# PHASE II ENVIRONMENTAL SITE ASSESSMENT
# VDOT I-564 INTERMODAL CONNECTOR
# PROPOSED RAILROAD RE-LOCATION
# CAMP ALLEN LANDFILL AND SALVAGE YARD
# NAVAL STATION NORFOLK
# NORFOLK, VIRGINIA

*June 30, 2003*

*Prepared For:*
**VIRGINIA DEPARTMENT OF TRANSPORTATION**
**Mr. Mike Sarros**
**1700 N. Main Street**
**Suffolk, Virginia 23439**
**(757) 925-1648**

*Prepared By:*
**MARSHALL MILLER AND ASSOCIATES**
**11277 Airpark Road, Suite 203**
**Ashland, Virginia 23005**
**(804) 798-6525**

**MM&A Project Number: H0015**

**Reviewed By:**

James Martin

**James T. Martin, Jr., C.P.G.**
*Project Manager*

**Prepared By:**

Eric Powers

**Eric R. Powers, C.P.G.**
*Senior Scientist*

# TABLE OF CONTENTS


1.0 INTRODUCTION ..... 1
- 1.1 SITE HISTORY-CALF ..... 1
- 1.2 SITE HISTORY-CASY ..... 1
- 1.3 CONSTRUCTION PLANS ..... 2

2.0 SUBSURFACE INVESTIGATION METHODOLOGIES ..... 2

3.0 SUBSURFACE INVESTIGATION RESULTS ..... 3
- 3.1 VOLATILE ORGANIC COMPOUNDS ..... 4
- 3.2 SEMI VOLATILE ORGANIC COMPOUNDS ..... 5
- 3.3 PESTICIDES AND HERBICIDES ..... 5
- 3.4 METALS ..... 5
- 3.5 POLYCHLORINATED BIPHENYLS ..... 5
- 3.6 TOTAL PETROLUEM HYDROCARBONS ..... 5

4.0 EVALUATION OF RESULTS ..... 6
- 4.1 DISPOSAL EVALUATION ..... 6
- 4.2 RISK EVALUATION ..... 7

5.0 CONCLUSIONS ..... 8

6.0 RECOMMENDATIONS ..... 9

7.0 REFERENCES ..... 10

**APPENDIX I**

Figure 1 - Site Vicinity and Topography Map
Figure 2 - Site Map of Sampling Locations in the Proposed Project Corridor

**APPENDIX II**
Tables

**APPENDIX III**
Photographs

**APPENDIX IV**
Soil Description Logs

**APPENDIX V**
Laboratory Analysis Reports and Chain-of-Custody Forms

**APPENDIX VI**
QA/QC Review

## 1.0 INTRODUCTION

Marshall Miller and Associates, Inc. (MM&A) conducted this *Phase II Environmental Site Assessment (ESA)* for the Virginia Department of Transportation's (VDOT's) proposed I-564 Intermodal Connector in Norfolk, Virginia. The connector project includes relocating the adjacent railway onto two areas of concern at the Naval Station Norfolk (NSN), namely the Camp Allen Landfill (CALF) and Camp Allen Salvage Yard (CASY) shown on **Figures 1 and 2, Appendix I**. The primary goal of this ESA was to investigate soils within the proposed railroad right-of-way (R/W) to identify potential construction restrictions and future track maintenance issues. Below are summaries of the site history for the CALF and CASY along with road/railway construction plans as extracted from the *Draft Environmental Baseline Survey* (EBS) (MM&A, 2001).

### *1.1 SITE HISTORY-CALF*

The CALF contains two distinct areas referred to as "*Area A*" and "*Area B*". As currently aligned, the northern tip of *Area A* coincides with the proposed railroad R/W re-location. The *Area A* landfill, which operated from the mid-1940's until approximately 1974, was used for the disposal of metal plating/parts cleaning sludge, paint-stripping residue, various chlorinated organic solvents, surplus chemicals, pesticides and power plant ash. No railroad R/W is proposed at the *Area B* landfill.

### *1.2 SITE HISTORY-CASY*

The CASY operated from the 1940s until 1995, providing an area for salvaging and processing scrap materials generated at the NSN. The northern portion of the CASY is located within the proposed railroad R/W. CASY activities have included storage of waste oils, used chemicals (acids, paint thinners, solvents, pesticides) and scrap industrial/commercial equipment. Metal smelting, miscellaneous burning and recycling also occurred at the CASY.

### *1.3 CONSTRUCTION PLANS*

The proposed I-564 Intermodal Connector involves re-locating approximately 2,100 linear feet of railroad track parallel to its current alignment near portions of the CALF and CASY. Norfolk Southern Railway Company (NSRC) owns the southeastern segment of track parallel to the existing I-564, whereas Norfolk & Portsmouth Belt Line Railroad (NPBL) owns the western segment section of track oblique to the existing I-564. The maximum width of the proposed R/W is 75 feet, which reportedly will be acquired through a self-perpetuating 100-year lease and not through direct purchase.

Previous investigations by the Navy found the depth to groundwater ranged from four to six feet below ground surface in the area. VDOT's design team is developing plans to ensure that road and rail features remain above the groundwater table, including drainage ditches. Because previous studies had already delineated impacted groundwater, no groundwater samples were collected as part of this investigation.

## 2.0 SUBSURFACE INVESTIGATION METHODOLOGIES

This investigation targeted soils potentially impacted by site-related chemicals identified in the EBS. This investigation followed the *Final ESA Plan* (MM&A, 2002) that outlined a preliminary approach to assess soils in the proposed railroad construction limits closest to the CALF and CASY. The procedures were based on guidelines from the American Society of Testing and Materials (ASTM, 1997) and supplemented with quality control guidance (U.S. EPA, 1987). Summaries of the sampling techniques performed during this investigation are provided below.

1. Soil cores were collected using direct push technology (i.e. Geoprobe®) at 10 stations (CA-3, CA-4 and CA-9 through CA-16) inside and immediately outside the mapped boundaries of the CALF and CASY. Direct push sampling was conducted to minimize disturbance to these units.

2. Test trenches were excavated outside the mapped boundaries of the CALF and CASY (CA-5 through CA-8, CA-18 and CA-20). Two of the originally proposed stations (CA-17 and CA-19) were eliminated because soils on the eastern portion of the project appeared to be undisturbed and outside any waste unit. One additional trench (referred to as CA-A) was excavated to assess subsurface conditions on the north side of the proposed railroad corridor near the proposed R/W boundary between NSRC and NPBL.

3. Two borings (CA-1 and CA-2) were advanced using a hand auger at the western portion of the project because heavy equipment was not accessible to this wooded area.

An approximate 100-foot sample spacing was employed along the cut/fill limit that parallels the southern R/W limits, resulting in 19 sampling stations shown on **Figure 2, Appendix I**. At each station, the sample with either the highest field screen reading or the most fill debris was selected for testing of all parameters on **Table 2-1, Appendix II**. In addition, metals were analyzed in ten other samples because field indicators of metals are generally not as evident as those from organics. MM&A submitted samples to STL Savannah of Savannah, Georgia for analysis.

## 3.0 SUBSURFACE INVESTIGATION RESULTS

The ESA sampling investigation was conducted from December 16 to December 20, 2002. Photographs of the study area and the material encountered are presented in **Appendix III**. Soil samples were collected to total depths ranging from 4.5 feet to 5.5 feet. *Soil Description Logs* are provided in **Appendix IV** and summarized on **Table 3-1**. Distinctive fill materials encountered in or near the CALF included a dark gray, uniform silty material (CA-1 through CA-8) overlying fill debris in some locations (CA-4 through CA-8) including brick, concrete, glass, plywood, and metal containers. An inspection of samples collected within the newly fenced portion of the CASY supported the statements by the Navy of the one-foot soil cover placed in the summer of 2002 (CA-10 through

CA-12). Because of existing pavement, no new soil cover was indicated outside the fenced portion of the CASY from CA-13 through CA-15.

The Laboratory Analysis Reports and Chain-of-Custody Forms are presented in **Appendix V**. Evaluations of the quality assurance/quality control (QA/QC) data are presented in **Appendix VI**. The following data qualifiers are used throughout: U (analyzed for but not detected) and J (compound is present but the concentration is estimated). Analytes with a B-flag denote the presence of that analyte in its respective laboratory blank. If a B-flagged constituent was a common laboratory contaminant and detected in a sample at less than 10 times the blank level, it was deemed un-related to the site (U.S. EPA, 1989). Additionally, if a B-flagged constituent was not a common laboratory contaminant and detected in a sample less than 5 times that in a blank, it was also deemed unrelated to the site. Samples were extracted using the toxicity characteristic leaching procedure (TCLP) by Method 1311 (U.S. EPA, 1992) except for tests of polychlorinated biphenyls and petroleum, which used "totals' extractions. Summary tables of laboratory results are presented in **Appendix II** and discussed below.

### *3.1 VOLATILE ORGANIC COMPOUNDS*

**Table 3-2** shows that nine VOCs were detected. Three of these (benzene, chloromethane, and ethylbenzene) were deemed non-site related because they were B-flagged and less than 5 times the blank level. The remaining six compounds including trichloroethene (TCE), toluene, cis/trans-1,2-dichlorethene, 4-methyl-2-pentanone (MIBK), carbon disulfide and xylenes were considered site related. In general, these compounds can be associated with petroleum hydrocarbons, chlorinated solvents or their degradation products.

The highest field screen reading of 43.6 parts per million (ppm) was encountered at CA-5 from the 2.0-5.0 feet interval. Volatile odors emanating from CA-5 were strong enough to require upgrading respiratory protection while sampling. **Table 3-2** shows that TCE was detected at CA-5, which may explain the source of volatile odors at this location.

### *3.2 SEMI-VOLATILE ORGANIC COMPOUNDS*

**Table 3-3** shows eight detected SVOCs, namely acenapthene, 2-methylnaphthalene, bis(2-ethylhexyl)phthalate, flourene, naphthalene, phenanthrene, carbazole, and dibenzofuran. None of these compounds were B-flagged and are therefore all considered site related. Most of the compounds are polynuclear aromatic hydrocarbons (PAHs). Samples with detected SVOCs primarily existed in or near the CASY and at CA-4 in the CALF.

### *3.3 PESTICIDES AND HERBICIDES*

**Table 3-4** shows that none of the pesticides or herbicides analyzed by Method 1311/8081A or Method 1311/8151A were detected.

### *3.4 METALS*

**Table 3-5** shows that of the Resource Conservation and Recovery Act (RCRA) "8" metals, only barium, cadmium, and lead were detected. Samples with detectable metals primarily occurred in or near the CALF and at CA-13 in the CASY.

### *3.5 POLYCHLORINATED BIPHENYLS*

**Table 3-6** shows that two polychlorinated biphenyl (PCB) congeners (Aroclor-1254 and Aroclor-1260) were detected. Aroclor-1254 was detected in seven samples with a maximum of 25 mg/kg at CA-13 (1.0-2.5 feet). Aroclor-1260 was detected in eleven samples with a maximum of 260 mg/kg at CA-6 (2.25-5.0 feet). Both samples represent filled sections with CA-6 consisting of brown, sandy clay fill material with abundant concrete, brick and metal pieces (possibly cans) and CA-13 reflecting black sandy material with gravel containing fiberglass (see **Figure 2** for sample locations).

### *3.6 TOTAL PETROLUEM HYDROCARBONS*

**Table 3-7** shows that total petroleum hydrocarbon-gasoline range organics (TPH-GRO) were detectable at levels ranging from 0.22 mg/kg to 1.2 mg/kg, while diesel range

organic (TPH-DRO) concentrations were noticeably higher, ranging from 1.6 mg/kg to 3,500 mg/kg. **Figure 2** depicts the six locations with TPH-DRO above 40 mg/kg, which MM&A deems near the Virginia Department of Environmental Quality (VDEQ) 50 mg/kg clean fill limit (VDEQ, 2001). All such samples were taken from filled sections including the dark gray silt material and underlying debris in or near the CALF and the black sand/gravel zone at CA-13.

The TPH-DRO results seemed high based on site observations (no stained soils or petroleum odors) and field screen readings (high of 3.6 ppm for these samples). Eight SVOCs were detected including naphthalene; however, collectively those concentrations could not have accounted for the TPH-DRO results. Hence, MM&A evaluated the TPH chromatograms and tentatively identified compounds (TICs) for SVOCs. Because STL conveyed that the chromatogram patterns did not match diesel fuel, **Table 3-8** was prepared to show three different carbon range groupings that may suggest multiple sources. **Table 3-8** also shows the only identified TIC group was aldol condensate, which is a compound formed by the reaction between two aldehyde or two ketone molecules (*Lewis, 2001*). However, the Aldol condensate concentrations alone would not explain the TPH results. Lastly, the QA/QC testing identified significant variability in TPH-DRO duplicate testing (see **Appendix VI**). Therefore, additional sampling and testing is needed to further evaluate TPH diesel range constituents at the site.

## 4.0 EVALUATION OF RESULTS

### *4.1 DISPOSAL EVLAUATION*

In the event soils in the study area require excavation to construct the railroad track or for future maintenance, laboratory data were compared with regulatory disposal criteria. Specifically, results were compared to 1) RCRA hazardous toxicity limits (i.e. TCLP regulatory limit), 2) VDEQ Solid Waste Regulations for Special Wastes such as PCBs and soils with petroleum (VDEQ, 2001) and 3) Toxic Substances Control Act (TSCA) limits for PCBs (U.S. EPA, 1976). **Tables 4-1** through **4-6** in **Appendix II** compare

concentrations for each analyte to the applicable regulatory disposal limit. An analyte was deemed a constituent of concern (COC) if it exceeded a regulatory disposal criterion.

**Tables 4-1** through **4-4** compare test results for VOCs, SVOCs, pesticides, herbicides and metals to TCLP regulatory limits. The tables show that either 1) concentrations were below TCLP regulatory limits, 2) laboratory reporting limits for non-detect constituents were below TCLP regulatory limits or 3) detected constituents had no TCLP regulatory limit. Because testing did not identify any constituent exceeding a hazardous toxicity limit, no VOCs, SVOCs, pesticides, herbicides or metals were deemed COCs.

**Table 4-5** shows that PCBs exceeded the TSCA limit of 50 mg/kg at two locations (CA-6 and CA-13). The test results identify that soils excavated at these two areas may necessitate management as a TSCA waste and may not be disposed in a sanitary landfill under VDEQ Solid Waste Regulations (VDEQ, 2001). Furthermore, Special Waste requirements designate solid wastes containing PCBs between 1.0 mg/kg and 50.0 mg/kg are restricted to disposal in sanitary landfills with leachate collection, liners and groundwater monitoring. One sample (CA-7) contained PCBs between 1.0 mg/kg and 50.0 mg/kg. Therefore, PCBs are deemed a COC.

**Table 4-6** shows that TPH concentrations exceeded VDEQs clean fill limit of 50 mg/kg for TPH in soil in four of 19 locations. Soils excavated in these areas may require management as a petroleum contaminated waste. Based on TPH-DRO concentrations above the VDEQ clean fill criteria, TPH is deemed a COC.

### *4.2 RISK EVALUATION*

In general, potential construction worker health risks can be evaluated by comparing site data to Risk-Based Concentrations (RBCs) for industrial soil (U.S. EPA, 2003). However, RBCs are based on a "totals" extraction whereas the site data reflect a TCLP extraction (except for PCBs and TPH). Therefore, no conclusions regarding risk could be made from the TCLP data. With respect to TPH and PBCs, only PCBs are designated with RBCs. The PCB RBCs (1.4 mg/kg for the detected Aroclor's) were exceeded at

three sample locations (CA-6, CA-7 and CA-13). Additional investigation using "totals" extractions is needed to further evaluate risks along the corridor.

## 5.0 CONCLUSIONS

This ESA investigated soils within the proposed railroad R/W of the I-564 Intermodal Connector near the CALF and CASY. The main purpose of this study was to compare constituents in soils to regulatory disposal criteria and evaluate potential worker exposure concerns during construction and future track maintenance. Nineteen sampling stations were advanced to depths of 4.5 feet to 5.5 feet. Distinctive fill materials encountered in or near the CALF included a dark gray, uniform silty material underlain in some locations by fill debris including brick, concrete, glass, plywood, and metal containers. Material within the CASY included the recently placed soil cover within the newly fenced portion and fill material at CA-13.

Soil samples were analyzed for VOCs, SVOCs, pesticides, herbicides, and metals using a TCLP extraction. The testing did not identify any constituent above TCLP regulatory limits. Samples were also analyzed for PCBs and TPH. PCBs were detected at levels exceeding the TSCA limit of 50 mg/kg at two locations (CA-6 and CA- 13). In addition, CA-7 contained PCB concentrations that would trigger VDEQs Solid Waste Regulations as a Special Waste. Lastly, for TPH, four of the 19 locations contained concentrations (exclusively DRO) in excess of VDEQs clean fill limit of 50 mg/kg. Therefore, PCBs and TPH-DRO were deemed COCs.

Regarding potential risk to workers during construction or future track maintenance, PCBs were the only constituents tested using a totals extraction that have an RBC. PCB concentrations exceeded RBCs at three locations (CA-6, CA-7 and CA-13). No other conclusions regarding risk could be made from the TCLP data.

## 6.0 RECOMMENDATIONS

The ESA reveals the need for further investigation such as more delineation and a more suitable risk evaluation. Delineation of COCs further into the proposed railroad R/W is needed, particularly in and near the CALF and near CA-13. Also, delineation of the volatile odors near CA-5 are necessary. It is recommended that future testing utilize a "totals" extraction instead of TCLP. Recommended "totals" testing may also better identify the source of volatile odors near CA-5. Such "totals" testing will also provide a direct comparison to RBC values for assessing worker exposure risks. To implement the additional recommendations, procedures in the previous *ESA Plan* should be followed including QA/QC measures, decontamination procedures, handling of investigative derived waste and health and safety.

## 7.0 REFERENCES

American Society for Testing and Materials, 1997, Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process E1903-97.

Lewis, Richard J., 2001, Hawley's Condensed Chemical Dictionary.

Marshall Miller & Associates, 2001, Draft Environmental Baseline Survey (EBS), I-564 Intermodal Connector Tracts 2, 3, and 4, Naval Station Norfolk.

U.S. EPA, 1976, Toxic Substance Control Act.

U.S. EPA, 1987, Data Quality Objectives for Remedial Response Activities (EPA/540/G-87/003).

U.S. EPA, 1989, Risk Assessment Guidance for Superfund Vol. I EPA 540/11-89/002.

U.S. EPA, 1992, Test Methods for Evaluating Solid Wastes, US EPA SW-84, Third Edition.

U.S. EPA, 2003, Region 3 Risk Based Concentration Table.

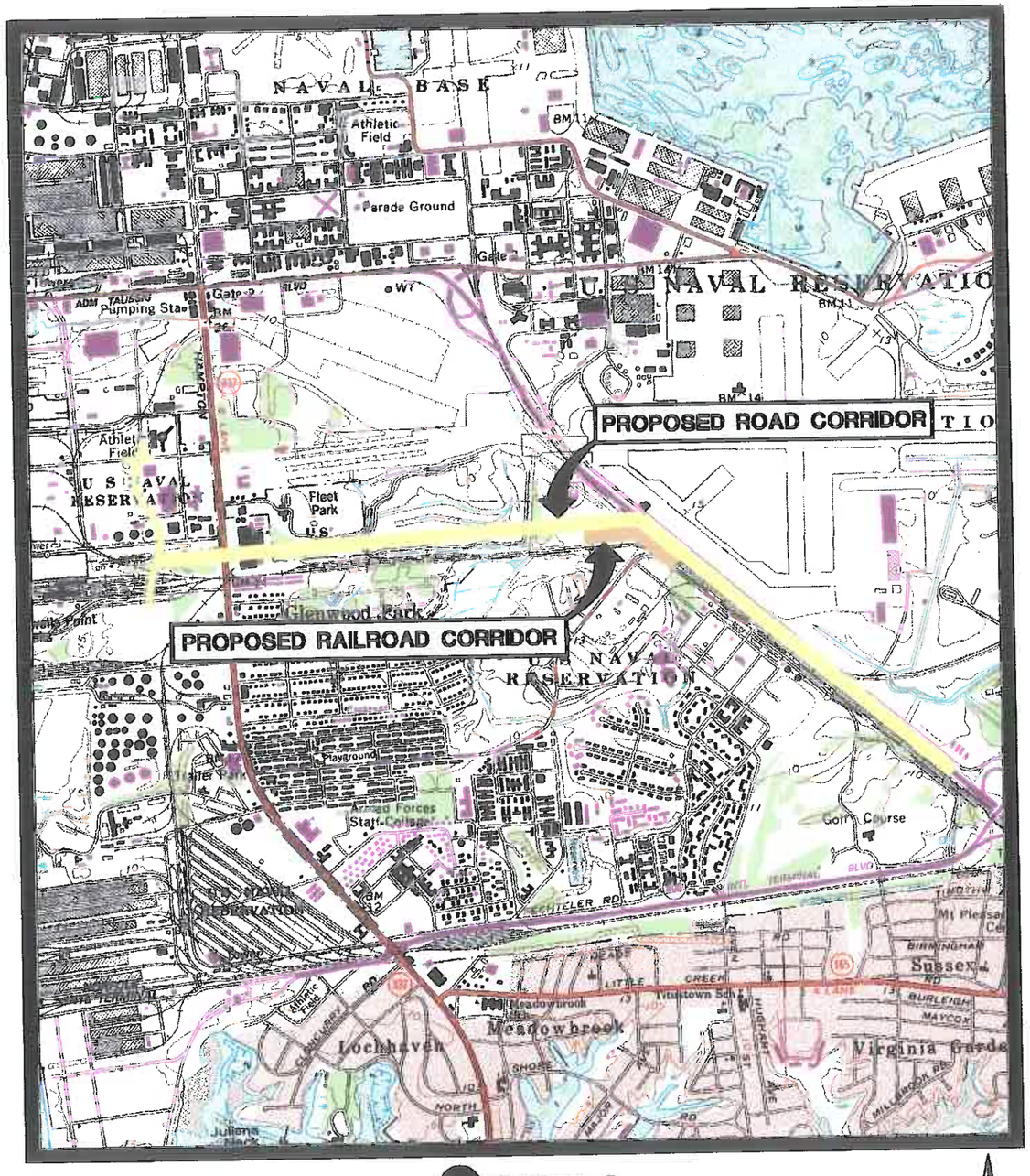
U.S. EPA, 40 CFR 261.24.

Virginia Department of Environmental Quality, 2001, Solid Waste Regulations – Special Wastes (9 VAC 20-80-630, Part VIII).

# *Appendix I*

***Figure 1- Site Vicinity and Topography Map***

***Figure 2-Site Map of Sampling Locations in Proposed Project Corridor***




**Prepared by:**

MARSHALL MILLER & ASSOCIATES

H0015 04/28/03

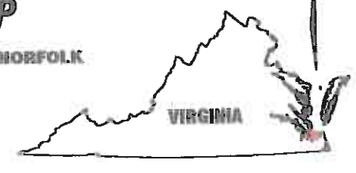
USGS 7.5' NORFOLK NORTH, VA QUADRANGLE - 1965
PHOTOREVISED 1980, PHOTOINSPECTED 1980
CONTOUR INTERVAL=5'

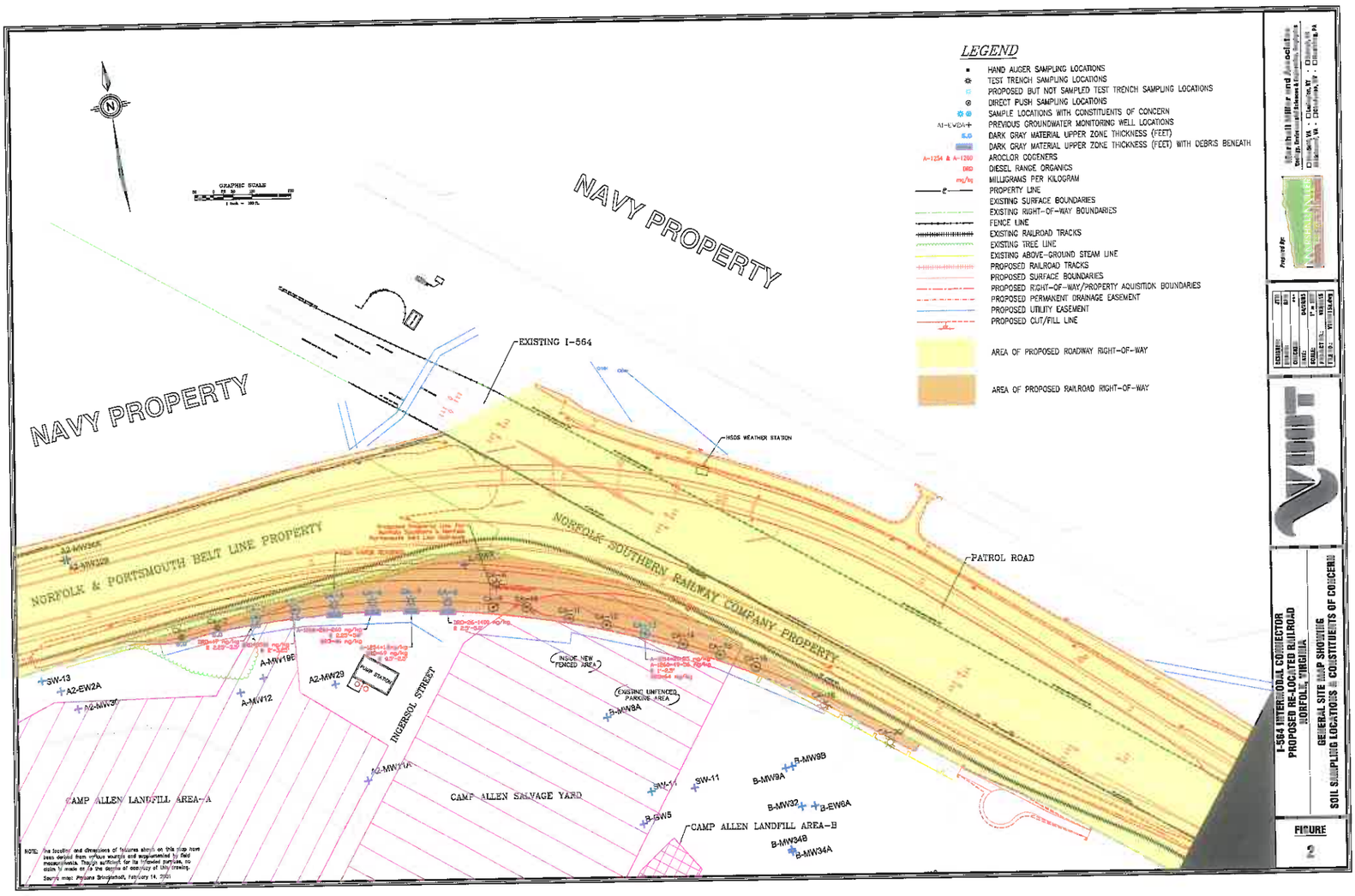
# FIGURE1 - VICINITY MAP

I-564 INTERMODAL CONNECTOR - NAVAL STATION NORFOLK
NORFOLK, VIRGINIA

2,000' 0 2,000'

SCALE 1:24,000




LEGEND
HAND AUGER SAMPLING LOCATIONS
TEST TRENCH SAMPLING LOCATIONS
PROPOSED BUT NOT SAMPLED TEST TRENCH SAMPLING LOCATIONS
DIRECT PUSH SAMPLING LOCATIONS
SAMPLE LOCATIONS WITH CONSTITUENTS OF CONCERN
A1-EW2A
PREVIOUS GROUNDWATER MONITORING WELL LOCATIONS
DARK GRAY MATERIAL UPPER ZONE THICKNESS (FEET)
DARK GRAY MATERIAL UPPER ZONE THICKNESS (FEET) WITH DEBRIS BENEATH
A-1254 & A-1260
AROCLOR COGENERS
DRO
DIESEL RANGE ORGANICS
mg/kg
MILLIGRAMS PER KILOGRAM
PROPERTY LINE
EXISTING SURFACE BOUNDARIES
EXISTING RIGHT-OF-WAY BOUNDARIES
FENCE LINE
EXISTING RAILROAD TRACKS
EXISTING TREE LINE
EXISTING ABOVE-GROUND STEAM LINE
PROPOSED RAILROAD TRACKS
PROPOSED SURFACE BOUNDARIES
PROPOSED RIGHT-OF-WAY/PROPERTY AQUISITION BOUNDARIES
PROPOSED PERMANENT DRAINAGE EASEMENT
PROPOSED UTILITY EASEMENT
PROPOSED CUT/FILL LINE
AREA OF PROPOSED ROADWAY RIGHT-OF-WAY
AREA OF PROPOSED RAILROAD RIGHT-OF-WAY
GRAPHIC SCALE
NAVY PROPERTY
NAVY PROPERTY
EXISTING I-564
HSDS WEATHER STATION
NORFOLK & PORTSMOUTH BELT LINE PROPERTY
NORFOLK SOUTHERN RAILWAY COMPANY PROPERTY
PATROL ROAD
INGERSOL STREET
INSIDE NEW FENCED AREA
EXISTING UNFENCED PARKING AREA
CAMP ALLEN LANDFILL AREA-A
CAMP ALLEN SALVAGE YARD
CAMP ALLEN LANDFILL AREA-B
SW-13
A2-EW2A
A2-MW3A
A-MW12
A-MW19E
A2-MW29
A2-MW1A
B-MW8A
B-SW5
SW-11
B-MW9A
B-MW9B
B-MW32
B-EW6A
B-MW34B
B-MW34A
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made or is the denote of accuracy of this drawing.
Source map: Prepared by Stockhoff, February 14, 2001
Prepared for:
Prepared by:
Earth & Water Consultants
Chesapeake, VA • Charlotte, NC • Chesapeake, VA
Richmond, VA • Charlottesville, VA • Charlotte, NC
DESIGNED: JCT
DRAWN: JCT
CHECKED: ***
DATE: 04/29/03
SCALE: 1" = 100'
PROJECT NO.: 1001.01
FILE NO.: 1001.01.dwg
I-564 INTERNATIONAL CONNECTOR
PROPOSED RE-LOCATED RAILROAD
NORFOLK, VIRGINIA
GENERAL SITE MAP SHOWING
SOIL SAMPLING LOCATIONS & CONSTITUENTS OF CONCERN
FIGURE
2

# *Appendix II*

***Tables***

## TABLE 2-1

## SUMMARY OF TESTS CONDUCTED
## RAILROAD RE-LOCATION
## VDOT I-564 INTERMODAL CONNECTOR

| Analysis | Test Method | Number of Samples Tested | Trip Blank | Duplicate | Matrix Spike/Matrix Spike Duplicate |
|---|---|---|---|---|---|
| TCLP VOCs | 1311/ 8260B | 19 | 2 as "Totals and not TCLP" | 1 | 1 |
| TCLP SVOCs | 1311/ 8270C | 19 | N/A | 1 | 1 |
| TCLP Pesticides | 1311/8081A | 19 | N/A | 1 | 1 |
| TCLP Herbicides | 1311/8151A | 19 | N/A | 1 | 1 |
| TCLP RCRA 8 Metals | 1311/6000 Series and 1311/7470 (Mercury) | 29 | N/A | 2 | 2 |
| PCBs | 8082 | 19 | N/A | 3 (1 MM&A selected and 2 STL selected) | 1 |
| TPH-DRO | 8015B | 19 | N/A | 1 | 1 |
| TPH-GRO | 8015B | 19 | N/A | 6 (1 MM&A selected and 5 STL selected) | 1 |

