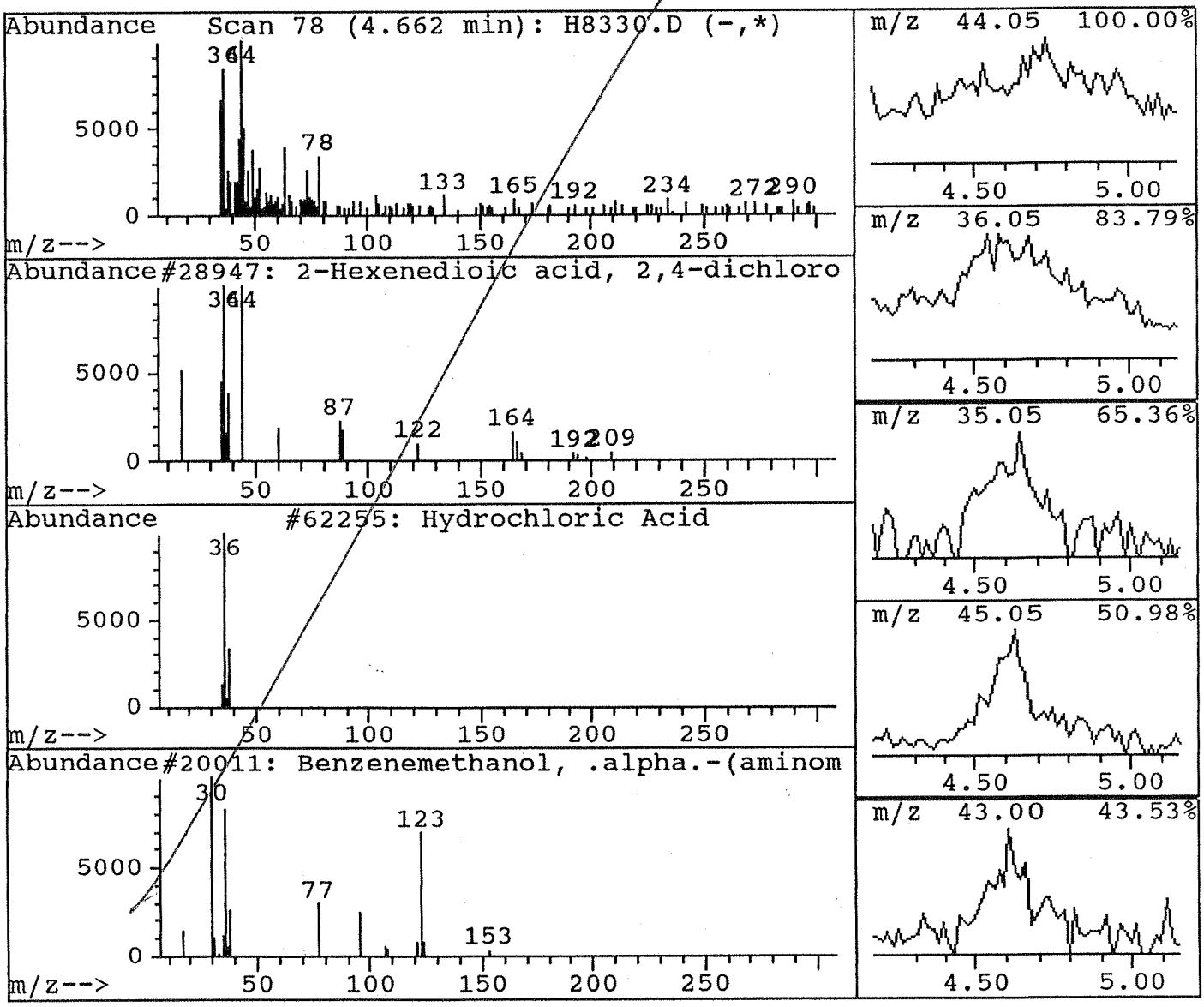
Vial: 12
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Library : J:\ACQUDATA\DATABASE\NBS75K.L

Del. not a peak DL 07/09/01 10

R.T.	Conc	Area	Relative to ISTD	R.T.
4.66	8.53 ug/l	324512	Bromochloromethane	12.74

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Hexenedioic acid, 2,4-dichloro-5-	28947	056771-78-9	12
2	Hydrochloric Acid	62255	007647-01-0	9
3	Benzenemethanol, .alpha.-(aminometh	20011	004502-14-1	9
4	Melphalan	43366	000148-82-3	9
5	3-[2-(2-Hydroxyethylamino)ethylamin	38083	000000-00-0	9



123

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK01MS

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS (478160)

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8331.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	53	
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	51	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	50	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8331.D
Acq On : 27 Jun 101 6:45 pm
Sample : VBLKMS 478160
Misc :
Quant Time: Jun 27 19:20 19101

