**DEPARTMENT OF THE AIR FORCE**
**HEADQUARTERS 49TH FIGHTER WING (ACC)**
**HOLLOMAN AIR FORCE BASE, NEW MEXICO**

AUG 1 7 2006

MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT
Attn: Mr. John Kieling
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Santa Fe, NM 87505-6303

RECEIVED
AUG 2006
NMED Hazardous Waste Bureau

FROM: 49 CES/CEV
550 Tabosa Ave
Holloman AFB, NM 88330-8458

SUBJECT: Response to Notice of Deficiency (NOD) Regarding Voluntary Corrective Measures Work Plan, SWMU 8 Soil Remediation dated December 2005

1. As required by NMED NOD (HWB-HAFB-06-002) dated April 14, 2006, General Comment #1, "Permitte is required to provide a soil and groundwater sampling plan as part of the revised Work Plan. This plan should include a sufficient number of samples to adequately characterize the remaining soil contamination at this site that is not underneath the adjacent structures. The plan must include, at a minimum, the installation of two monitoring wells at the site. One well should be installed within the boundary of the Phase II excavation and the other within the proposed boundary of the Phase III excavation." Holloman AFB has collected data regarding the soil and groundwater at the referenced site in accordance with the *Memorandum Scope of Work for Soil and Groundwater Sampling and Analysis* (Bhate, May 2006).

2. Enclosed please find a copy of the *Technical Memorandum Letter Report for SWMU 8 Soil and Groundwater Sampling and Analysis, Holloman AFB, New Mexico.*

3. If you have any questions, please contact Mr. Dave Griffin at (505) 572-5395.

ANDRA B. CLAPSADDLE, Lt Col, USAF
Commander, 49 CES

Attachment:
Letter Report for SWMU 8 Soil and Groundwater Sampling and Analysis

cc: w/Attachment:

Mr. Cornelius Amindyas
Hazardous Waste Bureau
5500 San Antonio Drive NE
Albuquerque, NM 87109

Mr. Will Moats
Hazardous Waste Bureau
5500 San Antonio Drive NE
Albuquerque, NM 87109

James Harris
USEPA, Region 6 PD-N,
1445 Ross Ave., Ste 12
Dallas, TX 75202-2733

*Global Power for America*

7003 1010 0005 1663 3747

# TECHNICAL MEMORANDUM
LIBRARY COPY **LETTER REPORT**

# SWMU 8 SOIL AND GROUNDWATER SAMPLING AND ANALYSIS HOLLOMAN AFB, NEW MEXICO

Prepared For:

**49 CES/CEV**
**Holloman Air Force Base**
**New Mexico**

Under Contract To:

**U.S. Army Corps of Engineers**
**Omaha District**
**Omaha, Nebraska**

**August 2006**

**Contract No.: DACA45-03-D-0023**
**Task Order No.: 017**
**Bhate Project No.: 9050291.01.01**

Prepared By:

bhate associates
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*RESPONSIVENESS · INTEGRITY · TEAMWORK*

# TECHNICAL MEMORANDUM
## LETTER REPORT
## FOR
## SWMU 8 SOIL AND GROUNDWATER SAMPLING AND ANALYSIS
## HOLLOMAN AFB, NEW MEXICO

---

**DATE:** August 2, 2006

**FROM:** Jim Moore, Bhate Environmental Associates, Inc.

**TO:** Dave Griffin, 49 CES/CEV, Holloman Air Force Base, NM

**SUBJECT:** **SWMU 8 SOIL AND GROUNDWATER SAMPLING AND ANALYSIS**

---

## 1.0 INTRODUCTION

This technical memorandum was prepared by Bhate Environmental Associates, Inc. (Bhate) for the Environmental Flight 49th CES/CEV, Holloman Air Force Base (HAFB), New Mexico. This letter report contains the results of the subsurface soil and groundwater water samples that were collected at SWMU 8 (former Oil/Water Separator located at Building 231) in May 2006. This sampling event was conducted in accordance with the *Memorandum Scope of Work for Soil and Groundwater Sampling and Analysis* (Bhate, May 2006). This Scope of Work was performed through the U.S. Army Corps of Engineers (USACE), under contract DACA45-03-D-0023, Task Order No. 017.

The scope of work for SWMU 8 was prepared to meet the requirements for additional soil and groundwater characterization as requested by the New Mexico Environment Department (NMED). General comment No. 1 in the NMED Notice of Deficiency (NOD) letter to Holloman AFB dated April 14, 2006 (Appendix A) requested that additional subsurface soil samples should be collected to characterize the remaining soil contamination at the site (that is not underneath the adjacent structures) and that at least two temporary groundwater monitoring wells be installed and sampled at the site before the Phase III soil excavation can commence.

## 2.0 SITE LOCATION, DESCRIPTION AND BACKGROUND

SWMU 8 is the former underground Oil/Water Separator (OWS) that was located on the south side of Building 231. Building 231 (Auto Hobby Center) is located on the main base at Holloman at 642 West Connecticut Avenue. The OWS was

abandoned and filled with sand (Ebasco Services, Inc., 1995). The OWS was 4 feet wide, 8 feet long and 4 feet deep and was located east of the covered walkway which connects Buildings 231 and 232 (Figure 1). Two previous remedial action soil excavations conducted by Ebasco Services (1995) and Foster Wheeler (1997) have removed 80-90 percent of the petroleum contaminated soil (PCS) and the abandoned OWS.

Records indicate that the OWS accepted wash water from a heavy equipment wash rack located adjacent to the unit. Over a period of years the OWS released wash water rinsate containing oils, detergents and fuels into the surrounding soil. The initial removal and investigation/characterization activities began in August 1995 when the abandoned OWS and 21 cubic yards (cu yds) (28 tons) of PCS were removed (Ebasco Services, Inc., 1995). Figure 1 shows the location of the former OWS, and the limits of this excavation (Phase I). The initial excavation was backfilled with clean soil compacted to grade.

It was then discovered that contaminated soil extended beyond what had been anticipated for the first phase of remediation. After the Phase I removal, contamination was identified in the five native subsurface soil samples collected from the excavation corners and one from the center of the excavation. Excavation activities (Phase II) were continued in April 1997, and the original excavation was extended eastward from the eastern edge of the original excavation (Figure 1). An additional 31.8 cu yds (43 tons) of TRPH-contaminated soil were excavated during the second phase of remediation. The second excavation was backfilled with clean soil (Foster Wheeler, 1997).

# 3.0 FIELD ACTIVITIES

To address NMED requirements (NOD letter, April 2006), three soil borings/monitoring wells were installed, soil and groundwater samples were collected to determine the nature and extent of contamination and to provide groundwater flow data.

## 3.1 Soil Boring and Sampling

In May 2006, three soil borings (DP01 through DP03) were installed around the SWMU 8 (Figure 1) for the purpose of soil sampling in accordance with HAFB Standard Operating Procedures (SOPs) provided in the *Base-wide Quality Assurance Project Plan* (Bhate, November 2003). The soil borings were installed using an AMS Power Probe 9600E direct push technology (DPT) rig, a 48-inch MacroCore® soil sampling device and associated tooling. These soil borings were sampled continuously to a depth of 11 to 14.4 feet (ft) below ground surface (bgs).

Soil samples were visually classified in the field by a geologist according to the Unified Soil Classification System. Soils were screened with a TVA 1000

Organic Vapor Analyzer (OVA) to aid in selecting samples for laboratory analysis. One subsurface soil sample was collected from DP01 and DP02 for laboratory analysis. A soil sample was not collected from DP03 as this borehole was installed within the clean backfill from the Phase II excavation. Appendix B contains the drilling logs for this investigation.

Laboratory analytical services using USEPA SW 846 methodology were procured through Accutest Laboratories, Inc located in Orlando Florida. The *Base-wide Quality Assurance Project Plan* (Bhate, November 2003) was followed throughout the processes of sample collection, handling and laboratory analysis. Soil samples were analyzed for:

- Total Petroleum Hydrocarbons (TPH) (Gasoline Range Organics [GRO] /Diesel Range Organics [DRO]/Oil Range Organics [ORO]) by Method 8015M
- Volatile Organic Compounds (VOCs) by Method 8260B
- Semi Volatile Organic Compounds (SVOCs) by Method 8270C
- Polychlorinated Biphenyls (PCBs) by Method 8082
- Target Analyte List (TAL) Metals by Method 6010 and 7471A

## 3.2 Groundwater Monitoring Well Installation and Sampling

Permanent monitoring wells were installed in each of the three soil borings for the purpose of collecting groundwater samples. The groundwater monitoring constructed of 1-inch ID polyvinyl chloride (PVC). Each well was screened with 5 or 10 feet of 0.020 inch factory slotted pre-packed PVC. The annular space surrounding the screen was backfilled with 10/20 Colorado silica sand and capped with a 2-foot layer of bentonite pellets. The monitoring wells were completed as flush mount well completions. Appendix C contains the well construction diagrams for these wells. Each well was developed to promote hydraulic communication with the aquifer and to remove fines prior to sampling.

In June 2006, groundwater samples were collected form each of the monitoring wells after each well was developed. Groundwater samples were collected from each well using disposable polypropylene tubing attached to a peristaltic pump. Prior to sampling, the static water level in each well was measured to the nearest 0.01 feet using an electronic water level measuring device. The well was purged of either three standing casing volumes or until dry (and permitted to recover) prior to sample collection. Groundwater samples were collected under low-flow conditions and transferred directly from the sampling tubing to the sample containers provided by the analytical laboratory. The aliquot of groundwater used for TAL metals was field filtered with a 0.45 micron filter. The samples were preserved, placed on ice to 4 degrees centigrade and transported under strict chain-of-custody to the analytical laboratory.

The groundwater samples were analyzed using recognized USEPA SW 846 methodology by Accutest Laboratories, Inc. located in Orlando, Florida. The Base-wide Quality Assurance Project Plan (QAPP) was followed throughout the processes of sample collection, handling and laboratory analysis. Groundwater samples were analyzed for:

- TPH (GRO/DRO/ORO) by Modified Method 8015M
- VOCs by Method 8260B
- SVOCs by Method 8270C
- PCBs by Method 8082
- TAL Metals by Method 6010B and 7470A
- TDS by Method 160.1

### 3.3 Surveying

Sample locations were surveyed in accordance with methods described in the QAPP (Bhate, November 2003). The locations (DP01, DP02 and DP03) are referenced with horizontal coordinates, and top of casing elevations were obtained for each monitoring well. All elevations are referenced to the North American Datum (NAD) 1983. All horizontal coordinates are referenced to the State Plane Coordinate System, New Mexico Central. Elevations and coordinates are surveyed to the closest 0.001 foot.

### 3.4 Equipment Decontamination

All reusable equipment associated with soil sampling was decontaminated in accordance with the HAFB SOPs provided in the *Base-wide QAPP* (Bhate, November 2003).

### 3.5 Waste Handling

All investigation derived waste (IDW) produced during the investigation process was handled in accordance with the HAFB SOPs provided in the *Base-wide QAPP* (Bhate, November 2003).

## 4.0 SAMPLING RESULTS

This section presents the subsurface soil and groundwater sample results. The DPT soil boring and monitoring well locations are shown on Figure 1. The complete analytical results by sample delivery group are included in Appendix D.

## 4.1 Soil Sampling Analytical Results

The three subsurface soil samples (including one duplicate) collected from soil borings DP01 and DP02 were analyzed for VOCs, SVOCs, TPH (GRO/DRO/ORO), PCBs, and TAL metals. One VOC (naphthalene) was detected in the soil sample collected from SWMU08DP01-5; all other VOCs were not detected. The estimated concentration of naphthalene (2.7 micrograms per kilogram [µg/kg]) is well below the NMED soil screening level (SSL) (NMED, 2006) for naphthalene (79.5 milligrams per kilogram [mg/kg]). No other SVOCs, TPH (GRO/DRO/ORO) or PCBs were detected. Additionally all TAL metals detected in the subsurface soil samples were below their respective SSLs.

## 4.2 Groundwater Sampling Analytical Results

The four groundwater samples (including one duplicate) collected from monitoring wells DP01, DP02 and DP03 were analyzed for VOCs, SVOCs, TPH (DRO/ORO), PCBs, TAL metals and total dissolved solids (TDS). Low concentrations of four VOCs (bromodichloromethane, chloroform, dibromochloromethane and o-dichlorobenzene) were detected in the groundwater samples from the three monitoring wells installed at SWMU 8. No other VOCs were detected. All of the detected VOCs were below the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standards (New Mexico Administrative Code [NMAC] 20.6.2). No other SVOCs, TPH (GRO/DRO/ORO) or PCBs were detected. Additionally, all TAL metals detected in the groundwater samples were below their respective NMWQCC standards.

TDS concentrations ranged from 2,600 to 3,190 milligrams per liter (mg/L). It is hypothesized that these TDS concentrations are artificially low due to the dilution of natural groundwater from leaking water lines. Recent interviews with the Postal Service Center (Building 232) personnel indicated that two sink holes had developed along Connecticut Avenue (east side of B232) during the past 6-8 months due to large breaks in the domestic water line.

## 4.3 Site Hydrogeology

Water levels for the three monitoring wells were measured in July 2006. The northing and easting coordinates, top of casing (TOC), depth to water (DTW) and groundwater elevations are presented in Table 1. The depth to groundwater measurements at SWMU 8 ranged from 2.46 to 4.19 ft below TOC, and groundwater elevations ranged from 4072.483 (DP03) to 4071.852 ft above mean sea level (msl). A map of the potentiometric surface was prepared using the groundwater elevation data (Figure 2). The contour map indicates that groundwater flows to the west-southwest across the site at a gradient of approximately 0.013.

## 5.0 CONCLUSIONS

The requirements of NMED's NOD letter (HWB-HAFB-06-002) dated April 14, 2006 have been met. Holloman AFB has installed and sampled three groundwater monitoring wells for VOCs, SVOCs, TPH, PCBs, TAL metals and TDS at SWMU 8. One well (DP03) was installed within the boundary of the Phase II excavation and one well (DP02) was installed within the boundary of the proposed Phase III excavation. A third cross gradient well (DP01) was installed to determine the groundwater flow direction. Additionally subsurface soil samples were collected from soil borings DP01 and DP02 to characterize the extent of the remaining soil contamination at the site that is not underneath the adjacent structures (Buildings 231 and 232). The subsurface soil sample results indicate that the extent of minimal soil contamination has been defined.

## 6.0 REFERENCES


Bhate Environmental Associates, Inc. November 2003. *Final Base-wide Quality Assurance Project Plan.*

Bhate Environmental Associates, Inc. May 2006. *Memorandum Scope of Work for Soil and Groundwater Sampling and Analysis, Holloman Air Force Base, New Mexico.*

Ebasco Services, Inc. November 1995. *Remediation of POL Contaminated Sites and Oil/Water Separator Removals, Holloman Air Force Base, New Mexico.*

Foster Wheeler. December 1997. *Final Closure Report Addendum, Phase II Remediation of POL-Contaminated Sites and O/WS/WOT Removals Holloman Air Force Base, New Mexico.*

NMAC 20.6.2, New Mexico Water Quality Control Commission Regulations, September 15, 2002. (http://www.nmenv.state.nm.us/NMED_Regs/gwb/20_6_2_NMAC.pdf).

New Mexico Environment Department. June 2006. *NMED Technical Background Document for Development of Soil Screening Levels, Revision 4.0.*

# LIST OF ATTACHMENTS

## Figures

Figure 1. SWMU 8 Soil Boring and Monitoring Well Locations
Figure 2. SWMU 8 Potentiometric Surface Map

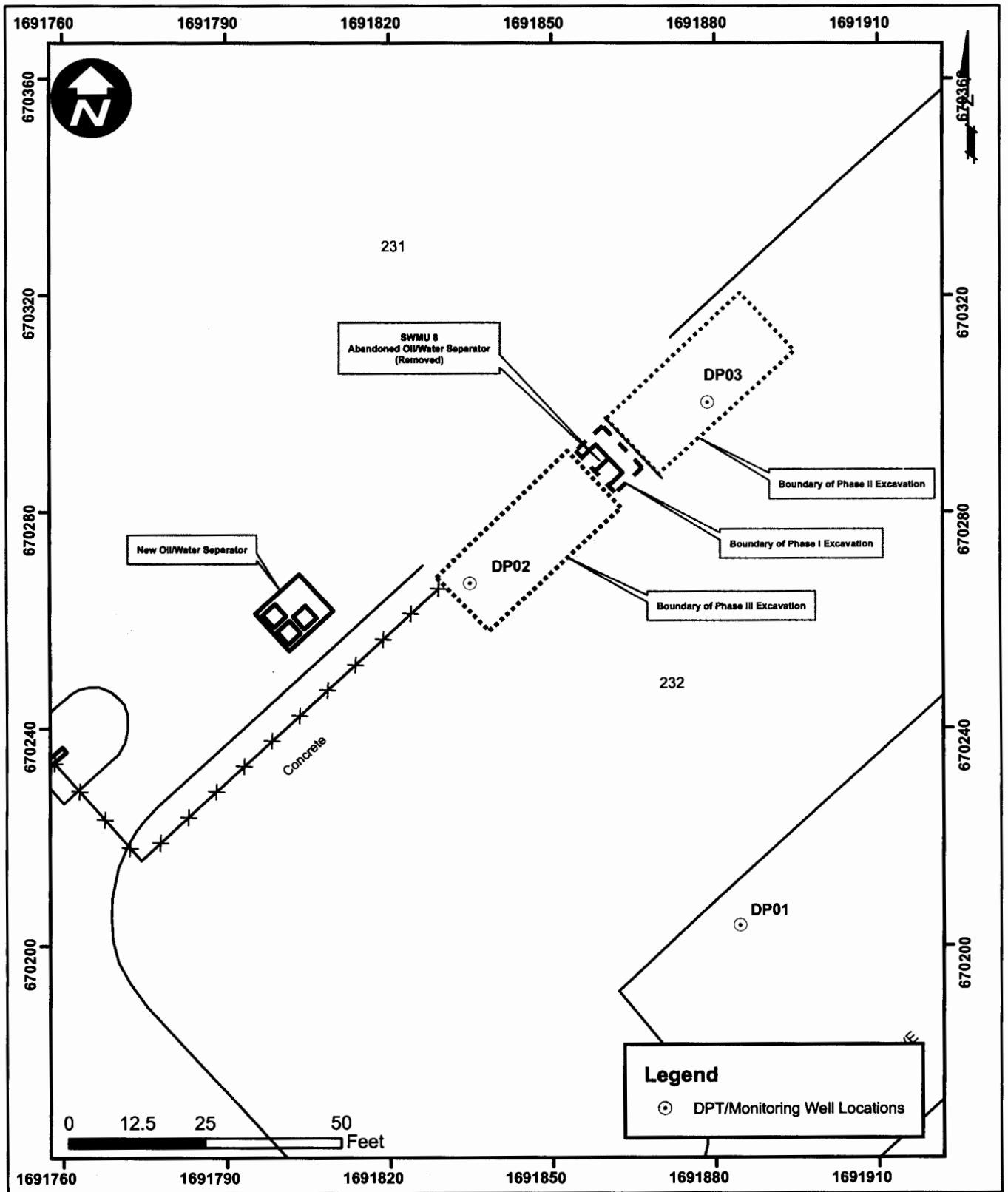
## Tables

Table 1. Groundwater Elevation Summary SWMU 8

## Appendix

A SWMU 8 Notice of Deficiency (HWB-HAFB-06-002)
B Drilling Logs
C Well Construction Diagrams
D Analytical Data Packages

# FIGURES



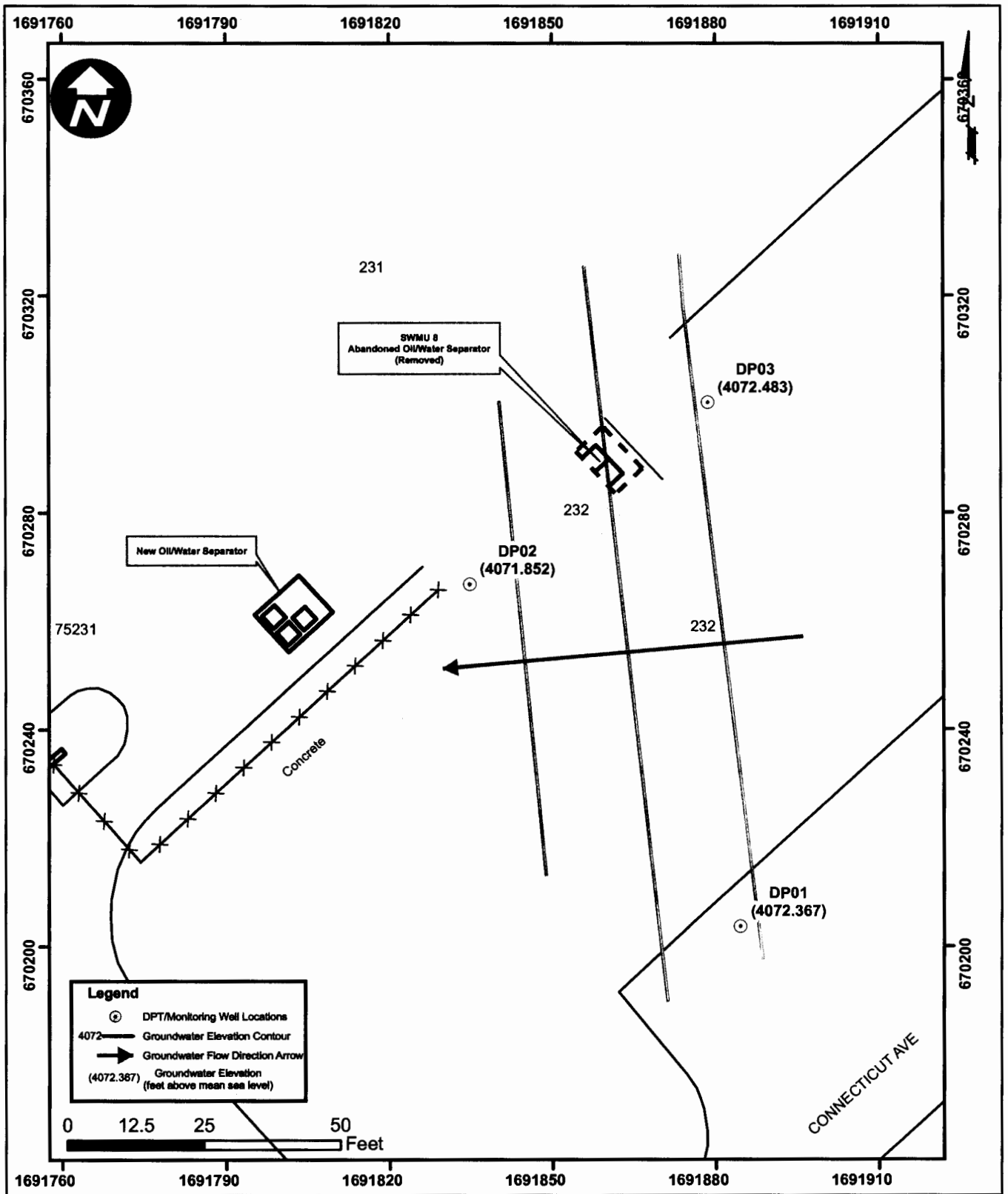

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**SWMU 8 Soil Boring and Monitoring Well Locations**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050291 | 1"=25' | 7/28/06 | DRAWING NO: fig1 |

Remedial Action
Holloman Air Force Base
New Mexico

Figure 1




bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**SWMU 8 Potentiometric Surface Map**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050291 | 1"=25' | 7/28/06 | DRAWING NO. fig2 |

Remedial Action
Holloman Air Force Base
New Mexico

Figure 2

# TABLES

**Table 1. Groundwater Elevation Summary**
**SWMU8**
**Holloman AFB, NM**
**Bhate Project No. 9050291.01.01**

| Well | Northing | Easting | Elevation TOC (ft above msl) | DTW from TOC (ft below TOC) | Groundwater Elevation July 2006 (ft above msl) |
|---|---|---|---|---|---|
| DP01 | 670203.701 | 1691884.472 | 4074.827 | 2.46 | 4072.367 |
| DP02 | 670266.812 | 1691834.779 | 4076.042 | 4.19 | 4071.852 |
| DP03 | 670300.290 | 1691878.600 | 4075.883 | 3.40 | 4072.483 |

NOTES: TOC = Top of Casing; DTW = Depth to Water; ft = feet; msl = mean seal level

# APPENDIX A

## SWMU 8 NOTICE OF DEFICIENCY (HWB-HAFB-06-002)

*State of New Mexico*
*ENVIRONMENT DEPARTMENT*
*Hazardous Waste Bureau*
*2905 Rodeo Park Drive East, Building 1*
*Santa Fe, New Mexico 87505-6303*
*Telephone (505) 428-2500*
*Fax (505) 428-2567*
*www.nmenv.state.nm.us*

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

April 14, 2006

Ms. Debbie Hartell
Chief
Environmental Flight
49 CES/CEV
550 Tabosa Ave.
Holloman AFB, NM 88330-8458

**SUBJECT: NOTICE OF DEFICIENCY: VOLUNTARY CORRECTIVE MEASURES WORK PLAN, SWMU 8 SOIL REMEDIATION, DECEMBER 2005 HOLLOMAN AIR FORCE BASE, EPA ID# NM6572124422 HWB-HAFB-06-002**

Dear Ms. Hartell:

The New Mexico Environment Department (NMED) has reviewed the Holloman Air Force Base (HAFB) document entitled "Voluntary Corrective Measures Work Plan, SWMU 8 Soil Remediation". The following are the deficiencies that HAFB (the Permittee) is required to address before the Work Plan can be approved.

**1. <u>General Comment</u>**

Based upon review of the subject Work Plan, which included review of applicable portions of the previous Phase I and Phase II remediation reports, the extent of soil and ground water contamination at this site has not been adequately characterized. Therefore, the Permittee is required to conduct additional site characterization activities prior to Phase III soil excavation, as follows:

a) Figure 5 of the Work Plan shows the proposed boundary of the Phase III excavation. However, there is no indication as to how the southwest limit of the excavation was determined, as no soil sampling was conducted in this area. Therefore, the Permittee is required to submit a soil sampling plan as part of the revised Work Plan that will be

required as a result of this Notice. This plan should include a sufficient number of samples to adequately characterize the remaining soil contamination at this site that is not underneath the adjacent structures. NMED understands that soil and ground water conditions under the adjacent structures will be evaluated under a separate Work Plan addendum after the Phase III excavation and sampling is conducted. Soils should be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), and target analyte list (TAL) metals (see Comment No. 6).

b) The Work Plan indicates that ground water at SWMU 8 is found at approximately 10 feet below ground surface. The Work Plan states that contaminated soils will be removed to approximately one (1) foot below the encountered ground water table. Contaminated soil is therefore in contact with ground water. The two previous remediation activities did not include ground water sampling and the proposed VCM does not include ground water sampling.

Therefore, the Permittee is required to submit a ground water sampling plan as part of the revised Work Plan that will be required as a result of this Notice. This shall be done prior to performing the Phase III excavation. The plan must include, at a minimum, the installation of two monitoring wells at the site, which can be temporary wells. One well should be installed within the boundary of the Phase II excavation and the other within the boundary of the proposed Phase III excavation. Ground water should be analyzed for VOCs, SVOCs, TPH, PCBs, TAL Metals and total dissolved solids (TDS).

2. **General Comment**

The Permittee is required to submit documentation regarding the Method Detection Limits of all soil and ground water analytes.

3. **Page 3-1, Section 3, Excavation Procedures, 1st Paragraph, 2nd Sentence**

This sentence states that soils contaminated by hydrocarbons at levels exceeding 880 mg/kg TPH will be removed. Based upon the description of the material released from the oil and water separator provided in Section 1.1.2, which included "oils, detergents and fuels" from an auto hobby shop, these materials are classified as "unknown oil". In accordance with the NMED TPH Screening Guidelines (November 2005), the residential TPH screening guideline for unknown oil is 800 mg/kg. Therefore, the Permittee is required to utilize the 800 mg/kg screening level. All sections of the Work Plan specifying TPH screening levels must be revised to reflect this change.

4. **Page 3-4, Section 3.3.3.1, Soil Screening, 1st Paragraph, 5th Sentence**

This sentence states that soils demonstrating a concentration below 880 (to be 800) mg/kg TPH will be stockpiled for backfill. This sentence must be revised to also state that soil used for backfill shall not have TPH hazardous constituent (e.g., VOCs, SVOCs) concentrations in excess of NMED residential soil screening levels.

5. **Page 3-5, Section 3.3.3.3, Confirmation Soil Sampling, Page 4-2, Section 4.2, Excavation Confirmation Sampling, and Table 3-1**

The Work Plan must be revised to show that, in addition to collecting confirmation samples at a frequency of one per 20 linear feet per sidewall and one per sidewall, a minimum of two soil samples shall be collected from any sidewall greater than 18 feet in length. Also, confirmatory sampling shall be biased to areas with the greatest potential for contamination.

6. **Page 4-1, Section 4.1.3, Laboratory Validation, 1st Sentence**

This sentence indicates that a minimum of one sample per site will be subject to laboratory validation. The Permittee shall be required to collect a minimum of two samples from suspect soil for laboratory validation. In addition, the November 2005 NMED TPH Screening Guidelines require that for sites with unknown oil sources, soil analysis must include VOCs, SVOCs, metals (TAL), and PCBs, as well as TPH. Therefore, the Permittee must revise the soil sampling plan to include laboratory analysis of soils for these parameters.

7. **Table 3-1, Sampling Plan and Related Sections**

Table 3-1 includes a column showing the "Frequency" of sample collection. NMED requires that the following changes be made regarding frequency to Table 3-1 and related sections:

a) During "Field Screening" of suspect soils for field confirmatory purposes, sample every 50 cubic yards (cy), not 100, and for laboratory validation purposes sample every 100 cy, not 300.

b) Sample the "Stock Pile" for backfill characterization every 200 cy, not 500.

8. **Figures 3, 4, and 5**

NMED requires that all site figures include a coordinate system (e.g., UTM, latitude/ longitude) and the boundaries of the site must be shown on the figures. Coordinates of

site boundaries must also be shown. High accuracy (+/-3 ft) GPS coordinates are acceptable. The Permittee is required to resubmit the subject figures satisfying these requirements.

Please respond to this Notice of Deficiency by June 15, 2006. If you have any questions regarding this letter, please contact David Strasser of my staff at (505) 222-9526.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:dcs

cc: J. Kieling, NMED HWB
W. Moats, NMED HWB
C. Amindyas, NMED HWB
D. Strasser, NMED HWB
D. Tellez, EPA, Region 6 (6PD-F)
D. Griffin, HAFB
File: Reading and HAFB 2006

# APPENDIX B

## DRILLING LOGS

# HTW DRILLING LOG

HOLE NO: SWMU08-DP01

| | |
|---|---|
| 1. COMPANY NAME: Bhate | 2. DRILLING CONTRACTOR: ESN Golden, Co |
| SHEET 1 OF 2 SHEETS | |
| 3. PROJECT: GW Profiler/DPT Pilot Test | 4. LOCATION: SWMU08 |
| 5. NAME OF DRILLER: Dusty McNeil | 6. MANUFACTURER'S DESIGNATION OF DRILL: AMS |
| 7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT: AMS Power Pro 9600E; 3/4 OD rod; 2" plastic sleeves (5') | 8. HOLE LOCATION: North East |
| | 9. SURFACE ELEVATION (ft. NGVD) |
| | 10. DATE STARTED: 5/22/06 — 11. DATE COMPLETED: 5/22/06 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~ 2.0' bgs |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED |
| 14. TOTAL DEPTH OF HOLE: 17.0' bgs | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NA | | | |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | TAL METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE REC % |
|---|---|---|---|---|---|---|
| 1 | X | X | DRO/DRO/GRO X X | SVOC X | PCBs X | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Temp. well | | X | | [signature] |

| ELEV a | DEPTH b | DESCRIPTION OF MATERIALS c | Field Screening Results d | Geotech Sample or Core Box No. e | Analytical Sample No f | Blow Counts g | REMARKS h |
|---|---|---|---|---|---|---|---|
| | 0 | (0-2.5) Sandy silt w/ minor clay (SM) fine gr. subrounded, loose dry - sl. moist 7.5YR 8/2 pinkish white | PID 20.6 FID 2.3 | | | | SWMU08-DP01-S (Sample collected @ 2 ft bgs) |
| | 1 | | | | | | |
| | 2 | | | | | | |
| | | 2.5-5.0 sand v. fine grained (SP) subrounded loose, saturated/wet 7.5YR 5/4 brown | PID 23.8 FID 2.1 | | | | |
| | 3 | | | | | | |
| | 4 | | | | | | |
| | 5 | | | | | | |

PROJECT: | HOLE NO: DP-01

# HTW DRILLING LOG

HOLE NO. SWMU08-DP01

PROJECT: GW Profiler/DPT Pilot Test

INSPECTOR: J Moore

SHEET OF 2 SHEETS

| ELEV a | DEPTH b | DESCRIPTION OF MATERIALS c | Field Screening Results d | Geotech Sample or Core Box No. e | Analytical Sample No. f | Blow Counts g | REMARKS h |
|---|---|---|---|---|---|---|---|
| | | (5-7.5) sand v. fine (SP) gr. subrounded well sorted, loose saturated 7.5YR 5/4 brown | PID 32.25 FID 2.90 | | | | |
| | 6 | | | | | | |
| | 7 | | | | | | |
| | | 7.5-10' silty sand v. fine grains (SM) loose moist w/ minor gypsum xtals 7.5YR 5/6 strong brown | PID 31.50 FID 3.10 | | | | |
| | 8 | | | | | | |
| | 9 | | | | | | |
| | 10 | | | | | | |
| | 11 | 11-12' sand v.f.gr (SP) well sorted, loose wet 7.5YR 5/6 strong brown | PID 35 FID 2.5 | | | | |
| | 12 | | | | | | |
| | 13 | 13-14' silty sand w/ minor clay/caliche (SM) w/ abundant | PID 35.5 FID 1.5 | | | | |
| | 14 | TD 14.0' | | | | | |

PROJECT

HOLE NO. DP-01

# HTW DRILLING LOG

HOLE NO: DP-02

| | |
|---|---|
| 1. COMPANY NAME: Bhate | 2. DRILLING CONTRACTOR: |
| SHEET 1 OF 2 ~~SHEETS~~ | |
| 3. PROJECT: | 4. LOCATION: Sw MU 08 |
| 5. NAME OF DRILLER: Dusty McNeil | 6. MANUFACTURER'S DESIGNATION OF DRILL: AMS |
| 7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT: AMS Power Prog 9600E; 3¼" OD Rod; 2" x 5' Plastic Sleeves | 8. HOLE LOCATION: North East |
| | 9. SURFACE ELEVATION (ft. NGVD): |
| | 10. DATE STARTED: 5/22/06 — 11. DATE COMPLETED: 5/22/06 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: 2-2.5 ft bgs |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: |
| 14. TOTAL DEPTH OF HOLE: 14.4' bgs | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NA | | | |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | TAL METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE REC % |
|---|---|---|---|---|---|---|
| 2 (1 Dup) | X | X | ORGANICS X X | SVOC X | PCBs X | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| temp well | | X | | A Moore |

| ELEV a | DEPTH b | DESCRIPTION OF MATERIALS c | Field Screening Results d | Geotech Sample or Core Box No. e | Analytical Sample No f | Blow Counts g | REMARKS h |
|---|---|---|---|---|---|---|---|
| | 0 | 0-2.5' bgs silty sand w/ minor clay (SM) subrounded loose sl. moist 7.5YR 7/4 pink | PID 32.8 FID 1.57 | | | | |
| | 1 | | | | | | |
| | 2 | | | | | | |
| | | 2.5-5.0' sand v.f.gr. (SP) subrounded loose saturated w/ H2O | PID 27.05 FID 1.10 | | | | |
| | 3 | | | | | | |
| | 4 | | | | | | |
| | 5 | | | | | | |

PROJECT: | HOLE NO: DP-02

# HTW DRILLING LOG

HOLE NO. DP02

PROJECT SWMU8

INSPECTOR J Moore

SHEET 1 OF 2 SHEETS

| ELEV a | DEPTH b | DESCRIPTION OF MATERIALS c | Field Screening Results d | Geotech Sample or Core Box No. e | Analytical Sample No. f | Blow Counts g | REMARKS h |
|---|---|---|---|---|---|---|---|
| | 5 | 5.0 - 7.5 ft bgs sand v.f.gr. (SP) saturated w/ $H_2O$ wellsorted, subrounded, 5YR 6/4 lt. reddish brown | PID 32.11 FID 1.82 | | | | |
| | 6 | | | | | | |
| | 7 | 7.5 - 10' bgs sand same as above not saturated but v. moist 5YR 6/6 reddish yellow | PID 27.60 FID 1.39 | | | | collected sample @ SWMU08-DP02-9 and dupe SWMU08-DP02-9-2 |
| | 8 | | | | | | |
| | 9 | | | | | | |
| | 10 | 10 - 12' bgs silty sand w/ clay (SM) moist v.f.gr. 5YR 5/6 yellowish red. | PID 31.6 FID 1.05 | | | | |
| | 11 | | | | | | |
| | 12 | 12 - 14 bgs silty sand (SM) w/ gypsum xtals/caliche mottled 7.5YR 6/6 reddish yellow. | PID 33.06 FID 1.07 | | | | |
| | 13 | | | | | | |
| | 14 | TD @ 14.4' bgs | | | | | |