TCLP = TOXICITY CHARACTERISTIC LEACHING PROCEDURE
VOCS = VOLATILE ORGANIC COMPOUNDS
SVOCS = SEMI-VOLATILE ORGANIC COMPOUNDS
RCRA= RESOURCE CONSERVATION AND RECOVERY ACT
PCBS = POLYCHLORINATED BIPHENYLS
TPH = TOTAL PETROLUEM HYDROCARBONS

## TABLE 3-1

## SUMMARY OF MATERIAL ENCOUNTERED
## RAILROAD RE-LOCATION
## VDOT I-564 INTERMODAL CONNECTOR

| Sample Number | Location | Material Description |
|---|---|---|
| CA-1 through CA-8 | In or near CALF | Dark gray, uniform, silt like material encountered from the surface to depths between 1.0 foot to the maximum investigation depth of 5.0 feet. The material may be ash as power plant ash was documented in the site history for the CALF. This dark gray material is indicated as cultural fill because it overlies fill debris in the areas described below. |
| CA-4 through CA-8 | In or near CALF | Beneath the dark gray material was fill mixed with construction debris with depths below ground surface starting from 1.0 to 5.0 feet. The debris included brick, concrete, glass, plywood, and metal containers. Also, CA-5 emitted noticeable odors during trenching requiring an upgrade of PPE. |
| CA-10 through CA-12 | In CASY portion with newly placed soil cover | A one-foot thick soil cover was reportedly placed inside the newly fenced area in the summer of 2002. Soils consisted of a brown clayey material (presumably top soil) from the ground surface to a maximum depth of 0.33 feet underlain by orange sands with shells to a maximum depth of 1.5 feet. Beneath the orange sands were sandy clays to clayey sands with no debris encountered. |
| CA-13 through CA-15 | In CASY portion outside newly placed soil cover | No new soil cover placement was indicated in the CASY outside the newly fenced area because the pre-existing parking lot pavement was present. The material encountered ranged from sand to clay. CA-13 contained apparent fill material. |
| CA-16 through CA-20, CA-9 and CA-A. | Outside CALF and CASY | Soils encountered consisted of sand to clay and appeared to have naturally formed with no debris present. |

TABLE 3-2

TCLP VOCs IN SOILS - PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| SAMPLE ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | 0.5-2.5' | 0.5-2.5' | 2.25-3.5 | 2.0-3.25 | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| 1,1,1-Trichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1,2,2-Tetrachloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1,2-Trichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1-Dichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1-Dichloroethene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,2-Dichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,2-Dichloropropane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 2-Butanone (MEK) | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| 2-Hexanone | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| 4-Methyl-2-pentanone (MIBK) | 0.2 U | 0.2 U | 0.2 U | **0.015 J** | 0.2 U | 0.2 U | 0.2 U | 0.016 JB | 0.2 U | **0.067 J** | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Acetone | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Benzene | 0.02 U | 0.02 U | 0.0024 JB | 0.02 U | 0.02 U | 0.02 U | 0.002 JB | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.0043 JB | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.0048 JB |
| Bromodichloromethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Bromoform | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Bromomethane (Methyl bromide) | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.03** | 0.02 U |
| Carbon disulfide | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Carbon tetrachloride | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chlorobenzene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chloroform | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chloromethane | 0.02 U | 0.02 U | 0.019 JB | 0.013 JB | 0.058 B | 0.11 B | 0.044 B | 0.02 U | 0.024 B | 0.018 JB | 0.017 JB | 0.027 B | 0.022 B | 0.026 B | 0.02 U | 0.022 B | 0.025 B | 0.04 B | 0.068 B | 0.11 B |
| Cis/Trans-1,2-Dichloroethene | 0.02 U | 0.02 U | **0.012 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| cis-1,3-Dichloropropene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Dibromochloromethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.0084 BJ |
| Ethylbenzene | 0.02 U | 0.02 U | 0.0025 JB | 0.0042 JB | 0.02 U | 0.02 U | 0.02 U | 0.0025 BJ | 0.02 U | 0.0026 JB | 0.02 U | 0.02 U | 0.0043 JB | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Methylene chloride (Dichloromethane) | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| Styrene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Tetrachloroethene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Toluene | 0.02 U | 0.02 U | **0.069** | **0.008 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.017 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.034** |
| trans-1,3-Dichloropropene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Trichloroethene | **0.0087 J** | 0.02 U | **0.015 J** | 0.02 U | **0.012 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Vinyl chloride | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.039 J** |
| Xylenes, Total | 0.04 U | 0.04 U | 0.04 U | 0.026 JB | 0.04 U | 0.04 U | 0.04 U | **0.013 J** | 0.04 U | 0.01 JB | 0.04 U | 0.04 U | 0.017 JB | 0.04 U | 0.04 U | 0.04 U | 0.04 U | 0.04 U | 0.04 U | **0.039 J** |

TCLP VOCs = toxicity characteristic leaching procedure volatile organic compounds
U-Analyzed but not detected above Reporting Limit
J-Value between Method Detection Limit and Reporting Limit
B-Analyte detected in method blank
**Bold signifies a detection without a B-flag**
Yellow background signifies a detected compound

TABLE 3-3

TCLP SVOCs IN SOILS -PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| SAMPLE ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | 0.5-2.5' | 0.5-2.5' | 2.25-3.5 | 2.0-3.25 | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| 1,2,4-Trichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 1,2-Dichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 1,3-Dichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 1,4-Dichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether) | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4,5-Trichlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4,6-Trichlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4-Dichlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4-Dimethylphenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4-Dinitrophenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 2,4-Dinitrotoluene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,6-Dinitrotoluene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Chloronaphthalene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Chlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.0065 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.0058 J** | 0.05 U | 0.05 U | 0.05 U |
| 2-Methylnaphthalene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Methylphenol (o-Cresol) | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 2-Nitroaniline | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Nitrophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| 3,3'-Dichlorobenzidine | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 3-Methylphenol/4-Methylphenol (m&p | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 3-Nitroaniline | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 4,6-Dinitro-2-methylphenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 4-Bromophenylphenyl ether | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 4-Chloro-3-methylphenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| 4-Chloroaniline | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 4-Chlorophenylphenyl ether | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 4-Nitroaniline | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 4-Nitrophenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| Acenaphthene | 0.05 U | 0.05 U | 0.05 U | **0.01 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.0085 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.0053 J** | 0.05 U | 0.05 U | 0.05 U |
| Acenaphthylene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Anthracene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(a)anthracene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(a)pyrene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(b)fluoranthene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(g,h,i)perylene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(k)fluoranthene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| bis(2-Chloroethoxy)methane | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| bis(2-Chloroethyl)ether | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.053** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| bis(2-Ethylhexyl)phthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Butylbenzylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Carbazole | 0.05 U | 0.05 U | 0.05 U | **0.0042 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Chrysene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Dibenzo(a,h)anthracene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.0062 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Dibenzofuran | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Diethylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Dimethylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Di-n-butylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Di-n-octylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Fluoranthene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.0071 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Fluorene | 0.05 U | 0.05 U | 0.05 U | **0.0053 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachlorobutadiene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachlorocyclopentadiene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachloroethane | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Indeno(1,2,3-cd)pyrene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Isophorone | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.012 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.014 J** | 0.05 U | 0.05 U | 0.05 U |
| Naphthalene | 0.05 U | 0.05 U | 0.05 U | **0.025 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Nitrobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| N-Nitroso-di-n-propylamine | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| N-Nitrosodiphenylamine | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| Pentachlorophenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| Phenanthrene | 0.05 U | 0.05 U | 0.05 U | **0.01 J** | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | **0.01 J** | 0.05 U | **0.0027 J** | 0.05 U | **0.0033 J** | 0.05 U | 0.05 U | **0.0052 J** | 0.05 U | **0.0027 J** | 0.05 U |
| Phenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Pyrene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Pyridine | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |

TCLP SVOCs = toxicity characteristic leaching procedure semi- volatile organic compounds

U-Analyzed but not detected above Reporting Limit

J-Value between Method Detection Limit and Reporting Limit

**Bold signifies a detection without a B-flag**

Yellow background signifies a detected compound

TABLE 3-4

TCLP HERBICIDES AND TCLP PESTICIDES IN SOILS - PROPOSED I-564 RELOCATED RAILROAD

| Sample ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound | 0.5-2.5' | 0.5-2.5' | 2.25-3.5' | 2.0-3.25' | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| TCLP Herbicides (Method 1311/8150) (mg/l) | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-TP (Silvex) | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |
| 2,4-D | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |
| TCLP Pesticides (Method 1311/8081) (mg/l) | | | | | | | | | | | | | | | | | | | | |
| Chlordane | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |
| Endrin | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Heptachlor | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Heptachlor epoxide | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Toxaphene | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| Lindane (g-BHC) | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Methoxychlor | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |

U-Analyzed but not detected above Reporting Limit

TABLE 3-5

TCLP METALS IN SOILS - PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| Sample ID | CA-1 | CA-2 | CA-2 | CA-3 | CA-4 | CA-4 | CA-5 | CA-6 | CA-6 | CA-7 | CA-8 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-10 | CA-11 | CA-12 | CA-12 | CA-13 | CA-13 Lab Duplicate | CA-14 | CA-14 | CA-15 | CA-16 | CA-16 | CA-18 | CA-18 | CA-20 | CA-20 Duplicate | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METAL | 0.5-2.5' | 0.5-2.5' | 2.5-5.0' | 2.25-3.5' | 1.0-2.0' | 2.0-3.25' | 0.5-2.0' | 0.5-2.5' | 2.25-4.0' | 0.5-2.5' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 1.0-2.5' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.0-3.5' | 0.5-2.5' | 2.5-4.5' | 0.5-2.5' | 0.5-2.5' | 2.5-4.5' | 0.5-2.5' |
| Arsenic | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Barium | 1.0 UE | **1.1 E** | **1.3 E** | **1.2** | **2.7** | 1.0 U | 1.0 UE | **1.6 E** | **1.8 E** | **1.6 E** | **1.2 E** | 1.0 UE | 1.0 UE | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | **1.8** | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 UE | 1.0 UE | 1.0 UE | 1.0 UE | 1.0 UE | 1.0 UE |
| Cadmium | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | **0.29** | **0.35** | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | **0.38** | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| Chromium | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Lead | 0.2 U | 0.2 U | 0.2 U | 0.2 U | **0.24** | **0.67** | 0.2 U | 0.2 U | **0.62** | **3.40** | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | **3.1** | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Mercury | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 U | 0.02 U | 0.02 U | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN |
| Selenium | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Silver | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |

TCLP - toxicity characteristic leaching procedure.
U-Analyzed but not detected above Reporting Limit.
E-Estimated value due to matrix interferences.
N-Spike sample recovery not within control limits.
**Bold signifies a detection**
Yellow background signifies a detected metal

TABLE 3-6

PCBS IN SOILS AT THE PROPOSED I-564 RELOCATED RAILROAD

| Sample ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-6 Lab Duplicate | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-13 Lab Duplicate | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound | 0.5-2.5' | 0.5-2.5' | 2.25-3.5' | 2.0-3.25' | 0.5-2.0' | 2.25-5.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| PCBs (Method 8082) (mg/kg) | | | | | | | | | | | | | | | | | | | | | | |
| **Aroclor-1016** | 0.052 U | 0.057 UYY | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 UYY | 0.04 UYY | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| **Aroclor-1221** | 0.1 U | 0.12 U | 0.11 U | 0.093 U | 0.1 U | 4.5 U | 23 U | 0.17 U | 0.077 U | 0.081 U | 0.077 U | 0.075 U | 0.076 U | 0.073 U | 3.8 U | 7.6 U | 0.076 U | 0.075 U | 0.077 U | 0.076 U | 0.074 U | 0.076 U |
| **Aroclor-1232** | 0.052 U | 0.057 U | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 U | 0.04 U | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| **Aroclor-1242** | 0.052 U | 0.057 U | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 U | 0.04 U | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| **Aroclor-1248** | 0.052 U | 0.057 U | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 U | 0.04 U | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| **Aroclor-1254** | **0.027 J** | **0.032 JP** | **0.15** | 0.046 U | 0.052 U | 2.2 U | 11 U | **1.8** | 0.038 U | 0.04 U | 0.038 U | **0.015 J** | **0.19** | **0.013 J** | **21** | **25 D** | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| **Aroclor-1260** | 0.052 U | 0.057 U | **0.46** | **0.34** | 0.052 U | **210 E** | **260 D** | **0.4** | 0.038 U | 0.04 U | 0.038 U | **0.018 J** | **0.17** | **0.016 J** | **49 E** | **56 D** | 0.038 U | 0.037 U | **0.34** | **0.041** | **0.11** | 0.038 U |

U-Analyzed but not detected above Reporting Limit
D-Compound identified in a secondary dilution factor.
E-Estimated value. Concentration exceeded calibration range.
YY-Peaks present that do not correspond to the laboratory's reference standard.
J-Value between Method Detection Limit and Reporting Limit
**Bold signifies a detected concentration**
Yellow background signifies a detected compound

**TABLE 3-7**

**PETROLEUM IN SOILS AT THE PROPOSED I-564 RELOCATED RAILROAD**

| Sample ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound | 0.5-2.5' | 0.5-2.5' | 2.25-3.5' | 2.0-3.25' | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| Total Petroleum Hydrocarbons (Method 8015) (mg/kg) | | | | | | | | | | | | | | | | | | | | |
| Hydrocarbons as DRO | 5.2 U | 5.7 U | 47 | 3500 | 5.2 U | 46 | 69 | 26 | 1400 | 3.8 U | 3.7 U | 3.8 U | 5 | 64 | 3.8 U | 3.7 U | 9.9 | 1.6 J | 3.8 U | 5 |
| Hydrocarbons as GRO | 0.4U / 0.29J | 0.43U / 0.44U | 0.23J / 0.44 | 1.2 | 0.3J / 0.55 | 0.34 U | 0.32U / 0.32U | 0.28 U | 0.3 U | 0.31 U | 0.28 U | 0.28 U | 0.27 U | 0.22 J | 0.3 U | 0.27 U | 0.29 U | 0.29 U | 0.29 U | 0.3 U |

U-Analyzed but not detected above Reporting Limit
J-Value between Method Detection Limit and Reporting Limit
**Bold signifies a detection without a B-flag**
Yellow background signifies a detected compound

TABLE 3-2

TCLP VOCs IN SOILS - PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| SAMPLE ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | 0.5-2.5' | 0.5-2.5' | 2.25-3.5 | 2.0-3.25 | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| 1,1,1-Trichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1,2,2-Tetrachloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1,2-Trichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1-Dichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,1-Dichloroethene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,2-Dichloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 1,2-Dichloropropane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| 2-Butanone (MEK) | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| 2-Hexanone | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| 4-Methyl-2-pentanone (MIBK) | 0.2 U | 0.2 U | 0.2 U | **0.015 J** | 0.2 U | 0.2 U | 0.2 U | 0.016 JB | 0.2 U | **0.067 J** | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Acetone | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Benzene | 0.02 U | 0.02 U | 0.0024 JB | 0.02 U | 0.02 U | 0.02 U | 0.002 JB | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.0043 JB | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.0049 JB |
| Bromodichloromethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Bromoform | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Bromomethane (Methyl bromide) | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.03** | 0.02 U |
| Carbon disulfide | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Carbon tetrachloride | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chlorobenzene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chloroethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chloroform | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Chloromethane | 0.02 U | 0.02 U | 0.019 JB | 0.013 JB | 0.058 B | 0.11 B | 0.044 B | 0.02 U | 0.024 B | 0.018 JB | 0.017 JB | 0.027 B | 0.022 B | 0.026 B | 0.02 U | 0.022 B | 0.025 B | 0.04 B | 0.068 B | 0.11 B |
| Cis/Trans-1,2-Dichloroethene | 0.02 U | 0.02 U | **0.012 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| cis-1,3-Dichloropropene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Dibromochloromethane | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.0084 BJ |
| Ethylbenzene | 0.02 U | 0.02 U | 0.0025 JB | 0.0042 JB | 0.02 U | 0.02 U | 0.02 U | 0.0025 BJ | 0.02 U | 0.0026 JB | 0.02 U | 0.02 U | 0.0043 JB | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Methylene chloride (Dichloromethane) | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| Styrene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Tetrachloroethene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Toluene | 0.02 U | 0.02 U | **0.069** | **0.008 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.017 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.034** |
| trans-1,3-Dichloropropene | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Trichloroethene | **0.0087 J** | 0.02 U | **0.015 J** | 0.02 U | **0.012 J** | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Vinyl chloride | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | **0.039 J** |
| Xylenes, Total | 0.04 U | 0.04 U | 0.04 U | 0.026 JB | 0.04 U | 0.04 U | 0.04 U | **0.013 J** | 0.04 U | 0.01 JB | 0.04 U | 0.04 U | 0.017 JB | 0.04 U | 0.04 U | 0.04 U | 0.04 U | 0.04 U | 0.04 U | 0.04 U |

TCLP VOCs = toxicity characteristic leaching procedure volatile organic compounds
U-Analyzed but not detected above Reporting Limit
J-Value between Method Detection Limit and Reporting Limit
B-Analyte detected in method blank
**Bold signifies a detection without a B-flag**
Yellow background signifies a detected compound

TABLE 3-3

TCLP SVOCs IN SOILS -PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| SAMPLE ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | 0.5-2.5' | 0.5-2.5' | 2.25-3.5 | 2.0-3.25 | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| 1,2,4-Trichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 1,2-Dichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 1,3-Dichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 1,4-Dichlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether) | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4,5-Trichlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4,6-Trichlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4-Dichlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4-Dimethylphenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,4-Dinitrophenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 2,4-Dinitrotoluene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2,6-Dinitrotoluene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Chloronaphthalene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Chlorophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Methylnaphthalene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.0065 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.0058 J | 0.05 U | 0.05 U | 0.05 U |
| 2-Methylphenol (o-Cresol) | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 2-Nitroaniline | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 2-Nitrophenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 3,3'-Dichlorobenzidine | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| 3-Methylphenol/4-Methylphenol (m&p | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 3-Nitroaniline | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 4,6-Dinitro-2-methylphenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 4-Bromophenylphenyl ether | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 4-Chloro-3-methylphenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 4-Chloroaniline | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| 4-Chlorophenylphenyl ether | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| 4-Nitroaniline | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 4-Nitrophenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| Acenaphthene | 0.05 U | 0.05 U | 0.05 U | 0.01 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.0085 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.0053 J | 0.05 U | 0.05 U | 0.05 U |
| Acenaphthylene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Anthracene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(a)anthracene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(a)pyrene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(b)fluoranthene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(g,h,i)perylene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Benzo(k)fluoranthene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| bis(2-Chloroethoxy)methane | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| bis(2-Chloroethyl)ether | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.053 | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| bis(2-Ethylhexyl)phthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Butylbenzylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Carbazole | 0.05 U | 0.05 U | 0.05 U | 0.0042 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Chrysene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Dibenzo(a,h)anthracene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Dibenzofuran | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.0062 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Diethylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Dimethylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Di-n-butylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Di-n-octylphthalate | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Fluoranthene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Fluorene | 0.05 U | 0.05 U | 0.05 U | 0.0053 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.0071 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachlorobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachlorobutadiene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachlorocyclopentadiene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Hexachloroethane | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Indeno(1,2,3-cd)pyrene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Isophorone | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.014 J | 0.05 U | 0.05 U | 0.05 U |
| Naphthalene | 0.05 U | 0.05 U | 0.05 U | 0.025 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.012 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Nitrobenzene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| N-Nitroso-di-n-propylamine | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| N-Nitrosodiphenylamine | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Pentachlorophenol | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| Phenanthrene | 0.05 U | 0.05 U | 0.05 U | 0.01 J | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.01 J | 0.05 U | 0.0027 J | 0.05 U | 0.0033 J | 0.05 U | 0.05 U | 0.0052 J | 0.05 U | 0.0027 J | 0.05 U |
| Phenol | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Pyrene | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Pyridine | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |

TCLP SVOCs = toxicity characteristic leaching procedure semi- volatile organic compounds
U-Analyzed but not detected above Reporting Limit
J-Value between Method Detection Limit and Reporting Limit
**Bold signifies a detection without a B-flag**
Yellow background signifies a detected compound

TABLE 3-4

TCLP HERBICIDES AND TCLP PESTICIDES IN SOILS - PROPOSED I-564 RELOCATED RAILROAD

| Sample ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound | 0.5-2.5' | 0.5-2.5' | 2.25-3.5' | 2.0-3.25' | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| TCLP Herbicides (Method 1311/8150) (mg/l) | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-TP (Silvex) | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |
| 2,4-D | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |
| TCLP Pesticides (Method 1311/8081) (mg/l) | | | | | | | | | | | | | | | | | | | | |
| Chlordane | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |
| Endrin | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Heptachlor | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Heptachlor epoxide | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Toxaphene | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| Lindane (g-BHC) | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Methoxychlor | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U | 0.025 U |

U-Analyzed but not detected above Reporting Limit

TABLE 3-5

TCLP METALS IN SOILS - PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| Sample ID | CA-1 | CA-2 | CA-2 | CA-3 | CA-4 | CA-4 | CA-5 | CA-6 | CA-6 | CA-7 | CA-8 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-10 | CA-11 | CA-12 | CA-12 | CA-13 | CA-13 Lab Duplicate | CA-14 | CA-14 | CA-15 | CA-16 | CA-16 | CA-18 | CA-18 | CA-20 | CA-20 Duplicate | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METAL | 0.5-2.5' | 0.5-2.5' | 2.5-5.0' | 2.25-3.5' | 1.0-2.0' | 2.0-3.25' | 0.5-2.0' | 0.5-2.5' | 2.25-4.0' | 0.5-2.5' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 1.0-2.5' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.0-3.5' | 0.5-2.5' | 2.5-4.5' | 0.5-2.5' | 0.5-2.5' | 2.5-4.5' | 0.5-2.5' |
| Arsenic | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Barium | 1.0 UE | 1.1 E | 1.3 E | 1.2 | 2.7 | 1.0 U | 1.0 UE | 1.6 E | 1.8 E | 1.8 E | 1.2 E | 1.0 UE | 1.0 UE | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.8 | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 UE | 1.0 UE | 1.0 UE | 1.0 UE | 1.0 UE | 1.0 UE |
| Cadmium | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.29 | 0.35 | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.36 | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| Chromium | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Lead | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.24 | 0.67 | 0.2 U | 0.2 U | 0.62 | 3.40 | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 3.1 | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Mercury | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 U | 0.02 U | 0.02 U | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN | 0.02 UN |
| Selenium | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Silver | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |

TCLP - toxicity characteristic leaching procedure.
U-Analyzed but not detected above Reporting Limit.
E-Estimated value due to matrix interferences.
N-Spike sample recovery not within control limits.
**Bold signifies a detection**
Yellow background signifies a detected metal

TABLE 3-6

PCBS IN SOILS AT THE PROPOSED I-564 RELOCATED RAILROAD

| Sample ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-6 Lab Duplicate | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-13 Lab Duplicate | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound | 0.5-2.5' | 0.5-2.5' | 2.25-3.5' | 2.0-3.25' | 0.5-2.0' | 2.25-5.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' |
| PCBs (Method 8082) (mg/kg) | | | | | | | | | | | | | | | | | | | | | | |
| Aroclor-1016 | 0.052 U | 0.057 UYY | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 UYY | 0.04 UYY | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| Aroclor-1221 | 0.1 U | 0.12 U | 0.11 U | 0.093 U | 0.1 U | 4.5 U | 23 U | 0.17 U | 0.077 U | 0.081 U | 0.077 U | 0.075 U | 0.076 U | 0.073 U | 3.8 U | 7.6 U | 0.076 U | 0.075 U | 0.077 U | 0.076 U | 0.074 U | 0.076 U |
| Aroclor-1232 | 0.052 U | 0.057 U | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 U | 0.04 U | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| Aroclor-1242 | 0.052 U | 0.057 U | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 U | 0.04 U | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| Aroclor-1248 | 0.052 U | 0.057 U | 0.053 U | 0.046 U | 0.052 U | 2.2 U | 11 U | 0.085 U | 0.038 U | 0.04 U | 0.038 U | 0.037 U | 0.038 U | 0.036 U | 1.9 U | 3.8 U | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| Aroclor-1254 | 0.027 J | 0.032 JP | 0.15 | 0.046 U | 0.052 U | 2.2 U | 11 U | 1.8 | 0.038 U | 0.04 U | 0.038 U | 0.015 J | 0.19 | 0.013 J | 21 | 25 D | 0.038 U | 0.037 U | 0.038 U | 0.038 U | 0.036 U | 0.038 U |
| Aroclor-1260 | 0.052 U | 0.057 U | 0.46 | 0.34 | 0.052 U | 210 E | 260 D | 0.4 | 0.038 U | 0.04 U | 0.038 U | 0.018 J | 0.17 | 0.016 J | 49 E | 56 D | 0.038 U | 0.037 U | 0.34 | 0.041 | 0.11 | 0.038 U |

U-Analyzed but not detected above Reporting Limit
D-Compound identified in a secondary dilution factor.
E-Estimated value. Concentration exceeded calibration range.
YY-Peaks present that do not correspond to the laboratory's reference standard.
J-Value between Method Detection Limit and Reporting Limit
**Bold signifies a detected concentration**
Yellow background signifies a detected compound

**TABLE 3-7**

**PETROLEUM IN SOILS AT THE PROPOSED I-564 RELOCATED RAILROAD**

| Sample ID | CA-1 | CA-2 | CA-3 | CA-4 | CA-5 | CA-6 | CA-7 | CA-8 | CA-8 DUPLICATE | CA-9 | CA-10 | CA-11 | CA-12 | CA-13 | CA-14 | CA-15 | CA-16 | CA-18 | CA-20 | CA-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound | 0.5-2.5' | 0.5-2.5' | 2.25-3.5' | 2.0-3.25' | 0.5-2.0' | 2.25-5.0' | 0.5-2.5' | 2.5-5.0' | 2.5-5.0' | 2.0-4.0' | 2.5-4.0' | 1.0-2.5' | 1.0-2.5' | 2.5-4.5' | 2.5-3.5' | 0.5-2.0' | 2.5-4.5' | 2.5-4.5' | 0.5-2.5' | |
| Total Petroleum Hydrocarbons (Method 8015) (mg/kg) | | | | | | | | | | | | | | | | | | | | |
| Hydrocarbons as DRO | 5.2 U | 5.7 U | 47 | 3500 | 5.2 U | 46 | 69 | 26 | 1400 | 3.8 U | 3.7 U | 3.8 U | 5 | 64 | 3.8 U | 3.7 U | 9.9 | 1.6 J | 3.6 U | 5 |
| Hydrocarbons as GRO | 0.4U / 0.29J | 0.43U / 0.44U | 0.23J / 0.44 | 1.2 | 0.3J / 0.55 | 0.34 U | 0.32U / 0.32U | 0.28 U | 0.3 U | 0.31 U | 0.28 U | 0.28 U | 0.27 U | **0.22 J** | 0.3 U | 0.27 U | 0.29 U | 0.29 U | 0.29 U | 0.3 U |

U-Analyzed but not detected above Reporting Limit
J-Value between Method Detection Limit and Reporting Limit
**Bold signifies a detection without a B-flag**
Yellow background signifies a detected compound

## TABLE 3-8
## TPH-DRO CARBON RANGE IN SOILS-PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| Sample ID | CA-3 | CA-4 | CA-6 | CA-7 | CA-8 | CA-13 |
|---|---|---|---|---|---|---|
| **Depth (feet)** | **2.25 - 3.5** | **2-3.25** | **2.25 - 5** | **0.5 - 2.5** | **2.5 - 5.0** | **1 - 2.5** |
| **PID (ppm)** | **0.8** | **2** | **2.5** | **3.6** | **2.6** | **2.2** |
| **Hydrocarbons as DRO (mg/kg)** | **47** | **3500** | **46** | **69** | **26** | **64** |
| **Carbon Range** | C12 - C28 | C12 - C28 | C18 - C28 | C18 - C28 | C18 - C28 | C22 - C28 |
| **Sample Description** | Dark gray silt like material | Dark gray silt like material overlying black sandy fill material with black shiny glass like pieces, possibly slag | Brown sandy clay fill with concrete, brick, metal pieces (possibly cans) | Dark gray silt like material mixed with tan clayey sand | Light to dark brown clayey sand fill with brick, block, slag | Black sand with gravel containing a fiberglass piece |
| **TCLP TIC Concentrations (mg/l) - Unknown Aldol Condensate** | N/A | N/A | 0.41JA | 0.45JA | 0.41JA | 0.46JA |
| **TCLP TIC Concentrations (mg/l) - Unknown** | 0.026J | 0.023J | 0.023J | 0.026J | 0.027J | 0.024J |

ppm = parts per million

## TABLE 4-1

## DATA COMPARISON OF TCLP VOCs IN SOILS - PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| SAMPLE ID / COMPOUND | # of Site Related Occurrence Locations | Minimum Concentration of a Site Related Compound (mg/l) | Maximum Concentration of a Site Related Compound (mg/l) | TCLP Regulatory Limit (mg/l) | # of Locations Exceeding TCLP Regulatory Limit | Chemical of Potential Concern |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| 1,1,2,2-Tetrachloroethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| 1,1,2-Trichloroethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| 1,1-Dichloroethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| 1,1-Dichloroethene | 0 | 0.02 U | 0.02 U | 0.7 | 0 | NO |
| 1,2-Dichloroethane | 0 | 0.02 U | 0.02 U | 0.5 | 0 | NO |
| 1,2-Dichloropropane | 0 | 0.02 U | 0.02 U | na | na | NO |
| 2-Butanone (MEK) | 0 | 0.2 U | 0.2 U | 200 | 0 | NO |
| 2-Hexanone | 0 | 0.2 U | 0.2 U | na | na | NO |
| 4-Methyl-2-pentanone (MIBK) | 2 | 0.015 | 0.067 | na | na | NO |
| Acetone | 0 | 0.5 U | 0.5 U | na | na | NO |
| Benzene | 0 | 0.02 U | 0.02 U | 0.5 | 0 | NO |
| Bromodichloromethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| Bromoform | 0 | 0.02 U | 0.02 U | na | na | NO |
| Bromomethane (Methyl bromide) | 0 | 0.02 U | 0.02 U | na | na | NO |
| Carbon disulfide | 1 | 0.03 | 0.03 | na | na | NO |
| Carbon tetrachloride | 0 | 0.02 U | 0.02 U | 0.5 | 0 | NO |
| Chlorobenzene | 0 | 0.02 U | 0.02 U | 100 | 0 | NO |
| Chloroethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| Chloroform | 0 | 0.02 U | 0.02 U | 6 | 0 | NO |
| Chloromethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| Cis/Trans-1,2-Dichloroethene | 1 | 0.012 | 0.012 | na | na | NO |
| cis-1,3-Dichloropropene | 0 | 0.02 U | 0.02 U | na | na | NO |
| Dibromochloromethane | 0 | 0.02 U | 0.02 U | na | na | NO |
| Ethylbenzene | 0 | 0.02 U | 0.02 U | na | na | NO |
| Methylene chloride (Dichloromethane) | 0 | 0.1 U | 0.1 U | na | na | NO |
| Styrene | 0 | 0.02 U | 0.02 U | na | na | NO |
| Tetrachloroethene | 0 | 0.02 U | 0.02 U | 0.7 | 0 | NO |
| Toluene | 4 | 0.008 | 0.034 | na | na | NO |
| trans-1,3-Dichloropropene | 0 | 0.02 U | 0.02 U | na | na | NO |
| Trichloroethene | 3 | 0.008 | 0.015 | 0.5 | 0 | NO |
| Vinyl chloride | 0 | 0.02 U | 0.02 U | 0.2 | 0 | NO |
| Xylenes, Total | 2 | 0.013 | 0.039 | na | na | NO |