Vial: 13
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.73	128	266402	50.00	ug/l	-0.02
23) 1,4-Difluorobenzene	14.85	114	1288452	50.00	ug/l	0.00
36) Chlorobenzene-d5	22.02	117	1016657	50.00	ug/l	0.00
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.98	65	541945	51.91	ug/l	103.81%
38) Toluene-d8	18.39	98	1287597	50.66	ug/l	101.33%
50) Bromofluorobenzene	25.02	95	759576	49.09	ug/l	98.18%
Target Compounds						Qvalue
5) Bromomethane	5.50	94	10044	1.50	ug/l	95 <
9) Acetone	7.53	43	6491	1.41	ug/l	99 <
10) 1,1-Dichloroethene	7.78	96	380743	53.35	ug/l	100
22) 1,2-Dichloroethane	14.23	62	16525	~~1.31~~	~~ug/l~~ #	~~86~~
26) Benzene	14.25	78	1315990	51.32	ug/l	96
27) Trichloroethene	15.63	130	480769	49.60	ug/l	99
39) Toluene	18.57	92	817931	50.40	ug/l	100
40) 2-Hexanone	19.21	43	11399	~~1.62~~	~~ug/l~~ #	~~32~~
43) Chlorobenzene	22.11	112	985223	50.89	ug/l	89

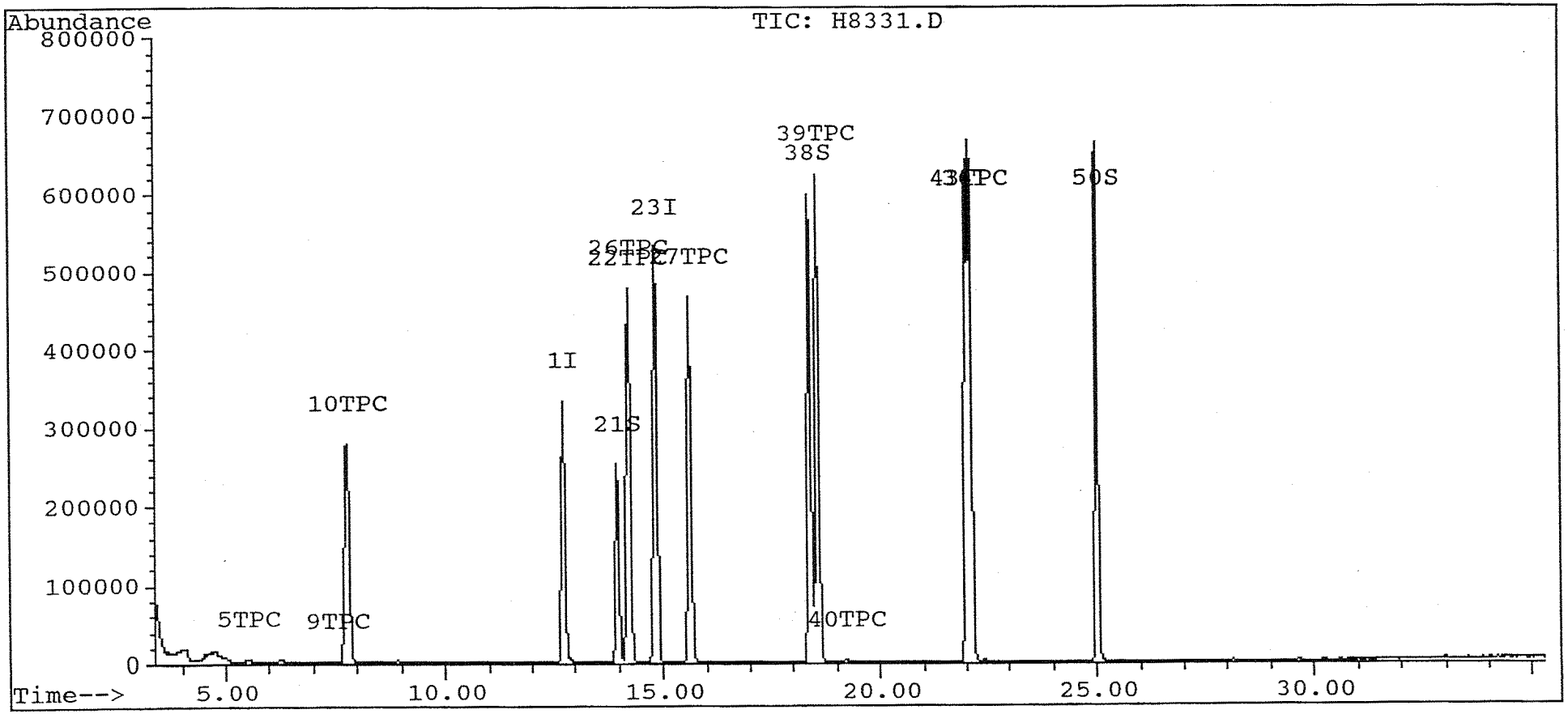
DL 06/28/01

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8331.D
Acq On : 27 Jun 101 6:45 pm
Sample : VBLKMS
Misc :
Quant Time: Jun 27 19:20 19101