PROJECT

HOLE NO. SWMU08 - DP02

# HTW DRILLING LOG

SWMU 08

HOLE NO. DP03

| | | | |
|---|---|---|---|
| 1. COMPANY NAME: Brate | | 2. DRILLING CONTRACTOR: ESN | SHEET 1 OF 1 SHEETS |
| 3. PROJECT | | 4. LOCATION: SWMU 08 | |
| 5. NAME OF DRILLER: Toby Gonzales | | 6. MANUFACTURER'S DESIGNATION OF DRILL: Geoprobe | |
| 7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT: Geoprobe 6610DT | | 8. HOLE LOCATION: North East | |
| | | 9. SURFACE ELEVATION (ft. NGVD) | |
| | | 10. DATE STARTED: 5/23/06 | 11. DATE COMPLETED: 5/23/06 |
| 12. OVERBURDEN THICKNESS: NA | | 15. DEPTH GROUNDWATER ENCOUNTERED | |
| 13. DEPTH DRILLED INTO ROCK: NA | | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED | |
| 14. TOTAL DEPTH OF HOLE: 11.0 ft bgs | | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| | | | |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE REC % |
|---|---|---|---|---|---|---|
| NONE | | | | | | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| MW | | | | J. Moore |

| ELEV a | DEPTH b | DESCRIPTION OF MATERIALS c | Field Screening Results d | Geotech Sample or Core Box No. e | Analytical Sample No f | Blow Counts g | REMARKS h |
|---|---|---|---|---|---|---|---|
| | 0 | No sampling as this area has been previously excavated and backfilled to ~ 7-8 ft bgs. | | | | | |
| | 1 | | | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |
| | 4 | | | | | | |
| | 5 | | | | | | |

PROJECT

HOLE NO. DP03

# APPENDIX C

## WELL CONSTRUCTION LOGS

**Bhate Environmental Associates** — **WELL CONSTRUCTION DIAGRAM (Flush Mount)**

| | | | |
|---|---|---|---|
| Project/Phase: | | Well/Boring No.: | DP01 |
| Location: | SWMU08 - DP01 | Drilling Method: | Direct Push Tech |
| Client: | USACE Omaha MW | Date(s): | 5/22/06 |
| Drilling Contractor: | ESN | Northing (NAD 83): | |
| Driller: | Dusty McNeil | Easting (NAD 83): | |
| Geologist: | Jim Moore | Bhate Project #: | |

NOT TO SCALE

Surface Elevation:

Top of Casing Elevation:

Borehole Diameter (in): 3 1/4"

Well Casing Diameter (in): 1.0"

**Depth to Water (ft)** ~ 2.0

During Drilling: ~ 2.0

Date

Pre Development:

Date

Post Development:

Date

Top of Bentonite Seal: 0.0

Top of Filter Pack: 2.0

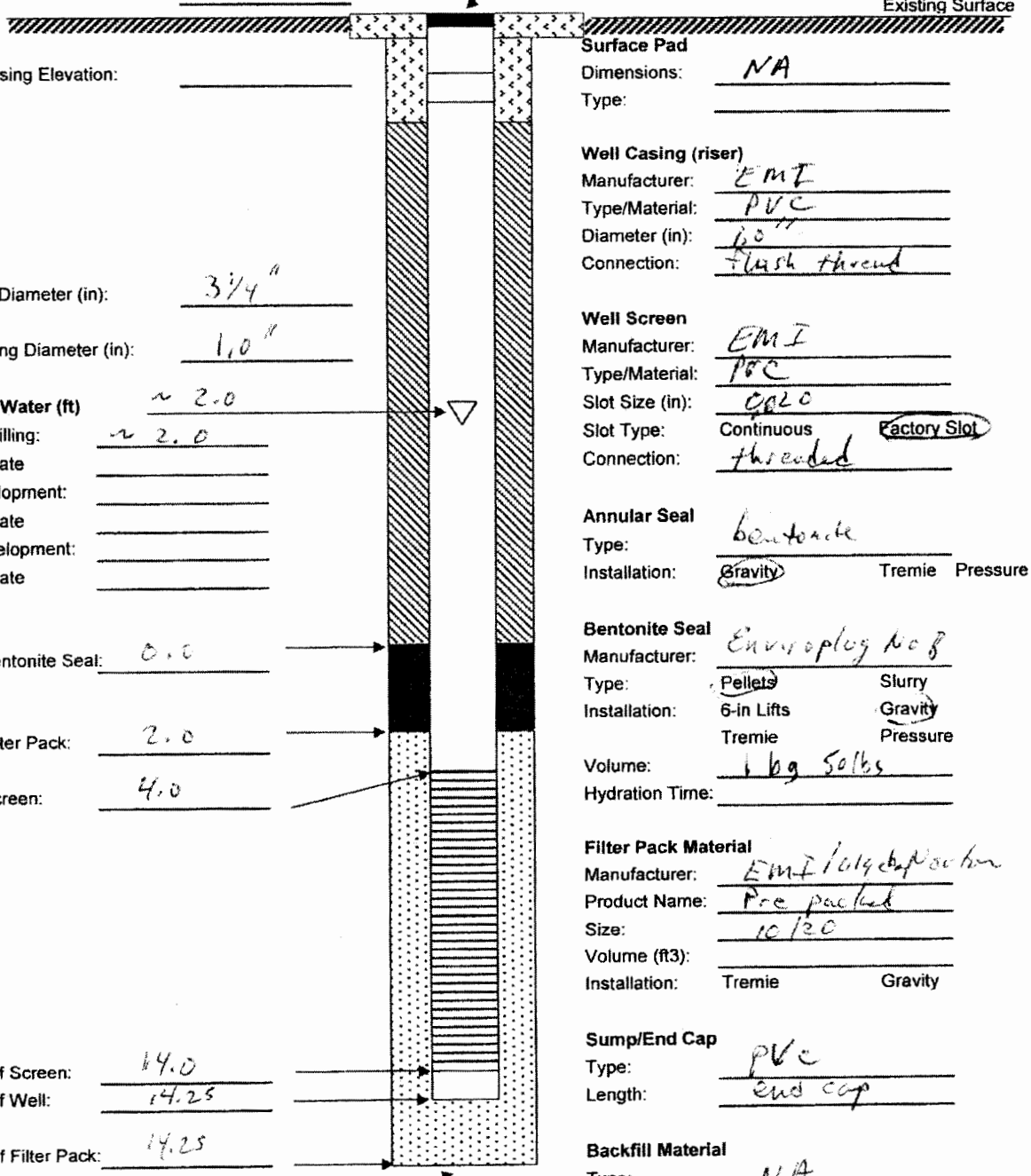
Top of Screen: 4.0

Bottom of Screen: 14.0

Bottom of Well: 14.25

Bottom of Filter Pack: 14.25

Borehole Depth: 14.25




**Protective Casing**
Type: manhole
Dimensions: 7 inch dia
Length: 6 inches

**Surface Pad**
Dimensions: NA
Type:

**Well Casing (riser)**
Manufacturer: EMI
Type/Material: PVC
Diameter (in): 1.0
Connection: flush thread

**Well Screen**
Manufacturer: EMI
Type/Material: PVC
Slot Size (in): 0.020
Slot Type: Continuous (Factory Slot)
Connection: threaded

**Annular Seal**
Type: bentonite
Installation: (Gravity) Tremie Pressure

**Bentonite Seal**
Manufacturer: Enviroplug No 8
Type: (Pellets) Slurry
Installation: 6-in Lifts (Gravity) Tremie Pressure
Volume: 1 bag 50lbs
Hydration Time:

**Filter Pack Material**
Manufacturer: EMI / Colorado Silica
Product Name: Pre packed
Size: 10/20
Volume (ft3):
Installation: Tremie Gravity

**Sump/End Cap**
Type: PVC
Length: end cap

**Backfill Material**
Type: NA
Volume:

**Comments:**

**Bhate Environmental Associates** — **WELL CONSTRUCTION DIAGRAM (Flush Mount)**

| | | | |
|---|---|---|---|
| Project/Phase: | | Well/Boring No.: | DP02 |
| Location: | SWMU 08 - DP02 | Drilling Method: | DPT |
| Client: | USACE Omaha | Date(s): | 5/22/06 |
| Drilling Contractor: | ESN | Northing (NAD 83): | |
| Driller: | Dusty McNeil | Easting (NAD 83): | |
| Geologist: | Jim Moore | Bhate Project #: | |

NOT TO SCALE

Surface Elevation:

Top of Casing Elevation:

Borehole Diameter (in): 3 1/4"

Well Casing Diameter (in): 1.0"

**Depth to Water (ft)** 2-2.5' bgs

During Drilling: 2-2.5'

Date

Pre Development:

Date

Post Development:

Date

Top of Bentonite Seal: 0.0

Top of Filter Pack: 2.0

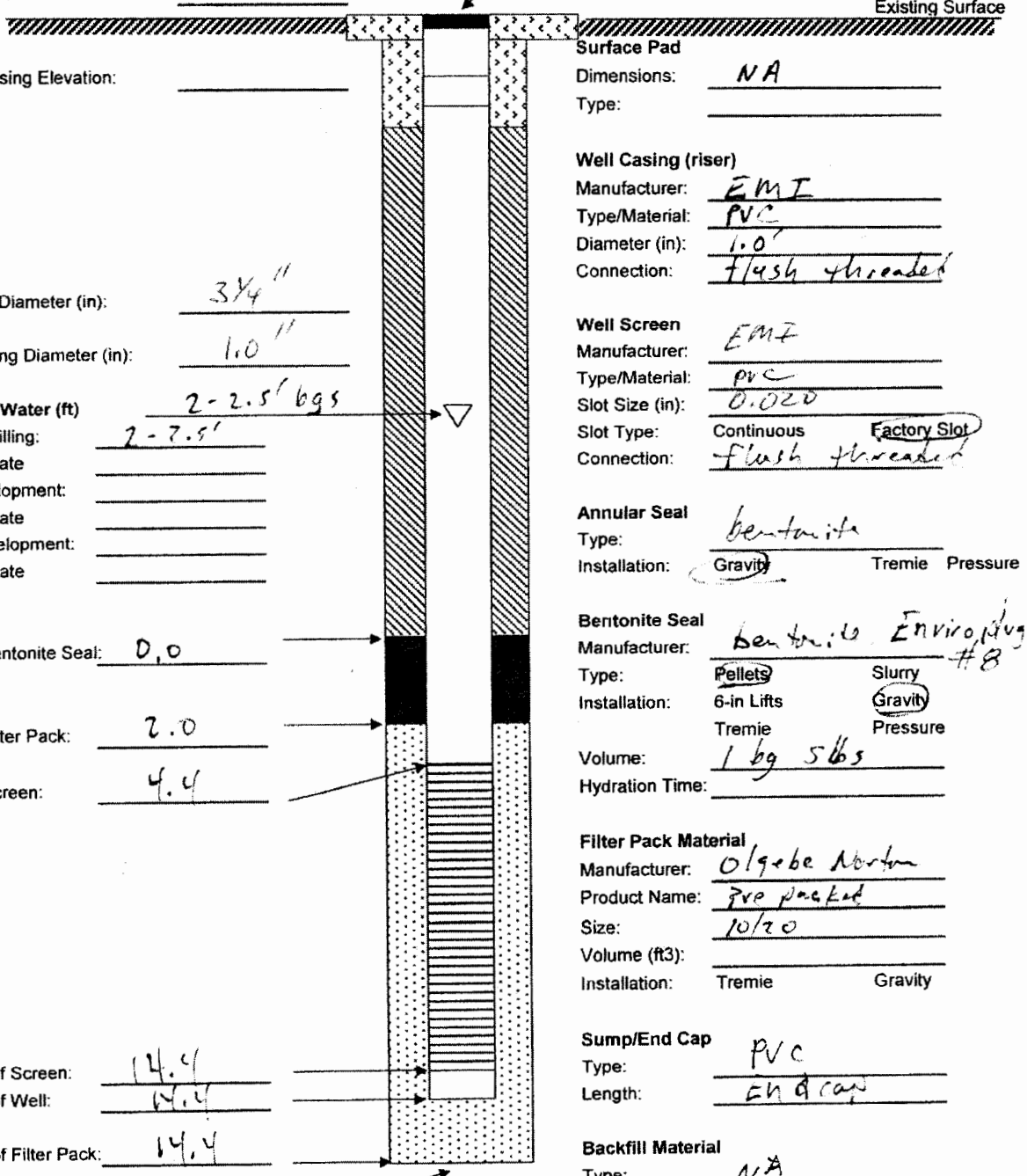
Top of Screen: 4.4

Bottom of Screen: 14.4

Bottom of Well: 14.4

Bottom of Filter Pack: 14.4

Borehole Depth:




**Protective Casing**
Type: manhole
Dimensions: 7-inch dia
Length: 6 inches

**Surface Pad**
Dimensions: NA
Type:

**Well Casing (riser)**
Manufacturer: EMI
Type/Material: PVC
Diameter (in): 1.0"
Connection: flush threaded

**Well Screen**
Manufacturer: EMI
Type/Material: PVC
Slot Size (in): 0.020
Slot Type: Continuous (Factory Slot)
Connection: flush threaded

**Annular Seal**
Type: bentonite
Installation: (Gravity) Tremie Pressure

**Bentonite Seal**
Manufacturer: Bentonite Enviro Mix #8
Type: (Pellets) Slurry
Installation: 6-in Lifts (Gravity) Tremie Pressure
Volume: 1 bag 50 lbs
Hydration Time:

**Filter Pack Material**
Manufacturer: Oglebe Norton
Product Name: pre packed
Size: 10/20
Volume (ft3):
Installation: Tremie Gravity

**Sump/End Cap**
Type: PVC
Length: End cap

**Backfill Material**
Type: NA
Volume:

**Comments:**

**Bhate Environmental Associates** — **WELL CONSTRUCTION DIAGRAM (Flush Mount)**

| | | | |
|---|---|---|---|
| Project/Phase: | | Well/Boring No.: | DP03 |
| Location: | SWMU08 - DP03 | Drilling Method: | DPT |
| Client: | USACE OMAHA | Date(s): | 5/23/06 |
| Drilling Contractor: | ESN | Northing (NAD 83): | |
| Driller: | Toby Gonzales | Easting (NAD 83): | |
| Geologist: | Jim Moore | Bhate Project #: | |

NOT TO SCALE

Surface Elevation:

Top of Casing Elevation:

Borehole Diameter (in): 3 1/4"

Well Casing Diameter (in): 1.0"

**Depth to Water (ft)** ~ 2.0'

During Drilling:

Date

Pre Development:

Date

Post Development:

Date

Top of Bentonite Seal: 0.0

Top of Filter Pack: 4.0

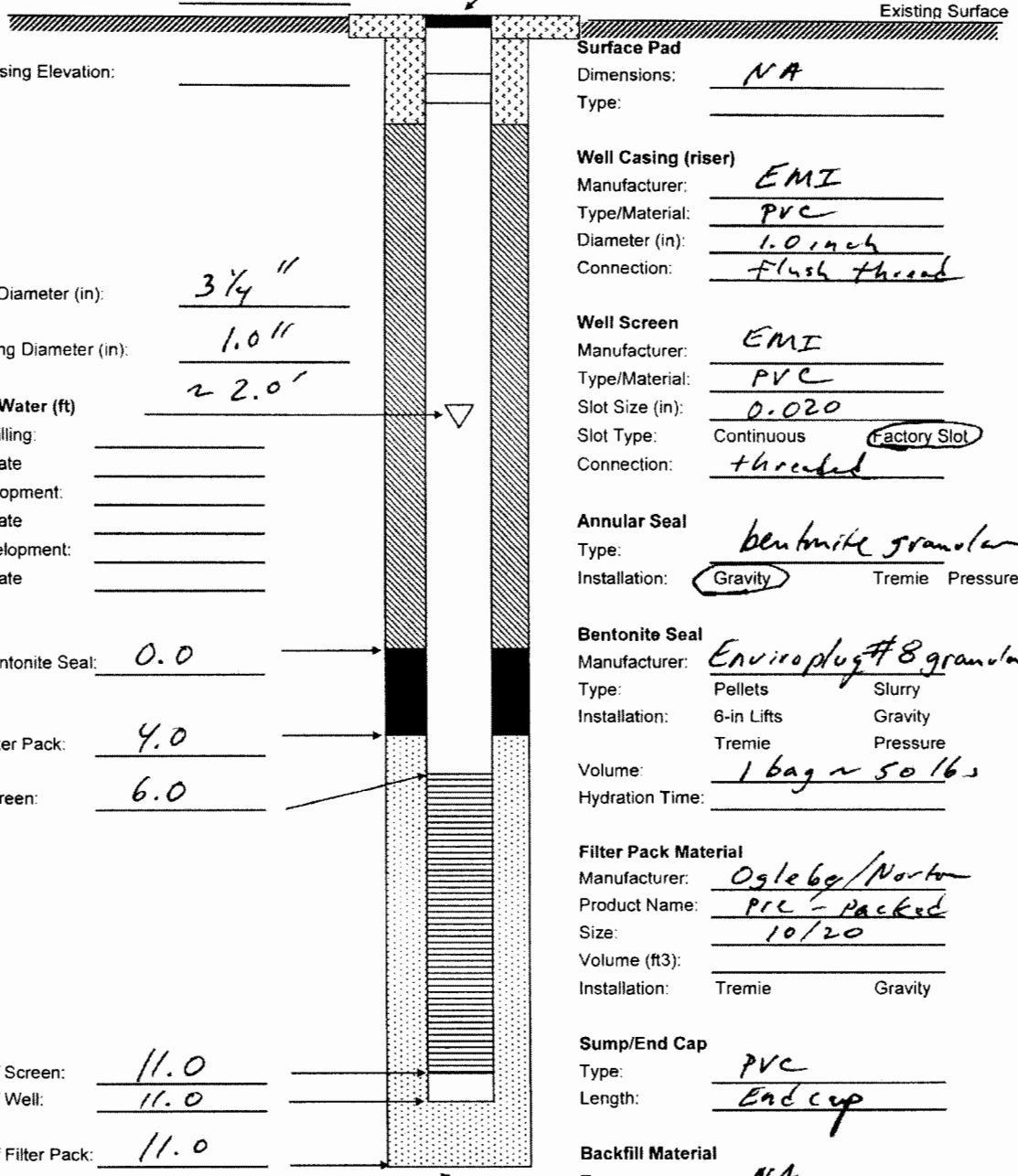
Top of Screen: 6.0

Bottom of Screen: 11.0

Bottom of Well: 11.0

Bottom of Filter Pack: 11.0

Borehole Depth: 11.0




**Protective Casing**
Type: manhole
Dimensions: 7 inch-dia
Length: 6 inch

**Surface Pad**
Dimensions: NA
Type:

**Well Casing (riser)**
Manufacturer: EMI
Type/Material: PVC
Diameter (in): 1.0 inch
Connection: flush thread

**Well Screen**
Manufacturer: EMI
Type/Material: PVC
Slot Size (in): 0.020
Slot Type: Continuous (Factory Slot)
Connection: threaded

**Annular Seal**
Type: bentonite granular
Installation: (Gravity) Tremie Pressure

**Bentonite Seal**
Manufacturer: Enviroplug #8 granular
Type: Pellets Slurry
Installation: 6-in Lifts Gravity Tremie Pressure
Volume: 1 bag ~ 50 lbs
Hydration Time:

**Filter Pack Material**
Manufacturer: Ogle bay/Norton
Product Name: PRC - Packed
Size: 10/20
Volume (ft3):
Installation: Tremie Gravity

**Sump/End Cap**
Type: PVC
Length: End cap

**Backfill Material**
Type: NA
Volume:

**Comments:**

# APPENDIX D

## ANALYTICAL DATA PACKAGES

| Sample Delivery Group (SDG) | Sample Identification |
|---|---|
| F40927 (Soil) | SWMU08DP02-9<br>SWMU08DP02-9A (Duplicate)<br>SWMU08DP01-05 |
| F41336 (Groundwater) | SWMU-08-DP01<br>SWMU-08-DP01FD (Duplicate) |
| F41371 (Groundwater) | SWMU-08-DP03 |
| F41372 (Groundwater) | SWMU-08-DP02 |

SDG F40927

*e-Hardcopy 2.0*
*Automated Report*

Southeast ACCUTEST

IT'S ALL IN THE CHEMISTRY

06/05/06

## Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # 9050291-01-01

Accutest Job Number: F40927

Sampling Date: 05/22/06

Report to:

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Total number of pages in report: 89

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ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E 10327), SC, AK

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## Sample Summary

Bhate Environmental Associates, Inc.

Job No: F40927

HOLMN
Project No: PROJECT # 9050291-01-01

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F40927-1 | 05/22/06 | 13:45 DH | 05/23/06 | SO | Soil | SWMU08DP02-9 |
| F40927-2 | 05/22/06 | 13:45 DH | 05/23/06 | SO | Soil | SWMU08DP02-9A |
| F40927-3 | 05/22/06 | 10:40 DH | 05/23/06 | SO | Soil | SWMU08DP01-5 |
| F40927-4 | 05/22/06 | 10:40 DH | 05/23/06 | SO | Trip Blank Soil | TRIP BLANK |

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F40927

**Site:** HOLMN **Report Date** 6/5/2006 8:58:36 AM

3 Samples, 1 Trip Blank were collected on 05/22/2006 and received at Accutest on 05/23/2006 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of F40927. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** SO **Batch ID:** VG1507

All samples were analyzed within the recommended method holding time.

Sample(s) F41061-2MS, F41061-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample(s) F40927-3 have compound(s) reported with a "D" qualifier, indicating analyte is found in the associated method blank.

Blank Spike Recovery(s) for 1,1-Dichloroethane, 1,2-Dichloroethane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene, Vinyl Acetate are outside control limits. Biased high, not detected in the samples. Data integrity not adversely affected.

Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 4-Methyl-2-pentanone, Bromobenzene, p-Chlorotoluene, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference. See above.

Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, Bromobenzene, trans-1,3-Dichloropropene, Trans-1,4-Dichloro-2-Butene are outside control limits. Probable cause due to matrix interference. See

Sample(s) F41061-2MS have surrogates outside control limits. Probable cause due to matrix interference.

F40927-1: Sample was received in a bulk container and preserved within 48 hours of sampling.

### Extractables by GCMS By Method SW846 8270C

**Matrix:** SO **Batch ID:** OP16720

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time

Sample(s) F40927-3MS, F40927-3MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recovery(s) for 4,6-Dinitro-o-cresol, N-Nitrosodiphenylamine are outside control limits. Biased high, not detected in the samples.

Matrix Spike Recovery(s) for N-Nitrosodiphenylamine are outside control limits. See Blank Spike.

### Volatiles by GC By Method SW846 8015

**Matrix:** SO **Batch ID:** GUV1296

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria

Sample(s) F40927-3MS, F40927-3MSD were used as the QC samples indicated

### Extractables by GC By Method SW846 8015 M

**Matrix:** SO **Batch ID:** OP16708

All samples were extracted within the recommended method holding time

All samples were analyzed within the recommended method holding time

All method blanks for this batch meet method specific criteria.

Sample(s) F40927-3MS, F40927-3MSD were used as the QC samples indicated

### Extractables by GC By Method SW846 8082

**Matrix:** SO **Batch ID:** OP16747

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F40927-3MS, F40927-3MSD were used as the QC samples indicated.

## Metals By Method SW846 6010B

**Matrix:** SO **Batch ID:** MP9683

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F40977-1DUP, F40977-1MS, F40977-1MSD, F40977-1SDL were used as the QC samples for metals.

RPD(s) for Duplicate for Zinc, Antimony, Chromium, Copper, Sodium are outside control limits for sample MP9683-D1. High RPD due to possible sample nonhomogeneity.

RPD(s) for Serial Dilution for Antimony, Chromium, Nickel, Potassium, Sodium, Copper are outside control limits for sample MP9683-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP9683-D1 for Antimony: RPD acceptable due to low duplicate and sample concentrations.

MP9683-D1 for Chromium: RPD acceptable due to low duplicate and sample concentrations.

MP9683-D1 for Copper: RPD acceptable due to low duplicate and sample concentrations.

MP9683-D1 for Sodium: RPD acceptable due to low duplicate and sample concentrations.

MP9683-SD1 for Copper: Serial dilution indicates possible matrix interference.

## Metals By Method SW846 7471A

**Matrix:** SO **Batch ID:** MP9668

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F40892-3MS, F40892-3MSD, F40892-3DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Mercury are outside control limits for sample MP9668-D1. RPD acceptable due to low duplicate and sample concentrations.

## Wet Chemistry By Method EPA 160.3 M

**Matrix:** SO **Batch ID:** GN20802

Sample(s) F40927-1DUP were used as the QC samples for Solids, Percent.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Date: June 05, 2006

Svetlana Izostinova, QAO (signature on file)





## Sample Results

## Report of Analysis

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B SW846 5035 | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 a | G0039224.D | 1 | 06/01/06 | SH | 05/23/06 14:04 | n/a | VG1507 |
| Run #2 | | | | | | | |

| | Initial Weight |
|---|---|
| Run #1 | 4.94 g |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 72 | 36 | ug/kg | |
| 75-05-8 | Acetonitrile | ND | 72 | 50 | ug/kg | |
| 107-02-8 | Acrolein | ND | 36 | 22 | ug/kg | |
| 107-13-1 | Acrylonitrile | ND | 36 | 18 | ug/kg | |
| 107-05-1 | Allyl chloride | ND | 36 | 7.2 | ug/kg | |
| 71-43-2 | Benzene | ND | 7.2 | 2.9 | ug/kg | |
| 100-44-7 | Benzyl Chloride | ND | 7.2 | 4.3 | ug/kg | |
| 108-86-1 | Bromobenzene | ND | 7.2 | 2.9 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 7.2 | 2.9 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 7.2 | 2.9 | ug/kg | |
| 75-25-2 | Bromoform | ND | 7.2 | 2.9 | ug/kg | |
| 104-51-8 | n-Butylbenzene | ND | 7.2 | 4.3 | ug/kg | |
| 135-98-8 | sec-Butylbenzene | ND | 7.2 | 2.9 | ug/kg | |
| 98-06-6 | tert-Butylbenzene | ND | 7.2 | 2.9 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 7.2 | 2.9 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 7.2 | 4.3 | ug/kg | |
| 67-66-3 | Chloroform | ND | 7.2 | 2.9 | ug/kg | |
| 544-10-5 | 1-Chlorohexane | ND | 7.2 | 2.9 | ug/kg | |
| 95-49-8 | o-Chlorotoluene | ND | 7.2 | 2.9 | ug/kg | |
| 106-43-4 | p-Chlorotoluene | ND | 7.2 | 2.9 | ug/kg | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 36 | 18 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 7.2 | 2.9 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 7.2 | 2.9 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 7.2 | 2.9 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 7.2 | 2.9 | ug/kg | |
| 563-58-6 | 1,1-Dichloropropene | ND | 7.2 | 2.9 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 7.2 | 4.3 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 7.2 | 2.9 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 7.2 | 2.9 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 7.2 | 2.9 | ug/kg | |
| 142-28-9 | 1,3-Dichloropropane | ND | 7.2 | 2.9 | ug/kg | |
| 594-20-7 | 2,2-Dichloropropane | ND | 7.2 | 2.9 | ug/kg | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B SW846 5035 | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 7.2 | 2.9 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 7.2 | 4.3 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 7.2 | 2.9 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 7.2 | 2.9 | ug/kg | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 36 | | ug/kg | |
| 541-73-1 | m-Dichlorobenzene | ND | 7.2 | 2.9 | ug/kg | |
| 95-50-1 | o-Dichlorobenzene | ND | 7.2 | 2.9 | ug/kg | |
| 106-46-7 | p-Dichlorobenzene | ND | 7.2 | 2.9 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 7.2 | 2.9 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 7.2 | 2.9 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 7.2 | 2.9 | ug/kg | |
| 97-63-2 | Ethyl methacrylate | ND | 36 | 7.2 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 7.2 | 2.9 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 36 | 14 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 7.2 | 2.9 | ug/kg | |
| 110-54-3 | Hexane | ND | 7.2 | 4.3 | ug/kg | |
| 98-82-8 | Isopropylbenzene | ND | 7.2 | 2.9 | ug/kg | |
| 99-87-6 | p-Isopropyltoluene | ND | 7.2 | 2.9 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 36 | 14 | ug/kg | |
| 126-98-7 | Methacrylonitrile | ND | 36 | 14 | ug/kg | |
| 74-83-9 | Methyl bromide | ND | 7.2 | 2.9 | ug/kg | |
| 74-87-3 | Methyl chloride | ND | 7.2 | 2.9 | ug/kg | |
| 74-88-4 | Methyl iodide | ND | 14 | 2.9 | ug/kg | |
| 80-62-6 | Methyl methacrylate | ND | 36 | 7.2 | ug/kg | |
| 74-95-3 | Methylene bromide | ND | 7.2 | 2.9 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 14 | 7.2 | ug/kg | |
| 78-93-3 | Methyl ethyl ketone | ND | 36 | 14 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 7.2 | 2.9 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 7.2 | 2.9 | ug/kg | |
| 76-01-7 | Pentachloroethane | ND | 36 | 7.2 | ug/kg | |
| 107-12-0 | Propionitrile | ND | 72 | 14 | ug/kg | |
| 103-65-1 | n-Propylbenzene | ND | 7.2 | 2.9 | ug/kg | |
| 100-42-5 | Styrene | ND | 7.2 | 2.9 | ug/kg | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 7.2 | 2.9 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 7.2 | 2.9 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 7.2 | 2.9 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 7.2 | 2.9 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 7.2 | 2.9 | ug/kg | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 7.2 | 3.6 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 7.2 | 2.9 | ug/kg | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B SW846 5035 | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 7.2 | 4.3 | ug/kg | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 7.2 | 2.9 | ug/kg | |
| 127-18-4 | Tetrachloroethylene | ND | 7.2 | 2.9 | ug/kg | |
| 108-88-3 | Toluene | ND | 7.2 | 2.9 | ug/kg | |
| 79-01-6 | Trichloroethylene | ND | 7.2 | 2.9 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 7.2 | 2.9 | ug/kg | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 36 | 14 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 7.2 | 2.9 | ug/kg | |
| 108-05-4 | Vinyl Acetate | ND | 36 | 14 | ug/kg | |
| | m,p-Xylene | ND | 14 | 4.3 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 7.2 | 2.9 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 78-123% |
| 2037-26-5 | Toluene-D8 | 90% | | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 102% | | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99% | | 74-125% |

(a) Sample was received in a bulk container and preserved within 48 hours of sampling.

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | W029530.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.1 g | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic acid | ND | 1200 | 470 | ug/kg | |
| 95-57-8 | 2-Chlorophenol | ND | 240 | 47 | ug/kg | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 240 | 47 | ug/kg | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 240 | 47 | ug/kg | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 240 | 47 | ug/kg | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 1200 | 470 | ug/kg | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 470 | 95 | ug/kg | |
| 95-48-7 | 2-Methylphenol | ND | 240 | 47 | ug/kg | |
| | 3&4-Methylphenol | ND | 240 | 47 | ug/kg | |
| 88-75-5 | 2-Nitrophenol | ND | 240 | 47 | ug/kg | |
| 100-02-7 | 4-Nitrophenol | ND | 1200 | 470 | ug/kg | |
| 87-86-5 | Pentachlorophenol | ND | 1200 | 470 | ug/kg | |
| 108-95-2 | Phenol | ND | 240 | 47 | ug/kg | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 240 | 47 | ug/kg | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 240 | 47 | ug/kg | |
| 83-32-9 | Acenaphthene | ND | 240 | 47 | ug/kg | |
| 208-96-8 | Acenaphthylene | ND | 240 | 47 | ug/kg | |
| 120-12-7 | Anthracene | ND | 240 | 47 | ug/kg | |
| 92-87-5 | Benzidine | ND | 2400 | 1200 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 240 | 47 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 240 | 47 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 240 | 47 | ug/kg | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 240 | 95 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 240 | 47 | ug/kg | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 240 | 47 | ug/kg | |
| 85-68-7 | Butyl benzyl phthalate | ND | 470 | 120 | ug/kg | |
| 100-51-6 | Benzyl Alcohol | ND | 240 | 47 | ug/kg | |
| 91-58-7 | 2-Chloronaphthalene | ND | 240 | 47 | ug/kg | |
| 106-47-8 | 4-Chloroaniline | ND | 470 | 190 | ug/kg | |
| 218-01-9 | Chrysene | ND | 240 | 47 | ug/kg | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 240 | 47 | ug/kg | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 240 | 95 | ug/kg | |

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 240 | 47 | ug/kg | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 240 | 47 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 240 | 47 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 240 | 47 | ug/kg | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 240 | 47 | ug/kg | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 240 | 95 | ug/kg | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 240 | 95 | ug/kg | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 470 | 240 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 240 | 95 | ug/kg | |
| 132-64-9 | Dibenzofuran | ND | 240 | 47 | ug/kg | |
| 84-74-2 | Di-n-butyl phthalate | ND | 470 | 120 | ug/kg | |
| 117-84-0 | Di-n-octyl phthalate | ND | 470 | 240 | ug/kg | |
| 84-66-2 | Diethyl phthalate | ND | 470 | 120 | ug/kg | |
| 131-11-3 | Dimethyl phthalate | ND | 470 | 120 | ug/kg | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 470 | 240 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 240 | 47 | ug/kg | |
| 86-73-7 | Fluorene | ND | 240 | 47 | ug/kg | |
| 118-74-1 | Hexachlorobenzene | ND | 240 | 47 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 240 | 95 | ug/kg | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 240 | 95 | ug/kg | |
| 67-72-1 | Hexachloroethane | ND | 240 | 95 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 240 | 95 | ug/kg | |
| 78-59-1 | Isophorone | ND | 240 | 47 | ug/kg | |
| 91-57-6 | 2-Methylnaphthalene | ND | 240 | 47 | ug/kg | |
| 88-74-4 | 2-Nitroaniline | ND | 470 | 120 | ug/kg | |
| 99-09-2 | 3-Nitroaniline | ND | 470 | 120 | ug/kg | |
| 100-01-6 | 4-Nitroaniline | ND | 470 | 170 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 240 | 47 | ug/kg | |
| 98-95-3 | Nitrobenzene | ND | 240 | 47 | ug/kg | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 240 | 95 | ug/kg | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 240 | 47 | ug/kg | |
| 85-01-8 | Phenanthrene | ND | 240 | 47 | ug/kg | |
| 129-00-0 | Pyrene | ND | 240 | 95 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 240 | 47 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 65% | | 45-114% |
| 4165-62-2 | Phenol-d5 | 64% | | 44-124% |
| 118-79-6 | 2,4,6-Tribromophenol | 71% | | 50-128% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 57% | | 41-123% |
| 321-60-8 | 2-Fluorobiphenyl | 61% | | 46-122% |
| 1718-51-0 | Terphenyl-d14 | 86% | | 45-135% |

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8015 SW846 5035 | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV022346.D | 1 | 05/25/06 | MM | 05/23/06 14:04 | n/a | GUV1296 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 1.83 g | 5.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 22 | 11 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 133% | | 62-135% |
| 98-08-8 | aaa-Trifluorotoluene | 102% | | 65-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8082 SW846 3550B | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | ST47824.D | 1 | 05/31/06 | KE | 05/30/06 | OP16747 | GST1400 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.4 g | 10.0 ml |
| Run #2 | | |

PCB List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 23 | 12 | ug/kg | |
| 11104-28-2 | Aroclor 1221 | ND | 23 | 19 | ug/kg | |
| 11141-16-5 | Aroclor 1232 | ND | 23 | 19 | ug/kg | |
| 53469-21-9 | Aroclor 1242 | ND | 23 | 12 | ug/kg | |
| 12672-29-6 | Aroclor 1248 | ND | 23 | 12 | ug/kg | |
| 11097-69-1 | Aroclor 1254 | ND | 23 | 12 | ug/kg | |
| 11096-82-5 | Aroclor 1260 | ND | 23 | 12 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 89% | | 52-136% |
| 2051-24-3 | Decachlorobiphenyl | 87% | | 49-148% |

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9 | | |
| Lab Sample ID: | F40927-1 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8015 M SW846 3550B | Percent Solids: | 70.3 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10554.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 12 | 7.1 | mg/kg | |
| | TPH (>C22-C36) | ND | 12 | 7.1 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 69% | | 57-115% |

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



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Report of Analysis

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Client Sample ID: SWMU08DP02-9
Lab Sample ID: F40927-1 Date Sampled: 05/22/06
Matrix: SO - Soil Date Received: 05/23/06
Method: SW846 8015 M SW846 3550B Percent Solids: 70.3
Project: HOLMN

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10554.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 12 | 7.1 | mg/kg | |
| | TPH (>C22-C36) | ND | 12 | 7.1 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 69% | | 57-115% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



Client Sample ID: SWMU08DP02-9
Lab Sample ID: F40927-1
Matrix: SO - Soil
Project: HOLMN

Date Sampled: 05/22/06
Date Received: 05/23/06
Percent Solids: 70.3

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 3590 | 28 | 3.1 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Antimony | 0.75 U | 8.5 | 0.75 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Arsenic | 0.95 J | 1.1 | 0.55 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Barium | 31.8 | 28 | 0.11 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Beryllium | 0.16 J | 0.71 | 0.057 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Cadmium | 0.028 U | 0.57 | 0.028 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Calcium | 171000 | 7100 | 81 | mg/kg | 10 | 05/26/06 | 05/31/06 | DM | SW846 6010B [3] | SW846 3050B [5] |
| Chromium | 3.4 | 1.4 | 0.13 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Cobalt | 0.90 J | 7.1 | 0.085 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Copper | 0.61 J | 7.2 | 0.26 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Iron | 3560 | 14 | 1.7 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Lead | 0.28 U | 14 | 0.28 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Magnesium | 1620 | 710 | 1.1 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Manganese | 33.9 | 2.1 | 0.085 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Mercury | 0.016 J | 0.12 | 0.0093 | mg/kg | 1 | 05/24/06 | 05/24/06 | MS | SW846 7471A [1] | SW846 7471A [4] |
| Nickel | 2.4 J | 5.7 | 0.14 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Potassium | 895 J | 1400 | 14 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Selenium | 0.28 U | 14 | 0.28 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Silver | 0.13 U | 1.4 | 0.13 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Sodium | 249 J | 1400 | 120 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Thallium | 0.33 U | 1.4 | 0.33 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Vanadium | 7.1 | 7.1 | 0.085 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Zinc | 7.7 | 5.6 | 0.36 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |

(1) Instrument QC Batch: MA4990
(2) Instrument QC Batch: MA5005
(3) Instrument QC Batch: MA5008
(4) Prep QC Batch: MP9668
(5) Prep QC Batch: MP9683

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL





# Report of Analysis



Client Sample ID: SWMU08DP02-9A
Lab Sample ID: F40927-2
Matrix: SO - Soil
Method: SW846 8260B SW846 5035
Project: HOLMN

Date Sampled: 05/22/06
Date Received: 05/23/06
Percent Solids: 70.8

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | G0039226.D | 1 | 06/01/06 | SH | 05/23/06 14:04 | n/a | VG1507 |
| Run #2 | | | | | | | |

| | Initial Weight |
|---|---|
| Run #1 | 5.20 g |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 68 | 34 | ug/kg | |
| 75-05-8 | Acetonitrile | ND | 68 | 48 | ug/kg | |
| 107-02-8 | Acrolein | ND | 34 | 20 | ug/kg | |
| 107-13-1 | Acrylonitrile | ND | 34 | 17 | ug/kg | |
| 107-05-1 | Allyl chloride | ND | 34 | 6.8 | ug/kg | |
| 71-43-2 | Benzene | ND | 6.8 | 2.7 | ug/kg | |
| 100-44-7 | Benzyl Chloride | ND | 6.8 | 4.1 | ug/kg | |
| 108-86-1 | Bromobenzene | ND | 6.8 | 2.7 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 6.8 | 2.7 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 6.8 | 2.7 | ug/kg | |
| 75-25-2 | Bromoform | ND | 6.8 | 2.7 | ug/kg | |
| 104-51-8 | n-Butylbenzene | ND | 6.8 | 4.1 | ug/kg | |
| 135-98-8 | sec-Butylbenzene | ND | 6.8 | 2.7 | ug/kg | |
| 98-06-6 | tert-Butylbenzene | ND | 6.8 | 2.7 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 6.8 | 2.7 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 6.8 | 4.1 | ug/kg | |
| 67-66-3 | Chloroform | ND | 6.8 | 2.7 | ug/kg | |
| 544-10-5 | 1-Chlorohexane | ND | 6.8 | 2.7 | ug/kg | |
| 95-49-8 | o-Chlorotoluene | ND | 6.8 | 2.7 | ug/kg | |
| 106-43-4 | p-Chlorotoluene | ND | 6.8 | 2.7 | ug/kg | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 34 | 17 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 6.8 | 2.7 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 6.8 | 2.7 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 6.8 | 2.7 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 6.8 | 2.7 | ug/kg | |
| 563-58-6 | 1,1-Dichloropropene | ND | 6.8 | 2.7 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 6.8 | 4.1 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 6.8 | 2.7 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 6.8 | 2.7 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 6.8 | 2.7 | ug/kg | |
| 142-28-9 | 1,3-Dichloropropane | ND | 6.8 | 2.7 | ug/kg | |
| 594-20-7 | 2,2-Dichloropropane | ND | 6.8 | 2.7 | ug/kg | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B SW846 5035 | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 6.8 | 2.7 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 6.8 | 4.1 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 6.8 | 2.7 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 6.8 | 2.7 | ug/kg | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 34 | | ug/kg | |
| 541-73-1 | m-Dichlorobenzene | ND | 6.8 | 2.7 | ug/kg | |
| 95-50-1 | o-Dichlorobenzene | ND | 6.8 | 2.7 | ug/kg | |
| 106-46-7 | p-Dichlorobenzene | ND | 6.8 | 2.7 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 6.8 | 2.7 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 6.8 | 2.7 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 6.8 | 2.7 | ug/kg | |
| 97-63-2 | Ethyl methacrylate | ND | 34 | 6.8 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 6.8 | 2.7 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 34 | 14 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 6.8 | 2.7 | ug/kg | |
| 110-54-3 | Hexane | ND | 6.8 | 4.1 | ug/kg | |
| 98-82-8 | Isopropylbenzene | ND | 6.8 | 2.7 | ug/kg | |
| 99-87-6 | p-Isopropyltoluene | ND | 6.8 | 2.7 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 34 | 14 | ug/kg | |
| 126-98-7 | Methacrylonitrile | ND | 34 | 14 | ug/kg | |
| 74-83-9 | Methyl bromide | ND | 6.8 | 2.7 | ug/kg | |
| 74-87-3 | Methyl chloride | ND | 6.8 | 2.7 | ug/kg | |
| 74-88-4 | Methyl iodide | ND | 14 | 2.7 | ug/kg | |
| 80-62-6 | Methyl methacrylate | ND | 34 | 6.8 | ug/kg | |
| 74-95-3 | Methylene bromide | ND | 6.8 | 2.7 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 14 | 6.8 | ug/kg | |
| 78-93-3 | Methyl ethyl ketone | ND | 34 | 14 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 6.8 | 2.7 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 6.8 | 2.7 | ug/kg | |
| 76-01-7 | Pentachloroethane | ND | 34 | 6.8 | ug/kg | |
| 107-12-0 | Propionitrile | ND | 68 | 14 | ug/kg | |
| 103-65-1 | n-Propylbenzene | ND | 6.8 | 2.7 | ug/kg | |
| 100-42-5 | Styrene | ND | 6.8 | 2.7 | ug/kg | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 6.8 | 2.7 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 6.8 | 2.7 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 6.8 | 2.7 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 6.8 | 2.7 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 6.8 | 2.7 | ug/kg | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 6.8 | 3.4 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 6.8 | 2.7 | ug/kg | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B SW846 5035 | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 6.8 | 4.1 | ug/kg | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 6.8 | 2.7 | ug/kg | |
| 127-18-4 | Tetrachloroethylene | ND | 6.8 | 2.7 | ug/kg | |
| 108-88-3 | Toluene | ND | 6.8 | 2.7 | ug/kg | |
| 79-01-6 | Trichloroethylene | ND | 6.8 | 2.7 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 6.8 | 2.7 | ug/kg | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 34 | 14 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 6.8 | 2.7 | ug/kg | |
| 108-05-4 | Vinyl Acetate | ND | 34 | 14 | ug/kg | |
| | m,p-Xylene | ND | 14 | 4.1 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 6.8 | 2.7 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 78-123% |
| 2037-26-5 | Toluene-D8 | 91% | | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 100% | | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | | 74-125% |

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | W029531.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.3 g | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic acid | ND | 1200 | 470 | ug/kg | |
| 95-57-8 | 2-Chloruphenol | ND | 230 | 47 | ug/kg | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 230 | 47 | ug/kg | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 230 | 47 | ug/kg | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 230 | 47 | ug/kg | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 1200 | 470 | ug/kg | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 470 | 93 | ug/kg | |
| 95-48-7 | 2-Methylphenol | ND | 230 | 47 | ug/kg | |
| | 3&4-Methylphenol | ND | 230 | 47 | ug/kg | |
| 88-75-5 | 2-Nitrophenol | ND | 230 | 47 | ug/kg | |
| 100-02-7 | 4-Nitrophenol | ND | 1200 | 470 | ug/kg | |
| 87-86-5 | Pentachlorophenol | ND | 1200 | 470 | ug/kg | |
| 108-95-2 | Phenol | ND | 230 | 47 | ug/kg | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 230 | 47 | ug/kg | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 230 | 47 | ug/kg | |
| 83-32-9 | Acenaphthene | ND | 230 | 47 | ug/kg | |
| 208-96-8 | Acenaphthylene | ND | 230 | 47 | ug/kg | |
| 120-12-7 | Anthracene | ND | 230 | 47 | ug/kg | |
| 92-87-5 | Benzidine | ND | 2300 | 1200 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 230 | 47 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 230 | 47 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 230 | 47 | ug/kg | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 230 | 93 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 230 | 47 | ug/kg | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 230 | 47 | ug/kg | |
| 85-68-7 | Butyl benzyl phthalate | ND | 470 | 120 | ug/kg | |
| 100-51-6 | Benzyl Alcohol | ND | 230 | 47 | ug/kg | |
| 91-58-7 | 2-Chloronaphthalene | ND | 230 | 47 | ug/kg | |
| 106-47-8 | 4-Chloroaniline | ND | 470 | 190 | ug/kg | |
| 218-01-9 | Chrysene | ND | 230 | 47 | ug/kg | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 230 | 47 | ug/kg | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 230 | 93 | ug/kg | |

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 230 | 47 | ug/kg | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 230 | 47 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 230 | 47 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 230 | 47 | ug/kg | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 230 | 47 | ug/kg | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 230 | 93 | ug/kg | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 230 | 93 | ug/kg | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 470 | 230 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 230 | 93 | ug/kg | |
| 132-64-9 | Dibenzofuran | ND | 230 | 47 | ug/kg | |
| 84-74-2 | Di-n-butyl phthalate | ND | 470 | 120 | ug/kg | |
| 117-84-0 | Di-n-octyl phthalate | ND | 470 | 230 | ug/kg | |
| 84-66-2 | Diethyl phthalate | ND | 470 | 120 | ug/kg | |
| 131-11-3 | Dimethyl phthalate | ND | 470 | 120 | ug/kg | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 470 | 230 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 230 | 47 | ug/kg | |
| 86-73-7 | Fluorene | ND | 230 | 47 | ug/kg | |
| 118-74-1 | Hexachlorobenzene | ND | 230 | 47 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 230 | 93 | ug/kg | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 230 | 93 | ug/kg | |
| 67-72-1 | Hexachloroethane | ND | 230 | 93 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 230 | 93 | ug/kg | |
| 78-59-1 | Isophorone | ND | 230 | 47 | ug/kg | |
| 91-57-6 | 2-Methylnaphthalene | ND | 230 | 47 | ug/kg | |
| 88-74-4 | 2-Nitroaniline | ND | 470 | 120 | ug/kg | |
| 99-09-2 | 3-Nitroaniline | ND | 470 | 120 | ug/kg | |
| 100-01-6 | 4-Nitroaniline | ND | 470 | 160 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 230 | 47 | ug/kg | |
| 98-95-3 | Nitrobenzene | ND | 230 | 47 | ug/kg | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 230 | 93 | ug/kg | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 230 | 47 | ug/kg | |
| 85-01-8 | Phenanthrene | ND | 230 | 47 | ug/kg | |
| 129-00-0 | Pyrene | ND | 230 | 93 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 230 | 47 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 75% | | 45-114% |
| 4165-62-2 | Phenol-d5 | 75% | | 44-124% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | | 50-128% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 41-123% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 46-122% |
| 1718-51-0 | Terphenyl-d14 | 92% | | 45-135% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8015 SW846 5035 | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV022347.D | 1 | 05/25/06 | MM | 05/23/06 14:04 | n/a | GUV1296 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 4.92 g | 5.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 9.2 | 4.6 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 129% | | 62-135% |
| 98-08-8 | aaa-Trifluorotoluene | 89% | | 65-118% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8082 SW846 3550B | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | ST47825.D | 1 | 06/01/06 | KE | 05/30/06 | OP16747 | GST1400 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.5 g | 10.0 ml |
| Run #2 | | |

PCB List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 23 | 12 | ug/kg | |
| 11104-28-2 | Aroclor 1221 | ND | 23 | 19 | ug/kg | |
| 11141-16-5 | Aroclor 1232 | ND | 23 | 19 | ug/kg | |
| 53469-21-9 | Aroclor 1242 | ND | 23 | 12 | ug/kg | |
| 12672-29-6 | Aroclor 1248 | ND | 23 | 12 | ug/kg | |
| 11097-69-1 | Aroclor 1254 | ND | 23 | 12 | ug/kg | |
| 11096-82-5 | Aroclor 1260 | ND | 23 | 12 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 89% | | 52-136% |
| 2051-24-3 | Decachlorobiphenyl | 104% | | 49-148% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP02-9A | | |
| Lab Sample ID: | F40927-2 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8015 M SW846 3550B | Percent Solids: | 70.8 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10555.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 12 | 7.1 | mg/kg | |
| | TPH (> C22-C36) | ND | 12 | 7.1 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 71% | | 57-115% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



Client Sample ID: SWMU08DP02-9A
Lab Sample ID: F40927-2
Matrix: SO - Soil
Project: HOLMN

Date Sampled: 05/22/06
Date Received: 05/23/06
Percent Solids: 70.8

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 3160 | 28 | 3.1 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Antimony | 0.75 U | 8.5 | 0.75 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Arsenic | 0.56 J | 1.1 | 0.55 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Barium | 26.8 J | 28 | 0.11 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Beryllium | 0.21 J | 0.71 | 0.056 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Cadmium | 0.028 U | 0.56 | 0.028 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Calcium | 192000 | 7100 | 81 | mg/kg | 10 | 05/26/06 | 05/31/06 | DM | SW846 6010B [3] | SW846 3050B [5] |
| Chromium | 3.3 | 1.4 | 0.13 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Cobalt | 0.94 J | 7.1 | 0.085 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Copper | 0.50 J | 7.0 | 0.26 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Iron | 3330 | 14 | 1.7 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Lead | 0.28 U | 14 | 0.28 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Magnesium | 1640 | 710 | 1.0 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Manganese | 30.4 | 2.1 | 0.085 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Mercury | 0.0084 U | 0.11 | 0.0084 | mg/kg | 1 | 05/24/06 | 05/24/06 | MS | SW846 7471A [1] | SW846 7471A [4] |
| Nickel | 2.2 J | 5.6 | 0.14 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Potassium | 847 J | 1400 | 14 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Selenium | 0.31 J | 14 | 0.28 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Silver | 0.13 U | 1.4 | 0.13 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Sodium | 167 J | 1400 | 120 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Thallium | 0.32 U | 1.4 | 0.32 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Vanadium | 7.1 | 7.1 | 0.085 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Zinc | 8.2 | 5.6 | 0.36 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |

(1) Instrument QC Batch: MA4990
(2) Instrument QC Batch: MA5005
(3) Instrument QC Batch: MA5008
(4) Prep QC Batch: MP9668
(5) Prep QC Batch: MP9683

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL





# Report of Analysis



Client Sample ID: SWMU08DP01-5
Lab Sample ID: F40927-3
Matrix: SO - Soil
Method: SW846 8260B SW846 5035
Project: HOLMN

Date Sampled: 05/22/06
Date Received: 05/23/06
Percent Solids: 75.0

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | G0039227.D | 1 | 06/01/06 | SH | 05/23/06 14:04 | n/a | VC1507 |
| Run #2 | | | | | | | |

| | Initial Weight |
|---|---|
| Run #1 | 5.05 g |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 66 | 33 | ug/kg | |
| 75-05-8 | Acetonitrile | ND | 66 | 46 | ug/kg | |
| 107-02-8 | Acrolein | ND | 33 | 20 | ug/kg | |
| 107-13-1 | Acrylonitrile | ND | 33 | 17 | ug/kg | |
| 107-05-1 | Allyl chloride | ND | 33 | 6.6 | ug/kg | |
| 71-43-2 | Benzene | ND | 6.6 | 2.6 | ug/kg | |
| 100-44-7 | Benzyl Chloride | ND | 6.6 | 4.0 | ug/kg | |
| 108-86-1 | Bromobenzene | ND | 6.6 | 2.6 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 6.6 | 2.6 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 6.6 | 2.6 | ug/kg | |
| 75-25-2 | Bromoform | ND | 6.6 | 2.6 | ug/kg | |
| 104-51-8 | n-Butylbenzene | ND | 6.6 | 4.0 | ug/kg | |
| 135-98-8 | sec-Butylbenzene | ND | 6.6 | 2.6 | ug/kg | |
| 98-06-6 | tert-Butylbenzene | ND | 6.6 | 2.6 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 6.6 | 2.6 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 6.6 | 4.0 | ug/kg | |
| 67-66-3 | Chloroform | ND | 6.6 | 2.6 | ug/kg | |
| 544-10-5 | 1-Chlorohexane | ND | 6.6 | 2.6 | ug/kg | |
| 95-49-8 | o-Chlorotoluene | ND | 6.6 | 2.6 | ug/kg | |
| 106-43-4 | p-Chlorotoluene | ND | 6.6 | 2.6 | ug/kg | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 33 | 17 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 6.6 | 2.6 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 6.6 | 2.6 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 6.6 | 2.6 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 6.6 | 2.6 | ug/kg | |
| 563-58-6 | 1,1-Dichloropropene | ND | 6.6 | 2.6 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 6.6 | 4.0 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 6.6 | 2.6 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 6.6 | 2.6 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 6.6 | 2.6 | ug/kg | |
| 142-28-9 | 1,3-Dichloropropane | ND | 6.6 | 2.6 | ug/kg | |
| 594-20-7 | 2,2-Dichloropropane | ND | 6.6 | 2.6 | ug/kg | |

ND = Not detected
MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B SW846 5035 | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 6.6 | 2.6 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 6.6 | 4.0 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 6.6 | 2.6 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 6.6 | 2.6 | ug/kg | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 33 | | ug/kg | |
| 541-73-1 | m-Dichlorobenzene | ND | 6.6 | 2.6 | ug/kg | |
| 95-50-1 | o-Dichlorobenzene | ND | 6.6 | 2.6 | ug/kg | |
| 106-46-7 | p-Dichlorobenzene | ND | 6.6 | 2.6 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 6.6 | 2.6 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 6.6 | 2.6 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 6.6 | 2.6 | og/kg | |
| 97-63-2 | Ethyl methacrylate | ND | 33 | 6.6 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 6.6 | 2.6 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 33 | 13 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 6.6 | 2.6 | ug/kg | |
| 110-54-3 | Hexane | ND | 6.6 | 4.0 | ug/kg | |
| 98-82-8 | Isopropylbenzene | ND | 6.6 | 2.6 | ug/kg | |
| 99-87-6 | p-Isopropyltoluene | ND | 6.6 | 2.6 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 33 | 13 | ug/kg | |
| 126-98-7 | Methacrylonitrile | ND | 33 | 13 | ug/kg | |
| 74-83-9 | Methyl bromide | ND | 6.6 | 2.6 | ug/kg | |
| 74-87-3 | Methyl chloride | ND | 6.6 | 2.6 | ug/kg | |
| 74-88-4 | Methyl iodide | ND | 13 | 2.6 | ug/kg | |
| 80-62-6 | Methyl methacrylate | ND | 33 | 6.6 | ug/kg | |
| 74-95-3 | Methylene bromide | ND | 6.6 | 2.6 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 13 | 6.6 | ug/kg | |
| 78-93-3 | Methyl ethyl ketone | ND | 33 | 13 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 6.6 | 2.6 | ug/kg | |
| 91-20-3 | Naphthalene | 2.7 | 6.6 | 2.6 | ug/kg | JB |
| 76-01-7 | Pentachloroethane | ND | 33 | 6.6 | ug/kg | |
| 107-12-0 | Propionitrile | ND | 66 | 13 | ug/kg | |
| 103-65-1 | n-Propylbenzene | ND | 6.6 | 2.6 | ug/kg | |
| 100-42-5 | Styrene | ND | 6.6 | 2.6 | ug/kg | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 6.6 | 2.6 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 6.6 | 2.6 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 6.6 | 2.6 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 6.6 | 2.6 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 6.6 | 2.6 | ug/kg | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 6.6 | 3.3 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 6.6 | 2.6 | ug/kg | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B SW846 5035 | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 6.6 | 4.0 | ug/kg | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 6.6 | 2.6 | ug/kg | |
| 127-18-4 | Tetrachloroethylene | ND | 6.6 | 2.6 | ug/kg | |
| 108-88-3 | Toluene | ND | 6.6 | 2.6 | ug/kg | |
| 79-01-6 | Trichloroethylene | ND | 6.6 | 2.6 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 6.6 | 2.6 | ug/kg | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 33 | 13 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 6.6 | 2.6 | ug/kg | |
| 108-05-4 | Vinyl Acetate | ND | 33 | 13 | ug/kg | |
| | m,p-Xylene | ND | 13 | 4.0 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 6.6 | 2.6 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 98% | | 78-123% |
| 2037-26-5 | Toluene-D8 | 92% | | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 119% | | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97% | | 74-125% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | W029532.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.6 g | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic acid | ND | 1100 | 440 | ug/kg | |
| 95-57-8 | 2-Chlorophenol | ND | 220 | 44 | ug/kg | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 220 | 44 | ug/kg | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 220 | 44 | ug/kg | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 220 | 44 | ug/kg | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 1100 | 440 | ug/kg | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 440 | 87 | ug/kg | |
| 95-48-7 | 2-Methylphenol | ND | 220 | 44 | ug/kg | |
| | 3&4-Methylphenol | ND | 220 | 44 | ug/kg | |
| 88-75-5 | 2-Nitrophenol | ND | 220 | 44 | ug/kg | |
| 100-02-7 | 4-Nitrophenol | ND | 1100 | 440 | ug/kg | |
| 87-86-5 | Pentachlorophenol | ND | 1100 | 440 | ug/kg | |
| 108-95-2 | Phenol | ND | 220 | 44 | ug/kg | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 220 | 44 | ug/kg | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 220 | 44 | ug/kg | |
| 83-32-9 | Acenaphthene | ND | 220 | 44 | ug/kg | |
| 208-96-8 | Acenaphthylene | ND | 220 | 44 | ug/kg | |
| 120-12-7 | Anthracene | ND | 220 | 44 | ug/kg | |
| 92-87-5 | Benzidine | ND | 2200 | 1100 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 220 | 44 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 220 | 44 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 220 | 44 | ug/kg | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 220 | 87 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 220 | 44 | ug/kg | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 220 | 44 | ug/kg | |
| 85-68-7 | Butyl benzyl phthalate | ND | 440 | 110 | ug/kg | |
| 100-51-6 | Benzyl Alcohol | ND | 220 | 44 | ug/kg | |
| 91-58-7 | 2-Chloronaphthalene | ND | 220 | 44 | ug/kg | |
| 106-47-8 | 4-Chloroaniline | ND | 440 | 170 | ug/kg | |
| 218-01-9 | Chrysene | ND | 220 | 44 | ug/kg | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 220 | 44 | ug/kg | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 220 | 87 | ug/kg | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 220 | 44 | ug/kg | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 220 | 44 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 220 | 44 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 220 | 44 | ug/kg | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 220 | 44 | ug/kg | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 220 | 87 | ug/kg | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 220 | 87 | ug/kg | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 440 | 220 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 220 | 87 | ug/kg | |
| 132-64-9 | Dibenzofuran | ND | 220 | 44 | ug/kg | |
| 84-74-2 | Di-n-butyl phthalate | ND | 440 | 110 | ug/kg | |
| 117-84-0 | Di-n-octyl phthalate | ND | 440 | 220 | ug/kg | |
| 84-66-2 | Diethyl phthalate | ND | 440 | 110 | ug/kg | |
| 131-11-3 | Dimethyl phthalate | ND | 440 | 110 | ug/kg | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 440 | 220 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 220 | 44 | ug/kg | |
| 86-73-7 | Fluorene | ND | 220 | 44 | ug/kg | |
| 118-74-1 | Hexachlorobenzene | ND | 220 | 44 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 220 | 87 | ug/kg | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 220 | 87 | ug/kg | |
| 67-72-1 | Hexachloroethane | ND | 220 | 87 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 220 | 87 | ug/kg | |
| 78-59-1 | Isophorone | ND | 220 | 44 | ug/kg | |
| 91-57-6 | 2-Methylnaphthalene | ND | 220 | 44 | ug/kg | |
| 88-74-4 | 2-Nitroaniline | ND | 440 | 110 | ug/kg | |
| 99-09-2 | 3-Nitroaniline | ND | 440 | 110 | ug/kg | |
| 100-01-6 | 4-Nitroaniline | ND | 440 | 150 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 220 | 44 | ug/kg | |
| 98-95-3 | Nitrobenzene | ND | 220 | 44 | ug/kg | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 220 | 87 | ug/kg | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 220 | 44 | ug/kg | |
| 85-01-8 | Phenanthrene | ND | 220 | 44 | ug/kg | |
| 129-00-0 | Pyrene | ND | 220 | 87 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 220 | 44 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 85% | | 45-114% |
| 4165-62-2 | Phenol-d5 | 82% | | 44-124% |
| 118-79-6 | 2,4,6-Tribromophenol | 76% | | 50-128% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8270C SW846 3550B | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 75% | | 41-123% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 46-122% |
| 1718-51-0 | Terphenyl-d14 | 90% | | 45-135% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8015 SW846 5035 | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV022348.D | 1 | 05/25/06 | MM | 05/23/06 14:04 | n/a | GUV1296 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume | Methanol Aliquot |
|---|---|---|---|
| Run #1 | 3.85 g | 5.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 10 | 5.2 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 126% | | 62-135% |
| 98-08-8 | aaa-Trifluorotoluene | 90% | | 65-118% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8082 SW846 3550B | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | ST47826.D | 1 | 06/01/06 | KE | 05/30/06 | OP16747 | GST1400 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.0 g | 10.0 ml |
| Run #2 | | |

PCB List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 22 | 11 | ug/kg | |
| 11104-28-2 | Aroclor 1221 | ND | 22 | 18 | ug/kg | |
| 11141-16-5 | Aroclor 1232 | ND | 22 | 18 | ug/kg | |
| 53469-21-9 | Aroclor 1242 | ND | 22 | 11 | ug/kg | |
| 12672-29-6 | Aroclor 1248 | ND | 22 | 11 | ug/kg | |
| 11097-69-1 | Aroclor 1254 | ND | 22 | 11 | ug/kg | |
| 11096-82-5 | Aroclor 1260 | ND | 22 | 11 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 84% | | 52-136% |
| 2051-24-3 | Decachlorobiphenyl | 96% | | 49-148% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| Method: | SW846 8015 M SW846 3550B | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10556.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |
| Run #2 | | | | | | | |

| | Initial Weight | Final Volume |
|---|---|---|
| Run #1 | 30.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 11 | 6.7 | mg/kg | |
| | TPH (>C22-C36) | ND | 11 | 6.7 | mg/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 71% | | 57-115% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU08DP01-5 | | |
| Lab Sample ID: | F40927-3 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Soil | Date Received: | 05/23/06 |
| | | Percent Solids: | 75.0 |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 482 | 25 | 2.8 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Antimony | 1.2 J | 7.5 | 0.67 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Arsenic | 0.82 J | 1.0 | 0.49 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Barium | 13.2 J | 25 | 0.10 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Beryllium | 0.058 J | 0.63 | 0.050 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Cadmium | 0.025 U | 0.50 | 0.025 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Calcium | 257000 | 6300 | 72 | mg/kg | 10 | 05/26/06 | 05/31/06 | DM | SW846 6010B [3] | SW846 3050B [5] |
| Chromium | 0.45 J | 1.3 | 0.11 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Cobalt | 0.42 J | 6.3 | 0.075 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Copper | 0.72 J | 6.2 | 0.22 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Iron | 349 | 13 | 1.5 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Lead | 0.25 U | 13 | 0.25 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Magnesium | 2090 | 630 | 0.93 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Manganese | 5.7 | 1.9 | 0.075 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Mercury | 0.0078 U | 0.098 | 0.0078 | mg/kg | 1 | 05/24/06 | 05/24/06 | MS | SW846 7471A [1] | SW846 7471A [4] |
| Nickel | 0.69 J | 5.0 | 0.13 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Potassium | 145 J | 1300 | 13 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Selenium | 0.61 J | 13 | 0.25 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Silver | 0.11 U | 1.3 | 0.11 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Sodium | 175 J | 1300 | 100 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Thallium | 0.29 U | 1.3 | 0.29 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Vanadium | 2.4 J | 6.3 | 0.075 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |
| Zinc | 3.7 J | 5.0 | 0.32 | mg/kg | 1 | 05/26/06 | 05/30/06 | DM | SW846 6010B [2] | SW846 3050B [5] |

(1) Instrument QC Batch: MA4990
(2) Instrument QC Batch: MA5005
(3) Instrument QC Batch: MA5008
(4) Prep QC Batch: MP9668
(5) Prep QC Batch: MP9683

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F40927-4 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Trip Blank Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | G0039228.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |
| Run #2 | | | | | | | |

| | Initial Weight |
|---|---|
| Run #1 | 5.00 g |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 50 | 25 | ug/kg | |
| 75-05-8 | Acetonitrile | ND | 50 | 35 | ug/kg | |
| 107-02-8 | Acrolein | ND | 25 | 15 | ug/kg | |
| 107-13-1 | Acrylonitrile | ND | 25 | 13 | ug/kg | |
| 107-05-1 | Allyl chloride | ND | 25 | 5.0 | ug/kg | |
| 71-43-2 | Benzene | ND | 5.0 | 2.0 | ug/kg | |
| 100-44-7 | Benzyl Chloride | ND | 5.0 | 3.0 | ug/kg | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-25-2 | Bromoform | ND | 5.0 | 2.0 | ug/kg | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 3.0 | ug/kg | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 5.0 | 3.0 | ug/kg | |
| 67-66-3 | Chloroform | ND | 5.0 | 2.0 | ug/kg | |
| 544-10-5 | 1-Chlorohexane | ND | 5.0 | 2.0 | ug/kg | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 2.0 | ug/kg | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 2.0 | ug/kg | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 25 | 13 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 2.0 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 5.0 | 2.0 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 5.0 | 3.0 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 5.0 | 2.0 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

MDL = Method Detection Limit

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F40927-4 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Trip Blank Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.0 | 3.0 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 25 | | ug/kg | |
| 541-73-1 | m-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 95-50-1 | o-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 106-46-7 | p-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 97-63-2 | Ethyl methacrylate | ND | 25 | 5.0 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 5.0 | 2.0 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 25 | 10 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/kg | |
| 110-54-3 | Hexane | ND | 5.0 | 3.0 | ug/kg | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 2.0 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 25 | 10 | ug/kg | |
| 126-98-7 | Methacrylonitrile | ND | 25 | 10 | ug/kg | |
| 74-83-9 | Methyl bromide | ND | 5.0 | 2.0 | ug/kg | |
| 74-87-3 | Methyl chloride | ND | 5.0 | 2.0 | ug/kg | |
| 74-88-4 | Methyl iodide | ND | 10 | 2.0 | ug/kg | |
| 80-62-6 | Methyl methacrylate | ND | 25 | 5.0 | ug/kg | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 2.0 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 10 | 5.0 | ug/kg | |
| 78-93-3 | Methyl ethyl ketone | ND | 25 | 10 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 5.0 | 2.0 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 5.0 | 2.0 | ug/kg | |
| 76-01-7 | Pentachloroethane | ND | 25 | 5.0 | ug/kg | |
| 107-12-0 | Propionitrile | ND | 50 | 10 | ug/kg | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 100-42-5 | Styrene | ND | 5.0 | 2.0 | ug/kg | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 2.5 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID | F40927-4 | Date Sampled: | 05/22/06 |
| Matrix: | SO - Trip Blank Soil | Date Received: | 05/23/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 3.0 | ug/kg | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 127-18-4 | Tetrachloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 108-88-3 | Toluene | ND | 5.0 | 2.0 | ug/kg | |
| 79-01-6 | Trichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 5.0 | 2.0 | ug/kg | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 25 | 10 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 5.0 | 2.0 | ug/kg | |
| 108-05-4 | Vinyl Acetate | ND | 25 | 10 | ug/kg | |
| | m,p-Xylene | ND | 10 | 3.0 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 5.0 | 2.0 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 78-123% |
| 2037-26-5 | Toluene-D8 | 92% | | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | | 74-125% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

## Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody





ACCUTEST. Laboratories

# CHAIN OF CUSTODY

4405 VineLand Road • Suite C-15
Orlando, FL 32811
Tel: 407-425-6700 • Fax: 407-425-0707

ACCUTEST JOB # F40927
ACCUTEST QUOTE #

**CLIENT INFORMATION**
NAME: RMATT Environmental
ADDRESS: 1641 Vanderbilt Rd
CITY: Hais STATE: Nev ZIP: 88330
SEND REPORT TO:
PHONE #:

**FACILITY INFORMATION**
PROJECT NAME: Slumu OP
LOCATION: HAFB
PROJECT NO.: 9050 291-01-01
FAX #:

**ANALYTICAL INFORMATION**

| ACCUTEST SAMPLE # | FIELD ID / POINT OF COLLECTION | DATE | TIME | SAMPLED BY: | MATRIX | # OF BOTTLES | HCL | NaOH | HNO3 | H2SO4 | NONE | VOC (8260) | SVOC (8270) | PCB | TPH Metals | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Slumu OP 01-01-7 | 5/22/06 | 1255 | DH | SO | 7 | | | | | | X | X | X | X | |
| 2 | Slumu OP 01-02-4 | 5/22/06 | 1255 | DH | SO | 7 | | | | | | | | | | |
| 3 | Slumu OP 01-5 | 5/22/06 | 1040 | DH | SO | 3 | | | | | | | | | | |
| 4 | Trip Blank | 5/22/06 | 1040 | DH | | 1 | | | | | | X | | | | |

MATRIX CODES: CW - DRINKING WATER; GW - GROUND WATER; WW - WASTE WATER; SO - SOIL; SL - SLUDGE; OL - OIL; LIQ - OTHER LIQUID; SOL - OTHER SOLID

**DATA TURNAROUND INFORMATION**
☐ STANDARD
☐ 48 HOUR RUSH — APPROVED BY:
☐ 24 HOUR EMERGENCY
☐ OTHER
EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

**DATA DELIVERABLE INFORMATION**
☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY)

**COMMENTS/REMARKS**

**SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY**

| RELINQUISHED BY SAMPLER: | DATE TIME: | RECEIVED BY: | RELINQUISHED BY: | DATE TIME: | RECEIVED BY: |
|---|---|---|---|---|---|
| 1. DH | | 1. [illegible] | 2. [illegible] | 5-23-06 4:00 | 2. [illegible] |
| RELINQUISHED BY: 3 | DATE TIME: | RECEIVED BY: 3. | RELINQUISHED BY: 4. | DATE TIME: | RECEIVED BY: 4. |
| RELINQUISHED BY: 5. | DATE TIME: | RECEIVED BY: 6. | SEAL # | PRESERVE WHERE APPLICABLE ☐ | ON ICE ☐ TEMPERATURE 2.0 C |

F40927: Chain of Custody
Page 1 of 3

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F40927 CLIENT: BHate PROJECT: Sumo-08

DATE/TIME RECEIVED: 5-23-06/9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.0

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER ✓GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8574-8739-6421

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [X] RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES ? 14

NUMBER OF 5035 FIELD KITS ? Ø

NUMBER OR LAB FILTERED METALS ? Ø

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE: Steven Perry/5-23-06 TECHNICIAN SIGNATURE/DATE:

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F40927: Chain of Custody
Page 2 of 3



## Job Change Order: F40927 5/24/2006

| | | | |
|---|---|---|---|
| Requested Date: | 5/24/2006 | Received Date: | 5/23/2006 |
| Account Name: | Bhate Environmental Associates. | Due Date: | 6/6/2006 |
| Project Description: | HOLMN | Deliverable: | COMMBN |
| CSR: | SB | TAT (Days): | 14 |

| | | |
|---|---|---|
| Sample #: F40927-2,3 | Change: | The coc did not have any analysis marked for these sample. Per Kevin @ Bhate via e-mail 05.23.06, these samples were to be logged in for same as sample -1. |
| Sample #: F40927-all | Change: | Revised coc was e-mailed over on 05.23.06 |
| Sample #: F40927-all | Change: | Only 1 Encore received for VOCs and 1 EnCore received for GRO |

Above Changes Per: Kevin G @ HOLMN Date: 5/24/2006

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

4.1 4

F40927: Chain of Custody
Page 3 of 3

# GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries





## Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VG1507-MB | G0039214.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 50 | 25 | ug/kg | |
| 75-05-8 | Acetonitrile | ND | 50 | 35 | ug/kg | |
| 107-02-8 | Acrolein | ND | 25 | 15 | ug/kg | |
| 107-13-1 | Acrylonitrile | ND | 25 | 13 | ug/kg | |
| 107-05-1 | Allyl chloride | ND | 25 | 5.0 | ug/kg | |
| 71-43-2 | Benzene | ND | 5.0 | 2.0 | ug/kg | |
| 100-44-7 | Benzyl Chloride | ND | 5.0 | 3.0 | ug/kg | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-25-2 | Bromoform | ND | 5.0 | 2.0 | ug/kg | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 3.0 | ug/kg | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 5.0 | 3.0 | ug/kg | |
| 67-66-3 | Chloroform | ND | 5.0 | 2.0 | ug/kg | |
| 544-10-5 | 1-Chlorohexane | ND | 5.0 | 2.0 | ug/kg | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 2.0 | ug/kg | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 2.0 | ug/kg | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 25 | 13 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 2.0 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 5.0 | 2.0 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 5.0 | 3.0 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 5.0 | 2.0 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |
| 124-48-1 | Dibromochloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.0 | 3.0 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |

# Method Blank Summary

Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VG1507-MB | G0039214.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 25 | | ug/kg | |
| 541-73-1 | m-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 95-50-1 | o-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 106-46-7 | p-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 97-63-2 | Ethyl methacrylate | ND | 25 | 5.0 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 5.0 | 2.0 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 25 | 10 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/kg | |
| 110-54-3 | Hexane | ND | 5.0 | 3.0 | ug/kg | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 2.0 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 25 | 10 | ug/kg | |
| 126-98-7 | Methacrylonitrile | ND | 25 | 10 | ug/kg | |
| 74-83-9 | Methyl bromide | ND | 5.0 | 2.0 | ug/kg | |
| 74-87-3 | Methyl chloride | ND | 5.0 | 2.0 | ug/kg | |
| 74-88-4 | Methyl iodide | ND | 10 | 2.0 | ug/kg | |
| 80-62-6 | Methyl methacrylate | ND | 25 | 5.0 | ug/kg | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 2.0 | ug/kg | |
| 75-09-2 | Methylene chloride | ND | 10 | 5.0 | ug/kg | |
| 78-93-3 | Methyl ethyl ketone | ND | 25 | 10 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 5.0 | 2.0 | ug/kg | |
| 91-20-3 | Naphthalene | 3.8 | 5.0 | 2.0 | ug/kg | J |
| 76-01-7 | Pentachloroethane | ND | 25 | 5.0 | ug/kg | |
| 107-12-0 | Propionitrile | ND | 50 | 10 | ug/kg | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 100-42-5 | Styrene | ND | 5.0 | 2.0 | ug/kg | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 2.5 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |





# Method Blank Summary

Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VG1507-MB | G0039214.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 3.0 | ug/kg | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 127-18-4 | Tetrachloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 108-88-3 | Toluene | ND | 5.0 | 2.0 | ug/kg | |
| 79-01-6 | Trichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 5.0 | 2.0 | ug/kg | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 25 | 10 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 5.0 | 2.0 | ug/kg | |
| 108-05-4 | Vinyl Acetate | ND | 25 | 10 | ug/kg | |
| | m,p-Xylene | ND | 10 | 3.0 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 5.0 | 2.0 | ug/kg | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 78-123% |
| 2037-26-5 | Toluene-D8 | 93% | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 74-125% |

# Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VG1507-BS | G0039213.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 250 | 200 | 80 | 51-136 |
| 75-05-8 | Acetonitrile | 500 | 642 | 128 | 50-150 a |
| 107-02-8 | Acrolein | 250 | 229 | 92 | 28-180 |
| 107-13-1 | Acrylonitrile | 250 | 267 | 107 | 43-151 |
| 107-05-1 | Allyl chloride | 50 | 57.4 | 115 | 50-150 a |
| 71-43-2 | Benzene | 50 | 57.9 | 116 | 74-124 |
| 100-44-7 | Benzyl Chloride | 50 | 58.5 | 117 | 50-150 a |
| 108-86-1 | Bromobenzene | 50 | 56.9 | 114 | 78-117 |
| 74-97-5 | Bromochloromethane | 50 | 53.3 | 107 | 77-126 |
| 75-27-4 | Bromodichloromethane | 50 | 57.0 | 114 | 74-124 |
| 75-25-2 | Bromoform | 50 | 54.9 | 110 | 79-127 |
| 104-51-8 | n-Butylbenzene | 50 | 60.1 | 120 | 75-131 |
| 135-98-8 | sec-Butylbenzene | 50 | 62.1 | 124 | 78-128 |
| 98-06-6 | tert-Butylbenzene | 50 | 61.8 | 124 | 76-126 |
| 108-90-7 | Chlorobenzene | 50 | 57.8 | 116 | 78-117 |
| 75-00-3 | Chloroethane | 50 | 72.7 | 145 | 63-147 |
| 67-66-3 | Chloroform | 50 | 59.5 | 119 | 75-121 |
| 544-10-5 | 1-Chlorohexane | 50 | 65.3 | 131 | 76-137 |
| 95-49-8 | o-Chlorotoluene | 50 | 58.9 | 118 | 79-124 |
| 106-43-4 | p-Chlorotoluene | 50 | 61.2 | 122 | 79-124 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 250 | 345 | 138 | 31-165 |
| 75-15-0 | Carbon disulfide | 50 | 60.4 | 121 | 59-148 |
| 56-23-5 | Carbon tetrachloride | 50 | 61.6 | 123 | 67-131 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 59.4 | 119* | 71-118 |
| 75-35-4 | 1,1-Dichloroethylene | 50 | 54.6 | 109 | 64-126 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 59.8 | 120 | 73-132 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 50 | 57.5 | 115 | 71-128 |
| 106-93-4 | 1,2-Dibromoethane | 50 | 56.2 | 112 | 78-117 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 60.4 | 121* | 72-120 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 56.8 | 114 | 74-126 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 55.3 | 111 | 77-117 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 60.9 | 122 | 66-126 |
| 124-48-1 | Dibromochloromethane | 50 | 54.5 | 109 | 78-120 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 74.6 | 149 | 33-172 |
| 156-59-2 | cis-1,2-Dichloroethylene | 50 | 56.0 | 112 | 75-124 |
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 60.5 | 121* | 72-120 |



# Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VG1507-BS | G0039213.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 50 | 61.5 | 123 | 50-150 a |
| 541-73-1 | m-Dichlorobenzene | 50 | 57.3 | 115 | 79-119 |
| 95-50-1 | o-Dichlorobenzene | 50 | 57.5 | 115 | 78-119 |
| 106-46-7 | p-Dichlorobenzene | 50 | 57.8 | 116 | 78-117 |
| 156-60-5 | trans-1,2-Dichloroethylene | 50 | 58.5 | 117 | 70-122 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 64.4 | 129* | 75-118 |
| 100-41-4 | Ethylbenzene | 50 | 58.4 | 117 | 77-120 |
| 97-63-2 | Ethyl methacrylate | 50 | 61.3 | 123 | 50-150 a |
| 76-13-1 | Freon 113 | 50 | 57.1 | 114 | 66-147 |
| 591-78-6 | 2-Hexanone | 250 | 271 | 108 | 68-136 |
| 87-68-3 | Hexachlorobutadiene | 50 | 63.0 | 126 | 69-139 |
| 110-54-3 | Hexane | 50 | 66.3 | 133 | 55-166 |
| 98-82-8 | Isopropylbenzene | 50 | 62.7 | 125 | 79-134 |
| 99-87-6 | p-Isopropyltoluene | 50 | 61.8 | 124 | 80-134 |
| 108-10-1 | 4-Methyl-2-pentanone | 250 | 292 | 117 | 69-136 |
| 126-98-7 | Methacrylonitrile | 500 | 645 | 129 | 50-150 a |
| 74-83-9 | Methyl bromide | 50 | 68.8 | 138 | 52-156 |
| 74-87-3 | Methyl chloride | 50 | 64.6 | 129 | 63-142 |
| 74-88-4 | Methyl iodide | 50 | 53.4 | 107 | 65-133 |
| 80-62-6 | Methyl methacrylate | 50 | 62.6 | 125 | 63-143 |
| 74-95-3 | Methylene bromide | 50 | 59.4 | 119 | 74-121 |
| 75-09-2 | Methylene chloride | 50 | 52.1 | 104 | 51-142 |
| 78-93-3 | Methyl ethyl ketone | 250 | 245 | 98 | 63-138 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 61.8 | 124 | 77-131 |
| 91-20-3 | Naphthalene | 50 | 53.7 | 107 | 75-134 |
| 76-01-7 | Pentachloroethane | 50 | 61.0 | 122 | 50-150 a |
| 107-12-0 | Propionitrile | 500 | 616 | 123 | 50-150 a |
| 103-65-1 | n-Propylbenzene | 50 | 60.5 | 121 | 77-125 |
| 100-42-5 | Styrene | 50 | 57.5 | 115 | 74-120 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 56.7 | 113 | 76-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 60.4 | 121 | 70-131 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 57.3 | 115 | 76-121 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 53.8 | 108 | 77-118 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 55.6 | 111 | 76-129 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 60.2 | 120 | 75-121 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 59.3 | 119 | 73-128 |

# Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VG1507-BS | G0039213.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 59.9 | 120 | 79-121 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 61.3 | 123 | 78-126 |
| 127-18-4 | Tetrachloroethylene | 50 | 57.5 | 115 | 68-127 |
| 108-88-3 | Toluene | 50 | 56.8 | 114 | 74-118 |
| 79-01-6 | Trichloroethylene | 50 | 59.4 | 119 | 72-122 |
| 75-69-4 | Trichlorofluoromethane | 50 | 71.0 | 142 | 60-147 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 50 | 69.6 | 139* | 68-131 |
| 75-01-4 | Vinyl chloride | 50 | 62.9 | 126 | 64-144 |
| 108-05-4 | Vinyl Acetate | 250 | 342 | 137* | 47-132 |
| | m,p-Xylene | 100 | 122 | 122 | 79-122 |
| 95-47-6 | o-Xylene | 50 | 59.1 | 118 | 75-123 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofloorumethane | 102% | 78-123% |
| 2037-26-5 | Toluene-D8 | 98% | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 74-125% |

(a) Advisory control limits.



# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41061-2MS | G0039221.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |
| F41061-2MSD | G0039222.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |
| F41061-2 | G0039218.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | F41061-2 ug/kg | Q | Spike ug/kg | MS ug/kg | MS % | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 41.2 | I | 275 | 135 | 34 | 139 | 36 | 3 | 14-140/33 |
| 75-05-8 | Acetonitrile | 56 U | | 550 | 385 | 70 | 376 | 69 | 2 | 50-150/30 [a] |
| 107-02-8 | Acrolein | 28 U | | 275 | 78.0 | 28 | 71.9 | 26 | 8 | 20-144/42 |
| 107-13-1 | Acrylonitrile | 28 U | | 275 | 178 | 65 | 180 | 66 | 1 | 22-116/31 |
| 107-05-1 | Allyl chloride | 28 U | | 55 | 64.1 | 117 | 64.8 | 119 | 1 | 50-150/30 [a] |
| 71-43-2 | Benzene | 5.6 U | | 55 | 61.6 | 112 | 61.1 | 112 | 1 | 63-135/23 |
| 100-44-7 | Benzyl Chloride | 5.6 U | | 55 | 57.4 | 104 | 50.5 | 93 | 13 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | 5.6 U | | 55 | 91.6 | 167* | 83.8 | 154* | 9 | 56-145/30 |
| 74-97-5 | Bromochloromethane | 5.6 U | | 55 | 52.1 | 95 | 53.7 | 99 | 3 | 64-120/23 |
| 75-27-4 | Bromodichloromethane | 5.6 U | | 55 | 50.8 | 92 | 51.1 | 94 | 1 | 63-126/23 |
| 75-25-2 | Bromoform | 5.6 U | | 55 | 41.6 | 76 | 40.5 | 74 | 3 | 54-109/24 |
| 104-51-8 | n-Butylbenzene | 5.6 U | | 55 | 49.4 | 90 | 43.5 | 80 | 13 | 45-159/32 |
| 135-98-8 | sec-Butylbenzene | 5.6 U | | 55 | 55.3 | 101 | 54.1 | 99 | 2 | 54-164/31 |
| 98-06-6 | tert-Butylbenzene | 5.6 U | | 55 | 66.0 | 120 | 64.3 | 118 | 3 | 60-161/30 |
| 108-90-7 | Chlorobenzene | 5.6 U | | 55 | 58.7 | 107 | 56.8 | 104 | 3 | 64-130/24 |
| 75-00-3 | Chloroethane | 5.6 U | | 55 | 83.2 | 151 | 83.5 | 153 | 0 | 53-172/28 |
| 67-66-3 | Chloroform | 5.6 U | | 55 | 61.7 | 112 | 62.4 | 115 | 1 | 68-131/24 |
| 544-10-5 | 1-Chlorohexane | 5.6 U | | 55 | 40.5 | 74 | 41.9 | 77 | 3 | 52-162/26 |
| 95-49-8 | o-Chlorotoluene | 5.6 U | | 55 | 81.8 | 149 | 77.2 | 142 | 6 | 59-162/32 |
| 106-43-4 | p-Chlorotoluene | 5.6 U | | 55 | 86.3 | 157* | 80.2 | 147 | 7 | 59-155/29 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 28 U | | 275 | 287 | 104 | 300 | 110 | 4 | 16-159/31 |
| 75-15-0 | Carbon disulfide | 5.6 U | | 55 | 66.9 | 122 | 66.4 | 122 | 1 | 47-165/29 |
| 56-23-5 | Carbon tetrachloride | 5.6 U | | 55 | 57.3 | 104 | 57.5 | 106 | 0 | 64-148/24 |
| 75-34-3 | 1,1-Dichloroethane | 5.6 U | | 55 | 64.0 | 116 | 64.6 | 119 | 1 | 64-130/25 |
| 75-35-4 | 1,1-Dichloroethylene | 5.6 U | | 55 | 63.4 | 115 | 64.1 | 118 | 1 | 55-149/28 |
| 563-58-6 | 1,1-Dichloropropene | 5.6 U | | 55 | 58.4 | 106 | 58.6 | 108 | 0 | 67-148/25 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.6 U | | 55 | 59.4 | 108* | 54.2 | 100 | 9 | 39-105/33 |
| 106-93-4 | 1,2-Dibromoethane | 5.6 U | | 55 | 53.9 | 98 | 51.6 | 95 | 4 | 55-107/24 |
| 107-06-2 | 1,2-Dichloroethane | 5.6 U | | 55 | 55.2 | 100 | 54.9 | 101 | 1 | 60-114/22 |
| 78-87-5 | 1,2-Dichloropropane | 5.6 U | | 55 | 55.4 | 101 | 55.8 | 102 | 1 | 65-128/23 |
| 142-28-9 | 1,3-Dichloropropane | 5.6 U | | 55 | 60.7 | 110 | 57.8 | 106 | 5 | 58-114/25 |
| 594-20-7 | 2,2-Dichloropropane | 5.6 U | | 55 | 60.6 | 110 | 59.7 | 110 | 1 | 60-114/27 |
| 124-48-1 | Dibromochloromethane | 5.6 U | | 55 | 57.1 | 104 | 53.8 | 99 | 6 | 60-119/23 |
| 75-71-8 | Dichlorodifluoromethane | 5.6 U | | 55 | 78.6 | 143 | 86.0 | 158 | 9 | 41-185/30 |
| 156-59-2 | cis-1,2-Dichloroethylene | 5.6 U | | 55 | 59.1 | 108 | 58.6 | 108 | 1 | 66-132/24 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.6 U | | 55 | 54.2 | 99 | 53.8 | 99 | 1 | 57-118/25 |

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41061-2MS | G0039221.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |
| F41061-2MSD | G0039222.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |
| F41061-2 | G0039218.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | F41061-2 ug/kg | Q | Spike ug/kg | MS ug/kg | MS % | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 28 U | | 55 | 109 | 198* | 96.4 | 177* | 12 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | 5.6 U | | 55 | 63.0 | 115 | 59.4 | 109 | 6 | 59-138/28 |
| 95-50-1 | o-Dichlorobenzene | 5.6 U | | 55 | 54.9 | 100 | 54.1 | 99 | 1 | 56-128/27 |
| 106-46-7 | p-Dichlorobenzene | 5.6 U | | 55 | 60.8 | 111 | 61.2 | 112 | 1 | 57-134/26 |
| 156-60-5 | trans-1,2-Dichloroethylene | 5.6 U | | 55 | 64.8 | 118 | 65.6 | 120 | 1 | 63-137/27 |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.6 U | | 55 | 72.3 | 132* | 69.2 | 127* | 4 | 58-115/25 |
| 100-41-4 | Ethylbenzene | 5.6 U | | 55 | 56.1 | 102 | 55.8 | 102 | 1 | 63-142/25 |
| 97-63-2 | Ethyl methacrylate | 28 U | | 55 | 62.3 | 113 | 59.5 | 109 | 5 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | 5.6 U | | 55 | 55.6 | 101 | 55.7 | 102 | 0 | 61-169/28 |
| 591-78-6 | 2-Hexanone | 28 U | | 275 | 238 | 87 | 229 | 84 | 4 | 35-109/34 |
| 87-68-3 | Hexachlorobutadiene | 5.6 U | | 55 | 26.3 | 48 | 26.4 | 48 | 0 | 17-160/37 |
| 110-54-3 | Hexane | 5.6 U | | 55 | 26.9 | 49 | 29.8 | 55 | 10 | 28-170/32 |
| 98-82-8 | Isopropylbenzene | 5.6 U | | 55 | 41.6 | 76 | 42.5 | 78 | 2 | 59-177/29 |
| 99-87-6 | p-Isopropyltoluene | 5.6 U | | 55 | 54.7 | 100 | 54.0 | 99 | 1 | 53-168/31 |
| 108-10-1 | 4-Methyl-2-pentanone | 28 U | | 275 | 281 | 102* | 268 | 98 | 5 | 44-99/32 |
| 126-98-7 | Methacrylonitrile | 28 U | | 550 | 470 | 86 | 466 | 86 | 1 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | 5.6 U | | 55 | 82.5 | 150 | 90.4 | 166 | 9 | 38-188/27 |
| 74-87-3 | Methyl chloride | 5.6 U | | 55 | 72.0 | 131 | 73.7 | 135 | 2 | 57-160/29 |
| 74-88-4 | Methyl iodide | 11 U | | 55 | 61.4 | 112 | 63.2 | 116 | 3 | 52-150/30 |
| 80-62-6 | Methyl methacrylate | 28 U | | 55 | 46.8 | 85 | 46.3 | 85 | 1 | 56-106/27 |
| 74-95-3 | Methylene bromide | 5.6 U | | 55 | 49.0 | 89 | 48.5 | 89 | 1 | 56-109/24 |
| 75-09-2 | Methylene chloride | 11 U | | 55 | 68.5 | 125 | 68.8 | 126 | 0 | 40-183/34 |
| 78-93-3 | Methyl ethyl ketone | 28 U | | 275 | 158 | 57 | 156 | 57 | 1 | 27-112/32 |
| 1634-04-4 | Methyl Tert Butyl Ether | 5.6 U | | 55 | 52.6 | 96 | 54.7 | 100 | 4 | 53-122/28 |
| 91-20-3 | Naphthalene | 10.8 | | 55 | 34.9 | 44 | 31.2 | 37 | 11 | 20-116/35 |
| 76-01-7 | Pentachloroethane | 28 U | | 55 | 116 | 211* | 106 | 195* | 9 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | 56 U | | 550 | 421 | 77 | 418 | 77 | 1 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | 2.5 | I | 55 | 78.5 | 138 | 75.6 | 134 | 4 | 59-163/31 |
| 100-42-5 | Styrene | 5.6 U | | 55 | 43.0 | 78 | 41.8 | 77 | 3 | 54-130/26 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 5.6 U | | 55 | 56.0 | 102 | 56.0 | 103 | 0 | 61-131/24 |
| 71-55-6 | 1,1,1-Trichloroethane | 5.6 U | | 55 | 63.7 | 116 | 63.7 | 117 | 0 | 70-149/25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.6 U | | 55 | 93.7 | 170* | 85.8 | 158* | 9 | 45-121/33 |
| 79-00-5 | 1,1,2-Trichloroethane | 5.6 U | | 55 | 60.4 | 110 | 60.1 | 110 | 0 | 60-114/25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.6 U | | 55 | 21.4 | 39 | 19.9 | 37 | 7 | 24-135/31 |
| 96-18-4 | 1,2,3-Trichloropropane | 5.6 U | | 55 | 98.3 | 179* | 90.7 | 167* | 8 | 39-125/32 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.6 U | | 55 | 23.6 | 43 | 23.7 | 44 | 0 | 23-142/31 |





# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41061-2MS | G0039221.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |
| F41061-2MSD | G0039222.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |
| F41061-2 | G0039218.D | 1 | 06/01/06 | SH | n/a | n/a | VG1507 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F40927-1, F40927-2, F40927-3, F40927-4

| CAS No. | Compound | F41061-2 ug/kg | Q | Spike ug/kg | MS ug/kg | MS % | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 6.2 | | 55 | 74.1 | 124 | 70.0 | 117 | 6 | 50-161/32 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 4.6 | I | 55 | 73.3 | 125 | 70.1 | 120 | 4 | 57-164/31 |
| 127-18-4 | Tetrachloroethylene | 5.6 U | | 55 | 44.7 | 81 | 45.8 | 84 | 2 | 54-154/27 |
| 108-88-3 | Toluene | 5.6 U | | 55 | 76.1 | 138 | 74.0 | 136 | 3 | 62-142/29 |
| 79-01-6 | Trichloroethylene | 5.6 U | | 55 | 57.8 | 105 | 57.8 | 106 | 0 | 59-143/25 |
| 75-69-4 | Trichlorofluoromethane | 5.6 U | | 55 | 75.3 | 137 | 76.2 | 140 | 1 | 59-171/28 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 28 U | | 55 | 103 | 187* | 101 | 185* | 2 | 41-114/31 |
| 75-01-4 | Vinyl chloride | 5.6 U | | 55 | 72.7 | 132 | 74.4 | 137 | 2 | 64-165/27 |
| 108-05-4 | Vinyl Acetate | 28 U | | 275 | 219 | 80 | 212 | 78 | 3 | 13-113/42 |
| | m,p-Xylene | 11 U | | 110 | 113 | 103 | 109 | 100 | 4 | 61-146/25 |
| 95-47-6 | o-Xylene | 5.6 U | | 55 | 52.9 | 96 | 51.5 | 95 | 3 | 60-141/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41061-2 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 103% | 101% | 78-123% |
| 2037-26-5 | Toluene-D8 | 115% | 113% | 118% | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 167%* | 155% | 164%* [b] | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | 92% | 104% | 74-125% |

(a) Advisory control limits.
(b) Outside control limits; however, sample is ND.

## GC/MS Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



# Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-MB | W029529.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic acid | ND | 830 | 330 | ug/kg | |
| 95-57-8 | 2-Chlorophenol | ND | 170 | 33 | ug/kg | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 170 | 33 | ug/kg | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 170 | 33 | ug/kg | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 170 | 33 | ug/kg | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 830 | 330 | ug/kg | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 330 | 67 | ug/kg | |
| 95-48-7 | 2-Methylphenol | ND | 170 | 33 | ug/kg | |
| | 3&4-Methylphenol | ND | 170 | 33 | ug/kg | |
| 88-75-5 | 2-Nitrophenol | ND | 170 | 33 | ug/kg | |
| 100-02-7 | 4-Nitrophenol | ND | 830 | 330 | ug/kg | |
| 87-86-5 | Pentachlorophenol | ND | 830 | 330 | ug/kg | |
| 108-95-2 | Phenol | ND | 170 | 33 | ug/kg | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 170 | 33 | ug/kg | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 170 | 33 | ug/kg | |
| 83-32-9 | Acenaphthene | ND | 170 | 33 | ug/kg | |
| 208-96-8 | Acenaphthylene | ND | 170 | 33 | ug/kg | |
| 120-12-7 | Anthracene | ND | 170 | 33 | ug/kg | |
| 92-87-5 | Benzidine | ND | 1700 | 830 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 170 | 33 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 170 | 33 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 170 | 33 | ug/kg | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 170 | 67 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 170 | 33 | ug/kg | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 170 | 33 | ug/kg | |
| 85-68-7 | Butyl benzyl phthalate | ND | 330 | 83 | ug/kg | |
| 100-51-6 | Benzyl Alcohol | ND | 170 | 33 | ug/kg | |
| 91-58-7 | 2-Chloronaphthalene | ND | 170 | 33 | ug/kg | |
| 106-47-8 | 4-Chloroaniline | ND | 330 | 130 | ug/kg | |
| 218-01-9 | Chrysene | ND | 170 | 33 | ug/kg | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 170 | 33 | ug/kg | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 170 | 67 | ug/kg | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 170 | 33 | ug/kg | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 170 | 33 | ug/kg | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 170 | 33 | ug/kg | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 170 | 33 | ug/kg | |

# Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-MB | W029529.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 170 | 33 | ug/kg | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 170 | 67 | ug/kg | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 170 | 67 | ug/kg | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 330 | 170 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 170 | 67 | ug/kg | |
| 132-64-9 | Dibenzofuran | ND | 170 | 33 | ug/kg | |
| 84-74-2 | Di-n-butyl phthalate | ND | 330 | 83 | ug/kg | |
| 117-84-0 | Di-n-octyl phthalate | ND | 330 | 170 | ug/kg | |
| 84-66-2 | Diethyl phthalate | ND | 330 | 83 | ug/kg | |
| 131-11-3 | Dimethyl phthalate | ND | 330 | 83 | ug/kg | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 330 | 170 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 170 | 33 | ug/kg | |
| 86-73-7 | Fluorene | ND | 170 | 33 | ug/kg | |
| 118-74-1 | Hexachlorobenzene | ND | 170 | 33 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 170 | 67 | ug/kg | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 170 | 67 | ug/kg | |
| 67-72-1 | Hexachloroethane | ND | 170 | 67 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 170 | 67 | ug/kg | |
| 78-59-1 | Isophorone | ND | 170 | 33 | ug/kg | |
| 91-57-6 | 2-Methylnaphthalene | ND | 170 | 33 | ug/kg | |
| 88-74-4 | 2-Nitroaniline | ND | 330 | 83 | ug/kg | |
| 99-09-2 | 3-Nitroaniline | ND | 330 | 83 | ug/kg | |
| 100-01-6 | 4-Nitroaniline | ND | 330 | 120 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 170 | 33 | ug/kg | |
| 98-95-3 | Nitrobenzene | ND | 170 | 33 | ug/kg | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 170 | 67 | ug/kg | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 170 | 33 | ug/kg | |
| 85-01-8 | Phenanthrene | ND | 170 | 33 | ug/kg | |
| 129-00-0 | Pyrene | ND | 170 | 67 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 170 | 33 | ug/kg | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 83% | 45-114% |
| 4165-62-2 | Phenol-d5 | 80% | 44-124% |



# Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-MB | W029529.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 79% | 50-128% |
| 4165-60-0 | Nitrobenzene-d5 | 74% | 41-123% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | 46-122% |
| 1718-51-0 | Terphenyl-d14 | 99% | 45-135% |

# Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-BS | W029528.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|---|---|---|---|---|---|
| 95-57-8 | 2-Chlorophenol | 1670 | 1410 | 85 | 61-101 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 1670 | 1540 | 92 | 63-107 |
| 120-83-2 | 2,4-Dichlorophenol | 1670 | 1460 | 88 | 65-106 |
| 105-67-9 | 2,4-Dimethylphenol | 1670 | 1490 | 89 | 53-96 |
| 51-28-5 | 2,4-Dinitrophenol | 1670 | 1270 | 76 | 42-122 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 1670 | 93.0 | 47 | 60-122 |
| 95-48-7 | 2-Methylphenol | 1670 | 1440 | 86 | 58-98 |
| | 3&4-Methylphenol | 1670 | 1480 | 89 | 58-99 |
| 88-75-5 | 2-Nitrophenol | 1670 | 1420 | 85 | 59-103 |
| 100-02-7 | 4-Nitrophenol | 1670 | 1430 | 86 | 66-111 |
| 87-86-5 | Pentachlorophenol | 1670 | 1650 | 99 | 58-120 |
| 108-95-2 | Phenol | 1670 | 1450 | 87 | 59-104 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1670 | 1470 | 88 | 65-105 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1670 | 1440 | 86 | 66-106 |
| 83-32-9 | Acenaphthene | 1670 | 1570 | 94 | 63-100 |
| 208-96-8 | Acenaphthylene | 1670 | 1580 | 95 | 62-100 |
| 120-12-7 | Anthracene | 1670 | 1690 | 101 | 67-104 |
| 56-55-3 | Benzo(a)anthracene | 1670 | 1680 | 101 | 66-107 |
| 50-32-8 | Benzo(a)pyrene | 1670 | 1640 | 98 | 63-106 |
| 205-99-2 | Benzo(b)fluoranthene | 1670 | 1720 | 103 | 65-110 |
| 191-24-2 | Benzo(g,h,i)perylene | 1670 | 1630 | 98 | 60-107 |
| 207-08-9 | Benzo(k)fluoranthene | 1670 | 1720 | 103 | 66-111 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 1670 | 1470 | 88 | 66-108 |
| 85-68-7 | Butyl benzyl phthalate | 1670 | 1840 | 110 | 62-112 |
| 100-51-6 | Benzyl Alcohol | 1670 | 1470 | 88 | 60-103 |
| 91-58-7 | 2-Chloronaphthalene | 1670 | 1510 | 91 | 62-98 |
| 106-47-8 | 4-Chloroaniline | 1670 | 1050 | 63 | 20-87 |
| 218-01-9 | Chrysene | 1670 | 1690 | 101 | 66-107 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1670 | 1500 | 90 | 54-98 |
| 111-44-4 | bis(2-Chloroethyl)ether | 1670 | 1410 | 85 | 57-103 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 1670 | 1420 | 85 | 48-102 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 1670 | 1530 | 92 | 65-106 |
| 95-50-1 | 1,2-Dichlorobenzene | 1670 | 1430 | 86 | 50-97 |
| 541-73-1 | 1,3-Dichlorobenzene | 1670 | 1370 | 82 | 46-94 |
| 106-46-7 | 1,4-Dichlorobenzene | 1670 | 1350 | 81 | 47-95 |
| 121-14-2 | 2,4-Dinitrotoluene | 1670 | 1700 | 102 | 60-107 |



# Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-BS | W029528.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|---|---|---|---|---|---|
| 606-20-2 | 2,6-Dinitrotoluene | 1670 | 1640 | 98 | 59-103 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1670 | 1140 | 68 | 32-91 |
| 53-70-3 | Dibenzo(a,h)anthracene | 1670 | 1620 | 97 | 59-108 |
| 132-64-9 | Dibenzofuran | 1670 | 1580 | 95 | 64-103 |
| 84-74-2 | Di-n-butyl phthalate | 1670 | 1660 | 100 | 64-109 |
| 117-84-0 | Di-n-octyl phthalate | 1670 | 1980 | 119 | 64-123 |
| 84-66-2 | Diethyl phthalate | 1670 | 1610 | 97 | 61-112 |
| 131-11-3 | Dimethyl phthalate | 1670 | 1600 | 96 | 63-107 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1670 | 1850 | 111 | 62-114 |
| 206-44-0 | Fluoranthene | 1670 | 1680 | 101 | 64-110 |
| 86-73-7 | Fluorene | 1670 | 1610 | 97 | 63-102 |
| 118-74-1 | Hexachlorobenzene | 1670 | 1680 | 101 | 64-104 |
| 87-68-3 | Hexachlorobutadiene | 1670 | 1580 | 95 | 56-99 |
| 77-47-4 | Hexachlorocyclopentadiene | 1670 | 1410 | 85 | 32-93 |
| 67-72-1 | Hexachloroethane | 1670 | 1330 | 80 | 47-96 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1670 | 1620 | 97 | 60-110 |
| 78-59-1 | Isophorone | 1670 | 1660 | 100 | 60-100 |
| 91-57-6 | 2-Methylnaphthalene | 1670 | 1560 | 94 | 60-104 |
| 88-74-4 | 2-Nitroaniline | 1670 | 1610 | 97 | 61-105 |
| 99-09-2 | 3-Nitroaniline | 1670 | 1360 | 82 | 34-84 |
| 100-01-6 | 4-Nitroaniline | 1670 | 1510 | 91 | 53-105 |
| 91-20-3 | Naphthalene | 1670 | 1480 | 89 | 58-96 |
| 98-95-3 | Nitrobenzene | 1670 | 1410 | 85 | 58-98 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1670 | 1440 | 86 | 54-95 |
| 86-30-6 | N-Nitrosodiphenylamine | 1670 | 1970 | 118* | 66-106 |
| 85-01-8 | Phenanthrene | 1670 | 1650 | 99 | 66-105 |
| 129-00-0 | Pyrene | 1670 | 1800 | 108 | 66-109 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1670 | 1430 | 86 | 58-97 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 83% | 45-114% |
| 4165-62-2 | Phenol-d5 | 81% | 44-124% |
| 118-79-6 | 2,4,6-Tribromophenol | 87% | 50-128% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 41-123% |

## Blank Spike Summary

Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-BS | W029528.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 321-60-8 | 2-Fluorobiphenyl | 85% | 46-122% |
| 1718-51-0 | Terphenyl-d14 | 96% | 45-135% |

6.2

6



## Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-MS | W029533.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| OP16720-MSD | W029534.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| F40927-3 | W029532.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | F40927-3 ug/kg | Q | Spike ug/kg | MS ug/kg | MS % | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-57-8 | 2-Chlorophenol | ND | | 2210 | 1600 | 72 | 1590 | 73 | 1 | 46-99/28 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 2210 | 1970 | 89 | 1870 | 86 | 5 | 51-106/24 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 2210 | 1790 | 81 | 1670 | 77 | 7 | 51-105/24 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 2210 | 1920 | 87 | 1750 | 80 | 9 | 47-95/27 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 2210 | 1170 | 53 | 1050 | 48 | 11 | 10-114/50 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 2210 | 1700 | 77 | 1530 | 70 | 11 | 11-120/39 |
| 95-48-7 | 2-Methylphenol | ND | | 2210 | 1670 | 75 | 1680 | 77 | 1 | 48-96/26 |
| | 3&4-Methylphenol | ND | | 2210 | 1740 | 79 | 1720 | 79 | 1 | 50-95/26 |
| 88-75-5 | 2-Nitrophenol | ND | | 2210 | 1730 | 78 | 1640 | 75 | 5 | 36-109/29 |
| 100-02-7 | 4-Nitrophenol | ND | | 2210 | 1820 | 82 | 1750 | 80 | 4 | 50-107/25 |
| 87-86-5 | Pentachlorophenol | ND | | 2210 | 1580 | 71 | 1450 | 67 | 9 | 45-118/30 |
| 108-95-2 | Phenol | ND | | 2210 | 1690 | 76 | 1650 | 76 | 2 | 44-105/27 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 2210 | 1780 | 80 | 1640 | 75 | 8 | 58-101/23 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 2210 | 1790 | 81 | 1640 | 75 | 9 | 56-103/23 |
| 83-32-9 | Acenaphthene | ND | | 2210 | 1940 | 88 | 1780 | 82 | 9 | 47-106/28 |
| 208-96-8 | Acenaphthylene | ND | | 2210 | 1940 | 88 | 1790 | 82 | 8 | 48-102/24 |
| 120-12-7 | Anthracene | ND | | 2210 | 2150 | 97 | 1980 | 91 | 8 | 52-108/26 |
| 56-55-3 | Benzo(a)anthracene | ND | | 2210 | 2120 | 96 | 1950 | 90 | 8 | 54-106/26 |
| 50-32-8 | Benzo(a)pyrene | ND | | 2210 | 2070 | 93 | 1890 | 87 | 9 | 53-104/25 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 2210 | 2160 | 98 | 1990 | 91 | 8 | 53-109/27 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 2210 | 2050 | 93 | 1800 | 83 | 13 | 53-104/28 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 2210 | 2250 | 102 | 2050 | 94 | 9 | 55-107/29 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 2210 | 1820 | 82 | 1650 | 76 | 10 | 59-102/23 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 2210 | 2290 | 103 | 2140 | 98 | 7 | 58-105/23 |
| 100-51-6 | Benzyl Alcohol | ND | | 2210 | 1710 | 77 | 1690 | 78 | 1 | 52-97/30 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 2210 | 1830 | 83 | 1710 | 78 | 7 | 54-92/24 |
| 106-47-8 | 4-Chloroaniline | ND | | 2210 | 1630 | 74 | 1510 | 69 | 8 | 21-92/33 |
| 218-01-9 | Chrysene | ND | | 2210 | 2170 | 98 | 1970 | 90 | 10 | 54-108/26 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 2210 | 1820 | 82 | 1720 | 79 | 6 | 44-94/27 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 2210 | 1600 | 72 | 1630 | 75 | 2 | 40-104/30 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 2210 | 1540 | 70 | 1590 | 73 | 3 | 40-91/29 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 2210 | 1910 | 86 | 1770 | 81 | 8 | 57-101/22 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 2210 | 1510 | 68 | 1530 | 70 | 1 | 36-88/34 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 2210 | 1400 | 63 | 1440 | 66 | 3 | 30-85/33 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 2210 | 1390 | 63 | 1430 | 66 | 3 | 30-87/33 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 2210 | 2190 | 99 | 2080 | 95 | 5 | 46-105/28 |