TCLP VOCs = toxicity characteristic leaching procedure volatile organic compounds Method 8260

Orange background denotes compound is considered site related

na = Not Applicable

TABLE 4-2

DATA COMPARISON OF TCLP SVOCs IN SOILS - PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| SAMPLE ID / COMPOUND | # of Site Related Occurrence Locations | Minimum Concentration of a Site Related Compound (mg/l) | Maximum Concentration of a Site Related Compound (mg/l) | TCLP Regulatory Limit (mg/l) | # of Locations Exceeding TCLP Regulatory Limit | Chemical of Potential Concern |
|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 0 | 0.05 U | 0.05 U | na | na | NO |
| 1,2-Dichlorobenzene | 0 | 0.05 U | 0.05 U | na | na | NO |
| 1,3-Dichlorobenzene | 0 | 0.05 U | 0.05 U | na | na | NO |
| 1,4-Dichlorobenzene | 0 | 0.05 U | 0.05 U | 7.5 | 0 | NO |
| 2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether | 0 | 0.05 U | 0.05 U | na | na | NO |
| 2,4,5-Trichlorophenol | 0 | 0.05 U | 0.05 U | 400 | 0 | NO |
| 2,4,6-Trichlorophenol | 0 | 0.05 U | 0.05 U | 2 | 0 | NO |
| 2,4-Dichlorophenol | 0 | 0.05 U | 0.05 U | na | na | NO |
| 2,4-Dimethylphenol | 0 | 0.05 U | 0.05 U | na | na | NO |
| 2,4-Dinitrophenol | 0 | 0.25 U | 0.25 U | na | na | NO |
| 2,4-Dinitrotoluene | 0 | 0.05 U | 0.05 U | 0.13 | 0 | NO |
| 2,6-Dinitrotoluene | 0 | 0.05 U | 0.05 U | na | na | NO |
| 2-Chloronaphthalene | 0 | 0.05 U | 0.05 U | na | na | NO |
| 2-Chlorophenol | 0 | 0.05 U | 0.05 U | na | na | NO |
| 2-Methylnaphthalene | 2 | 0.0058 | 0.0065 | na | na | NO |
| 2-Methylphenol (o-Cresol) | 0 | 0.05 U | 0.05 U | 200 | 0 | NO |
| 2-Nitroaniline | 0 | 0.25 U | 0.25 U | na | na | NO |
| 2-Nitrophenol | 0 | 0.05 U | 0.05 U | na | na | NO |
| 3,3'-Dichlorobenzidine | 0 | 0.1 U | 0.1 U | na | na | NO |
| 3-Methylphenol/4-Methylphenol (m&p-Cresol) | 0 | 0.05 U | 0.05 U | 200 | 0 | NO |
| 3-Nitroaniline | 0 | 0.25 U | 0.25 U | na | na | NO |
| 4,6-Dinitro-2-methylphenol | 0 | 0.25 U | 0.25 U | na | na | NO |
| 4-Bromophenylphenyl ether | 0 | 0.05 U | 0.05 U | na | na | NO |
| 4-Chloro-3-methylphenol | 0 | 0.05 U | 0.05 U | na | na | NO |
| 4-Chloroaniline | 0 | 0.1 U | 0.1 U | na | na | NO |
| 4-Chlorophenylphenyl ether | 0 | 0.05 U | 0.05 U | na | na | NO |
| 4-Nitroaniline | 0 | 0.25 U | 0.25 U | na | na | NO |
| 4-Nitrophenol | 0 | 0.25 U | 0.25 U | na | na | NO |
| Acenaphthene | 3 | 0.0053 | 0.01 | na | na | NO |
| Acenaphthylene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Anthracene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Benzo(a)anthracene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Benzo(a)pyrene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Benzo(b)fluoranthene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Benzo(g,h,i)perylene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Benzo(k)fluoranthene | 0 | 0.05 U | 0.05 U | na | na | NO |
| bis(2-Chloroethoxy)methane | 0 | 0.05 U | 0.05 U | na | na | NO |
| bis(2-Chloroethyl)ether | 0 | 0.05 U | 0.05 U | na | na | NO |
| bis(2-Ethylhexyl)phthalate | 1 | 0.053 | 0.053 | na | na | NO |
| Butylbenzylphthalate | 0 | 0.05 U | 0.05 U | na | na | NO |
| Carbazole | 1 | 0.0042 | 0.0042 | na | na | NO |
| Chrysene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Dibenzo(a,h)anthracene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Dibenzofuran | 1 | 0.0062 | 0.0062 | na | na | NO |
| Diethylphthalate | 0 | 0.05 U | 0.05 U | na | na | NO |
| Dimethylphthalate | 0 | 0.05 U | 0.05 U | na | na | NO |
| Di-n-butylphthalate | 0 | 0.05 U | 0.05 U | na | na | NO |
| Di-n-octylphthalate | 0 | 0.05 U | 0.05 U | na | na | NO |
| Fluoranthene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Fluorene | 2 | 0.0053 | 0.0071 | na | na | NO |
| Hexachlorobenzene | 0 | 0.05 U | 0.05 U | 0.13 | 0 | NO |
| Hexachlorobutadiene | 0 | 0.05 U | 0.05 U | 0.5 | 0 | NO |
| Hexachlorocyclopentadiene | 0 | 0.05 U | 0.05 U | na | 0 | NO |
| Hexachloroethane | 0 | 0.05 U | 0.05 U | 3 | na | NO |
| Indeno(1,2,3-cd)pyrene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Isophorone | 0 | 0.05 U | 0.05 U | na | na | NO |
| Naphthalene | 3 | 0.012 | 0.025 | na | na | NO |
| Nitrobenzene | 0 | 0.05 U | 0.05 U | 2 | 0 | NO |
| N-Nitroso-di-n-propylamine | 0 | 0.05 U | 0.05 U | na | na | NO |
| N-Nitrosodiphenylamine | 0 | 0.05 U | 0.05 U | na | na | NO |
| Pentachlorophenol | 0 | 0.25 U | 0.25 U | 100 | 0 | NO |
| Phenanthrene | 6 | 0.0027 | 0.01 | na | na | NO |
| Phenol | 0 | 0.05 U | 0.05 U | na | na | NO |
| Pyrene | 0 | 0.05 U | 0.05 U | na | na | NO |
| Pyridine | 0 | 0.25 U | 0.25 U | 5 | 0 | NO |

TCLP SVOCs = toxicity characteristic leaching procedure semi-volatile organic compounds Method 8270

Orange background denotes compound is considered site related

na = Not Applicable

TABLE 4-3

DATA COMPARISON OF TCLP PESTICIDES/HERBICIDES IN SOILS - PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| Sample ID / Compound | # of Site Related Occurrence Locations | Minimum Concentration of a Site Related Compound (mg/l) | Maximum Concentration of a Site Related Compound (mg/l) | TCLP Regulatory Limit (mg/l) | # of Locations Exceeding TCLP Regulatory Limit | Chemical of Potential Concern |
|---|---|---|---|---|---|---|
| TCLP Herbicides (Method 1311/8150) (mg/l) | | | | | | |
| 2,4,5-TP (Silvex) | 0 | 0.025 U | 0.025 U | 1 | 0 | NO |
| 2,4-D | 0 | 0.025 U | 0.025 U | 10 | 0 | NO |
| TCLP Pesticides (Method 1311/8081) (mg/l) | | | | | | |
| Chlordane | 0 | 0.025 U | 0.025 U | 0.03 | 0 | NO |
| Endrin | 0 | 0.005 U | 0.005 U | 0.02 | 0 | NO |
| Heptachlor | 0 | 0.0025 U | 0.0025 U | 0.008 | 0 | NO |
| Heptachlor epoxide | 0 | 0.0025 U | 0.0025 U | 0.008 | 0 | NO |
| Toxaphene | 0 | 0.25 U | 0.25 U | 0.5 | 0 | NO |
| Lindane (g-BHC) | 0 | 0.0025 U | 0.0025 U | 0.4 | 0 | NO |
| Methoxychlor | 0 | 0.025 U | 0.025 U | 10 | 0 | NO |

TCLP = toxicity characteristic leaching procedure

TABLE 4-4

DATA COMPARISON OF TCLP METALS IN SOILS AT THE PROPOSED I-564 RELOCATED RAILROAD (MG/L)

| Sample ID | # of Site Related Occurrence Locations | Minimum Concentration of a Site Related Metal (mg/l) | Maximum Concentration of a Site Related Metal (mg/l) | TCLP Regulatory Limit (mg/l) | # of Locations Exceeding TCLP Regulatory Limit | Constituent of Potential Concern |
|---|---|---|---|---|---|---|
| METAL | | | | | | |
| Arsenic | 0 | 0.2 U | 0.2 U | 5.0 | 0 | NO |
| Barium | 9 | 1.1 | 2.7 | 100.0 | 0 | NO |
| Cadmium | 3 | 0.29 | 0.38 | 1.0 | 0 | NO |
| Chromium | 0 | 0.2 U | 0.2 U | 5.0 | 0 | NO |
| Lead | 5 | 0.24 | 3.4 | 5.0 | 0 | NO |
| Mercury | 0 | 0.02 U | 0.02 U | 0.2 | 0 | NO |
| Selenium | 0 | 0.5 U | 0.5 U | 1.0 | 0 | NO |
| Silver | 0 | 0.1 U | 0.1 U | 5.0 | 0 | NO |

TCLP = toxicity characteristic leaching procedure

Orange background denotes compound is considered site related

TABLE 4-5

DATA COMPARISON OF PCBS IN SOILS AT THE PROPOSED I-564 RELOCATED RAILROAD (mg/kg)

| Sample ID / Compound | # of Site Related Occurrence Locations | Minimum Concentration of a Site Related Compound (mg/kg) | Maximum Concentration of a Site Related Compound (mg/kg) | TSCA Regulatory Limitand VDEQ Special Waste Upper Limit(mg/kg) | # of Locations Exceeding Regulatory Limit | Chemical of Potential Concern |
|---|---|---|---|---|---|---|
| PCBs (Method 8082) (mg/kg) | | | | | | |
| Aroclor-1016 | 0 | 0.036 U | 2.2 U | 50 | 0 | NO |
| Aroclor-1221 | 0 | 0.075 U | 4.5 U | 50 | 0 | NO |
| Aroclor-1232 | 0 | 0.037 U | 2.2 U | 50 | 0 | NO |
| Aroclor-1242 | 0 | 0.037 U | 2.2 U | 50 | 0 | NO |
| Aroclor-1248 | 0 | 0.037 U | 2.2 U | 50 | 0 | NO |
| Aroclor-1254 | 8 | 0.013 | 25 | 50 | 0 | YES |
| Aroclor-1260 | 11 | 0.016 | 260 | 50 | 2 | YES |

Orange background signifies a site related compound

## TABLE 4-6

## DATA COMPARISON OF TPH IN SOILS AT THE PROPOSED I-564 RELOCATED RAILROAD (mg/kg)

| Sample ID / Compound | # of Site Related Occurrence Locations | Minimum Concentration of a Site Related Compound (mg/kg) | Maximum Concentration of a Site Related Compound (mg/kg) | VDEQ Clean Fill Regulatory Limit (mg/kg) | # of Locations Exceeding Regulatory Limit | Chemical of Potential Concern |
|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (Method 8015) (mg/kg) | | | | | | |
| TPH-DRO | 10 | 1.6 | 3,500 | 50 | 4 | YES |
| TPH-GRO | 5 | 0.22 | 1.2 | 50 | 0 | NO |

Orange background signifies a site related compound

# *Appendix III*

***Photographs***

**PHOTO 1**
*VIEW OF PROPOSED RAILROAD CORRIDOR IN VICINITY OF CAMP ALLEN SALVAGE YARD.*

**PHOTO 2**
*VIEW OF PROPOSED RAILROAD CORRIDOR LOOKING SOUTHEAST.*

**PHOTO 3**
*VIEW OF TYPICAL GEOPROBE HOLE.*

**PHOTO 4**
*VIEW OF MATERIAL RECOVERED FROM A GEOPROBE HOLE.*

**PHOTO 5**
*VIEW OF TYPICAL TRENCH.*

**PHOTO 6**
*VIEW OF DEBRIS REMOVED FROM TRENCH CA-5.*

**PHOTO 7**
*VIEW OF DEBRIS REMOVED FROM TRENCH CA-8*

**PHOTO 8**
*VIEW OF HAND AUGER HOLE IN WOODS. (NOTE: DARK GRAY SILT MATERIAL)*

# *Appendix IV*

***Soil Description Logs***

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-1



Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Hand Auger
Drill Date : 12-19-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Dark gray,silt like material, crumbly, uniform possibly ash. | | | | |
| 1 | -1 | | | SM | 0.5-2.5 | 6.3 ppm (0.5-2.5) |
| 2 | -2 | | | | | |
| | | Dark gray, silt like material, crumbly, uniform, no moisture. | | | | |
| 3 | -3 | | | | | |
| | | | | SM | 2.5-5.0 | 5.2 ppm (2.5-5.0) |
| 4 | -4 | | | | | |
| 5 | -5 | Borehole terminated. | | | | |
| 6 | | | | | | |

02-20-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-1.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-2



Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Hand Auger
Drill Date : 12-19-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil, dark gray material. | | PT | 0-0.5 | |
| | | Dark gray,silt like material, crumbly, uniform possibly ash. | | SM | 0.5-2.5 | 4.4 ppm (0.5-2.5) |
| | | Dark gray, silt like material, crumbly, uniform, no moisture. | | SM | 2.5-5.0 | 3.5 ppm (2.5-5.0) |
| 5 | -5 | Borehole terminated. | | | | |

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

04-29-2003 R:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-2.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-3

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-17-02

Comments : Near the CALF

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil, root zone. | | PT | 0-0.5 | |
| | | Dark gray, silt like material, possible ash, crumbly. | | SM | 0.5-2.5 | 0.6 ppm (1-2.25) |
| | | Dark gray, silt like material, possible ash, crumbly, moist at 4.0 and wet at 4.5. | | SM | 2.5-5.0 | 0.8 ppm (2.25-3.5) |
| 5 | -5 | Borehole terminated. | | | | |
| 6 | | | | | | |

02-20-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-3.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-4

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-17-02

Comments : Near the CALF

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil, root mat. | | PT | 0-0.25 | |
| | | Dark gray, silt like material, crumbly, possible ash. | | SM | 0.25-2.5 | 0.6 ppm (1-2) |
| | | Black sandy fill material, with black shiny glasslike pieces, possible slag. | | SM | 2.5-3.25 | 2.0 ppm (2-3.25) |
| | | Dark gray, silt like material, moist at 3.25 and wet at 4.0. | | SM | 3.25-5.0 | |
| | | Borehole terminated. | | | | |

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

04-29-2003 R:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-4.BOR

# LOG OF BORING CA-5

(Page 1 of 1)

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Trench
Drill Date : 12-18-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil root mat, dark gray material. | | PT | 0-0.5 | |
| 1 | -1 | Dark gray, silty material, crumbly, minimal organics, uniform. Rebar on side wall, glass intermitted. PID of 5.1-21 ppm during sampling, donned PPE. | | SM | 0.5-2.0 | 4.0 ppm (0.5-2.0) |
| 2 | -2 | Dark brown to light gray silt, dry, crumbly. Debris present including crushed 5-gallon buckets, bricks, wood plank, porcelin pieces, bright yellow material (possibly paint). | | SM | 2.0-5.0 | 43.6 ppm (2.0-5.0) |
| 3 | -3 | | | | | |
| 4 | -4 | | | | | |
| 5 | -5 | Trench terminated. | | | | |
| 6 | | | | | | |

02-20-2003 T:\M\M&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-5.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-6

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Trench
Drill Date : 12-18-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Dark gray, silt like material, possibly ash, brick fragments, white porcelin piece, slightly moist at 2.25 feet. | | SM | 0.5-2.25 | 4.3 ppm(0.5-2.25) |
| 1 | -1 | | | | | |
| 2 | -2 | | | | | |
| | | Brown sandy clay fill material with abundant concrete pieces, some brick, metal pieces possibly crushed cans, dry. | | SC | 2.25-5.0 | 2.5 ppm (2.25-5.0) |
| 3 | -3 | | | | | |
| 4 | -4 | | | | | |
| 5 | -5 | Trench terminated. | | | | |
| 6 | | | | | | |

04-29-2003 R:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-6.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-7



Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Trench
Drill Date : 12-18-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Dark gray silt like material, uniform with minimal organic content mixed with tan clayey sand fill material. Contained brick, glass and apparent metal container. | | SM | 0.5-2.5 | 3.6 ppm (0.5-2.5) |
| 1 | -1 | | | | | |
| 2 | -2 | | | | | |
| | | Light to dark brown clayey sand, fill material with debris including brick, plyboard, small stump, dry. | | SC | 2.5-5.0 | 3.8 ppm (2.5-5.0) |
| 3 | -3 | | | | | |
| 4 | -4 | | | | | |
| 5 | -5 | Trench terminated. | | | | |
| 6 | | | | | | |

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-8

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Trench
Drill Date : 12-19-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil. | | PT | 0-0.5 | |
| | | Dark gray, silty like material, uniform. | | SM | 0.5-1.0 | 3.6 ppm (0.5-2.5) |
| 1 | -1 | Light to dark brown, clayey sand fill with brick, concrete blocks and a metal lid. | | SC | 1.0-2.5 | |
| 2 | -2 | | | | | |
| 3 | -3 | Light to dark brown, clayey sand fill with brick block, some slag (black shiny appearance with some porousness). Ground water observed at trench bottom at approximately 5' that may be a perched pocket as no uniform moisture or wetness was observed. | | SC | 2.5-5.0 | 2.6 ppm (2.5-5.0) |
| 4 | -4 | | | | | |
| 5 | -5 | Trench terminated. | | | | |
| 6 | | | | | | |

04-29-2003 R:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-8.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-9

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-17-02

Comments : In the CASY boundary

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil, root mat. | | PT | 0-0.5 | |
| | | Orange clay. | | CL | 0.5-2.0 | 0.8 ppm (0.5-2.0) |
| 1 | -1 | | | | | |
| 2 | -2 | Tan clay, moist from 4.0-4.5. | | CL | 2.0-4.5 | 0.9 ppm (2.0-4.0) |
| 3 | -3 | | | | | |
| 4 | -4 | | | | | |
| | | Medium grained sand orange, wet. | | SM | 4.5-5.0 | |
| 5 | -5 | Borehole terminated. | | | | |
| 6 | | | | | | |

02-20-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-9.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-10

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By :
Drill Method : Geoprobe
Drill Date : 12-16-02

Comments : In the CASY boundary

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Orange sand with shells. y material (possibly top soil). | | SC | 0-.33 | |
| .5 | -.5 | | | SP | .33-1.3 | |
| 1 | -1 | | | | | |
| 1.5 | -1.5 | Gray to black sandy clay. | | SC | 1.3-2.5 | 0.4 ppm (1-2.5) |
| 2 | -2 | | | | | |
| 2.5 | -2.5 | Gray-brown sandy clay, moist at 4.0 feet. | | SC | 2.5-4.0 | 0.5 ppm (2.5-4) |
| 3 | -3 | | | | | |
| 3.5 | -3.5 | | | | | |
| 4 | -4 | Orange clay with sand, moist to wet. | | SC | 4.0-5.5 | |
| 4.5 | -4.5 | | | | | |
| 5 | -5 | | | | | |
| 5.5 | -5.5 | Borehole terminated. | | | | |
| 6 | | | | | | |

T:\M\M&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-10.BOR 02-12-2003

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-11

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By :
Drill Method : Geoprobe
Drill Date : 12-16-02

Comments : In the CASY boundary

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass roots, brown clayey material (possibly top soil). | | SC | 0-0.33 | |
| .5 | -.5 | Orange sand with abundant shell fragments. | | SM | 0.33-1.0 | |
| 1 | -1 | Light brown-tan clayey sand. | | SC | 1.0-2.5 | 0.4 ppm (1-2.5) |
| 2 | -2 | Dark brown/black sand to clayey sand, moist at 4.0. | | SC | 2.5-4.0 | 0.4 ppm (2.5-4) |
| 4 | -4 | Sand with abundant shell fragments, moisture increasing with depth, wetness at 5.0. | | SP | 4.0-5.0 | |
| 5 | -5 | Borehole terminated. | | | | |
| 5.5 | | | | | | |

02-12-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-11.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-12

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-16-02

Comments : In the CASY boundary

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass roots, light brown-tan clay. | | SC | 0-1 | |
| .5 | -.5 | | | | | |
| 1 | -1 | Medium grained sand, orange, with abundant fragments. | | SM | 1-1.5 | |
| 1.5 | -1.5 | Black coarse grained material with abundant gravel. | | GP | 1.5-2.5 | 0.4 ppm (1-2.5) |
| 2 | -2 | | | | | |
| 2.5 | -2.5 | Black coarse grained fill type material with gravel and brick-like material. | | GP | 2.5-4.0 | 0.4 ppm (2.5-4) |
| 3 | -3 | | | | | |
| 3.5 | -3.5 | | | | | |
| 4 | -4 | Dark gray, moist, clay. | | SC | 4.0-5.0 | |
| 4.5 | -4.5 | | | | | |
| 5 | -5 | Borehole terminated. | | | | |
| 5.5 | | | | | | |

02-12-2003 T:\MM&A\DOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-12.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-13

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-17-02

Comments : In the CASY boundary

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Asphalt (0-0.33"), gravel with tan sand (0.33-0.66"). | | FL/SP | 0-0.66 | |
| | | Orange sand. | | SM | 0.66-1 | |
| 1 | -1 | Black sand, some gravel, a pink fiberglass piece. | | SP | 1-2.25 | 2.2 ppm (1-2.5) |
| 2 | -2 | Gray clay with sand. | | SC | 2.25-2.5 | |
| | | Gray sand with minor clay, moist at 4.5. | | SC | 2.5-4.5 | 1.0 ppm (2.5-4.0) |
| 3 | -3 | | | | | |
| 4 | -4 | Gray clay, wet. | | SC | 4.5-5.0 | |
| 5 | -5 | Borehole terminated. | | | | |
| 6 | | | | | | |

02-12-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-13.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-14

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-17-02

Comments : In the CASY boundary

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Asphalt. | | GP | 0-.33 | |
| | | Gravel and sand. | | GM | .33-1 | |
| 1 | -1 | Light brown sand with clay. | | SC | 1-2.5 | 0.5 ppm (1-2.5) |
| 2 | -2 | Light brown-orange clay with sand. Moist at 4.5. | | SC | 2.5-4.5 | 0.6 ppm (2.5-4.5) |
| 3 | -3 | | | | | |
| 4 | -4 | Coarse grained sand, wet. | | GM | 4.5-5.0 | |
| 5 | -5 | Borehole terminated. | | | | |
| 6 | | | | | | |

02-12-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-14.BOR

MARSHALL MILLER & ASSOCIATES

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

# LOG OF BORING CA-15

(Page 1 of 1)

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-17-02

Comments : In the CASY boundary

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil. | | SC | 0-.33 | |
| | | Tan, sandy clay. | | SC | 0.33-1 | |
| 1 | -1 | Light brown clay. | | SC | 1-2.5 | 0.6 ppm (1-2.5) |
| 2 | -2 | | | | | |
| | | Tan clay with some sand. | | SC | 2.5-3.5 | 0.7 ppm (2.5-3.5) |
| 3 | -3 | | | | | |
| | | Coarse grained sand, moist at 3.5 and wet at 4.0. | | SC | 3.5-5.0 | |
| 4 | -4 | | | | | |
| 5 | -5 | Borehole terminated. | | | | |
| 6 | | | | | | |

04-29-2003 R:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-15.BOR

MARSHALL MILLER & ASSOCIATES

# LOG OF BORING CA-16

(Page 1 of 1)

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Drill Method : Geoprobe
Drill Date : 12-17-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Grass, top soil, root zone. | | PT | 0-0.5 | |
| | | Gray sandy clay. | | SC | 0.5-1.0 | |
| 1 | -1 | Orange clay. | | CL | 1.0-2.0 | 21.3 ppm (0.5-2.0) |
| 2 | -2 | Orange clay, increased sand content present below 3.25'. | | CL | 2.0-3.5 | 3.5 ppm (2.0-3.5) |
| 3 | -3 | | | | | |
| | | Orange sand, medium grained moist at 3.5 and wet at 4.0. | | SM | 3.5-5.0 | |
| 4 | -4 | | | | | |
| 5 | -5 | Borehole terminated. | | | | |
| 6 | | | | | | |

04-29-2003 R:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-16.BOR

MARSHALL MILLER & ASSOCIATES

# LOG OF BORING CA-18

(Page 1 of 1)

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Trench
Drill Date : 12-19-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Orange sandy clay to clayey sand, no fill material. | | SC | 0.5-2.5 | 4.5 ppm (0.5-2.5) |
| 1 | -1 | | | | | |
| 2 | -2 | | | | | |
| | | Orange clayey sand. | | SC | 2.5-4.5 | 5.3 ppm (2.5-4.5) |
| 3 | -3 | | | | | |
| | | Orange sand, moist from 3.5 to 4.5, ground water accumulation at 4.5. | | SC | | |
| 4 | -4 | | | | | |
| | | Trench terminated. | | | | |
| 5 | | | | | | |

T:\M\M&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-18.BOR

02-20-2003

MARSHALL MILLER & ASSOCIATES

# LOG OF BORING CA-20

(Page 1 of 1)

Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Trench
Drill Date : 12-19-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Orange clayey sand to sandy clay, no fill material. | | SC | 0.5-2.5 | 4.4 ppm (0.5-2.5) |
| 1 | -1 | | | | | |
| 2 | -2 | | | | | |
| | | Orange sand, medium grained, ground water accumulated in trench bottom. | | SM | 2.5-4.5 | 4.5 ppm (2.5-4.5) |
| 3 | -3 | | | | | |
| 4 | -4 | | | | | |
| | | Trench terminated. | | | | |
| 5 | | | | | | |

02-20-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-20.BOR

MARSHALL MILLER & ASSOCIATES

# LOG OF BORING CA-A



Virginia Department of Transportation
I-564 Intermodal Connector
Proposed Re-Located Railroad Area
Norfolk, Virginia

Project No. : H0015
Logged By : James Martin
Checked By : James Martin
Sampling Method : Trench
Drill Date : 12-19-02

| Depth in Feet | Surf. Elev. | DESCRIPTION | GRAPHIC | USCS | Sample Interval (feet) | PID Reading (ppm) |
|---|---|---|---|---|---|---|
| 0 | 0 | Natural soils, tree roots. | | PT | 0-0.5 | |
| | | Orange to brown clayey sand to sandy clay, no fill debris. | | SC | 0.5-2.5 | 14.1 ppm (0.5-2.5) |
| 1 | -1 | | | | | |
| 2 | -2 | | | | | |
| | | Orange clayey sand. | | SC | 2.5-4.0 | 6.9 ppm (2.5-5.0) |
| 3 | -3 | | | | | |
| 4 | -4 | Orange medium grained sand, moist at bottom. | | SC | 4.0-5.0 | |
| 5 | -5 | Trench terminated. | | | | |
| 6 | | | | | | |