Vial: 13
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

OS-4SMS

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8333.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	6	J
75-35-4	1,1-Dichloroethene	54	
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	52	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	50	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8333.D
Acq On : 27 Jun 101 8:11 pm
Sample : 468456 1.0 478161
Misc : HA '95-1 SDG:OS4S EPA:OS-4SMS
Quant Time: Jun 27 20:46 19101

Vial: 15
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.74	128	259944	50.00	ug/l	-0.02
23) 1,4-Difluorobenzene	14.84	114	1264820	50.00	ug/l	-0.02
36) Chlorobenzene-d5	21.99	117	990513	50.00	ug/l	-0.03
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.96	65	524276	51.46	ug/l	102.93%
38) Toluene-d8	18.37	98	1256799	50.76	ug/l	101.52%
50) Bromofluorobenzene	24.99	95	736620	48.86	ug/l	97.73%
Target Compounds						Qvalue
9) Acetone	7.52	43	26570	5.93	ug/l	100 J
10) 1,1-Dichloroethene	7.77	96	372911	53.55	ug/l	99
17) 2-Butanone	11.61	43	5331	1.20	ug/l	95 <
22) 1,2-Dichloroethane	14.23	62	16080	~~1.30~~	~~ug/l~~	~~92~~
26) Benzene	14.23	78	1305653	51.87	ug/l	96
27) Trichloroethene	15.61	130	478139	50.25	ug/l	99
39) Toluene	18.56	92	796097	50.35	ug/l	97
40) 2-Hexanone	19.18	43	8863	~~1.29~~	~~ug/l~~ #	~~32~~
43) Chlorobenzene	22.09	112	989183	52.44	ug/l	88

DL
06/27/01
28

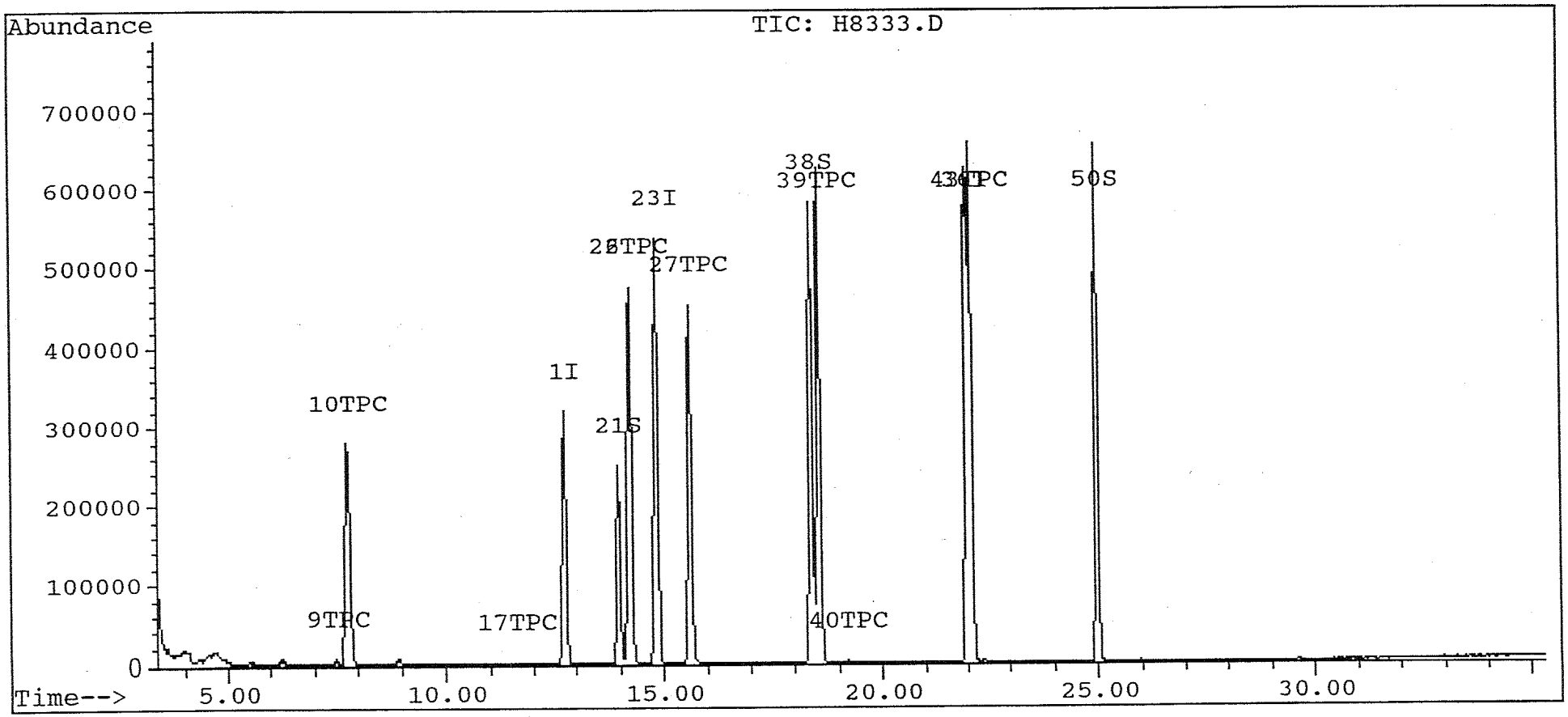
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8333.D
Acq On : 27 Jun 101 8:11 pm
Sample : 468456 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4SMS
Quant Time: Jun 27 20:46 19101