6.3

6

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-MS | W029533.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| OP16720-MSD | W029534.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| F40927-3 | W029532.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | F40927-3 ug/kg | Q | Spike ug/kg | MS ug/kg | MS % | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 2210 | 2130 | 96 | 1940 | 89 | 9 | 46-102/26 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 2210 | 1560 | 70 | 1510 | 69 | 3 | 22-104/35 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 2210 | 2040 | 92 | 1770 | 81 | 14 | 53-103/26 |
| 132-64-9 | Dibenzofuran | ND | | 2210 | 1990 | 90 | 1830 | 84 | 8 | 53-103/27 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 2210 | 2150 | 97 | 2010 | 92 | 7 | 55-104/22 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 2210 | 2460 | 111 | 2340 | 107 | 5 | 61-115/24 |
| 84-66-2 | Diethyl phthalate | ND | | 2210 | 2040 | 92 | 1940 | 89 | 5 | 54-104/22 |
| 131-11-3 | Dimethyl phthalate | ND | | 2210 | 2040 | 92 | 1880 | 86 | 8 | 55-100/22 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 2210 | 2370 | 107 | 2200 | 101 | 7 | 56-110/25 |
| 206-44-0 | Fluoranthene | ND | | 2210 | 2240 | 101 | 2050 | 94 | 9 | 52-109/28 |
| 86-73-7 | Fluorene | ND | | 2210 | 2040 | 92 | 1910 | 88 | 7 | 55-99/26 |
| 118-74-1 | Hexachlorobenzene | ND | | 2210 | 2060 | 93 | 1850 | 85 | 11 | 57-99/23 |
| 87-68-3 | Hexachlorobutadiene | ND | | 2210 | 1740 | 79 | 1710 | 78 | 2 | 36-97/35 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 2210 | 1520 | 69 | 1470 | 67 | 3 | 10-88/50 |
| 67-72-1 | Hexachloroethane | ND | | 2210 | 1380 | 62 | 1390 | 64 | 1 | 22-90/41 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 2210 | 2070 | 93 | 1830 | 84 | 12 | 53-108/29 |
| 78-59-1 | Isophorone | ND | | 2210 | 2020 | 91 | 1900 | 87 | 6 | 46-99/26 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 2210 | 1850 | 84 | 1780 | 82 | 4 | 45-104/28 |
| 88-74-4 | 2-Nitroaniline | ND | | 2210 | 2090 | 94 | 1910 | 88 | 9 | 51-104/23 |
| 99-09-2 | 3-Nitroaniline | ND | | 2210 | 1990 | 90 | 1860 | 85 | 7 | 30-94/31 |
| 100-01-6 | 4-Nitroaniline | ND | | 2210 | 2050 | 93 | 1980 | 91 | 3 | 39-100/27 |
| 91-20-3 | Naphthalene | ND | | 2210 | 1690 | 76 | 1620 | 74 | 4 | 44-94/31 |
| 98-95-3 | Nitrobenzene | ND | | 2210 | 1680 | 76 | 1590 | 73 | 6 | 43-97/29 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 2210 | 1660 | 75 | 1660 | 76 | 0 | 40-98/27 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 2210 | 2470 | 112* | 2220 | 102 | 11 | 55-104/22 |
| 85-01-8 | Phenanthrene | ND | | 2210 | 2120 | 96 | 1930 | 89 | 9 | 53-106/26 |
| 129-00-0 | Pyrene | ND | | 2210 | 2210 | 100 | 2050 | 94 | 8 | 55-111/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 2210 | 1610 | 73 | 1560 | 72 | 3 | 41-95/32 |

| CAS No. | Surrogate Recoveries | MS | MSD | F40927-3 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 73% | 72% | 85% | 45-114% |
| 4165-62-2 | Phenol-d5 | 70% | 70% | 82% | 44-124% |
| 118-79-6 | 2,4,6-Tribromophenol | 81% | 76% | 76% | 50-128% |
| 4165-60-0 | Nitrobenzene-d5 | 69% | 66% | 75% | 41-123% |

6.3



# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16720-MS | W029533.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| OP16720-MSD | W029534.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |
| F40927-3 | W029532.D | 1 | 06/01/06 | ME | 05/25/06 | OP16720 | SW1547 |

The QC reported here applies to the following samples: Method: SW846 8270C

F40927-1, F40927-2, F40927-3

| CAS No. | Surrogate Recoveries | MS | MSD | F40927-3 | Limits |
|---|---|---|---|---|---|
| 321-60-8 | 2-Fluorobiphenyl | 77% | 72% | 75% | 46-122% |
| 1718-51-0 | Terphenyl-d14 | 88% | 83% | 90% | 45-135% |

6.3

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Section 7

## GC Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

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# Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1296-MB | UV022333.D | 1 | 05/25/06 | MM | n/a | n/a | GUV1296 |

The QC reported here applies to the following samples: Method: SW846 8015

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 5.0 | 2.5 | mg/kg | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 100% | 62-135% |
| 98-08-8 | aaa-Trifluorotoluene | 91% | 65-118% |

7.1

7

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Section 7

## GC Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

7



# Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1296-MB | UV022333.D | 1 | 05/25/06 | MM | n/a | n/a | GUV1296 |

The QC reported here applies to the following samples: Method: SW846 8015

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 5.0 | 2.5 | mg/kg | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 100% | 62-135% |
| 98-08-8 | aaa-Trifluorotoluene | 91% | 65-118% |

7.1

7

## Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1296-BS | UV022332.D | 1 | 05/25/06 | MM | n/a | n/a | GUV1296 |

The QC reported here applies to the following samples: Method: SW846 8015

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Spike mg/kg | BSP mg/kg | BSP % | Limits |
|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | 20 | 18.7 | 94 | 66-122 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 108% | 62-135% |
| 98-08-8 | aaa-Trifluorotoluene | 103% | 65-118% |

7.2

7



## Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F40927-3MS | UV022349.D | 1 | 05/25/06 | MM | n/a | n/a | GUV1296 |
| F40927-3MSD | UV022350.D | 1 | 05/25/06 | MM | n/a | n/a | GUV1296 |
| F40927-3 | UV022348.D | 1 | 05/25/06 | MM | n/a | n/a | GUV1296 |

The QC reported here applies to the following samples. Method: SW846 8015

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | F40927-3 mg/kg | Q | Spike mg/kg | MS mg/kg | MS % | MSD mg/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | | 41.3 | 34.9 | 85 | 34.0 | 82 | 3 | 37-142/17 |

| CAS No. | Surrogate Recoveries | MS | MSD | F40927-3 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 123% | 131% | 126% | 62-135% |
| 98-08-8 | aaa-Trifluorotoluene | 93% | 94% | 90% | 65-118% |

7.3

7

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Section 8

## GC Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

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## Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16747-MB | ST47820.D | 1 | 05/31/06 | KE | 05/30/06 | OP16747 | GST1400 |

The QC reported here applies to the following samples: Method: SW846 8082

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 17 | 8.3 | ug/kg | |
| 11104-28-2 | Aroclor 1221 | ND | 17 | 13 | ug/kg | |
| 11141-16-5 | Aroclor 1232 | ND | 17 | 13 | ug/kg | |
| 53469-21-9 | Aroclor 1242 | ND | 17 | 8.3 | ug/kg | |
| 12672-29-6 | Aroclor 1248 | ND | 17 | 8.3 | ug/kg | |
| 11097-69-1 | Aroclor 1254 | ND | 17 | 8.3 | ug/kg | |
| 11096-82-5 | Aroclor 1260 | ND | 17 | 8.3 | ug/kg | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 89% | 52-136% |
| 2051-24-3 | Decachlorobiphenyl | 99% | 49-148% |

8.1 8

# Method Blank Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16708-MB | LL10553.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 8.3 | 5.0 | mg/kg | |
| | TPH (>C22-C36) | ND | 8.3 | 5.0 | mg/kg | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 84% | 57-115% |

8.1 8



# Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16747-BS | ST47819.D | 1 | 05/31/06 | KE | 05/30/06 | OP16747 | GST1400 |

The QC reported here applies to the following samples: Method: SW846 8082

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 133 | 118 | 89 | 75-123 |
| 11096-82-5 | Aroclor 1260 | 133 | 122 | 92 | 72-124 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 78% | 52-136% |
| 2051-24-3 | Decachlorobiphenyl | 108% | 49-148% |

8.2 8

## Blank Spike Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16708-BS | LL10552.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | Spike mg/kg | BSP mg/kg | BSP % | Limits |
|---|---|---|---|---|---|
| | TPH (C10-C22) | 33.3 | 25.7 | 77 | 50-150 [a] |
| | TPH (>C22-C36) | 33.3 | 30.3 | 91 | 50-150 [a] |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 81% | 57-115% |

(a) Advisory control limits.

8.2 8



## Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16747-MS | ST47827.D | 1 | 06/01/06 | KE | 05/30/06 | OP16747 | GST1400 |
| OP16747-MSD | ST47830.D | 1 | 06/01/06 | KE | 05/30/06 | OP16747 | GST1400 |
| F40927-3 | ST47826.D | 1 | 06/01/06 | KE | 05/30/06 | OP16747 | GST1400 |

The QC reported here applies to the following samples: Method: SW846 8082

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | F40927-3 ug/kg | Q | Spike ug/kg | MS ug/kg | MS % | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | | 178 | 154 | 87 | 156 | 88 | 1 | 54-138/22 |
| 11096-82-5 | Aroclor 1260 | ND | | 178 | 154 | 87 | 155 | 88 | 1 | 46-138/21 |

| CAS No. | Surrogate Recoveries | MS | MSD | F40927-3 | Limits |
|---|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 88% | 83% | 84% | 52-136% |
| 2051-24-3 | Decachlorobiphenyl | 95% | 102% | 96% | 19-148% |

8.3 8

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F40927
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16708-MS | LL10557.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |
| OP16708-MSD | LL10558.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |
| F40927-3 | LL10556.D | 1 | 05/25/06 | AA | 05/24/06 | OP16708 | GLL387 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F40927-1, F40927-2, F40927-3

| CAS No. | Compound | F40927-3 mg/kg | Q | Spike mg/kg | MS mg/kg | MS % | MSD mg/kg | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | | 44.3 | 33.5 | 76 | 29.4 | 67 | 13 | 50-150/30 [a] |
| | TPH (> C22-C36) | ND | | 44.3 | 40.5 | 91 | 39.5 | 90 | 3 | 50-150/30 [a] |

| CAS No. | Surrogate Recoveries | MS | MSD | F40927-3 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 78% | 70% | 71% | 57-115% |

(a) Advisory control limits.

8.3

8





## Metals Analysis

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9667
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/24/06

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Aluminum | 20 | 1.8 | anr | |
| Antimony | 6.0 | .34 | anr | |
| Arsenic | 0.80 | .28 | anr | |
| Barium | 20 | .04 | anr | |
| Beryllium | 0.50 | .04 | anr | |
| Cadmium | 0.40 | .02 | anr | |
| Calcium | 500 | 4.2 | anr | |
| Chromium | 1.0 | .06 | anr | |
| Cobalt | 5.0 | .06 | anr | |
| Copper | 2.5 | .09 | anr | |
| Iron | 10 | 1.2 | anr | |
| Lead | 10 | .17 | anr | |
| Magnesium | 500 | .43 | anr | |
| Molybdenum | 5.0 | .13 | | |
| Nickel | 4.0 | .08 | anr | |
| Potassium | 1000 | 1 | anr | |
| Selenium | 10 | .2 | anr | |
| Silver | 1.0 | .09 | anr | |
| Sodium | 1000 | 50 | anr | |
| Tin | 5.0 | .31 | | |
| Vanadium | 5.0 | .06 | anr | |

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.1.1 9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9667
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/24/06 05/24/06

| Metal | F40897-6 Original DUP | RPD | QC Limits | F40897-6 Original MS | Spikelot MPFLICP1 % Rec | QC Limits |
|---|---|---|---|---|---|---|
| Aluminum | anr | | | | | |
| Antimony | anr | | | | | |
| Arsenic | anr | | | | | |
| Barium | anr | | | | | |
| Beryllium | anr | | | | | |
| Cadmium | anr | | | | | |
| Calcium | anr | | | | | |
| Chromium | anr | | | | | |
| Cobalt | anr | | | | | |
| Copper | anr | | | | | |
| Iron | anr | | | | | |
| Lead | anr | | | | | |
| Magnesium | anr | | | | | |
| Manganese | anr | | | | | |
| Molybdenum | | | | | | |
| Nickel | anr | | | | | |
| Potassium | anr | | | | | |
| Selenium | anr | | | | | |
| Silver | anr | | | | | |
| Sodium | anr | | | | | |
| Thallium | anr | | | | | |
| Tin | | | | | | |
| Vanadium | anr | | | | | |

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

9.1.2 9

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9667
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/24/06

| Metal | F40897-6 Original MSD | Spikelot MPFLICP1 % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|
| Aluminum | anr | | | |
| Antimony | anr | | | |
| Arsenic | anr | | | |
| Barium | anr | | | |
| Beryllium | anr | | | |
| Cadmium | anr | | | |
| Calcium | anr | | | |
| Chromium | anr | | | |
| Cobalt | anr | | | |
| Copper | anr | | | |
| Iron | anr | | | |
| Lead | anr | | | |
| Magnesium | anr | | | |
| Manganese | anr | | | |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | anr | | | |
| Selenium | anr | | | |
| Silver | anr | | | |
| Sodium | anr | | | |
| Thallium | anr | | | |
| Tin | | | | |
| Vanadium | anr | | | |

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(%) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

9.1.2 9



## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9667
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/24/06

| Metal | BSP Result | Spikelot MPFLICP1 % Rec | QC Limits |
|---|---|---|---|
| Aluminum | anr | | |
| Antimony | anr | | |
| Arsenic | anr | | |
| Barium | anr | | |
| Beryllium | anr | | |
| Cadmium | anr | | |
| Calcium | anr | | |
| Chromium | anr | | |
| Cobalt | anr | | |
| Copper | anr | | |
| Iron | anr | | |
| Lead | anr | | |
| Magnesium | anr | | |
| Manganese | anr | | |
| Molybdenum | | | |
| Nickel | anr | | |
| Potassium | anr | | |
| Selenium | anr | | |
| Silver | anr | | |
| Sodium | anr | | |
| Thallium | anr | | |
| Tin | | | |
| Vanadium | anr | | |

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.1.3 9

SERIAL DILUTION RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9667
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/24/06

| Metal | F40897-6 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | anr | | | |
| Antimony | anr | | | |
| Arsenic | anr | | | |
| Barium | anr | | | |
| Beryllium | anr | | | |
| Cadmium | anr | | | |
| Calcium | anr | | | |
| Chromium | anr | | | |
| Cobalt | anr | | | |
| Copper | anr | | | |
| Iron | anr | | | |
| Lead | anr | | | |
| Magnesium | anr | | | |
| Manganese | anr | | | |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | anr | | | |
| Selenium | anr | | | |
| Silver | anr | | | |
| Sodium | anr | | | |
| Thallium | anr | | | |
| Tin | | | | |
| Vanadium | anr | | | |

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.1.4 9



BLANK RESULTS SUMMARY
Part 2 Method Blanks

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9668
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/24/06

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Mercury | 0.083 | .0067 | -0.0025 | <0.083 |

Associated samples MP9668: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.2.1 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9668
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/24/06 05/24/06

| Metal | F40892-3 Original | DUP | RPD | QC Limits | F40892-3 Original | MS | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.027 | 0.021 | 25.0 (a) | 0-20 | 0.027 | 0.33 | 0.27 | 110.9 | 80-120 |

Associated samples MP9668: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

9.2.2 9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9668
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/24/06

| Metal | F40892-3 Original | MSD | Spikelot HGFLWS1 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Mercury | 0.027 | 0.32 | 0.27 | 109.0 | 3.1 | 20 |

Associated samples MP9668: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

9.2.2 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMAN

QC Batch ID: MP9668
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/24/06

| Metal | BSP Result | Spiked HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|
| Mercury | 0.26 | 0.25 | 104.0 | 80-120 |

Associated samples MP9668: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.2.3

9



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMAN

QC Batch ID: MP9683
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/26/06

| Metal | RL | IDL | MB raw | Final |
|---|---|---|---|---|
| Aluminum | 20 | 1.8 | 1.7 | <20 |
| Antimony | 6.0 | .34 | 0.44 | <6.0 |
| Arsenic | 0.80 | .28 | -0.41 | <0.80 |
| Barium | 20 | .04 | -0.0090 | <20 |
| Beryllium | 0.50 | .04 | -0.12 | <0.50 |
| Cadmium | 0.40 | .02 | -0.064 | <0.40 |
| Calcium | 500 | 4.2 | 5.0 | <500 |
| Chromium | 1.0 | .06 | -0.080 | <1.0 |
| Cobalt | 5.0 | .05 | -0.16 | <5.0 |
| Copper | 5.0 | .09 | -0.35 | <5.0 |
| Iron | 10 | 1.2 | 0.57 | <10 |
| Lead | 10 | .17 | -0.15 | <10 |
| Magnesium | 500 | .43 | 2.4 | <500 |
| Manganese | 1.5 | .06 | 0.13 | <1.5 |
| Molybdenum | 5.0 | .13 | | |
| Nickel | 4.0 | .08 | -0.099 | <4.0 |
| Potassium | 1000 | 1 | 2.0 | <1000 |
| Selenium | 10 | .2 | 0.18 | <10 |
| Silver | 1.0 | .09 | -0.088 | <1.0 |
| Sodium | 1000 | 50 | -48 | <1000 |
| Thallium | 1.0 | .23 | -0.50 | <1.0 |
| Tin | 5.0 | .31 | | |
| Vanadium | 5.0 | .06 | -0.12 | <5.0 |
| Zinc | 4.0 | .13 | 0.19 | <4.0 |

Associated samples MP9683: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.3.1

9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9683
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/26/06 05/26/06

| Metal | F40977-1 Original | DUP | RPD | QC Limits | F40977-1 Original | MS | Spikelot MPFLICP1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 1350 | 1420 | 5.1 | 0-20 | 1350 | 4540 | 2910 | 109.7 | 80-120 |
| Antimony | 0.73 | 0.0 | 200.0(a) | 0-20 | 0.73 | 46.6 | 53.8 | 85.2 | 80-120 |
| Arsenic | 0.0 | 0.0 | NC | 0-20 | 0.0 | 220 | 215 | 102.2 | 80-120 |
| Barium | 2.5 | 2.3 | 8.3 | 0-20 | 2.5 | 223 | 215 | 102.4 | 80-120 |
| Beryllium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 5.8 | 5.4 | 107.7 | 80-120 |
| Cadmium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 5.4 | 5.4 | 100.3 | 80-120 |
| Calcium | 383 | 341 | 11.6 | 0-20 | 383 | 3000 | 2690 | 97.2 | 80-120 |
| Chromium | 1.4 | 2.1 | 40.0 (a) | 0-20 | 1.4 | 23.7 | 21.5 | 103.6 | 80-120 |
| Cobalt | 0.0 | 0.0 | NC | 0-20 | 0.0 | 55.1 | 53.8 | 102.3 | 80-120 |
| Copper | 5.0 | 3.8 | 27.3 (a) | 0-20 | 5.0 | 31.5 | 26.9 | 98.4 | 80-120 |
| Iron | 307 | 296 | 3.6 | 0-20 | 307 | 3080 | 2800 | 99.1 | 80-120 |
| Lead | 3.9 | 4.1 | 5.0 | 0-20 | 3.9 | 57.4 | 53.8 | 99.4 | 80-120 |
| Magnesium | 31.8 | 31.8 | 0.0 | 0-20 | 31.8 | 2730 | 2690 | 100.2 | 80-120 |
| Manganese | 7.0 | 6.5 | 7.4 | 0-20 | 7.0 | 60.7 | 53.8 | 99.7 | 80-120 |
| Molybdenum | | | | | | | | | |
| Nickel | 0.43 | 0.38 | 12.3 | 0-20 | 0.43 | 57.2 | 53.8 | 105.4 | 80-120 |
| Potassium | 24.1 | 23.7 | 1.7 | 0-20 | 24.1 | 2310 | 2690 | 84.9 | 80-120 |
| Selenium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 215 | 215 | 99.8 | 80-120 |
| Silver | 0.0 | 0.0 | NC | 0-20 | 0.0 | 5.5 | 5.4 | 102.2 | 80-120 |
| Sodium | 85.4 | 0.00 | 200.0(a) | 0-20 | 85.4 | 2530 | 2690 | 90.8 | 80-120 |
| Thallium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 219 | 215 | 101.7 | 80-120 |
| Tin | | | | | | | | | |
| Vanadium | 1.3 | 1.2 | 8.0 | 0-20 | 1.3 | 55.5 | 53.8 | 100.7 | 80-120 |
| Zinc | 11.9 | 3.4 | 111.1*(b | 0-20 | 11.9 | 58.5 | 53.8 | 86.6 | 80-120 |

Associated samples MP9683: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations
(b) High RPD due to possible sample nonhomogeneity

9.3.2 9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9683
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/26/06

| Metal | F40977-1 Original | MSD | Spikelot MPFLICP1 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | 1350 | 4570 | 3020 | 106.5 | 0.7 | 20 |
| Antimony | 0.73 | 46.0 | 56 | 80.9 | 1.3 | 20 |
| Arsenic | 0.0 | 227 | 224 | 101.4 | 3.1 | 20 |
| Barium | 2.5 | 232 | 224 | 102.5 | 4.0 | 20 |
| Beryllium | 0.0 | 6.0 | 5.6 | 107.2 | 3.4 | 20 |
| Cadmium | 0.0 | 5.6 | 5.6 | 100.0 | 3.6 | 20 |
| Calcium | 383 | 3230 | 2800 | 101.2 | 7.4 | 20 |
| Chromium | 1.4 | 24.7 | 22.4 | 104.0 | 4.1 | 20 |
| Cobalt | 0.0 | 57.0 | 56 | 101.8 | 3.4 | 20 |
| Copper | 5.0 | 34.6 | 28 | 105.7 | 9.4 | 20 |
| Iron | 307 | 3250 | 2910 | 101.1 | 5.4 | 20 |
| Lead | 3.9 | 61.5 | 56 | 102.9 | 6.9 | 20 |
| Magnesium | 31.8 | 2820 | 2800 | 99.6 | 3.2 | 20 |
| Manganese | 7.0 | 66.2 | 56 | 105.7 | 8.7 | 20 |
| Molybdenum | | | | | | |
| Nickel | 0.43 | 58.6 | 56 | 105.7 | 4.1 | 20 |
| Potassium | 24.1 | 2390 | 2800 | 84.5 | 3.4 | 20 |
| Selenium | 0.0 | 222 | 224 | 99.1 | 3.2 | 20 |
| Silver | 0.0 | 5.7 | 5.6 | 101.8 | 3.6 | 20 |
| Sodium | 85.4 | 2570 | 2800 | 88.7 | 1.6 | 20 |
| Thallium | 0.0 | 228 | 224 | 101.8 | 4.0 | 20 |
| Tin | | | | | | |
| Vanadium | 1.3 | 57.7 | 56 | 100.7 | 3.9 | 20 |
| Zinc | 11.9 | 60.8 | 56 | 87.3 | 3.9 | 20 |

Associated samples MP9683: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

9.3.2 9

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9683
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/26/06

| Metal | BSP Result | Spikelot MPFLICP1 | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | 2720 | 2700 | 100.7 | 80-120 |
| Antimony | 52.4 | 50 | 104.8 | 80-120 |
| Arsenic | 207 | 200 | 103.5 | 80-120 |
| Barium | 207 | 200 | 103.5 | 80-120 |
| Beryllium | 5.4 | 5 | 108.0 | 80-120 |
| Cadmium | 5.1 | 5 | 102.0 | 80-120 |
| Calcium | 2560 | 2500 | 102.4 | 80-120 |
| Chromium | 20.9 | 20 | 104.5 | 80-120 |
| Cobalt | 51.3 | 50 | 102.6 | 80-120 |
| Copper | 27.1 | 25 | 108.4 | 80-120 |
| Iron | 2660 | 2600 | 102.3 | 80-120 |
| Lead | 51.5 | 50 | 103.0 | 80-120 |
| Magnesium | 2520 | 2500 | 100.8 | 80-120 |
| Manganese | 53.5 | 50 | 107.0 | 80-120 |
| Molybdenum | | | | |
| Nickel | 53.1 | 50 | 106.2 | 80-120 |
| Potassium | 2100 | 2500 | 84.0 | 80-120 |
| Selenium | 201 | 200 | 100.5 | 80-120 |
| Silver | 5.1 | 5 | 102.0 | 80-120 |
| Sodium | 2230 | 2500 | 89.2 | 80-120 |
| Thallium | 206 | 200 | 103.0 | 80-120 |
| Tin | | | | |
| Vanadium | 50.6 | 50 | 101.2 | 80-120 |
| Zinc | 52.2 | 50 | 104.4 | 80-120 |

Associated samples MP9683: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.3.3 6



## SERIAL DILUTION RESULTS SUMMARY

Login Number: F40927
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9683
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/26/06

| Metal | F40977-1 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | 12500 | 13500 | 7.5 | 0-10 |
| Antimony | 6.81 | 27.3 | 227.0(a) | 0-10 |
| Arsenic | 0.00 | 0.00 | NC | 0-10 |
| Barium | 23.7 | 23.1 | 2.7 | 0-10 |
| Beryllium | 0.00 | 0.00 | NC | 0-10 |
| Cadmium | 0.00 | 0.00 | NC | 0-10 |
| Calcium | 3550 | 3660 | 2.9 | 0-10 |
| Chromium | 12.8 | 11.0 | 14.2 (a) | 0-10 |
| Cobalt | 0.00 | 0.00 | NC | 0-10 |
| Copper | 46.0 | 33.6 | 27.0*(b) | 0-10 |
| Iron | 2850 | 3080 | 7.8 | 0-10 |
| Lead | 36.5 | 34.6 | 5.2 | 0-10 |
| Magnesium | 295 | 270 | 8.5 | 0-10 |
| Manganese | 54.6 | 55.5 | 1.3 | 0-10 |
| Molybdenum | | | | |
| Nickel | 4.00 | 0.00 | 100.0(a) | 0-10 |
| Potassium | 224 | 309 | 38.2 (a) | 0-10 |
| Selenium | 0.00 | 0.00 | NC | 0-10 |
| Silver | 0.00 | 4.62 | | 0-10 |
| Sodium | 793 | 0.00 | 100.0(a) | 0-10 |
| Thallium | 0.00 | 33.9 | | 0-10 |
| Tin | | | | |
| Vanadium | 12.2 | 12.3 | 1.4 | 0-10 |
| Zinc | 110 | 98.9 | 10.0 | 0-10 |

Associated samples MP9683: F40927-1, F40927-2, F40927-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL)
(b) Serial dilution indicates possible matrix interference

9.3.4 6

SDG F41336

*e-Hardcopy 2.0*
*Automated Report*

Southeast ACCUTEST

IT'S ALL IN THE CHEMISTRY

06/21/06

## Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # 9050291.01.01

Accutest Job Number: F41336

Sampling Date: 06/07/06

Report to:

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Total number of pages in report: 80

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable

Harry Behzadi, Ph.D
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Certifications: FL (DOH E83510), NC (373), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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## Sample Summary

Bhate Environmental Associates, Inc.

Job No: F41336

HOLMN
Project No: PROJECT # 9050291.01.01

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F41336-1 | 06/07/06 | 11:57 TL | 06/08/06 | AQ | Ground Water | SWMU-08-DP01 |
| F41336-2 | 06/07/06 | 11:57 TL | 06/08/06 | AQ | Ground Water | SWMU-08-DP01FD |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F41336

**Site:** HOLMN **Report Date** 6/21/2006 9:43:43 AM

2 Samples were collected on 06/07/2006 and received at Accutest on 06/08/2006 properly preserved, at 1.8 Deg. C and intact. These Samples received an Accutest job number of F41336. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ954

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41295-1MS, F41295-1MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl methacrylate, Styrene, Trans-1,4-Dichloro-2-Butene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl chloride, Methyl methacrylate, Styrene, Trans-1,4-Dichloro-2-Butene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference. See Blank Spike.

F41336-2 for Dibromochloromethane: CCV outside of control limits, results may be biased low.

**Matrix:** AQ **Batch ID:** VJ955

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41468-1MS, F41468-1MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for Tetrachloroethylene are outside control limits. Sporadic marginal failure. Passed in MS/MSD. SW-846 8000 requirements are met.

MS/MSD Recovery(s) for Hexachlorobutadiene are outside control limits. Probable cause due to matrix interference. For method performance in clean matrix refer to Blank Spike.

Matrix Spike Duplicate Recovery(s) for Hexachlorobutadiene are outside control limits. Probable cause due to matrix interference.

### Extractables by GCMS By Method SW846 8270C

**Matrix:** AQ **Batch ID:** OP16856

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41336-1MS, F41336-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

### Extractables by GC By Method SW846 8015 M

**Matrix:** AQ **Batch ID:** OP16861

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41336-2MS, F41336-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

### Extractables by GC By Method SW846 8082

**Matrix:** AQ **Batch ID:** OP16869

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41336-2MS, F41336-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

## Metals By Method EPA 200.7

**Matrix:** AQ **Batch ID:** MP9742

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41290-1DUP, F41290-1MS, F41290-1MSD, F41290-1SDL were used as the QC samples for metals.

RPD(s) for Duplicate for Arsenic, Barium, Beryllium, Potassium, Selenium are outside control limits for sample MP9742-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Aluminum, Arsenic, Barium, Beryllium, Cadmium, Iron, Manganese, Nickel, Potassium, Selenium are outside control limits for sample MP9742-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

## Metals By Method EPA 245.1

**Matrix:** AQ **Batch ID:** MP9746

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41371-1DUP, F41371-1MS were used as the QC samples for metals.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN20962

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41295-1DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Date: June 21, 2006

Svetlana Izosimova, QAO (signature on file)





## Sample Results

## Report of Analysis

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J023260.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 20 | 10 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | 9.2 | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 21.0 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | 1.2 | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.50 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 107% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 116% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L032125.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 2.0 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 44% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 29% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 89% | | 36-137% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 80% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 83% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 86% | | 46-135% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8082 SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | ST48236.D | 1 | 06/14/06 | ME | 06/09/06 | OP16860 | GST1410 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

PCB List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 0.50 | 0.25 | ug/l | |
| 11104-28-2 | Aroclor 1221 | ND | 0.50 | 0.40 | ug/l | |
| 11141-16-5 | Aroclor 1232 | ND | 0.50 | 0.40 | ug/l | |
| 53469-21-9 | Aroclor 1242 | ND | 0.50 | 0.25 | ug/l | |
| 12672-29-6 | Aroclor 1248 | ND | 0.50 | 0.25 | ug/l | |
| 11097-69-1 | Aroclor 1254 | ND | 0.50 | 0.25 | ug/l | |
| 11096-82-5 | Aroclor 1260 | ND | 0.50 | 0.25 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 92% | | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 87% | | 26-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Accutest LabLink@09:57 21-Jun-2006

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8015 M SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10793.D | 1 | 06/15/06 | AA | 06/09/06 | OP16861 | GLL396 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1010 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 0.25 | 0.099 | mg/l | |
| | TPH (>C22-C36) | ND | 0.25 | 0.099 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 96% | | 44-123% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 68.6 J | 200 | 18 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Antimony | 3.4 U | 6.0 | 3.4 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Arsenic | 11.3 | 10 | 2.8 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Barium | 21.6 J | 200 | 0.40 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Beryllium | 2.5 J | 8.0 | 0.80 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Cadmium | 0.30 U | 5.0 | 0.30 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Calcium | 656000 | 5000 | 210 | ug/l | 5 | 06/09/06 | 06/13/06 | RS | SW846 6010B [3] | EPA 200.7 [4] |
| Chromium | 0.60 U | 10 | 0.60 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Cobalt | 0.86 J | 50 | 0.60 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Copper | 1.0 U | 25 | 1.0 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Iron | 15 U | 300 | 15 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Lead | 1.7 U | 5.0 | 1.7 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Magnesium | 81600 | 5000 | 4.3 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Manganese | 119 | 15 | 1.5 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Mercury | 0.10 U | 1.0 | 0.10 | ug/l | 1 | 06/12/06 | 06/12/06 | MS | EPA 245.1 [1] | EPA 245.1 [5] |
| Nickel | 5.1 J | 40 | 0.80 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Potassium | 9940 J | 10000 | 100 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Selenium | 3.8 J | 10 | 2.8 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Sodium | 78200 | 10000 | 500 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Thallium | 2.9 U | 10 | 2.9 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Vanadium | 108 | 50 | 1.1 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Zinc | 3.4 J | 20 | 1.6 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |

(1) Instrument QC Batch: MA5026
(2) Instrument QC Batch: MA5029
(3) Instrument QC Batch: MA5031
(4) Prep QC Batch: MP9742
(5) Prep QC Batch: MP9746

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL



Accutest LabLink@09:57 21-Jun-2006

Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01 | | |
| Lab Sample ID: | F41336-1 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 3190 | 100 | 10 | mg/l | 1 | 06/12/06 09:40 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J023231.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 20 | 10 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | 9.7 | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 23.7 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane * | 1.2 | 1.0 | 0.40 | ug/l | J |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.50 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

(a) CCV outside of control limits; results may be biased low.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L032128.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1010 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 9.9 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 9.9 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.9 | 5.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 9.9 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 9.9 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 0.99 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 0.99 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 0.99 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 0.99 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 0.99 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 0.99 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 0.99 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.99 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 0.99 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.99 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.9 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 0.99 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.99 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 2.0 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.99 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.99 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 0.99 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 0.99 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 0.99 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.9 | 5.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 0.99 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 0.99 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 0.99 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.99 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.99 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 0.99 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.9 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.9 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.9 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.99 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.99 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 0.99 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 0.99 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.99 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 30% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 95% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 86% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 91% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 92% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8082 SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | ST48237.D | 1 | 06/14/06 | ME | 06/09/06 | OP16860 | GST1410 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1010 ml | 10.0 ml |
| Run #2 | | |

PCB List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 0.50 | 0.25 | ug/l | |
| 11104-28-2 | Aroclor 1221 | ND | 0.50 | 0.40 | ug/l | |
| 11141-16-5 | Aroclor 1232 | ND | 0.50 | 0.40 | ug/l | |
| 53469-21-9 | Aroclor 1242 | ND | 0.50 | 0.25 | ug/l | |
| 12672-29-6 | Aroclor 1248 | ND | 0.50 | 0.25 | ug/l | |
| 11097-69-1 | Aroclor 1254 | ND | 0.50 | 0.25 | ug/l | |
| 11096-82-5 | Aroclor 1260 | ND | 0.50 | 0.25 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 91% | | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 82% | | 26-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| Method: | SW846 8015 M SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10794.D | 1 | 06/15/06 | AA | 06/09/06 | OP16861 | GLL396 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 0.25 | 0.098 | mg/l | |
| | TPH (>C22-C36) | ND | 0.25 | 0.098 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 88% | | 44-123% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 59.7 J | 200 | 18 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Antimony | 3.4 U | 6.0 | 3.4 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Arsenic | 11.8 | 10 | 2.8 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Barium | 22.2 J | 200 | 0.40 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Beryllium | 2.3 J | 8.0 | 0.80 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Cadmium | 0.30 U | 5.0 | 0.30 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Calcium | 723000 | 5000 | 210 | ug/l | 5 | 06/09/06 | 06/13/06 | RS | SW846 6010B [3] | EPA 200.7 [4] |
| Chromium | 0.60 U | 10 | 0.60 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Cobalt | 0.86 J | 50 | 0.60 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Copper | 1.0 U | 25 | 1.0 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Iron | 15 U | 300 | 15 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Lead | 2.0 J | 5.0 | 1.7 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Magnesium | 84100 | 5000 | 4.3 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Manganese | 227 | 15 | 1.5 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Mercury | 0.10 U | 1.0 | 0.10 | ug/l | 1 | 06/12/06 | 06/12/06 | MS | EPA 245.1 [1] | EPA 245.1 [5] |
| Nickel | 23.8 J | 40 | 0.80 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Potassium | 10200 | 10000 | 100 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Selenium | 3.9 J | 10 | 2.8 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Sodium | 69000 | 50000 | 2500 | ug/l | 5 | 06/09/06 | 06/13/06 | RS | SW846 6010B [3] | EPA 200.7 [4] |
| Thallium | 2.9 U | 10 | 2.9 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Vanadium | 101 | 50 | 1.1 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |
| Zinc | 1.6 U | 20 | 1.6 | ug/l | 1 | 06/09/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [4] |

(1) Instrument QC Batch: MA5026
(2) Instrument QC Batch: MA5029
(3) Instrument QC Batch: MA5031
(4) Prep QC Batch: MP9742
(5) Prep QC Batch: MP9746

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL



Accutest LabLink@09:57 21-Jun-2006

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP01FD | | |
| Lab Sample ID: | F41336-2 | Date Sampled: | 06/07/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/08/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 2600 | 100 | 10 | mg/l | 1 | 06/12/06 09:40 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

## Misc. Forms

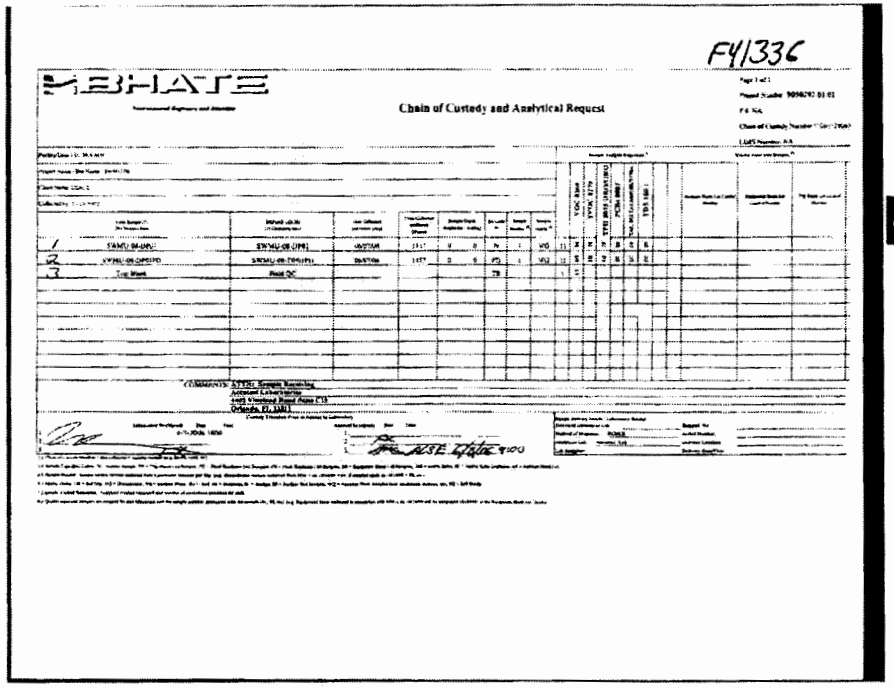
## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody






F41336

HBHATE

Chain of Custody and Analytical Request

F41336: Chain of Custody
Page 1 of 2

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F41336 CLIENT: Bhate PROJECT: SWMU 08

DATE/TIME RECEIVED: 6/9/08 7:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 18

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 853076392374

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [x] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [✓] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [x] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S

**MISC. INFORMATION**

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

NUMBER OR LAB FILTERED METALS ? 0

SUMMARY OF COMMENTS: Sample 2 (SWMU-08-OP01FQ) Received two vials but 3 on COC; trip blank not received but is on COC

TECHNICIAN SIGNATURE/DATE 6/18/08 TECHNICIAN SIGNATURE/DATE

4.1 4

F41336: Chain of Custody
Page 2 of 2





5

## GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-MB | J023216.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 20 | 10 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |



# Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-MB | J023216.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.50 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-MB | J023216.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | 83-119% |

5.1 5





# Method Blank Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ955-MB | J023240.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 20 | 10 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

5.1 5

# Method Blank Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ955-MB | J023240.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.50 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |





# Method Blank Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ955-MB | J023240.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | 83-119% |

# Blank Spike Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-BS | J023215.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 77.0 | 62 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 245 | 98 | 50-150 * |
| 107-02-8 | Acrolein | 125 | 83.0 | 66 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 116 | 93 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 29.0 | 116 | 50-150 * |
| 71-43-2 | Benzene | 25 | 26.0 | 104 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.5 | 86 | 50-150 * |
| 108-86-1 | Bromobenzene | 25 | 22.7 | 91 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 22.3 | 89 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 22.5 | 90 | 75-120 |
| 75-25-2 | Bromoform | 25 | 19.6 | 78 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 25.5 | 102 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.0 | 104 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 25.4 | 102 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 23.9 | 96 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 28.4 | 114 | 67-148 |
| 67-66-3 | Chloroform | 25 | 24.5 | 98 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 22.8 | 91 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 24.3 | 97 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 24.6 | 98 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 95.0 | 76 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 28.9 | 116 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 25.4 | 102 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 25.6 | 102 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 24.9 | 100 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 26.0 | 104 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 19.6 | 78 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 21.0 | 84 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 23.0 | 92 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 24.7 | 99 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 21.6 | 86 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 25.7 | 103 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 18.0 | 72 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 31.5 | 126 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 23.5 | 94 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 24.8 | 99 | 73-115 |



# Blank Spike Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-BS | J023215.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 23.1 | 92 | 50-150 * |
| 541-73-1 | m-Dichlorobenzene | 25 | 23.2 | 93 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 23.0 | 92 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 23.8 | 95 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 24.6 | 98 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 23.9 | 96 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 23.7 | 95 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 19.6 | 78 | 50-150 * |
| 76-13-1 | Freon 113 | 25 | 27.1 | 108 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 104 | 83 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 21.7 | 87 | 62-138 |
| 110-54-3 | Hexane | 25 | 25.7 | 103 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 22.2 | 89 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 25.2 | 101 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 108 | 86 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 225 | 90 | 50-150 * |
| 74-83-9 | Methyl bromide | 25 | 26.1 | 104 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 33.6 | 134 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 24.4 | 98 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 19.9 | 80 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 22.8 | 91 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 20.7 | 83 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 98.8 | 79 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 22.2 | 89 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 19.7 | 79 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 23.9 | 96 | 50-150 * |
| 107-12-0 | Propionitrile | 250 | 241 | 96 | 50-150 * |
| 103-65-1 | n-Propylbenzene | 25 | 25.0 | 100 | 80-122 |
| 100-42-5 | Styrene | 25 | 19.7 | 79 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.2 | 89 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 25.1 | 100 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 22.3 | 89 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 21.7 | 87 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 21.1 | 84 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 20.8 | 83 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 21.0 | 84 | 66-122 |

# Blank Spike Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-BS | J023215.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 24.8 | 99 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.1 | 100 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 20.1 | 80 | 75-126 |
| 108-88-3 | Toluene | 25 | 23.3 | 93 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 24.7 | 99 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 33.1 | 132 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 23.5 | 94 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 32.2 | 129 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 134 | 107 | 42-146 |
| | m,p-Xylene | 50 | 49.0 | 98 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 21.8 | 87 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98% | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 98% | 83-119% |

(a) Advisory control limits.