02-20-2003 T:\MM&A\VDOT EASTERN REGION\HAMPTON ROADS\H0015 BORING LOGS\CA-A.BOR

# *Appendix V*

***Laboratory Analysis Reports and Chain-of-Custody Forms***

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| Diesel Range Organics (8015) | | --- | | --- | |
| Hydrocarbons as DRO, mg/kg dw | 5.2U | --- | 5.7U | --- | 26 |
| Surrogate - o-Terphenyl | 36 % | --- | 54 % | --- | 49 % |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 12.27.02 | --- | 12.27.02 | --- | 12.27.02 |
| Analysis Date | 01.03.03 | --- | 01.03.03 | --- | 01.03.03 |
| Batch ID | 1227U | --- | 1227U | --- | 1227U |
| Gasoline Range Organics (8015M) | | | | | |
| Hydrocarbons as GRO, mg/kg dw | 0.40U | 0.29J | 0.43U | 0.44U | 0.28U |
| Surrogate - a,a,a-Trifluorotoluene | 196 %X | 435 %X | 277 %X | 385 %X | 129 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.30.02 | 12.31.02 | 12.30.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 12.30.02 | 12.31.02 | 12.30.02 | 12.31.02 | 12.31.02 |
| Batch ID | 1A1230 | 1A1231 | 1A1230 | 1A1231 | 1A1231 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | --- | | --- | |
| Cresol (ortho) (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Cresol m & p (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Cresol o,m,p (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Hexachloroethane (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Nitrobenzene (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Pentachlorophenol (TCLP), mg/l | 0.25U | --- | 0.25U | --- | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U | --- | 0.050U | --- | 0.050U |
| Pyridine (TCLP), mg/l | 0.25U | --- | 0.25U | --- | 0.25U |
| Surrogate-2FP | 64 % | --- | 84 % | --- | 88 % |
| Surrogate-PHL | 64 % | --- | 84 % | --- | 92 % |
| Surrogate-NBZ | 92 % | --- | 92 % | --- | 92 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| Surrogate-2FBP | 88 % | --- | 92 % | --- | 88 % |
| Surrogate-TBP | 100 % | --- | 98 % | --- | 100 % |
| Surrogate-TPH | 96 % | --- | 96 % | --- | 92 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | --- | 12.30.02 | --- | 12.30.02 |
| Extraction Date (Extract) | 12.31.02 | --- | 12.31.02 | --- | 12.31.02 |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 12.31.02 | --- | 12.31.02 | --- | 12.31.02 |
| Analysis Date | 01.08.03 | --- | 01.08.03 | --- | 01.08.03 |
| Batch ID | 1231A | --- | 1231A | --- | 1231A |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | --- | | --- | |
| Benzene (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| Carbon tetrachloride (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| Chlorobenzene (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| Chloroform (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U | --- | 0.10U | --- | 0.10U |
| Tetrachloroethylene (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| Trichloroethylene (TCLP), mg/l | 0.020U | --- | 0.020U | --- | 0.020U |
| Vinyl chloride (TCLP), mg/l | 0.040U | --- | 0.040U | --- | 0.040U |
| Surrogate - Toluene-d8 | 94 % | --- | 94 % | --- | 92 % |
| Surrogate - 4-Bromofluorobenzene | 88 % | --- | 92 % | --- | 88 % |
| Surrogate - Dibromofluoromethane | 110 % | --- | 92 % | --- | 110 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 01.01.03 | --- | 01.01.03 | --- | 01.01.03 |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 01.06.03 | --- | 01.06.03 | --- | 01.06.03 |
| Analysis Date | 01.06.03 | --- | 01.06.03 | --- | 01.06.03 |
| Batch ID | 2A0106 | --- | 2A0106 | --- | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| Pesticides in TCLP Extract (8081) | | --- | | --- | |
| Chlordane (TCLP), mg/l | 0.025U | --- | 0.025U | --- | 0.025U |
| Endrin (TCLP), mg/l | 0.0050U | --- | 0.0050U | --- | 0.0050U |
| Heptachlor (TCLP), mg/l | 0.0025U | --- | 0.0025U | --- | 0.0025U |
| Lindane (g-BHC) (TCLP), mg/l | 0.0025U | --- | 0.0025U | --- | 0.0025U |
| Methoxychlor (TCLP), mg/l | 0.025U | --- | 0.025U | --- | 0.025U |
| Toxaphene (TCLP), mg/l | 0.25U | --- | 0.25U | --- | 0.25U |
| Heptachlor epoxide (TCLP), mg/l | 0.0025U | --- | 0.0025U | --- | 0.0025U |
| Surrogate-TCX | 64 % | --- | 72 % | --- | 60 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | --- | 12.30.02 | --- | 12.30.02 |
| Extraction Date (Extract) | 12.31.02 | --- | 12.31.02 | --- | 12.31.02 |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 12.31.02 | --- | 12.31.02 | --- | 12.31.02 |
| Analysis Date | 01.03.03 | --- | 01.03.03 | --- | 01.03.03 |
| Batch ID | 1231N | --- | 1231N | --- | 1231N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| Herbicides in TCLP Extract (8150) | | --- | | --- | |
| 2,4-D (TCLP), mg/l | 0.025U | --- | 0.025U | --- | 0.025U |
| 2,4,5-TP (Silvex) (TCLP), mg/l | 0.025U | --- | 0.025U | --- | 0.025U |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 90 % | --- | 90 % | --- | 90 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | --- | 12.30.02 | --- | 12.30.02 |
| Extraction Date (Extract) | 01.02.03 | --- | 01.02.03 | --- | 01.02.03 |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 01.02.03 | --- | 01.02.03 | --- | 01.02.03 |
| Analysis Date | 01.06.03 | --- | 01.06.03 | --- | 01.06.03 |
| Batch ID | 0102N | --- | 0102N | --- | 0102N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| Metals in TCLP Extract (6010) | | --- | | --- | |
| Arsenic (TCLP), mg/l | 0.20U | --- | 0.20U | --- | 0.20U |
| Barium (TCLP), mg/l | 1.0UE | --- | 1.1E | --- | 1.0UE |
| Cadmium (TCLP), mg/l | 0.10U | --- | 0.10U | --- | 0.10U |
| Chromium (TCLP), mg/l | 0.20U | --- | 0.20U | --- | 0.20U |
| Lead (TCLP), mg/l | 0.20U | --- | 0.20U | --- | 0.20U |
| Selenium (TCLP), mg/l | 0.50U | --- | 0.50U | --- | 0.50U |
| Silver (TCLP), mg/l | 0.10U | --- | 0.10U | --- | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | --- | 12.30.02 | --- | 12.30.02 |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 01.02.03 | --- | 01.02.03 | --- | 01.02.03 |
| Analysis Date | 01.03.03 | --- | 01.03.03 | --- | 01.03.03 |
| Batch ID | 0102O | --- | 0102O | --- | 0102O |
| Mercury in TCLP Extract (7470) | | --- | | --- | |
| Mercury (TCLP), mg/l | 0.020UN | --- | 0.020UN | --- | 0.020UN |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | --- | 12.30.02 | --- | 12.30.02 |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 12.31.02 | --- | 12.31.02 | --- | 12.31.02 |
| Analysis Date | 01.02.03 | --- | 01.02.03 | --- | 01.02.03 |
| Batch ID | 1231R | --- | 1231R | --- | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-1-RE | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002 |
| 49255-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-2-RE | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002 |
| 49255-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002 |

| PARAMETER | 49255-1 | 49255-1-RE | 49255-2 | 49255-2-RE | 49255-3 |
|---|---|---|---|---|---|
| PCB's (8082) | | --- | | --- | |
| Aroclor-1016, ug/kg dw | 52U | --- | 57UYY | --- | 38UYY |
| Aroclor-1221, ug/kg dw | 100U | --- | 120U | --- | 77U |
| Aroclor-1232, ug/kg dw | 52U | --- | 57U | --- | 38U |
| Aroclor-1242, ug/kg dw | 52U | --- | 57U | --- | 38U |
| Aroclor-1248, ug/kg dw | 52U | --- | 57U | --- | 38U |
| Aroclor-1254, ug/kg dw | 27J | --- | 32JP | --- | 38U |
| Aroclor-1260, ug/kg dw | 52U | --- | 57U | --- | 38U |
| Surrogate - TCX | 58 % | --- | 59 % | --- | 63 % |
| Surrogate - DCB | 81 % | --- | 83 % | --- | 68 % |
| Dilution Factor | 1 | --- | 1 | --- | 1 |
| Prep Date | 12.27.02 | --- | 12.27.02 | --- | 12.27.02 |
| Analysis Date | 12.31.02 | --- | 12.31.02 | --- | 12.31.02 |
| Batch ID | 1227P | --- | 1227P | --- | 1227P |
| Percent Solids | 64 | 64 | 58 | 58 | 87 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| Diesel Range Organics (8015) | | | | | |
| Hydrocarbons as DRO, mg/kg dw | 1400 | 1.6J | 5.0 | 3.6U | 5.2U |
| Surrogate - o-Terphenyl | 0 %D | 68 % | 55 % | 66 % | 48 % |
| Dilution Factor | 20 | 1 | 1 | 1 | 1 |
| Prep Date | 12.27.02 | 12.27.02 | 12.27.02 | 12.27.02 | 12.27.02 |
| Analysis Date | 01.04.03 | 01.04.03 | 01.03.03 | 01.03.03 | 01.03.03 |
| Batch ID | 1227U | 1227U | 1227U | 1227U | --- |
| Gasoline Range Organics (8015M) | | | | | |
| Hydrocarbons as GRO, mg/kg dw | 0.30U | 0.29U | 0.30U | 0.29U | 0.30J |
| Surrogate - a,a,a-Trifluorotoluene | 122 % | 112 % | 117 % | 112 % | 275 %X |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.30.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 12.30.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Batch ID | 1A1230 | 1A1230 | 1A1230 | 1A1230 | 1A1230 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | | | | |
| Cresol (ortho) (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Cresol m & p (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Cresol o,m,p (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachloroethane (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Nitrobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pentachlorophenol (TCLP), mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyridine (TCLP), mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Surrogate-2FP | 84 % | 84 % | 84 % | 76 % | 84 % |
| Surrogate-PHL | 86 % | 86 % | 86 % | 84 % | 86 % |
| Surrogate-NBZ | 88 % | 88 % | 92 % | 84 % | 88 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| Surrogate-2FBP | 84 % | 88 % | 88 % | 80 % | 92 % |
| Surrogate-TBP | 90 % | 96 % | 90 % | 96 % | 92 % |
| Surrogate-TPH | 96 % | 96 % | 100 % | 96 % | 96 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Extraction Date (Extract) | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 01.08.03 | 01.08.03 | 01.08.03 | 01.08.03 | 01.08.03 |
| Batch ID | 1231A | 1231A | 1231A | 1231A | 1231A |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Cl Project No: H0015

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | | | |
| Benzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Carbon tetrachloride (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chlorobenzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroform (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Tetrachloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Trichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Vinyl chloride (TCLP), mg/l | 0.040U | 0.040U | 0.040U | 0.040U | 0.040U |
| Surrogate - Toluene-d8 | 95 % | 92 % | 95 % | 93 % | 95 % |
| Surrogate - 4-Bromofluorobenzene | 93 % | 87 % | 94 % | 87 % | 94 % |
| Surrogate - Dibromofluoromethane | 97 % | 110 % | 96 % | 100 % | 96 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 01.01.03 | 01.01.03 | 01.01.03 | 01.01.03 | 01.01.03 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 | 01.07.03 |
| Analysis Date | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 | 2A0106 | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| Pesticides in TCLP Extract (8081) | | | | | |
| Chlordane (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U | 0.025U |
| Endrin (TCLP), mg/l | 0.0050U | 0.0050U | 0.0050U | 0.0050U | 0.0050U |
| Heptachlor (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | 0.0025U | 0.0025U |
| Lindane (g-BHC) (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | 0.0025U | 0.0025U |
| Methoxychlor (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U | 0.025U |
| Toxaphene (TCLP), mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Heptachlor epoxide (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | 0.0025U | 0.0025U |
| Surrogate-TCX | 60 % | 64 % | 64 % | 76 % | 80 % |
| TCLP (1311) Sec. 7.2 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Extraction Date | | | | | |
| Extraction Date (Extract) | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 01.03.03 | 01.03.03 | 01.03.03 | 01.03.03 | 01.03.03 |
| Batch ID | 1231N | 1231N | 1231N | 1231N | 1231N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| Herbicides in TCLP Extract (8150) | | | | | |
| 2,4-D (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U | 0.025U |
| 2,4,5-TP (Silvex) (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U | 0.025U |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 95 % | 85 % | 95 % | 85 % | 90 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Extraction Date (Extract) | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 |
| Analysis Date | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 |
| Batch ID | 0102N | 0102N | 0102N | 0102N | 0102N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| Metals in TCLP Extract (6010) | | | | | |
| Arsenic (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Barium (TCLP), mg/l | 1.0UE | 1.0UE | 1.0UE | 1.0UE | 1.0UE |
| Cadmium (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Chromium (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Lead (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Selenium (TCLP), mg/l | 0.50U | 0.50U | 0.50U | 0.50U | 0.50U |
| Silver (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 |
| Analysis Date | 01.03.03 | 01.03.03 | 01.03.03 | 01.03.03 | 01.03.03 |
| Batch ID | 0102O | 0102O | 0102O | 0102O | 0102O |
| Mercury in TCLP Extract (7470) | | | | | |
| Mercury (TCLP), mg/l | 0.020UN | 0.020UN | 0.020UN | 0.020UN | 0.020UN |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 |
| Batch ID | 1231R | 1231R | 1231R | 1231R | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-4 | DUPLICATE | 12-19-02/09:25 | MM002 |
| 49255-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002 |
| 49255-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002 |
| 49255-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002 |
| 49255-8 | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |

| PARAMETER | 49255-4 | 49255-5 | 49255-6 | 49255-7 | 49255-8 |
|---|---|---|---|---|---|
| PCB's (8082) | | | | | |
| Aroclor-1016, ug/kg dw | 40UYY | 38U | 38U | 36U | 52U |
| Aroclor-1221, ug/kg dw | 81U | 76U | 76U | 74U | 100U |
| Aroclor-1232, ug/kg dw | 40U | 38U | 38U | 36U | 52U |
| Aroclor-1242, ug/kg dw | 40U | 38U | 38U | 36U | 52U |
| Aroclor-1248, ug/kg dw | 40U | 38U | 38U | 36U | 52U |
| Aroclor-1254, ug/kg dw | 40U | 38U | 38U | 36U | 52U |
| Aroclor-1260, ug/kg dw | 40U | 41 | 38U | 110 | 52U |
| Surrogate - TCX | 65 % | 68 % | 74 % | 47 % | 46 % |
| Surrogate - DCB | 110 % | 84 % | 79 % | 67 % | 73 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.27.02 | 12.27.02 | 12.27.02 | 12.27.02 | 12.27.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 01.14.03 | 12.31.02 | 01.14.03 |
| Batch ID | 1227P | 1227P | 1227P | 1227P | 1227P |
| Percent Solids | 83 | 88 | 88 | 91 | 64 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| Diesel Range Organics (8015) | --- | | --- | |
| Hydrocarbons as DRO, mg/kg dw | --- | 46 | --- | 69 |
| Surrogate - o-Terphenyl | --- | 44 % | --- | 30 % |
| Dilution Factor | --- | 1 | --- | 1 |
| Prep Date | --- | 12.27.02 | --- | 12.27.02 |
| Analysis Date | --- | 01.03.03 | --- | 01.03.03 |
| Batch ID | --- | 1227U | --- | 1227U |
| Gasoline Range Organics (8015M) | | | --- | |
| Hydrocarbons as GRO, mg/kg dw | 0.55 | 0.34U | --- | 0.32U |
| Surrogate - a,a,a-Trifluorotoluene | 229 %X | 130 % | --- | 232 %X |
| Dilution Factor | 1 | 1 | --- | 1 |
| Prep Date | 12.31.02 | 12.31.02 | --- | 12.31.02 |
| Analysis Date | 12.31.02 | 12.31.02 | --- | 12.31.02 |
| Batch ID | 1A1231 | 1A1231 | --- | 1A1231 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | --- | | --- | |
| Cresol (ortho) (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Cresol m & p (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Cresol o,m,p (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Hexachloroethane (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Nitrobenzene (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Pentachlorophenol (TCLP), mg/l | --- | 0.25U | --- | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | --- | 0.050U | --- | 0.050U |
| Pyridine (TCLP), mg/l | --- | 0.25U | --- | 0.25U |
| Surrogate-2FP | --- | 84 % | --- | 84 % |
| Surrogate-PHL | --- | 88 % | --- | 86 % |
| Surrogate-NBZ | --- | 92 % | --- | 92 % |
| Surrogate-2FBP | --- | 92 % | --- | 88 % |
| Surrogate-TBP | --- | 100 % | --- | 92 % |
| Surrogate-TPH | --- | 96 % | --- | 92 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| TCLP (1311) Sec. 7.2 Extraction Date | --- | 12.30.02 | --- | 12.30.02 |
| Extraction Date (Extract) | --- | 12.31.02 | --- | 12.31.02 |
| Dilution Factor | --- | 1 | --- | 1 |
| Prep Date | --- | 12.31.02 | --- | 12.31.02 |
| Analysis Date | --- | 01.08.03 | --- | 01.08.03 |
| Batch ID | --- | 1231A | --- | 1231A |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | --- | | --- | |
| Benzene (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| Carbon tetrachloride (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| Chlorobenzene (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| Chloroform (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| 1,2-Dichloroethane (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| 1,1-Dichloroethylene (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| Methyl ethyl ketone (TCLP), mg/l | --- | 0.10U | --- | 0.10U |
| Tetrachloroethylene (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| Trichloroethylene (TCLP), mg/l | --- | 0.020U | --- | 0.020U |
| Vinyl chloride (TCLP), mg/l | --- | 0.040U | --- | 0.040U |
| Surrogate - Toluene-d8 | --- | 92 % | --- | 94 % |
| Surrogate - 4-Bromofluorobenzene | --- | 86 % | --- | 93 % |
| Surrogate - Dibromofluoromethane | --- | 110 % | --- | 95 % |
| TCLP (1311) Sec. 7.3 Extraction Date | --- | 01.01.03 | --- | 01.01.03 |
| Dilution Factor | --- | 1 | --- | 1 |
| Prep Date | --- | 01.07.03 | --- | 01.07.03 |
| Analysis Date | --- | 01.07.03 | --- | 01.07.03 |
| Batch ID | --- | 2A0106 | --- | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| Pesticides in TCLP Extract (8081) | --- | | --- | |
| Chlordane (TCLP), mg/l | --- | 0.025U | --- | 0.025U |
| Endrin (TCLP), mg/l | --- | 0.0050U | --- | 0.0050U |
| Heptachlor (TCLP), mg/l | --- | 0.0025U | --- | 0.0025U |
| Lindane (g-BHC) (TCLP), mg/l | --- | 0.0025U | --- | 0.0025U |
| Methoxychlor (TCLP), mg/l | --- | 0.025U | --- | 0.025U |
| Toxaphene (TCLP), mg/l | --- | 0.25U | --- | 0.25U |
| Heptachlor epoxide (TCLP), mg/l | --- | 0.0025U | --- | 0.0025U |
| Surrogate-TCX | --- | 72 % | --- | 68 % |
| TCLP (1311) Sec. 7.2 Extraction Date | --- | 12.30.02 | --- | 12.30.02 |
| Extraction Date (Extract) | --- | 12.31.02 | --- | 12.31.02 |
| Dilution Factor | --- | 1 | --- | 1 |
| Prep Date | --- | 12.31.02 | --- | 12.31.02 |
| Analysis Date | --- | 01.03.03 | --- | 01.03.03 |
| Batch ID | --- | 1231N | --- | 1231N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| Herbicides in TCLP Extract (8150) | --- | | --- | |
| 2,4-D (TCLP), mg/l | --- | 0.025U | --- | 0.025U |
| 2,4,5-TP (Silvex) (TCLP), mg/l | --- | 0.025U | --- | 0.025U |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | --- | 80 % | --- | 85 % |
| TCLP (1311) Sec. 7.2 Extraction Date | --- | 12.30.02 | --- | 12.30.02 |
| Extraction Date (Extract) | --- | 01.02.03 | --- | 01.02.03 |
| Dilution Factor | --- | 1 | --- | 1 |
| Prep Date | --- | 01.02.03 | --- | 01.02.03 |
| Analysis Date | --- | 01.06.03 | --- | 01.06.03 |
| Batch ID | --- | 0102N | --- | 0102N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| Metals in TCLP Extract (6010) | --- | | --- | |
| Arsenic (TCLP), mg/l | --- | 0.20U | --- | 0.20U |
| Barium (TCLP), mg/l | --- | 1.8E | --- | 1.8E |
| Cadmium (TCLP), mg/l | --- | 0.29 | --- | 0.35 |
| Chromium (TCLP), mg/l | --- | 0.20U | --- | 0.20U |
| Lead (TCLP), mg/l | --- | 0.62 | --- | 3.4 |
| Selenium (TCLP), mg/l | --- | 0.50U | --- | 0.50U |
| Silver (TCLP), mg/l | --- | 0.10U | --- | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | --- | 12.30.02 | --- | 12.30.02 |
| Dilution Factor | --- | 1 | --- | 1 |
| Prep Date | --- | 01.02.03 | --- | 01.02.03 |
| Analysis Date | --- | 01.03.03 | --- | 01.03.03 |
| Batch ID | --- | 0102O | --- | 0102O |
| Mercury in TCLP Extract (7470) | --- | | --- | |
| Mercury (TCLP), mg/l | --- | 0.020UN | --- | 0.020UN |
| TCLP (1311) Sec. 7.2 Extraction Date | --- | 12.30.02 | --- | 12.30.02 |
| Dilution Factor | --- | 1 | --- | 1 |
| Prep Date | --- | 12.31.02 | --- | 12.31.02 |
| Analysis Date | --- | 01.02.03 | --- | 01.02.03 |
| Batch ID | --- | 1231R | --- | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-8-RE | CA-5 0.5-2.0' | 12-18-02/13:12 | MM002 |
| 49255-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-9-DL | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002 |
| 49255-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-8-RE | 49255-9 | 49255-9-DL | 49255-10 |
|---|---|---|---|---|
| PCB's (8082) | --- | | | |
| Aroclor-1016, ug/kg dw | --- | 2200U | 11000U | 85U |
| Aroclor-1221, ug/kg dw | --- | 4500U | 23000U | 170U |
| Aroclor-1232, ug/kg dw | --- | 2200U | 11000U | 85U |
| Aroclor-1242, ug/kg dw | --- | 2200U | 11000U | 85U |
| Aroclor-1248, ug/kg dw | --- | 2200U | 11000U | 85U |
| Aroclor-1254, ug/kg dw | --- | 2200U | 11000U | 1800 |
| Aroclor-1260, ug/kg dw | --- | 210000E | 260000D | 400 |
| Surrogate - TCX | --- | 0 %D | 0 %D | 44 % |
| Surrogate - DCB | --- | 0 %D | 0 %D | 157 % |
| Dilution Factor | --- | 50 | 250 | 2 |
| Prep Date | --- | 12.27.02 | 12.27.02 | 12.27.02 |
| Analysis Date | --- | 12.31.02 | 01.14.03 | 12.31.02 |
| Batch ID | --- | 1227P | 1227P | 1227P |
| Percent Solids | 64 | 74 | 74 | 78 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-10-RE | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002 |

| PARAMETER | 49255-10-RE |
|---|---|
| Gasoline Range Organics (8015M) | |
| Hydrocarbons as GRO, mg/kg dw | 0.32U |
| Surrogate - a,a,a-Trifluorotoluene | 316 %X |
| Dilution Factor | 1 |
| Prep Date | 12.31.02 |
| Analysis Date | 12.31.02 |
| Batch ID | 1A1231 |
| Percent Solids | 78 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-11 | CA-2 2.5-5.0' | 12-19-02/14:52 | MM002 |
| 49255-12 | CA-8 0.5-2.5' | 12-19-02/09:18 | MM002 |
| 49255-13 | CA-18-0.5-2.5' | 12-19-02/11:30 | MM002 |
| 49255-14 | CA-20 0.5-2.5' | 12-19-02/13:45 | MM002 |
| 49255-15 | DUPLICATE 2 | 12-19-02/13:55 | MM002 |

| PARAMETER | 49255-11 | 49255-12 | 49255-13 | 49255-14 | 49255-15 |
|---|---|---|---|---|---|
| Metals in TCLP Extract (6010) | | | | | |
| Arsenic (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Barium (TCLP), mg/l | 1.3E | 1.2E | 1.0UE | 1.0UE | 1.0UE |
| Cadmium (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Chromium (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Lead (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Selenium (TCLP), mg/l | 0.50U | 0.50U | 0.50U | 0.50U | 0.50U |
| Silver (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 | 01.02.03 |
| Analysis Date | 01.03.03 | 01.03.03 | 01.03.03 | 01.03.03 | 01.03.03 |
| Batch ID | 0102O | 0102O | 0102O | 0102O | 0102O |
| Mercury in TCLP Extract (7470) | | | | | |
| Mercury (TCLP), mg/l | 0.020UN | 0.020UN | 0.020UN | 0.020UN | 0.020UN |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 01.02.03 | 01.02.03 | 01.02.03 | 01.03.03 | 01.02.03 |
| Batch ID | 1231R | 1231R | 1231R | 1231R | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-11 | CA-2 2.5-5.0' | 12-19-02/14:52 | MM002 |
| 49255-12 | CA-8 0.5-2.5' | 12-19-02/09:18 | MM002 |
| 49255-13 | CA-18-0.5-2.5' | 12-19-02/11:30 | MM002 |
| 49255-14 | CA-20 0.5-2.5' | 12-19-02/13:45 | MM002 |
| 49255-15 | DUPLICATE 2 | 12-19-02/13:55 | MM002 |

| PARAMETER | 49255-11 | 49255-12 | 49255-13 | 49255-14 | 49255-15 |
|---|---|---|---|---|---|

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-16 | CA-6 0.5-2.25' | 12-18-02/15:00 | MM002 |

| PARAMETER | 49255-16 |
|---|---|
| Metals in TCLP Extract (6010) | |
| Arsenic (TCLP), mg/l | 0.20U |
| Barium (TCLP), mg/l | 1.6E |
| Cadmium (TCLP), mg/l | 0.10U |
| Chromium (TCLP), mg/l | 0.20U |
| Lead (TCLP), mg/l | 0.20U |
| Selenium (TCLP), mg/l | 0.50U |
| Silver (TCLP), mg/l | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 |
| Dilution Factor | 1 |
| Prep Date | 01.02.03 |
| Analysis Date | 01.03.03 |
| Batch ID | 0102O |
| Mercury in TCLP Extract (7470) | |
| Mercury (TCLP), mg/l | 0.020UN |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 |
| Dilution Factor | 1 |
| Prep Date | 12.31.02 |
| Analysis Date | 01.02.03 |
| Batch ID | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-17 | 249B-5 TRIP BLANK | 12-19-02 | MM002 |

| PARAMETER | 49255-17 |
|---|---|
| Volatiles by GC/MS (8260) | |
| Vinyl chloride, mg/l | 0.040U |
| 1,1-Dichloroethene, mg/l | 0.020U |
| Chloroform, mg/l | 0.020U |
| 1,2-Dichloroethane, mg/l | 0.020U |
| 2-Butanone (MEK), mg/l | 0.10U |
| Carbon tetrachloride, mg/l | 0.020U |
| Trichloroethene, mg/l | 0.020U |
| Benzene, mg/l | 0.020U |
| Tetrachloroethene, mg/l | 0.020U |
| Chlorobenzene, mg/l | 0.020U |
| Surrogate - Toluene-d8 | 92 % |
| Surrogate - 4-Bromofluorobenzene | 89 % |
| Surrogate - Dibromofluoromethane | 110 % |
| Dilution Factor | 1 |
| Prep Date | 01.02.03 |
| Analysis Date | 01.02.03 |
| Batch ID | 2A0102 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-18 | Method Blank | | MM002 |
| 49255-19 | Lab Control Standard % Recovery | | MM002 |
| 49255-20 | LCS Accuracy Control Limit (%R) | | MM002 |
| 49255-26 | Method Blank | | MM002 |
| 49255-28 | Lab Control Standard % Recovery | | MM002 |

| PARAMETER | 49255-18 | 49255-19 | 49255-20 | 49255-26 | 49255-28 |
|---|---|---|---|---|---|
| Diesel Range Organics (8015) | | | | --- | --- |
| Hydrocarbons as DRO, mg/kg dw | 3.3U | 61 % | 40-140 % | --- | --- |
| Surrogate - o-Terphenyl | 69 % | 67 % | 15-154 % | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- | --- |
| Prep Date | 12.27.02 | 12.27.02 | --- | --- | --- |
| Analysis Date | 01.03.03 | 01.03.03 | --- | --- | --- |
| Batch ID | 1227U | 1227U | --- | --- | --- |
| Gasoline Range Organics (8015M) | | | | | |
| Hydrocarbons as GRO, mg/kg dw | 0.25U | 98 % | 10-149 % | 0.25U | 92 % |
| Surrogate - a,a,a-Trifluorotoluene | 107 % | 93 % | 41-156 % | 107 % | 93 % |
| Dilution Factor | 1 | 1 | | 1 | 1 |
| Prep Date | 12.30.02 | 12.30.02 | --- | 12.31.02 | 12.31.02 |
| Analysis Date | 12.30.02 | 12.30.02 | --- | 12.31.02 | 12.31.02 |
| Batch ID | 1A1230 | 1A1230 | | 1A1231 | 1A1231 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-18 | Method Blank | | MM002 |
| 49255-19 | Lab Control Standard % Recovery | | MM002 |
| 49255-20 | LCS Accuracy Control Limit (%R) | | MM002 |
| 49255-26 | Method Blank | | MM002 |
| 49255-28 | Lab Control Standard % Recovery | | MM002 |

| PARAMETER | 49255-18 | 49255-19 | 49255-20 | 49255-26 | 49255-28 |
|---|---|---|---|---|---|
| PCB's (8082) | | | | --- | --- |
| Aroclor-1016, ug/kg dw | 33U | 61 % | 34-138 % | --- | --- |
| Aroclor-1221, ug/kg dw | 67U | --- | --- | --- | --- |
| Aroclor-1232, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1242, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1248, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1254, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1260, ug/kg dw | 33U | 76 % | 39-138 % | --- | --- |
| Surrogate - TCX | 57 % | 53 % | 30-150 % | --- | --- |
| Surrogate - DCB | 76 % | 82 % | 30-150 % | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- | --- |
| Prep Date | 12.27.02 | 12.27.02 | --- | --- | --- |
| Analysis Date | 12.31.02 | 12.31.02 | --- | --- | --- |
| Batch ID | 1227P | 1227P | --- | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-29 | Method Blank | | MM002 |
| 49255-31 | Lab Control Standard % Recovery | | MM002 |

| PARAMETER | 49255-29 | 49255-31 |
|---|---|---|
| Gasoline Range Organics (8015M) | | |
| Hydrocarbons as GRO, mg/kg dw | 0.25U | 100 % |
| Surrogate - a,a,a-Trifluorotoluene | 100 % | 107 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 01.01.03 | 01.01.03 |
| Analysis Date | 01.01.03 | 01.01.03 |
| Batch ID | 1A0101 | 1A0101 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-21 | TCLP Extraction Fluid Blank | | MM002 |

| PARAMETER | 49255-21 |
|---|---|
| Semivolatiles in TCLP Extract (8270) | |
| Cresol (ortho) (TCLP), mg/l | 0.050U |
| Cresol m & p (TCLP), mg/l | 0.050U |
| Cresol o,m,p (TCLP), mg/l | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U |
| Hexachloroethane (TCLP), mg/l | 0.050U |
| Nitrobenzene (TCLP), mg/l | 0.050U |
| Pentachlorophenol (TCLP), mg/l | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U |
| Pyridine (TCLP), mg/l | 0.25U |
| Surrogate-2FP | 84 % |
| Surrogate-PHL | 76 % |
| Surrogate-NBZ | 80 % |
| Surrogate-2FBP | 80 % |
| Surrogate-TBP | 84 % |
| Surrogate-TPH | 112 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 |
| Extraction Date (Extract) | 12.31.02 |
| Dilution Factor | 1 |
| Prep Date | 12.31.02 |
| Analysis Date | 01.06.03 |
| Batch ID | 1231A |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-21 | TCLP Extraction Fluid Blank | | MM002 |

| PARAMETER | 49255-21 |
|---|---|
| Volatiles in TCLP Extract (8260) | |
| Benzene (TCLP), mg/l | 0.020U |
| Carbon tetrachloride (TCLP), mg/l | 0.020U |
| Chlorobenzene (TCLP), mg/l | 0.020U |
| Chloroform (TCLP), mg/l | 0.020U |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U |
| Tetrachloroethylene (TCLP), mg/l | 0.020U |
| Trichloroethylene (TCLP), mg/l | 0.020U |
| Vinyl chloride (TCLP), mg/l | 0.040U |
| Surrogate - Toluene-d8 | 95 % |
| Surrogate - 4-Bromofluorobenzene | 96 % |
| Surrogate - Dibromofluoromethane | 96 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 01.01.03 |
| Dilution Factor | 1 |
| Prep Date | 01.06.03 |
| Analysis Date | 01.06.03 |
| Batch ID | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-21 | TCLP Extraction Fluid Blank | | MM002 |

| PARAMETER | 49255-21 |
|---|---|
| Pesticides in TCLP Extract (8081) | |
| Chlordane (TCLP), mg/l | 0.025U |
| Endrin (TCLP), mg/l | 0.0050U |
| Heptachlor (TCLP), mg/l | 0.0025U |
| Lindane (g-BHC) (TCLP), mg/l | 0.0025U |
| Methoxychlor (TCLP), mg/l | 0.025U |
| Toxaphene (TCLP), mg/l | 0.25U |
| Heptachlor epoxide (TCLP), mg/l | 0.0025U |
| Surrogate-TCX | 72 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 |
| Extraction Date (Extract) | 12.31.02 |
| Dilution Factor | 1 |
| Prep Date | 12.31.02 |
| Analysis Date | 01.03.03 |
| Batch ID | 1231N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-21 | TCLP Extraction Fluid Blank | | MM002 |