Vial: 15
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-4SMSD

Lab Name: CAS/ROCH Contract: HA

Lab Code: 10145 Case No.: R21-7196 SAS No.: _____ SDG No.: OS4S

Matrix: (soil/water) WATER Lab Sample ID: 468456 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: H8334.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/27/01

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	6	J
75-35-4	1,1-Dichloroethene	52	
75-09-2	Methylene chloride	10	U
75-15-0	Carbon disulfide	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	52	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	51	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8334.D
Acq On : 27 Jun 101 8:54 pm
Sample : 468456 1.0 478162
Misc : HA '95-1 SDG:OS4S EPA:OS-4SMSD
Quant Time: Jun 27 21:29 19101

Vial: 16
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	12.72	128	262727	50.00	ug/l	-0.03
23) 1,4-Difluorobenzene	14.84	114	1277557	50.00	ug/l	-0.01
36) Chlorobenzene-d5	22.00	117	996295	50.00	ug/l	-0.03
System Monitoring Compounds						%Recovery
21) 1,2-Dichloroethane-d4	13.97	65	536516	52.11	ug/l	104.21%
38) Toluene-d8	18.38	98	1269218	50.96	ug/l	101.92%
50) Bromofluorobenzene	24.99	95	742224	48.95	ug/l	97.90%
Target Compounds						Qvalue
9) Acetone	7.52	43	26583	5.87	ug/l	98 √
10) 1,1-Dichloroethene	7.77	96	368961	52.43	ug/l	99
17) 2-Butanone	11.59	43	4567	1.01	ug/l	97 <
22) 1,2-Dichloroethane	14.20	62	17165	~~1.37~~	~~ug/l #~~	~~88~~
26) Benzene	14.24	78	1311464	51.58	ug/l	96
27) Trichloroethene	15.62	130	484721	50.43	ug/l	99
39) Toluene	18.56	92	814763	51.23	ug/l	100
40) 2-Hexanone	19.19	43	7462	~~1.08~~	~~ug/l #~~	~~31~~
43) Chlorobenzene	22.10	112	991383	52.26	ug/l	88