# Blank Spike Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ955-BS | J023239.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 70.8 | 57 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 244 | 98 | 50-150 * |
| 107-02-8 | Acrolein | 125 | 84.0 | 67 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 125 | 100 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 29.2 | 117 | 50-150 * |
| 71-43-2 | Benzene | 25 | 25.5 | 102 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 20.4 | 82 | 50-150 * |
| 108-86-1 | Bromobenzene | 25 | 20.7 | 83 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 21.3 | 85 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 22.1 | 88 | 75-120 |
| 75-25-2 | Bromoform | 25 | 17.9 | 72 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 25.0 | 100 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 25.2 | 101 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 24.5 | 98 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 22.8 | 91 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 33.0 | 132 | 67-148 |
| 67-66-3 | Chloroform | 25 | 24.4 | 98 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 21.2 | 85 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 23.4 | 94 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 23.5 | 94 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 95.6 | 76 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 28.3 | 113 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 25.0 | 100 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 25.9 | 104 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 25.1 | 100 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 25.8 | 103 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 18.4 | 74 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 19.4 | 78 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 23.4 | 94 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 24.8 | 99 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 20.3 | 81 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 25.3 | 101 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 17.2 | 69 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 33.6 | 134 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 22.3 | 89 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 24.1 | 96 | 73-115 |

# Blank Spike Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ955-BS | J023239.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 26.3 | 105 | 50-150 a |
| 541-73-1 | m-Dichlorobenzene | 25 | 21.9 | 88 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 21.7 | 87 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 22.4 | 90 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 24.5 | 98 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 23.5 | 94 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 23.1 | 92 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 18.6 | 74 | 50-150 a |
| 76-13-1 | Freon 113 | 25 | 26.7 | 107 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 100 | 80 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 19.4 | 78 | 62-138 |
| 110-54-3 | Hexane | 25 | 26.1 | 104 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 21.4 | 86 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 24.5 | 98 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 105 | 84 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 234 | 94 | 50-150 a |
| 74-83-9 | Methyl bromide | 25 | 31.5 | 126 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 37.3 | 149 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 22.9 | 92 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 19.8 | 79 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 22.2 | 89 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 20.8 | 83 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 95.5 | 76 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 21.4 | 86 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 18.2 | 73 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 22.9 | 92 | 50-150 a |
| 107-12-0 | Propionitrile | 250 | 241 | 96 | 50-150 a |
| 103-65-1 | n-Propylbenzene | 25 | 24.5 | 98 | 80-122 |
| 100-42-5 | Styrene | 25 | 19.4 | 78 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 21.4 | 86 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 24.9 | 100 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 21.6 | 86 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 20.6 | 82 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 18.4 | 74 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 20.4 | 82 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 18.7 | 75 | 66-122 |





# Blank Spike Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ955-BS | J023239.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 24.1 | 96 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 23.9 | 96 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 17.9 | 72* | 75-126 |
| 108-88-3 | Toluene | 25 | 22.0 | 88 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 24.0 | 96 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 37.1 | 148 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 25.6 | 102 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 37.1 | 148 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 148 | 118 | 42-146 |
| | m,p-Xylene | 50 | 46.8 | 94 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 21.3 | 85 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 97% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41295-1MS | J023228.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1MSD | J023229.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1 | J023227.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | F41295-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 105 | 84 | 102 | 82 | 3 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 316 | 126 | 312 | 125 | 1 | 50-150/30 a |
| 107-02-8 | Acrolein | ND | | 125 | 99.4 | 80 | 100 | 80 | 1 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 161 | 129 | 159 | 127 | 1 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 29.1 | 116 | 29.0 | 116 | 0 | 50-150/30 a |
| 71-43-2 | Benzene | ND | | 25 | 27.7 | 111 | 27.4 | 110 | 1 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 30.5 | 122 | 28.5 | 114 | 7 | 50-150/30 a |
| 108-86-1 | Bromobenzene | ND | | 25 | 21.7 | 87 | 22.1 | 88 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 23.0 | 92 | 23.8 | 95 | 3 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.6 | 102 | 25.3 | 101 | 1 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 22.2 | 89 | 22.0 | 88 | 1 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 24.4 | 98 | 26.2 | 105 | 7 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 26.6 | 106 | 26.0 | 104 | 2 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 25.8 | 103 | 25.4 | 102 | 2 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 25.2 | 101 | 24.5 | 98 | 3 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 32.7 | 131 | 33.7 | 135 | 3 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 26.5 | 106 | 26.4 | 106 | 0 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 22.4 | 90 | 22.6 | 90 | 1 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 25.3 | 101 | 25.0 | 100 | 1 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 25.5 | 102 | 25.2 | 101 | 1 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 30.3 | 121 | 30.4 | 122 | 0 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 27.1 | 108 | 26.9 | 108 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 28.1 | 112 | 27.5 | 110 | 2 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 28.0 | 112 | 27.7 | 111 | 1 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 27.3 | 109 | 27.2 | 109 | 0 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 32.0 | 128* | 31.3 | 125 | 2 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 24.5 | 98 | 25.4 | 102 | 4 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 29.8 | 119 | 28.9 | 116 | 3 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 27.3 | 109 | 26.8 | 107 | 2 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 25.3 | 101 | 25.5 | 102 | 1 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 26.5 | 106 | 25.5 | 102 | 4 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 20.5 | 82 | 20.2 | 81 | 1 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 31.2 | 125 | 34.7 | 139 | 11 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 22.0 | 88 | 23.2 | 93 | 5 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 25.5 | 102 | 25.5 | 102 | 0 | 65-112/10 |



# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41295-1MS | J023228.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1MSD | J023229.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1 | J023227.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | F41295-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 36.7 | 147 | 34.2 | 137 | 7 | 50-150/30 a |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 23.5 | 94 | 23.5 | 94 | 0 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 24.1 | 96 | 24.0 | 96 | 0 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 24.0 | 96 | 23.9 | 96 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 26.5 | 106 | 26.5 | 106 | 0 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 28.3 | 113 | 27.5 | 110 | 3 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 25.4 | 102 | 25.0 | 100 | 2 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 27.4 | 110 | 27.2 | 109 | 1 | 50-150/30 a |
| 76-13-1 | Freon 113 | ND | | 25 | 29.7 | 119 | 28.6 | 114 | 4 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 227 | 182* | 214 | 171* | 6 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 17.4 | 70 | 16.6 | 66 | 5 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 28.3 | 113 | 28.2 | 113 | 0 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | 0.95 | J | 25 | 24.5 | 94 | 24.2 | 93 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 25.4 | 102 | 25.0 | 100 | 2 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 219 | 175* | 208 | 166* | 5 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 356 | 142 | 338 | 135 | 5 | 50-150/30 a |
| 74-83-9 | Methyl bromide | ND | | 25 | 31.1 | 124 | 31.6 | 126 | 2 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 33.8 | 135 | 39.3 | 157* | 15 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 22.6 | 90 | 24.2 | 97 | 7 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 32.7 | 131* | 32.0 | 128* | 2 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 27.4 | 110 | 26.8 | 107 | 2 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 23.2 | 93 | 23.3 | 93 | 0 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 155 | 124 | 152 | 122 | 2 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 27.6 | 110 | 27.8 | 111 | 1 | 61-129/9 |
| 91-20-3 | Naphthalene | 1.3 | J | 25 | 32.1 | 123 | 32.0 | 123 | 0 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 23.2 | 93 | 23.6 | 94 | 2 | 50-150/30 a |
| 107-12-0 | Propionitrile | ND | | 250 | 346 | 138 | 338 | 135 | 2 | 50-150/30 a |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 25.5 | 102 | 25.4 | 102 | 0 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 0.61 | 2* | 0.61 | 2* | 0 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 23.5 | 94 | 23.3 | 93 | 1 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 27.1 | 108 | 27.2 | 109 | 0 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 30.6 | 122* | 30.3 | 121* | 1 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 26.1 | 104 | 25.0 | 100 | 4 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 22.2 | 89 | 22.8 | 91 | 3 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 29.9 | 120* | 30.0 | 120* | 0 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 20.8 | 83 | 21.2 | 85 | 2 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41295-1MS | J023228.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1MSD | J023229.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1 | J023227.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-2

| CAS No. | Compound | F41295-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 25.8 | 103 | 25.4 | 102 | 2 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 24.6 | 98 | 24.8 | 99 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 18.4 | 74 | 18.2 | 73 | 1 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 23.3 | 93 | 23.4 | 94 | 0 | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 26.3 | 105 | 26.0 | 104 | 1 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 38.1 | 152 | 36.9 | 148 | 3 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 38.2 | 153* | 37.4 | 150* | 2 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 34.4 | 138 | 38.7 | 155 | 12 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 8.1 | 6* | 7.3 | 6* | 10 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 52.0 | 104 | 50.9 | 102 | 2 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.3 | 93 | 22.6 | 90 | 3 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41295-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 101% | 108% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 121% | 116% | 122% | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | 92% | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | 96% | 110% | 83-119% |

(a) Advisory control limits.





# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41468-1MS | J023245.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |
| F41468-1MSD | J023246.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |
| F41468-1 [a] | J023241.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | F41468-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 25 U | | 125 | 87.6 | 70 | 89.4 | 72 | 2 | 45-127/15 |
| 75-05-8 | Acetonitrile | 20 U | | 250 | 259 | 104 | 285 | 114 | 10 | 50-150/30 [b] |
| 107-02-8 | Acrolein | 20 U | | 125 | 79.8 | 64 | 90.4 | 72 | 12 | 26-185/18 |
| 107-13-1 | Acrylonitrile | 10 U | | 125 | 131 | 105 | 138 | 110 | 5 | 39-140/12 |
| 107-05-1 | Allyl chloride | 10 U | | 25 | 29.2 | 117 | 29.3 | 117 | 0 | 50-150/30 [b] |
| 71-43-2 | Benzene | 1.0 U | | 25 | 28.5 | 114 | 28.0 | 112 | 2 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | 1.0 U | | 25 | 23.6 | 94 | 24.0 | 96 | 2 | 50-150/30 [b] |
| 108-86-1 | Bromobenzene | 1.0 U | | 25 | 21.0 | 84 | 21.9 | 88 | 4 | 72-113/10 |
| 74-97-5 | Bromochloromethane | 1.0 U | | 25 | 22.7 | 91 | 24.0 | 96 | 6 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | 1.0 U | | 25 | 26.4 | 106 | 25.7 | 103 | 3 | 72-120/8 |
| 75-25-2 | Bromoform | 1.0 U | | 25 | 20.2 | 81 | 21.0 | 84 | 4 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | 1.0 U | | 25 | 23.8 | 95 | 23.6 | 94 | 1 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | 1.0 U | | 25 | 25.0 | 100 | 24.8 | 99 | 1 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | 1.0 U | | 25 | 25.3 | 101 | 25.0 | 100 | 1 | 70-125/12 |
| 108-90-7 | Chlorobenzene | 1.0 U | | 25 | 24.6 | 98 | 24.3 | 97 | 1 | 79-113/7 |
| 75-00-3 | Chloroethane | 2.0 U | | 25 | 31.2 | 125 | 34.0 | 136 | 9 | 56-164/14 |
| 67-66-3 | Chloroform | 4.8 | | 25 | 32.4 | 110 | 31.9 | 108 | 2 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | 2.0 U | | 25 | 21.7 | 87 | 22.4 | 90 | 3 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | 1.0 U | | 25 | 24.5 | 98 | 24.9 | 100 | 2 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | 1.0 U | | 25 | 24.9 | 100 | 24.6 | 98 | 1 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 5.0 U | | 125 | 118 | 94 | 120 | 96 | 2 | 8-137/18 |
| 75-15-0 | Carbon disulfide | 2.0 U | | 25 | 30.3 | 121 | 29.6 | 118 | 2 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | 1.0 U | | 25 | 27.4 | 110 | 26.8 | 107 | 2 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 U | | 25 | 28.1 | 112 | 27.5 | 110 | 2 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | 1.0 U | | 25 | 28.1 | 112 | 27.3 | 109 | 3 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | 1.0 U | | 25 | 27.8 | 111 | 28.0 | 112 | 1 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2.0 U | | 25 | 23.8 | 95 | 24.1 | 96 | 1 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | 1.0 U | | 25 | 22.3 | 89 | 22.9 | 92 | 3 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 U | | 25 | 29.3 | 117 | 27.6 | 110 | 6 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 U | | 25 | 27.3 | 109 | 27.6 | 110 | 1 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | 1.0 U | | 25 | 23.3 | 93 | 23.7 | 95 | 2 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | 1.0 U | | 25 | 27.1 | 108 | 26.0 | 104 | 4 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | 1.0 U | | 25 | 19.4 | 78 | 19.4 | 78 | 0 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | 1.0 U | | 25 | 28.6 | 114 | 33.9 | 136 | 17 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | 1.0 U | | 25 | 23.9 | 96 | 23.5 | 94 | 2 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 U | | 25 | 27.5 | 110 | 27.4 | 110 | 0 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41468-1MS | J023245.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |
| F41468-1MSD | J023246.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |
| F41468-1 [a] | J023241.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | F41468-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 10 U | | 25 | 25.7 | 103 | 25.3 | 101 | 2 | 50-150/30 [b] |
| 541-73-1 | m-Dichlorobenzene | 1.0 U | | 25 | 22.6 | 90 | 22.6 | 90 | 0 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | 1.0 U | | 25 | 22.7 | 91 | 23.1 | 92 | 2 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | 1.0 U | | 25 | 22.9 | 92 | 23.2 | 93 | 1 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | 1.0 U | | 25 | 26.1 | 104 | 26.2 | 105 | 0 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 U | | 25 | 26.7 | 107 | 26.7 | 107 | 0 | 59-116/11 |
| 100-41-4 | Ethylbenzene | 1.0 U | | 25 | 25.1 | 100 | 25.0 | 100 | 0 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | 5.0 U | | 25 | 20.4 | 82 | 21.3 | 85 | 4 | 50-150/30 [b] |
| 76-13-1 | Freon 113 | 1.0 U | | 25 | 29.6 | 118 | 28.3 | 113 | 4 | 67-151/14 |
| 591-78-6 | 2-Hexanone | 5.0 U | | 125 | 133 | 106 | 134 | 107 | 1 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | 2.0 U | | 25 | 12.0 | 48* | 12.0 | 48* | 0 | 52-133/13 |
| 110-54-3 | Hexane | 2.0 U | | 25 | 26.9 | 108 | 26.6 | 106 | 1 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | 1.0 U | | 25 | 23.0 | 92 | 22.8 | 91 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | 1.0 U | | 25 | 24.4 | 98 | 24.2 | 97 | 1 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 U | | 125 | 136 | 109 | 142 | 114 | 4 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | 20 U | | 250 | 287 | 115 | 283 | 113 | 1 | 50-150/30 [b] |
| 74-83-9 | Methyl bromide | 2.0 U | | 25 | 30.5 | 122 | 33.5 | 134 | 9 | 52-172/16 |
| 74-87-3 | Methyl chloride | 2.0 U | | 25 | 32.4 | 130 | 38.4 | 154 | 17 | 53-155/19 |
| 74-88-4 | Methyl iodide | 5.0 U | | 25 | 22.6 | 90 | 23.2 | 93 | 3 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | 5.0 U | | 25 | 23.3 | 93 | 24.6 | 98 | 5 | 76-115/11 |
| 74-95-3 | Methylene bromide | 2.0 U | | 25 | 26.2 | 105 | 26.2 | 105 | 0 | 73-115/9 |
| 75-09-2 | Methylene chloride | 5.0 U | | 25 | 23.6 | 94 | 23.1 | 92 | 2 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | 5.0 U | | 125 | 121 | 97 | 127 | 102 | 5 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.0 U | | 25 | 24.7 | 99 | 25.2 | 101 | 2 | 61-129/9 |
| 91-20-3 | Naphthalene | 2.0 U | | 25 | 22.0 | 88 | 22.6 | 90 | 3 | 52-127/13 |
| 76-01-7 | Pentachloroethane | 10 U | | 25 | 21.2 | 85 | 21.3 | 85 | 0 | 50-150/30 [b] |
| 107-12-0 | Propionitrile | 20 U | | 250 | 282 | 113 | 293 | 117 | 4 | 50-150/30 [b] |
| 103-65-1 | n-Propylbenzene | 1.0 U | | 25 | 25.0 | 100 | 24.8 | 99 | 1 | 73-123/10 |
| 100-42-5 | Styrene | 1.0 U | | 25 | 20.7 | 83 | 20.6 | 82 | 0 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 U | | 25 | 23.3 | 93 | 23.4 | 94 | 0 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 U | | 25 | 27.6 | 110 | 27.1 | 108 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 U | | 25 | 25.4 | 102 | 26.2 | 105 | 3 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 U | | 25 | 23.4 | 94 | 23.8 | 95 | 2 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.0 U | | 25 | 18.2 | 73 | 18.6 | 74 | 2 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.0 U | | 25 | 24.1 | 96 | 24.6 | 98 | 2 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.0 U | | 25 | 17.8 | 71 | 18.2 | 73 | 2 | 58-120/11 |





# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41468-1MS | J023245.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |
| F41468-1MSD | J023246.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |
| F41468-1 [a] | J023241.D | 1 | 06/16/06 | MM | n/a | n/a | VJ955 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41336-1

| CAS No. | Compound | F41468-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 2.0 U | | 25 | 25.2 | 101 | 25.0 | 100 | 1 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 2.0 U | | 25 | 24.4 | 98 | 24.4 | 98 | 0 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | 1.0 U | | 25 | 17.6 | 70 | 18.0 | 72 | 2 | 70-126/9 |
| 108-88-3 | Toluene | 1.0 U | | 25 | 23.2 | 93 | 23.4 | 94 | 1 | 67-123/8 |
| 79-01-6 | Trichloroethylene | 1.0 U | | 25 | 27.1 | 108 | 26.7 | 107 | 1 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | 2.0 U | | 25 | 37.4 | 150 | 37.5 | 150 | 0 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 10 U | | 25 | 28.2 | 113 | 28.1 | 112 | 0 | 27-131/22 |
| 75-01-4 | Vinyl chloride | 1.0 U | | 25 | 32.3 | 129 | 37.9 | 152 | 16 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | 10 U | | 125 | 163 | 130 | 163 | 130 | 0 | 37-154/10 |
| | m,p-Xylene | 2.0 U | | 50 | 51.7 | 103 | 50.7 | 101 | 2 | 74-123/7 |
| 95-47-6 | o-Xylene | 1.0 U | | 25 | 22.8 | 91 | 22.5 | 90 | 1 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41468-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 101% | 105% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 116% | 112% | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 92% | 98% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | 96% | 108% | 83-119% |

(a) Sample was not preserved to a pH < 2.
(b) Advisory control limits.

## GC/MS Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



# Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MB | L032115.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 2.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

# Method Blank Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MB | L032115.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 19-90% |
| 4165-62-2 | Phenol-d5 | 29% | 10-68% |





# Method Blank Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MB | L032115.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 95% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 88% | 19-119% |
| 321-60-8 | 2-Fluorobiphenyl | 91% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 97% | 46-135% |

# Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MB | L032142.D | 1 | 06/12/06 | NJ | 06/09/06 | OP16856 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 2.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |



# Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MB | L032142.D | 1 | 06/12/06 | NJ | 06/09/06 | OP16856 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 19-90% |
| 4165-62-2 | Phenol-d5 | 29% | 10-68% |

## Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MB | L032142.D | 1 | 06/12/06 | NJ | 06/09/06 | OP16856 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 96% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 88% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 91% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 94% | 46-135% |

6.1 6



## Blank Spike Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-BS | L032114.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 100 | 20.2 | 20 | 10-50 |
| 95-57-8 | 2-Chlorophenol | 50 | 43.9 | 88 | 57-100 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 46.3 | 93 | 63-105 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 48.4 | 97 | 65-106 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 38.7 | 77 | 49-90 |
| 51-28-5 | 2,4-Dinitrophenol | 100 | 79.6 | 80 | 26-125 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 100 | 91.2 | 91 | 56-121 |
| 95-48-7 | 2-Methylphenol | 50 | 38.9 | 78 | 48-90 |
| | 3&4-Methylphenol | 100 | 71.8 | 72 | 43-94 |
| 88-75-5 | 2-Nitrophenol | 50 | 47.8 | 96 | 62-107 |
| 100-02-7 | 4-Nitrophenol | 100 | 32.6 | 33 | 19-66 |
| 87-86-5 | Pentachlorophenol | 100 | 104 | 104 | 62-120 |
| 108-95-2 | Phenol | 50 | 21.6 | 43 | 20-65 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 48.3 | 97 | 67-103 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 46.5 | 93 | 68-104 |
| 83-32-9 | Acenaphthene | 50 | 48.1 | 96 | 67-101 |
| 208-96-8 | Acenaphthylene | 50 | 46.7 | 93 | 65-100 |
| 120-12-7 | Anthracene | 50 | 49.4 | 99 | 71-103 |
| 92-87-5 | Benzidine | 50 | 26.2 | 52 | 21-101 |
| 56-55-3 | Benzo(a)anthracene | 50 | 49.1 | 98 | 71-105 |
| 50-32-8 | Benzo(a)pyrene | 50 | 48.2 | 96 | 67-106 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 50.7 | 101 | 68-108 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 48.4 | 97 | 65-110 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 49.1 | 98 | 69-110 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 50.7 | 101 | 71-106 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 49.4 | 99 | 66-110 |
| 100-51-6 | Benzyl Alcohol | 50 | 41.0 | 82 | 36-101 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 47.4 | 95 | 62-99 |
| 106-47-8 | 4-Chloroaniline | 50 | 46.7 | 93 | 58-101 |
| 218-01-9 | Chrysene | 50 | 50.1 | 100 | 71-105 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 44.7 | 89 | 56-101 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 48.2 | 96 | 60-108 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 43.8 | 88 | 49-108 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 48.5 | 97 | 69-106 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 44.3 | 89 | 48-98 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 42.8 | 86 | 44-95 |

6.2 6

# Blank Spike Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-BS | L032114.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 43.5 | 87 | 46-96 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 49.1 | 98 | 64-107 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 47.0 | 94 | 64-102 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 47.9 | 96 | 54-109 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 50.4 | 101 | 61-112 |
| 132-64-9 | Dibenzofuran | 50 | 49.2 | 98 | 70-102 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 48.2 | 96 | 69-109 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 52.0 | 104 | 63-125 |
| 84-66-2 | Diethyl phthalate | 50 | 48.5 | 97 | 66-111 |
| 131-11-3 | Dimethyl phthalate | 50 | 47.9 | 96 | 66-109 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 50.3 | 101 | 66-114 |
| 206-44-0 | Fluoranthene | 50 | 51.2 | 102 | 71-108 |
| 86-73-7 | Fluorene | 50 | 48.1 | 96 | 68-102 |
| 118-74-1 | Hexachlorobenzene | 50 | 49.6 | 99 | 69-103 |
| 87-68-3 | Hexachlorobutadiene | 50 | 45.6 | 91 | 48-100 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 30.4 | 61 | 20-85 |
| 67-72-1 | Hexachloroethane | 50 | 43.6 | 87 | 41-98 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 50.5 | 101 | 66-112 |
| 78-59-1 | Isophorone | 50 | 50.1 | 100 | 62-105 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 50.7 | 101 | 62-105 |
| 88-74-4 | 2-Nitroaniline | 50 | 47.0 | 94 | 66-105 |
| 99-09-2 | 3-Nitroaniline | 50 | 46.0 | 92 | 56-104 |
| 100-01-6 | 4-Nitroaniline | 50 | 47.7 | 95 | 62-110 |
| 91-20-3 | Naphthalene | 50 | 47.1 | 94 | 56-99 |
| 98-95-3 | Nitrobenzene | 50 | 46.6 | 93 | 60-102 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 47.9 | 96 | 56-101 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 48.3 | 97 | 69-106 |
| 85-01-8 | Phenanthrene | 50 | 49.5 | 99 | 71-104 |
| 129-00-0 | Pyrene | 50 | 49.6 | 99 | 67-108 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 46.0 | 92 | 52-99 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 57% | 19-90% |
| 4165-62-2 | Phenol-d5 | 37% | 10-68% |

6.2 6





# Blank Spike Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-BS | L032114.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 98% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 92% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 96% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 97% | 46-135% |

6.2 6

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MS | L032126.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| OP16856-MSD | L032127.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| F41336-1 | L032125.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | F41336-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | | 200 | 94.0 | 47 | 91.4 | 46 | 3 | 10-80/45 |
| 95-57-8 | 2-Chlorophenol | ND | | 100 | 89.2 | 89 | 87.6 | 88 | 2 | 43-109/27 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 100 | 94.7 | 95 | 92.4 | 92 | 2 | 57-109/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 100 | 95.8 | 96 | 93.7 | 94 | 2 | 49-114/23 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 100 | 74.8 | 75 | 74.8 | 75 | 0 | 32-103/24 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 200 | 176 | 88 | 164 | 82 | 7 | 20-131/28 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 200 | 194 | 97 | 187 | 94 | 4 | 46-130/23 |
| 95-48-7 | 2-Methylphenol | ND | | 100 | 82.2 | 82 | 82.0 | 82 | 0 | 40-102/25 |
| | 3&4-Methylphenol | ND | | 200 | 160 | 80 | 159 | 80 | 1 | 39-97/24 |
| 88-75-5 | 2-Nitrophenol | ND | | 100 | 92.2 | 92 | 93.3 | 93 | 1 | 46-115/26 |
| 100-02-7 | 4-Nitrophenol | ND | | 200 | 107 | 54 | 107 | 54 | 0 | 28-81/30 |
| 87-86-5 | Pentachlorophenol | ND | | 200 | 212 | 106 | 205 | 103 | 3 | 53-128/22 |
| 108-95-2 | Phenol | ND | | 100 | 55.0 | 55 | 57.3 | 57 | 4 | 19-81/33 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 100 | 93.6 | 94 | 93.6 | 94 | 0 | 56-110/19 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 100 | 93.0 | 93 | 91.9 | 92 | 1 | 55-112/19 |
| 83-32-9 | Acenaphthene | ND | | 100 | 96.2 | 96 | 94.4 | 94 | 2 | 58-109/18 |
| 208-96-8 | Acenaphthylene | ND | | 100 | 93.8 | 94 | 91.7 | 92 | 2 | 59-103/18 |
| 120-12-7 | Anthracene | ND | | 100 | 99.3 | 99 | 95.7 | 96 | 4 | 65-108/16 |
| 92-87-5 | Benzidine | ND | | 100 | 31.8 | 32 | 36.9 | 37 | 15 | 11-98/21 |
| 56-55-3 | Benzo(a)anthracene | ND | | 100 | 97.9 | 98 | 95.6 | 96 | 2 | 68-106/17 |
| 50-32-8 | Benzo(a)pyrene | ND | | 100 | 94.3 | 94 | 93.4 | 93 | 1 | 61-108/18 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 100 | 99.2 | 99 | 97.9 | 98 | 1 | 65-109/18 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 100 | 94.5 | 95 | 92.5 | 93 | 2 | 60-114/19 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 100 | 101 | 101 | 96.9 | 97 | 4 | 66-111/17 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 100 | 100 | 100 | 97.4 | 97 | 3 | 68-108/17 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 100 | 97.8 | 98 | 96.2 | 96 | 2 | 64-111/18 |
| 100-51-6 | Benzyl Alcohol | ND | | 100 | 88.9 | 89 | 87.1 | 87 | 2 | 44-105/26 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 100 | 93.7 | 94 | 92.6 | 93 | 1 | 57-102/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 100 | 88.1 | 88 | 87.9 | 88 | 0 | 37-106/27 |
| 218-01-9 | Chrysene | ND | | 100 | 99.8 | 100 | 97.1 | 97 | 3 | 69-106/17 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 100 | 86.7 | 87 | 85.4 | 85 | 2 | 46-106/24 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 100 | 93.5 | 94 | 92.6 | 93 | 1 | 48-114/28 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 100 | 85.2 | 85 | 84.5 | 85 | 1 | 43-110/26 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 100 | 97.1 | 97 | 96.1 | 96 | 1 | 66-107/17 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 100 | 88.2 | 88 | 88.0 | 88 | 0 | 45-103/24 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 100 | 84.4 | 84 | 83.6 | 84 | 1 | 42-100/24 |



# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MS | L032126.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| OP16856-MSD | L032127.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| F41336-1 | L032125.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Compound | F41336-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 100 | 86.0 | 86 | 84.3 | 84 | 2 | 43-102/24 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 100 | 97.1 | 97 | 95.0 | 95 | 2 | 60-108/18 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 100 | 92.6 | 93 | 91.8 | 92 | 1 | 59-105/18 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 100 | 87.1 | 87 | 85.8 | 86 | 2 | 21-120/24 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 100 | 99.6 | 100 | 96.5 | 97 | 3 | 59-112/18 |
| 132-64-9 | Dibenzofuran | ND | | 100 | 96.6 | 97 | 94.3 | 94 | 2 | 65-105/17 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 100 | 95.8 | 96 | 94.7 | 95 | 1 | 68-109/18 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 100 | 102 | 102 | 100 | 100 | 2 | 59-127/23 |
| 84-66-2 | Diethyl phthalate | ND | | 100 | 97.5 | 98 | 94.7 | 95 | 3 | 64-111/18 |
| 131-11-3 | Dimethyl phthalate | ND | | 100 | 95.7 | 96 | 92.6 | 93 | 3 | 63-109/17 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 100 | 98.5 | 99 | 97.1 | 97 | 1 | 58-119/21 |
| 206-44-0 | Fluoranthene | ND | | 100 | 102 | 102 | 99.4 | 99 | 3 | 68-110/18 |
| 86-73-7 | Fluorene | ND | | 100 | 95.2 | 95 | 94.1 | 94 | 1 | 62-106/17 |
| 118-74-1 | Hexachlorobenzene | ND | | 100 | 98.8 | 99 | 95.9 | 96 | 3 | 66-106/16 |
| 87-68-3 | Hexachlorobutadiene | ND | | 100 | 90.7 | 91 | 91.0 | 91 | 0 | 46-107/26 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 100 | 54.2 | 54 | 56.7 | 57 | 5 | 16-84/31 |
| 67-72-1 | Hexachloroethane | ND | | 100 | 83.3 | 83 | 84.0 | 84 | 1 | 39-105/25 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 100 | 98.6 | 99 | 95.5 | 96 | 3 | 61-115/19 |
| 78-59-1 | Isophorone | ND | | 100 | 98.6 | 99 | 97.5 | 98 | 1 | 54-107/22 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 100 | 99.8 | 100 | 98.2 | 98 | 2 | 53-112/22 |
| 88-74-4 | 2-Nitroaniline | ND | | 100 | 91.8 | 92 | 90.7 | 91 | 1 | 60-108/18 |
| 99-09-2 | 3-Nitroaniline | ND | | 100 | 84.4 | 84 | 82.7 | 83 | 2 | 43-103/23 |
| 100-01-6 | 4-Nitroaniline | ND | | 100 | 94.2 | 94 | 90.9 | 91 | 4 | 55-110/19 |
| 91-20-3 | Naphthalene | ND | | 100 | 93.2 | 93 | 92.1 | 92 | 1 | 49-104/24 |
| 98-95-3 | Nitrobenzene | ND | | 100 | 90.8 | 91 | 91.1 | 91 | 0 | 50-107/25 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 100 | 93.0 | 93 | 90.9 | 91 | 2 | 47-104/23 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 100 | 94.6 | 95 | 92.5 | 93 | 2 | 63-110/17 |
| 85-01-8 | Phenanthrene | ND | | 100 | 98.6 | 99 | 96.9 | 97 | 2 | 67-108/17 |
| 129-00-0 | Pyrene | ND | | 100 | 101 | 101 | 96.8 | 97 | 4 | 65-108/18 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 100 | 90.7 | 91 | 91.0 | 91 | 0 | 49-104/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41336-1 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 70% | 71% | 44% | 19-90% |
| 4165-62-2 | Phenol-d5 | 52% | 53% | 29% | 10-68% |

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16856-MS | L032126.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| OP16856-MSD | L032127.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |
| F41336-1 | L032125.D | 1 | 06/10/06 | NJ | 06/09/06 | OP16856 | SL1662 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41336-1, F41336-2

| CAS No. | Surrogate Recoveries | MS | MSD | F41336-1 | Limits |
|---|---|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 97% | 94% | 89% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 91% | 91% | 80% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 94% | 93% | 83% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 100% | 96% | 86% | 46-135% |

6.3

6





## GC Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

7

# Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16860-MB | ST48234.D | 1 | 06/14/06 | ME | 06/09/06 | OP16860 | GST1410 |

The QC reported here applies to the following samples: Method: SW846 8082

F41336-1, F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 0.50 | 0.25 | ug/l | |
| 11104-28-2 | Aroclor 1221 | ND | 0.50 | 0.40 | ug/l | |
| 11141-16-5 | Aroclor 1232 | ND | 0.50 | 0.40 | ug/l | |
| 53469-21-9 | Aroclor 1242 | ND | 0.50 | 0.25 | ug/l | |
| 12672-29-6 | Aroclor 1248 | ND | 0.50 | 0.25 | ug/l | |
| 11097-69-1 | Aroclor 1254 | ND | 0.50 | 0.25 | ug/l | |
| 11096-82-5 | Aroclor 1260 | ND | 0.50 | 0.25 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 90% | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 72% | 26-137% |

7.1

7



# Method Blank Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16861-MB | LL10791.D | 1 | 06/15/06 | AA | 06/09/06 | OP16861 | GLL396 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F41336-1, F41336-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 0.25 | 0.10 | mg/l | |
| | TPH (>C22-C36) | ND | 0.25 | 0.10 | mg/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 89% | 44-123% |

7.1

7

## Blank Spike Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16860-BS | ST48233.D | 1 | 06/14/06 | ME | 06/09/06 | OP16860 | GST1410 |

The QC reported here applies to the following samples: Method: SW846 8082

F41336-1, F41336-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 4 | 3.7 | 93 | 75-122 |
| 11096-82-5 | Aroclor 1260 | 4 | 3.5 | 88 | 71-120 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 93% | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 79% | 26-137% |

7.2

7



## Blank Spike Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16861-BS | LL10790.D | 1 | 06/15/06 | AA | 06/09/06 | OP16861 | GLL396 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F41336-1, F41336-2

| CAS No. | Compound | Spike mg/l | BSP mg/l | BSP % | Limits |
|---|---|---|---|---|---|
| | TPH (C10-C22) | 1 | 1.01 | 101 | 50-150 [a] |
| | TPH (> C22-C36) | 1 | 1.07 | 107 | 50-150 [a] |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 101% | 44-123% |

(a) Advisory control limits.