| PARAMETER | 49255-21 |
|---|---|
| Herbicides in TCLP Extract (8150) | |
| 2,4-D (TCLP), mg/l | 0.025U |
| 2,4,5-TP (Silvex) (TCLP), mg/l | 0.025U |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 100 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 |
| Extraction Date (Extract) | 01.02.03 |
| Dilution Factor | 1 |
| Prep Date | 01.02.03 |
| Analysis Date | 01.06.03 |
| Batch ID | 0102N |
| Metals in TCLP Extract (6010) | |
| Arsenic (TCLP), mg/l | 0.20U |
| Barium (TCLP), mg/l | 1.0U |
| Cadmium (TCLP), mg/l | 0.10U |
| Chromium (TCLP), mg/l | 0.20U |
| Lead (TCLP), mg/l | 0.20U |
| Selenium (TCLP), mg/l | 0.50U |
| Silver (TCLP), mg/l | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 |
| Dilution Factor | 1 |
| Prep Date | 01.02.03 |
| Analysis Date | 01.03.03 |
| Batch ID | 0102O |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-21 | TCLP Extraction Fluid Blank | | MM002 |

| PARAMETER | 49255-21 |
|---|---|
| Mercury in TCLP Extract (7470) | |
| Mercury (TCLP), mg/l | 0.020UN |
| TCLP (1311) Sec. 7.2 | 12.30.02 |
| Extraction Date | |
| Dilution Factor | 1 |
| Prep Date | 12.31.02 |
| Analysis Date | 01.02.03 |
| Batch ID | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-22 | Matrix Spike % Recovery (CA-20 0.5-2.5') | | MM002 |
| 49255-23 | Matrix Spike Duplicate % Recovery (CA-20 0.5-2.5') | | MM002 |

| PARAMETER | 49255-22 | 49255-23 |
|---|---|---|
| Metals in TCLP Extract (6010) | | |
| Arsenic (TCLP), % | 97 % | 99 % |
| Barium (TCLP), % | 98 % | 100 % |
| Cadmium (TCLP), % | 92 % | 94 % |
| Chromium (TCLP), % | 96 % | 98 % |
| Lead (TCLP), % | 98 % | 99 % |
| Selenium (TCLP), % | 91 % | 93 % |
| Silver (TCLP), % | 103 % | 106 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 01.02.03 | 01.02.03 |
| Analysis Date | 01.03.03 | 01.03.03 |
| Batch ID | 0102O | 0102O |
| Mercury in TCLP Extract (7470) | | |
| Mercury (TCLP), % | 75 % | 75 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 |
| Analysis Date | 01.03.03 | 01.03.03 |
| Batch ID | 1231R | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-24 | Matrix Spike % Recovery (CA-18 2.5-4.5) | | MM002 |
| 49255-25 | Matrix Spike Duplicate % Recovery (CA-18 2.5-4.5) | | MM002 |

| PARAMETER | 49255-24 | 49255-25 |
|---|---|---|
| Diesel Range Organics (8015) | | |
| Hydrocarbons as DRO, % | 62 % | 56 % |
| Surrogate - o-Terphenyl | 66 % | 59 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.27.02 | 12.27.02 |
| Analysis Date | 01.04.03 | 01.04.03 |
| Batch ID | 1227U | 1227U |
| Gasoline Range Organics (8015M) | | |
| Hydrocarbons as GRO, % | 92 % | 100 % |
| Surrogate - a,a,a-Trifluorotoluene | 106 % | 106 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.31.02 | 01.01.03 |
| Analysis Date | 12.31.02 | 01.01.03 |
| Batch ID | 1A1231 | 1A0101 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-24 | Matrix Spike % Recovery (CA-18 2.5-4.5) | | MM002 |
| 49255-25 | Matrix Spike Duplicate % Recovery (CA-18 2.5-4.5) | | MM002 |

| PARAMETER | 49255-24 | 49255-25 |
|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | |
| Cresol (ortho) (TCLP), % | 78 % | 84 % |
| Cresol m & p (TCLP), % | 72 % | 74 % |
| Cresol o,m,p (TCLP), % | 78/72 % | 84/74 % |
| 1,4-Dichlorobenzene (TCLP), % | 66 % | 64 % |
| 2,4-Dinitrotoluene (TCLP), % | 74 % | 78 % |
| Hexachlorobenzene (TCLP), % | 70 % | 72 % |
| Hexachlorobutadiene (TCLP), % | 68 % | 68 % |
| Hexachloroethane (TCLP), % | 62 % | 62 % |
| Nitrobenzene (TCLP), % | 84 % | 86 % |
| Pentachlorophenol (TCLP), % | 92 % | 94 % |
| 2,4,5-Trichlorophenol (TCLP), % | 88 % | 94 % |
| 2,4,6-Trichlorophenol (TCLP), % | 90 % | 94 % |
| Pyridine (TCLP), % | 64 % | 72 % |
| Surrogate-2FP | 76 % | 78 % |
| Surrogate-PHL | 76 % | 78 % |
| Surrogate-NBZ | 84 % | 84 % |
| Surrogate-2FBP | 84 % | 88 % |
| Surrogate-TBP | 86 % | 92 % |
| Surrogate-TPH | 92 % | 92 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 |
| Extraction Date (Extract) | 12.31.02 | 12.31.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 |
| Analysis Date | 01.08.03 | 01.08.03 |
| Batch ID | 1231A | 1231A |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-24 | Matrix Spike % Recovery (CA-18 2.5-4.5) | | MM002 |
| 49255-25 | Matrix Spike Duplicate % Recovery (CA-18 2.5-4.5) | | MM002 |

| PARAMETER | 49255-24 | 49255-25 |
|---|---|---|
| Volatiles in TCLP Extract (8260) | | |
| Benzene (TCLP), % | 90 % | 92 % |
| Carbon tetrachloride (TCLP), % | 78 % | 68 % |
| Chlorobenzene (TCLP), % | 92 % | 92 % |
| Chloroform (TCLP), % | 94 % | 102 % |
| 1,2-Dichloroethane (TCLP), % | 98 % | 84 % |
| 1,1-Dichloroethylene (TCLP), % | 80 % | 96 % |
| Methyl ethyl ketone (TCLP), % | 76 % | 52 % |
| Tetrachloroethylene (TCLP), % | 86 % | 90 % |
| Trichloroethylene (TCLP), % | 90 % | 88 % |
| Vinyl chloride (TCLP), % | 76 % | 90 % |
| Surrogate - Toluene-d8 | 96 % | 92 % |
| Surrogate - 4-Bromofluorobenzene | 94 % | 86 % |
| Surrogate - Dibromofluoromethane | 95 % | 100 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 01.01.03 | 01.01.03 |
| Dilution Factor | 1 | 1 |
| Prep Date | 01.07.03 | 01.07.03 |
| Analysis Date | 01.07.03 | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-24 | Matrix Spike % Recovery (CA-18 2.5-4.5) | | MM002 |
| 49255-25 | Matrix Spike Duplicate % Recovery (CA-18 2.5-4.5) | | MM002 |

| PARAMETER | 49255-24 | 49255-25 |
|---|---|---|
| Pesticides in TCLP Extract (8081) | | |
| Endrin (TCLP), % | 89 % | 87 % |
| Heptachlor (TCLP), % | 67 % | 69 % |
| Lindane (g-BHC) (TCLP), % | 72 % | 73 % |
| Methoxychlor (TCLP), % | 110 % | 86 % |
| Heptachlor epoxide (TCLP), % | 88 % | 89 % |
| Surrogate-TCX | 56 % | 60 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 |
| Extraction Date (Extract) | 12.31.02 | 12.31.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 |
| Analysis Date | 01.03.03 | 01.03.03 |
| Batch ID | 1231N | 1231N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-24 | Matrix Spike % Recovery (CA-18 2.5-4.5) | | MM002 |
| 49255-25 | Matrix Spike Duplicate % Recovery (CA-18 2.5-4.5) | | MM002 |

| PARAMETER | 49255-24 | 49255-25 |
|---|---|---|
| Herbicides in TCLP Extract (8150) | | |
| 2,4-D (TCLP), % | 100 % | 100 % |
| 2,4,5-TP (Silvex) (TCLP), % | 100 % | 100 % |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 85 % | 90 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 |
| Extraction Date (Extract) | 01.02.03 | 01.02.03 |
| Dilution Factor | 1 | 1 |
| Prep Date | 01.02.03 | 01.02.03 |
| Analysis Date | 01.06.03 | 01.07.03 |
| Batch ID | 0102N | 0102N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-24 | Matrix Spike % Recovery (CA-18 2.5-4.5) | | MM002 |
| 49255-25 | Matrix Spike Duplicate % Recovery (CA-18 2.5-4.5) | | MM002 |

| PARAMETER | 49255-24 | 49255-25 |
|---|---|---|
| Metals in TCLP Extract (6010) | | |
| Arsenic (TCLP), % | 97 % | 97 % |
| Barium (TCLP), % | 99 % | 104 % |
| Cadmium (TCLP), % | 92 % | 92 % |
| Chromium (TCLP), % | 97 % | 97 % |
| Lead (TCLP), % | 98 % | 96 % |
| Selenium (TCLP), % | 92 % | 91 % |
| Silver (TCLP), % | 104 % | 103 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 01.02.03 | 01.02.03 |
| Analysis Date | 01.03.03 | 01.03.03 |
| Batch ID | 0102O | 0102O |
| Mercury in TCLP Extract (7470) | | |
| Mercury (TCLP), % | 70 % | 70 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.30.02 | 12.30.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 |
| Analysis Date | 01.02.03 | 01.02.03 |
| Batch ID | 1231R | 1231R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255
Received: 23 DEC 02
Reported: 21 JAN 03
Revised: 07 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 11393027

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255-24 | Matrix Spike % Recovery (CA-18 2.5-4.5) | | MM002 |
| 49255-25 | Matrix Spike Duplicate % Recovery (CA-18 2.5-4.5) | | MM002 |

| PARAMETER | 49255-24 | 49255-25 |
|---|---|---|
| PCB's (8082) | | |
| Aroclor-1016, ug/kg dw | 29 %Y | 39 % |
| Aroclor-1260, ug/kg dw | 42 % | 47 % |
| Surrogate - TCX | 24 % | 31 % |
| Surrogate - DCB | 51 % | 53 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.27.02 | 12.27.02 |
| Analysis Date | 12.31.02 | 12.31.02 |
| Batch ID | 1227P | 1227P |

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.
SW-846, Test Methods for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III.
Y = Spike recovery outside control limits.
YY = Peaks present that do not correspond to the laboratory's reference standard.
X = Surrogate recovery outside established limits.

Steven J. White

Steven J. White, Project Manager

Final Page Of Report

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | | |
| Benzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| Carbon tetrachloride (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| Chlorobenzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroform (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U |
| Tetrachloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| Trichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| Vinyl chloride (TCLP), mg/l | 0.040U | 0.040U | 0.040U | 0.040U |
| Surrogate - Toluene-d8 | 92 % | 95 % | 94 % | 94 % |
| Surrogate - 4-Bromofluorobenzene | 88 % | 94 % | 88 % | 92 % |
| Surrogate - Dibromofluoromethane | 100 % | 97 % | 100 % | 98 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.30.02 |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Analysis Date | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| Pesticides in TCLP Extract (8081) | | | | |
| Chlordane (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U |
| Endrin (TCLP), mg/l | 0.0050U | 0.0050U | 0.0050U | 0.0050U |
| Heptachlor (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | 0.0025U |
| Lindane (g-BHC) (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | 0.0025U |
| Methoxychlor (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U |
| Toxaphene (TCLP), mg/l | 0.25U | 0.25U | 0.25U | 0.25U |
| Heptachlor epoxide (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | 0.0025U |
| Surrogate-TCX | 56 % | 44 % | 64 % | 56 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.23.02 | 12.23.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Analysis Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Batch ID | 12260 | 12260 | 12260 | 12260 |

STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| Herbicides in TCLP Extract (8150) | | | | |
| 2,4-D (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U |
| 2,4,5-TP (Silvex) (TCLP), mg/l | 0.025U | 0.025U | 0.025U | 0.025U |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 85 % | 95 % | 90 % | 90 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.23.02 | 12.23.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Analysis Date | 12.28.02 | 12.28.02 | 12.28.02 | 12.28.02 |
| Batch ID | 1226N | 1226N | 1226N | 1226N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| Metals in TCLP Extract (6010) | | | | |
| Arsenic (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U |
| Barium (TCLP), mg/l | 1.0U | 1.0U | 1.0U | 1.0U |
| Cadmium (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U |
| Chromium (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U |
| Lead (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U |
| Selenium (TCLP), mg/l | 0.50U | 0.50U | 0.50U | 0.50U |
| Silver (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.23.02 | 12.23.02 |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.27.02 | 12.27.02 | 12.27.02 | 12.27.02 |
| Analysis Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Batch ID | 1227P | 1227P | 1227P | 1227P |
| Mercury in TCLP Extract (7470) | | | | |
| Mercury (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.23.02 | 12.23.02 |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Batch ID | 1230R | 1230R | 1230R | 1230R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| PCB's (8082) | | | | |
| Aroclor-1016, ug/kg dw | 37U | 38U | 38U | 38U |
| Aroclor-1221, ug/kg dw | 75U | 76U | 77U | 76U |
| Aroclor-1232, ug/kg dw | 37U | 38U | 38U | 38U |
| Aroclor-1242, ug/kg dw | 37U | 38U | 38U | 38U |
| Aroclor-1248, ug/kg dw | 37U | 38U | 38U | 38U |
| Aroclor-1254, ug/kg dw | 37U | 38U | 38U | 190 |
| Aroclor-1260, ug/kg dw | 37U | 38U | 38U | 170 |
| Surrogate - TCX | 35 % | 44 % | 45 % | 39 % |
| Surrogate - DCB | 68 % | 68 % | 74 % | 68 % |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.20.02 | 12.20.02 | 12.20.02 | 12.20.02 |
| Analysis Date | 12.22.02 | 12.22.02 | 12.22.02 | 12.22.02 |
| Batch ID | 1220Q | 1220Q | 1220Q | 1220Q |
| Percent Solids | 89 | 88 | 87 | 88 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-11 | CA-16 2-3.5 | 12-17-02/12:40 | MM001 |
| 49198-12 | CA-4 1-2 | 12-17-02/15:28 | MM001 |
| 49198-13 | CA-10 1-2.5 | 12-16-02/14:30 | MM001 |
| 49198-14 | CA-12 2.5-4.0' | 12-16-02/16:06 | MM001 |
| 49198-15 | CA-14 1-2.5 | 12-17-02/09:35 | MM001 |

| PARAMETER | 49198-11 | 49198-12 | 49198-13 | 49198-14 | 49198-15 |
|---|---|---|---|---|---|
| Metals in TCLP Extract (6010) | | | | | |
| Arsenic (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Barium (TCLP), mg/l | 1.0U | 2.7 | 1.0U | 1.0U | 1.0U |
| Cadmium (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Chromium (TCLP), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Lead (TCLP), mg/l | 0.20U | 0.24 | 0.20U | 0.20U | 0.20U |
| Selenium (TCLP), mg/l | 0.50U | 0.50U | 0.50U | 0.50U | 0.50U |
| Silver (TCLP), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.22.02 | 12.22.02 | 12.22.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.27.02 | 12.27.02 | 12.27.02 | 12.27.02 | 12.27.02 |
| Analysis Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Batch ID | 1227P | 1227P | 1227P | 1227P | 1227P |
| Mercury in TCLP Extract (7470) | | | | | |
| Mercury (TCLP), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.22.02 | 12.22.02 | 12.22.02 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Batch ID | 1230R | 1230R | 1230R | 1230R | 1230R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-11 | CA-16 2-3.5 | 12-17-02/12:40 | MM001 |
| 49198-12 | CA-4 1-2 | 12-17-02/15:28 | MM001 |
| 49198-13 | CA-10 1-2.5 | 12-16-02/14:30 | MM001 |
| 49198-14 | CA-12 2.5-4.0' | 12-16-02/16:06 | MM001 |
| 49198-15 | CA-14 1-2.5 | 12-17-02/09:35 | MM001 |

| PARAMETER | 49198-11 | 49198-12 | 49198-13 | 49198-14 | 49198-15 |
|---|---|---|---|---|---|

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-16 | Trip Blank | 12-17-02 | MM001 |

| PARAMETER | 49198-16 |
|---|---|
| Volatiles by GC/MS (8260) | |
| Vinyl chloride, mg/l | 0.040U |
| 1,1-Dichloroethene, mg/l | 0.020U |
| Chloroform, mg/l | 0.020U |
| 1,2-Dichloroethane, mg/l | 0.020U |
| 2-Butanone (MEK), mg/l | 0.10U |
| Carbon tetrachloride, mg/l | 0.020U |
| Benzene, mg/l | 0.020U |
| Tetrachloroethene, mg/l | 0.020U |
| Chlorobenzene, mg/l | 0.020U |
| Surrogate - Toluene-d8 | 100 % |
| Surrogate - 4-Bromofluorobenzene | 100 % |
| Surrogate - Dibromofluoromethane | 94 % |
| Trichloroethene, mg/l | 0.020U |
| Dilution Factor | 1 |
| Prep Date | 12.31.02 |
| Analysis Date | 12.31.02 |
| Batch ID | 1A1231 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-17 | Method Blank | | MM001 |
| 49198-18 | Lab Control Standard % Recovery | | MM001 |
| 49198-19 | LCS Accuracy Control Limit (%R) | | MM001 |
| 49198-23 | Method Blank | | MM001 |
| 49198-24 | Lab Control Standard % Recovery | | MM001 |

| PARAMETER | 49198-17 | 49198-18 | 49198-19 | 49198-23 | 49198-24 |
|---|---|---|---|---|---|
| Diesel Range Organics (8015) | | | | --- | --- |
| Hydrocarbons as DRO, mg/kg dw | 3.3U | 73 % | 40-140 % | --- | --- |
| Surrogate - o-Terphenyl | 69 % | 75 % | 15-154 % | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- | --- |
| Prep Date | 12.23.02 | 12.23.02 | --- | --- | --- |
| Analysis Date | 12.30.02 | 12.30.02 | --- | --- | --- |
| Batch ID | 1223U | 1223U | --- | --- | --- |
| Gasoline Range Organics (8015M) | | | | | |
| Hydrocarbons as GRO, mg/kg dw | 0.25U | 98 % | 10-149 % | 0.25U | 93 % |
| Surrogate - a,a,a-Trifluorotoluene | 107 % | 100 % | 41-156 % | 100 % | 93 % |
| Dilution Factor | 1 | 1 | | 1 | 1 |
| Prep Date | 12.23.02 | 12.23.02 | --- | 12.26.02 | 12.26.02 |
| Analysis Date | 12.23.02 | 12.23.02 | --- | 12.26.02 | 12.26.02 |
| Batch ID | 1A1223G | 1A1223G | | 1A1226 | 1A1226 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-17 | Method Blank | | MM001 |
| 49198-18 | Lab Control Standard % Recovery | | MM001 |
| 49198-19 | LCS Accuracy Control Limit (%R) | | MM001 |
| 49198-23 | Method Blank | | MM001 |
| 49198-24 | Lab Control Standard % Recovery | | MM001 |

| PARAMETER | 49198-17 | 49198-18 | 49198-19 | 49198-23 | 49198-24 |
|---|---|---|---|---|---|
| PCB's (8082) | | | | --- | --- |
| Aroclor-1016, ug/kg dw | 33U | 58 % | 34-138 % | --- | --- |
| Aroclor-1221, ug/kg dw | 67U | --- | --- | --- | --- |
| Aroclor-1232, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1242, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1248, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1254, ug/kg dw | 33U | --- | --- | --- | --- |
| Aroclor-1260, ug/kg dw | 33U | 94 % | 39-138 % | --- | --- |
| Surrogate - TCX | 88 % | 36 % | 30-150 % | --- | --- |
| Surrogate - DCB | 100 % | 94 % | 30-150 % | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- | --- |
| Prep Date | 12.20.02 | 12.20.02 | --- | --- | --- |
| Analysis Date | 01.02.03 | 01.02.03 | --- | --- | --- |
| Batch ID | 1220Q | 1220Q | --- | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-25 | Method Blank | | MM001 |
| 49198-26 | Lab Control Standard % Recovery | | MM001 |

| PARAMETER | 49198-25 | 49198-26 |
|---|---|---|
| Gasoline Range Organics (8015M) | | |
| Hydrocarbons as GRO, mg/kg dw | 0.25U | 88 % |
| Surrogate - a,a,a-Trifluorotoluene | 100 % | 93 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.28.02 | 12.28.02 |
| Analysis Date | 12.28.02 | 12.28.02 |
| Batch ID | 1A1228 | 1A1228 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-20 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-27 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-28 | TCLP Extraction Fluid Blank | | MM001 |

| PARAMETER | 49198-20 | 49198-27 | 49198-28 |
|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | --- | |
| Cresol (ortho) (TCLP), mg/l | 0.050U | --- | 0.050U |
| Cresol m & p (TCLP), mg/l | 0.050U | --- | 0.050U |
| Cresol o,m,p (TCLP), mg/l | 0.050U | --- | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U | --- | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U | --- | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | 0.050U | --- | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U | --- | 0.050U |
| Hexachloroethane (TCLP), mg/l | 0.050U | --- | 0.050U |
| Nitrobenzene (TCLP), mg/l | 0.050U | --- | 0.050U |
| Pentachlorophenol (TCLP), mg/l | 0.25U | --- | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U | --- | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U | --- | 0.050U |
| Pyridine (TCLP), mg/l | 0.25U | --- | 0.25U |
| Surrogate-2FP | 82 % | --- | 76 % |
| Surrogate-PHL | 90 % | --- | 84 % |
| Surrogate-NBZ | 88 % | --- | 80 % |
| Surrogate-2FBP | 76 % | --- | 76 % |
| Surrogate-TBP | 92 % | --- | 88 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-20 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-27 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-28 | TCLP Extraction Fluid Blank | | MM001 |

| PARAMETER | 49198-20 | 49198-27 | 49198-28 |
|---|---|---|---|
| Surrogate-TPH | 100 % | --- | 96 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | --- | 12.23.02 |
| Extraction Date (Extract) | 12.26.02 | --- | 12.26.02 |
| Dilution Factor | 1 | --- | 1 |
| Prep Date | 12.26.02 | --- | 12.26.02 |
| Analysis Date | 12.31.02 | --- | 12.31.02 |
| Batch ID | 1226C | --- | 1226C |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-20 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-27 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-28 | TCLP Extraction Fluid Blank | | MM001 |

| PARAMETER | 49198-20 | 49198-27 | 49198-28 |
|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | --- |
| Benzene (TCLP), mg/l | 0.020U | 0.020U | --- |
| Carbon tetrachloride (TCLP), mg/l | 0.020U | 0.020U | --- |
| Chlorobenzene (TCLP), mg/l | 0.020U | 0.020U | --- |
| Chloroform (TCLP), mg/l | 0.020U | 0.020U | --- |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U | 0.020U | --- |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U | 0.020U | --- |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U | 0.10U | --- |
| Tetrachloroethylene (TCLP), mg/l | 0.020U | 0.020U | --- |
| Trichloroethylene (TCLP), mg/l | 0.020U | 0.020U | --- |
| Vinyl chloride (TCLP), mg/l | 0.040U | 0.040U | --- |
| Surrogate - Toluene-d8 | 95 % | 94 % | --- |
| Surrogate - 4-Bromofluorobenzene | 96 % | 86 % | --- |
| Surrogate - Dibromofluoromethane | 97 % | 110 % | --- |
| TCLP (1311) Sec. 7.3 Extraction Date | 12.30.02 | 12.31.02 | --- |
| Dilution Factor | 1 | 1 | --- |
| Prep Date | 01.06.03 | 01.06.03 | --- |
| Analysis Date | 01.06.03 | 01.06.03 | --- |
| Batch ID | 2A0106 | 2A0106 | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-20 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-27 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-28 | TCLP Extraction Fluid Blank | | MM001 |

| PARAMETER | 49198-20 | 49198-27 | 49198-28 |
|---|---|---|---|
| Pesticides in TCLP Extract (8081) | | | --- |
| Chlordane (TCLP), mg/l | 0.025U | 0.025U | --- |
| Endrin (TCLP), mg/l | 0.0050U | 0.0050U | --- |
| Heptachlor (TCLP), mg/l | 0.0025U | 0.0025U | --- |
| Lindane (g-BHC) (TCLP), mg/l | 0.0025U | 0.0025U | --- |
| Methoxychlor (TCLP), mg/l | 0.025U | 0.025U | --- |
| Toxaphene (TCLP), mg/l | 0.25U | 0.25U | --- |
| Heptachlor epoxide (TCLP), mg/l | 0.0025U | 0.0025U | --- |
| Surrogate-TCX | 56 % | 52 % | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.23.02 | --- |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | --- |
| Dilution Factor | 1 | 1 | --- |
| Prep Date | 12.26.02 | 12.26.02 | --- |
| Analysis Date | 12.30.02 | 12.30.02 | --- |
| Batch ID | 12260 | 12260 | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-20 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-27 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-28 | TCLP Extraction Fluid Blank | | MM001 |

| PARAMETER | 49198-20 | 49198-27 | 49198-28 |
|---|---|---|---|
| Herbicides in TCLP Extract (8150) | | | --- |
| 2,4-D (TCLP), mg/l | 0.025U | 0.025U | --- |
| 2,4,5-TP (Silvex) (TCLP), mg/l | 0.025U | 0.025U | --- |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 90 % | 80 % | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.23.02 | --- |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | --- |
| Dilution Factor | 1 | 1 | --- |
| Prep Date | 12.26.02 | 12.26.02 | --- |
| Analysis Date | 12.28.02 | 12.28.02 | --- |
| Batch ID | 1226N | 1226N | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-20 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-27 | TCLP Extraction Fluid Blank | | MM001 |
| 49198-28 | TCLP Extraction Fluid Blank | | MM001 |

| PARAMETER | 49198-20 | 49198-27 | 49198-28 |
|---|---|---|---|
| Metals in TCLP Extract (6010) | | | --- |
| Arsenic (TCLP), mg/l | 0.20U | 0.20U | --- |
| Barium (TCLP), mg/l | 1.0U | 1.0U | --- |
| Cadmium (TCLP), mg/l | 0.10U | 0.10U | --- |
| Chromium (TCLP), mg/l | 0.20U | 0.20U | --- |
| Lead (TCLP), mg/l | 0.20U | 0.20U | --- |
| Selenium (TCLP), mg/l | 0.50U | 0.50U | --- |
| Silver (TCLP), mg/l | 0.10U | 0.10U | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.23.02 | --- |
| Dilution Factor | 1 | 1 | --- |
| Prep Date | 12.27.02 | 12.27.02 | --- |
| Analysis Date | 12.30.02 | 12.30.02 | --- |
| Batch ID | 1227P | 1227P | --- |
| Mercury in TCLP Extract (7470) | | | --- |
| Mercury (TCLP), mg/l | 0.020U | 0.020U | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.23.02 | --- |
| Dilution Factor | 1 | 1 | --- |
| Prep Date | 12.30.02 | 12.30.02 | --- |
| Analysis Date | 12.31.02 | 12.31.02 | --- |
| Batch ID | 1230R | 1230R | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-21 | Matrix Spike % Recovery (CA-16 0.5-2.0) | | MM001 |
| 49198-22 | Matrix Spike Duplicate % Recovery (CA-16 0.5-2.0) | | MM001 |

| PARAMETER | 49198-21 | 49198-22 |
|---|---|---|
| Diesel Range Organics (8015) | | |
| Hydrocarbons as DRO, mg/l | 40 % | 32 %Y |
| Surrogate - o-Terphenyl | 56 % | 53 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.23.02 | 12.23.02 |
| Analysis Date | 12.30.02 | 12.30.02 |
| Batch ID | 1223U | 1223U |
| Gasoline Range Organics (8015M) | | |
| Hydrocarbons as GRO, mg/kg dw | 91 % | 100 % |
| Surrogate - a,a,a-Trifluorotoluene | 118 % | 118 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 |
| Analysis Date | 12.26.02 | 12.26.02 |
| Batch ID | 1A1226 | 1A1226 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-21 | Matrix Spike % Recovery (CA-16 0.5-2.0) | | MM001 |
| 49198-22 | Matrix Spike Duplicate % Recovery (CA-16 0.5-2.0) | | MM001 |

| PARAMETER | 49198-21 | 49198-22 |
|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | |
| Cresol (ortho) (TCLP), % | 86 % | 86 % |
| Cresol m & p (TCLP), % | 80 % | 78 % |
| 1,4-Dichlorobenzene (TCLP), % | 58 % | 56 % |
| 2,4-Dinitrotoluene (TCLP), % | 84 % | 84 % |
| Hexachlorobenzene (TCLP), % | 64 % | 64 % |
| Hexachlorobutadiene (TCLP), % | 60 % | 58 % |
| Hexachloroethane (TCLP), % | 60 % | 56 % |
| Nitrobenzene (TCLP), % | 82 % | 82 % |
| Pentachlorophenol (TCLP), % | 84 % | 86 % |
| 2,4,5-Trichlorophenol (TCLP), % | 80 % | 82 % |
| 2,4,6-Trichlorophenol (TCLP), % | 82 % | 82 % |
| Pyridine (TCLP), % | 70 % | 72 % |
| Surrogate-2FP | 74 % | 76 % |
| Surrogate-PHL | 80 % | 80 % |
| Surrogate-NBZ | 80 % | 80 % |
| Surrogate-2FBP | 72 % | 72 % |
| Surrogate-TBP | 80 % | 80 % |
| Surrogate-TPH | 88 % | 88 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 |
| Analysis Date | 12.31.02 | 12.31.02 |
| Batch ID | 1226C | 1226C |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-21 | Matrix Spike % Recovery (CA-16 0.5-2.0) | | MM001 |
| 49198-22 | Matrix Spike Duplicate % Recovery (CA-16 0.5-2.0) | | MM001 |

| PARAMETER | 49198-21 | 49198-22 |
|---|---|---|
| Volatiles in TCLP Extract (8260) | | |
| Benzene (TCLP), mg/l | 88 % | 86 % |
| Carbon tetrachloride (TCLP), mg/l | 74 % | 68 % |
| Chlorobenzene (TCLP), mg/l | 88 % | 86 % |
| Chloroform (TCLP), mg/l | 88 % | 96 % |
| 1,2-Dichloroethane (TCLP), mg/l | 94 % | 80 % |
| 1,1-Dichloroethylene (TCLP), mg/l | 80 % | 92 % |
| Methyl ethyl ketone (TCLP), mg/l | 76 % | 48 % |
| Tetrachloroethylene (TCLP), mg/l | 82 % | 84 % |
| Trichloroethylene (TCLP), mg/l | 86 % | 84 % |
| Vinyl chloride (TCLP), mg/l | 76 % | 86 % |
| Surrogate - Toluene-d8 | 95 % | 92 % |
| Surrogate - 4-Bromofluorobenzene | 93 % | 89 % |
| Surrogate - Dibromofluoromethane | 96 % | 100 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 12.31.02 | 12.31.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 01.07.03 | 01.07.03 |
| Analysis Date | 01.07.03 | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-21 | Matrix Spike % Recovery (CA-16 0.5-2.0) | | MM001 |
| 49198-22 | Matrix Spike Duplicate % Recovery (CA-16 0.5-2.0) | | MM001 |

| PARAMETER | 49198-21 | 49198-22 |
|---|---|---|
| Pesticides in TCLP Extract (8081) | | |
| Endrin (TCLP), mg/l | 96 % | 95 % |
| Heptachlor (TCLP), mg/l | 72 % | 66 % |
| Lindane (g-BHC) (TCLP), mg/l | 82 % | 74 % |
| Methoxychlor (TCLP), mg/l | 83 % | 86 % |
| Heptachlor epoxide (TCLP), ug/l | 99 % | 96 % |
| Surrogate-TCX | 52 % | 48 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 |
| Analysis Date | 12.30.02 | 12.30.02 |
| Batch ID | 12260 | 12260 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-21 | Matrix Spike % Recovery (CA-16 0.5-2.0) | | MM001 |
| 49198-22 | Matrix Spike Duplicate % Recovery (CA-16 0.5-2.0) | | MM001 |

| PARAMETER | 49198-21 | 49198-22 |
|---|---|---|
| Herbicides in TCLP Extract (8150) | | |
| 2,4-D (TCLP), % | 60 % | 97 % |
| 2,4,5-TP (Silvex) (TCLP), % | 69 % | 100 % |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 75 % | 90 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 |
| Analysis Date | 12.28.02 | 12.28.02 |
| Batch ID | 1226N | 1226N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-21 | Matrix Spike % Recovery (CA-16 0.5-2.0) | | MM001 |
| 49198-22 | Matrix Spike Duplicate % Recovery (CA-16 0.5-2.0) | | MM001 |

| PARAMETER | 49198-21 | 49198-22 |
|---|---|---|
| Metals in TCLP Extract (6010) | | |
| Arsenic (TCLP), % | 103 % | 103 % |
| Barium (TCLP), % | 107 % | 108 % |
| Cadmium (TCLP), % | 97 % | 98 % |
| Chromium (TCLP), % | 104 % | 105 % |
| Lead (TCLP), % | 103 % | 103 % |
| Selenium (TCLP), % | 95 % | 97 % |
| Silver (TCLP), % | 99 % | 100 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.27.02 | 12.27.02 |
| Analysis Date | 12.30.02 | 12.30.02 |
| Batch ID | 1227P | 1227P |
| Mercury in TCLP Extract (7470) | | |
| Mercury (TCLP), % | 90 % | 90 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.30.02 | 12.30.02 |
| Analysis Date | 12.31.02 | 12.31.02 |
| Batch ID | 1230R | 1230R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-21 | Matrix Spike % Recovery (CA-16 0.5-2.0) | | MM001 |
| 49198-22 | Matrix Spike Duplicate % Recovery (CA-16 0.5-2.0) | | MM001 |

| PARAMETER | 49198-21 | 49198-22 |
|---|---|---|
| PCB's (8082) | | |
| Aroclor-1016, ug/kg dw | 50 % | 50 % |
| Aroclor-1260, ug/kg dw | 74 % | 82 % |
| Surrogate - TCX | 43 % | 39 % |
| Surrogate - DCB | 84 % | 89 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.20.02 | 12.20.02 |
| Analysis Date | 12.22.02 | 12.22.02 |
| Batch ID | 1220Q | 1220Q |

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

J = The flag "J" indicates the presence of a compound that meets the identification criteria, but the result is less than the sample RL and greater than the MDL.