PL 06/28/01

(#) = qualifier out of range (m) = manual integration

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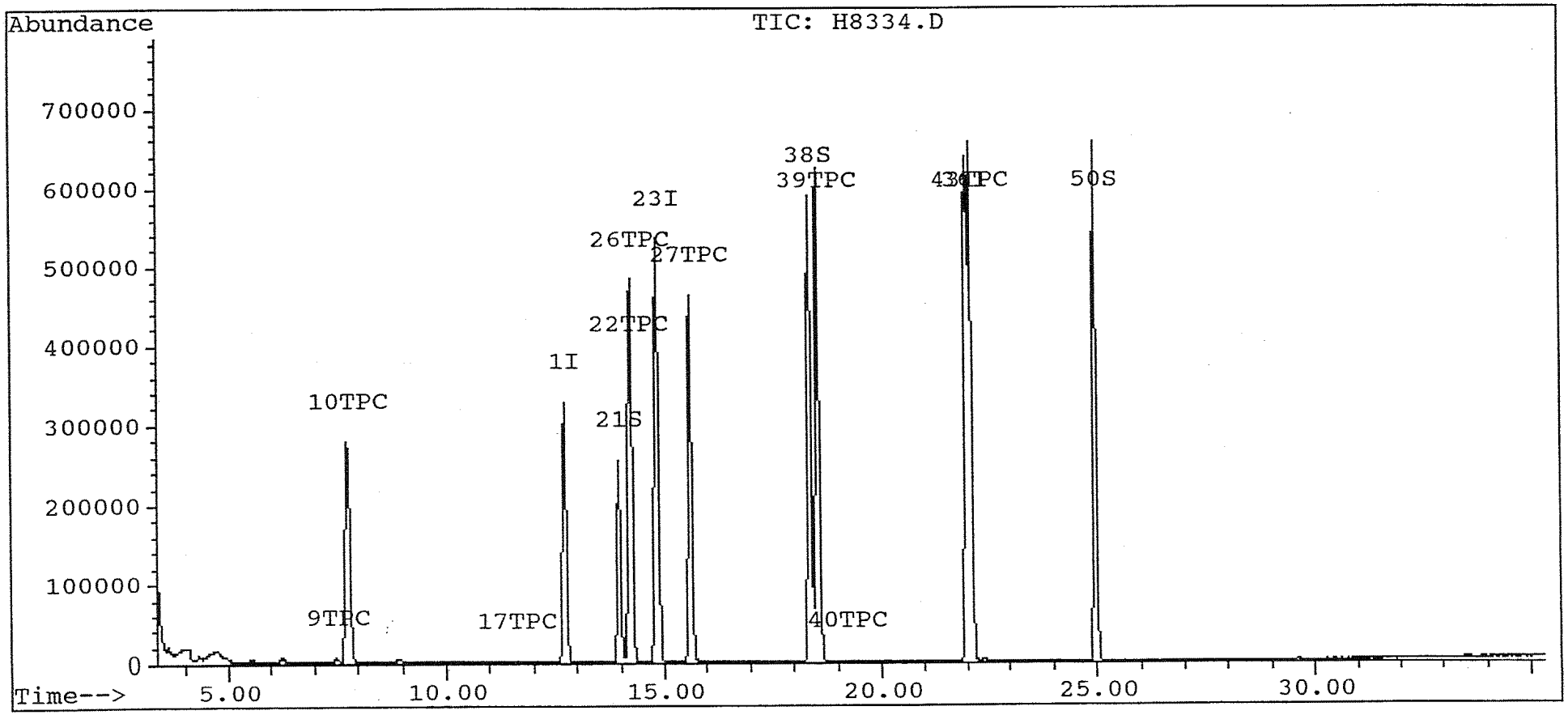
Data File : J:\ACQUDATA\MSVOA1\DATA\062701\H8334.D
Acq On : 27 Jun 101 8:54 pm
Sample : 468456 1.0
Misc : HA '95-1 SDG:OS4S EPA:OS-4SMSD
Quant Time: Jun 27 21:29 19101

Vial: 16
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\ASP0627.M
Title : CLPVOAS ON MS#1
Last Update : Wed Jun 27 17:55:43 2001
Response via : Single Level Calibration



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06/27/01

ASP0627.M
('95-1 ASP)
Init. Cal.

Changed trap today w new one (Supelco Purge Trap K)

		I.S.25	SURR25	CLP25	COMB.	SURR 250	CLP 250	
(9)	test Standard VSTD050 - '95-1							H8318 Y
(10)	Tune Check T062701.M							H8319 Y T
(11)	Pre-Curve Blk							H8320 Y
(11)	VSTD010	10µl	2µl	2µl	-	-	-	H8321 YS
(12)	VSTD020	10µl	4µl	4µl	-	-	-	H8322 YS
(13)	VSTD050	-	-	10µl	10µl	-	-	H8323 YS
(14)	VSTD100	10µl	-	-	-	2µl	2µl	H8324 YS
(15)	VSTD200	10µl	-	-	-	4µl	4µl	H8325 YS
(16)	C-BLK							H8326 O.K.
(3)	ICV							H8327 Y
(4)	Tune Check T062701.M 4:28PM							H8328 Y T
(5)	VSTD050							H8329 Y C
(6)	Met Blk							H8330 Y M
(7)	Blk Spike							H8331 Y Q
(8)	468456 1.0 pH<2	R21-7196 [HA '95-1 ASP]						H8332 Y
(9)	468456 1.0MS pH<2	↓						H8333 Y Q
(10)	468456 1.0MSD pH<2							H8334 Y Q
(11)	468457 1.0 pH<2							H8335 Y
(12)	468458 1.0 pH<2							H8336 Y
(13)	468459 1.0 pH<2							H8337 Y
(14)	468460 1.0 pH<2							H8338 Y
(15)	468462 1.0 pH<2							H8339 Y
~~(16)~~	NO							
~~(1)~~	SAMPLE							
(2)	468461 1.0 pH<2							H8340 Y
(3)	468464 1.0 (T.B.) pH<2							H8341 Y
(4)	471983 1.0 (C.B.) pH<2							H8342 Y

DL 6-27/01 (initials beside header rows); DL 6/27/01 (beside NO SAMPLE)

[signature]