7.2

7

## Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16860-MS | ST48238.D | 1 | 06/14/06 | ME | 06/09/06 | OP16860 | GST1410 |
| OP16860-MSD | ST48239.D | 1 | 06/14/06 | ME | 06/09/06 | OP16860 | GST1410 |
| F41336-2 | ST48237.D | 1 | 06/14/06 | ME | 06/09/06 | OP16860 | GST1410 |

The QC reported here applies to the following samples: Method: SW846 8082

F41336-1, F41336-2

7.3 7

| CAS No. | Compound | F41336-2 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | | 8 | 7.5 | 94 | 7.4 | 93 | 1 | 66-123/20 |
| 11096-82-5 | Aroclor 1260 | ND | | 8 | 7.6 | 95 | 7.6 | 95 | 0 | 62-120/19 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41336-2 | Limits |
|---|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 95% | 91% | 91% | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 92% | 88% | 82% | 26-137% |



## Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41336
Account: BHATNM Bhate Environmental Associates, Inc
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16861-MS | LL10795.D | 1 | 06/15/06 | AA | 06/09/06 | OP16861 | GLL396 |
| OP16861-MSD | LL10796.D | 1 | 06/15/06 | AA | 06/09/06 | OP16861 | GLL396 |
| F41336-2 | LL10794.D | 1 | 06/15/06 | AA | 06/09/06 | OP16861 | GLL396 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F41336-1, F41336-2

7.3 7

| CAS No. | Compound | F41336-2 mg/l | Q | Spike mg/l | MS mg/l | MS % | MSD mg/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | | 2 | 1.65 | 83 | 1.85 | 93 | 11 | 50-150/30 [a] |
| | TPH (>C22-C36) | ND | | 2 | 1.93 | 97 | 2.08 | 104 | 7 | 50-150/30 [a] |

| CAS No. | Surrogate Recoveries | MS | MSD | F41336-2 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 89% | 100% | 88% | 44-123% |

(a) Advisory control limits.

## Metals Analysis

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries





BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9742
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/09/06

| Metal | RL | IDL | MB raw | Final |
|---|---|---|---|---|
| Aluminum | 200 | 18 | 38.9 | <200 |
| Antimony | 6.0 | 3.4 | 1.6 | <6.0 |
| Arsenic | 10 | 2.8 | 2.6 | <10 |
| Barium | 200 | .4 | 0.21 | <200 |
| Beryllium | 8.0 | .4 | 0.90 | <8.0 |
| Cadmium | 5.0 | 2 | 0.39 | <5.0 |
| Calcium | 1000 | 42 | 36.8 | <1000 |
| Chromium | 10 | .8 | -0.55 | <10 |
| Cobalt | 50 | .6 | 0.28 | <50 |
| Copper | 25 | 9 | -1.6 | <25 |
| Iron | 300 | 12 | 7.2 | <300 |
| Lead | 5.0 | 1.7 | 1.5 | <5.0 |
| Magnesium | 5000 | 4.3 | 17.0 | <5000 |
| Manganese | 15 | .6 | 0.37 | <15 |
| Molybdenum | 50 | 1.3 | | |
| Nickel | 40 | 8 | 0.060 | <40 |
| Potassium | 10000 | 10 | 19.6 | <10000 |
| Selenium | 10 | 2 | 1.5 | <10 |
| Silver | 10 | 9 | 0.19 | <10 |
| Sodium | 10000 | 500 | 772 | <10000 |
| Thallium | 10 | 2.3 | 5.1 | <10 |
| Tin | 50 | 3.1 | | |
| Vanadium | 50 | .6 | 1.2 | <50 |
| Zinc | 20 | 1.1 | 0.61 | <20 |

Associated samples MP9742: F41336-1; F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Page 1

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9742
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/09/06 06/09/06

| Metal | F41290-1 Original | DUP | RPD | QC Limits | F41290-1 Original | MS | Spikelot MPELICP1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 39.9 | 39.9 | 0.0 | 0-20 | 39.9 | 27300 | 27000 | 101.0 | 70-130 |
| Antimony | 0.0 | 0.0 | NC | 0-20 | 0.0 | 515 | 500 | 103.0 | 70-130 |
| Arsenic | 2.8 | 0.0 | 200.0(n) | 0-20 | 2.8 | 2080 | 2000 | 103.9 | 70-130 |
| Barium | 0.86 | 0.69 | 21.9 (a) | 0-20 | 0.86 | 2060 | 2000 | 103.0 | 70-130 |
| Beryllium | 0.0 | 0.74 | 46.7 (a) | 0-20 | 0.0 | 56.2 | 50 | 111.5 | 70-130 |
| Cadmium | 0.93 | 0.93 | 0.0 | 0-20 | 0.93 | 53.5 | 50 | 105.1 | 70-130 |
| Calcium | 1590 | 1620 | 1.9 | 0-20 | 1590 | 28400 | 25000 | 107.2 | 70-130 |
| Chromium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 213 | 200 | 106.5 | 70-130 |
| Cobalt | 0.0 | 0.0 | NC | 0-20 | 0.0 | 522 | 500 | 104.4 | 70-130 |
| Copper | 252 | 252 | 0.0 | 0-20 | 252 | 537 | 250 | 114.0 | 70-130 |
| Iron | 193 | 201 | 4.1 | 0-20 | 193 | 27600 | 26000 | 106.2 | 70-130 |
| Lead | 10.6 | 9.5 | 10.9 | 0-20 | 10.6 | 528 | 500 | 103.5 | 70-130 |
| Magnesium | 337 | 337 | 0.0 | 0-20 | 337 | 26000 | 25000 | 102.7 | 70-130 |
| Manganese | 2.0 | 2.1 | 4.9 | 0-20 | 2.0 | 545 | 500 | 108.6 | 70-130 |
| Molybdenum | | | | | | | | | |
| Nickel | 4.6 | 5.5 | 17.8 | 0-20 | 4.6 | 541 | 500 | 107.3 | 70-130 |
| Potassium | 52.1 | 24.6 | 71.0 (n) | 0-20 | 52.1 | 23300 | 25000 | 93.0 | 70-130 |
| Selenium | 3.0 | 0.0 | 200.0(a) | 0-20 | 3.0 | 2020 | 2000 | 100.9 | 70-130 |
| Silver | 0.0 | 0.0 | NC | 0-20 | 0.0 | 51.8 | 50 | 103.6 | 70-130 |
| Sodium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 22100 | 25000 | 88.4 | 70-130 |
| Thallium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 2060 | 2000 | 103.0 | 70-130 |
| Tin | | | | | | | | | |
| Vanadium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 511 | 500 | 102.2 | 70-130 |
| Zinc | 73.0 | 74.3 | 1.8 | 0-20 | 73.0 | 615 | 500 | 108.4 | 70-130 |

Associated samples MP9742: F41336-1; F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations

8.1.2 8



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9742
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/09/06

| Metal | F41290-1 Original | MSD | Spikelot MPELICP1 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | 39.9 | 26400 | 27000 | 97.6 | 3.4 | 20 |
| Antimony | 0.0 | 507 | 500 | 101.4 | 1.6 | 20 |
| Arsenic | 2.8 | 2060 | 2000 | 102.9 | 1.0 | 20 |
| Barium | 0.86 | 2000 | 2000 | 100.0 | 3.0 | 20 |
| Beryllium | 0.0 | 55.4 | 50 | 111.9 | 0.4 | 20 |
| Cadmium | 0.93 | 53.4 | 50 | 104.9 | 0.2 | 20 |
| Calcium | 1590 | 28400 | 25000 | 107.2 | 0.0 | 20 |
| Chromium | 0.0 | 212 | 200 | 106.0 | 0.5 | 20 |
| Cobalt | 0.0 | 519 | 500 | 103.8 | 0.6 | 20 |
| Copper | 252 | 517 | 250 | 108.0 | 3.8 | 20 |
| Iron | 193 | 27500 | 26000 | 105.0 | 1.1 | 20 |
| Lead | 10.6 | 526 | 500 | 103.1 | 0.4 | 20 |
| Magnesium | 337 | 25500 | 25000 | 100.7 | 1.9 | 20 |
| Manganese | 2.0 | 541 | 500 | 107.9 | 0.7 | 20 |
| Molybdenum | | | | | | |
| Nickel | 4.6 | 539 | 500 | 106.9 | 0.4 | 20 |
| Potassium | 52.1 | 22200 | 25000 | 88.6 | 4.8 | 20 |
| Selenium | 3.0 | 1990 | 2000 | 99.4 | 1.5 | 20 |
| Silver | 0.0 | 51.6 | 50 | 103.2 | 0.4 | 20 |
| Sodium | 0.0 | 21800 | 25000 | 87.2 | 1.4 | 20 |
| Thallium | 0.0 | 2040 | 2000 | 102.0 | 1.0 | 20 |
| Tin | | | | | | |
| Vanadium | 0.0 | 505 | 500 | 101.0 | 1.2 | 20 |
| Zinc | 73.0 | 607 | 500 | 106.8 | 1.3 | 20 |

Associated samples MP9742: F41336-1; F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2 8

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F41336
Account: BRATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9742
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/09/06

| Metal | BSP Result | Spikelot MPFLICP1 | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | 27000 | 27000 | 100.0 | 85-115 |
| Antimony | 516 | 500 | 103.2 | 85-115 |
| Arsenic | 2090 | 2000 | 104.5 | 85-115 |
| Barium | 2040 | 2000 | 102.0 | 85-115 |
| Beryllium | 56.6 | 50 | 113.2 | 85-115 |
| Cadmium | 53.3 | 50 | 106.6 | 85-115 |
| Calcium | 26900 | 25000 | 107.6 | 85-115 |
| Chromium | 214 | 200 | 107.0 | 85-115 |
| Cobalt | 524 | 500 | 104.8 | 85-115 |
| Copper | 264 | 250 | 105.6 | 85-115 |
| Iron | 27700 | 26000 | 106.5 | 85-115 |
| Lead | 521 | 500 | 104.2 | 85-115 |
| Magnesium | 25700 | 25000 | 102.8 | 85-115 |
| Manganese | 544 | 500 | 108.8 | 85-115 |
| Molybdenum | | | | |
| Nickel | 538 | 500 | 107.6 | 85-115 |
| Potassium | 22900 | 25000 | 91.6 | 85-115 |
| Selenium | 2030 | 2000 | 101.5 | 85-115 |
| Silver | 52.3 | 50 | 104.6 | 85-115 |
| Sodium | 22400 | 25000 | 89.6 | 85-115 |
| Thallium | 2070 | 2000 | 103.5 | 85-115 |
| Tin | | | | |
| Vanadium | 511 | 500 | 102.2 | 85-115 |
| Zinc | 541 | 500 | 108.2 | 85-115 |

Associated samples MP9742: F41336-1, F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.1.3 8



## SERIAL DILUTION RESULTS SUMMARY

Login Number: F41336
Account: BRATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9742
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/09/06

| Metal | F41290-1 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | 39.9 | 173 | 333.6(a) | 0-10 |
| Antimony | 0.00 | 0.00 | NC | 0-10 |
| Arsenic | 2.82 | 0.00 | 100.0(a) | 0-10 |
| Barium | 0.860 | 0.00 | 100.0(a) | 0-10 |
| Beryllium | 0.460 | 2.00 | 334.8(a) | 0-10 |
| Cadmium | 0.930 | 0.00 | 100.0(a) | 0-10 |
| Calcium | 1590 | 1630 | 2.5 | 0-10 |
| Chromium | 0.00 | 0.00 | NC | 0-10 |
| Cobalt | 0.00 | 0.00 | NC | 0-10 |
| Copper | 252 | 248 | 1.9 | 0-10 |
| Iron | 193 | 103 | 46.9 (a) | 0-10 |
| Lead | 10.6 | 11.1 | 5.2 | 0-10 |
| Magnesium | 337 | 352 | 4.4 | 0-10 |
| Manganese | 2.04 | 0.00 | 100.0(a) | 0-10 |
| Molybdenum | | | | |
| Nickel | 4.63 | 4.02 | 13.2 (a) | 0-10 |
| Potassium | 52.1 | 0.00 | 100.0(a) | 0-10 |
| Selenium | 2.96 | 0.00 | 100.0(a) | 0-10 |
| Silver | 0.00 | 0.00 | NC | 0-10 |
| Sodium | 0.00 | 0.00 | NC | 0-10 |
| Thallium | 0.00 | 0.00 | NC | 0-10 |
| Tin | | | | |
| Vanadium | 0.00 | 0.00 | NC | 0-10 |
| Zinc | 73.0 | 68.8 | 5.8 | 0-10 |

Associated samples MP9742: F41336-1, F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL)

8.1.4 8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9746
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 06/12/06

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Mercury | 1.0 | 08 | -0.015 | <1.0 |

Associated samples MP9746: F41336-1, F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.2.1 8



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9746
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 06/12/06 06/12/06

| Metal | F41371-1 Original | DUP | RPD | QC Limits | F41371-1 Original | MS | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.0 | 0.0 | NC | 0-10 | 0.0 | 3.2 | 3 | 106.7 | 70-130 |

Associated samples MP9746: F41336-1, F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.2.2 8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9746
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 06/12/06

| Metal | BSP Result | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|
| Mercury | 2.9 | 3 | 96.7 | 85-115 |

Associated samples MP9746: F41336-1, F41336-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.2.3 8





## General Chemistry

## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

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METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN20962 | 100 | <100 | mg/l | | | | |

Associated Samples:
Batch GN20962: F41336-1, F41336-2

9.1

6



DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F41336
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN20962 | F41295-1 | mg/l | 52700 | 52300 | 0.6 | 0-29% |

Associated Samples:
Batch GN20962: F41336-1, F41336-2

9.2

6

SDG F41371

*e-Hardcopy 2.0*
*Automated Report*

Southeast ACCUTEST

IT'S ALL IN THE CHEMISTRY

06/21/06

Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT 9050291.01.01

Accutest Job Number: F41371

Sampling Date: 06/08/06

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Total number of pages in report: 63

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (030051), KS (E-10327), SC, AK

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## Sample Summary

Bhate Environmental Associates, Inc.

HOLMN
Project No: PROJECT 9050291.01.01

Job No: F41371

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| F41371-1 | 06/08/06 | 09:15 | TL | 06/09/06 | AQ | Ground Water | SWMU-08-DP03 |
| F41371-2 | 06/08/06 | 00:00 | TL | 06/09/06 | AQ | Trip Blank Water | TRIP BLANK |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F41371

**Site:** HOLMN **Report Date** 6/21/2006 10:05:20

1 Sample was collected on 06/08/2006 and received at Accutest on 06/09/2006 properly preserved, at 1.6 Deg. C and intact. These Samples received an Accutest job number of F41371. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ954

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41295-1MS, F41295-1MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl methacrylate, Styrene, Trans-1,4-Dichloro-2-Butene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl chloride, Methyl methacrylate, Styrene, Trans-1,4-Dichloro-2-Butene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference. See Blank Spike.

### Extractables by GCMS By Method SW846 8270C

**Matrix:** AQ **Batch ID:** OP16876

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41316-5MS, F41316-5MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

MS/MSD Recovery(s) for Benzidine are outside control limits. Probable cause due to matrix interference.

### Volatiles by GC By Method SW846 8015

**Matrix:** AQ **Batch ID:** GCD2866

All samples were analyzed within the recommended method holding time.

Sample(s) F41358-1MS, F41358-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

### Extractables by GC By Method SW846 8015 M

**Matrix:** AQ **Batch ID:** OP16875

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41372-1MS, F41372-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

### Extractables by GC By Method SW846 8082

**Matrix:** AQ **Batch ID:** OP16898

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41371-1MS, F41371-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

### Metals By Method EPA 200.7

**Matrix:** AQ **Batch ID:** MP9747

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41357-1DUP, F41357-1MS, F41357-1MSD, F41357-1SDL were used as the QC samples for metals.

RPD(s) for Duplicate for Arsenic, Chromium, Copper, Nickel, Selenium are outside control limits for sample MP9747-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Aluminum, Arsenic, Beryllium, Cobalt, Lead, Nickel, Selenium, Vanadium, Manganese, Potassium are outside control limits for sample MP9747-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP9747-SD1 for Potassium: Serial dilution indicates possible matrix interference.

MP9747-SD1 for Manganese: Serial dilution indicates possible matrix interference.

## Metals By Method EPA 245.1

**Matrix:** AQ **Batch ID:** MP9746

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41371-1DUP, F41371-1MS were used as the QC samples for metals.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN20962

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41295-1DUP were used as the QC samples for Solids, Total Dissolved

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: June 21, 2006

Svetlana Izosimova, QAO (signature on file)





# Sample Results

# Report of Analysis

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J023235.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 20 | 10 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.7 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1 Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.50 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 107% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 115% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

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N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L032152.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 4.8 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 1.9 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.9 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 1.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 0.96 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 0.96 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 92-87-5 | Benzidine | ND | 24 | 14 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 1.9 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 0.96 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.6 | 3.8 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 1.9 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 0.96 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 1.9 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 1.9 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 4.8 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 1.9 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 2.4 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 2.4 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 0.96 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.9 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.9 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 1.9 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 3.8 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 3.8 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 3.8 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 0.96 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 1.9 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 1.9 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 0.96 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 30% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 89% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 81% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 85% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 84% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8015 | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | CD069564.D | 1 | 06/15/06 | MM | n/a | n/a | GCD2866 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.10 | 0.050 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 87% | | 65-127% |
| 98-08-8 | aaa-Trifluorotoluene | 82% | | 65-124% |

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8082 SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | ST48305.D | 1 | 06/19/06 | ME | 06/14/06 | OP16898 | GST1412 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 10.0 ml |
| Run #2 | | |

PCB List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 0.48 | 0.24 | ug/l | |
| 11104-28-2 | Aroclor 1221 | ND | 0.48 | 0.38 | ug/l | |
| 11141-16-5 | Aroclor 1232 | ND | 0.48 | 0.38 | ug/l | |
| 53469-21-9 | Aroclor 1242 | ND | 0.48 | 0.24 | ug/l | |
| 12672-29-6 | Aroclor 1248 | ND | 0.48 | 0.24 | ug/l | |
| 11097-69-1 | Aroclor 1254 | ND | 0.48 | 0.24 | ug/l | |
| 11096-82-5 | Aroclor 1260 | ND | 0.48 | 0.24 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 76% | | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 33% | | 26-137% |

ND = Not detected MDL = Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8015 M SW846 3550B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10801.D | 1 | 06/15/06 | AA | 06/12/06 | OP16875 | GLL396 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 0.24 | 0.096 | mg/l | |
| | TPH (>C22-C36) | ND | 0.24 | 0.096 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 85% | | 44-123% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | Date Sampled: | 06/08/06 |
| Lab Sample ID: | F41371-1 | Date Received: | 06/09/06 |
| Matrix: | AQ - Ground Water | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 3450 | 400 | 36 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Antimony | 3.4 U | 6.0 | 3.4 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Arsenic | 6.6 J | 20 | 5.6 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Barium | 72.2 J | 200 | 0.40 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Beryllium | 4.8 J | 8.0 | 0.80 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Cadmium | 0.30 U | 5.0 | 0.30 | ug/l | 1 | 06/12/06 | 06/13/06 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Calcium | 738000 | 5000 | 210 | ug/l | 5 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Chromium | 7.5 J | 10 | 0.60 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Cobalt | 1.2 J | 50 | 0.60 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Copper | 1.0 U | 25 | 1.0 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Iron | 4590 | 300 | 15 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Lead | 3.4 J | 5.0 | 1.7 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Magnesium | 57300 | 5000 | 4.3 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Manganese | 173 | 15 | 1.5 | ug/l | 1 | 06/12/06 | 06/12/06 | MS | EPA 245.1 [1] | EPA 245.1 [4] |
| Mercury | 0.10 U | 1.0 | 0.10 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Nickel | 3.9 J | 40 | 0.80 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Potassium | 6520 J | 10000 | 100 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Selenium | 2.8 U | 10 | 2.8 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 06/12/06 | 06/13/06 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Sodium | 72300 | 50000 | 2500 | ug/l | 5 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Thallium | 2.9 U | 10 | 2.9 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Vanadium | 7.9 J | 50 | 1.1 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Zinc | 27.5 | 40 | 3.2 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA5026
(2) Instrument QC Batch: MA5029
(3) Instrument QC Batch: MA5031
(4) Prep QC Batch: MP9746
(5) Prep QC Batch: MP9747

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP03 | | |
| Lab Sample ID: | F41371-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 2910 | 100 | 10 | mg/l | 1 | 06/12/06 09:40 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL





4

## Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F41371

Chain of Custody and Analytical Request

4.1 4

1.6

F41371: Chain of Custody
Page 1 of 2



## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F41371 CLIENT: Shite PROJECT: SWMU08

DATE/TIME RECEIVED: 9/06 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 1.6

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8530 1639 2352

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [x] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [x] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [x] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S

**MISC. INFORMATION**

NUMBER OF ENCORES ? X
NUMBER OF 5035 FIELD KITS ? X
NUMBER OR LAB FILTERED METALS ? X

SUMMARY OF COMMENTS: trip blank received broken.

TECHNICIAN SIGNATURE/DATE: 9/6/06 TECHNICIAN SIGNATURE/DATE

4.1 4

F41371: Chain of Custody
Page 2 of 2

## GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



# Method Blank Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-MB | J023216.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 20 | 10 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-MB | J023216.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.50 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

5.1 5





# Method Blank Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-MB | J023216.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | 83-119% |

5.1 5

# Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-BS | J023215.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 77.0 | 62 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 245 | 98 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 83.0 | 66 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 116 | 93 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 29.0 | 116 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 26.0 | 104 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.5 | 86 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 22.7 | 91 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 22.3 | 89 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 22.5 | 90 | 75-120 |
| 75-25-2 | Bromoform | 25 | 19.6 | 78 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 25.5 | 102 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.0 | 104 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 25.4 | 102 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 23.9 | 96 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 28.4 | 114 | 67-148 |
| 67-66-3 | Chloroform | 25 | 24.5 | 98 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 22.8 | 91 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 24.3 | 97 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 24.6 | 98 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 95.0 | 76 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 28.9 | 116 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 25.4 | 102 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 25.6 | 102 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 24.9 | 100 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 26.0 | 104 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 19.6 | 78 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 21.0 | 84 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 23.0 | 92 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 24.7 | 99 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 21.6 | 86 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 25.7 | 103 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 18.0 | 72 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 31.5 | 126 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 23.5 | 94 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 24.8 | 99 | 73-115 |



# Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-BS | J023215.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 23.1 | 92 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 23.2 | 93 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 23.0 | 92 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 23.8 | 95 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 24.6 | 98 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 23.9 | 96 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 23.7 | 95 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 19.6 | 78 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 27.1 | 108 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 104 | 83 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 21.7 | 87 | 62-138 |
| 110-54-3 | Hexane | 25 | 25.7 | 103 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 22.2 | 89 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 25.2 | 101 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 108 | 86 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 225 | 90 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 26.1 | 104 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 33.6 | 134 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 24.4 | 98 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 19.9 | 80 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 22.8 | 91 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 20.7 | 83 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 98.8 | 79 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 22.2 | 89 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 19.7 | 79 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 23.9 | 96 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 241 | 96 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 25.0 | 100 | 80-122 |
| 100-42-5 | Styrene | 25 | 19.7 | 79 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.2 | 89 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 25.1 | 100 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 22.3 | 89 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 21.7 | 87 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 21.1 | 84 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 20.8 | 83 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 21.0 | 84 | 66-122 |

# Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ954-BS | J023215.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.2

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 24.8 | 99 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.1 | 100 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 20.1 | 80 | 75-126 |
| 108-88-3 | Toluene | 25 | 23.3 | 93 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 24.7 | 99 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 33.1 | 132 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 23.5 | 94 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 32.2 | 129 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 134 | 107 | 42-146 |
| | m,p-Xylene | 50 | 49.0 | 98 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 21.8 | 87 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98% | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 98% | 83-119% |

(a) Advisory control limits.



# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41295-1MS | J023228.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1MSD | J023229.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1 | J023227.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.3

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | F41295-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 105 | 84 | 102 | 82 | 3 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 316 | 126 | 312 | 125 | 1 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 99.4 | 80 | 100 | 80 | 1 | 26-185/18 |
| 107-13-1 | Acryionitrile | ND | | 125 | 161 | 129 | 159 | 127 | 1 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 29.1 | 116 | 29.0 | 116 | 0 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 27.7 | 111 | 27.4 | 110 | 1 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 30.5 | 122 | 28.5 | 114 | 7 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 21.7 | 87 | 22.1 | 88 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 23.0 | 92 | 23.8 | 95 | 3 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.6 | 102 | 25.3 | 101 | 1 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 22.2 | 89 | 22.0 | 88 | 1 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 24.4 | 98 | 26.2 | 105 | 7 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 26.6 | 106 | 26.0 | 104 | 2 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 25.8 | 103 | 25.4 | 102 | 2 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 25.2 | 101 | 24.5 | 98 | 3 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 32.7 | 131 | 33.7 | 135 | 3 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 26.5 | 106 | 26.4 | 106 | 0 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 22.4 | 90 | 22.6 | 90 | 1 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 25.3 | 101 | 25.0 | 100 | 1 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 25.5 | 102 | 25.2 | 101 | 1 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 30.3 | 121 | 30.4 | 122 | 0 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 27.1 | 108 | 26.9 | 108 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 28.1 | 112 | 27.5 | 110 | 2 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 28.0 | 112 | 27.7 | 111 | 1 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 27.3 | 109 | 27.2 | 109 | 0 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 32.0 | 128* | 31.3 | 125 | 2 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 24.5 | 98 | 25.4 | 102 | 4 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 29.8 | 119 | 28.9 | 116 | 3 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 27.3 | 109 | 26.8 | 107 | 2 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 25.3 | 101 | 25.5 | 102 | 1 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 26.5 | 106 | 25.5 | 102 | 4 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 20.5 | 82 | 20.2 | 81 | 1 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 31.2 | 125 | 34.7 | 139 | 11 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 22.0 | 88 | 23.2 | 93 | 5 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 25.5 | 102 | 25.5 | 102 | 0 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41295-1MS | J023228.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1MSD | J023229.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1 | J023227.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | F41295-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 36.7 | 147 | 34.2 | 137 | 7 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 23.5 | 94 | 23.5 | 94 | 0 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 24.1 | 96 | 24.0 | 96 | 0 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 24.0 | 96 | 23.9 | 96 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 26.5 | 106 | 26.5 | 106 | 0 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 28.3 | 113 | 27.5 | 110 | 3 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 25.4 | 102 | 25.0 | 100 | 2 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 27.4 | 110 | 27.2 | 109 | 1 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 29.7 | 119 | 28.6 | 114 | 4 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 227 | 182* | 214 | 171* | 6 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 17.4 | 70 | 16.6 | 66 | 5 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 28.3 | 113 | 28.2 | 113 | 0 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | 0.95 | J | 25 | 24.5 | 94 | 24.2 | 93 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 25.4 | 102 | 25.0 | 100 | 2 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 219 | 175* | 208 | 166* | 5 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 356 | 142 | 338 | 135 | 5 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 31.1 | 124 | 31.6 | 126 | 2 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 33.8 | 135 | 39.3 | 157* | 15 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 22.6 | 90 | 24.2 | 97 | 7 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 32.7 | 131* | 32.0 | 128* | 2 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 27.4 | 110 | 26.8 | 107 | 2 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 23.2 | 93 | 23.3 | 93 | 0 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 155 | 124 | 152 | 122 | 2 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 27.6 | 110 | 27.8 | 111 | 1 | 61-129/9 |
| 91-20-3 | Naphthalene | 1.3 | J | 25 | 32.1 | 123 | 32.0 | 123 | 0 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 23.2 | 93 | 23.6 | 94 | 2 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 346 | 138 | 338 | 135 | 2 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 25.5 | 102 | 25.4 | 102 | 0 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 0.61 | 2* | 0.61 | 2* | 0 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 23.5 | 94 | 23.3 | 93 | 1 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 27.1 | 108 | 27.2 | 109 | 0 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 30.6 | 122* | 30.3 | 121* | 1 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 26.1 | 104 | 25.0 | 100 | 4 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 22.2 | 89 | 22.8 | 91 | 3 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 29.9 | 120* | 30.0 | 120* | 0 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 20.8 | 83 | 21.2 | 85 | 2 | 58-120/11 |





# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41295-1MS | J023228.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1MSD | J023229.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| F41295-1 | J023227.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F41371-1

| CAS No. | Compound | F41295-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 25.8 | 103 | 25.4 | 102 | 2 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 24.6 | 98 | 24.8 | 99 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 18.4 | 74 | 18.2 | 73 | 1 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 23.3 | 93 | 23.4 | 94 | 0 | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 26.3 | 105 | 26.0 | 104 | 1 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 38.1 | 152 | 36.9 | 148 | 3 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 38.2 | 153* | 37.4 | 150* | 2 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 34.4 | 138 | 38.7 | 155 | 12 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 8.1 | 6* | 7.3 | 6* | 10 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 52.0 | 104 | 50.9 | 102 | 2 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.3 | 93 | 22.6 | 90 | 3 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41295-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 101% | 108% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 121% | 116% | 122% | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | 92% | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | 96% | 110% | 83-119% |

(a) Advisory control limits.

Southeast ACCUTEST

IT'S ALL IN THE CHEMISTRY

Section 6

## GC/MS Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



# Method Blank Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-MB | I032147.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 2.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

# Method Blank Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-MB | L032147.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | 19-90% |
| 4165-62-2 | Phenol-d5 | 30% | 10-68% |





# Method Blank Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-MB | L032147.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 84% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 74% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 90% | 46-135% |

# Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-BS | L032146.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 100 | 31.6 | 32 | 10-50 |
| 95-57-8 | 2-Chlorophenol | 50 | 43.0 | 86 | 57-100 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 45.8 | 92 | 63-105 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 47.2 | 94 | 65-106 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 38.5 | 77 | 49-90 |
| 51-28-5 | 2,4-Dinitrophenol | 100 | 89.9 | 90 | 26-125 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 100 | 96.6 | 97 | 56-121 |
| 95-48-7 | 2-Methylphenol | 50 | 38.2 | 76 | 48-90 |
| | 3&4-Methylphenol | 100 | 71.4 | 71 | 43-94 |
| 88-75-5 | 2-Nitrophenol | 50 | 46.2 | 92 | 62-107 |
| 100-02-7 | 4-Nitrophenol | 100 | 39.8 | 40 | 19-66 |
| 87-86-5 | Pentachlorophenol | 100 | 102 | 102 | 62-120 |
| 108-95-2 | Phenol | 50 | 22.2 | 44 | 20-65 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 46.6 | 93 | 67-103 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 46.4 | 93 | 68-104 |
| 83-32-9 | Acenaphthene | 50 | 47.5 | 95 | 67-101 |
| 208-96-8 | Acenaphthylene | 50 | 46.5 | 93 | 65-100 |
| 120-12-7 | Anthracene | 50 | 48.1 | 96 | 71-103 |
| 92-87-5 | Benzidine | 50 | 27.9 | 56 | 21-101 |
| 56-55-3 | Benzo(a)anthracene | 50 | 47.5 | 95 | 71-105 |
| 50-32-8 | Benzo(a)pyrene | 50 | 46.8 | 94 | 67-106 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 47.6 | 95 | 68-108 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 48.0 | 96 | 65-110 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 47.9 | 96 | 69-110 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 48.5 | 97 | 71-106 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 45.5 | 91 | 66-110 |
| 100-51-6 | Benzyl Alcohol | 50 | 38.5 | 77 | 36-101 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 46.0 | 92 | 62-99 |
| 106-47-8 | 4-Chloroaniline | 50 | 46.3 | 93 | 58-101 |
| 218-01-9 | Chrysene | 50 | 48.4 | 97 | 71-105 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 42.2 | 84 | 56-101 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 46.7 | 93 | 60-108 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 41.7 | 83 | 49-108 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 47.7 | 95 | 69-106 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 44.4 | 89 | 48-98 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 42.6 | 85 | 44-95 |



# Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-BS | L032146.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 42.8 | 86 | 46-96 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 48.3 | 97 | 64-107 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 45.9 | 92 | 64-102 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 48.5 | 97 | 54-109 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 49.4 | 99 | 61-112 |
| 132-64-9 | Dibenzofuran | 50 | 49.0 | 98 | 70-102 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 46.5 | 93 | 69-109 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 46.1 | 92 | 63-125 |
| 84-66-2 | Diethyl phthalate | 50 | 47.6 | 95 | 66-111 |
| 131-11-3 | Dimethyl phthalate | 50 | 47.0 | 94 | 66-109 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 45.8 | 92 | 66-114 |
| 206-44-0 | Fluoranthene | 50 | 50.3 | 101 | 71-108 |
| 86-73-7 | Fluorene | 50 | 47.2 | 94 | 68-102 |
| 118-74-1 | Hexachlorobenzene | 50 | 48.2 | 96 | 69-103 |
| 87-68-3 | Hexachlorobutadiene | 50 | 44.4 | 89 | 48-100 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 27.6 | 55 | 20-85 |
| 67-72-1 | Hexachloroethane | 50 | 42.2 | 84 | 41-98 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 49.0 | 98 | 66-112 |
| 78-59-1 | Isophorone | 50 | 48.1 | 96 | 62-105 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 49.8 | 100 | 62-105 |
| 88-74-4 | 2-Nitroaniline | 50 | 47.2 | 94 | 66-105 |
| 99-09-2 | 3-Nitroaniline | 50 | 47.5 | 95 | 56-104 |
| 100-01-6 | 4-Nitroaniline | 50 | 49.1 | 98 | 62-110 |
| 91-20-3 | Naphthalene | 50 | 45.8 | 92 | 56-99 |
| 98-95-3 | Nitrobenzene | 50 | 45.0 | 90 | 60-102 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 45.4 | 91 | 56-101 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 46.7 | 93 | 69-106 |
| 85-01-8 | Phenanthrene | 50 | 48.3 | 97 | 71-104 |
| 129-00-0 | Pyrene | 50 | 47.4 | 95 | 67-108 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 45.1 | 90 | 52-99 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 59% | 19-90% |
| 4165-62-2 | Phenol-d5 | 40% | 10-68% |

## Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-BS | L032146.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 98% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 90% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 93% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 93% | 46-135% |

6.2 6



## Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-MS | L032149.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| OP16876-MSD | L032150.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| F41316-5 | L032148.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Compound | F41316-5 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | | 200 | 91.5 | 46 | 94.1 | 47 | 3 | 10-80/45 |
| 95-57-8 | 2-Chlorophenol | ND | | 100 | 72.6 | 73 | 84.8 | 85 | 16 | 43-109/27 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 100 | 81.4 | 81 | 90.1 | 90 | 10 | 57-109/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 100 | 79.1 | 79 | 90.8 | 91 | 14 | 49-114/23 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 100 | 66.7 | 67 | 74.1 | 74 | 11 | 32-103/24 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 200 | 170 | 85 | 176 | 88 | 3 | 20-131/28 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 200 | 184 | 92 | 191 | 96 | 4 | 46-130/23 |
| 95-48-7 | 2-Methylphenol | ND | | 100 | 68.6 | 69 | 78.2 | 78 | 13 | 40-102/25 |
| | 3&4-Methylphenol | ND | | 200 | 132 | 66 | 152 | 76 | 14 | 39-97/24 |
| 88-75-5 | 2-Nitrophenol | ND | | 100 | 76.9 | 77 | 90.3 | 90 | 16 | 46-115/26 |
| 100-02-7 | 4-Nitrophenol | ND | | 200 | 102 | 51 | 113 | 57 | 10 | 28-81/30 |
| 87-86-5 | Pentachlorophenol | ND | | 200 | 197 | 99 | 212 | 106 | 7 | 53-128/22 |
| 108-95-2 | Phenol | ND | | 100 | 44.9 | 45 | 53.9 | 54 | 18 | 19-81/33 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 100 | 83.2 | 83 | 91.9 | 92 | 10 | 56-110/19 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 100 | 81.2 | 81 | 90.5 | 91 | 11 | 55-112/19 |
| 83-32-9 | Acenaphthene | ND | | 100 | 87.3 | 87 | 94.4 | 94 | 8 | 58-109/18 |
| 208-96-8 | Acenaphthylene | ND | | 100 | 85.1 | 85 | 91.9 | 92 | 8 | 59-103/18 |
| 120-12-7 | Anthracene | ND | | 100 | 94.6 | 95 | 97.8 | 98 | 3 | 65-108/16 |
| 92-87-5 | Benzidine | ND | | 100 | ND | 0* | ND | 0* | nc | 11-98/21 |
| 56-55-3 | Benzo(a)anthracene | ND | | 100 | 93.1 | 93 | 97.9 | 98 | 5 | 68-106/17 |
| 50-32-8 | Benzo(a)pyrene | ND | | 100 | 92.1 | 92 | 95.1 | 95 | 3 | 61-108/18 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 100 | 95.9 | 96 | 98.6 | 99 | 3 | 65-109/18 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 100 | 93.5 | 94 | 97.9 | 98 | 5 | 60-114/19 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 100 | 90.3 | 90 | 95.8 | 96 | 6 | 66-111/17 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 100 | 94.1 | 94 | 98.2 | 98 | 4 | 68-108/17 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 100 | 89.2 | 89 | 93.2 | 93 | 4 | 64-111/18 |
| 100-51-6 | Benzyl Alcohol | ND | | 100 | 75.4 | 75 | 86.3 | 86 | 13 | 44-105/26 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 100 | 81.8 | 82 | 91.5 | 92 | 11 | 57-102/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 100 | 79.7 | 80 | 93.3 | 93 | 16 | 37-106/27 |
| 218-01-9 | Chrysene | ND | | 100 | 94.8 | 95 | 98.1 | 98 | 3 | 69-106/17 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 100 | 72.3 | 72 | 83.1 | 83 | 14 | 46-106/24 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 100 | 80.8 | 81 | 91.6 | 92 | 13 | 48-114/28 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 100 | 71.9 | 72 | 82.5 | 83 | 14 | 43-110/26 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 100 | 89.3 | 89 | 94.2 | 94 | 5 | 66-107/17 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 100 | 77.6 | 78 | 88.4 | 88 | 13 | 45-103/24 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 100 | 74.9 | 75 | 86.3 | 86 | 14 | 42-100/24 |

6.3 6

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-MS | L032149.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| OP16876-MSD | L032150.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| F41316-5 | L032148.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Compound | F41316-5 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 100 | 76.1 | 76 | 84.6 | 85 | 11 | 43-102/24 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 100 | 91.9 | 92 | 96.3 | 96 | 5 | 60-108/18 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 100 | 87.2 | 87 | 91.4 | 91 | 5 | 59-105/18 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 100 | 79.3 | 79 | 86.7 | 87 | 9 | 21-120/24 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 100 | 95.3 | 95 | 100 | 100 | 5 | 59-112/18 |
| 132-64-9 | Dibenzofuran | ND | | 100 | 90.5 | 91 | 99.4 | 99 | 9 | 65-105/17 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 100 | 91.9 | 92 | 94.6 | 95 | 3 | 68-109/18 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 100 | 90.6 | 91 | 93.8 | 94 | 3 | 59-127/23 |
| 84-66-2 | Diethyl phthalate | ND | | 100 | 91.1 | 91 | 95.2 | 95 | 4 | 64-111/18 |
| 131-11-3 | Dimethyl phthalate | ND | | 100 | 89.0 | 89 | 94.1 | 94 | 6 | 63-109/17 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 100 | 92.3 | 92 | 95.9 | 96 | 4 | 58-119/21 |
| 206-44-0 | Fluoranthene | ND | | 100 | 98.8 | 99 | 103 | 103 | 4 | 68-110/18 |
| 86-73-7 | Fluorene | ND | | 100 | 89.9 | 90 | 94.3 | 94 | 5 | 62-106/17 |
| 118-74-1 | Hexachlorobenzene | ND | | 100 | 94.3 | 94 | 97.7 | 98 | 4 | 66-106/16 |
| 87-68-3 | Hexachlorobutadiene | ND | | 100 | 77.4 | 77 | 88.8 | 89 | 14 | 46-107/26 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 100 | 50.4 | 50 | 58.1 | 58 | 14 | 16-84/31 |
| 67-72-1 | Hexachloroethane | ND | | 100 | 75.3 | 75 | 84.4 | 84 | 11 | 39-105/25 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 100 | 96.3 | 96 | 101 | 101 | 5 | 61-115/19 |
| 78-59-1 | Isophorone | ND | | 100 | 84.3 | 84 | 96.2 | 96 | 13 | 54-107/22 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 100 | 86.1 | 86 | 99.7 | 100 | 15 | 53-112/22 |
| 88-74-4 | 2-Nitroaniline | ND | | 100 | 87.7 | 88 | 95.7 | 96 | 9 | 60-108/18 |
| 99-09-2 | 3-Nitroaniline | ND | | 100 | 86.5 | 87 | 93.6 | 94 | 8 | 43-103/23 |
| 100-01-6 | 4-Nitroaniline | ND | | 100 | 89.3 | 89 | 97.3 | 97 | 9 | 55-110/19 |
| 91-20-3 | Naphthalene | ND | | 100 | 79.7 | 80 | 91.5 | 92 | 14 | 49-104/24 |
| 98-95-3 | Nitrobenzene | ND | | 100 | 77.2 | 77 | 88.8 | 89 | 14 | 50-107/25 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 100 | 79.6 | 80 | 90.5 | 91 | 13 | 47-104/23 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 100 | 88.0 | 88 | 91.3 | 91 | 4 | 63-110/17 |
| 85-01-8 | Phenanthrene | ND | | 100 | 94.6 | 95 | 98.5 | 99 | 4 | 67-108/17 |
| 129-00-0 | Pyrene | ND | | 100 | 92.6 | 93 | 94.8 | 95 | 2 | 65-108/18 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 100 | 79.1 | 79 | 89.7 | 90 | 13 | 49-104/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41316-5 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 57% | 69% | 45% | 19-90% |
| 4165-62-2 | Phenol-d5 | 43% | 53% | 29% | 10-68% |

6.3 6





# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16876-MS | L032149.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| OP16876-MSD | L032150.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| F41316-5 | L032148.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |

The QC reported here applies to the following samples: Method: SW846 8270C

F41371-1

| CAS No. | Surrogate Recoveries | MS | MSD | F41316-5 | Limits |
|---|---|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 90% | 97% | 89% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 88% | 81% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 80% | 92% | 83% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 86% | 89% | 82% | 46-135% |

6.3 6

## GC Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries





## Method Blank Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD2866-MB | CD069561 | D1 | 06/15/06 | MM | n/a | n/a | GCD2866 |

The QC reported here applies to the following samples: Method: SW846 8015

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.10 | 0.050 | mg/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 86% | 65-127% |
| 98-08-8 | aaa-Trifluorotoluene | 81% | 65-124% |

# Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD2866-BS | CD069560.D | 1 | 06/15/06 | MM | n/a | n/a | GCD2866 |

The QC reported here applies to the following samples: Method: SW846 8015

F41371-1

| CAS No. | Compound | Spike mg/l | BSP mg/l | BSP % | Limits |
|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | 0.4 | 0.399 | 100 | 63-126 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 92% | 65-127% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | 65-124% |

7.2

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# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F41358-1MS | CD069566.D | 1 | 06/15/06 | MM | n/a | n/a | GCD2866 |
| F41358-1MSD | CD069567.D | 1 | 06/15/06 | MM | n/a | n/a | GCD2866 |
| F41358-1 | CD069563.D | 1 | 06/15/06 | MM | n/a | n/a | GCD2866 |

The QC reported here applies to the following samples: Method: SW846 8015

F41371-1

| CAS No. | Compound | F41358-1 mg/l | Q | Spike mg/l | MS mg/l | MS % | MSD mg/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | 0.175 | | 0.4 | 0.561 | 97 | 0.549 | 94 | 2 | 56-171/31 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41358-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 108% | 98% | 91% | 65-127% |
| 98-08-8 | aaa-Trifluorotoluene | 103% | 94% | 88% | 65-124% |

7.3

7

Section 8

## GC Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries





## Method Blank Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16898-MB | ST48303.D | 1 | 06/19/06 | MF | 06/14/06 | OP16898 | GST1412 |

The QC reported here applies to the following samples: Method: SW846 8082

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 0.50 | 0.25 | ug/l | |
| 11104-28-2 | Aroclor 1221 | ND | 0.50 | 0.40 | ug/l | |
| 11141-16-5 | Aroclor 1232 | ND | 0.50 | 0.40 | ug/l | |
| 53469-21-9 | Aroclor 1242 | ND | 0.50 | 0.25 | ug/l | |
| 12672-29-6 | Aroclor 1248 | ND | 0.50 | 0.25 | ug/l | |
| 11097-69-1 | Aroclor 1254 | ND | 0.50 | 0.25 | ug/l | |
| 11096-82-5 | Aroclor 1260 | ND | 0.50 | 0.25 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 91% | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 89% | 26-137% |

## Method Blank Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16875-MB | LL10800.D | 1 | 06/15/06 | AA | 06/12/06 | OP16875 | GLL396 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F41371-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 0.25 | 0.10 | mg/l | |
| | TPH (> C22-C36) | ND | 0.25 | 0.10 | mg/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 89% | 44-123% |

8.1

8



## Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16898-BS | ST48302.D | 1 | 06/19/06 | ME | 06/14/06 | OP16898 | GST1412 |

The QC reported here applies to the following samples: Method: SW846 8082

F41371-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 4 | 3.3 | 83 | 75-122 |
| 11096-82-5 | Aroclor 1260 | 4 | 3.0 | 75 | 71-120 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 79% | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 78% | 26-137% |

8.2

8

# Blank Spike Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16875-BS | LL10799.D | 1 | 06/15/06 | AA | 06/12/06 | OP16875 | GLL396 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F41371-1

| CAS No. | Compound | Spike mg/l | BSP mg/l | BSP % | Limits |
|---|---|---|---|---|---|
| | TPH (C10-C22) | 1 | 0.837 | 84 | 50-150 [a] |
| | TPH (> C22-C36) | 1 | 0.943 | 94 | 50-150 [a] |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 86% | 44-123% |

(a) Advisory control limits.

8.2

8



# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16898-MS | ST48306.D | 1 | 06/19/06 | ME | 06/14/06 | OP16898 | GST1412 |
| OP16898-MSD | ST48307.D | 1 | 06/19/06 | ME | 06/14/06 | OP16898 | GST1412 |
| F41371-1 | ST48305.D | 1 | 06/19/06 | ME | 06/14/06 | OP16898 | GST1412 |

The QC reported here applies to the following samples: Method: SW846 8082

F41371-1

| CAS No. | Compound | F41371-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | | 7.69 | 7.0 | 91 | 6.7 | 87 | 4 | 66-123/20 |
| 11096-82-5 | Aroclor 1260 | ND | | 7.69 | 6.8 | 88 | 6.4 | 83 | 6 | 62-120/19 |

| CAS No. | Surrogate Recoveries | MS | MSD | F41371-1 | Limits |
|---|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 88% | 90% | 76% | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 32% | 34% | 33% | 26-137% |

8.3

8

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F41371
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP16875-MS | LL10803.D | 1 | 06/15/06 | AA | 06/12/06 | OP16875 | GLL396 |
| OP16875-MSD | LL10804.D | 1 | 06/15/06 | AA | 06/12/06 | OP16875 | GLL396 |
| F41372-1 | LL10802.D | 1 | 06/15/06 | AA | 06/12/06 | OP16875 | GLL396 |

The QC reported here applies to the following samples: Method: SW846 8015 M

F41371-1

| CAS No. | Compound | F41372-1 mg/l | Q | Spike mg/l | MS mg/l | MS % | MSD mg/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | | 1.92 | 1.78 | 93 | 1.47 | 76 | 19 | 50-150/30 [a] |
| | TPH (>C22-C36) | ND | | 1.92 | 1.99 | 103 | 1.71 | 89 | 15 | 50-150/30 [a] |

| CAS No. | Surrogate Recoveries | MS | MSD | F41372-1 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 94% | 83% | 76% | 44-123% |

(a) Advisory control limits.





## Metals Analysis

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9746
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 06/12/06

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Mercury | 1.0 | .08 | -0.015 | <1.0 |

Associated samples MP9746: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.1.1 9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9746
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 06/12/06 06/12/06

| Metal | F41371-1 Original | DUP | RPD | QC Limits | F41371-1 Original | MS | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.0 | 0.0 | NC | 0-10 | 0.0 | 3.2 | 3 | 106.7 | 70-130 |

Associated samples MP9746: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

9.1.2 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9746
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 05/12/06

| Metal | BSP Result | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|
| Mercury | 2.9 | 3 | 96.7 | 85-115 |

Associated samples MP9746: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.1.3

9



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9747
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/12/06

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Aluminum | 400 | 18 | 102 | <400 |
| Antimony | 6.0 | 3.4 | -0.54 | <6.0 |
| Arsenic | 20 | 2.8 | 5.7 | <20 |
| Barium | 200 | .4 | 0.41 | <200 |
| Beryllium | 8.0 | .4 | 3.3 | <8.0 |
| Cadmium | 5.0 | .2 | 0.23 | <5.0 |
| Calcium | 1000 | 42 | 40.6 | <1000 |
| Chromium | 10 | .6 | -0.26 | <10 |
| Cobalt | 50 | .6 | 0.25 | <50 |
| Copper | 25 | .9 | -4.3 | <25 |
| Iron | 300 | 12 | 8.1 | <300 |
| Lead | 5.0 | 1.7 | 2.3 | <5.0 |
| Magnesium | 5000 | 4.3 | 14.1 | <5000 |
| Manganese | 15 | .6 | 0.59 | <15 |
| Molybdenum | 50 | 1.3 | | |
| Nickel | 40 | .8 | 0.12 | <40 |
| Potassium | 10000 | 10 | 34.4 | <10000 |
| Selenium | 10 | 2 | 2.1 | <10 |
| Silver | 10 | .9 | 0.31 | <10 |
| Sodium | 10000 | 500 | -21 | <10000 |
| Thallium | 10 | 2.3 | -2.9 | <10 |
| Tin | 50 | 3.1 | | |
| Vanadium | 50 | .6 | 0.69 | <50 |
| Zinc | 40 | 1.3 | 11.3 | <40 |

Associated samples MP9747: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.2.1

9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9747
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/12/06 06/12/06

| Metal | F41357-1 Original | DUP | RPD | QC Limits | F41357-1 Original | MS | Spikelot MPELICP1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 224 | 232 | 3.5 | 0-20 | 224 | 28600 | 27000 | 105.1 | 70-130 |
| Antimony | 0.0 | 0.0 | NC | 0-20 | 0.0 | 513 | 500 | 102.6 | 70-130 |
| Arsenic | 0.0 | 7.6 | 41.3 (a) | 0-20 | 0.0 | 2060 | 2000 | 102.8 | 70-130 |
| Barium | 57.5 | 58.0 | 0.9 | 0-20 | 57.5 | 2170 | 2000 | 105.6 | 70-130 |
| Beryllium | 3.3 | 3.2 | 3.1 | 0-20 | 3.3 | 57.8 | 50 | 109.0 | 70-130 |
| Cadmium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 51.0 | 50 | 102.0 | 70-130 |
| Calcium | 37500 | 37800 | 0.8 | 0-20 | 37500 | 63700 | 25000 | 104.8 | 70-130 |
| Chromium | 0.0 | 0.79 | 200.0(a) | 0-20 | 0.0 | 211 | 200 | 105.5 | 70-130 |
| Cobalt | 3.2 | 3.2 | 0.0 | 0-20 | 3.2 | 515 | 500 | 102.4 | 70-130 |
| Copper | 0.0 | 2.5 | 200.0(a) | 0-20 | 0.0 | 279 | 250 | 111.6 | 70-130 |
| Iron | 12700 | 12800 | 0.8 | 0-20 | 12700 | 39800 | 26000 | 104.2 | 70-130 |
| Lead | 17.8 | 16.8 | 5.8 | 0-20 | 17.8 | 525 | 500 | 101.4 | 70-130 |
| Magnesium | 7450 | 7520 | 0.9 | 0-20 | 7450 | 33500 | 25000 | 104.2 | 70-130 |
| Manganese | 10500 | 10600(b) | 0.9 | 0-20 | 10500 | 10900(b) | 500 | 80.0 | 70-130 |
| Molybdenum | | | | | | | | | |
| Nickel | 1.0 | 1.5 | 40.0 (a) | 0-20 | 1.0 | 531 | 500 | 106.0 | 70-130 |
| Potassium | 3440 | 3510 | 2.0 | 0-20 | 3440 | 30900 | 25000 | 109.8 | 70-130 |
| Selenium | 6.4 | 3.7 | 53.5 (a) | 0-20 | 6.4 | 1960 | 2000 | 97.7 | 70-130 |
| Silver | 0.0 | 0.0 | NC | 0-20 | 0.0 | 52.4 | 50 | 104.8 | 70-130 |
| Sodium | 24300 | 25100 | 3.2 | 0-20 | 24300 | 53000 | 25000 | 114.8 | 70-130 |
| Thallium | 0.0 | 0.0 (c) | NC | 0-20 | 0.0 | 2030 | 2000 | 101.5 | 70-130 |
| Tin | | | | | | | | | |
| Vanadium | 0.72 | 0.77 | 6.7 | 0-20 | 0.72 | 512 | 500 | 102.3 | 70-130 |
| Zinc | 392 | 388 | 1.0 | 0-20 | 392 | 933 | 500 | 108.2 | 70-130 |

Associated samples MP9747: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations
(b) Above linear range.
(c) Elevated reporting limit(s) due to matrix interference

9.2.2

6



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

QC Batch ID: MP9747
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/12/06

| Metal | F41357-1 Original | MSD | Spikelot MPELICP1 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | 224 | 28200 | 27000 | 103.6 | 1.4 | 20 |
| Antimony | 0.0 | 509 | 500 | 101.8 | 0.8 | 20 |
| Arsenic | 0.0 | 2040 | 2000 | 101.8 | 1.0 | 20 |
| Barium | 57.5 | 2140 | 2000 | 104.1 | 1.4 | 20 |
| Beryllium | 3.3 | 57.3 | 50 | 108.0 | 0.9 | 20 |
| Cadmium | 0.0 | 50.5 | 50 | 101.0 | 1.0 | 20 |
| Calcium | 37500 | 63000 | 25000 | 102.0 | 1.1 | 20 |
| Chromium | 0.0 | 208 | 200 | 104.0 | 1.4 | 20 |
| Cobalt | 3.2 | 509 | 500 | 101.2 | 1.2 | 20 |
| Copper | 0.0 | 274 | 250 | 109.6 | 1.8 | 20 |
| Iron | 12700 | 39300 | 26000 | 102.3 | 1.3 | 20 |
| Lead | 17.8 | 520 | 500 | 100.4 | 1.0 | 20 |
| Magnesium | 7450 | 33200 | 25000 | 103.0 | 0.9 | 20 |
| Manganese | 10500 | 10800(a) | 500 | 60.0 (b) | 0.9 | 20 |
| Molybdenum | | | | | | |
| Nickel | 1.0 | 524 | 500 | 104.6 | 1.3 | 20 |
| Potassium | 3440 | 30400 | 25000 | 107.8 | 1.6 | 20 |
| Selenium | 6.4 | 1960 | 2000 | 97.7 | 0.0 | 20 |
| Silver | 0.0 | 52.0 | 50 | 104.0 | 0.8 | 20 |
| Sodium | 24300 | 52700 | 25000 | 113.6 | 0.6 | 20 |
| Thallium | 0.0 | 2030 | 2000 | 101.5 | 0.0 | 20 |
| Tin | | | | | | |
| Vanadium | 0.72 | 503 | 500 | 100.5 | 1.8 | 20 |
| Zinc | 392 | 916 | 500 | 104.8 | 1.8 | 20 |

Associated samples MP9747: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Above linear range.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

9.2.2

6

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9747
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/12/06

| Metal | BSP Result | Spikelot MPFLICP3 | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | 27300 | 27000 | 101.1 | 85-115 |
| Antimony | 511 | 500 | 102.2 | 85-115 |
| Arsenic | 2040 | 2000 | 102.0 | 85-115 |
| Barium | 2070 | 2000 | 103.5 | 85-115 |
| Beryllium | 57.3 | 50 | 114.6 | 85-115 |
| Cadmium | 50.7 | 50 | 101.4 | 85-115 |
| Calcium | 25900 | 25000 | 103.6 | 85-115 |
| Chromium | 208 | 200 | 104.0 | 85-115 |
| Cobalt | 510 | 500 | 102.0 | 85-115 |
| Copper | 267 | 250 | 106.8 | 85-115 |
| Iron | 26900 | 26000 | 103.5 | 85-115 |
| Lead | 507 | 500 | 101.4 | 85-115 |
| Magnesium | 25400 | 25000 | 101.5 | 85-115 |
| Manganese | 532 | 500 | 106.4 | 85-115 |
| Molybdenum | | | | |
| Nickel | 526 | 500 | 105.2 | 85-115 |
| Potassium | 23400 | 25000 | 93.6 | 85-115 |
| Selenium | 1970 | 2000 | 98.5 | 85-115 |
| Silver | 51.6 | 50 | 103.2 | 85-115 |
| Sodium | 22100 | 25000 | 88.4 | 85-115 |
| Thallium | 2040 | 2000 | 102.0 | 85-115 |
| Tin | | | | |
| Vanadium | 507 | 500 | 101.4 | 85-115 |
| Zinc | 537 | 500 | 107.4 | 85-115 |

Associated Samples MP9747: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.2.3

6



## SERIAL DILUTION RESULTS SUMMARY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9747
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 06/12/06

| Metal | F41357-1 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | 224 | 643 | 187.4(a) | 0-10 |
| Antimony | 0.00 | 0.00 | NC | 0-10 |
| Arsenic | 5.01 | 23.2 | 362.3(a) | 0-10 |
| Barium | 57.5 | 60.4 | 5.1 | 0-10 |
| Beryllium | 3.27 | 15.6 | 376.1(a) | 0-10 |
| Cadmium | 0.00 | 0.00 | NC | 0-10 |
| Calcium | 37500 | 40700 | 8.5 | 0-10 |
| Chromium | 0.00 | 0.00 | NC | 0-10 |
| Cobalt | 3.22 | 5.57 | 73.0 (a) | 0-10 |
| Copper | 0.00 | 0.00 | NC | 0-10 |
| Iron | 12700 | 13700 | 8.5 | 0-10 |
| Lead | 17.8 | 13.8 | 22.2 (a) | 0-10 |
| Magnesium | 7450 | 7970 | 7.0 | 0-10 |
| Manganese | 10500 | 11900 | 13.0*(b) | 0-10 |
| Molybdenum | | | | |
| Nickel | 1.01 | 6.00 | 100.0(a) | 0-10 |
| Potassium | 3440 | 2830 | 17.9*(b) | 0-10 |
| Selenium | 6.42 | 0.00 | 100.0(a) | 0-10 |
| Silver | 0.00 | 0.00 | NC | 0-10 |
| Sodium | 24300 | 23400 | 3.5 | 0-10 |
| Thallium | 0.00 | 0.00 | NC | 0-10 |
| Tin | | | | |
| Vanadium | 0.720 | 0.00 | 100.0(a) | 0-10 |
| Zinc | 392 | 420 | 7.1 | 0-10 |

Associated Samples MP9747: F41371-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL)
(b) Serial dilution indicates possible matrix interference

9.2.4

6

Southeast ACCUTEST

IT'S ALL IN THE CHEMISTRY

Section 10

## General Chemistry

## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

10



METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN20962 | 100 | <100 | mg/l | | | | |

Associated Samples:
Batch GN20962: F41371-1

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F41371
Account: BHATNM - Bhate Environmental Associates, Inc
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN20962 | F41295-1 | mg/l | 52700 | 52300 | 0.6 | 0-29% |

Associated Samples:
Batch GN20962: F41371-1

10.2 10




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SDG F41372

*e-Hardcopy 2.0*
*Automated Report*

Southeast ACCUTEST

LET'S ALL IN THE CHEMISTRY

07/27/06

Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT 9050291.01.01

Accutest Job Number: F41372

Sampling Date: 06/08/06

Report to:

Bhate Environmental Associates, Inc.

jmoore@bhate.com

ATTN: Jim Moore

Total number of pages in report: 24

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ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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## Sample Summary

Bhate Environmental Associates, Inc.

Job No: F41372

HOLMN
Project No: PROJECT 9050291.01.01

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| F41372-1 | 06/08/06 | 08:00 | TL | 06/09/06 | AQ | Ground Water | SWMU-08-DP02 |
| F41372-2 | 06/08/06 | 00:00 | TL | 06/09/06 | SO | Trip Blank Soil | TRIP BLANK |

Soil samples reported on a dry weight basis unless otherwise indicated on result page



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F41372

**Site:** HOLMN **Report Date** 6/22/2006 2:29:50 PM

1 Sample, 1 Trip Blank were collected on 06/08/2006 and received at Accutest on 06/09/2006 properly preserved, at 2.2 Deg. C and intact. These Samples received an Accutest job number of F41372. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ954

All samples were analyzed within the recommended method holding time.

Sample(s) F41295-1MS, F41295-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl methacrylate, Styrene, Trans-1,4-Dichloro-2-Butene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl chloride, Methyl methacrylate, Styrene, Trans-1,4-Dichloro-2-Butene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference. Refer to Blank Spike.

**Matrix:** SO **Batch ID:** VF147

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41447-2MS, F41447-2MSD were used as the QC samples indicated.

MS and/or MSD Recovery(s) for 4-Methyl-2-pentanone, Acrylonitrile, Methyl methacrylate, Tetrachloroethylene are outside control limits. Probable cause due to matrix interference. See Blank Spike.

### Extractables by GCMS By Method SW846 8270C

**Matrix:** AQ **Batch ID:** OP16876

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41316-5MS, F41316-5MSD were used as the QC samples indicated.

MS/MSD Recovery(s) for Benzidine are outside control limits. Probable cause due to matrix interference.

### Volatiles by GC By Method SW846 8015

**Matrix:** AQ **Batch ID:** GCD2866

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41358-1MS, F41358-1MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846 8015 M

**Matrix:** AQ **Batch ID:** OP16875

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41372-1MS, F41372-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

### Extractables by GC By Method SW846 8082

**Matrix:** AQ **Batch ID:** OP16898

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F41371-1MS, F41371-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

## Metals By Method EPA 200.7

**Matrix:** AQ **Batch ID:** MP9747

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41357-1DUP, F41357-1MS, F41357-1MSD, F41357-1SDL were used as the QC samples for metals.

RPD(s) for Duplicate for Arsenic, Chromium, Copper, Nickel, Selenium are outside control limits for sample MP9747-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Aluminum, Arsenic, Beryllium, Cobalt, Lead, Nickel, Selenium, Vanadium, Manganese, Potassium are outside control limits for sample MP9747-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP9747-SD1 for Potassium: Serial dilution indicates possible matrix interference.

MP9747-SD1 for Manganese: Serial dilution indicates possible matrix interference.

## Metals By Method EPA 245.1

**Matrix:** AQ **Batch ID:** MP9746

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41371-1DUP, F41371-1MS were used as the QC samples for metals.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN20962

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F41295-1DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by

Date: June 22, 2006

Svetlana Izosimova, QAO (signature on file)





## Sample Results

## Report of Analysis

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J023236.D | 1 | 06/15/06 | MM | n/a | n/a | VJ954 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 20 | 10 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | 0.53 | 1.0 | 0.50 | ug/l | J |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.50 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 108% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 117% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 112% | | 83-119% |

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L032153.D | 1 | 06/12/06 | NJ | 06/12/06 | OP16876 | SL1663 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 59-50-7 | 4-Chloro-3 methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 4.8 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 1.9 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.9 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 1.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 1.9 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 0.96 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 0.96 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 92-87-5 | Benzidine | ND | 24 | 14 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 1.9 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 0.96 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.6 | 3.8 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 1.9 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 0.96 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 1.9 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 1.9 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 4.8 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 1.9 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 2.4 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 2.4 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 0.96 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 0.96 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.9 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.9 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 1.9 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 3.8 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 3.8 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 3.8 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 0.96 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 1.9 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 1.9 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 0.96 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 49% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 31% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 98% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 89% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 94% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 80% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8015 | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | CD069565.D | 1 | 06/15/06 | MM | n/a | n/a | GCD2866 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.10 | 0.050 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 86% | | 65-127% |
| 98-08-8 | aaa-Trifluorotoluene | 81% | | 65-124% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Accutest LabLink@52022 14:10 27-Jul-2006

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8082 SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | ST48308.D | 1 | 06/19/06 | ME | 06/14/06 | OP16898 | GST1412 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 10.0 ml |
| Run #2 | | |

PCB List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 0.48 | 0.24 | ug/l | |
| 11104-28-2 | Aroclor 1221 | ND | 0.48 | 0.38 | ug/l | |
| 11141-16-5 | Aroclor 1232 | ND | 0.48 | 0.38 | ug/l | |
| 53469-21-9 | Aroclor 1242 | ND | 0.48 | 0.24 | ug/l | |
| 12672-29-6 | Aroclor 1248 | ND | 0.48 | 0.24 | ug/l | |
| 11097-69-1 | Aroclor 1254 | ND | 0.48 | 0.24 | ug/l | |
| 11096-82-5 | Aroclor 1260 | ND | 0.48 | 0.24 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 82% | | 49-124% |
| 2051-24-3 | Decachlorobiphenyl | 46% | | 26-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| Method: | SW846 8015 M SW846 3550B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LL10802.D | 1 | 06/15/06 | AA | 06/12/06 | OP16875 | GLL396 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH (C10-C22) | ND | 0.24 | 0.096 | mg/l | |
| | TPH (> C22-C36) | ND | 0.24 | 0.096 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o Terphenyl | 76% | | 44-123% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Accutest LabLink@52022 14:10 27-Jul-2006

Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 6820 | 400 | 36 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Antimony | 3.4 U | 6.0 | 3.4 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Arsenic | 7.1 J | 20 | 5.6 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Barium | 84.3 J | 200 | 0.40 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Beryllium | 4.8 J | 8.0 | 0.80 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Cadmium | 0.30 U | 5.0 | 0.30 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Calcium | 822000 | 5000 | 210 | ug/l | 5 | 06/12/06 | 06/13/06 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Chromium | 6.0 J | 10 | 0.60 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Cobalt | 3.1 J | 50 | 0.60 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Copper | 1.0 U | 25 | 1.0 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Iron | 5140 | 300 | 15 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Lead | 3.7 J | 5.0 | 1.7 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Magnesium | 64300 | 5000 | 4.3 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Manganese | 259 | 15 | 1.5 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Mercury | 0.10 U | 1.0 | 0.10 | ug/l | 1 | 06/12/06 | 06/12/06 | MS | EPA 245.1 [1] | EPA 245.1 [4] |
| Nickel | 8.9 J | 40 | 0.80 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Potassium | 15200 | 10000 | 100 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Selenium | 3.8 J | 10 | 2.8 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Silver | 1.0 J | 10 | 0.90 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Sodium | 71700 | 50000 | 2500 | ug/l | 5 | 06/12/06 | 06/13/06 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Thallium | 2.9 U | 10 | 2.9 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Vanadium | 29.3 J | 50 | 1.1 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Zinc | 54.3 | 40 | 3.2 | ug/l | 1 | 06/12/06 | 06/12/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA5026
(2) Instrument QC Batch: MA5029
(3) Instrument QC Batch: MA5031
(4) Prep QC Batch: MP9746
(5) Prep QC Batch: MP9747

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SWMU-08-DP02 | | |
| Lab Sample ID: | F41372-1 | Date Sampled: | 06/08/06 |
| Matrix: | AQ - Ground Water | Date Received: | 06/09/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 3060 | 100 | 10 | mg/l | 1 | 06/12/06 09:40 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F41372-2 | Date Sampled: | 06/08/06 |
| Matrix: | SO - Trip Blank Soil | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F016121.D | 1 | 06/16/06 | WJ | n/a | n/a | VF147 |
| Run #2 | | | | | | | |

| | Initial Weight |
|---|---|
| Run #1 | 5.00 g |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 50 | 25 | ug/kg | |
| 75-05-8 | Acetonitrile | ND | 50 | 35 | ug/kg | |
| 107-02-8 | Acrolein | ND | 25 | 15 | ug/kg | |
| 107-13-1 | Acrylonitrile | ND | 25 | 13 | ug/kg | |
| 107-05-1 | Allyl chloride | ND | 25 | 5.0 | ug/kg | |
| 71-43-2 | Benzene | ND | 5.0 | 2.0 | ug/kg | |
| 100-44-7 | Benzyl Chloride | ND | 5.0 | 3.0 | ug/kg | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-27-4 | Bromodichloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-25-2 | Bromoform | ND | 5.0 | 2.0 | ug/kg | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 3.0 | ug/kg | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 108-90-7 | Chlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 75-00-3 | Chloroethane | ND | 5.0 | 3.0 | ug/kg | |
| 67-66-3 | Chloroform | ND | 5.0 | 2.0 | ug/kg | |
| 544-10-5 | 1-Chlorohexane | ND | 5.0 | 2.0 | ug/kg | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 2.0 | ug/kg | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 2.0 | ug/kg | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 25 | 13 | ug/kg | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 2.0 | ug/kg | |
| 56-23-5 | Carbon tetrachloride | ND | 5.0 | 2.0 | ug/kg | |
| 75-34-3 | 1,1-Dichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 5.0 | 3.0 | ug/kg | |
| 106-93-4 | 1,2-Dibromoethane | ND | 5.0 | 2.0 | ug/kg | |
| 107-06-2 | 1,2-Dichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 78-87-5 | 1,2-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 2.0 | ug/kg | |

ND = Not detected  MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F41372-2 | Date Sampled: | 06/08/06 |
| Matrix: | SO - Trip Blank Soil | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 5.0 | 2.0 | ug/kg | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.0 | 3.0 | ug/kg | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 25 | | ug/kg | |
| 541-73-1 | m-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 95-50-1 | o-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 106-46-7 | p-Dichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 5.0 | 2.0 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 97-63-2 | Ethyl methacrylate | ND | 25 | 5.0 | ug/kg | |
| 76-13-1 | Freon 113 | ND | 5.0 | 2.0 | ug/kg | |
| 591-78-6 | 2-Hexanone | ND | 25 | 10 | ug/kg | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/kg | |
| 110-54-3 | Hexane | ND | 5.0 | 3.0 | ug/kg | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 2.0 | ug/kg | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 25 | 10 | ug/kg | |
| 126-98-7 | Methacrylonitrile | ND | 25 | 10 | ug/kg | |
| 74-83-9 | Methyl bromide | ND | 5.0 | 2.0 | ug/kg | |
| 74-87-3 | Methyl chloride | ND | 5.0 | 2.0 | ug/kg | |
| 74-88-4 | Methyl iodide | ND | 10 | 2.0 | ug/kg | |
| 80-62-6 | Methyl methacrylate | ND | 25 | 5.0 | ug/kg | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 2.0 | ug/kg | |
| 75-09-2 | Methylene chloride | 8.8 | 10 | 5.0 | ug/kg | J |
| 78-93-3 | Methyl ethyl ketone | ND | 25 | 10 | ug/kg | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 5.0 | 2.0 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 5.0 | 2.0 | ug/kg | |
| 76-01-7 | Pentachloroethane | ND | 25 | 5.0 | ug/kg | |
| 107-12-0 | Propionitrile | ND | 50 | 10 | ug/kg | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 100-42-5 | Styrene | ND | 5.0 | 2.0 | ug/kg | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 5.0 | 2.0 | ug/kg | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 2.5 | ug/kg | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 2.0 | ug/kg | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound





# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F41372-2 | Date Sampled: | 06/08/06 |
| Matrix: | SO - Trip Blank Soil | Date Received: | 06/09/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 3.0 | ug/kg | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 2.0 | ug/kg | |
| 127-18-4 | Tetrachloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 108-88-3 | Toluene | ND | 5.0 | 2.0 | ug/kg | |
| 79-01-6 | Trichloroethylene | ND | 5.0 | 2.0 | ug/kg | |
| 75-69-4 | Trichlorofluoromethane | ND | 5.0 | 2.0 | ug/kg | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 25 | 10 | ug/kg | |
| 75-01-4 | Vinyl chloride | ND | 5.0 | 2.0 | ug/kg | |
| 108-05-4 | Vinyl Acetate | ND | 25 | 10 | ug/kg | |
| | m,p-Xylene | ND | 10 | 3.0 | ug/kg | |
| 95-47-6 | o-Xylene | ND | 5.0 | 2.0 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 109% | | 78-123% |
| 2037-26-5 | Toluene-D8 | 99% | | 71-137% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | | 61-157% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | | 74-125% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

## Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody





F41372

Chain of Custody and Analytical Request

22

F41372: Chain of Custody
Page 1 of 3

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F41372 CLIENT: Bhate PROJECT: Summer 06

DATE/TIME RECEIVED: 6/9/06 9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 22

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8530 7639 2363

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [x] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S

**MISC. INFORMATION**

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

NUMBER OR LAB FILTERED METALS ? 0

SUMMARY OF COMMENTS: Recieved soil trip blank for water samples

TECHNICIAN SIGNATURE/DATE [signature] 6/9/06 TECHNICIAN SIGNATURE/DATE

4.1 4

F41372: Chain of Custody
Page 2 of 3



## Job Change Order: F41372_6/19/2006

| | | | |
|---|---|---|---|
| Requested Date: | 6/19/2006 | Received Date: | 6/9/2006 |
| Account Name: | Bhate Environmental Associates. | Due Date: | 6/23/2006 |
| Project Description: | HOLMN | Deliverable: | COMMBN |
| CSR: | SB | TAT (Days): | 14 |

Sample #: F41372-all

Change: Per Frank Gardner@BHATE via e-mail 06.19.06 F41372 is currently linked to project number 9050292.01.01 and should be changed to project 9050291.01.01 for billing purposes.

Above Changes Per: Frank Gardner@ BHATE Date: 6/19/2006

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

4.1 4

F41372: Chain of Custody
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