Steven J. White

Steven J. White Project Manager

Final Page Of Report

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001A |
| 49198A-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001A |
| 49198A-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001A |
| 49198A-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001A |
| 49198A-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001A |

| PARAMETER | 49198A-1 | 49198A-2 | 49198A-3 | 49198A-4 | 49198A-5 |
|---|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | | | | |
| Phenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Chloroethyl)ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,3-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,4-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylphenol (o-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,2'-Oxybis(1-Chloropropane ) (bis-2-chloroisopropyl ether), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Methylphenol/4-Methylphen ol (m&p-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| N-Nitroso-di-n-propylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachloroethane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Nitrobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Isophorone, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitrophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dimethylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001A |
| 49198A-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001A |
| 49198A-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001A |
| 49198A-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001A |
| 49198A-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001A |

| PARAMETER | 49198A-1 | 49198A-2 | 49198A-3 | 49198A-4 | 49198A-5 |
|---|---|---|---|---|---|
| bis(2-Chloroethoxy)methane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2,4-Trichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Naphthalene, mg/l | 0.014J | 0.025J | 0.050U | 0.050U | 0.050U |
| 4-Chloroaniline, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Hexachlorobutadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chloro-3-methylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylnaphthalene, mg/l | 0.0058J | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorocyclopentadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,5-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chloronaphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Dimethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Acenaphthylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Acenaphthene, mg/l | 0.0053J | 0.010J | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| 4-Nitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001A |
| 49198A-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001A |
| 49198A-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001A |
| 49198A-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001A |
| 49198A-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001A |

| PARAMETER | 49198A-1 | 49198A-2 | 49198A-3 | 49198A-4 | 49198A-5 |
|---|---|---|---|---|---|
| Dibenzofuran, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,6-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Diethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chlorophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluorene, mg/l | 0.050U | 0.0053J | 0.050U | 0.050U | 0.050U |
| 4-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| 4,6-Dinitro-2-methylphenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| N-Nitrosodiphenylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Bromophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pentachlorophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Phenanthrene, mg/l | 0.0052J | 0.010J | 0.050U | 0.050U | 0.050U |
| Anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-butylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Butylbenzylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3,3'-Dichlorobenzidine, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001A |
| 49198A-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001A |
| 49198A-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001A |
| 49198A-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001A |
| 49198A-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001A |

| PARAMETER | 49198A-1 | 49198A-2 | 49198A-3 | 49198A-4 | 49198A-5 |
|---|---|---|---|---|---|
| Benzo(a)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Ethylhexyl)phthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.053 |
| Chrysene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-octylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(b)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(k)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(a)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Dibenzo(a,h)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(g,h,i)perylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Carbazole, mg/l | 0.050U | 0.0042J | 0.050U | 0.050U | 0.050U |
| Pyridine, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Surrogate - Phenol-d5 | 78 % | 80 % | 86 % | 82 % | 64 % |
| Surrogate - 2-Fluorophenol | 72 % | 74 % | 78 % | 74 % | 60 % |
| Surrogate - 2,4,6-Tribromophenol | 88 % | 82 % | 86 % | 82 % | 74 % |
| Surrogate - Nitrobenzene - d5 | 80 % | 80 % | 84 % | 84 % | 68 % |
| Surrogate - 2-Fluorobiphenyl | 76 % | 72 % | 76 % | 72 % | 60 % |
| Surrogate - Terphenyl-d14 | 96 % | 100 % | 96 % | 100 % | 88 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Batch ID | 1226C | 1226C | 1226C | 1226C | 1226C |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001A |
| 49198A-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001A |
| 49198A-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001A |
| 49198A-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001A |
| 49198A-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001A |

| PARAMETER | 49198A-1 | 49198A-2 | 49198A-3 | 49198A-4 | 49198A-5 |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | | | |
| Chloromethane, mg/l | 0.025B | 0.013JB | 0.019JB | 0.017JB | 0.022B |
| Bromomethane (Methyl bromide), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Vinyl chloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Methylene chloride (Dichloromethane), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Acetone, mg/l | 0.50U | 0.50U | 0.50U | 0.50U | 0.50U |
| Carbon disulfide, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Cis/Trans-1,2-Dichloroethene, mg/l | 0.020U | 0.020U | 0.012J | 0.020U | 0.020U |
| Chloroform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Butanone (MEK), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 1,1,1-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Carbon tetrachloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001A |
| 49198A-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001A |
| 49198A-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001A |
| 49198A-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001A |
| 49198A-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001A |

| PARAMETER | 49198A-1 | 49198A-2 | 49198A-3 | 49198A-4 | 49198A-5 |
|---|---|---|---|---|---|
| Bromodichloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2,2-Tetrachloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloropropane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| trans-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Trichloroethene, mg/l | 0.020U | 0.020U | 0.015J | 0.020U | 0.020U |
| Dibromochloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Benzene, mg/l | 0.020U | 0.020U | 0.0024JB | 0.020U | 0.0043JB |
| cis-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Bromoform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Hexanone, mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 4-Methyl-2-pentanone (MIBK), mg/l | 0.20U | 0.015J | 0.20U | 0.20U | 0.20U |
| Tetrachloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Toluene, mg/l | 0.020U | 0.0080J | 0.069 | 0.020U | 0.017J |
| Chlorobenzene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Ethylbenzene, mg/l | 0.020U | 0.0042JB | 0.0025JB | 0.020U | 0.0040JB |
| Styrene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Xylenes, Total, mg/l | 0.040U | 0.026JB | 0.040U | 0.040U | 0.017JB |
| Surrogate - Toluene-d8 | 92 % | 94 % | 93 % | 95 % | 93 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001A |
| 49198A-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001A |
| 49198A-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001A |
| 49198A-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001A |
| 49198A-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001A |

| PARAMETER | 49198A-1 | 49198A-2 | 49198A-3 | 49198A-4 | 49198A-5 |
|---|---|---|---|---|---|
| Surrogate - 4-Bromofluorobenzene | 88 % | 96 % | 87 % | 97 % | 88 % |
| Surrogate - Dibromofluoromethane | 100 % | 94 % | 100 % | 95 % | 100 % |
| Dilution Factor | 20 | 20 | 20 | 20 | 20 |
| Prep Date | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Analysis Date | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 | 2A0106 | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001A |
| 49198A-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001A |
| 49198A-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001A |
| 49198A-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001A |
| 49198A-10 | CA-11 1-2.5 | 12-17-02/14:58 | MM001A |

| PARAMETER | 49198A-6 | 49198A-7 | 49198A-8 | 49198A-9 | 49198A-10 |
|---|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | | | | |
| Phenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Chloroethyl)ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,3-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,4-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylphenol (o-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,2'-Oxybis(1-Chloropropane ) (bis-2-chloroisopropyl ether), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Methylphenol/4-Methylphen ol (m&p-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| N-Nitroso-di-n-propylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachloroethane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Nitrobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Isophorone, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitrophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dimethylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001A |
| 49198A-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001A |
| 49198A-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001A |
| 49198A-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001A |
| 49198A-10 | CA-11 1-2.5 | 12-17-02/14:58 | MM001A |

| PARAMETER | 49198A-6 | 49198A-7 | 49198A-8 | 49198A-9 | 49198A-10 |
|---|---|---|---|---|---|
| bis(2-Chloroethoxy)methane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2,4-Trichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Naphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.012J | 0.050U |
| 4-Chloroaniline, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Hexachlorobutadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chloro-3-methylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylnaphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.0065J | 0.050U |
| Hexachlorocyclopentadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,5-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chloronaphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Dimethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Acenaphthylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Acenaphthene, mg/l | 0.050U | 0.050U | 0.050U | 0.0085J | 0.050U |
| 2,4-Dinitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| 4-Nitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001A |
| 49198A-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001A |
| 49198A-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001A |
| 49198A-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001A |
| 49198A-10 | CA-11 1-2.5 | 12-17-02/14:58 | MM001A |

| PARAMETER | 49198A-6 | 49198A-7 | 49198A-8 | 49198A-9 | 49198A-10 |
|---|---|---|---|---|---|
| Dibenzofuran, mg/l | 0.050U | 0.050U | 0.050U | 0.0062J | 0.050U |
| 2,4-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,6-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Diethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chlorophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluorene, mg/l | 0.050U | 0.050U | 0.050U | 0.0071J | 0.050U |
| 4-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| 4,6-Dinitro-2-methylphenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| N-Nitrosodiphenylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Bromophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pentachlorophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Phenanthrene, mg/l | 0.0033J | 0.050U | 0.050U | 0.010J | 0.0027J |
| Anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-butylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Butylbenzylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3,3'-Dichlorobenzidine, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001A |
| 49198A-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001A |
| 49198A-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001A |
| 49198A-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001A |
| 49198A-10 | CA-11 1-2.5 | 12-17-02/14:58 | MM001A |

| PARAMETER | 49198A-6 | 49198A-7 | 49198A-8 | 49198A-9 | 49198A-10 |
|---|---|---|---|---|---|
| Benzo(a)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Ethylhexyl)phthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Chrysene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-octylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(b)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(k)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(a)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Dibenzo(a,h)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(g,h,i)perylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Carbazole, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyridine, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Surrogate - Phenol-d5 | 80 % | 80 % | 86 % | 60 % | 58 % |
| Surrogate - 2-Fluorophenol | 72 % | 74 % | 80 % | 58 % | 62 % |
| Surrogate - 2,4,6-Tribromophenol | 84 % | 82 % | 88 % | 68 % | 80 % |
| Surrogate - Nitrobenzene - d5 | 80 % | 80 % | 84 % | 64 % | 80 % |
| Surrogate - 2-Fluorobiphenyl | 72 % | 72 % | 76 % | 56 % | 72 % |
| Surrogate - Terphenyl-d14 | 100 % | 100 % | 96 % | 88 % | 96 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Batch ID | 1226C | 1226C | 1226C | 1226C | 1226C |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001A |
| 49198A-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001A |
| 49198A-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001A |
| 49198A-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001A |
| 49198A-10 | CA-11 1-2.5 | 12-17-02/14:58 | MM001A |

| PARAMETER | 49198A-6 | 49198A-7 | 49198A-8 | 49198A-9 | 49198A-10 |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | | | |
| Chloromethane, mg/l | 0.026B | 0.022B | 0.020U | 0.018JB | 0.027B |
| Bromomethane (Methyl bromide), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Vinyl chloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Methylene chloride (Dichloromethane), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Acetone, mg/l | 0.50U | 0.50U | 0.50U | 0.50U | 0.50U |
| Carbon disulfide, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Cis/Trans-1,2-Dichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Butanone (MEK), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 1,1,1-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Carbon tetrachloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001A |
| 49198A-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001A |
| 49198A-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001A |
| 49198A-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001A |
| 49198A-10 | CA-11 1-2.5 | 12-17-02/14:58 | MM001A |

| PARAMETER | 49198A-6 | 49198A-7 | 49198A-8 | 49198A-9 | 49198A-10 |
|---|---|---|---|---|---|
| Bromodichloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2,2-Tetrachloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloropropane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| trans-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Trichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Dibromochloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Benzene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| cis-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Bromoform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Hexanone, mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 4-Methyl-2-pentanone (MIBK), mg/l | 0.20U | 0.20U | 0.20U | 0.067J | 0.20U |
| Tetrachloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Toluene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chlorobenzene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Ethylbenzene, mg/l | 0.020U | 0.020U | 0.020U | 0.0026JB | 0.020U |
| Styrene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Xylenes, Total, mg/l | 0.040U | 0.040U | 0.040U | 0.010JB | 0.040U |
| Surrogate - Toluene-d8 | 94 % | 92 % | 95 % | 94 % | 94 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001A |
| 49198A-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001A |
| 49198A-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001A |
| 49198A-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001A |
| 49198A-10 | CA-11 1-2.5 | 12-17-02/14:58 | MM001A |

| PARAMETER | 49198A-6 | 49198A-7 | 49198A-8 | 49198A-9 | 49198A-10 |
|---|---|---|---|---|---|
| Surrogate - 4-Bromofluorobenzene | 90 % | 88 % | 94 % | 88 % | 92 % |
| Surrogate - Dibromofluoromethane | 96 % | 100 % | 97 % | 100 % | 98 % |
| Dilution Factor | 20 | 20 | 20 | 20 | 20 |
| Prep Date | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Analysis Date | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 | 2A0106 | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-20 | TCLP Extraction Fluid Blank | | MM001A |
| 49198A-21 | TCLP Extraction Fluid Blank | | MM001A |

| PARAMETER | 49198A-20 | 49198A-21 |
|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | |
| Phenol, mg/l | 0.050U | 0.050U |
| bis(2-Chloroethyl)ether, mg/l | 0.050U | 0.050U |
| 2-Chlorophenol, mg/l | 0.050U | 0.050U |
| 1,3-Dichlorobenzene, mg/l | 0.050U | 0.050U |
| 1,4-Dichlorobenzene, mg/l | 0.050U | 0.050U |
| 1,2-Dichlorobenzene, mg/l | 0.050U | 0.050U |
| 2-Methylphenol (o-Cresol), mg/l | 0.050U | 0.050U |
| 2,2'-Oxybis(1-Chloropropane ) (bis-2-chloroisopropyl ether), mg/l | 0.050U | 0.050U |
| 3-Methylphenol/4-Methylphen ol (m&p-Cresol), mg/l | 0.050U | 0.050U |
| N-Nitroso-di-n-propylamine, mg/l | 0.050U | 0.050U |
| Hexachloroethane, mg/l | 0.050U | 0.050U |
| Nitrobenzene, mg/l | 0.050U | 0.050U |
| Isophorone, mg/l | 0.050U | 0.050U |
| 2-Nitrophenol, mg/l | 0.050U | 0.050U |
| 2,4-Dimethylphenol, mg/l | 0.050U | 0.050U |
| bis(2-Chloroethoxy)methane, mg/l | 0.050U | 0.050U |
| 2,4-Dichlorophenol, mg/l | 0.050U | 0.050U |
| 1,2,4-Trichlorobenzene, mg/l | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-20 | TCLP Extraction Fluid Blank | | MM001A |
| 49198A-21 | TCLP Extraction Fluid Blank | | MM001A |

| PARAMETER | 49198A-20 | 49198A-21 |
|---|---|---|
| Naphthalene, mg/l | 0.050U | 0.050U |
| 4-Chloroaniline, mg/l | 0.10U | 0.10U |
| Hexachlorobutadiene, mg/l | 0.050U | 0.050U |
| 4-Chloro-3-methylphenol, mg/l | 0.050U | 0.050U |
| 2-Methylnaphthalene, mg/l | 0.050U | 0.050U |
| Hexachlorocyclopentadiene, mg/l | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol, mg/l | 0.050U | 0.050U |
| 2,4,5-Trichlorophenol, mg/l | 0.050U | 0.050U |
| 2-Chloronaphthalene, mg/l | 0.050U | 0.050U |
| 2-Nitroaniline, mg/l | 0.25U | 0.25U |
| Dimethylphthalate, mg/l | 0.050U | 0.050U |
| Acenaphthylene, mg/l | 0.050U | 0.050U |
| 3-Nitroaniline, mg/l | 0.25U | 0.25U |
| Acenaphthene, mg/l | 0.050U | 0.050U |
| 2,4-Dinitrophenol, mg/l | 0.25U | 0.25U |
| 4-Nitrophenol, mg/l | 0.25U | 0.25U |
| Dibenzofuran, mg/l | 0.050U | 0.050U |
| 2,4-Dinitrotoluene, mg/l | 0.050U | 0.050U |
| 2,6-Dinitrotoluene, mg/l | 0.050U | 0.050U |
| Diethylphthalate, mg/l | 0.050U | 0.050U |
| 4-Chlorophenylphenyl ether, mg/l | 0.050U | 0.050U |
| Fluorene, mg/l | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-20 | TCLP Extraction Fluid Blank | | MM001A |
| 49198A-21 | TCLP Extraction Fluid Blank | | MM001A |

| PARAMETER | 49198A-20 | 49198A-21 |
|---|---|---|
| 4-Nitroaniline, mg/l | 0.25U | 0.25U |
| 4,6-Dinitro-2-methylphenol, mg/l | 0.25U | 0.25U |
| N-Nitrosodiphenylamine, mg/l | 0.050U | 0.050U |
| 4-Bromophenylphenyl ether, mg/l | 0.050U | 0.050U |
| Hexachlorobenzene, mg/l | 0.050U | 0.050U |
| Pentachlorophenol, mg/l | 0.25U | 0.25U |
| Phenanthrene, mg/l | 0.050U | 0.050U |
| Anthracene, mg/l | 0.050U | 0.050U |
| Di-n-butylphthalate, mg/l | 0.050U | 0.050U |
| Fluoranthene, mg/l | 0.050U | 0.050U |
| Pyrene, mg/l | 0.050U | 0.050U |
| Butylbenzylphthalate, mg/l | 0.050U | 0.050U |
| 3,3'-Dichlorobenzidine, mg/l | 0.10U | 0.10U |
| Benzo(a)anthracene, mg/l | 0.050U | 0.050U |
| bis(2-Ethylhexyl)phthalate, mg/l | 0.050U | 0.050U |
| Chrysene, mg/l | 0.050U | 0.050U |
| Di-n-octylphthalate, mg/l | 0.050U | 0.050U |
| Benzo(b)fluoranthene, mg/l | 0.050U | 0.050U |
| Benzo(k)fluoranthene, mg/l | 0.050U | 0.050U |
| Benzo(a)pyrene, mg/l | 0.050U | 0.050U |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.050U | 0.050U |
| Dibenzo(a,h)anthracene, mg/l | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-20 | TCLP Extraction Fluid Blank | | MM001A |
| 49198A-21 | TCLP Extraction Fluid Blank | | MM001A |

| PARAMETER | 49198A-20 | 49198A-21 |
|---|---|---|
| Benzo(g,h,i)perylene, mg/l | 0.050U | 0.050U |
| Carbazole, mg/l | 0.050U | 0.050U |
| Pyridine, mg/l | 0.25U | 0.25U |
| Surrogate - Phenol-d5 | 90 % | 84 % |
| Surrogate - 2-Fluorophenol | 82 % | 76 % |
| Surrogate - 2,4,6-Tribromophenol | 92 % | 88 % |
| Surrogate - Nitrobenzene - d5 | 88 % | 80 % |
| Surrogate - 2-Fluorobiphenyl | 76 % | 76 % |
| Surrogate - Terphenyl-d14 | 100 % | 96 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 |
| Analysis Date | 12.31.02 | 12.31.02 |
| Batch ID | 1226C | 1226C |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-20 | TCLP Extraction Fluid Blank | | MM001A |
| 49198A-21 | TCLP Extraction Fluid Blank | | MM001A |

| PARAMETER | 49198A-20 | 49198A-21 |
|---|---|---|
| Volatiles in TCLP Extract (8260) | | |
| Chloromethane, mg/l | 0.042 | 0.021B |
| Bromomethane (Methyl bromide), mg/l | 0.020U | 0.020U |
| Vinyl chloride, mg/l | 0.020U | 0.020U |
| Chloroethane, mg/l | 0.020U | 0.020U |
| Methylene chloride (Dichloromethane), mg/l | 0.0071J | 0.10U |
| Acetone, mg/l | 0.50U | 0.50U |
| Carbon disulfide, mg/l | 0.020U | 0.020U |
| 1,1-Dichloroethene, mg/l | 0.020U | 0.020U |
| 1,1-Dichloroethane, mg/l | 0.020U | 0.020U |
| Cis/Trans-1,2-Dichloroethene, mg/l | 0.020U | 0.020U |
| Chloroform, mg/l | 0.020U | 0.020U |
| 1,2-Dichloroethane, mg/l | 0.020U | 0.020U |
| 2-Butanone (MEK), mg/l | 0.20U | 0.20U |
| 1,1,1-Trichloroethane, mg/l | 0.020U | 0.020U |
| Carbon tetrachloride, mg/l | 0.020U | 0.020U |
| Bromodichloromethane, mg/l | 0.020U | 0.020U |
| 1,1,2,2-Tetrachloroethane, mg/l | 0.020U | 0.020U |
| 1,2-Dichloropropane, mg/l | 0.020U | 0.020U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198A
Received: 19 DEC 03
Reported: 18 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198A-20 | TCLP Extraction Fluid Blank | | MM001A |
| 49198A-21 | TCLP Extraction Fluid Blank | | MM001A |

| PARAMETER | 49198A-20 | 49198A-21 |
|---|---|---|
| trans-1,3-Dichloropropene, mg/l | 0.020U | 0.020U |
| Trichloroethene, mg/l | 0.020U | 0.020U |
| Dibromochloromethane, mg/l | 0.020U | 0.020U |
| 1,1,2-Trichloroethane, mg/l | 0.020U | 0.020U |
| Benzene, mg/l | 0.0020J | 0.020U |
| cis-1,3-Dichloropropene, mg/l | 0.020U | 0.020U |
| Bromoform, mg/l | 0.020U | 0.020U |
| 2-Hexanone, mg/l | 0.048J | 0.20U |
| 4-Methyl-2-pentanone (MIBK), mg/l | 0.20U | 0.20U |
| Tetrachloroethene, mg/l | 0.020U | 0.020U |
| Toluene, mg/l | 0.020U | 0.020U |
| Chlorobenzene, mg/l | 0.020U | 0.020U |
| Ethylbenzene, mg/l | 0.0028J | 0.020U |
| Styrene, mg/l | 0.020U | 0.020U |
| Xylenes, Total, mg/l | 0.0063J | 0.040U |
| Surrogate - Toluene-d8 | 95 % | 94 % |
| Surrogate - 4-Bromofluorobenzene | 96 % | 86 % |
| Surrogate - Dibromofluoromethane | 97 % | 110 % |
| Dilution Factor | 20 | 20 |
| Prep Date | 01.06.03 | 01.06.03 |
| Analysis Date | 01.06.03 | 01.06.03 |
| Batch ID | 2A0106 | 2A0106 |

J = The flag "J" indicates the presence of a compound that meets the identification criteria, but the result is less than the sample RL and greater than the MDL.

Steven J. White

Steven J. White, Project Manager

Final Page Of Report

Serial Number 035826

SEVERN TRENT SERVICES

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## STL Savannah

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Railroad Sampling | PROJECT NO.: 71005 | PROJECT LOCATION (STATE): VA | PAGE / OF |
| STL (LAB) PROJECT MANAGER | P.O. NUMBER | CONTRACT NO. | STANDARD REPORT DELIVERY ✓ DATE DUE Level IV |
| CLIENT (SITE) PM: James Marbin | CLIENT PHONE: (804) 798-6525 | CLIENT FAX: (804) 798-[illegible] | EXPEDITED REPORT DELIVERY (SURCHARGE) DATE DUE |
| CLIENT NAME: Marshall Miller + Assoc. | CLIENT E-MAIL: James.Marbin@mma1.com | | |
| CLIENT ADDRESS: 11277 Airpark Rd. Suite 203 Ashland, Va 23005 | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |
| COMPANY CONTRACTING THIS WORK (if applicable): VDOT | | | |

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: TPH-DRO 8015B; TPH-GRO 8015B; TCLP SVOC 131V 8270; TCLP VOC 131V 8260; TCLP Pest 131V 8081; TCLP Herb. 131V 8151; TCLP Metals 131V 6000 7470 (RCRA 8); RCRA 8082; Total VOCs 8260

PRESERVATIVE

NUMBER OF CONTAINERS SUBMITTED

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-DRO 8015B | TPH-GRO 8015B | TCLP SVOC 131V 8270 | TCLP VOC 131V 8260 | TCLP Pest 131V 8081 | TCLP Herb. 131V 8151 | TCLP Metals 131V 6000 7470 | RCRA 8082 | Total VOCs 8260 | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/17/02 | 1230 | CA-16 0.5-2.0 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Total of 4 Containers |
| 12/17/02 | 1240 | CA-16 2-3.5 | | | ✓ | | | | | | | | | ✓ | | | | " " " " |
| 12/17/02 | 1528 | CA-4 1-2 | | | ✓ | | | | | | | | | ✓ | | | | " " " " |
| 12/17/02 | 1542 | CA-4 2-3.25 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | " " " " |
| 12/17/02 | 1432 | CA-3 1-2.25 | | | ✓ | | | | | | | | | | | | | " " " " |
| 12/17/02 | 1448 | CA-3 2.25-3.5 | | * | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | " " " " |
| From | lab | 249B-4 Trip Blank | | | | | | | | | | | | | | | | 2 VOAs |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | [signature] | 12/18/02 | 11:00 | Amelia Kennedy | 12/18/02 | 1300 |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| EMPTY CONTAINERS | | | Amelia Kennedy | 12/18/02 | 1100 | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12/19/02 | 1405 | YES / NO | | S249198 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

Serial Number 035824

SEVERN TRENT SERVICES

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## STL Savannah

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Railroad Sampling | PROJECT NO.: 41005 | PROJECT LOCATION (STATE): VA | PAGE 1 OF 1 |
| STL (LAB) PROJECT MANAGER: | P.O. NUMBER: | CONTRACT NO.: | STANDARD REPORT DELIVERY: ✓ DATE DUE: Level IV |
| CLIENT (SITE) PM: James Martin | CLIENT PHONE: (804) 798-6525 | CLIENT FAX: (804) 798-5407 | EXPEDITED REPORT DELIVERY (SURCHARGE): ◯ DATE DUE: |
| CLIENT NAME: Marshall Miller & Assoc. | CLIENT E-MAIL: James.Martin@mma1.com | | |
| CLIENT ADDRESS: 11277 Airpark Rd Suite 203 Ashland, Va 23005 | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |
| COMPANY CONTRACTING THIS WORK (if applicable): | | | |

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS / NUMBER OF CONTAINERS SUBMITTED

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-GRO 8015B | TPH-DRO 8015B | TCLP SVOC 1311/8270 | TCLP VOC 1311/8260 | TCLP Pest. 1311/8081 | TCLP Herb 1311/8151 | TCLP Metals-PCBs 1311/6000 7470 | PCBs 8082 | Total VOCs 8260 | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/17/02 | 1330 | CA-9 0.5 - 2.0 | | | ✓ | | | | | | | | | | | | | Total of 4 containers |
| 12/17/02 | 1342 | CA-9 2-4.0 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Total of 4 containers |
| 12/16/02 | 1458 | CA-11 1-2.5 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Total of 5 cont |
| 12/16/02 | 1512 | CA-11 2.5 - 4.0 | | | ✓ | | | | | | | | | | | | | Total of 5 cont |
| From | Lab | 249-3 Trip Blank | | ✓ | | | | | | | | | | | | | | 2 VOAs |

PRESERVATIVE

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | James Martin | 12/18/02 | 11:00 | Amelia Kennedy | 12/18/02 | 1300 |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| EMPTY CONTAINERS | | | Amelia Kennedy | 12/18/02 | 1100 | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12/19/02 | 1905 | YES ◯ NO ◯ | | 5249198 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

Serial Number 035823

SEVERN TRENT SERVICES

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## STL Savannah

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Railroad Sampling | PROJECT NO.: H0015 | PROJECT LOCATION (STATE): VA | PAGE 1 OF 1 |
| STL (LAB) PROJECT MANAGER: | P.O. NUMBER: | CONTRACT NO.: | STANDARD REPORT DELIVERY ✓ DATE DUE: Level IV |
| CLIENT (SITE) PM: James Martin | CLIENT PHONE: (804) 798-6575 | CLIENT FAX: (804) 798-5907 | EXPEDITED REPORT DELIVERY (SURCHARGE) DATE DUE: |
| CLIENT NAME: Marshall Miller + Assoc. | CLIENT E-MAIL: James.Martin@mma1.com | | |
| CLIENT ADDRESS: 11277 Airpark Rd. Ashland, Va 23005 | | | |
| COMPANY CONTRACTING THIS WORK (if applicable): VDOT | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: TPH-GRO 8015B; TPH-DRO 8015B; TCLP SVOC 1311/8270; TCLP VOC 1311/8260; TCLP Pest. 1311/8081; TCLP Herb. 1311/8151; TCLP Metals-PCRA8 1311/6000 7470; PCBs 8082; Total VOCs 8260