Surr 25 MSV5084H, 2µl/5mL purged tune, also see curve.
I.S. 25 MSV5084F, see curve
Comb. I.S./Surr MSV5084G, 10µl
Surr 250 MSV5084I, see curve
CLP 25 VOAs MSV5085B, see curve, 10µl/5mL DI for VSTD050
CLP 250 VOAs MSV5085A, see curve

for ICV: 10µl Comb. + 5µl MSV5080B (SS SOW 50) into 5mL DI (in syringe)

for BS and MS/MSD 10µl Comb. + 10µl MSV5082D (CLP SPK 25) into 5mL DI (for BS) or into 5mL sample (MS/MSD). (Made in syringe)

UNDERGROUND
ENGINEERING &
ENVIRONMENTAL
SOLUTIONS

Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264
Tel: 716.359.9000
Fax: 716.359.4650
www.HaleyAldrich.com

HALEY & ALDRICH

11 December 2001
File No. 70600-001

New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation – Region 8
6274 East Avon-Lima Road
Avon, New York 14485

Attention: David Pratt, P.E.

Subject: Supplemental Offsite Groundwater Sampling
Former Taylor Instruments Site
95 Ames Street
Rochester, New York
VCA Index No. B8-0508-97-02

Dear Mr. Pratt:

This letter presents the results of supplemental groundwater sampling requested by the New York State Department of Environmental Investigation (NYSDEC) as part of the former Taylor Instruments Site Offsite Groundwater Investigation. The work described herein has been performed for Apogent Technologies Corp. (Apogent), the party responsible for investigating offsite groundwater conditions for the former Taylor site. This work is being performed in conjunction with onsite subsurface investigations and remediation activities by Harding ESE for Combustion Engineering.

Haley & Aldrich, on behalf of Apogent, installed eight overburden and bedrock wells in May 2001, at locations requested by NYSDEC, in accordance with the NYSDEC-approved Work Plan dated 22 December 1999. The Work Plan called for one round of sampling in the wells and laboratory analysis for volatile organic compounds (VOCs). The sampling was performed and the results summarized in a report to NYSDEC entitled "Report on Offsite Groundwater Investigation, Former Taylor Instruments Site, 95 Ames Street, Rochester, New York, VCA Index No. B8-0508-97-02," dated 6 September 2001. In summary, the results did not indicate VOC presence in the samples. Very low levels of acetone detected in some of the samples were attributed to laboratory contamination due to the presence of acetone in a lab quality control sample. One of the overburden wells (OS-3 OB) was "dry" and was therefore not sampled during this event.

NYSDEC subsequently requested that an additional round of sampling be performed to confirm the initial results. Apogent agreed to this request, and the sampling was performed on 18 October 2001. NYSDEC personnel were present during the sampling, and obtained

split samples for independent analysis. Once again, OS-3 OB was dry at the time of sampling. Our samples were submitted to CAS Laboratories Inc., of Rochester, New York, where they were analyzed for VOC presence using USEPA Method 8260b. The laboratory analytical results are attached to this letter. In summary, no VOCs were detected in any of the groundwater samples above the analytical method detection limits. When available, we request copies of the NYSDEC's split sample results for our records.

The results of this supplemental investigation confirm the conclusion of the 6 September 2001 report that VOCs related to the Taylor Instruments Site are not present above analytical detection limits either in the overburden or bedrock groundwater at any of the offsite well locations. We will continue to perform the remaining tasks dictated by the approved work plan, namely to continue performing quarterly water level monitoring in the offsite wells, and providing those data to Harding ESE for incorporation into the Quarterly Progress Reports for the ongoing onsite remedial activities.

Please contact us at any time with any questions you may have.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Robert J. Mahoney, P.G.
Senior Environmental Geologist

Edward L. Hynes
Vice President

G:\Projects\70600\001\Offsite Drilling\l DEC supplemental sampling.doc

Attachment: Analytical Laboratory Data

Distribution:

James D. Charles, Esq., NYSDEC
G. Anders Carlson, NYSDOH
David Napier, NYSDOH
Joseph Albert, MCHD
Libby Ford, Nixon Peabody
Rick Ryan, P.E., Harding ESE
Brian Murphy, Esq., Apogent Technologies Corp
Art Harrington, Esq., Godfrey & Khan

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

November 13, 2001

Mr. Robert Mahoney
Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

PROJECT:FORMER TAYLOR SITE - #70600-001
Submission #:R2109076

Dear Mr. Mahoney

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Karen Bunker
Project Manager

Enc.

Columbia Analytical Services inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Lab Submission # : R2109076
Reported : 11/13/01

Report Contains a total of 26 pages

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael K. Perry

Columbia Analytical Services INC.

An Employee - Owned Company

Effective 9/24/01

CAS LIST OF QUALIFIERS

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Inorganic Duplicate analysis not within control limits. Flag the entire batch - Inorganic analysis only

* - Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
New York ID # 10145
Connecticut ID # PH0556
Massachusetts ID # M-NY032
American Industrial Hygiene Assoc. ID #:100314
Navy Facilities Engineering Service Center Approved

Delaware Accredited
New Jersey ID # 73004
Rhode Island ID # 158
New Hampshire ID # 294100 A/B
West Virginia ID # 292
Florida ID # Pending

ACCREDITED IN ACCORDANCE WITH nelac

Columbia Analytical Services inc.

This report contains analytical results for the following samples:

Submission #: R2109076

Lab ID	Client ID
501374	OS4-OB
501375	OS4-BR
501376	OS2-OW
502277	OS2-BR
502278	OS1-OR
502279	OS1-BR
502280	OS3-BR
502281	TRIP BLANK

CASE NARRATIVE

COMPANY: Haley & Aldrich
PROJECT: Former Taylor Site #70600-001
CAS SUBMISSION #: R2109076

Water samples were collected on 10/18//01 and were received at CAS on the same day as sampled at a cooler temperature of 6°C. All samples were received in good condition without breakage or bubbles in the vials.

VOLATILE ORGANICS GC/MS

A total of 7 waters and 1 Trip Blank were analyzed for the Target Compound List of Volatile Organics and "602 Compounds" (as requested on the chain) by EPA Method 8260B from SW-846. The TCL compounds are reported on separate data forms from the "602 Compounds" although all were analyzed at the same time.

All Tuning criteria for BFB were within limits.

The Initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within acceptance limits.

Samples were run within holding time.

The Laboratory Method Blanks associated with the samples were free of contamination.

No other analytical or QC problems were encountered.

1 Mustard Street, Suite 250 ▪ Rochester, NY 14609-6925 ▪ Telephone (716) 288-5380 ▪ Fax (716) 288-8475

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS4-OB

Date Sampled : 10/18/01 09:40 **Order #:** 501374 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

DATE ANALYZED : 11/01/01
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	103	%
TOLUENE-D8	(87 - 108)	95	%
DIBROMOFLUOROMETHANE	(86 - 117)	99	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS4-OB

Date Sampled : 10/18/01 09:40 **Order #:** 501374 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS4-BR

Date Sampled : 10/18/01 09:45 **Order #:** 501375 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	103	%
TOLUENE-D8	(87 - 108)	97	%
DIBROMOFLUOROMETHANE	(86 - 117)	98	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS4-BR

Date Sampled : 10/18/01 09:45 **Order #:** 501375 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS2-OW

Date Sampled : 10/18/01 12:00 **Order #:** 501376 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

DATE ANALYZED : 11/01/01
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	101	%
TOLUENE-D8	(87 - 108)	96	%
DIBROMOFLUOROMETHANE	(86 - 117)	98	%

09

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS2-OW

Date Sampled : 10/18/01 12:00 **Order #:** 501376 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS2-BR

Date Sampled : 10/18/01 12:05 **Order #:** 502277 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	102	%
TOLUENE-D8	(87 - 108)	95	%
DIBROMOFLUOROMETHANE	(86 - 117)	98	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS2-BR

Date Sampled : 10/18/01 12:05 **Order #:** 502277 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS1-OR

Date Sampled : 10/18/01 13:30 **Order #:** 502278 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	90	%
TOLUENE-D8	(87 - 108)	95	%
DIBROMOFLUOROMETHANE	(86 - 117)	98	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS1-OR

Date Sampled : 10/18/01 13:30 **Order #:** 502278 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS1-BR

Date Sampled : 10/18/01 13:35 **Order #:** 502279 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	90	%
TOLUENE-D8	(87 - 108)	94	%
DIBROMOFLUOROMETHANE	(86 - 117)	97	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS1-BR

Date Sampled : 10/18/01 13:35 **Order #:** 502279 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS3-BR

Date Sampled : 10/18/01 14:50 **Order #:** 502280 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

DATE ANALYZED : 11/01/01
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	90	%
TOLUENE-D8	(87 - 108)	94	%
DIBROMOFLUOROMETHANE	(86 - 117)	99	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : OS3-BR

Date Sampled : 10/18/01 14:50 **Order #:** 502280 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : TRIP BLANK

Date Sampled : 10/18/01 **Order #:** 502281 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

DATE ANALYZED : 11/01/01
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	87	%
TOLUENE-D8	(87 - 108)	94	%
DIBROMOFLUOROMETHANE	(86 - 117)	97	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Haley & Aldrich of New York
Project Reference: FORMER TAYLOR SITE - #70600-001
Client Sample ID : TRIP BLANK