PRESERVATIVE

NUMBER OF CONTAINERS SUBMITTED

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-GRO 8015B | TPH-DRO 8015B | TCLP SVOC 1311/8270 | TCLP VOC 1311/8260 | TCLP Pest. 1311/8081 | TCLP Herb. 1311/8151 | TCLP Metals-PCRA8 1311/6000 7470 | PCBs 8082 | Total VOCs 8260 | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/17/02 | 0835 | CA-13 1-2.5' | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | 4 containers |
| 12/17/02 | 0848 | CA-13 2.5-4.5' | | | ✓ | | | | | | | | | | | | | Total of 4 containers |
| 12/17/02 | 1020 | CA-15 1-2.5' | | | ✓ | | | | | | | | | | | | | Total of 4 containers |
| 12/17/02 | 1035 | CA-15 2.5-3.5' | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Total of 4 containers |
| From lab | | 249B-2 Trip Blank | | ✓ | | | | | | | | | | | | | | 2 VOAs |
| 12/17/02 | 0935 | CA-14 1-2.5 | | | ✓ | | | | | | | | | ✓ | | | | Total of 4 cont. |
| 12/17/02 | 0950 | CA-14 2.5-4.5' | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Total of 4 cont. |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | [signature] | 12/18/02 | 11:00 | [signature] | 12/18/02 | 1300 |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| EMPTY CONTAINERS | | | [signature] | 12/18/02 | 1160 | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12/19/02 | 1405 | YES / NO | | S249198 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

Serial Number 035825

SEVERN TRENT SERVICES

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## STL Savannah

✓ **STL Savannah**
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

◯ Alternate Laboratory Name/Location:

Phone:
Fax:

| PROJECT REFERENCE | PROJECT NO. | PROJECT LOCATION (STATE) |
|---|---|---|
| Railroad Sampling | 71001S | VA |

| STL (LAB) PROJECT MANAGER | P.O. NUMBER | CONTRACT NO. |
|---|---|---|
| | | |

| CLIENT (SITE) PM | CLIENT PHONE | CLIENT FAX |
|---|---|---|
| James Martin | (804) 798-6525 | (804) 798-5909 |

| CLIENT NAME | CLIENT E-MAIL |
|---|---|
| Marshall Miller & Assoc. | |

CLIENT ADDRESS: 11277 Airpark Rd Suite 203 Ashland, Va 23005

COMPANY CONTRACTING THIS WORK (if applicable): VDOT

PAGE 1 OF 1

STANDARD REPORT DELIVERY ✓
DATE DUE: Level IV Report
EXPEDITED REPORT DELIVERY (SURCHARGE) ◯
DATE DUE:

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

PRESERVATIVE: Disregard

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-GRO 8015B | TPH-DRO 8015B | TCLP SVOC 1311/8260 | Pesticides TCLP 1311/8081 | Herbicides TCLP 1311/8151 | TCLP Metals (RCRA 8) 1311/6010 7470 | TCLP VOC 1311/8260 | PCBs 8082 | VOC - 8260 (total) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/16/02 | 1430 | CA-10 1-2.5 | | | ✓ | | | | | | | | ✓ | | | | Total of 5 containers |
| 12/16/02 | 1445 | CA-10 2.5-4 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | Total of 5 containers |
| From lab | | 249B-1 Trip Blank | | ✓ | | | | | | | | | | | | ✓ | 2 VOAs |
| 12/16/02 | 15:58 | CA-12 1'-2.5' | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | Total of 5 containers |
| 12/16/02 | 16:06 | CA-12 2.5-4.6' | | | ✓ | | | | | | | | ✓ | | | | Total of 5 containers |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | [signature] | 12/18/02 | 11:00 | Amelia Kennedy | 12/18/02 | 1300 |

| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | Amelia Kennedy | 12/18/02 | 1100 | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12/19/02 | 1405 | YES ◯ NO ◯ | ◯ | S249198 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

49198-3

Lab Name: STL SAVANNAH Contract:

Lab Code: SL-SAV Case No.: SAS No.: SDG No.: MM001

Matrix: (soil/water) WATER Lab Sample ID: CA-3 2.25 3.5

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: D1519

Level: (low/med) LOW Date Received: 12/19/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/26/02

Concentrated Extract Volume: 1(mL) Date Analyzed: 12/31/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/l

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 4.11 | 0.026 | J |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 20. | | | | |
| 21. | | | | |
| 22. | | | | |
| 23. | | | | |
| 24. | | | | |
| 25. | | | | |
| 26. | | | | |
| 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

49198-2

Lab Name: STL SAVANNAH Contract:

Lab Code: SL-SAV Case No.: SAS No.: SDG No.: MM001

Matrix: (soil/water) WATER Lab Sample ID: CA-4 2-3.25

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: D1518

Level: (low/med) LOW Date Received: 12/19/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 12/26/02

Concentrated Extract Volume: 1(mL) Date Analyzed: 12/31/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/l

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 4.11 | 0.023 | J |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 20. | | | | |
| 21. | | | | |
| 22. | | | | |
| 23. | | | | |
| 24. | | | | |
| 25. | | | | |
| 26. | | | | |
| 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

49255A-9

Lab Name: STL SAVANNAH Contract:

Lab Code: SL-SAV Case No.: SAS No.: SDG No.: MM002

Matrix: (soil/water) WATER Lab Sample ID: CA-6 2.25 5.0'

Sample wt/vol: 200.0 (g/ML) ML Lab File ID: J3909

Level: (low/med) LOW Date Received: 12/23/02

% Moisture: ____ decanted: (Y/N)___ Date Extracted:12/31/02

Concentrated Extract Volume: 1(mL) Date Analyzed: 01/08/03

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/l

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN ALDOL CONDENSATE | 3.71 | 0.41 | JA |
| 2. | UNKNOWN | 6.01 | 0.023 | J |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 20. | | | | |
| 21. | | | | |
| 22. | | | | |
| 23. | | | | |
| 24. | | | | |
| 25. | | | | |
| 26. | | | | |
| 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

49255A-10

Lab Name: STL SAVANNAH Contract:

Lab Code: SL-SAV Case No.: SAS No.: SDG No.: MM002

Matrix: (soil/water) WATER Lab Sample ID: CA-7 0.5-2.5'

Sample wt/vol: 200.0 (g/ML) ML Lab File ID: J3910

Level: (low/med) LOW Date Received: 12/23/02

% Moisture: ____ decanted: (Y/N)___ Date Extracted:12/31/02

Concentrated Extract Volume: 1(mL) Date Analyzed: 01/08/03

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: __

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/l

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | UNKNOWN ALDOL CONDENSATE | 3.71 | 0.45 | JA |
| 2. | | UNKNOWN | 6.01 | 0.026 | J |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

49255A-3

Lab Name: STL SAVANNAH Contract:

Lab Code: SL-SAV Case No.: SAS No.: SDG No.: MM002

Matrix: (soil/water) WATER Lab Sample ID: CA-8 2.5-5.0'

Sample wt/vol: 200.0 (g/ML) ML Lab File ID: J3903

Level: (low/med) LOW Date Received: 12/23/02

% Moisture: ____ decanted: (Y/N)___ Date Extracted:12/31/02

Concentrated Extract Volume: 1(mL) Date Analyzed: 01/08/03

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/l

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN ALDOL CONDENSATE | 3.71 | 0.41 | JA |
| 2. | UNKNOWN | 6.02 | 0.027 | J |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 20. | | | | |
| 21. | | | | |
| 22. | | | | |
| 23. | | | | |
| 24. | | | | |
| 25. | | | | |
| 26. | | | | |
| 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

49198-6

Lab Name: STL SAVANNAH Contract:

Lab Code: SL-SAV Case No.: SAS No.: SDG No.: MM001

Matrix: (soil/water) WATER Lab Sample ID: CA-13 1-2.5'

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: D1522

Level: (low/med) LOW Date Received: 12/19/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 12/26/02

Concentrated Extract Volume: 1(mL) Date Analyzed: 12/31/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/l

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | UNKNOWN ALDOL CONDENSATE | 2.91 | 0.46 | JA |
| 2. | | UNKNOWN | 4.11 | 0.024 | J |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

# *Appendix VI*

***QA/QC Review***

### *VOLATILE ORGANIC COMPOUNDS*

A review of QA/QC data showed the duplicate test (performed on CA-8 at 2.5-5.0 feet) contained generally similar results with only four detected compounds. The matrix spike/matrix spike duplicate (MS/MSD) sample selected from CA-18 (2.5-4.5 feet) contained relative percent differences (RPD) within advisory limits except for vinyl chloride, methyl ethyl ketone and carbon tetrachloride. Because all other laboratory acceptance criteria were met such as lab control standards (LCS), the RPD variation may reflect more of an influence from matrix interference. Lastly, trip blanks were analyzed for VOCs and resulted in no detected compounds.

### *SEMI-VOLATILE ORGANIC COMPOUNDS*

All laboratory acceptance criteria were met such as LCS and MS/MSD RPD variation. The duplicate test for CA-8 (2.5-5.0 feet) was consistent with all compounds below the reporting limit (RL).

### *PESTICIDES AND HERBICIDES*

The duplicate test for CA-8 (2.5-5.0 feet) was consistent with all pesticide and herbicide compounds below the RL. Laboratory acceptance criteria were met for pesticide testing such as LCS and MS/MSD RPD variation. For herbicides, laboratory acceptable criteria were met except for 2,4,5,-TP (Silvex) in the spiked LCS. Although the Silvex RPD was acceptable in the MS/MSD, it was outside (110%) the QC limits of 10-100% in the spiked LCS. Therefore, detections of Silvex could be potentially biased higher. Even with a potentially high bias, Silvex was still not detected in any site sample.

### *METALS*

Of the three duplicate tests performed, two were consistent with no detected metals (CA-8 at 2.5-5.0 feet and CA-20 at 0.5-2.5 feet). The laboratory conducted the third duplicate on CA-13 (1.0 – 2.5 feet) with generally consistent results except for TCLP lead (3.1 mg/kg versus 0.2 U). Three MS/MSD tests were performed with RPDs acceptable except for mercury in two MS/MSD samples CA-18 (2.5-4.5 feet) and CA-20 (0.5-2.5 feet) as both resulted in 70% spike recoveries, which were below the 80% minimum recovery

control limit. Therefore, mercury was N-flagged as estimated in the sixteen samples associated with those MS/MSD tests. The lower percent spike recovery indicates matrix interference as all other calibration tests and the LCS standard for mercury were acceptable. All mercury results were reported below 0.02 mg/kg; therefore, even if an additional 30 % was factored into the RL (100% minus the 70% spike recovery = 30%), the resulting value (0.02 mg/kg + 0.02 mg/kg x .30 = 0.026 mg/kg) is still below the TCLP regulatory limit. The QA/QC testing also identified that the serial dilution for barium for CA-18 (2.5-4.5 feet) exceeded the advisory limits. Barium in the low dilution was 27.3 % higher as compared to the initial result. Therefore, barium was E-flagged as estimated in the 16 samples associated with it. Therefore, detections of barium in diluted samples could be potentially biased higher. Even with a potentially high bias, barium was still not detected above TCLP regulatory limits.

***POLYCHLORINATED BIPHENYLS***

One MM&A selected duplicate was performed for CA-8 (2.5-5.0 feet) with consistent results (all below RLs). Because of the abundance of compounds, two samples were analyzed with dilutions of 1:50 or greater which resulted in 0% detection of the surrogate recovery for those samples. Two MS/MSDs were tested and laboratory acceptance criteria were met except Arochlor-1016 in CA-18 (2.5-4.5 feet) was outside advisory limits in the MS, and samples associated with this were denoted with a Y-flag. The STL case narrative also specified that non-identified peaks were present in the chromatograms for three samples and were therefore YY-flagged.

***TOTAL PETROLUEM HYDROCARBONS***

For TPH-GRO, duplicates were performed on six samples with consistent results. Five of the duplicates were performed by STL because of high surrogate recoveries attributed to matrix interference. Even with potentially high biased results, the maximum TPH-GRO concentration was only 1.2 mg/kg and not deemed a COC. All other laboratory acceptance criteria were met for TPH-GRO testing such as LCS and MS/MSD RPD variation.

For TPH-DRO, one duplicate was performed for CA-8 (2.5-5.0 feet); however, the results were not consistent (26 mg/kg and 1,400 mg/kg). MM&A contacted STL, which re-checked the data and stated the results were reported correctly. Two MS/MSD samples were tested and all laboratory acceptance criteria were met on one of those (CA-18 from 2.5-4.5 feet). The other MS/MSD (CA-16 from 0.5–2.0 feet) contained a low percent MSD recovery (32%), which was below the lowest QC limit of 40% and may reflect matrix interference. Because of the abundance of DRO compounds in certain samples, dilutions of 1:50 and 1:10 diluted out surrogate recoveries in three samples.

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002A |
| 49255A-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002A |
| 49255A-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002A |
| 49255A-4 | DUPLICATE | 12-19-02/09:25 | MM002A |
| 49255A-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002A |

| PARAMETER | 49255A-1 | 49255A-2 | 49255A-3 | 49255A-4 | 49255A-5 |
|---|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270_ (8270) | | | | | |
| Phenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Chloroethyl)ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,3-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,4-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylphenol (o-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,2'-Oxybis(1-Chloropropane ) (bis-2-chloroisopropyl ether), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Methylphenol/4-Methylphen ol (m&p-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| N-Nitroso-di-n-propylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachloroethane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Nitrobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Isophorone, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitrophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002A |
| 49255A-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002A |
| 49255A-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002A |
| 49255A-4 | DUPLICATE | 12-19-02/09:25 | MM002A |
| 49255A-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002A |

| PARAMETER | 49255A-1 | 49255A-2 | 49255A-3 | 49255A-4 | 49255A-5 |
|---|---|---|---|---|---|
| 2,4-Dimethylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Chloroethoxy)methane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2,4-Trichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Naphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chloroaniline, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Hexachlorobutadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chloro-3-methylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylnaphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorocyclopentadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,5-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chloronaphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Dimethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Acenaphthylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Acenaphthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002A |
| 49255A-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002A |
| 49255A-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002A |
| 49255A-4 | DUPLICATE | 12-19-02/09:25 | MM002A |
| 49255A-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002A |

| PARAMETER | 49255A-1 | 49255A-2 | 49255A-3 | 49255A-4 | 49255A-5 |
|---|---|---|---|---|---|
| 4-Nitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Dibenzofuran, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,6-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Diethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chlorophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluorene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| 4,6-Dinitro-2-methylphenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| N-Nitrosodiphenylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Bromophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pentachlorophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Phenanthrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-butylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Butylbenzylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002A |
| 49255A-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002A |
| 49255A-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002A |
| 49255A-4 | DUPLICATE | 12-19-02/09:25 | MM002A |
| 49255A-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002A |

| PARAMETER | 49255A-1 | 49255A-2 | 49255A-3 | 49255A-4 | 49255A-5 |
|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Benzo(a)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Ethylhexyl)phthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Chrysene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-octylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(b)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(k)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(a)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Dibenzo(a,h)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(g,h,i)perylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Carbazole, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyridine, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Surrogate - Phenol-d5 | 64 % | 84 % | 92 % | 86 % | 86 % |
| Surrogate - 2-Fluorophenol | 64 % | 84 % | 88 % | 84 % | 84 % |
| Surrogate - 2,4,6-Tribromophenol | 100 % | 98 % | 100 % | 90 % | 96 % |
| Surrogate - Nitrobenzene - d5 | 92 % | 92 % | 92 % | 88 % | 88 % |
| Surrogate - 2-Fluorobiphenyl | 88 % | 92 % | 88 % | 84 % | 88 % |
| Surrogate - Terphenyl-d14 | 96 % | 96 % | 92 % | 96 % | 96 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 01.08.03 | 01.08.03 | 01.08.03 | 01.08.03 | 01.08.03 |
| Batch ID | 1231A | 1231A | 1231A | 1231A | 1231A |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002A |
| 49255A-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002A |
| 49255A-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002A |
| 49255A-4 | DUPLICATE | 12-19-02/09:25 | MM002A |
| 49255A-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002A |

| PARAMETER | 49255A-1 | 49255A-2 | 49255A-3 | 49255A-4 | 49255A-5 |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) (8260) | | | | | |
| Chloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.024B | 0.040B |
| Bromomethane (Methyl bromide), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Vinyl chloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Methylene chloride (Dichloromethane), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Acetone, mg/l | 0.50U | 0.50U | 0.50U | 0.50U | 0.50U |
| Carbon disulfide, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Cis/Trans-1,2-Dichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Butanone (MEK), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 1,1,1-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Carbon tetrachloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002A |
| 49255A-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002A |
| 49255A-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002A |
| 49255A-4 | DUPLICATE | 12-19-02/09:25 | MM002A |
| 49255A-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002A |

| PARAMETER | 49255A-1 | 49255A-2 | 49255A-3 | 49255A-4 | 49255A-5 |
|---|---|---|---|---|---|
| Bromodichloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2,2-Tetrachloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloropropane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| trans-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Trichloroethene, mg/l | 0.0087J | 0.020U | 0.020U | 0.020U | 0.020U |
| Dibromochloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Benzene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| cis-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Bromoform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Hexanone, mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 4-Methyl-2-pentanone (MIBK), mg/l | 0.20U | 0.20U | 0.016BJ | 0.20U | 0.20U |
| Tetrachloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Toluene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chlorobenzene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Ethylbenzene, mg/l | 0.020U | 0.020U | 0.0025BJ | 0.020U | 0.020U |
| Styrene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Xylenes, Total, mg/l | 0.040U | 0.040U | 0.013J | 0.040U | 0.040U |
| Surrogate - Toluene-d8 | 94 % | 94 % | 92 % | 95 % | 92 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-1 | CA-1 0.5-2.5' | 12-19-02/15:42 | MM002A |
| 49255A-2 | CA-2 0.5-2.5' | 12-19-02/14:40 | MM002A |
| 49255A-3 | CA-8 2.5-5.0' | 12-19-02/09:25 | MM002A |
| 49255A-4 | DUPLICATE | 12-19-02/09:25 | MM002A |
| 49255A-5 | CA-18 2.5-4.5' | 12-19-02/11:50 | MM002A |

| PARAMETER | 49255A-1 | 49255A-2 | 49255A-3 | 49255A-4 | 49255A-5 |
|---|---|---|---|---|---|
| Surrogate - 4-Bromofluorobenzene | 88 % | 92 % | 88 % | 93 % | 87 % |
| Surrogate - Dibromofluoromethane | 110 % | 92 % | 110 % | 97 % | 110 % |
| Dilution Factor | 20 | 20 | 20 | 20 | 20 |
| Prep Date | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 |
| Analysis Date | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 | 01.06.03 |
| Batch ID | 2A0106 | 2A0106 | 2A0106 | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002A |
| 49255A-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002A |
| 49255A-8 | CA-5 0.5-2.0' | 12-18-02/12:52 | MM002A |
| 49255A-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002A |
| 49255A-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002A |

| PARAMETER | 49255A-6 | 49255A-7 | 49255A-8 | 49255A-9 | 49255A-10 |
|---|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270_ (8270) | | | | | |
| Phenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Chloroethyl)ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,3-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,4-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2-Dichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylphenol (o-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,2'-Oxybis(1-Chloropropane ) (bis-2-chloroisopropyl ether), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Methylphenol/4-Methylphen ol (m&p-Cresol), mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| N-Nitroso-di-n-propylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachloroethane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Nitrobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Isophorone, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitrophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002A |
| 49255A-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002A |
| 49255A-8 | CA-5 0.5-2.0' | 12-18-02/12:52 | MM002A |
| 49255A-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002A |
| 49255A-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002A |

| PARAMETER | 49255A-6 | 49255A-7 | 49255A-8 | 49255A-9 | 49255A-10 |
|---|---|---|---|---|---|
| 2,4-Dimethylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Chloroethoxy)methane, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,2,4-Trichlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Naphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chloroaniline, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Hexachlorobutadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chloro-3-methylphenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Methylnaphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorocyclopentadiene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,5-Trichlorophenol, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Chloronaphthalene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Dimethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Acenaphthylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 3-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Acenaphthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002A |
| 49255A-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002A |
| 49255A-8 | CA-5 0.5-2.0' | 12-18-02/12:52 | MM002A |
| 49255A-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002A |
| 49255A-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002A |

| PARAMETER | 49255A-6 | 49255A-7 | 49255A-8 | 49255A-9 | 49255A-10 |
|---|---|---|---|---|---|
| 4-Nitrophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Dibenzofuran, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,6-Dinitrotoluene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Diethylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Chlorophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluorene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Nitroaniline, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| 4,6-Dinitro-2-methylphenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| N-Nitrosodiphenylamine, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| 4-Bromophenylphenyl ether, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobenzene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pentachlorophenol, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Phenanthrene, mg/l | 0.050U | 0.0027J | 0.050U | 0.050U | 0.050U |
| Anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-butylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Butylbenzylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002A |
| 49255A-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002A |
| 49255A-8 | CA-5 0.5-2.0' | 12-18-02/12:52 | MM002A |
| 49255A-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002A |
| 49255A-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002A |

| PARAMETER | 49255A-6 | 49255A-7 | 49255A-8 | 49255A-9 | 49255A-10 |
|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine, mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Benzo(a)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| bis(2-Ethylhexyl)phthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Chrysene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Di-n-octylphthalate, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(b)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(k)fluoranthene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(a)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Dibenzo(a,h)anthracene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Benzo(g,h,i)perylene, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Carbazole, mg/l | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyridine, mg/l | 0.25U | 0.25U | 0.25U | 0.25U | 0.25U |
| Surrogate - Phenol-d5 | 86 % | 84 % | 86 % | 88 % | 86 % |
| Surrogate - 2-Fluorophenol | 84 % | 76 % | 84 % | 84 % | 84 % |
| Surrogate - 2,4,6-Tribromophenol | 90 % | 96 % | 92 % | 100 % | 92 % |
| Surrogate - Nitrobenzene - d5 | 92 % | 84 % | 88 % | 92 % | 92 % |
| Surrogate - 2-Fluorobiphenyl | 88 % | 80 % | 92 % | 92 % | 88 % |
| Surrogate - Terphenyl-d14 | 100 % | 96 % | 96 % | 96 % | 92 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Analysis Date | 01.08.03 | 01.08.03 | 01.08.03 | 01.08.03 | 01.08.03 |
| Batch ID | 1231A | 1231A | 1231A | 1231A | 1231A |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002A |
| 49255A-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002A |
| 49255A-8 | CA-5 0.5-2.0' | 12-18-02/12:52 | MM002A |
| 49255A-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002A |
| 49255A-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002A |

| PARAMETER | 49255A-6 | 49255A-7 | 49255A-8 | 49255A-9 | 49255A-10 |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) (8260) | | | | | |
| Chloromethane, mg/l | 0.11B | 0.068B | 0.058B | 0.11B | 0.044B |
| Bromomethane (Methyl bromide), mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Vinyl chloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Methylene chloride (Dichloromethane), mg/l | 0.10U | 0.10U | 0.10U | 0.10U | 0.10U |
| Acetone, mg/l | 0.50U | 0.50U | 0.50U | 0.50U | 0.50U |
| Carbon disulfide, mg/l | 0.020U | 0.030 | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Cis/Trans-1,2-Dichloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Chloroform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Butanone (MEK), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 1,1,1-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Carbon tetrachloride, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002A |
| 49255A-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002A |
| 49255A-8 | CA-5 0.5-2.0' | 12-18-02/12:52 | MM002A |
| 49255A-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002A |
| 49255A-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002A |

| PARAMETER | 49255A-6 | 49255A-7 | 49255A-8 | 49255A-9 | 49255A-10 |
|---|---|---|---|---|---|
| Bromodichloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2,2-Tetrachloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloropropane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| trans-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Trichloroethene, mg/l | 0.020U | 0.020U | 0.012J | 0.020U | 0.020U |
| Dibromochloromethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 1,1,2-Trichloroethane, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Benzene, mg/l | 0.0048BJ | 0.020U | 0.020U | 0.020U | 0.0020BJ |
| cis-1,3-Dichloropropene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Bromoform, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| 2-Hexanone, mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| 4-Methyl-2-pentanone (MIBK), mg/l | 0.20U | 0.20U | 0.20U | 0.20U | 0.20U |
| Tetrachloroethene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Toluene, mg/l | 0.034 | 0.020U | 0.020U | 0.020U | 0.020U |
| Chlorobenzene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Ethylbenzene, mg/l | 0.0084BJ | 0.020U | 0.020U | 0.020U | 0.020U |
| Styrene, mg/l | 0.020U | 0.020U | 0.020U | 0.020U | 0.020U |
| Xylenes, Total, mg/l | 0.039BJ | 0.040U | 0.040U | 0.040U | 0.040U |
| Surrogate - Toluene-d8 | 95 % | 93 % | 95 % | 92 % | 94 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-6 | CA-A 0.5-2.5' | 12-19-02/10:35 | MM002A |
| 49255A-7 | CA-20 2.5-4.5' | 12-19-02/13:55 | MM002A |
| 49255A-8 | CA-5 0.5-2.0' | 12-18-02/12:52 | MM002A |
| 49255A-9 | CA-6 2.25-5.0' | 12-18-02/15:25 | MM002A |
| 49255A-10 | CA-7 0.5-2.5' | 12-18-02/16:23 | MM002A |

| PARAMETER | 49255A-6 | 49255A-7 | 49255A-8 | 49255A-9 | 49255A-10 |
|---|---|---|---|---|---|
| Surrogate - 4-Bromofluorobenzene | 94 % | 87 % | 94 % | 86 % | 93 % |
| Surrogate - Dibromofluoromethane | 96 % | 100 % | 96 % | 110 % | 95 % |
| Dilution Factor | 20 | 20 | 20 | 20 | 20 |
| Prep Date | 01.06.03 | 01.06.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Analysis Date | 01.06.03 | 01.06.03 | 01.07.03 | 01.07.03 | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 | 2A0106 | 2A0106 | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-21 | TCLP Extraction Fluid Blank | | MM002A |

| PARAMETER | 49255A-21 | | | | |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) (8260) | | | | | |
| Chloromethane, mg/l | 0.040B | | | | |
| Bromomethane (Methyl bromide), mg/l | 0.020U | | | | |
| Vinyl chloride, mg/l | 0.020U | | | | |
| Chloroethane, mg/l | 0.020U | | | | |
| Methylene chloride (Dichloromethane), mg/l | 0.10U | | | | |
| Acetone, mg/l | 0.50U | | | | |
| Carbon disulfide, mg/l | 0.020U | | | | |
| 1,1-Dichloroethene, mg/l | 0.020U | | | | |
| 1,1-Dichloroethane, mg/l | 0.020U | | | | |
| Cis/Trans-1,2-Dichloroethene, mg/l | 0.020U | | | | |
| Chloroform, mg/l | 0.020U | | | | |
| 1,2-Dichloroethane, mg/l | 0.020U | | | | |
| 2-Butanone (MEK), mg/l | 0.20U | | | | |
| 1,1,1-Trichloroethane, mg/l | 0.020U | | | | |
| Carbon tetrachloride, mg/l | 0.020U | | | | |
| Bromodichloromethane, mg/l | 0.020U | | | | |
| 1,1,2,2-Tetrachloroethane, mg/l | 0.020U | | | | |
| 1,2-Dichloropropane, mg/l | 0.020U | | | | |
| trans-1,3-Dichloropropene, mg/l | 0.020U | | | | |
| Trichloroethene, mg/l | 0.020U | | | | |
| Dibromochloromethane, mg/l | 0.020U | | | | |
| 1,1,2-Trichloroethane, mg/l | 0.020U | | | | |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-21 | TCLP Extraction Fluid Blank | | MM002A |

| PARAMETER | 49255A-21 |
|---|---|
| Benzene, mg/l | 0.020U |
| cis-1,3-Dichloropropene, mg/l | 0.020U |
| Bromoform, mg/l | 0.020U |
| 2-Hexanone, mg/l | 0.20U |
| 4-Methyl-2-pentanone (MIBK), mg/l | 0.20U |
| Tetrachloroethene, mg/l | 0.020U |
| Toluene, mg/l | 0.020U |
| Chlorobenzene, mg/l | 0.020U |
| Ethylbenzene, mg/l | 0.0036BJ |
| Styrene, mg/l | 0.020U |
| Xylenes, Total, mg/l | 0.040U |
| Surrogate - Toluene-d8 | 95 % |
| Surrogate - 4-Bromofluorobenzene | 96 % |
| Surrogate - Dibromofluoromethane | 96 % |
| Dilution Factor | 20 |
| Prep Date | 01.06.03 |
| Analysis Date | 01.06.03 |
| Batch ID | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-21 | TCLP Extraction Fluid Blank | | MM002A |

| PARAMETER | 49255A-21 |
|---|---|
| Semivolatiles in TCLP Extract (8270_ (8270) | |
| Phenol, mg/l | 0.050U |
| bis(2-Chloroethyl)ether, mg/l | 0.050U |
| 2-Chlorophenol, mg/l | 0.050U |
| 1,3-Dichlorobenzene, mg/l | 0.050U |
| 1,4-Dichlorobenzene, mg/l | 0.050U |
| 1,2-Dichlorobenzene, mg/l | 0.050U |
| 2-Methylphenol (o-Cresol), mg/l | 0.050U |
| 2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether), mg/l | 0.050U |
| 3-Methylphenol/4-Methylphenol (m&p-Cresol), mg/l | 0.050U |
| N-Nitroso-di-n-propylamine, mg/l | 0.050U |
| Hexachloroethane, mg/l | 0.050U |
| Nitrobenzene, mg/l | 0.050U |
| Isophorone, mg/l | 0.050U |
| 2-Nitrophenol, mg/l | 0.050U |
| 2,4-Dimethylphenol, mg/l | 0.050U |
| bis(2-Chloroethoxy)methane, mg/l | 0.050U |
| 2,4-Dichlorophenol, mg/l | 0.050U |
| 1,2,4-Trichlorobenzene, mg/l | 0.050U |
| Naphthalene, mg/l | 0.050U |
| 4-Chloroaniline, mg/l | 0.10U |
| Hexachlorobutadiene, mg/l | 0.050U |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-21 | TCLP Extraction Fluid Blank | | MM002A |

| PARAMETER | 49255A-21 | | | | |
|---|---|---|---|---|---|
| 4-Chloro-3-methylphenol, mg/l | 0.050U | | | | |
| 2-Methylnaphthalene, mg/l | 0.050U | | | | |
| Hexachlorocyclopentadiene, mg/l | 0.050U | | | | |
| 2,4,6-Trichlorophenol, mg/l | 0.050U | | | | |
| 2,4,5-Trichlorophenol, mg/l | 0.050U | | | | |
| 2-Chloronaphthalene, mg/l | 0.050U | | | | |
| 2-Nitroaniline, mg/l | 0.25U | | | | |
| Dimethylphthalate, mg/l | 0.050U | | | | |
| Acenaphthylene, mg/l | 0.050U | | | | |
| 3-Nitroaniline, mg/l | 0.25U | | | | |
| Acenaphthene, mg/l | 0.050U | | | | |
| 2,4-Dinitrophenol, mg/l | 0.25U | | | | |
| 4-Nitrophenol, mg/l | 0.25U | | | | |
| Dibenzofuran, mg/l | 0.050U | | | | |
| 2,4-Dinitrotoluene, mg/l | 0.050U | | | | |
| 2,6-Dinitrotoluene, mg/l | 0.050U | | | | |
| Diethylphthalate, mg/l | 0.050U | | | | |
| 4-Chlorophenylphenyl ether, mg/l | 0.050U | | | | |
| Fluorene, mg/l | 0.050U | | | | |
| 4-Nitroaniline, mg/l | 0.25U | | | | |
| 4,6-Dinitro-2-methylphenol, mg/l | 0.25U | | | | |
| N-Nitrosodiphenylamine, mg/l | 0.050U | | | | |
| 4-Bromophenylphenyl ether, mg/l | 0.050U | | | | |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-21 | TCLP Extraction Fluid Blank | | MM002A |

| PARAMETER | 49255A-21 |
|---|---|
| Hexachlorobenzene, mg/l | 0.050U |
| Pentachlorophenol, mg/l | 0.25U |
| Phenanthrene, mg/l | 0.050U |
| Anthracene, mg/l | 0.050U |
| Di-n-butylphthalate, mg/l | 0.050U |
| Fluoranthene, mg/l | 0.050U |
| Pyrene, mg/l | 0.050U |
| Butylbenzylphthalate, mg/l | 0.050U |
| 3,3'-Dichlorobenzidine, mg/l | 0.10U |
| Benzo(a)anthracene, mg/l | 0.050U |
| bis(2-Ethylhexyl)phthalate, mg/l | 0.050U |
| Chrysene, mg/l | 0.050U |
| Di-n-octylphthalate, mg/l | 0.050U |
| Benzo(b)fluoranthene, mg/l | 0.050U |
| Benzo(k)fluoranthene, mg/l | 0.050U |
| Benzo(a)pyrene, mg/l | 0.050U |
| Indeno(1,2,3-cd)pyrene, mg/l | 0.050U |
| Dibenzo(a,h)anthracene, mg/l | 0.050U |
| Benzo(g,h,i)perylene, mg/l | 0.050U |
| Carbazole, mg/l | 0.050U |
| Pyridine, mg/l | 0.25U |
| Surrogate - Phenol-d5 | 74 % |
| Surrogate - 2-Fluorophenol | 86 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49255A
Received: 21 DEC 02
Reported: 07 FEB 03
Revised: 19 FEB 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT/MM002
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49255A-21 | TCLP Extraction Fluid Blank | | MM002A |

| PARAMETER | 49255A-21 |
|---|---|
| Surrogate - 2,4,6-Tribromophenol | 84 % |
| Surrogate - Nitrobenzene - d5 | 84 % |
| Surrogate - 2-Fluorobiphenyl | 80 % |
| Surrogate - Terphenyl-d14 | 112 % |
| Dilution Factor | 1 |
| Prep Date | 12.31.02 |
| Analysis Date | 01.06.03 |
| Batch ID | 1231A |

J = The flag "J" indicates the presence of a compound that meets the identification criteria, but the result is less than the sample RL and greater than the MDL.

Steven J. White, Project Manager

Final Page Of Report

Serial Number 036462

SEVERN TRENT SERVICES

**ANALYSIS REQUEST AND CHAIN OF CUSTOD**

**STL Savannah**

**STL Savannah**
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

| | | |
|---|---|---|
| PROJECT REFERENCE: Railroad Sampling | PROJECT NO.: H0015 | PROJECT LOCATION (STATE): VA |
| STL (LAB) PROJECT MANAGER: | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: James Martin | CLIENT PHONE: (804) 798-6525 | CLIENT FAX: (804) 798-5907 |
| CLIENT NAME: Marshall Miller + Assoc. | CLIENT E-MAIL: James.Martin@mma1.com | |
| CLIENT ADDRESS: 11277 Airpark Rd. Suite 203 Ashland, Va 23005 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): VDOT | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY: ✓ DATE DUE Level III

EXPEDITED REPORT DELIVERY (SURCHARGE): ○ DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-GRO 8015B | TPH-DRO 8015B | SVOCs TCLP SVOCs 131/8270 | TCLP VOCs 131/8260 | TCLP Pest. 131/8081 | TCLP Herb. 131/8151 | TCLP Metals-RCRA 8 131/6000 7470 | PCBs 8082 | Total VOC 8260 | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/19/02 | 1542 | CA-1 0.5-2.5 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Total of 4 containers |
| 12/19/02 | 1554 | CA-1 2.5-5.0 | | | ✓ | | | | | | | | | | | | | |
| 12/19/02 | 1440 | CA-2 0.5-2.5 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| 12/19/02 | 1452 | CA-2 2.5-5.0 | | | ✓ | | | | | | | | | ✓ | | | | |
| 12/19/02 | 0918 | CA-8 0.5-2.5 | | | ✓ | | | | | | | | | ✓ | | | | |
| 12/19/02 | 0925 | CA-8 ~~[illegible]~~ 2.5'-5.0' | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| 12/19/02 | 0925 | Duplicate | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| From Lab | | 249B-6 Trip Blank | | ✓ | | | | | | | | | | | | | | 2 VOAs |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| [signature] | 12/20/02 | 1135 | Amelia Kennedy | 12/20/02 | 1300 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| Amelia Kennedy | 12/20/02 | 1135 | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12/21/02 | 10:38 | YES ○ NO ○ | | S249255 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

Serial Number 036463

SEVERN TRENT SERVICES

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## STL Savannah

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

(4)

Alternate Laboratory Name/Location

Phone:
Fax:

| | | |
|---|---|---|
| PROJECT REFERENCE: Railroad Sampling | PROJECT NO.: 40015 | PROJECT LOCATION (STATE): VA |
| STL (LAB) PROJECT MANAGER: James Mart | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: James Martin | CLIENT PHONE: (804) 798-6525 | CLIENT FAX: (804) 798-5907 |
| CLIENT NAME: Marshall Miller + Assoc | CLIENT E-MAIL: James.Martin@mma1.com | |
| CLIENT ADDRESS: 11277 Airpark Rd. Suite 203 Ashland, Va 23005 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): VDOT | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY: ✓ DATE DUE: level III

EXPEDITED REPORT DELIVERY (SURCHARGE): ◯ DATE DUE:

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS — PRESERVATIVE

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-DRO 8015B | TPH-GRO 8015B | TCLP SVOCs 1311/8270 | TCLP VOCs 1311/8260 | TCLP Desc 1311/8081 | TCLP-Herb 1311/8151 | TCLP Metals-PCBs-1311/6000 7470 | PCBs 8082 | Total VOC 8260 | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/18/02 | 1252 | CA-5 0.5-2.0' | | | ✓ | | | | | | | | | | | | Total of 4 containers |
| 12/18/02 | 1312 | CA-5 2.0-5.0' | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | Total of 4 cont. |
| 12/18/02 | 1312 | CA-5 Yellow Material 2-5' | | | ✓ | | | | | | | | | | | | 1 container |
| 12/18/02 | 1500 | CA-6 0.5-2.25 | | | ✓ | | | | | | | | | ✓ | | | Total of 4 cont. |
| 12/18/02 | 1525 | CA-6 2.25-5.0 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | " " " " |
| 12/18/02 | 1623 | CA-7 0.5-2.5 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | " " " " |
| 12/18/02 | 1645 | CA-7 2.5-5.0 | | | ✓ | | | | | | | | | | | | " " " " |
| From Lab | | 249B-5 Trip Blank | | ✓ | | | | | | | | | | | | ✓ | 2 VOAs |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| [signature] | 12/20/02 | 1135 | Amelia Kennedy | 12/20/02 | 1300 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| Amelia Kennedy | 12/20/02 | 1135 | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 10-21 | 10:32 | YES ◯ NO ◯ | | S249255 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

Serial Number 036464

SEVERN TRENT SERVICES

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## STL Savannah

(✓) STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

(3)

( ) Alternate Laboratory Name/Location

Phone:
Fax:

| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Railroad Sampling | PROJECT NO.: 40015 | PROJECT LOCATION (STATE): VA | PAGE 1 OF 1 |
| STL (LAB) PROJECT MANAGER: | P.O. NUMBER: | CONTRACT NO.: | STANDARD REPORT DELIVERY (✓) DATE DUE Level III |
| CLIENT (SITE) PM: James Martin | CLIENT PHONE: (804) 798-6525 | CLIENT FAX: (804) 798-5907 | EXPEDITED REPORT DELIVERY (SURCHARGE) ( ) DATE DUE |
| CLIENT NAME: Marshall Miller & Assoc. | CLIENT E-MAIL: James.Martin@mma1.com | | |
| CLIENT ADDRESS: 11277 Airpark Rd. Suite 203 Ashland, Va 23005 | | | |
| COMPANY CONTRACTING THIS WORK (if applicable): VDOT | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS / NUMBER OF CONTAINERS SUBMITTED

PRESERVATIVE

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-DRO 8015B | TPH-GRO 8015B | TCLP SVOCs 131/8270 | TCLP VOC 131/8260 | TCLP Pest. 131/8081 | TCLP Herb. 131/8151 | TCLP PCBA 8 Metals 131/6000 7470 | PCBs 8082 | Total VOC 8260 | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/19/02 | 1345 | CA-20 0.5-2.5 | | | ✓ | | | | | | | | | ✓ | | | | Total of 4 cont. |
| 12/19/02 | 1355 | CA-20 2.5-4.5 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Total of 4 cont. |
| From Lab | | Trip Blank 249 B-8 | | ✓ | | | | | | | | | | | | | | 1 VOA |
| 12/19/02 | 1355 | Duplicate 2 | | | ✓ | | | | | | | | | ✓ | | | | 1 Container |
| 12/19/02 | 1355 | Matrix Spike 2 | | | ✓ | | | | | | | | | ✓ | | | | 1 Container |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| [signature] | 11/20/02 | 1135 | Amelia Kennedy | 11/20/02 | 1300 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| Amelia Kennedy | 11/20/02 | 1135 | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12-21 | 10:38 | YES ( ) NO ( ) | | S249255 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

Serial Number 036461

SEVERN TRENT SERVICES

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## STL Savannah


STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:


| | | |
|---|---|---|
| PROJECT REFERENCE: Railroad Sampling | PROJECT NO.: H0015 | PROJECT LOCATION (STATE): VA |
| STL (LAB) PROJECT MANAGER: | P.O. NUMBER: | CONTRACT NO.: |
| CLIENT (SITE) PM: James Martin | CLIENT PHONE: (804) 796-6525 | CLIENT FAX: (804) 796-5917 |
| CLIENT NAME: Marshall Miller + Assoc. | CLIENT E-MAIL: James.Martin@mma1.com | |
| CLIENT ADDRESS: 11177 Airport Rd. Suite 203 Ashland, Va 23005 | | |
| COMPANY CONTRACTING THIS WORK (if applicable): VDOT | | |

PAGE 1 OF 1

STANDARD REPORT DELIVERY ✓ DATE DUE Level III

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯ DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | TPH-GRO 8015B | TPH-DRO 8015B | TCLP SVOCs 1311/8270 | TCLP VOC 1311/8260 | TCLP Pest. 1311/8081 | TCLP Herb. 1311/8151 | TCLP Metals 1311/6010 7470 | PCBs 8082 | Total VOCs 8260 | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/19/02 | 1130 | CA-18 0.5-2.5 | | | ✓ | | | | | | | | | ✓ | | | Total of 4 Containers |
| 12/19/02 | 1150 | CA-18 2.5-4.5 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | Total of 4 Containers |
| 12/19/02 | 1150 | Matrix Spike | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | Total of 4 Containers |
| ~~12/19/02~~ | ~~1355~~ | ~~Duplicate 2~~ JTM 12/20/02 | | | ✓ | | | | | | | | | | | | ~~1 Container~~ |
| ~~12/19/02~~ | ~~1355~~ | ~~Matrix Spike 2~~ JTM 12/20/02 | | | ✓ | | | | | | | | | | | | ~~1 Container~~ |
| 12/19/02 | 1035 | CA-A 0.5-2.5 | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | Total of 4 Containers |
| 12/19/02 | 1050 | CA-A 2.5-5.0 | | | ✓ | | | | | | | | | | | | Total of 4 Containers |
| From Lab | | Trip Blank 249B-7 | | ✓ | | | | | | | | | | | | | 2 VOAs |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| [signature] | 12/20/02 | 1135 | [signature] | 12/20/02 | 1300 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| [signature] | 12/20/02 | 1135 | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | STL SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| [signature] | 12/21 | 10:38 | YES ◯ NO ◯ | | S249255 | |

ORIGINAL – RETURN TO LABORATORY WITH SAMPLE(S)

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| Diesel Range Organics (8015) | | | | --- | |
| Hydrocarbons as DRO, mg/kg dw | 9.9 | 3500 | 47 | --- | 3.7U |
| Surrogate - o-Terphenyl | 79 % | 0 %D | 50 % | --- | 72 % |
| Dilution Factor | 1 | 50 | 1 | --- | 1 |
| Prep Date | 12.23.02 | 12.23.02 | 12.23.02 | --- | 12.23.02 |
| Analysis Date | 12.30.02 | 12.30.02 | 12.30.02 | --- | 12.30.02 |
| Batch ID | 1223U | 1223U | 1223U | --- | 1223U |
| Gasoline Range Organics (8015M) | | | | | |
| Hydrocarbons as GRO, mg/kg dw | 0.29U | 1.2 | 0.23J | 0.44 | 0.28U |
| Surrogate - a,a,a-Trifluorotoluene | 111 % | 76 % | 158 %X | 231 %X | 106 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 12.23.02 | 12.23.02 | 12.23.02 | 12.29.02 | 12.23.02 |
| Analysis Date | 12.23.02 | 12.23.02 | 12.23.02 | 12.29.02 | 12.23.02 |
| Batch ID | 1A1223G | 1A1223G | 1A1223G | 1A1228 | 1A1223G |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | | | --- | |
| Cresol (ortho) (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Cresol m & p (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Cresol o,m,p (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Hexachloroethane (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Nitrobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Pentachlorophenol (TCLP), mg/l | 0.25U | 0.25U | 0.25U | --- | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U | --- | 0.050U |
| Pyridine (TCLP), mg/l | 0.25U | 0.25U | 0.25U | --- | 0.25U |
| Surrogate-2FP | 72 % | 74 % | 78 % | --- | 74 % |
| Surrogate-PHL | 78 % | 80 % | 86 % | --- | 82 % |
| Surrogate-NBZ | 80 % | 80 % | 84 % | --- | 84 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| Surrogate-2FBP | 76 % | 72 % | 76 % | --- | 72 % |
| Surrogate-TBP | 88 % | 82 % | 86 % | --- | 82 % |
| Surrogate-TPH | 96 % | 100 % | 96 % | --- | 100 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.22.02 | --- | 12.22.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | 12.26.02 | --- | 12.26.02 |
| Dilution Factor | 1 | 1 | 1 | --- | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | --- | 12.26.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 12.31.02 | --- | 12.31.02 |
| Batch ID | 1226C | 1226C | 1226C | --- | 1226C |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | | --- | |
| Benzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| Carbon tetrachloride (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| Chlorobenzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| Chloroform (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U | 0.10U | 0.10U | --- | 0.10U |
| Tetrachloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| Trichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| Vinyl chloride (TCLP), mg/l | 0.040U | 0.040U | 0.040U | --- | 0.040U |
| Surrogate - Toluene-d8 | 92 % | 94 % | 93 % | --- | 95 % |
| Surrogate - 4-Bromofluorobenzene | 88 % | 96 % | 87 % | --- | 97 % |
| Surrogate - Dibromofluoromethane | 100 % | 94 % | 100 % | --- | 95 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 12.31.02 | 12.31.02 | 12.31.02 | --- | 12.30.02 |
| Dilution Factor | 1 | 1 | 1 | --- | 1 |
| Prep Date | 01.07.03 | 01.07.03 | 01.07.03 | --- | 01.07.03 |
| Analysis Date | 01.07.03 | 01.07.03 | 01.07.03 | --- | 01.07.03 |
| Batch ID | 2A0106 | 2A0106 | 2A0106 | --- | 2A0106 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| Pesticides in TCLP Extract (8081) | | | | --- | |
| Chlordane (TCLP), mg/l | 0.025U | 0.025U | 0.025U | --- | 0.025U |
| Endrin (TCLP), mg/l | 0.0050U | 0.0050U | 0.0050U | --- | 0.0050U |
| Heptachlor (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | --- | 0.0025U |
| Lindane (g-BHC) (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | --- | 0.0025U |
| Methoxychlor (TCLP), mg/l | 0.025U | 0.025U | 0.025U | --- | 0.025U |
| Toxaphene (TCLP), mg/l | 0.25U | 0.25U | 0.25U | --- | 0.25U |
| Heptachlor epoxide (TCLP), mg/l | 0.0025U | 0.0025U | 0.0025U | --- | 0.0025U |
| Surrogate-TCX | 56 % | 56 % | 48 % | --- | 52 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.22.02 | --- | 12.22.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | 12.26.02 | --- | 12.26.02 |
| Dilution Factor | 1 | 1 | 1 | --- | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | --- | 12.26.02 |
| Analysis Date | 12.30.02 | 12.30.02 | 12.30.02 | --- | 12.30.02 |
| Batch ID | 12260 | 12260 | 12260 | --- | 12260 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| Herbicides in TCLP Extract (8150) | | | | --- | |
| 2,4-D (TCLP), mg/l | 0.025U | 0.025U | 0.025U | --- | 0.025U |
| 2,4,5-TP (Silvex) (TCLP), mg/l | 0.025U | 0.025U | 0.025U | --- | 0.025U |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 90 % | 90 % | 90 % | --- | 90 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.22.02 | --- | 12.22.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | 12.26.02 | --- | 12.26.02 |
| Dilution Factor | 1 | 1 | 1 | --- | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | --- | 12.26.02 |
| Analysis Date | 12.28.02 | 12.28.02 | 12.28.02 | --- | 12.28.02 |
| Batch ID | 1226N | 1226N | 1226N | --- | 1226N |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| Metals in TCLP Extract (6010) | | | | --- | |
| Arsenic (TCLP), mg/l | 0.20U | 0.20U | 0.20U | --- | 0.20U |
| Barium (TCLP), mg/l | 1.0U | 1.0U | 1.2 | --- | 1.0U |
| Cadmium (TCLP), mg/l | 0.10U | 0.10U | 0.10U | --- | 0.10U |
| Chromium (TCLP), mg/l | 0.20U | 0.20U | 0.20U | --- | 0.20U |
| Lead (TCLP), mg/l | 0.20U | 0.67 | 0.20U | --- | 0.20U |
| Selenium (TCLP), mg/l | 0.50U | 0.50U | 0.50U | --- | 0.50U |
| Silver (TCLP), mg/l | 0.10U | 0.10U | 0.10U | --- | 0.10U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.22.02 | --- | 12.22.02 |
| Dilution Factor | 1 | 1 | 1 | --- | 1 |
| Prep Date | 12.27.02 | 12.27.02 | 12.27.02 | --- | 12.27.02 |
| Analysis Date | 12.30.02 | 12.30.02 | 12.30.02 | --- | 12.30.02 |
| Batch ID | 1227P | 1227P | 1227P | --- | 1227P |
| Mercury in TCLP Extract (7470) | | | | --- | |
| Mercury (TCLP), mg/l | 0.020U | 0.020U | 0.020U | --- | 0.020U |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.22.02 | --- | 12.22.02 |
| Dilution Factor | 1 | 1 | 1 | --- | 1 |
| Prep Date | 12.30.02 | 12.30.02 | 12.30.02 | --- | 12.30.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 12.31.02 | --- | 12.31.02 |
| Batch ID | 1230R | 1230R | 1230R | --- | 1230R |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-1 | CA-16 0.5-2.0 | 12-17-02/12:30 | MM001 |
| 49198-2 | CA-4 2-3.25 | 12-17-02/15:42 | MM001 |
| 49198-3 | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-3-RE | CA-3 2.25-3.5 | 12-17-02/14:48 | MM001 |
| 49198-4 | CA-10 2.5-4 | 12-16-02/14:45 | MM001 |

| PARAMETER | 49198-1 | 49198-2 | 49198-3 | 49198-3-RE | 49198-4 |
|---|---|---|---|---|---|
| PCB's (8082) | | | | --- | |
| Aroclor-1016, ug/kg dw | 38U | 46U | 53U | --- | 37U |
| Aroclor-1221, ug/kg dw | 77U | 93U | 110U | --- | 75U |
| Aroclor-1232, ug/kg dw | 38U | 46U | 53U | --- | 37U |
| Aroclor-1242, ug/kg dw | 38U | 46U | 53U | --- | 37U |
| Aroclor-1248, ug/kg dw | 38U | 46U | 53U | --- | 37U |
| Aroclor-1254, ug/kg dw | 38U | 46U | 150 | --- | 15J |
| Aroclor-1260, ug/kg dw | 340 | 340 | 460 | --- | 18J |
| Surrogate - TCX | 58 % | 235 % | 63 % | --- | 35 % |
| Surrogate - DCB | 100 % | 122 % | 122 % | --- | 84 % |
| Dilution Factor | 1 | 1 | 1 | --- | 1 |
| Prep Date | 12.20.02 | 12.20.02 | 12.20.02 | --- | 12.20.02 |
| Analysis Date | 12.22.02 | 01.02.03 | 01.02.03 | --- | 01.02.03 |
| Batch ID | 1220Q | 1220Q | 1220Q | --- | 1220Q |
| Percent Solids | 87 | 72 | 62 | 62 | 89 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| Diesel Range Organics (8015) | | | --- | --- |
| Hydrocarbons as DRO, mg/kg dw | 5.0 | 64 | --- | --- |
| Surrogate - o-Terphenyl | 51 % | 0 %D | --- | --- |
| Dilution Factor | 1 | 10 | --- | --- |
| Prep Date | 12.23.02 | 12.23.02 | --- | --- |
| Analysis Date | 12.30.02 | 12.30.02 | --- | --- |
| Batch ID | 1223U | 1223U | --- | --- |
| Gasoline Range Organics (8015M) | | | --- | --- |
| Hydrocarbons as GRO, mg/kg dw | 0.27U | 0.22J | --- | --- |
| Surrogate - a,a,a-Trifluorotoluene | 112 % | 122 % | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- |
| Prep Date | 12.23.02 | 12.29.02 | --- | --- |
| Analysis Date | 12.23.02 | 12.29.02 | --- | --- |
| Batch ID | 1A1223G | 1A1228 | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | | --- | --- |
| Cresol (ortho) (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Cresol m & p (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Cresol o,m,p (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Hexachlorobenzene (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Hexachloroethane (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Nitrobenzene (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Pentachlorophenol (TCLP), mg/l | 0.25U | 0.25U | --- | --- |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | --- | --- |
| Pyridine (TCLP), mg/l | 0.25U | 0.25U | --- | --- |
| Surrogate-2FP | 60 % | 72 % | --- | --- |
| Surrogate-PHL | 64 % | 80 % | --- | --- |
| Surrogate-NBZ | 68 % | 80 % | --- | --- |
| Surrogate-2FBP | 60 % | 72 % | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| Surrogate-TBP | 74 % | 84 % | --- | --- |
| Surrogate-TPH | 88 % | 100 % | --- | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | --- | --- |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- |
| Prep Date | 12.26.02 | 12.26.02 | --- | --- |
| Analysis Date | 12.31.02 | 12.31.02 | --- | --- |
| Batch ID | 1226C | 1226C | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | --- | --- |
| Benzene (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| Carbon tetrachloride (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| Chlorobenzene (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| Chloroform (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U | 0.10U | --- | --- |
| Tetrachloroethylene (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| Trichloroethylene (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| Vinyl chloride (TCLP), mg/l | 0.040U | 0.040U | --- | --- |
| Surrogate - Toluene-d8 | 93 % | 94 % | --- | --- |
| Surrogate - 4-Bromofluorobenzene | 88 % | 90 % | --- | --- |
| Surrogate - Dibromofluoromethane | 100 % | 96 % | --- | --- |
| TCLP (1311) Sec. 7.3 Extraction Date | 12.30.02 | 12.31.02 | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- |
| Prep Date | 01.07.03 | 01.07.03 | --- | --- |
| Analysis Date | 01.07.03 | 01.07.03 | --- | --- |
| Batch ID | 2A0106 | 2A0106 | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| Pesticides in TCLP Extract (8081) | | | --- | --- |
| Chlordane (TCLP), mg/l | 0.025U | 0.025U | --- | --- |
| Endrin (TCLP), mg/l | 0.0050U | 0.0050U | --- | --- |
| Heptachlor (TCLP), mg/l | 0.0025U | 0.0025U | --- | --- |
| Lindane (g-BHC) (TCLP), mg/l | 0.0025U | 0.0025U | --- | --- |
| Methoxychlor (TCLP), mg/l | 0.025U | 0.025U | --- | --- |
| Toxaphene (TCLP), mg/l | 0.25U | 0.25U | --- | --- |
| Heptachlor epoxide (TCLP), mg/l | 0.0025U | 0.0025U | --- | --- |
| Surrogate-TCX | 52 % | 56 % | --- | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | --- | --- |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- |
| Prep Date | 12.26.02 | 12.26.02 | --- | --- |
| Analysis Date | 12.30.02 | 12.30.02 | --- | --- |
| Batch ID | 12260 | 12260 | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| Herbicides in TCLP Extract (8150) | | | --- | --- |
| 2,4-D (TCLP), mg/l | 0.025U | 0.025U | --- | --- |
| 2,4,5-TP (Silvex) (TCLP), mg/l | 0.025U | 0.025U | --- | --- |
| Surrogate-2,4-Dichloropheny l acetic acid (DCAA) | 85 % | 85 % | --- | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | --- | --- |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- |
| Prep Date | 12.26.02 | 12.26.02 | --- | --- |
| Analysis Date | 12.28.02 | 12.28.02 | --- | --- |
| Batch ID | 1226N | 1226N | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| Metals in TCLP Extract (6010) | | | --- | --- |
| Arsenic (TCLP), mg/l | 0.20U | 0.20U | --- | --- |
| Barium (TCLP), mg/l | 1.0U | 1.8 | --- | --- |
| Cadmium (TCLP), mg/l | 0.10U | 0.38 | --- | --- |
| Chromium (TCLP), mg/l | 0.20U | 0.20U | --- | --- |
| Lead (TCLP), mg/l | 0.20U | 3.1 | --- | --- |
| Selenium (TCLP), mg/l | 0.50U | 0.50U | --- | --- |
| Silver (TCLP), mg/l | 0.10U | 0.10U | --- | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- |
| Prep Date | 12.27.02 | 12.27.02 | --- | --- |
| Analysis Date | 12.30.02 | 12.30.02 | --- | --- |
| Batch ID | 1227P | 1227P | --- | --- |
| Mercury in TCLP Extract (7470) | | | --- | --- |
| Mercury (TCLP), mg/l | 0.020U | 0.020U | --- | --- |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | --- | --- |
| Dilution Factor | 1 | 1 | --- | --- |
| Prep Date | 12.30.02 | 12.30.02 | --- | --- |
| Analysis Date | 12.31.02 | 12.31.02 | --- | --- |
| Batch ID | 1230R | 1230R | --- | --- |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-5 | CA-12 1'-2.5' | 12-16-02/15:58 | MM001 |
| 49198-6 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |
| 49198-6-DL2 | CA-13 1-2.5' | 12-17-02/08:35 | MM001 |

| PARAMETER | 49198-5 | 49198-6 | 49198-6-DL | 49198-6-DL2 |
|---|---|---|---|---|
| PCB's (8082) | | | | |
| Aroclor-1016, ug/kg dw | 36U | 1900U | 3800U | 750U |
| Aroclor-1221, ug/kg dw | 73U | 3800U | 7600U | 1500U |
| Aroclor-1232, ug/kg dw | 36U | 1900U | 3800U | 750U |
| Aroclor-1242, ug/kg dw | 36U | 1900U | 3800U | 750U |
| Aroclor-1248, ug/kg dw | 36U | 1900U | 3800U | 750U |
| Aroclor-1254, ug/kg dw | 13J | 21000 | 25000D | 20000DE |
| Aroclor-1260, ug/kg dw | 16J | 49000E | 56000D | 50000DE |
| Surrogate - TCX | 61 % | 0 %D | 0 %D | 0 % |
| Surrogate - DCB | 72 % | 0 %D | 0 %D | 0 % |
| Dilution Factor | 1 | 50 | 100 | 20 |
| Prep Date | 12.20.02 | 12.20.02 | 12.20.02 | 12.20.02 |
| Analysis Date | 01.02.03 | 01.05.03 | 01.06.03 | 01.05.03 |
| Batch ID | 1220Q | 1220Q | 1220Q | 1220Q |
| Percent Solids | 92 | 88 | 88 | 88 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| Diesel Range Organics (8015) | | | | |
| Hydrocarbons as DRO, mg/kg dw | 3.7U | 3.8U | 3.8U | 3.8U |
| Surrogate - o-Terphenyl | 67 % | 70 % | 68 % | 64 % |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.23.02 | 12.23.02 | 12.23.02 | 12.23.02 |
| Analysis Date | 12.30.02 | 12.30.02 | 12.30.02 | 12.30.02 |
| Batch ID | 1223U | 1223U | 1223U | 1223U |
| Gasoline Range Organics (8015M) | | | | |
| Hydrocarbons as GRO, mg/kg dw | 0.27U | 0.30U | 0.31U | 0.28U |
| Surrogate - a,a,a-Trifluorotoluene | 106 % | 100 % | 89 % | 118 % |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.29.02 | 12.29.02 |
| Analysis Date | 12.26.02 | 12.26.02 | 12.29.02 | 12.29.02 |
| Batch ID | 1A1226 | 1A1226 | 1A1228 | 1A1228 |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | | | |
| Cresol (ortho) (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Cresol m & p (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Cresol o,m,p (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Hexachloroethane (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Nitrobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Pentachlorophenol (TCLP), mg/l | 0.25U | 0.25U | 0.25U | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U | 0.050U |
| Pyridine (TCLP), mg/l | 0.25U | 0.25U | 0.25U | 0.25U |
| Surrogate-2FP | 74 % | 80 % | 58 % | 62 % |
| Surrogate-PHL | 80 % | 86 % | 60 % | 58 % |
| Surrogate-NBZ | 80 % | 84 % | 64 % | 80 % |
| Surrogate-2FBP | 72 % | 76 % | 56 % | 72 % |

SEVERN TRENT STL
STL Savannah • 5102 LaRoche Avenue • Savannah, GA 31404 • Tel 912 354 7858 • Fax 912 351 3673 • www.stl-inc.com

LOG NO: S2-49198
Received: 19 DEC 02
Reported: 16 JAN 03

Mr. James Martin
Marshall Miller & Associates
11277 Airpark Rd. Suite 203
Ashland, VA 23005

Cl Project No: H0015

Project: RAILROAD SAMPLING/VDOT
Sampled By: Client
Code: 164630219

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 49198-7 | CA-15 2.5-3.5' | 12-17-02/10:35 | MM001 |
| 49198-8 | CA-14 2.5-4.5' | 12-17-02/09:50 | MM001 |
| 49198-9 | CA-9 2-4.0 | 12-17-02/13:42 | MM001 |
| 49198-10 | CA-11 1-2.5 | 12-16-02/14:58 | MM001 |

| PARAMETER | 49198-7 | 49198-8 | 49198-9 | 49198-10 |
|---|---|---|---|---|
| Surrogate-TBP | 82 % | 88 % | 68 % | 80 % |
| Surrogate-TPH | 100 % | 96 % | 88 % | 96 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 12.22.02 | 12.22.02 | 12.23.02 | 12.23.02 |
| Extraction Date (Extract) | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Dilution Factor | 1 | 1 | 1 | 1 |
| Prep Date | 12.26.02 | 12.26.02 | 12.26.02 | 12.26.02 |
| Analysis Date | 12.31.02 | 12.31.02 | 12.31.02 | 12.31.02 |
| Batch ID | 1226C | 1226C | 1226C | 1226C |