Date Sampled : 10/18/01 **Order #:** 502281 **Sample Matrix:** WATER
Date Received: 10/18/01 **Submission #:** R2109076 **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 508430 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run:** 71201

DATE ANALYZED : 10/31/01
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	90	%
TOLUENE-D8	(87 - 108)	92	%
DIBROMOFLUOROMETHANE	(86 - 117)	100	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	**Order #:** 508430	**Sample Matrix:** WATER
Date Received:	**Submission #:**	**Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/31/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 508432 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run:** 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,2,4-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROBENZENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111)	89	%
TOLUENE-D8	(87 - 108)	94	%
DIBROMOFLUOROMETHANE	(86 - 117)	94	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 11/13/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :
Date Received:
Order #: 508432
Submission #:
Sample Matrix: WATER
Analytical Run: 71201

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 11/01/01			
ANALYTICAL DILUTION: 1.0			
CHLOROBENZENE	5.0	5.0 U	UG/L
1,3-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L

Columbia Analytical Services INC.
An Employee-Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475

PAGE 1 OF 1

SR #

CAS Contact

Project Name: Former Taylor Inst.
Project Number:
Project Manager: R. MAHONEY
Report CC:
Company/Address: HALEY & ALDRICH OF NY
200 Town Centre DR.
ROCHESTER, NY 14623
Phone #: 359-9000
FAX#:
Sampler's Signature: [signature]
Sampler's Printed Name: DAVID Mi Nostrand

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

Columns: NUMBER OF CONTAINERS; GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP; GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP; GC VOA's ☐ 8021 ☐ 601/602; PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082; STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP; STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP; TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P; WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.; METALS, TOTAL (List in comments below); METALS, DISSOLVED (List in comments below); 602 Compounds

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ______

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's	602 Compounds	REMARKS/ ALTERNATE DESCRIPTION
							1	CALL with
OS4-OB	501374	10/18/01	0940	AQ	3	X	X	MBL/PQL
OS4-BR	501375	10/18/01	0945	AQ	3	X	X	Questions
OS2-OB	501376	10/18/01	1200	AQ	3	X	X	
OS2-BR	501277	10/18/01	1205	AQ	3	X	X	
OS1-OB	5022278	10/18/01	1330	AQ	3	X	X	
OS1-BR KB 10/18/01	502280279	10/18/01	1335	AQ	3	X	X	
OS3-BR	502280	10/18/01	1450	AQ	3	X	X	
TRIP BLANK	502281	10/18/01	—	AQ	3	X	X	
TEMP BLANK		10/18/01	—	AQ	1	X	X	

SPECIAL INSTRUCTIONS/COMMENTS
Metals
602 Compounds – Chlorobenzene
– 1,3 Dichlorobenzene
1,4 Dichlorobenzene
1,2 Dichlorobenzene

See QAPP ☐ REPORT THESE Compounds Separately

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
X STANDARD
REQUESTED FAX DATE
____
REQUESTED REPORT DATE
____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:
R2109076
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: ________ CUSTODY SEALS: Y N

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	[signature]	Michael Beikirch	Michael Beikirch	[signature]		
Printed Name	DAVID Mi Nostrand	Michael Beikirch	Michael Beikirch	Gregory O. Emerzian		
Firm	H&A	H&A	H&A	CAS		
Date/Time	10/18/01 1525	10-18-01 1525	10-18-01 1545	10-18-01 15:45		

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-0101-08

#1229

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Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client H&A Submission Number R2109076.

Cooler received on 10-18-01 by: ME COURIER: CAS UPS FEDEX CD&L (CLIENT)

1.	Were custody seals on outside of cooler?					YES (NO)
2.	Were custody papers properly filled out (ink, signed, etc.)?					(YES) NO
3.	Did all bottles arrive in good condition (unbroken)?					(YES) NO
4.	Did any VOA vials have significant air bubbles?					YES (NO) N/A
5.	Were (Ice) or Ice packs present?					(YES) NO
6.	Where did the bottles originate?					(CAS/ROC) (CLIENT)
7.	Temperature of cooler(s) upon receipt:	22° - wood	6° - VOAs			
	Is the temperature within 0° - 6° C?:	Yes ☐	Yes ☒	Yes ☐	Yes ☐	Yes ☐
	If No, Explain Below	No ☒	No ☐	No ☐	No ☐	No ☐

Date/Time Temperatures Taken: 10-18-01 @ 15:55

Thermometer ID: IR-bun Temp Blank Sample Bottle Cooler Temp. (IR Gun)

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 10/19/01 by: _____

1.	Were all bottle labels complete (i.e. analysis, preservation, etc.)?		YES NO
2.	Did all bottle labels and tags agree with custody papers?		YES NO
	Were correct containers used for the tests indicated?		YES NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO_3					
2	H_2SO_4					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H_2SO_4

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments: